KL PAR FC IP

Photometric &

Chromaticity Test Reports

CONTENTS

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Testing Process

Total Lumen Measurements

Lumens are measured using a Viso Systems Lab Spion. As a goniophotometer, the Viso calculates the field lumens of the fixture by taking multiple measurements across the light beam.

Many lumens figures provided for entertainment lighting fixtures are only 2π sphere values, some even emphasize the LED engine lumens. All Elation product photometric data is the actual light output from the fixture lens, never a theoretical value based on calculation or using the source lumens as the fixtures output. We advise to always compare total fixture lumens acquired with identical measurement systems when comparing lighting fixtures.

Test Lab Equipment and Process

Elation operates an optical testing laboratory at its Los Angeles, CA headquarters to provide accurate photometric data for its lighting products. The testing lab is both light and climate- controlled and contains a variety of precise lighting measurement systems. Fixtures are analyzed with the sophisticated Viso Systems Lab Spion equipment, which measures all light and color parameters by panning the light beam at a precise speed and from different angles through a calibrated, laser aligned light and color sensor. Test data is collected and summarized by the Viso Light Inspector software. This type of measurement system is referred to as a Goniophotometer.

The Viso software calculates all relevant types of measurements, from beam angles, candela to center light intensity at a variety of distances to the latest color quality measurements like TM30 or CQS as well as accurate color temperature. This wealth of data is then processed by an Elation specific template which is included in the photometric test report for various fixture conditions such as zoom angles and color correction filters.

The Viso software also creates IES (Illuminating Engineering Society) files for each test report. IES is an industry standard file format created for the easy electronic transfer of photometric test data, which is widely used by lighting manufacturers for photometric data distribution.

Additionally, fixtures are periodically rechecked for accuracy using various hand-held light meters including one or more of the devices listed below. This is done to ensure the test data contained in this report is as accurate as possible.

Asenstek Lighting Passport | Konica Minolta T-10 | Sekonic C800U

Key Measurements

Output

Total Lumen Output: 10402 lm

Peak Intensity: 43326 cd

Beam

Beam Angle (50%): 29.2°

Field Angle (10%): 37.4°

Cutoff Angle (2.5%): 42.9°

Color

Color Temperature: 6855 K

CRI: 90.3

TLCI: 93

TM30 R_F: 87.9

TM30 R_g: 100.9

Power Details

Efficacy: 33 Lumen/Watt

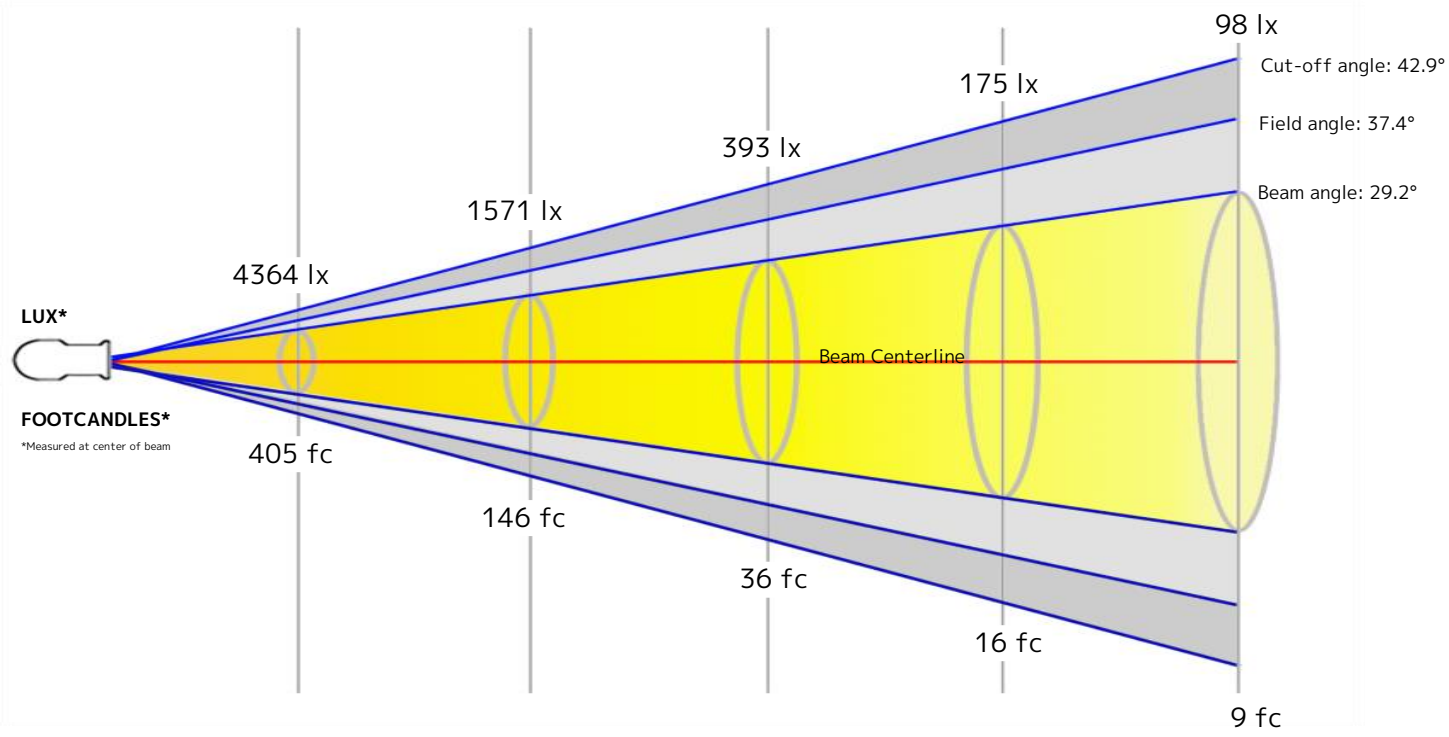
Power: 320 W

Supply Voltage: 121 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



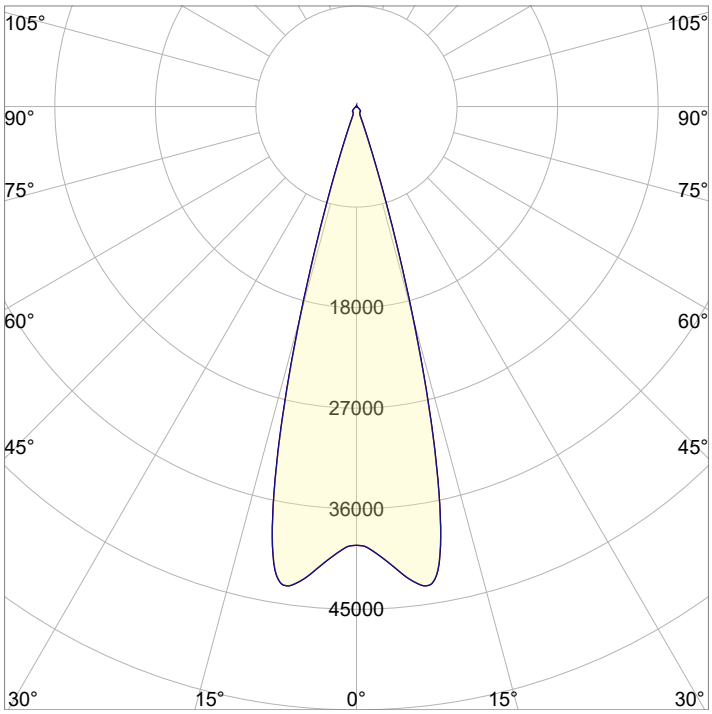
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.2 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	39274	9818	4364	2455	1571	1091	802	614	485	393	325	273	232	200	175	153	136	121	109	98
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3648.7	912.2	405.4	228	145.9	101.4	74.5	57	45	36.5	30.2	25.3	21.6	18.6	16.2	14.3	12.6	11.3	10.1	9.1

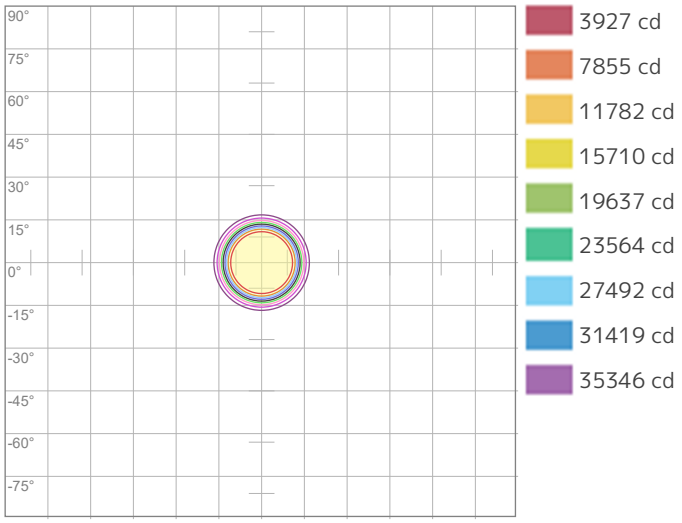
Measurement Date: 5/3/2024

Angular Distribution



Beam Angle - 50%
29.2°
Field Angle - 10%
37.4°
Cutoff Angle - 2.5%
42.9°

ISO Diagrams

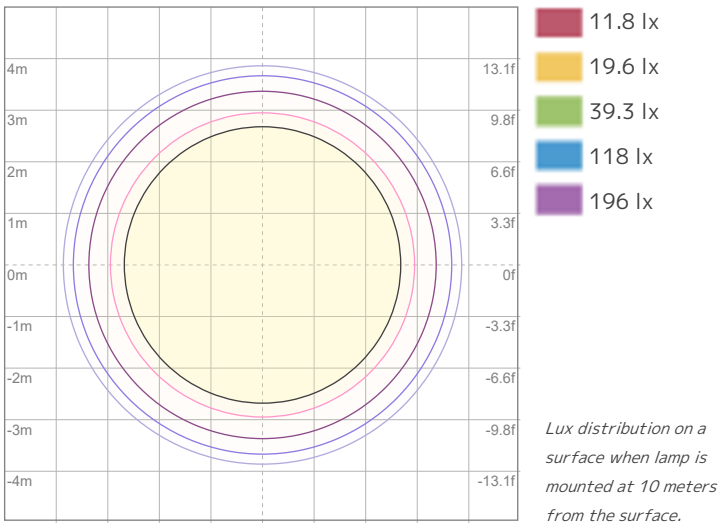


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 39274 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

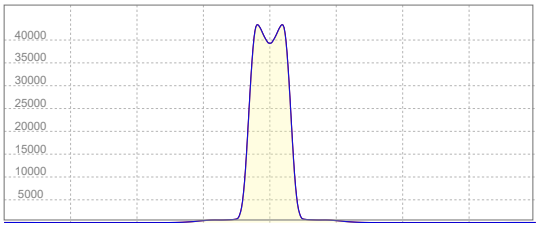
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 393 lx

Linear Distribution



Peak Candela

43326 cd

Calculate Center Beam Intensities

lux = 43326 / distance(m)^2

fc = 43326 / distance(ft)^2

Measurement Date: 5/3/2024

KL Par FC IP (2400K, MFL)

Prepared For ELATION PROFESSIONAL

Key Measurements

Output

Total Lumen Output: 7138 lm

Peak Intensity: 30378 cd

Beam

Beam Angle (50%): 29.2°

Field Angle (10%): 37.3°

Cutoff Angle (2.5%): 42.4°

Color

Color Temperature: 2531 K

CRI: 90.3

TLCI: 91

TM30 R_F: 93.3

TM30 R_g: 104.4

Power Details

Efficacy: 29 Lumen/Watt

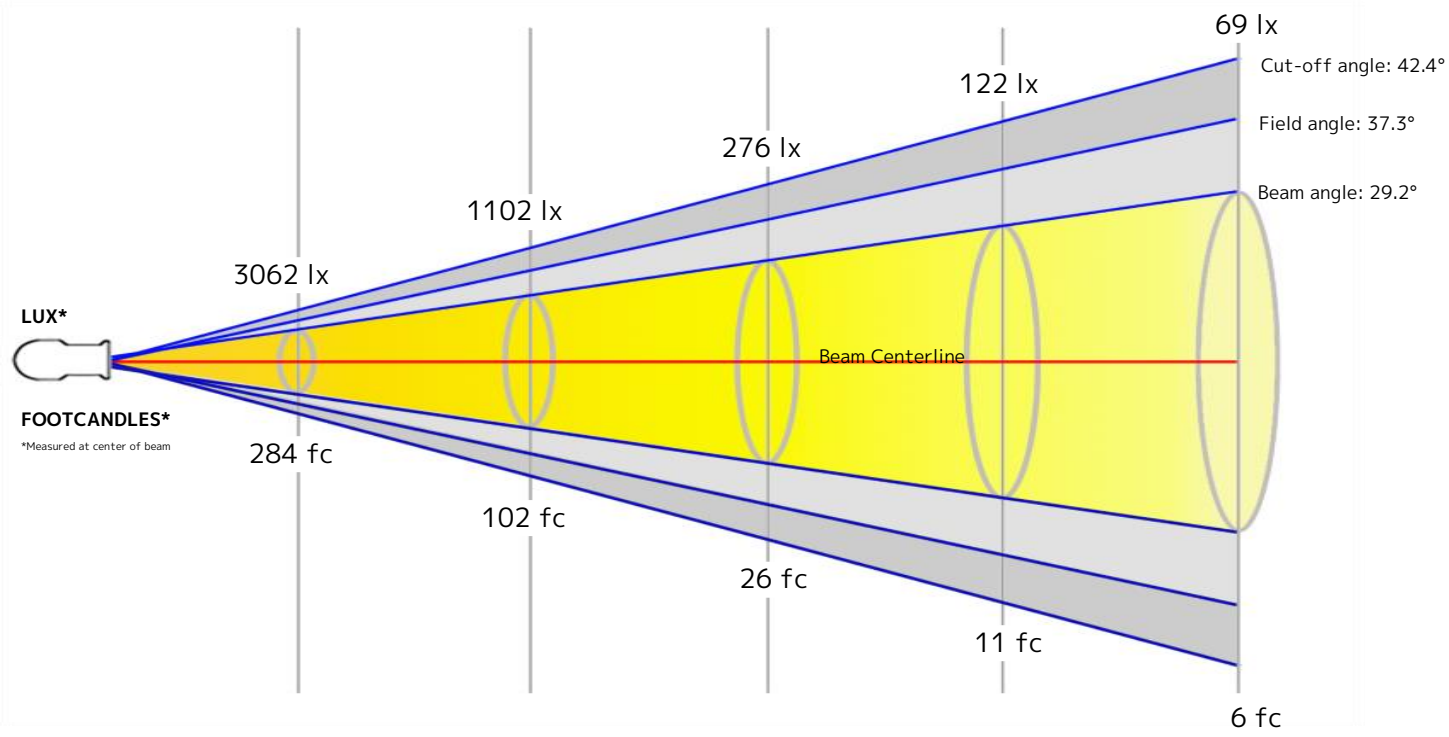
Power: 248 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



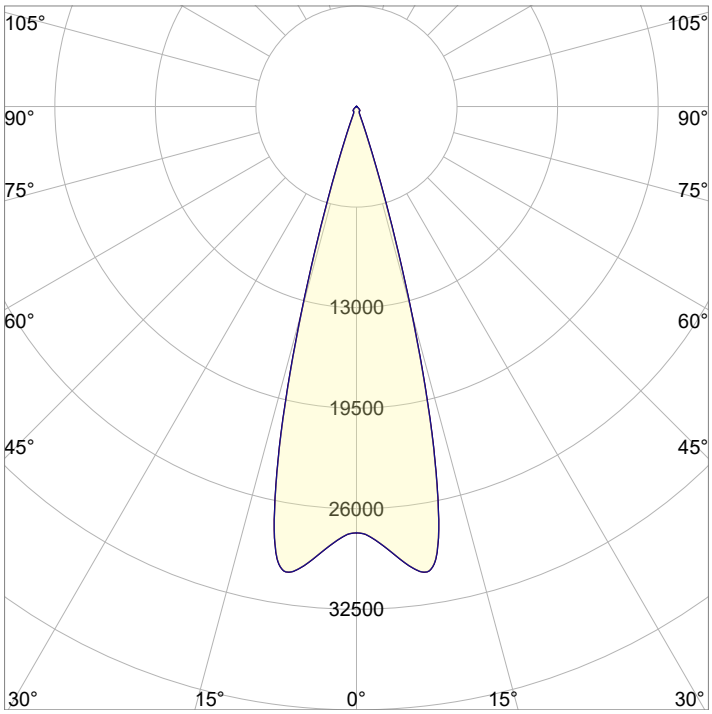
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.2 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	27557	6889	3062	1722	1102	765	562	431	340	276	228	191	163	141	122	108	95	85	76	69
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	2560.1	640	284.5	160	102.4	71.1	52.2	40	31.6	25.6	21.2	17.8	15.1	13.1	11.4	10	8.9	7.9	7.1	6.4

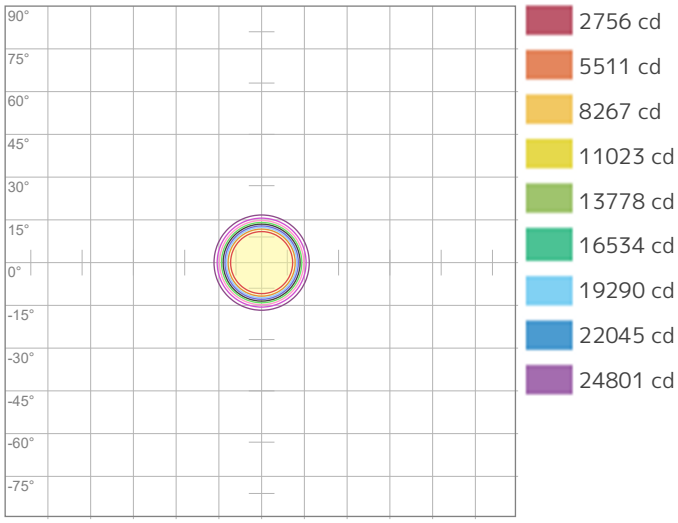
Measurement Date: 5/6/2024

Angular Distribution



Beam Angle - 50%
29.2°
Field Angle - 10%
37.3°
Cutoff Angle - 2.5%
42.4°

ISO Diagrams

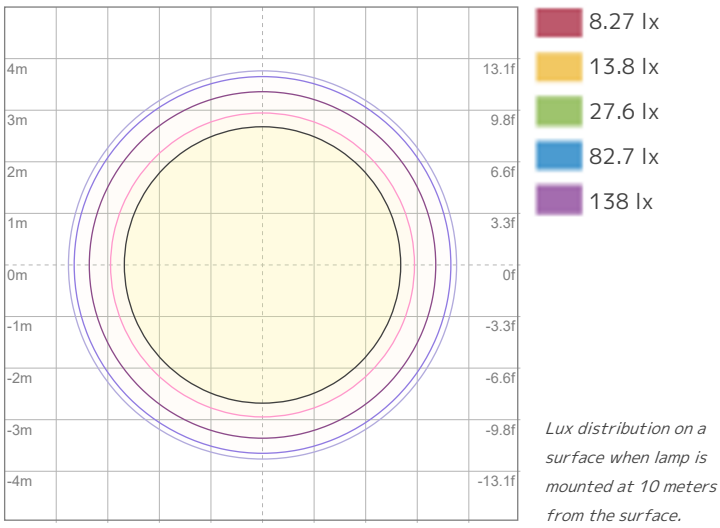


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 27557 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

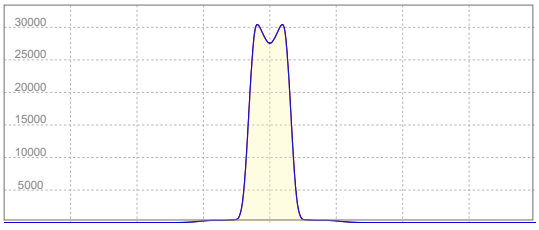
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 276 lx

Linear Distribution



Peak Candela

30378 cd

Calculate Center Beam Intensities

lux = 30378 / distance(m)^2

fc = 30378 / distance(ft)^2

Measurement Date: 5/6/2024

KL Par FC IP (2700K, MFL, High Fidelity)

Key Measurements

Output

Total Lumen Output: 6422 lm

Peak Intensity: 27192 cd

Beam

Beam Angle (50%): 29.2°

Field Angle (10%): 37.3°

Cutoff Angle (2.5%): 42.7°

Color

Color Temperature: 2730 K

CRI: 94.9

TLCI: 91

TM30 R_F: 94.2

TM30 R_g: 103.5

Power Details

Efficacy: 30 Lumen/Watt

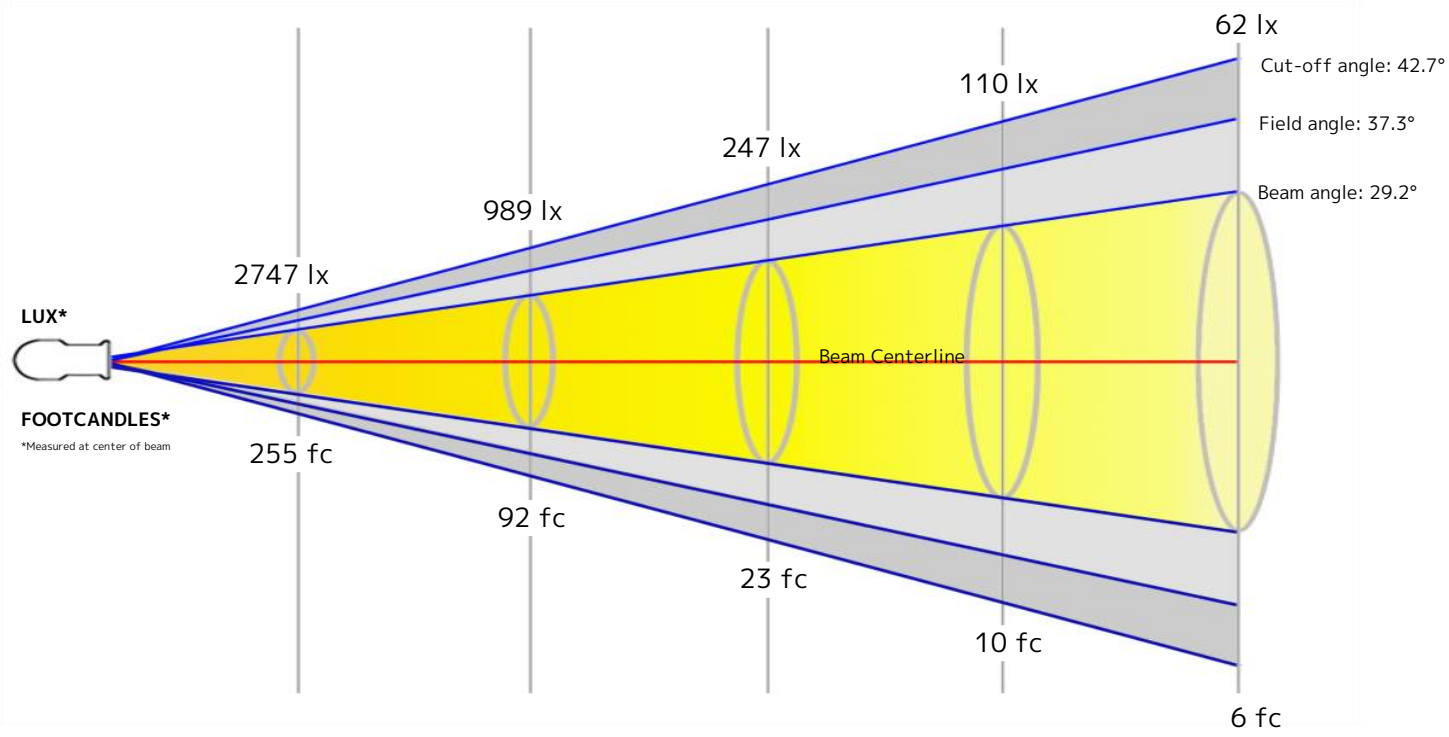
Power: 217 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.2 ft

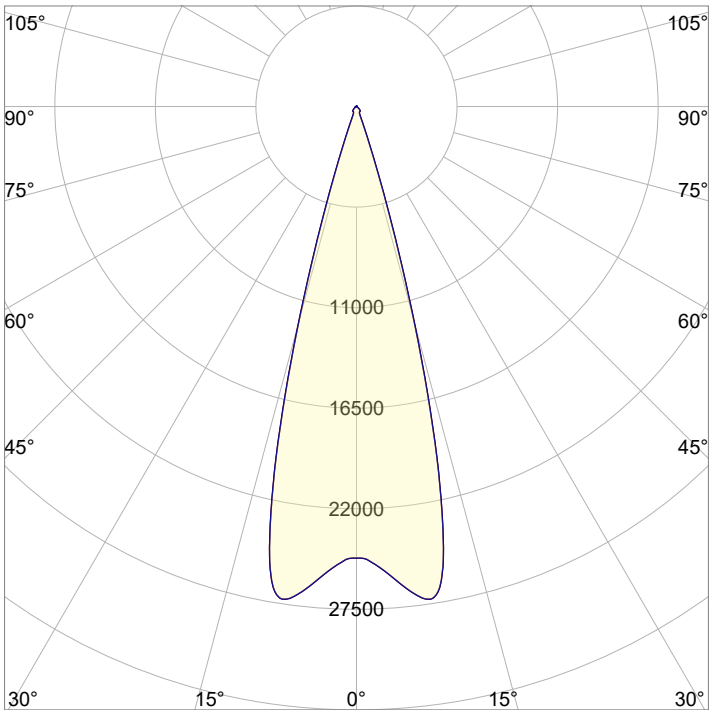
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	24723	6181	2747	1545	989	687	505	386	305	247	204	172	146	126	110	97	86	76	68	62
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	2296.9	574.2	255.2	143.6	91.9	63.8	46.9	35.9	28.4	23	19	16	13.6	11.7	10.2	9	7.9	7.1	6.4	5.7

Measurement Date: 5/7/2024

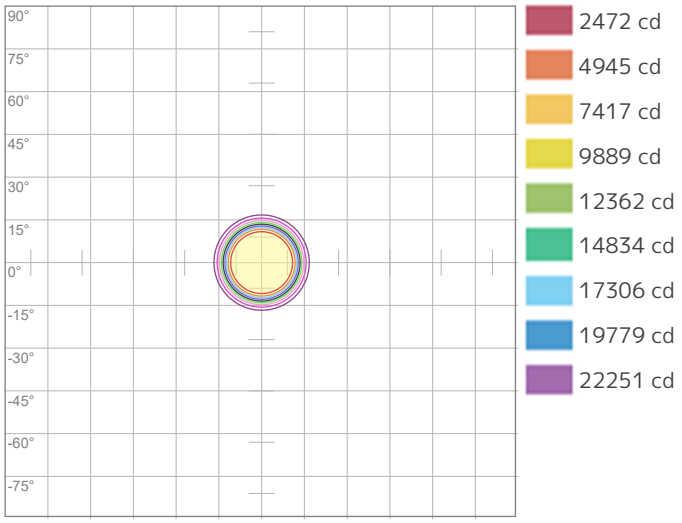
KL Par FC IP (2700K, MFL, High Fidelity)

Angular Distribution



Beam Angle - 50%
29.2°
Field Angle - 10%
37.3°
Cutoff Angle - 2.5%
42.7°

ISO Diagrams

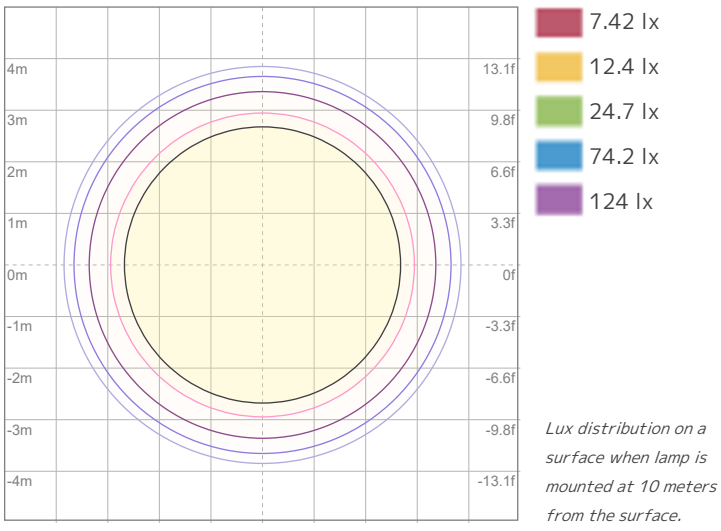


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 24723 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

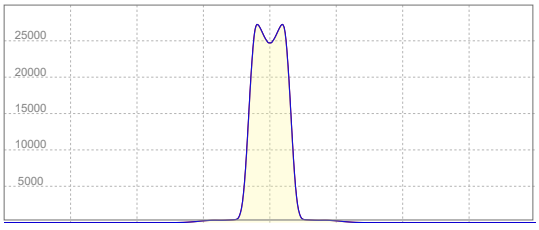
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 247 lx

Linear Distribution



Peak Candela

27192 cd

Calculate Center Beam Intensities

lux = 27192 / distance(m)^2

fc = 27192 / distance(ft)^2

Measurement Date: 5/7/2024

Key Measurements

Output

Total Lumen Output: 9099 lm

Peak Intensity: 38582 cd

Beam

Beam Angle (50%): 29.3°

Field Angle (10%): 37.3°

Cutoff Angle (2.5%): 42.5°

Color

Color Temperature: 3152 K

CRI: 91.8

TLCI: 94

TM30 R_F: 93.3

TM30 R_g: 104.5

Power Details

Efficacy: 31 Lumen/Watt

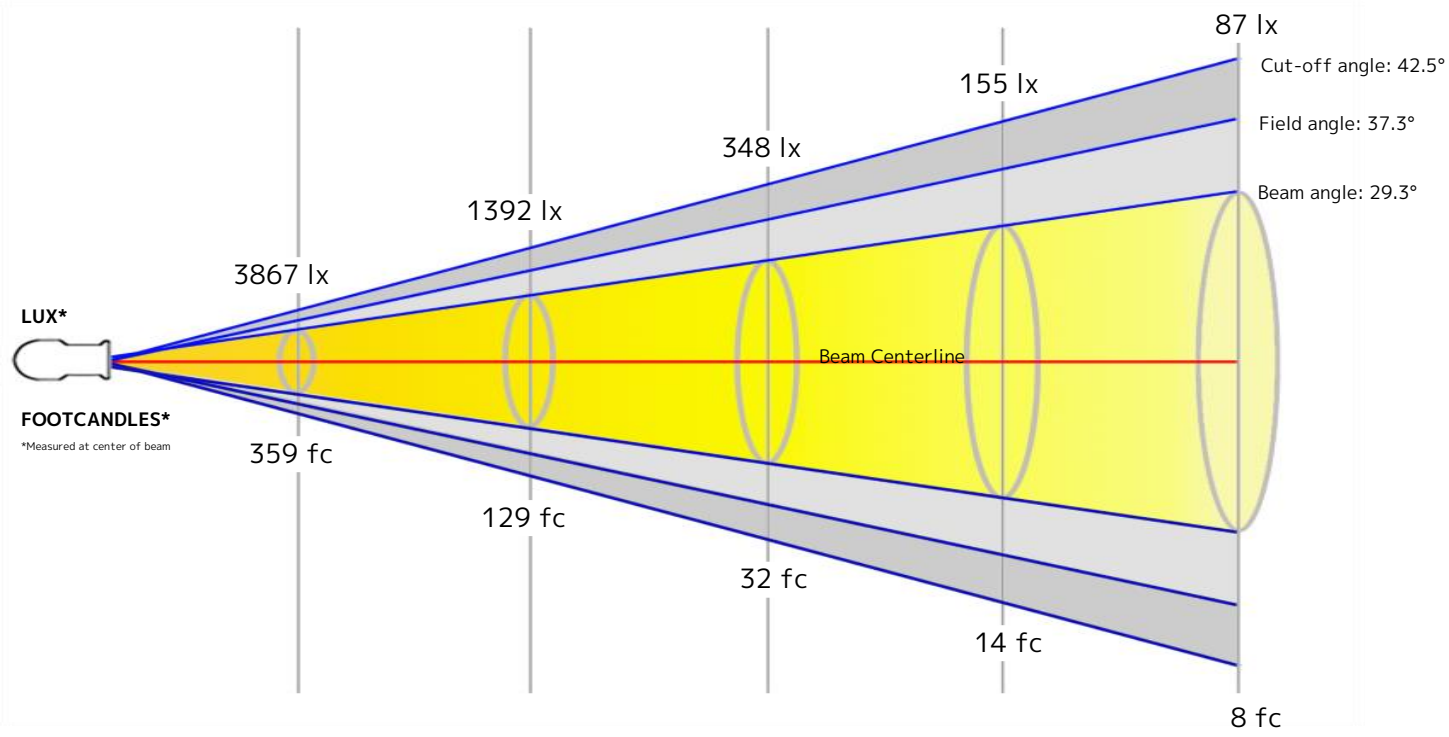
Power: 290 W

Supply Voltage: 121 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



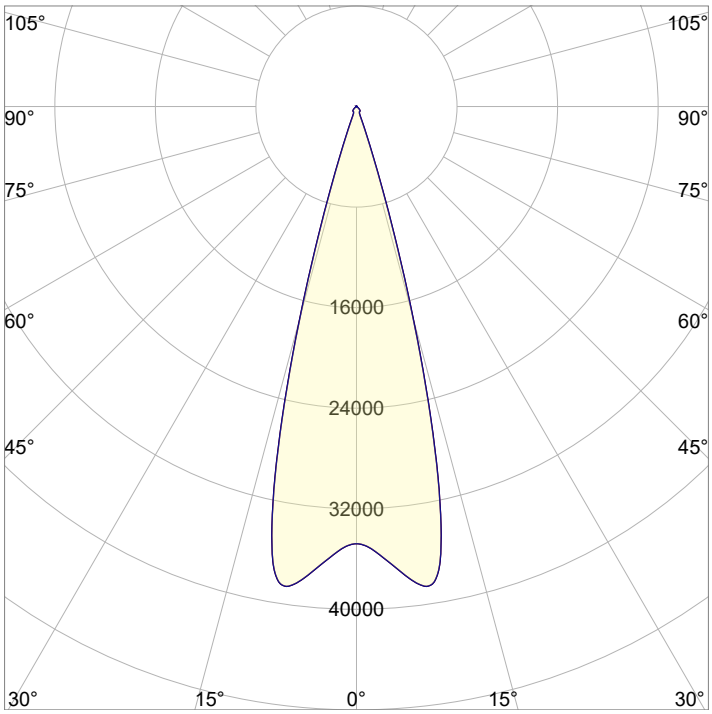
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.2 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	34807	8702	3867	2175	1392	967	710	544	430	348	288	242	206	178	155	136	120	107	96	87
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3233.7	808.4	359.3	202.1	129.3	89.8	66	50.5	39.9	32.3	26.7	22.5	19.1	16.5	14.4	12.6	11.2	10	9	8.1

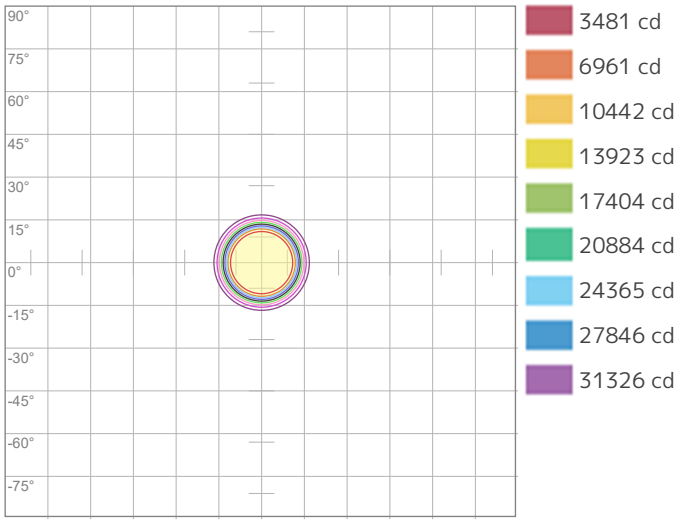
Measurement Date: 5/6/2024

Angular Distribution



Beam Angle - 50%
29.3°
Field Angle - 10%
37.3°
Cutoff Angle - 2.5%
42.5°

ISO Diagrams

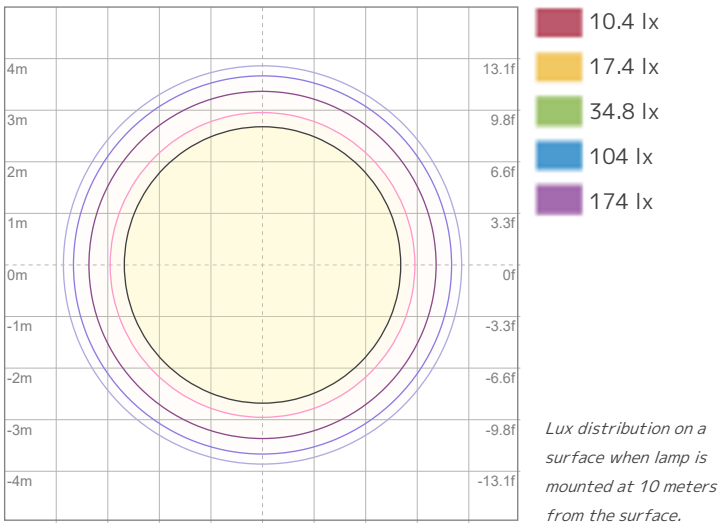


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 34807 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

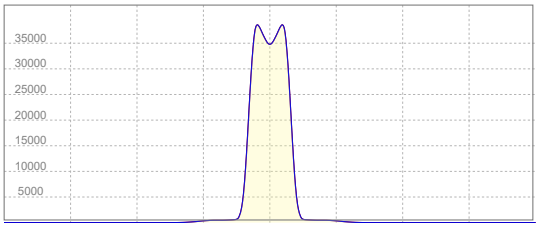
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 348 lx

Linear Distribution



Peak Candela

38582 cd

Calculate Center Beam Intensities

lux = 38582 / distance(m)^2

fc = 38582 / distance(ft)^2

Measurement Date: 5/6/2024

KL Par FC IP (3200K, MFL, High Fidelity)

Key Measurements

Output

Total Lumen Output: 7784 lm

Peak Intensity: 32874 cd

Beam

Beam Angle (50%): 29.2°

Field Angle (10%): 37.3°

Cutoff Angle (2.5%): 42.6°

Color

Color Temperature: 3196 K

CRI: 93.9

TLCI: 92

TM30 R_F: 93.1

TM30 R_g: 103.6

Power Details

Efficacy: 31 Lumen/Watt

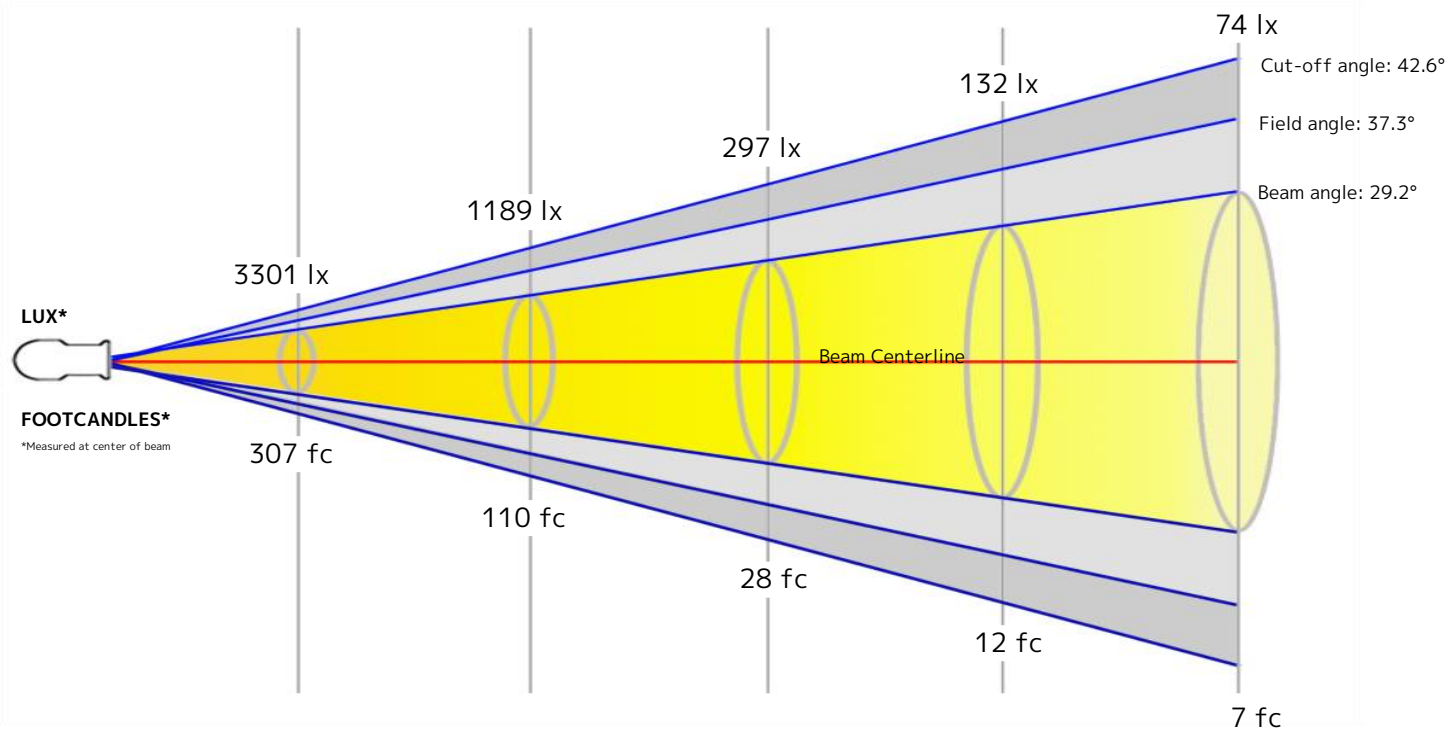
Power: 253 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.2 ft

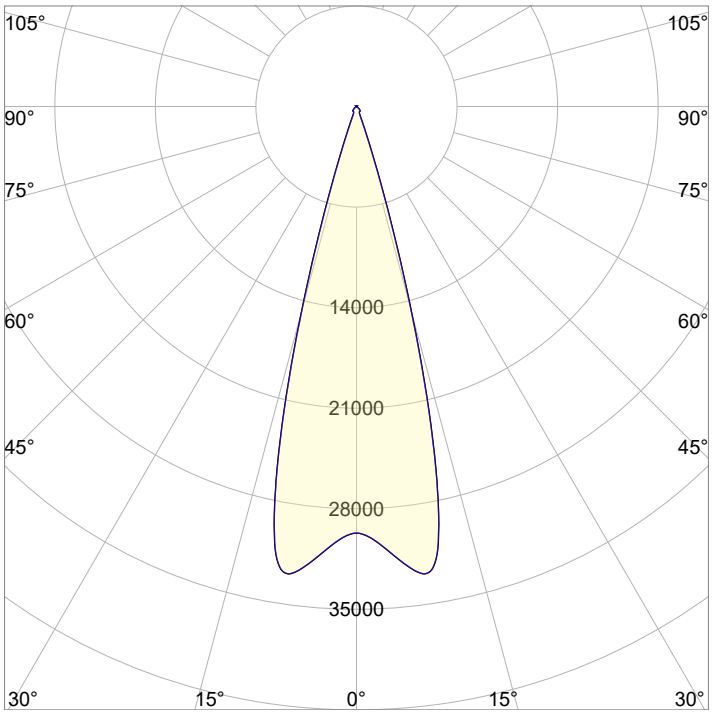
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	29713	7428	3301	1857	1189	825	606	464	367	297	246	206	176	152	132	116	103	92	82	74
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	2760.5	690.1	306.7	172.5	110.4	76.7	56.3	43.1	34.1	27.6	22.8	19.2	16.3	14.1	12.3	10.8	9.6	8.5	7.6	6.9

Measurement Date: 5/7/2024

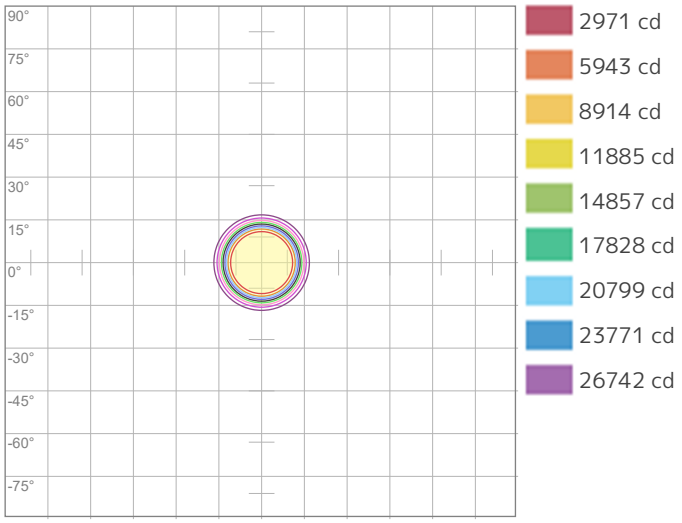
KL Par FC IP (3200K, MFL, High Fidelity)

Angular Distribution



Beam Angle - 50%
29.2°
Field Angle - 10%
37.3°
Cutoff Angle - 2.5%
42.6°

ISO Diagrams

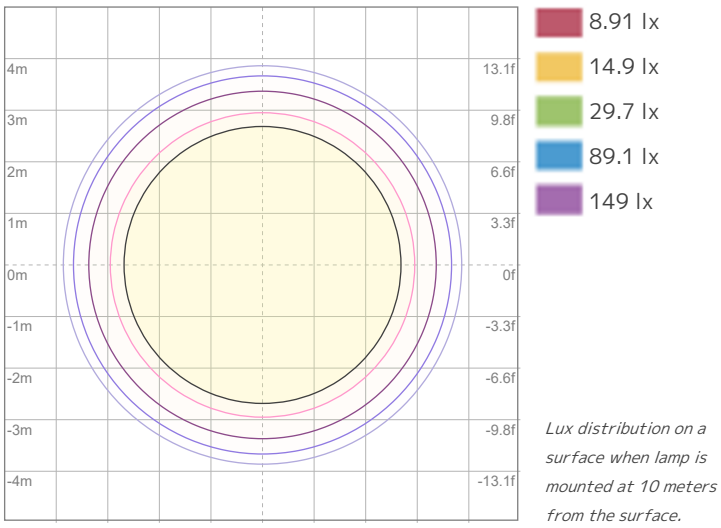


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 29713 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

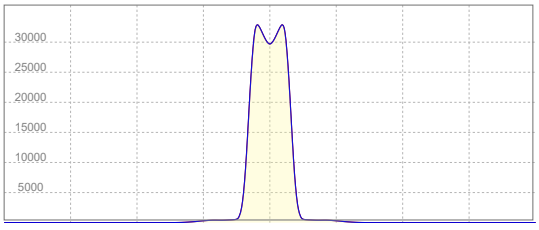
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 297 lx

Linear Distribution



Peak Candela

32874 cd

Calculate Center Beam Intensities

lux = 32874 / distance(m)^2

fc = 32874 / distance(ft)^2

Measurement Date: 5/7/2024

Key Measurements

Output

Total Lumen Output: 9918 lm

Peak Intensity: 41653 cd

Beam

Beam Angle (50%): 29.3°

Field Angle (10%): 37.4°

Cutoff Angle (2.5%): 42.6°

Color

Color Temperature: 4493 K

CRI: 91.8

TLCI: 94

TM30 R_F: 91.2

TM30 R_g: 103.9

Power Details

Efficacy: 32 Lumen/Watt

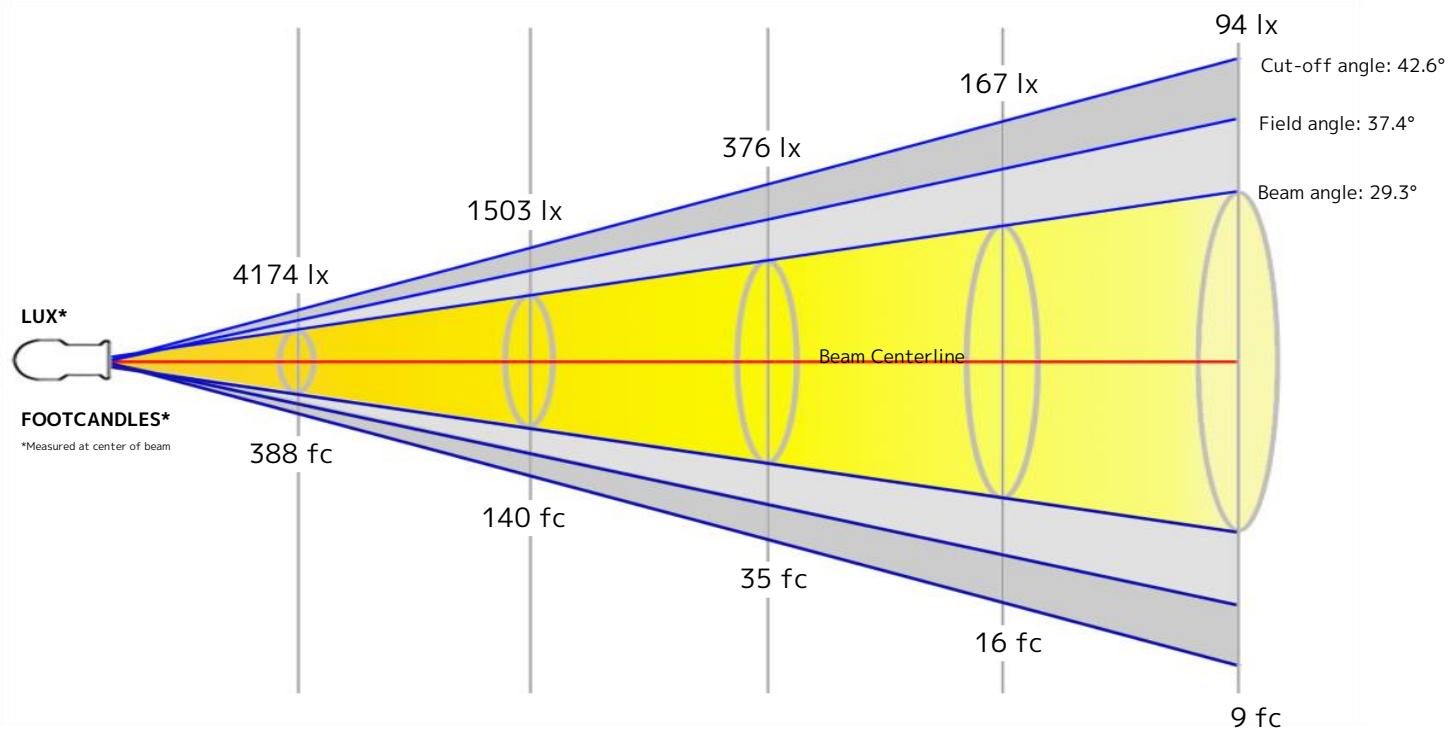
Power: 314 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



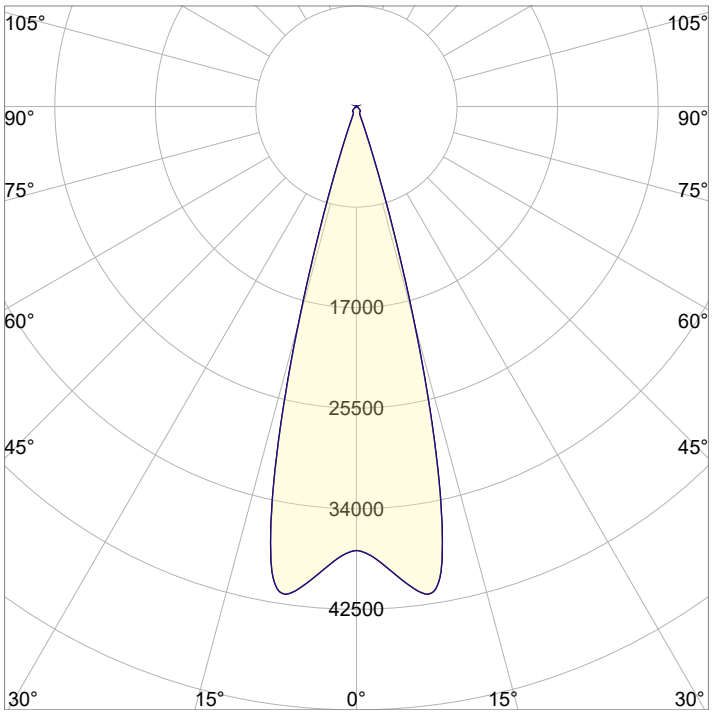
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.3 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	37563	9391	4174	2348	1503	1043	767	587	464	376	310	261	222	192	167	147	130	116	104	94
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3489.7	872.4	387.7	218.1	139.6	96.9	71.2	54.5	43.1	34.9	28.8	24.2	20.6	17.8	15.5	13.6	12.1	10.8	9.7	8.7

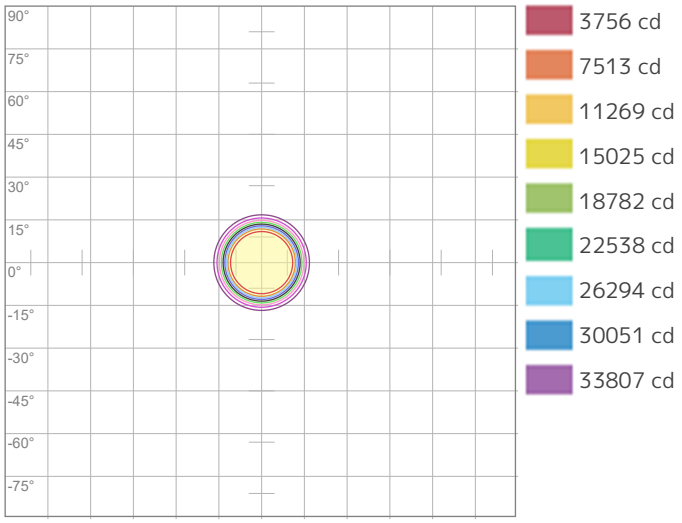
Measurement Date: 5/6/2024

Angular Distribution



Beam Angle - 50%
29.3°
Field Angle - 10%
37.4°
Cutoff Angle - 2.5%
42.6°

ISO Diagrams

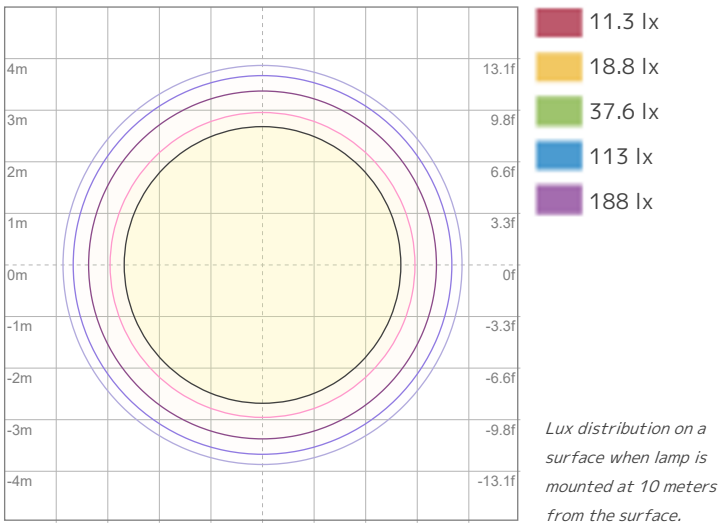


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 37563 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

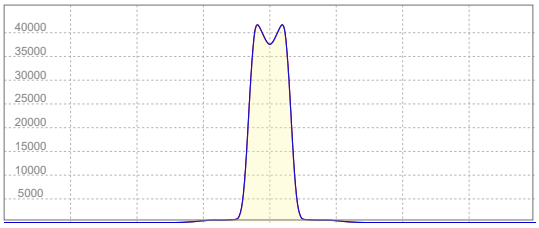
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 376 lx

Linear Distribution



Peak Candela

41653 cd

Calculate Center Beam Intensities

lux = 41653 / distance(m)^2

fc = 41653 / distance(ft)^2

Measurement Date: 5/6/2024

KL Par FC IP (4500K, MFL, High Fidelity)

Key Measurements

Output

Total Lumen Output: 9875 lm

Peak Intensity: 41262 cd

Beam

Beam Angle (50%): 29.3°

Field Angle (10%): 37.3°

Cutoff Angle (2.5%): 42.8°

Color

Color Temperature: 4420 K

CRI: 91.5

TLCI: 92

TM30 R_F: 89.6

TM30 R_g: 102.1

Power Details

Efficacy: 33 Lumen/Watt

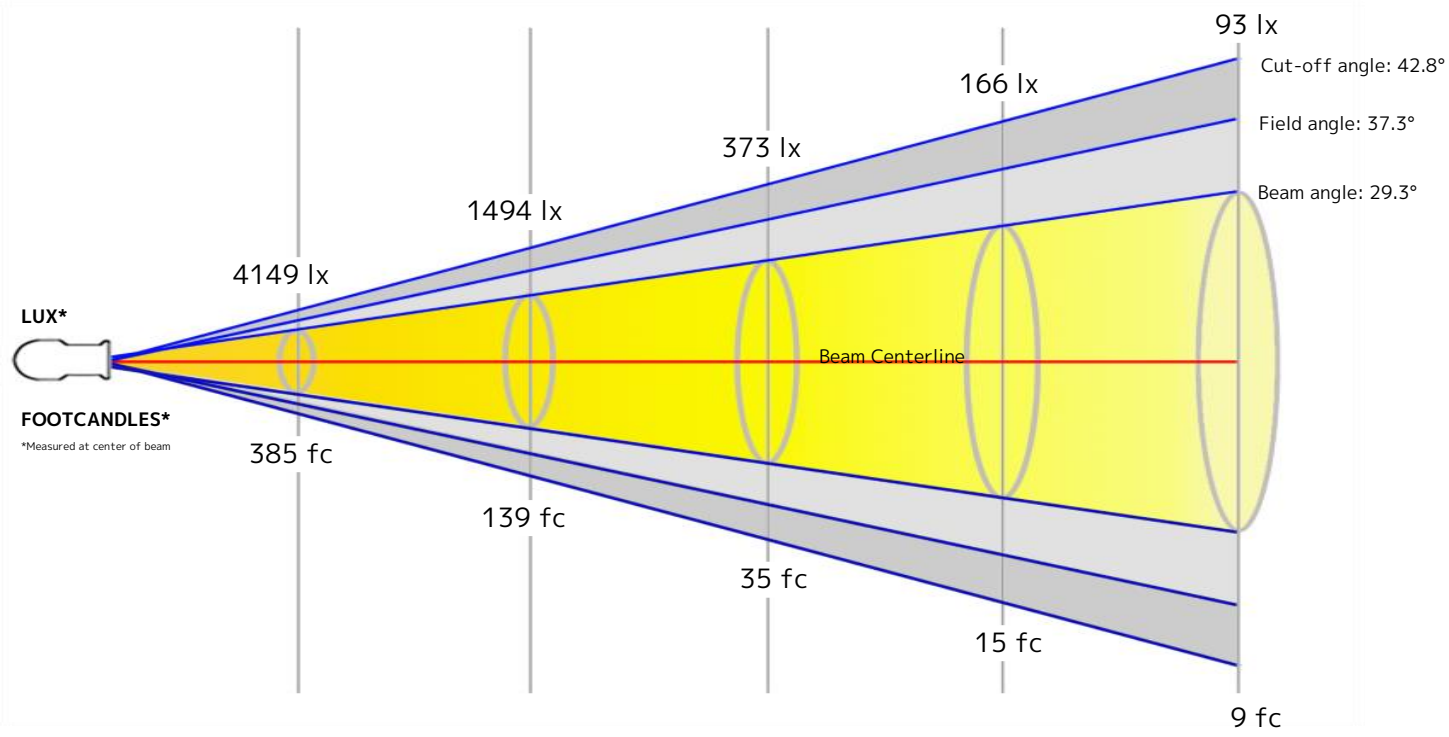
Power: 303 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.3 ft

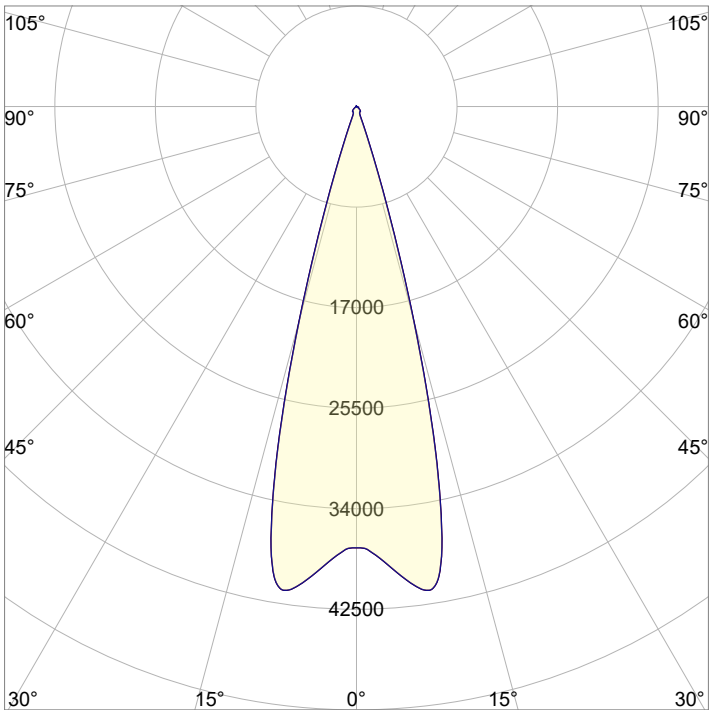
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	37343	9336	4149	2334	1494	1037	762	583	461	373	309	259	221	191	166	146	129	115	103	93
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3469.3	867.3	385.5	216.8	138.8	96.4	70.8	54.2	42.8	34.7	28.7	24.1	20.5	17.7	15.4	13.6	12	10.7	9.6	8.7

Measurement Date: 5/7/2024

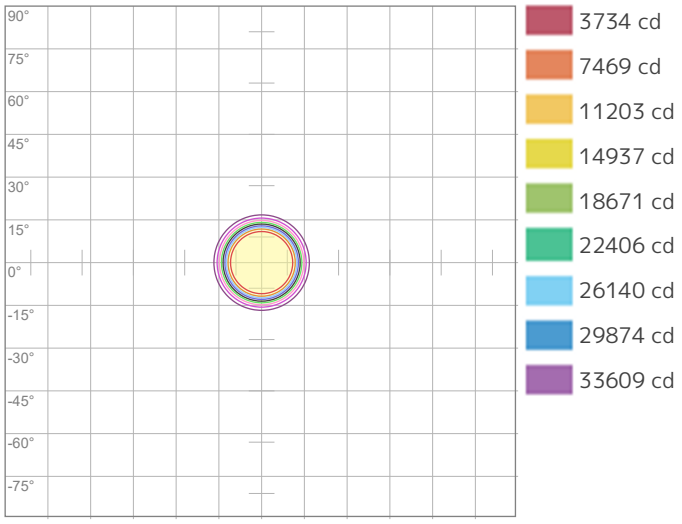
KL Par FC IP (4500K, MFL, High Fidelity)

Angular Distribution



Beam Angle - 50%
29.3°
Field Angle - 10%
37.3°
Cutoff Angle - 2.5%
42.8°

ISO Diagrams

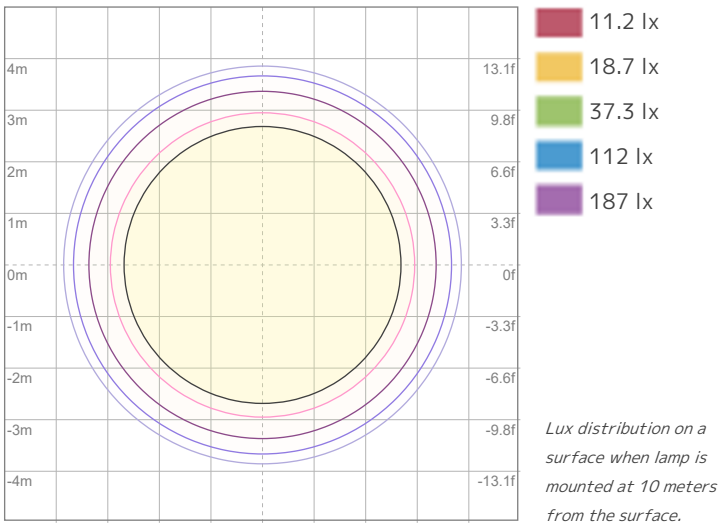


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 37343 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

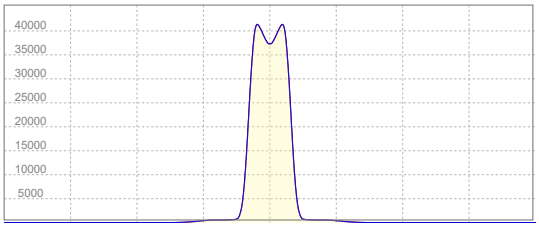
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 373 lx

Linear Distribution



Peak Candela

41262 cd

Calculate Center Beam Intensities

$lux = 41262 / distance(m)^2$

$fc = 41262 / distance(ft)^2$

Measurement Date: 5/7/2024

KL Par FC IP (5600K, MFL)

Key Measurements

Output

Total Lumen Output: 9591 lm

Peak Intensity: 39960 cd

Beam

Beam Angle (50%): 29.3°

Field Angle (10%): 37.4°

Cutoff Angle (2.5%): 42.8°

Color

Color Temperature: 5647 K

CRI: 91.1

TLCI: 93

TM30 R_F: 89.2

TM30 R_g: 102.0

Power Details

Efficacy: 32 Lumen/Watt

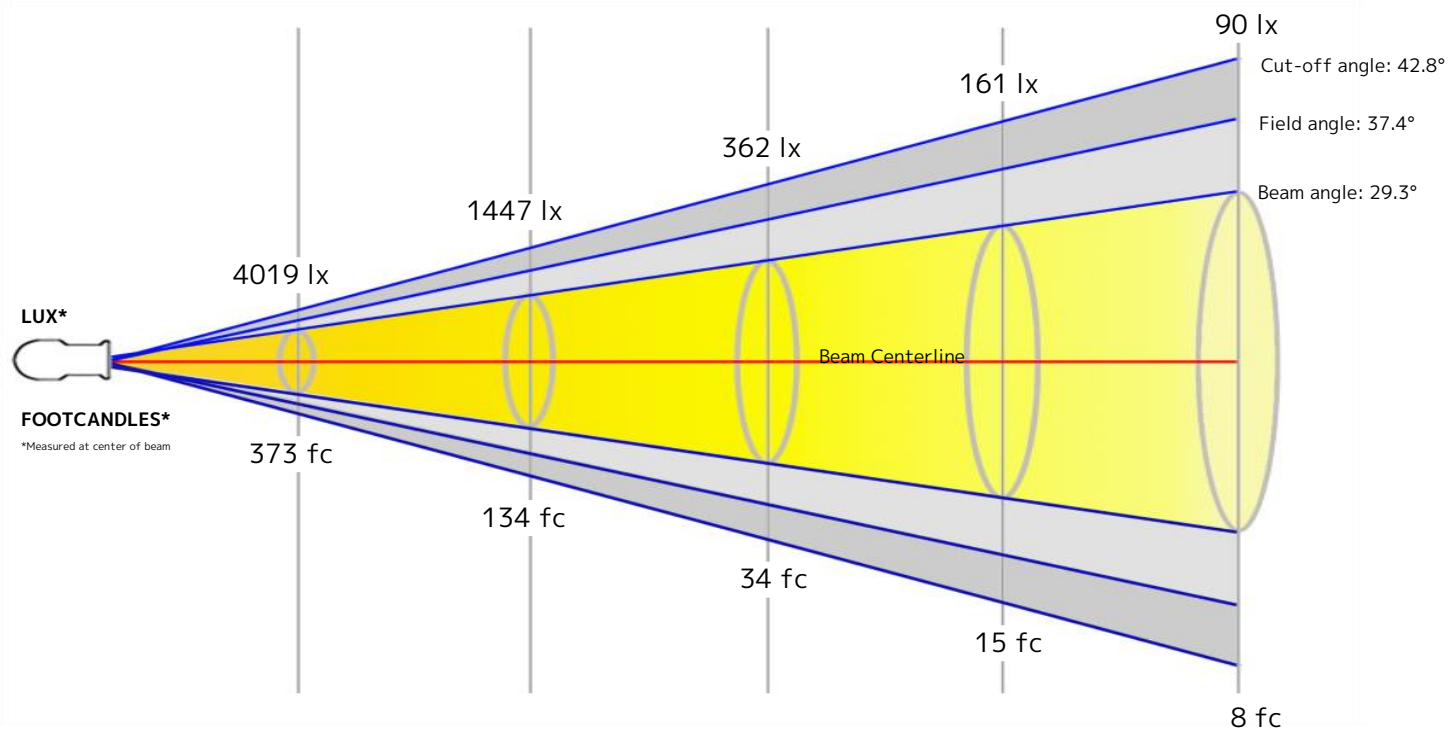
Power: 303 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



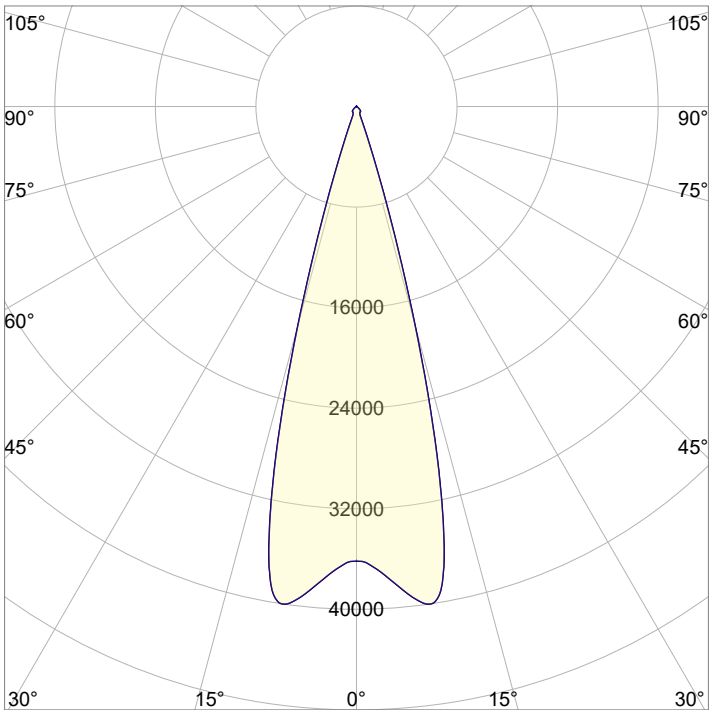
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.3 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	36171	9043	4019	2261	1447	1005	738	565	447	362	299	251	214	185	161	141	125	112	100	90
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3360.4	840.1	373.4	210	134.4	93.3	68.6	52.5	41.5	33.6	27.8	23.3	19.9	17.1	14.9	13.1	11.6	10.4	9.3	8.4

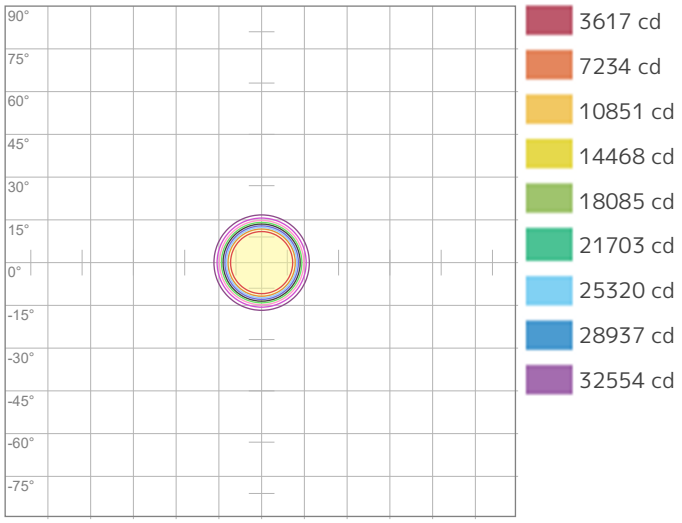
Measurement Date: 5/7/2024

Angular Distribution



Beam Angle - 50%
29.3°
Field Angle - 10%
37.4°
Cutoff Angle - 2.5%
42.8°

ISO Diagrams

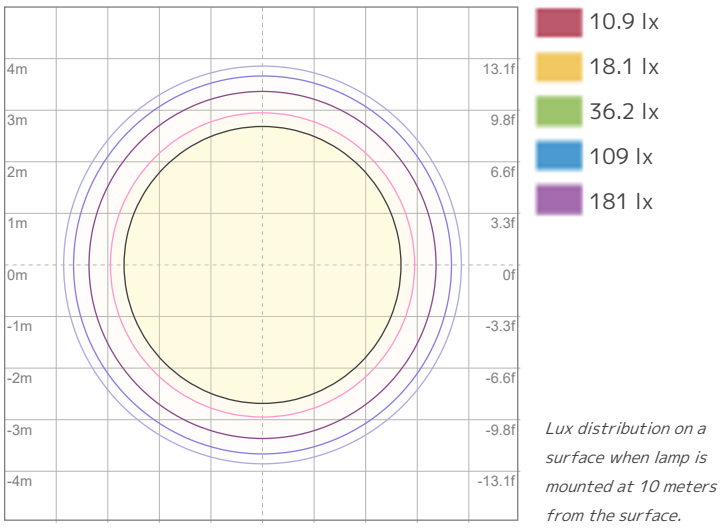


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 36171 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

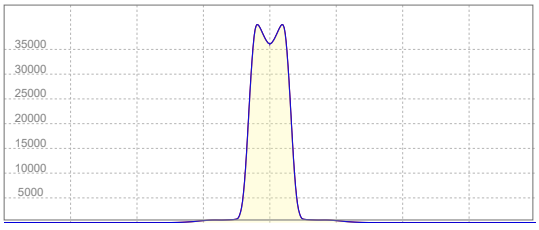
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 362 lx

Linear Distribution



Peak Candela

39960 cd

Calculate Center Beam Intensities

lux = 39960 / distance(m)^2

fc = 39960 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (5600K, MFL, High Fidelity)

Key Measurements

Output

Total Lumen Output: 9309 lm

Peak Intensity: 38891 cd

Beam

Beam Angle (50%): 29.3°

Field Angle (10%): 37.4°

Cutoff Angle (2.5%): 42.8°

Color

Color Temperature: 5604 K

CRI: 91.4

TLCI: 94

TM30 R_F: 90.6

TM30 R_g: 104.2

Power Details

Efficacy: 30 Lumen/Watt

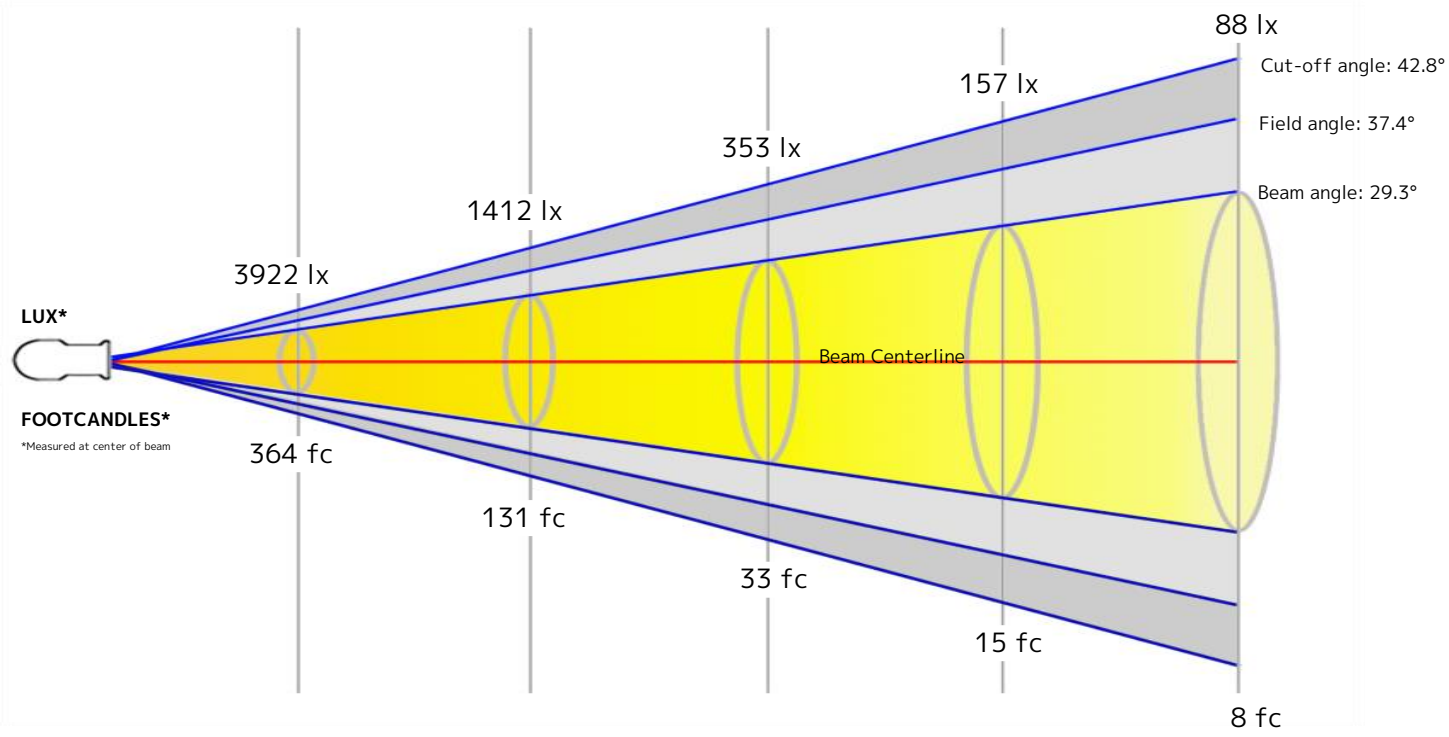
Power: 310 W

Supply Voltage: 121 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.5 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.3 ft

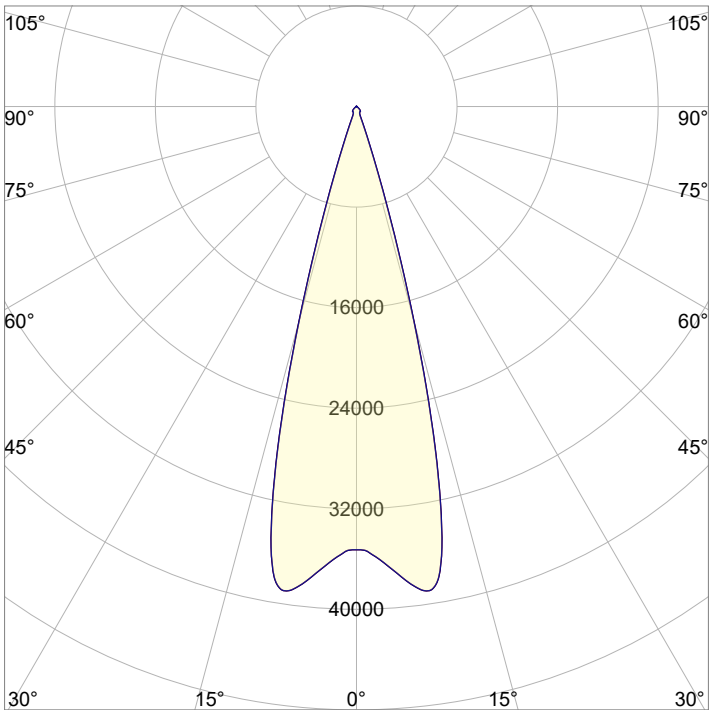
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	35302	8825	3922	2206	1412	981	720	552	436	353	292	245	209	180	157	138	122	109	98	88
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3279.6	819.9	364.4	205	131.2	91.1	66.9	51.2	40.5	32.8	27.1	22.8	19.4	16.7	14.6	12.8	11.3	10.1	9.1	8.2

Measurement Date: 5/6/2024

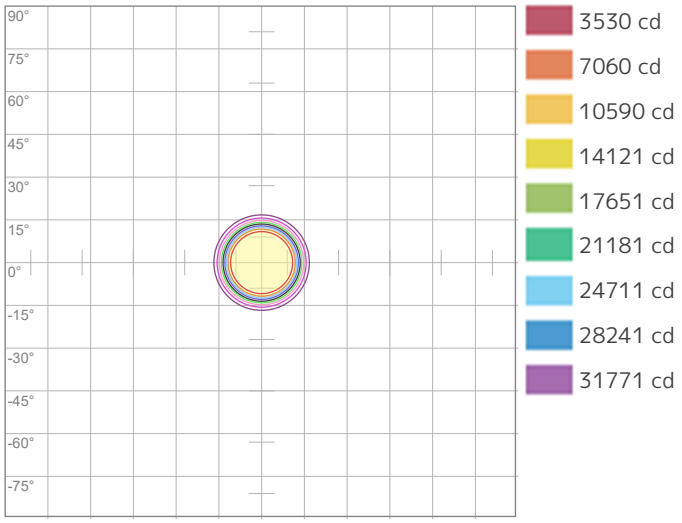
KL Par FC IP (5600K, MFL, High Fidelity)

Angular Distribution



Beam Angle - 50%
29.3°
Field Angle - 10%
37.4°
Cutoff Angle - 2.5%
42.8°

ISO Diagrams

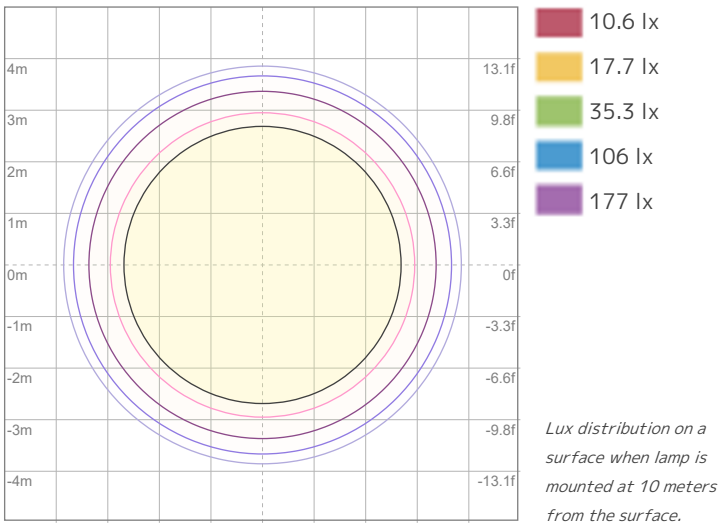


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 35302 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

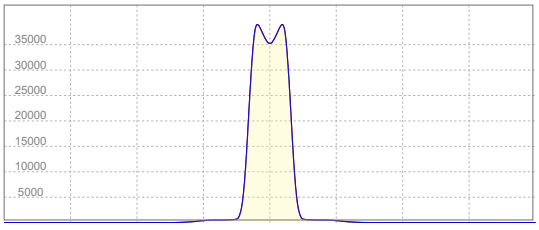
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 353 lx

Linear Distribution



Peak Candela

38891 cd

Calculate Center Beam Intensities

lux = 38891 / distance(m)^2

fc = 38891 / distance(ft)^2

Measurement Date: 5/6/2024

Key Measurements

Output

Total Lumen Output: 9485 lm

Peak Intensity: 39868 cd

Beam

Beam Angle (50%): 29.3°

Field Angle (10%): 37.4°

Cutoff Angle (2.5%): 42.6°

Color

Color Temperature: 5995 K

CRI: 90.7

TLCI: 93

TM30 R_F: 88.7

TM30 R_g: 101.6

Power Details

Efficacy: 30 Lumen/Watt

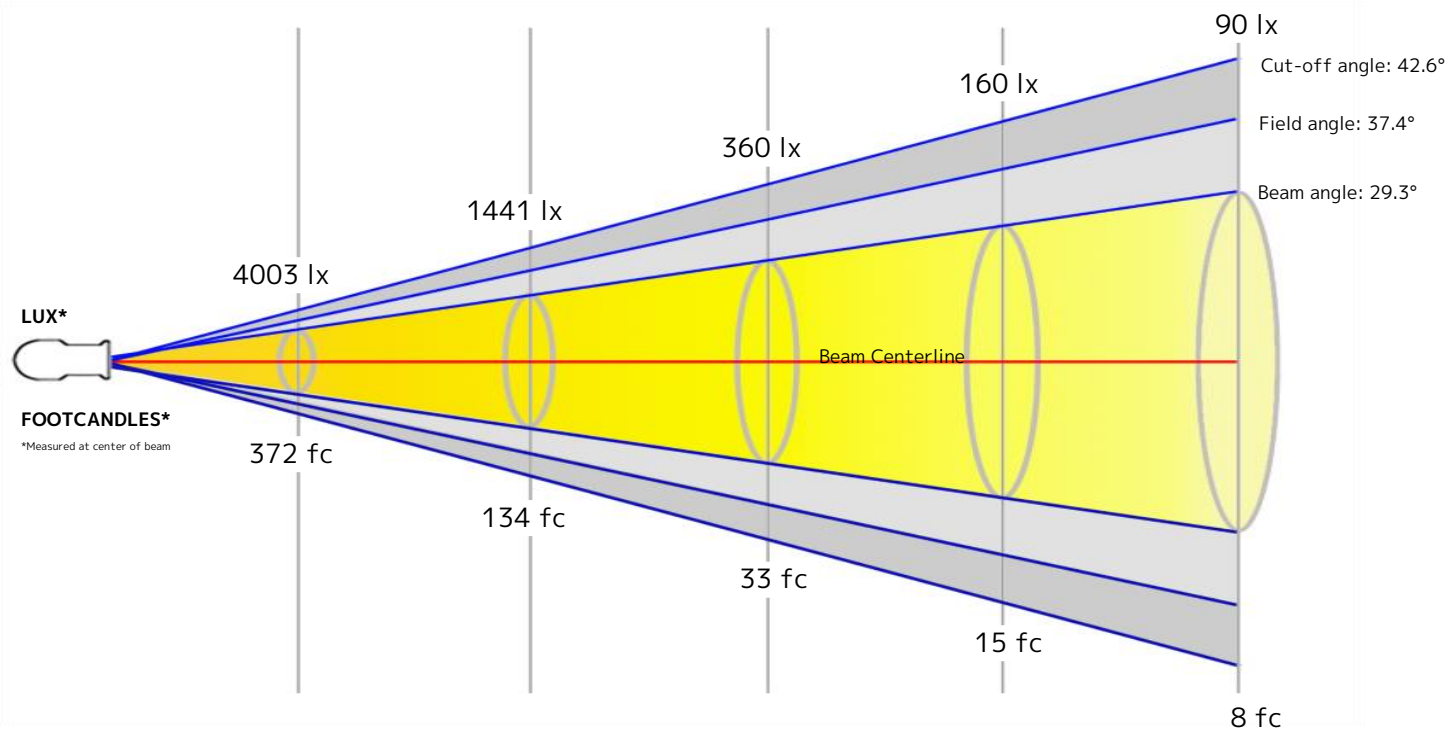
Power: 312 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



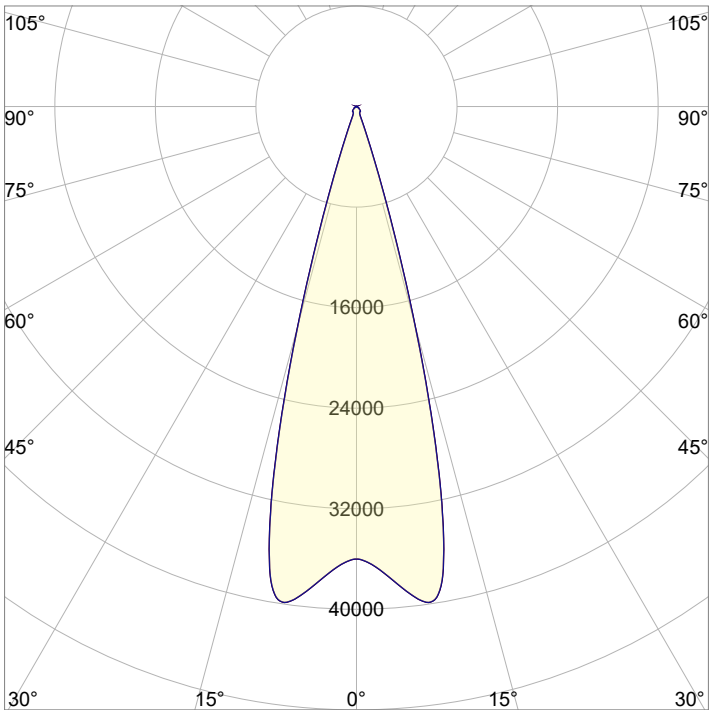
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.3 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	36026	9007	4003	2252	1441	1001	735	563	445	360	298	250	213	184	160	141	125	111	100	90
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3346.9	836.7	371.9	209.2	133.9	93	68.3	52.3	41.3	33.5	27.7	23.2	19.8	17.1	14.9	13.1	11.6	10.3	9.3	8.4

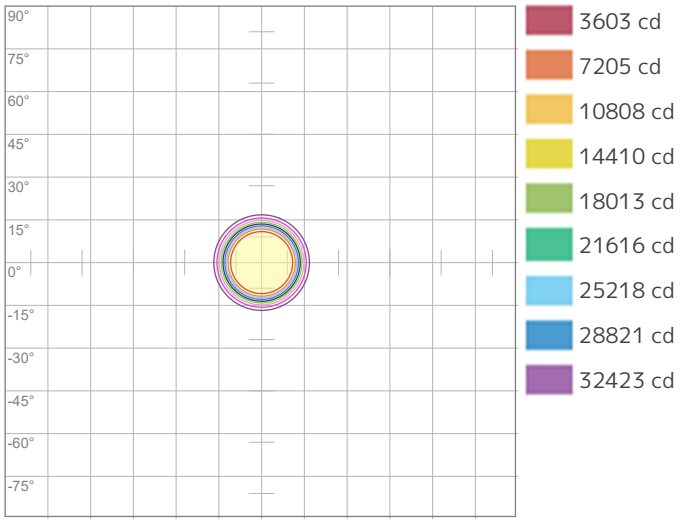
Measurement Date: 5/7/2024

Angular Distribution



Beam Angle - 50%
29.3°
Field Angle - 10%
37.4°
Cutoff Angle - 2.5%
42.6°

ISO Diagrams

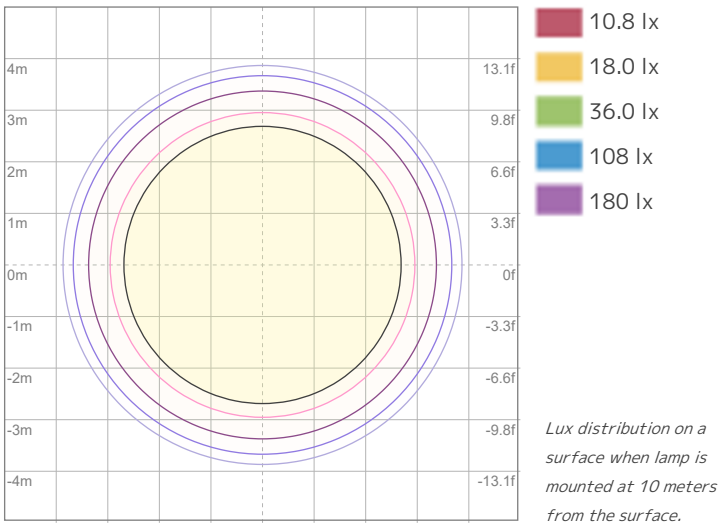


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 36026 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

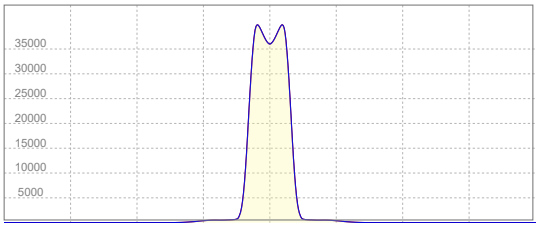
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 360 lx

Linear Distribution



Peak Candela

39868 cd

Calculate Center Beam Intensities

lux = 39868 / distance(m)^2

fc = 39868 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (6000K, MFL, High Fidelity)

Key Measurements

Output

Total Lumen Output: 9164 lm

Peak Intensity: 38908 cd

Beam

Beam Angle (50%): 29.3°

Field Angle (10%): 37.3°

Cutoff Angle (2.5%): 42.5°

Color

Color Temperature: 5936 K

CRI: 91.5

TLCI: 94

TM30 R_F: 90.2

TM30 R_g: 103.4

Power Details

Efficacy: 29 Lumen/Watt

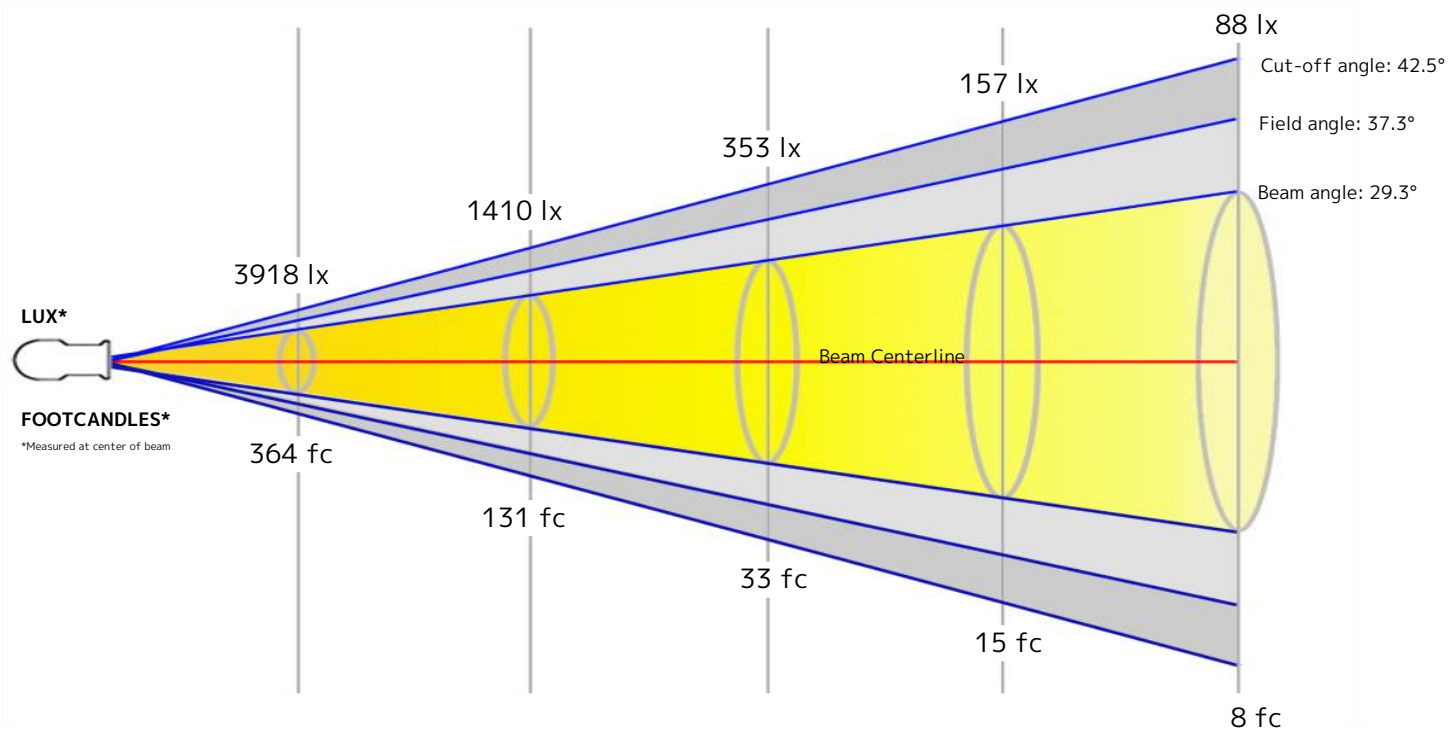
Power: 318 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.3 ft

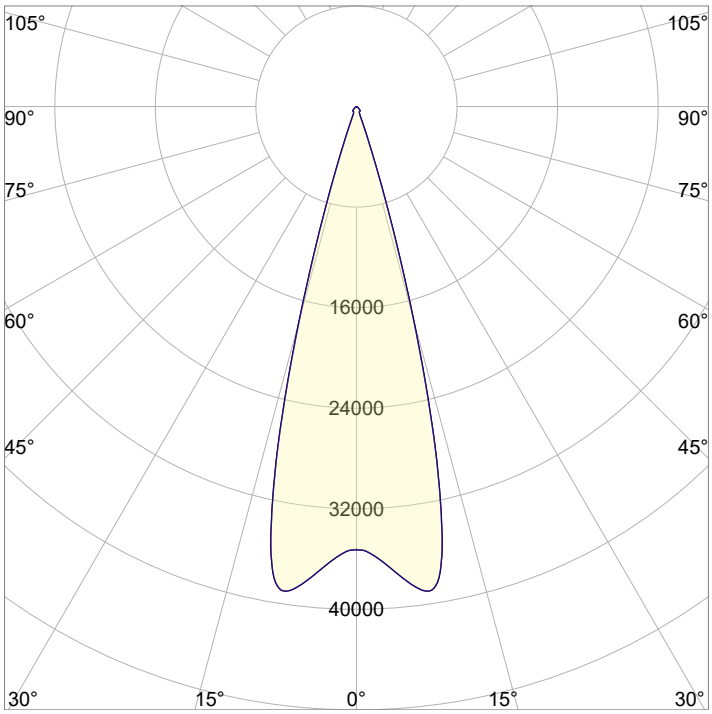
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	35259	8815	3918	2204	1410	979	720	551	435	353	291	245	209	180	157	138	122	109	98	88
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3275.6	818.9	364	204.7	131	91	66.8	51.2	40.4	32.8	27.1	22.7	19.4	16.7	14.6	12.8	11.3	10.1	9.1	8.2

Measurement Date: 5/6/2024

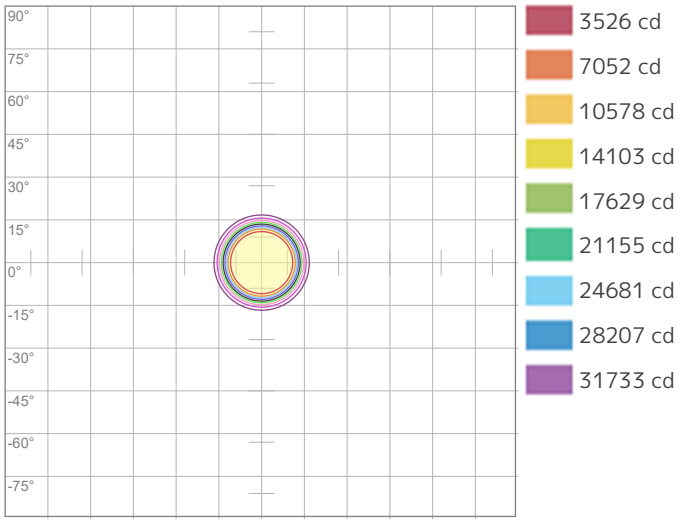
KL Par FC IP (6000K, MFL, High Fidelity)

Angular Distribution



Beam Angle - 50%
29.3°
Field Angle - 10%
37.3°
Cutoff Angle - 2.5%
42.5°

ISO Diagrams

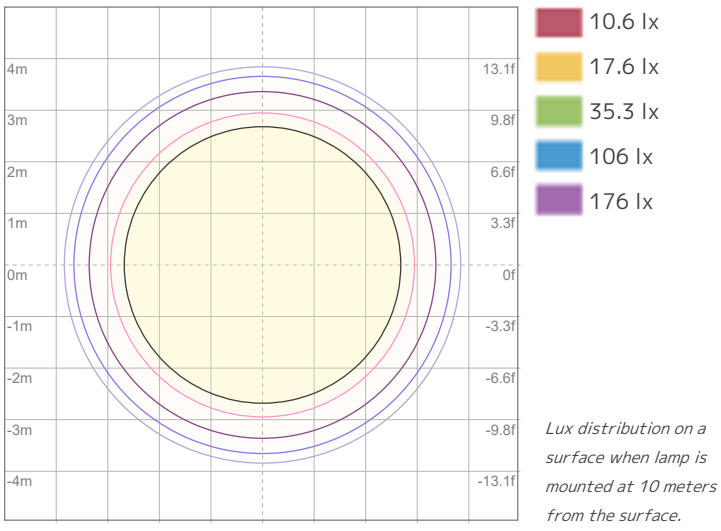


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 35259 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

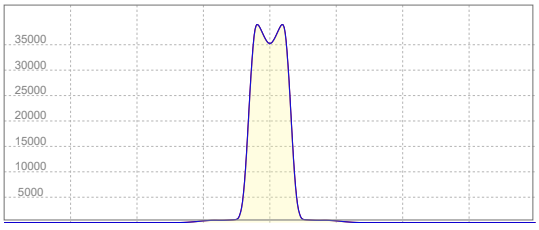
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 353 lx

Linear Distribution



Peak Candela

38908 cd

Calculate Center Beam Intensities

$lux = 38908 / distance(m)^2$

$fc = 38908 / distance(ft)^2$

Measurement Date: 5/6/2024

Key Measurements

Output

Total Lumen Output: 9848 lm

Peak Intensity: 40951 cd

Beam

Beam Angle (50%): 29.3°

Field Angle (10%): 37.4°

Cutoff Angle (2.5%): 42.9°

Color

Color Temperature: 6483 K

CRI: 90.4

TLCI: 93

TM30 R_F: 88.2

TM30 R_g: 100.9

Power Details

Efficacy: 31 Lumen/Watt

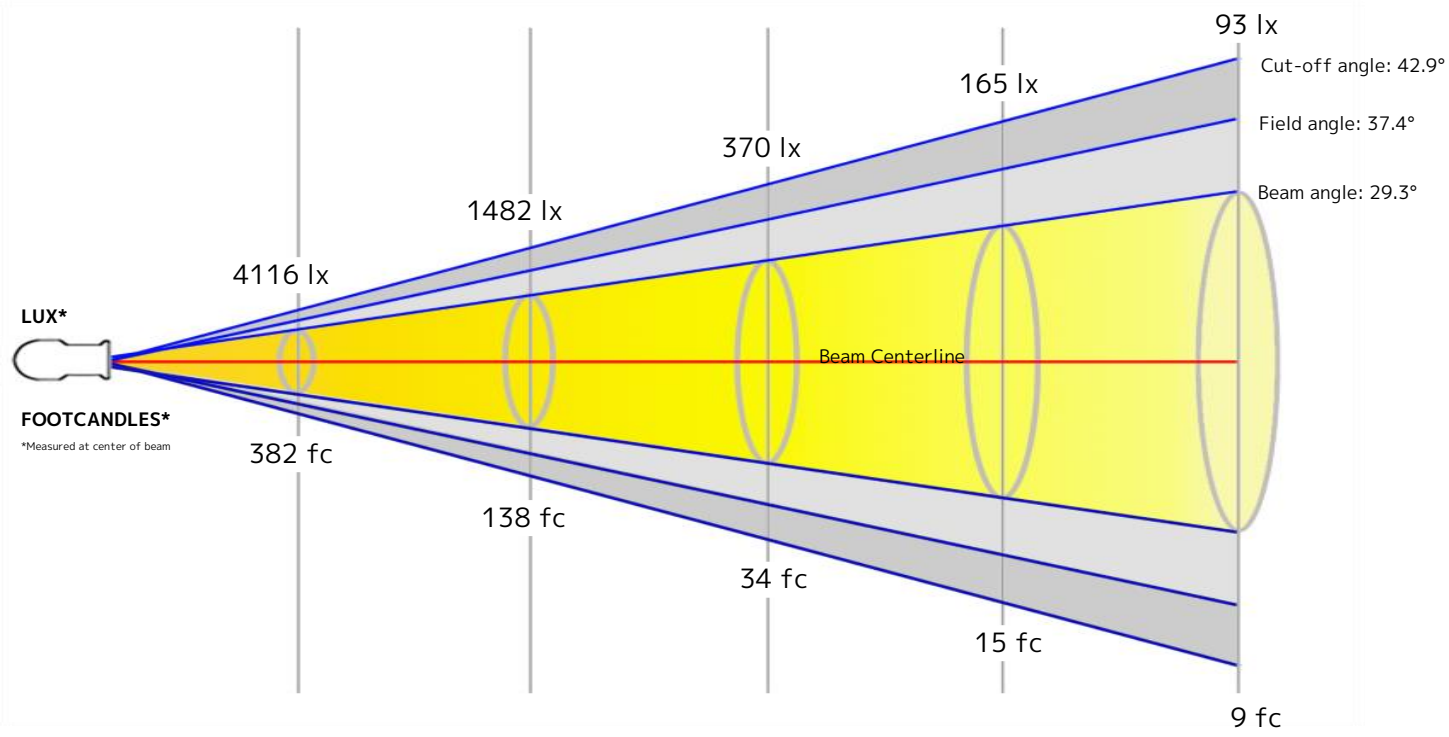
Power: 316 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



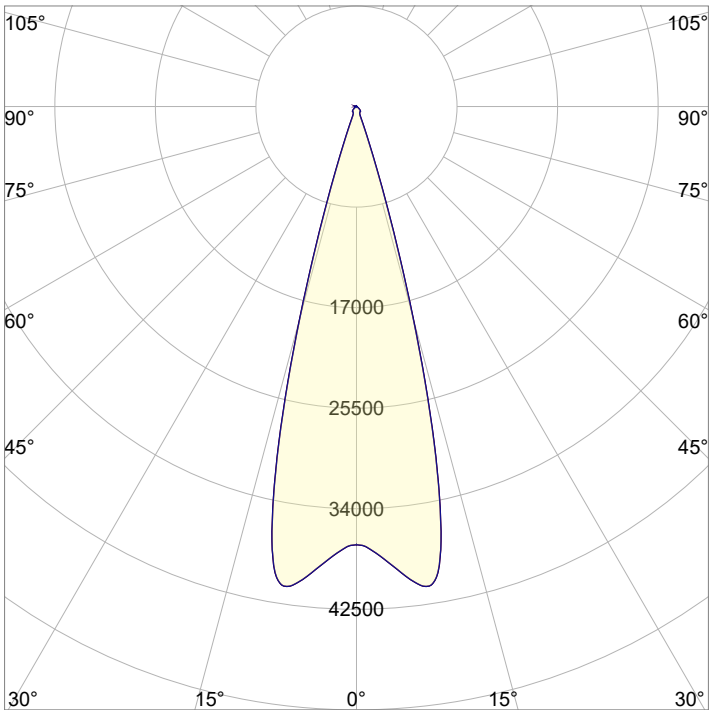
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.3 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	37040	9260	4116	2315	1482	1029	756	579	457	370	306	257	219	189	165	145	128	114	103	93
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3441.2	860.3	382.4	215.1	137.6	95.6	70.2	53.8	42.5	34.4	28.4	23.9	20.4	17.6	15.3	13.4	11.9	10.6	9.5	8.6

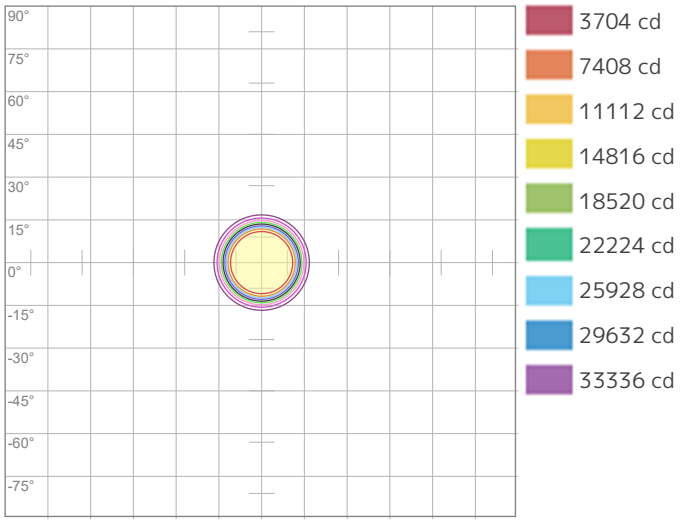
Measurement Date: 5/7/2024

Angular Distribution



Beam Angle - 50%
29.3°
Field Angle - 10%
37.4°
Cutoff Angle - 2.5%
42.9°

ISO Diagrams

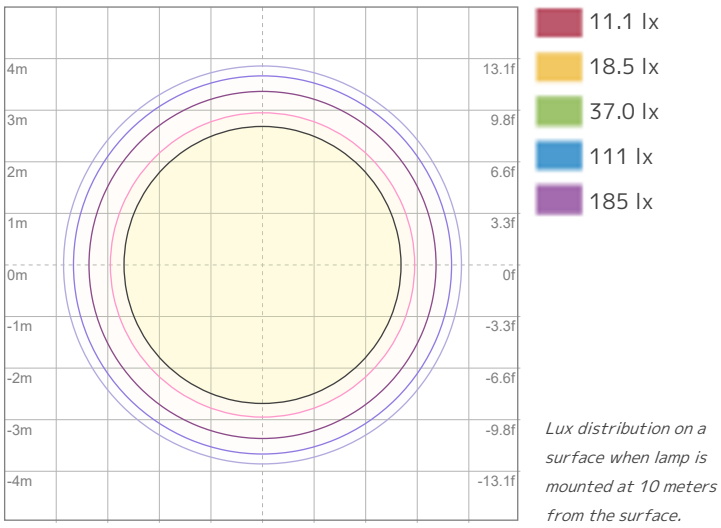


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 37040 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

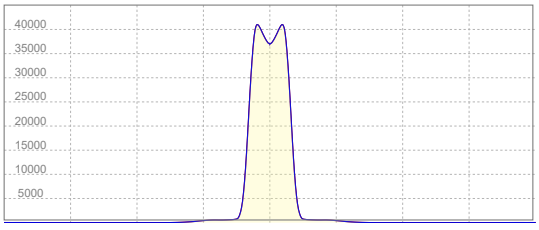
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 370 lx

Linear Distribution



Peak Candela

40951 cd

Calculate Center Beam Intensities

lux = 40951 / distance(m)^2

fc = 40951 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (6500K, MFL, High Fidelity)

Key Measurements

Output

Total Lumen Output: 9649 lm

Peak Intensity: 40239 cd

Beam

Beam Angle (50%): 29.3°

Field Angle (10%): 37.4°

Cutoff Angle (2.5%): 42.7°

Color

Color Temperature: 6528 K

CRI: 91.3

TLCI: 94

TM30 R_F: 89.3

TM30 R_g: 101.5

Power Details

Efficacy: 30 Lumen/Watt

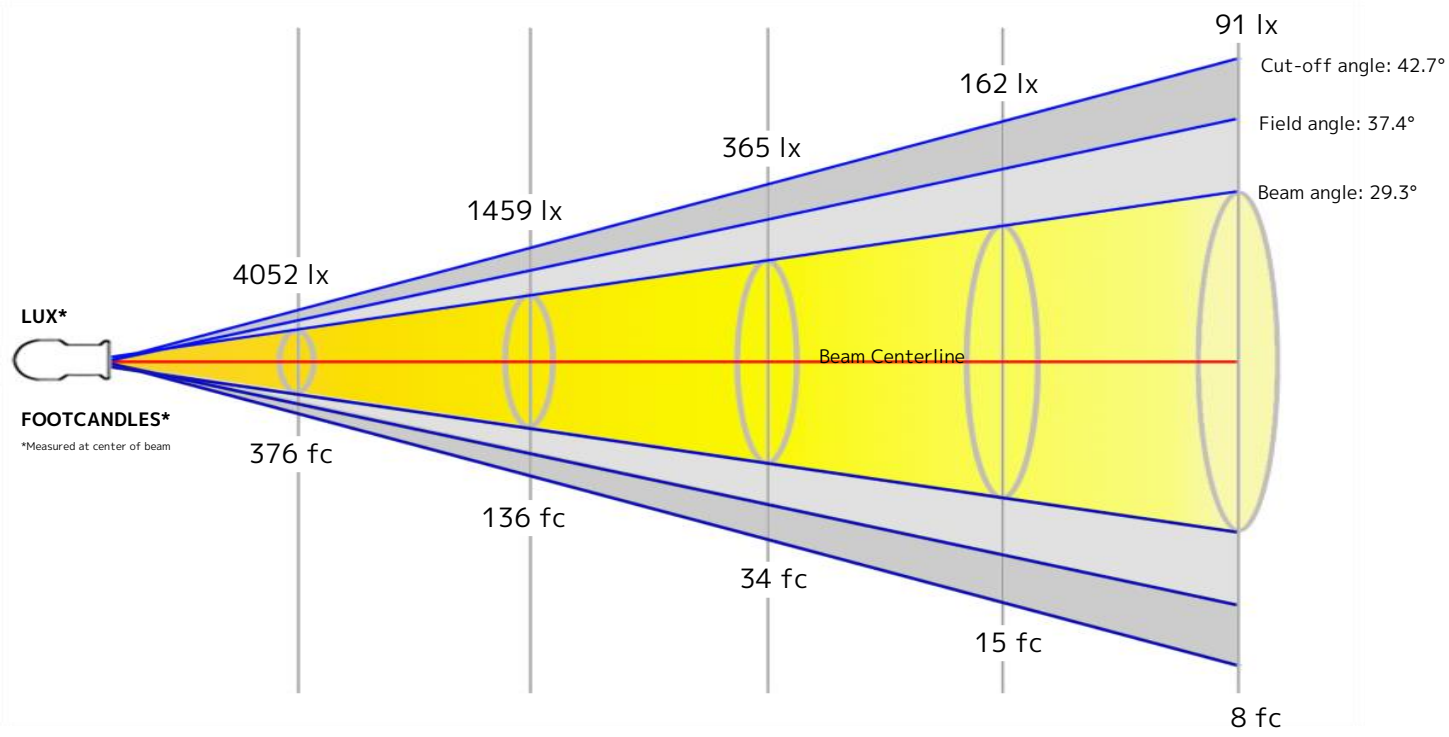
Power: 320 W

Supply Voltage: 119 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.2 ft

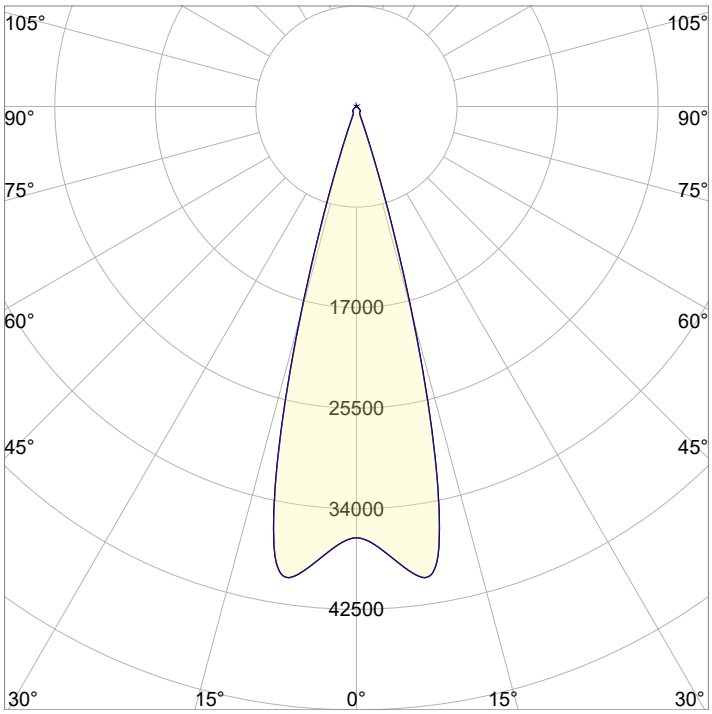
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	36470	9118	4052	2279	1459	1013	744	570	450	365	301	253	216	186	162	142	126	113	101	91
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3388.2	847	376.5	211.8	135.5	94.1	69.1	52.9	41.8	33.9	28	23.5	20	17.3	15.1	13.2	11.7	10.5	9.4	8.5

Measurement Date: 5/7/2024

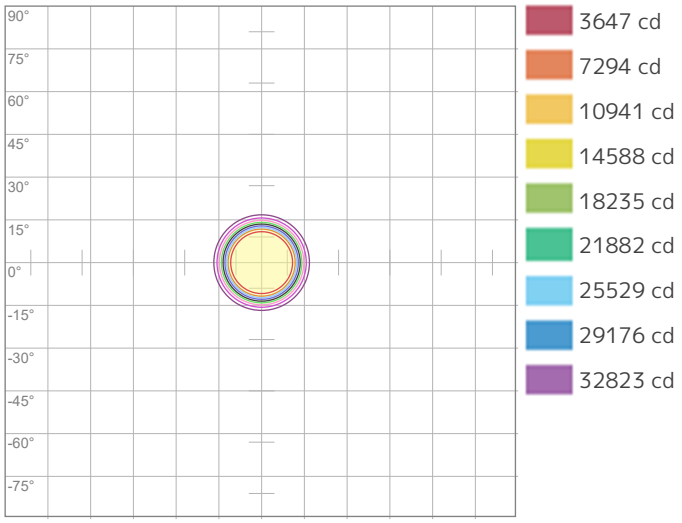
KL Par FC IP (6500K, MFL, High Fidelity)

Angular Distribution



Beam Angle - 50%
29.3°
Field Angle - 10%
37.4°
Cutoff Angle - 2.5%
42.7°

ISO Diagrams

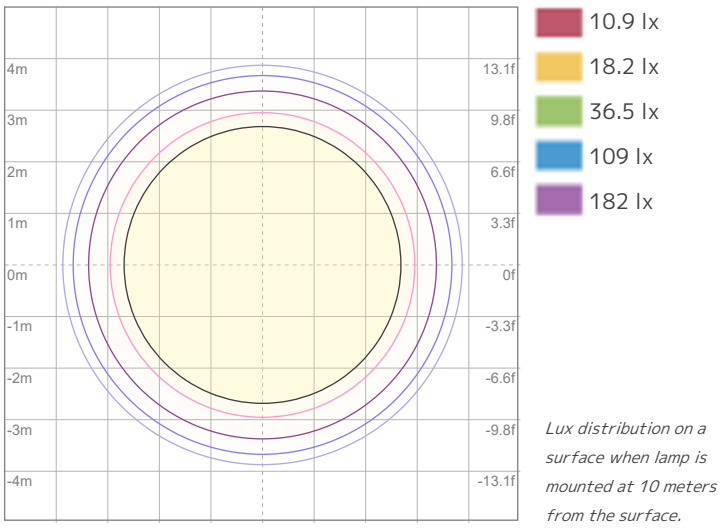


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 36470 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

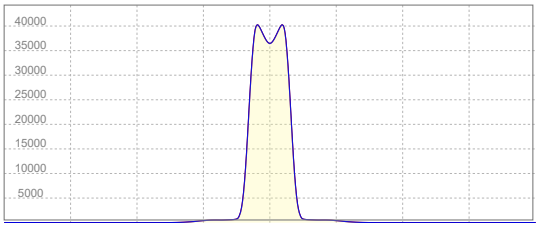
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 365 lx

Linear Distribution



Peak Candela

40239 cd

Calculate Center Beam Intensities

lux = 40239 / distance(m)^2

fc = 40239 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (7500K, MFL)

Key Measurements

Output

Total Lumen Output: 10091 lm

Peak Intensity: 41959 cd

Beam

Beam Angle (50%): 29.3°

Field Angle (10%): 37.4°

Cutoff Angle (2.5%): 42.7°

Color

Color Temperature: 7469 K

CRI: 83.1

TLCI: 69

TM30 R_F: 80.9

TM30 R_g: 94.8

Power Details

Efficacy: 32 Lumen/Watt

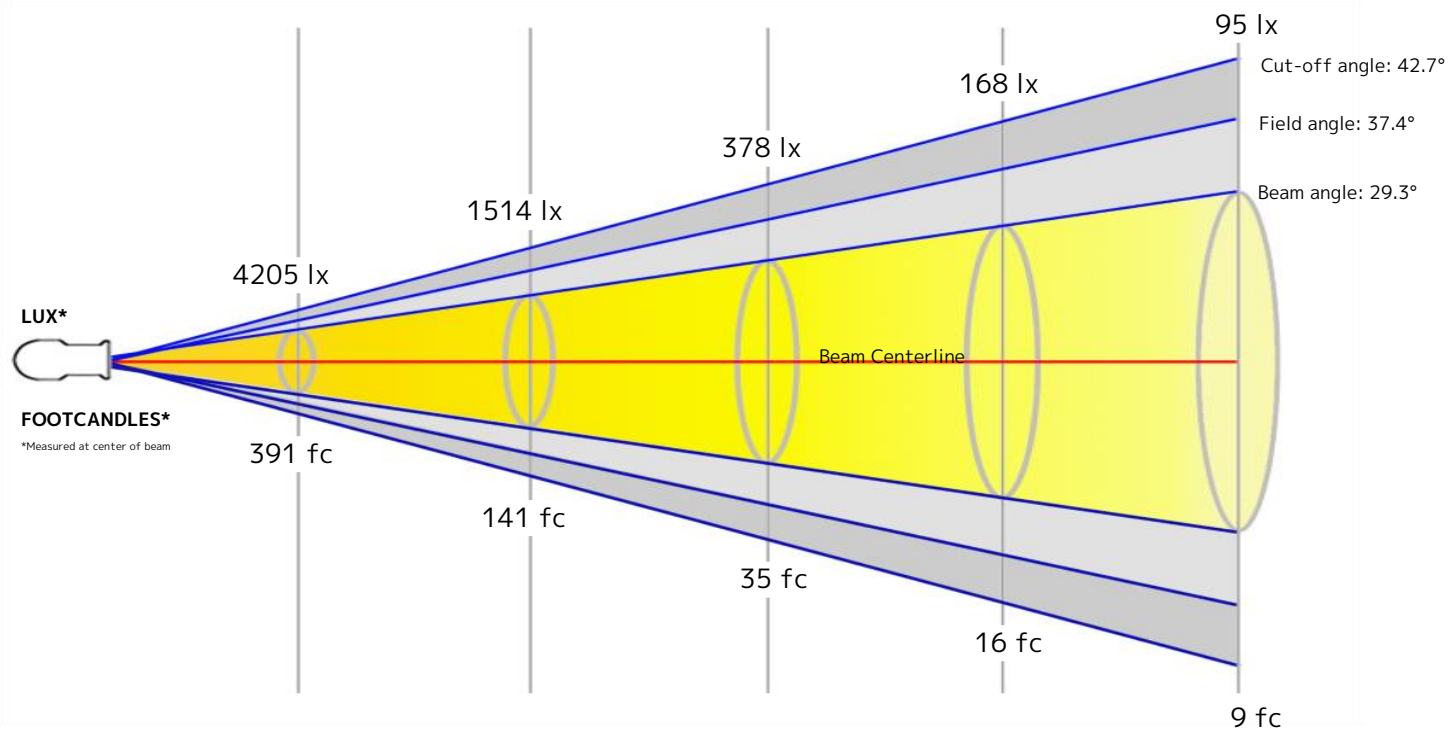
Power: 315 W

Supply Voltage: 119 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



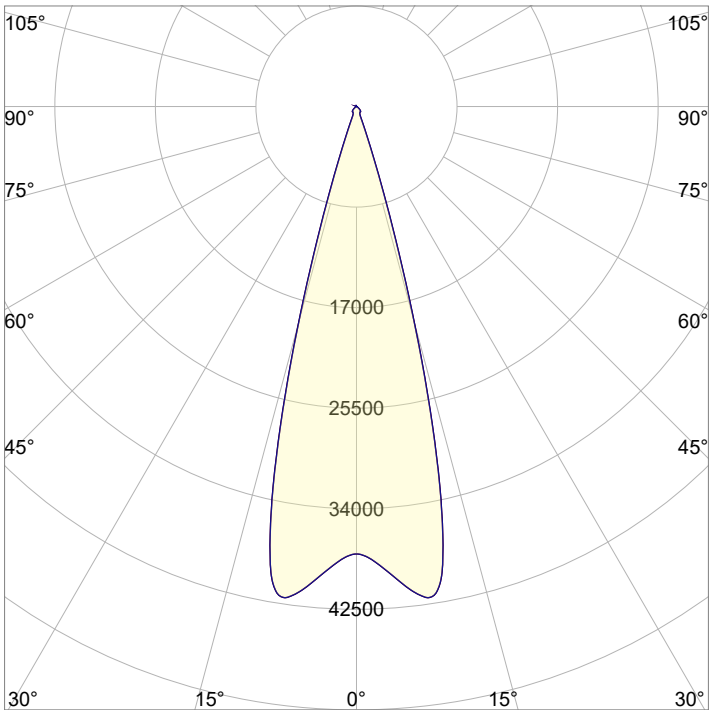
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.2 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	37847	9462	4205	2365	1514	1051	772	591	467	378	313	263	224	193	168	148	131	117	105	95
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3516.1	879	390.7	219.8	140.6	97.7	71.8	54.9	43.4	35.2	29.1	24.4	20.8	17.9	15.6	13.7	12.2	10.9	9.7	8.8

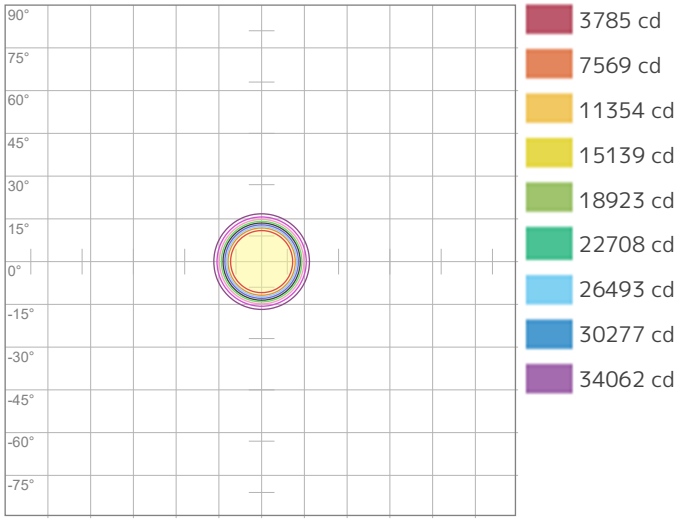
Measurement Date: 5/7/2024

Angular Distribution



Beam Angle - 50%
29.3°
Field Angle - 10%
37.4°
Cutoff Angle - 2.5%
42.7°

ISO Diagrams

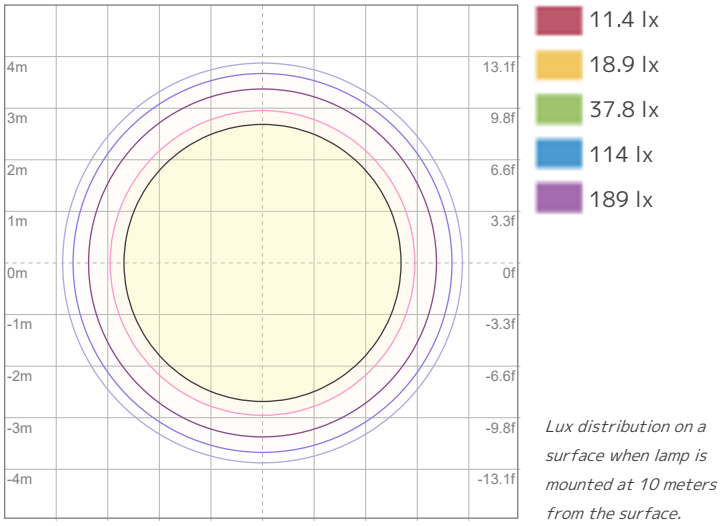


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 37847 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

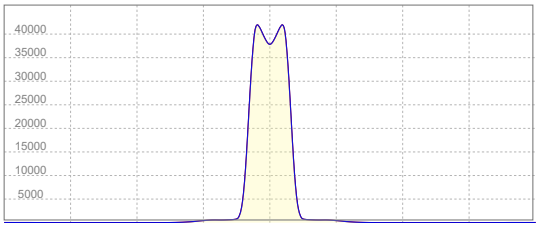
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 378 lx

Linear Distribution



Peak Candela

41959 cd

Calculate Center Beam Intensities

lux = 41959 / distance(m)^2

fc = 41959 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (7500K, MFL, High Fidelity)

Key Measurements

Output

Total Lumen Output: 9918 lm

Peak Intensity: 41136 cd

Beam

Beam Angle (50%): 29.3°

Field Angle (10%): 37.4°

Cutoff Angle (2.5%): 43°

Color

Color Temperature: 7506 K

CRI: 89.7

TLCI: 91

TM30 R_F: 86.9

TM30 R_g: 99.9

Power Details

Efficacy: 32 Lumen/Watt

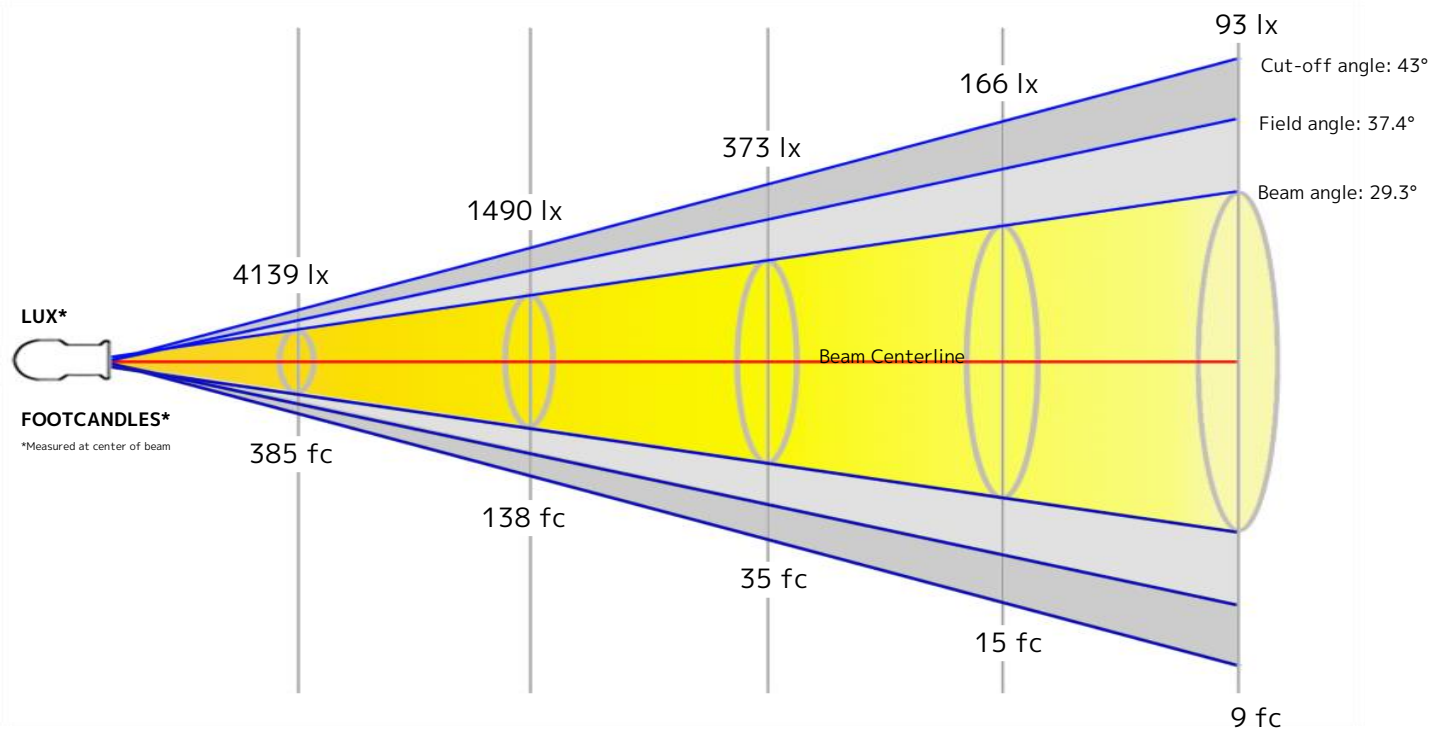
Power: 312 W

Supply Voltage: 119 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.3 ft

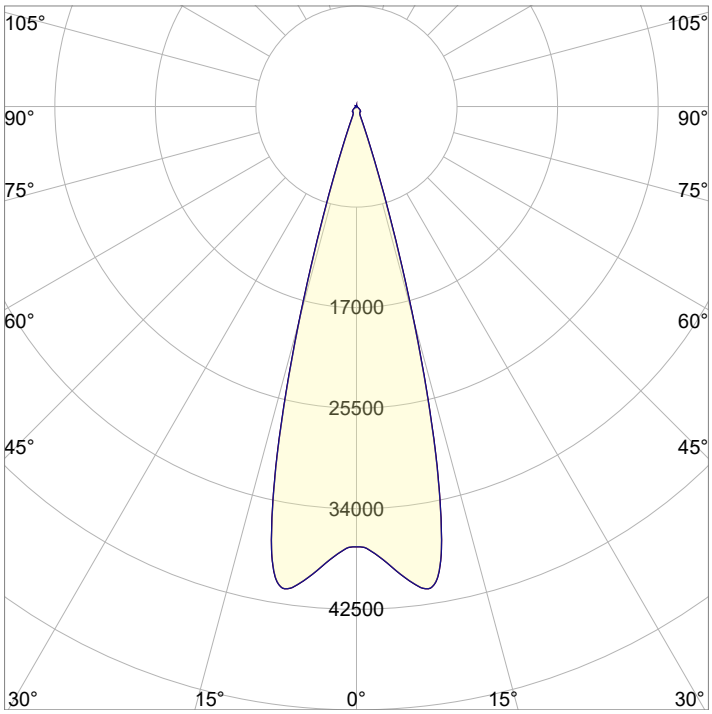
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	37254	9313	4139	2328	1490	1035	760	582	460	373	308	259	220	190	166	146	129	115	103	93
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3461	865.2	384.6	216.3	138.4	96.1	70.6	54.1	42.7	34.6	28.6	24	20.5	17.7	15.4	13.5	12	10.7	9.6	8.7

Measurement Date: 5/7/2024

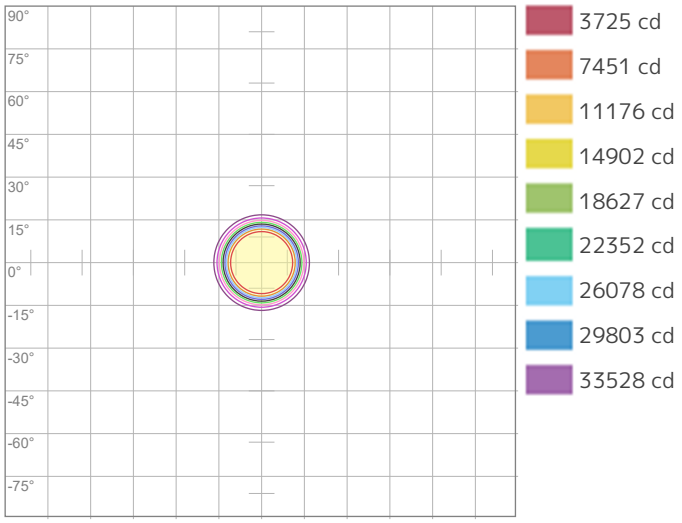
KL Par FC IP (7500K, MFL, High Fidelity)

Angular Distribution



Beam Angle - 50%
29.3°
Field Angle - 10%
37.4°
Cutoff Angle - 2.5%
43°

ISO Diagrams

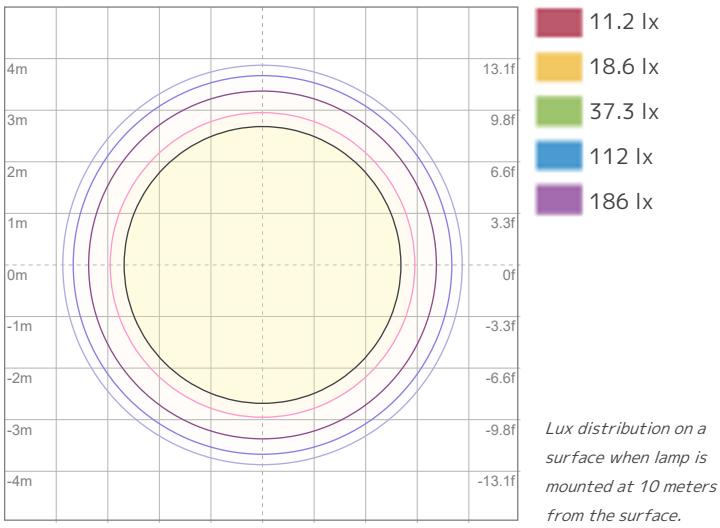


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 37254 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

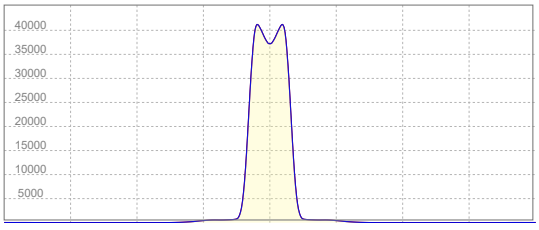
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 373 lx

Linear Distribution



Peak Candela

41136 cd

Calculate Center Beam Intensities

lux = 41136 / distance(m)^2

fc = 41136 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (8500K, MFL)

Prepared For ELATION PROFESSIONAL

Key Measurements

Output

Total Lumen Output: 10121 lm

Peak Intensity: 42429 cd

Beam

Beam Angle (50%): 29.3°

Field Angle (10%): 37.4°

Cutoff Angle (2.5%): 42.9°

Color

Color Temperature: 8557 K

CRI: 86.2

TLCI: 80

TM30 R_F: 83.1

TM30 R_g: 96.8

Power Details

Efficacy: 32 Lumen/Watt

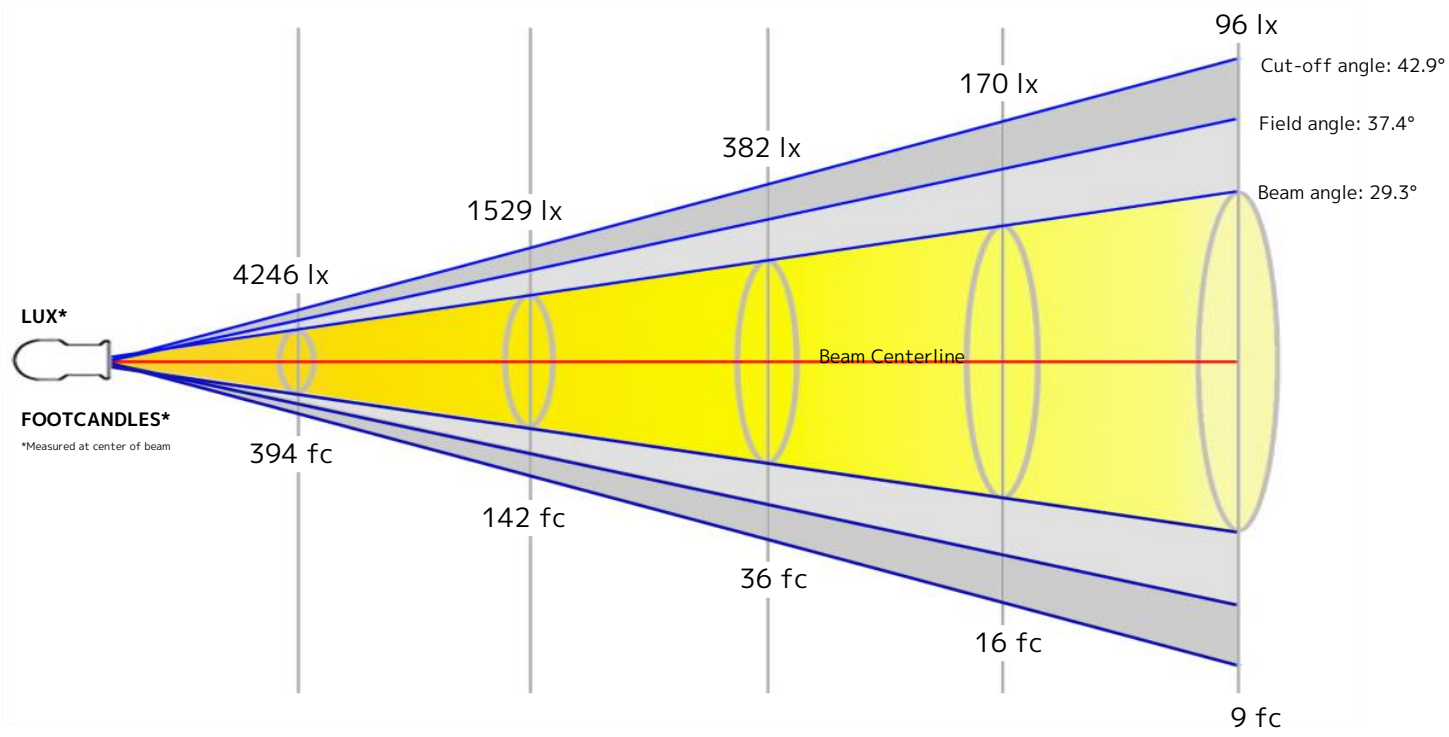
Power: 318 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.5 m



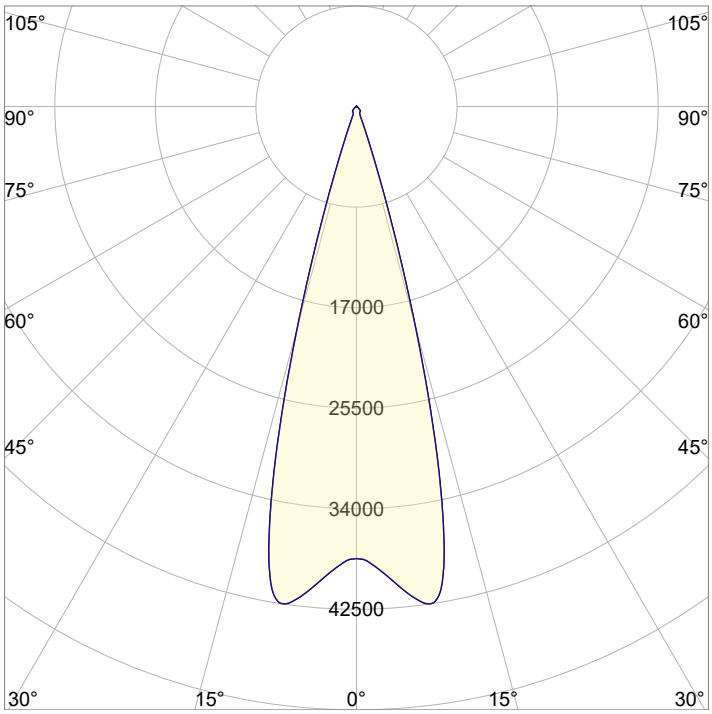
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.3 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	38214	9554	4246	2388	1529	1062	780	597	472	382	316	265	226	195	170	149	132	118	106	96
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3550.2	887.6	394.5	221.9	142	98.6	72.5	55.5	43.8	35.5	29.3	24.7	21	18.1	15.8	13.9	12.3	11	9.8	8.9

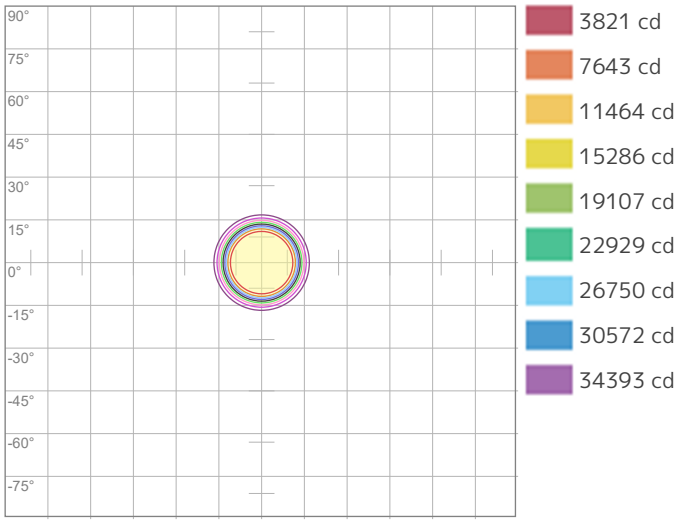
Measurement Date: 5/7/2024

Angular Distribution



Beam Angle - 50%
29.3°
Field Angle - 10%
37.4°
Cutoff Angle - 2.5%
42.9°

ISO Diagrams

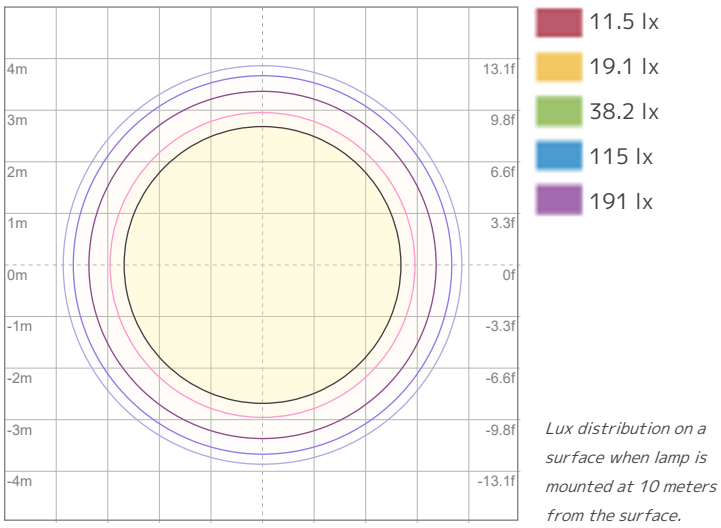


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 38214 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

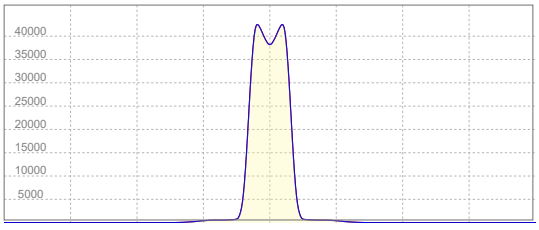
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 382 lx

Linear Distribution



Peak Candela

42429 cd

Calculate Center Beam Intensities

lux = 42429 / distance(m)^2

fc = 42429 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (8500K, MFL, High Fidelity)

Key Measurements

Output

Total Lumen Output: 9952 lm

Peak Intensity: 41262 cd

Beam

Beam Angle (50%): 29.3°

Field Angle (10%): 37.4°

Cutoff Angle (2.5%): 43°

Color

Color Temperature: 8498 K

CRI: 89.1

TLCI: 90

TM30 R_F: 86.0

TM30 R_g: 98.9

Power Details

Efficacy: 32 Lumen/Watt

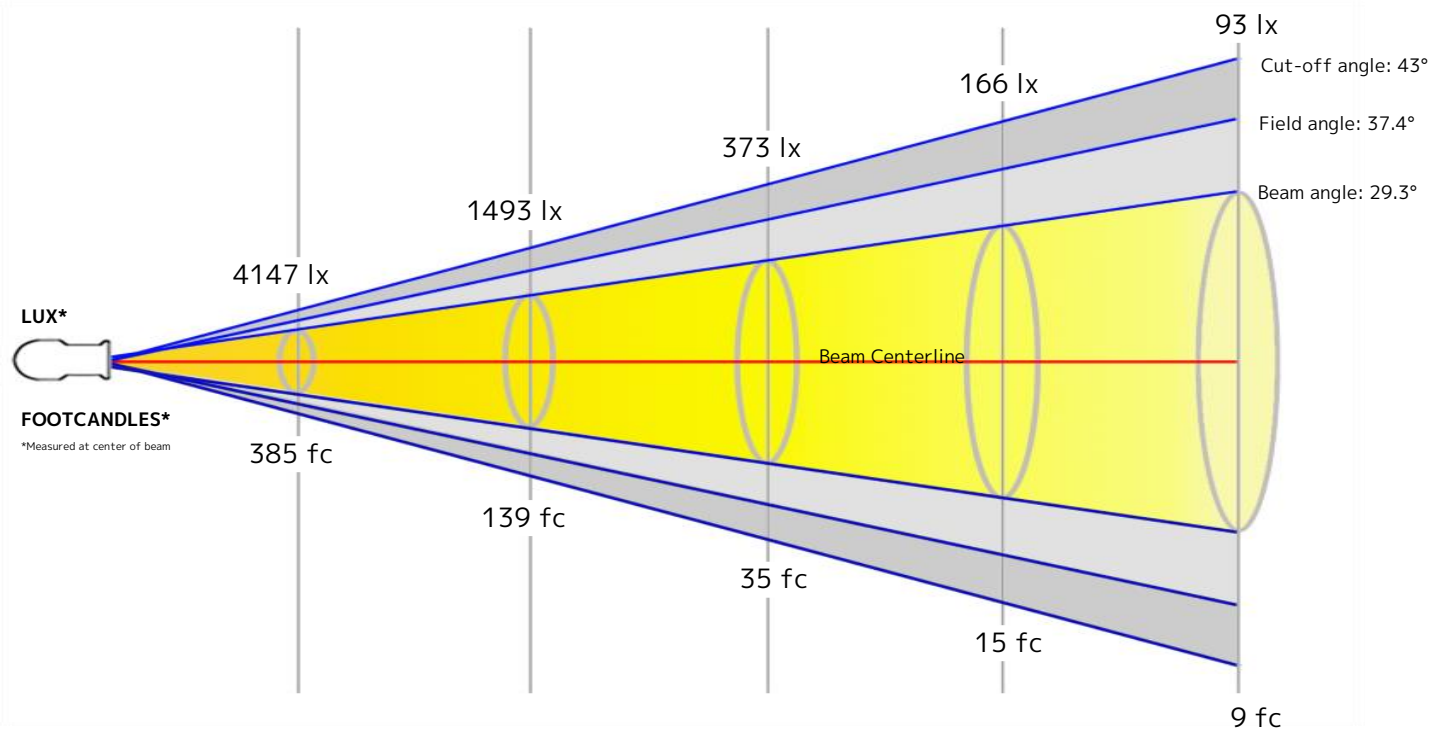
Power: 309 W

Supply Voltage: 119 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.6 m	2.6 m	5.2 m	7.8 m	10.4 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	5.1 ft	8.6 ft	17.1 ft	25.7 ft	34.3 ft

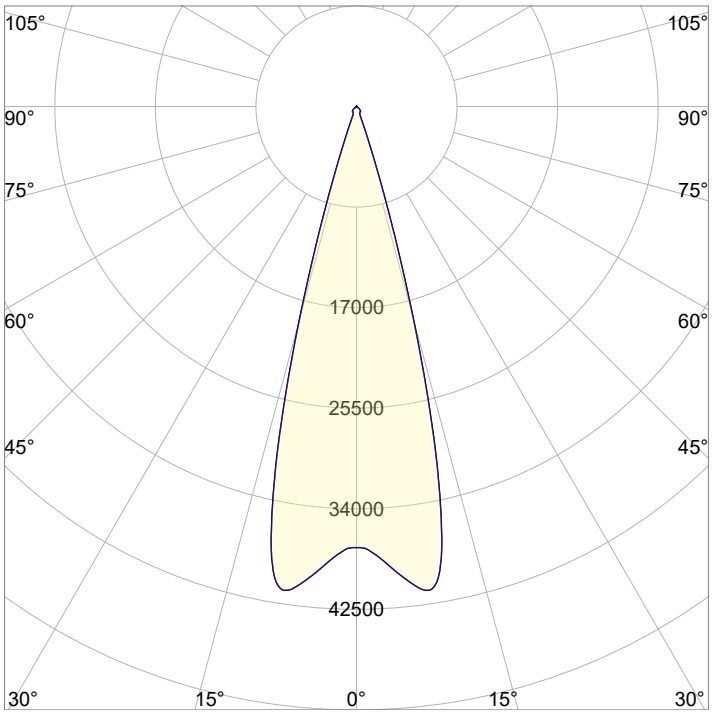
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	37323	9331	4147	2333	1493	1037	762	583	461	373	308	259	221	190	166	146	129	115	103	93
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	3467.4	866.8	385.3	216.7	138.7	96.3	70.8	54.2	42.8	34.7	28.7	24.1	20.5	17.7	15.4	13.5	12	10.7	9.6	8.7

Measurement Date: 5/7/2024

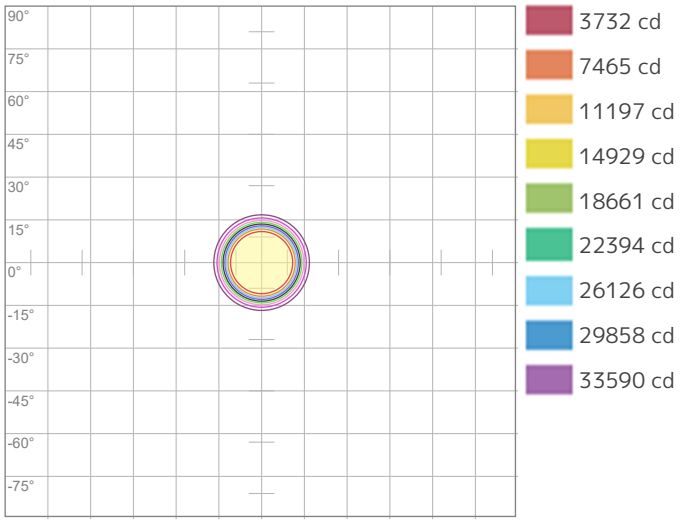
KL Par FC IP (8500K, MFL, High Fidelity)

Angular Distribution



Beam Angle - 50%
29.3°
Field Angle - 10%
37.4°
Cutoff Angle - 2.5%
43°

ISO Diagrams

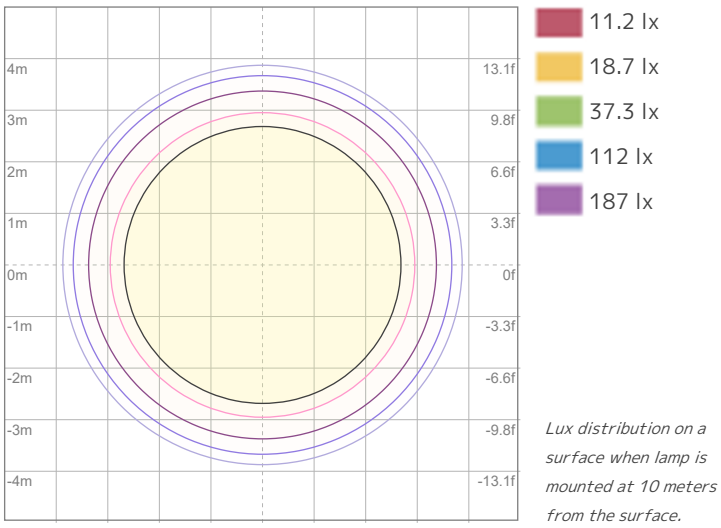


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 37323 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

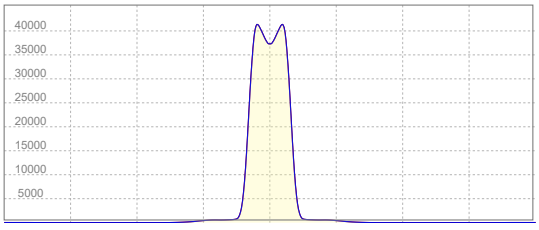
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 373 lx

Linear Distribution



Peak Candela

41262 cd

Calculate Center Beam Intensities

lux = 41262 / distance(m)^2

fc = 41262 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (Full Output, WFL)

Key Measurements

Output

Total Lumen Output: 10535 lm

Peak Intensity: 14303 cd

Beam

Beam Angle (50%): 56.2°

Field Angle (10%): 68.6°

Cutoff Angle (2.5%): 77.9°

Color

Color Temperature: 6877 K

CRI: 90.3

TLCI: 93

TM30 R_F: 87.8

TM30 R_g: 100.9

Power Details

Efficacy: 33 Lumen/Watt

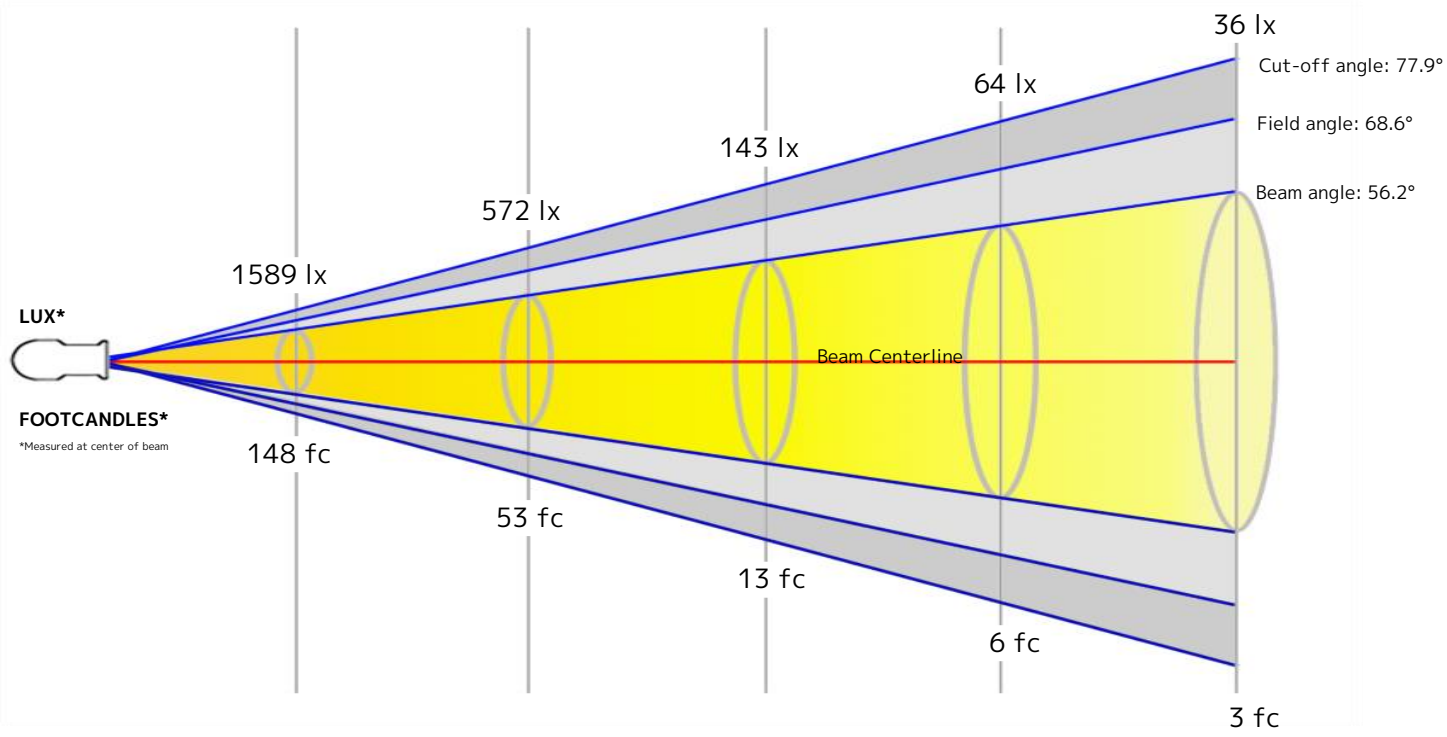
Power: 320 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	3.2 m	5.3 m	10.7	16 m	21.3 m



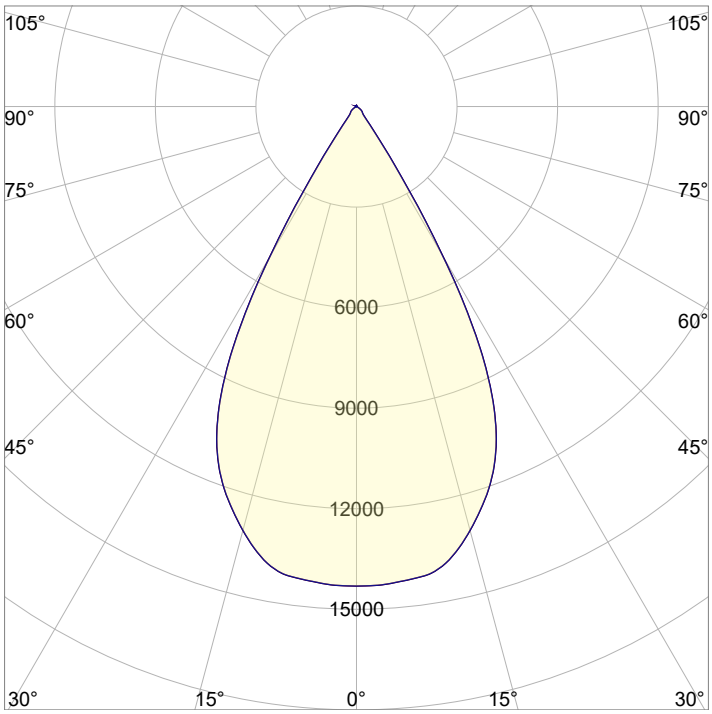
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	10.5 ft	17.5 ft	35 ft	52.5 ft	70 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	14303	3576	1589	894	572	397	292	223	177	143	118	99	85	73	64	56	49	44	40	36
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	1328.8	332.2	147.6	83.1	53.2	36.9	27.1	20.8	16.4	13.3	11	9.2	7.9	6.8	5.9	5.2	4.6	4.1	3.7	3.3

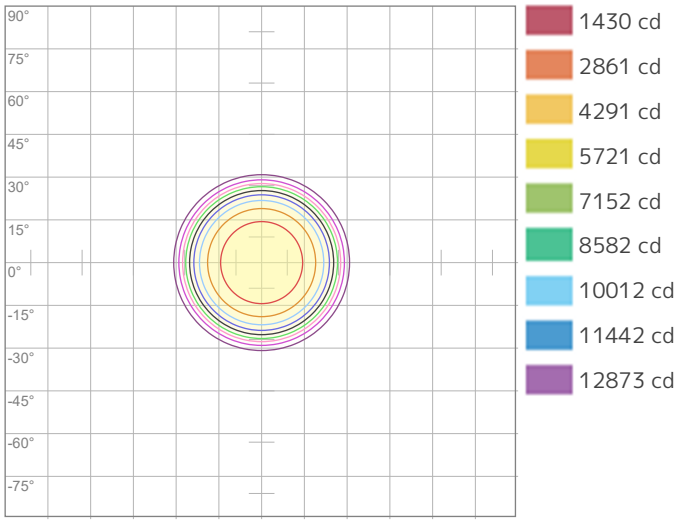
Measurement Date: 5/8/2024

Angular Distribution



Beam Angle - 50%
56.2°
Field Angle - 10%
68.6°
Cutoff Angle - 2.5%
77.9°

ISO Diagrams

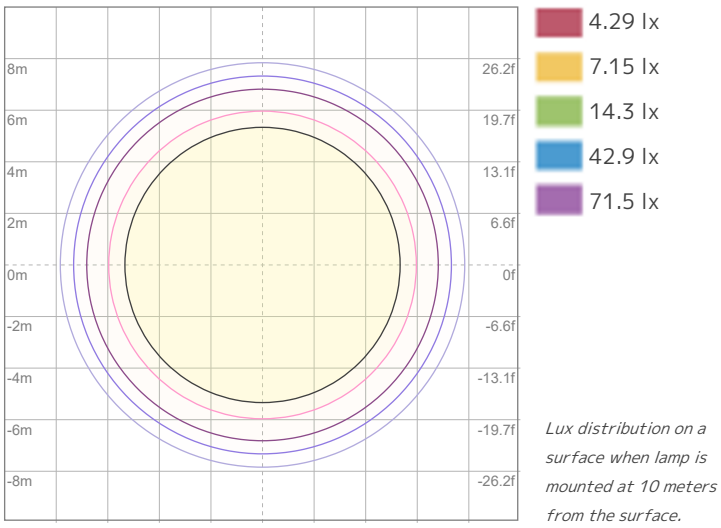


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 14303 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

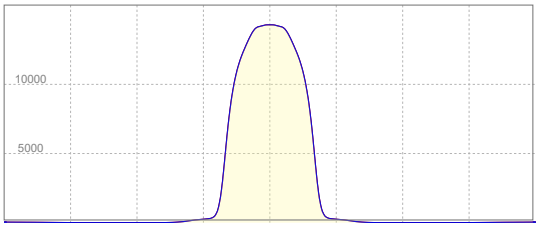
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 143 lx

Linear Distribution



Peak Candela

14303 cd

Calculate Center Beam Intensities

lux = 14303 / distance(m)^2

fc = 14303 / distance(ft)^2

Measurement Date: 5/8/2024

Key Measurements

Output

Total Lumen Output: 9683 lm

Peak Intensity: 13268 cd

Beam

Beam Angle (50%): 56.1°

Field Angle (10%): 68.7°

Cutoff Angle (2.5%): 77.9°

Color

Color Temperature: 3160 K

CRI: 91.9

TLCI: 95

TM30 R_F: 93.3

TM30 R_g: 104.4

Power Details

Efficacy: 32 Lumen/Watt

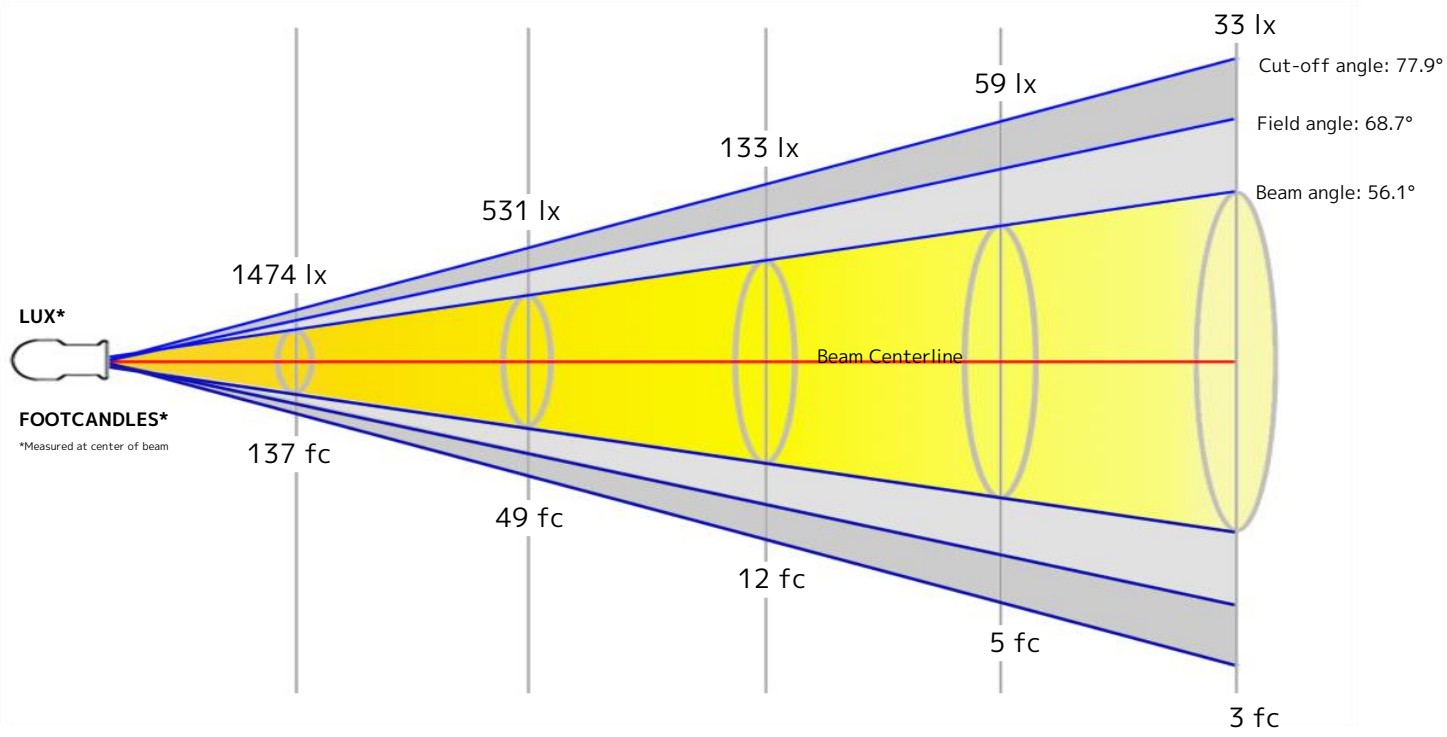
Power: 299 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	3.2 m	5.3 m	10.7	16 m	21.3 m



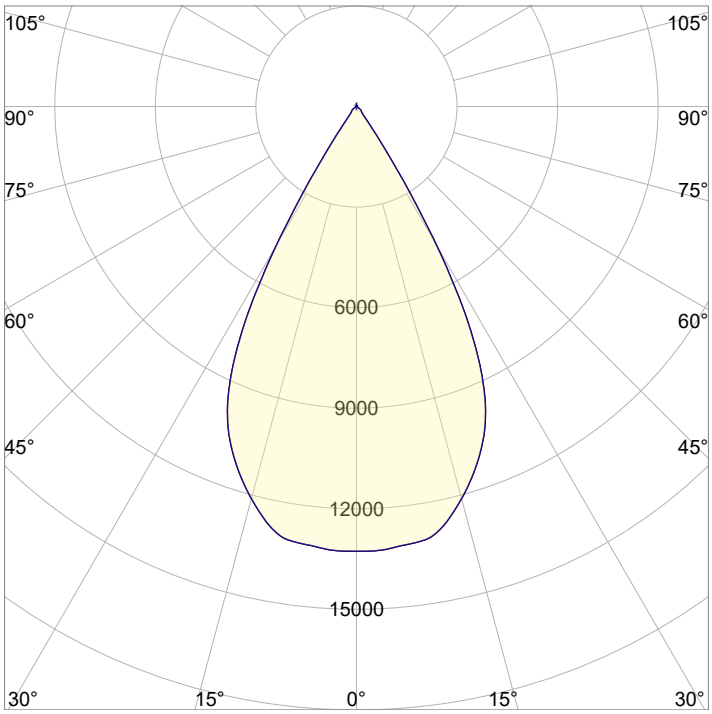
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	10.4 ft	17.5 ft	34.9 ft	52.4 ft	69.9 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	13268	3317	1474	829	531	369	271	207	164	133	110	92	79	68	59	52	46	41	37	33
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	1232.6	308.2	137	77	49.3	34.2	25.2	19.3	15.2	12.3	10.2	8.6	7.3	6.3	5.5	4.8	4.3	3.8	3.4	3.1

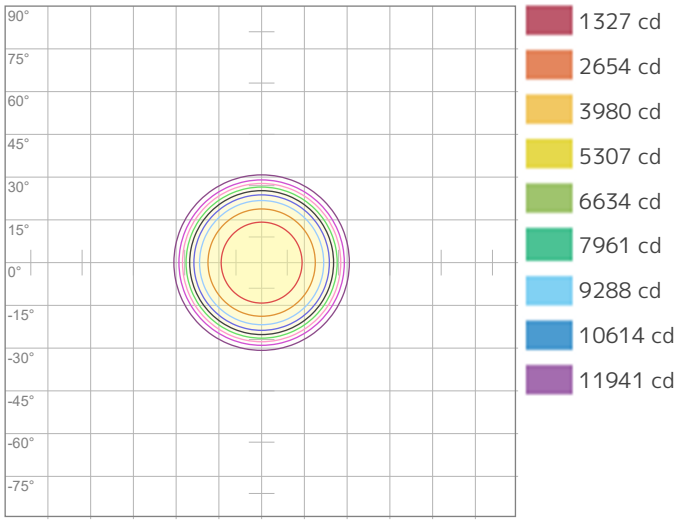
Measurement Date: 5/7/2024

Angular Distribution



Beam Angle - 50%
56.1°
Field Angle - 10%
68.7°
Cutoff Angle - 2.5%
77.9°

ISO Diagrams

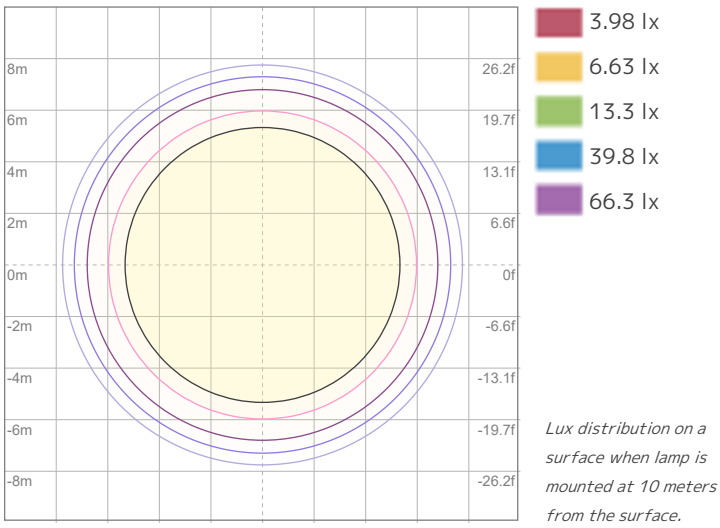


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 13268 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

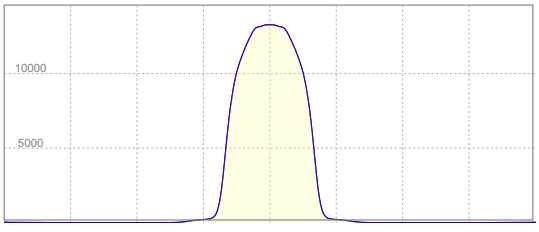
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 133 lx

Linear Distribution



Peak Candela

13268 cd

Calculate Center Beam Intensities

lux = 13268 / distance(m)^2

fc = 13268 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (3200K, WFL, High Fidelity)

Key Measurements

Output

Total Lumen Output: 8422 lm

Peak Intensity: 11550 cd

Beam

Beam Angle (50%): 56°

Field Angle (10%): 68.7°

Cutoff Angle (2.5%): 77.8°

Color

Color Temperature: 3187 K

CRI: 93.9

TLCI: 92

TM30 R_F: 93.0

TM30 R_g: 103.8

Power Details

Efficacy: 33 Lumen/Watt

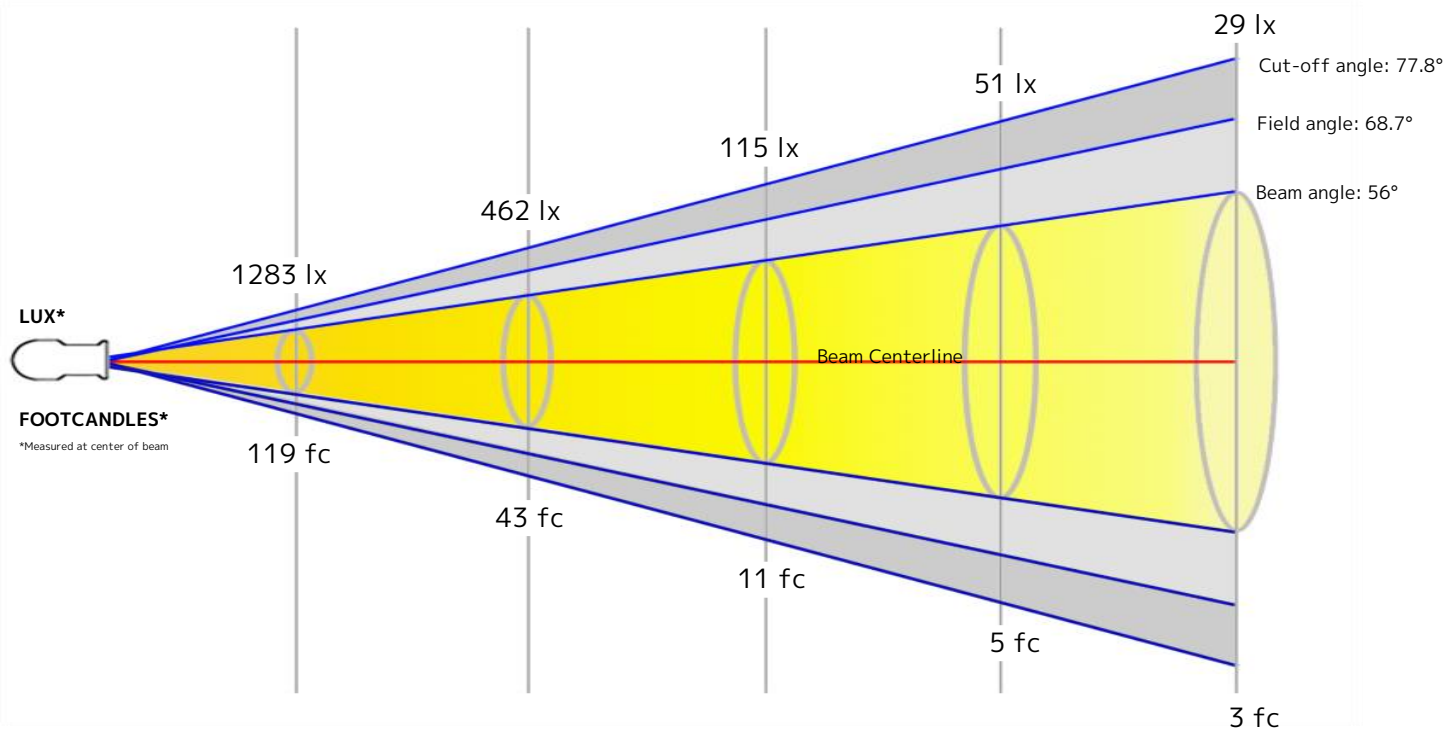
Power: 253 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	3.2 m	5.3 m	10.6	16 m	21.3 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	10.4 ft	17.4 ft	34.9 ft	52.3 ft	69.8 ft

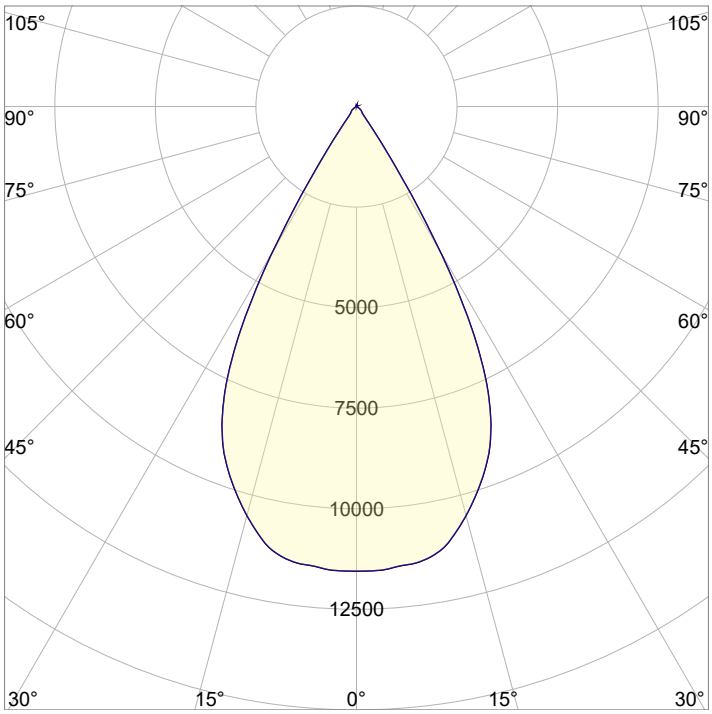
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	11550	2887	1283	722	462	321	236	180	143	115	95	80	68	59	51	45	40	36	32	29
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	1073	268.3	119.2	67.1	42.9	29.8	21.9	16.8	13.2	10.7	8.9	7.5	6.3	5.5	4.8	4.2	3.7	3.3	3	2.7

Measurement Date: 5/7/2024

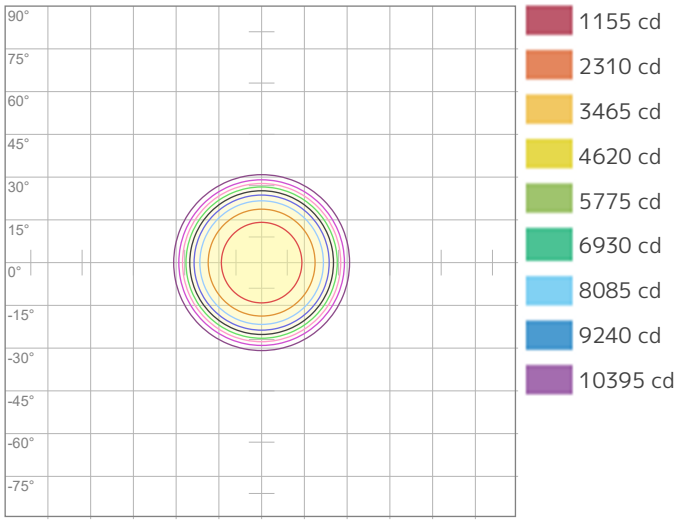
KL Par FC IP (3200K, WFL, High Fidelity)

Angular Distribution



Beam Angle - 50%
56°
Field Angle - 10%
68.7°
Cutoff Angle - 2.5%
77.8°

ISO Diagrams

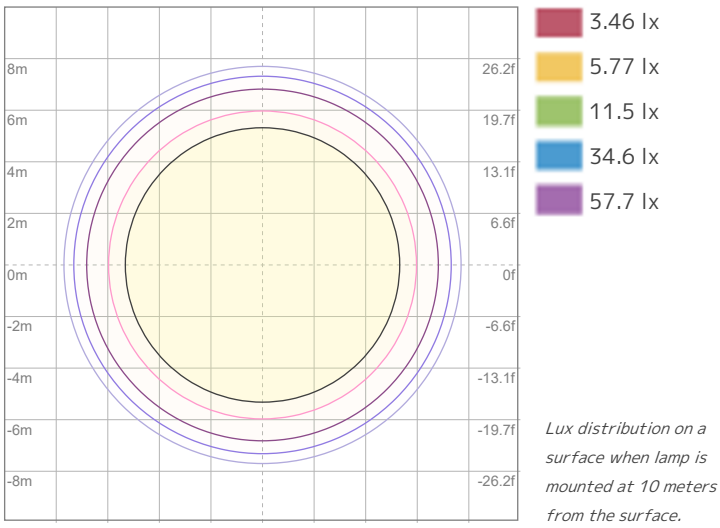


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 11550 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

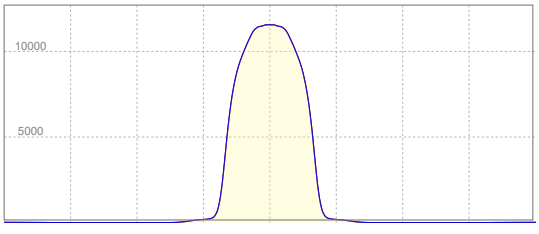
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 115 lx

Linear Distribution



Peak Candela

11550 cd

Calculate Center Beam Intensities

lux = 11550 / distance(m)^2

fc = 11550 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (4500K, WFL)

Key Measurements

Output

Total Lumen Output: 10900 lm

Peak Intensity: 14836 cd

Beam

Beam Angle (50%): 56.2°

Field Angle (10%): 68.5°

Cutoff Angle (2.5%): 78°

Color

Color Temperature: 4543 K

CRI: 91.5

TLCI: 92

TM30 R_F: 89.6

TM30 R_g: 102.3

Power Details

Efficacy: 36 Lumen/Watt

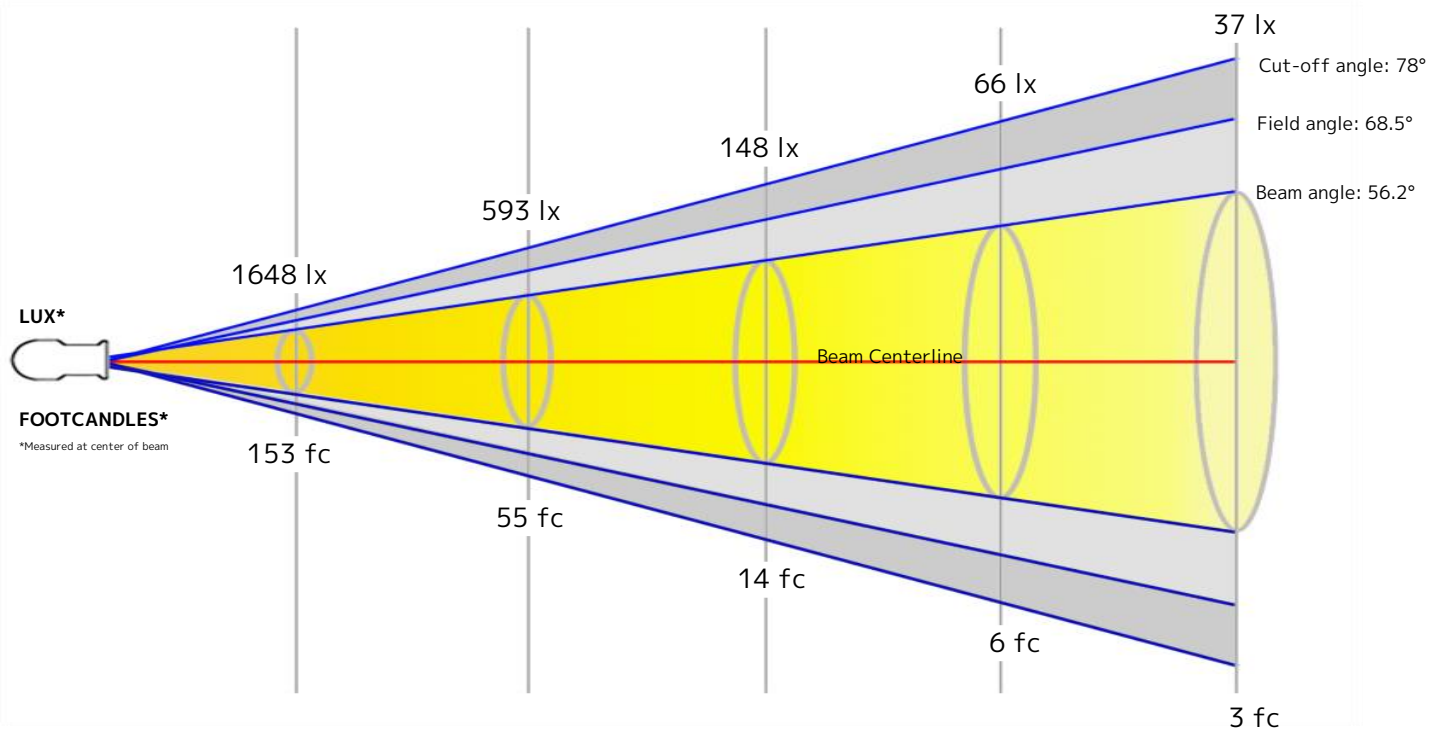
Power: 302 W

Supply Voltage: 117 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	3.2 m	5.3 m	10.7	16 m	21.4 m



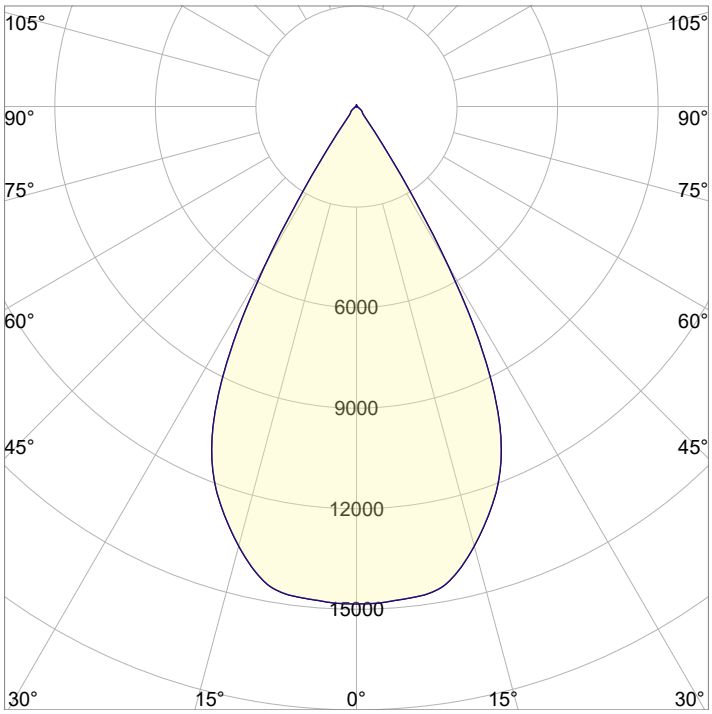
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	10.5 ft	17.5 ft	35 ft	52.5 ft	70 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	14836	3709	1648	927	593	412	303	232	183	148	123	103	88	76	66	58	51	46	41	37
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	1378.3	344.6	153.1	86.1	55.1	38.3	28.1	21.5	17	13.8	11.4	9.6	8.2	7	6.1	5.4	4.8	4.3	3.8	3.4

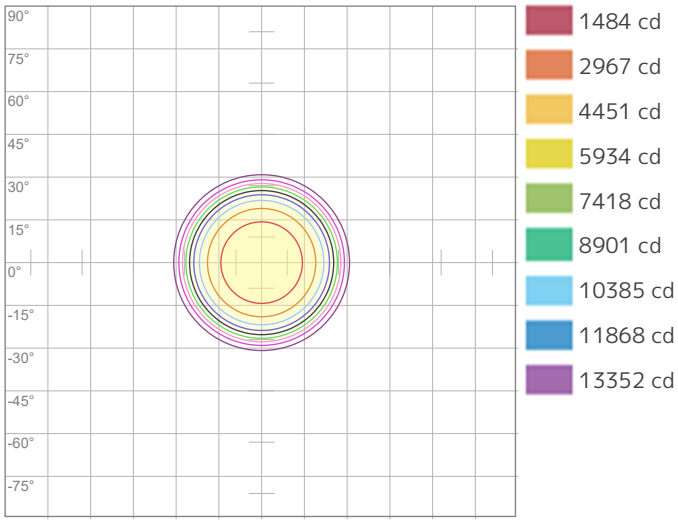
Measurement Date: 5/7/2024

Angular Distribution



Beam Angle - 50%
56.2°
Field Angle - 10%
68.5°
Cutoff Angle - 2.5%
78°

ISO Diagrams

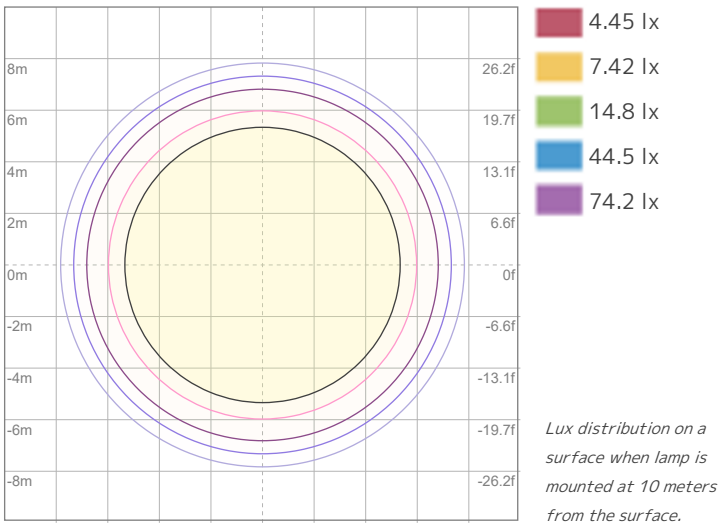


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 14836 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

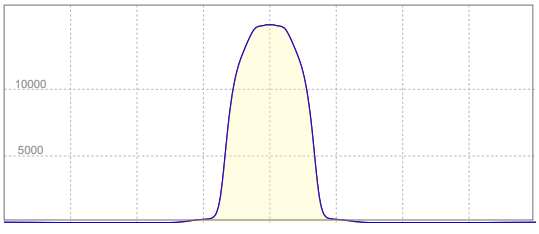
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 148 lx

Linear Distribution



Peak Candela

14836 cd

Calculate Center Beam Intensities

lux = 14836 / distance(m)^2

fc = 14836 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (4500K, WFL, High Fidelity)

Key Measurements

Output

Total Lumen Output: 10318 lm

Peak Intensity: 14065 cd

Beam

Beam Angle (50%): 56.1°

Field Angle (10%): 68.8°

Cutoff Angle (2.5%): 78.1°

Color

Color Temperature: 4500 K

CRI: 91.8

TLCI: 94

TM30 R_F: 91.2

TM30 R_g: 103.9

Power Details

Efficacy: 32 Lumen/Watt

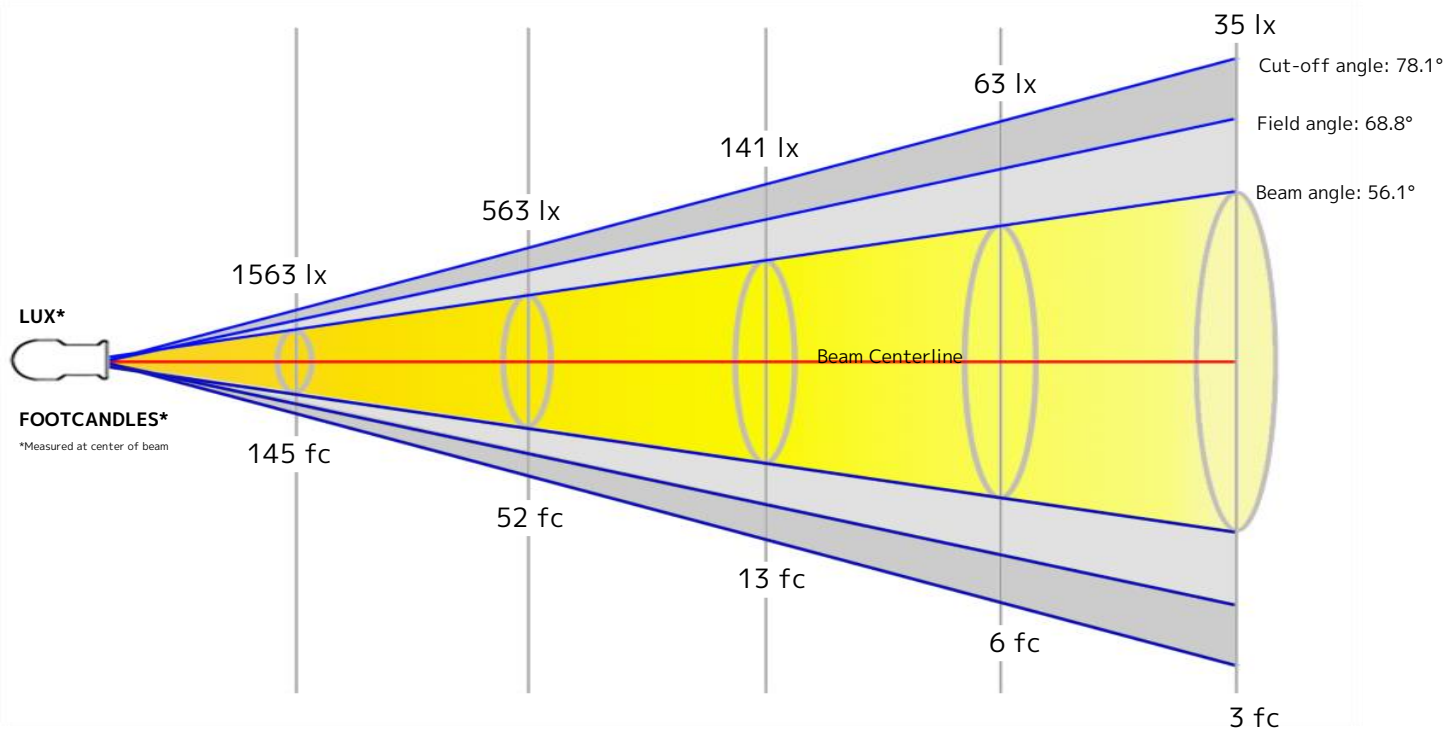
Power: 324 W

Supply Voltage: 117 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	3.2 m	5.3 m	10.7	16 m	21.3 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	10.5 ft	17.5 ft	35 ft	52.5 ft	70 ft

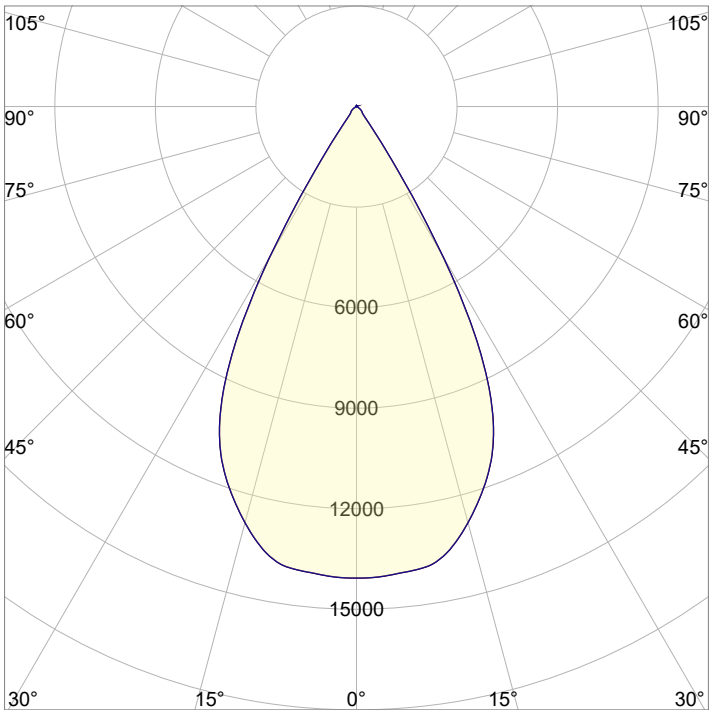
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	14065	3516	1563	879	563	391	287	220	174	141	116	98	83	72	63	55	49	43	39	35
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	1306.6	326.7	145.2	81.7	52.3	36.3	26.7	20.4	16.1	13.1	10.8	9.1	7.7	6.7	5.8	5.1	4.5	4	3.6	3.3

Measurement Date: 5/7/2024

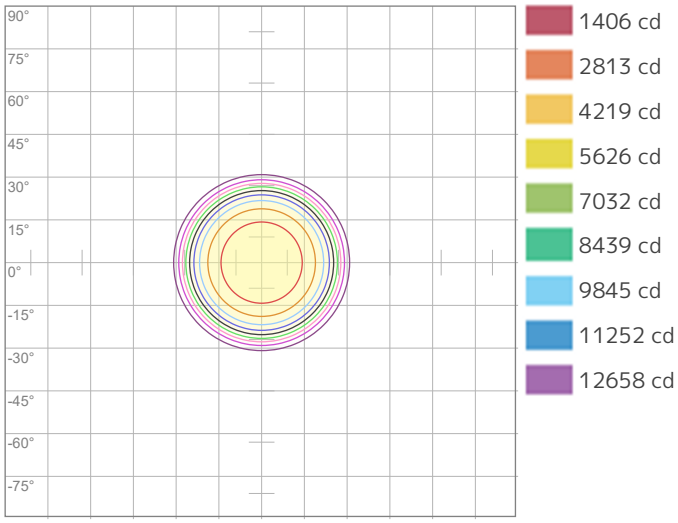
KL Par FC IP (4500K, WFL, High Fidelity)

Angular Distribution



Beam Angle - 50%
56.1°
Field Angle - 10%
68.8°
Cutoff Angle - 2.5%
78.1°

ISO Diagrams

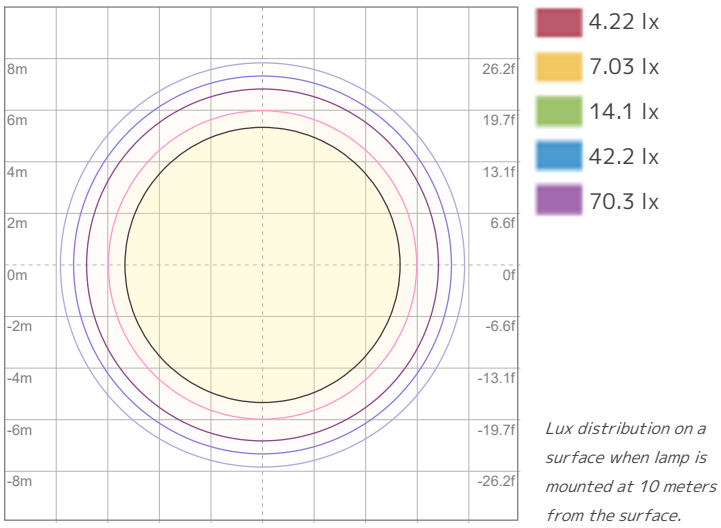


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 14065 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

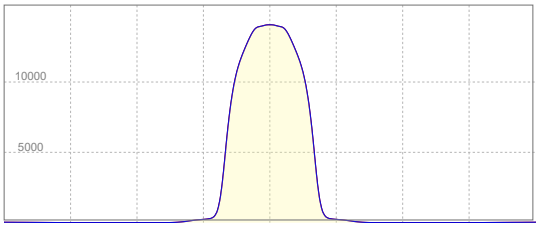
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 141 lx

Linear Distribution



Peak Candela

14065 cd

Calculate Center Beam Intensities

lux = 14065 / distance(m)^2

fc = 14065 / distance(ft)^2

Measurement Date: 5/7/2024

Key Measurements

Output

Total Lumen Output: 10475 lm

Peak Intensity: 14260 cd

Beam

Beam Angle (50%): 56.1°

Field Angle (10%): 68.8°

Cutoff Angle (2.5%): 78.2°

Color

Color Temperature: 6502 K

CRI: 90.5

TLCI: 93

TM30 R_F: 88.2

TM30 R_g: 100.7

Power Details

Efficacy: 33 Lumen/Watt

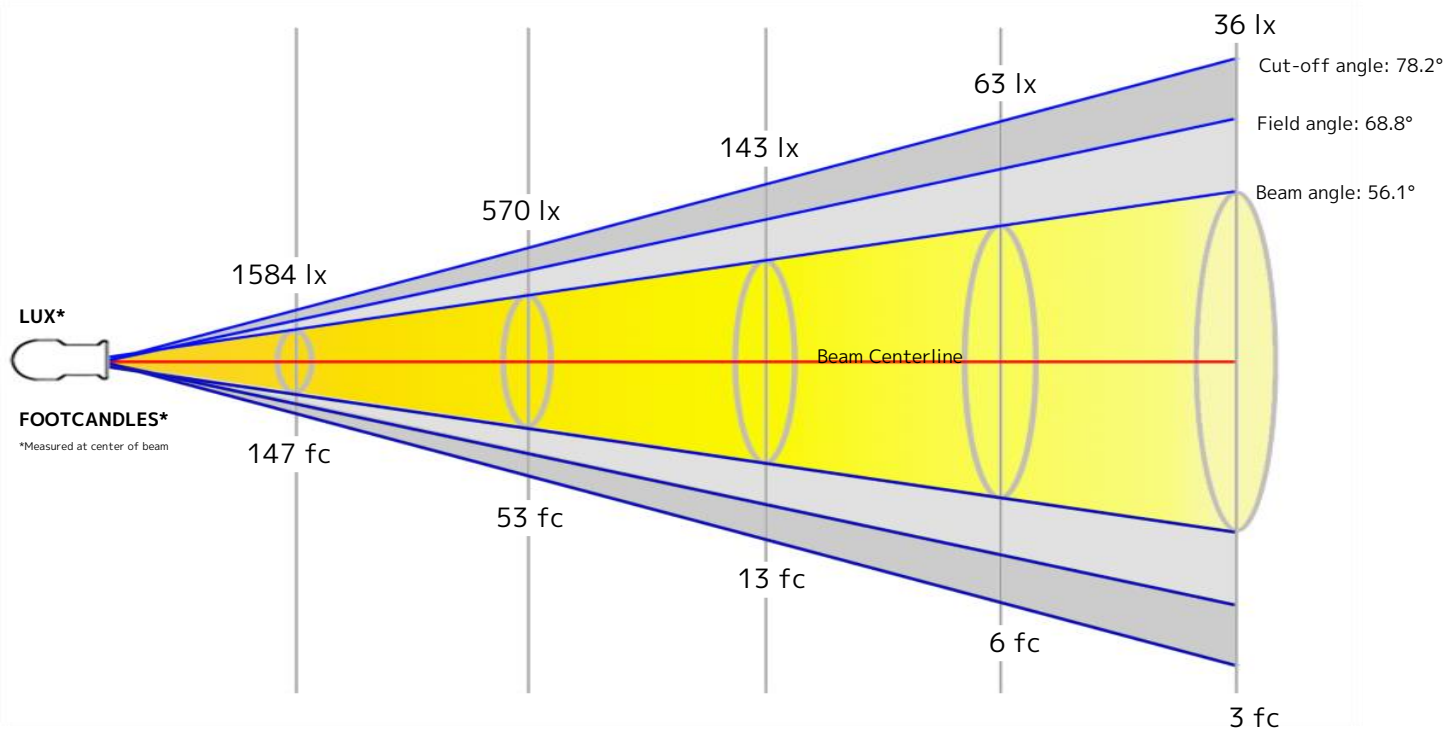
Power: 316 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	3.2 m	5.3 m	10.7	16 m	21.3 m



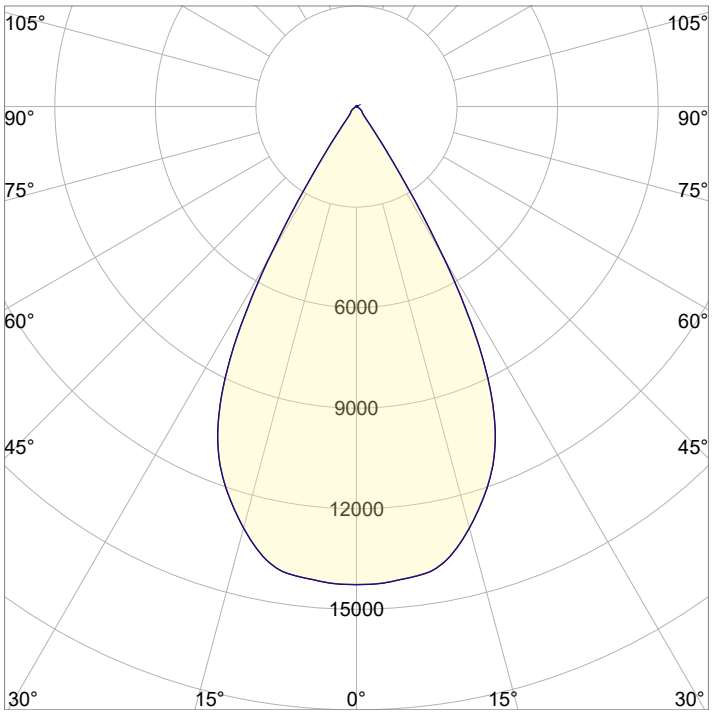
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	10.4 ft	17.5 ft	35 ft	52.4 ft	69.9 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	14260	3565	1584	891	570	396	291	223	176	143	118	99	84	73	63	56	49	44	40	36
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	1324.8	331.2	147.2	82.8	53	36.8	27	20.7	16.4	13.2	10.9	9.2	7.8	6.8	5.9	5.2	4.6	4.1	3.7	3.3

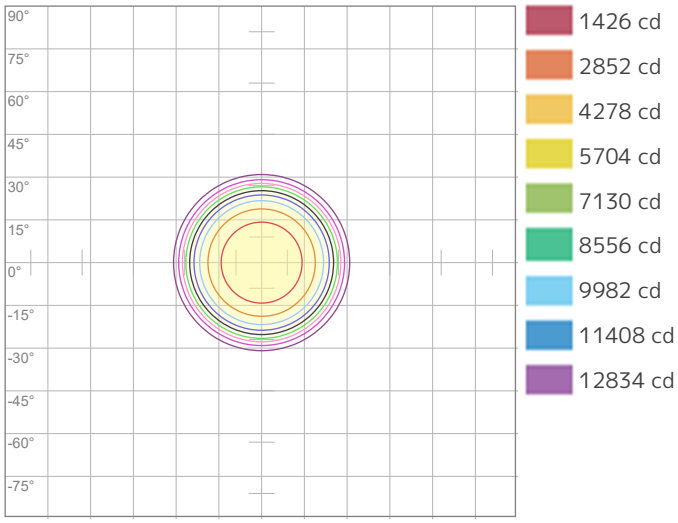
Measurement Date: 5/7/2024

Angular Distribution



Beam Angle - 50%
56.1°
Field Angle - 10%
68.8°
Cutoff Angle - 2.5%
78.2°

ISO Diagrams

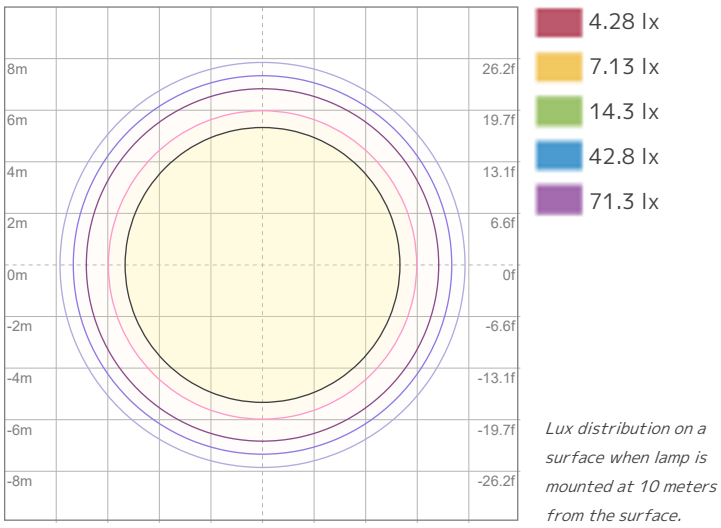


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 14260 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

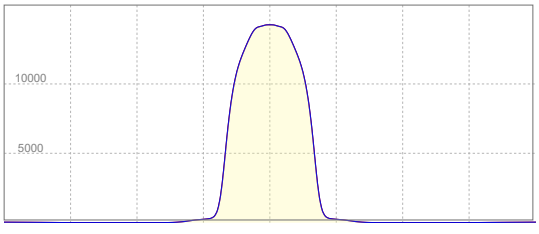
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 143 lx

Linear Distribution



Peak Candela

14260 cd

Calculate Center Beam Intensities

lux = 14260 / distance(m)^2

fc = 14260 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (6500K, WFL, High Fidelity)

Key Measurements

Output

Total Lumen Output: 10238 lm

Peak Intensity: 13993 cd

Beam

Beam Angle (50%): 56.1°

Field Angle (10%): 68.8°

Cutoff Angle (2.5%): 78.1°

Color

Color Temperature: 6540 K

CRI: 91.3

TLCI: 94

TM30 R_F: 89.3

TM30 R_g: 101.5

Power Details

Efficacy: 33 Lumen/Watt

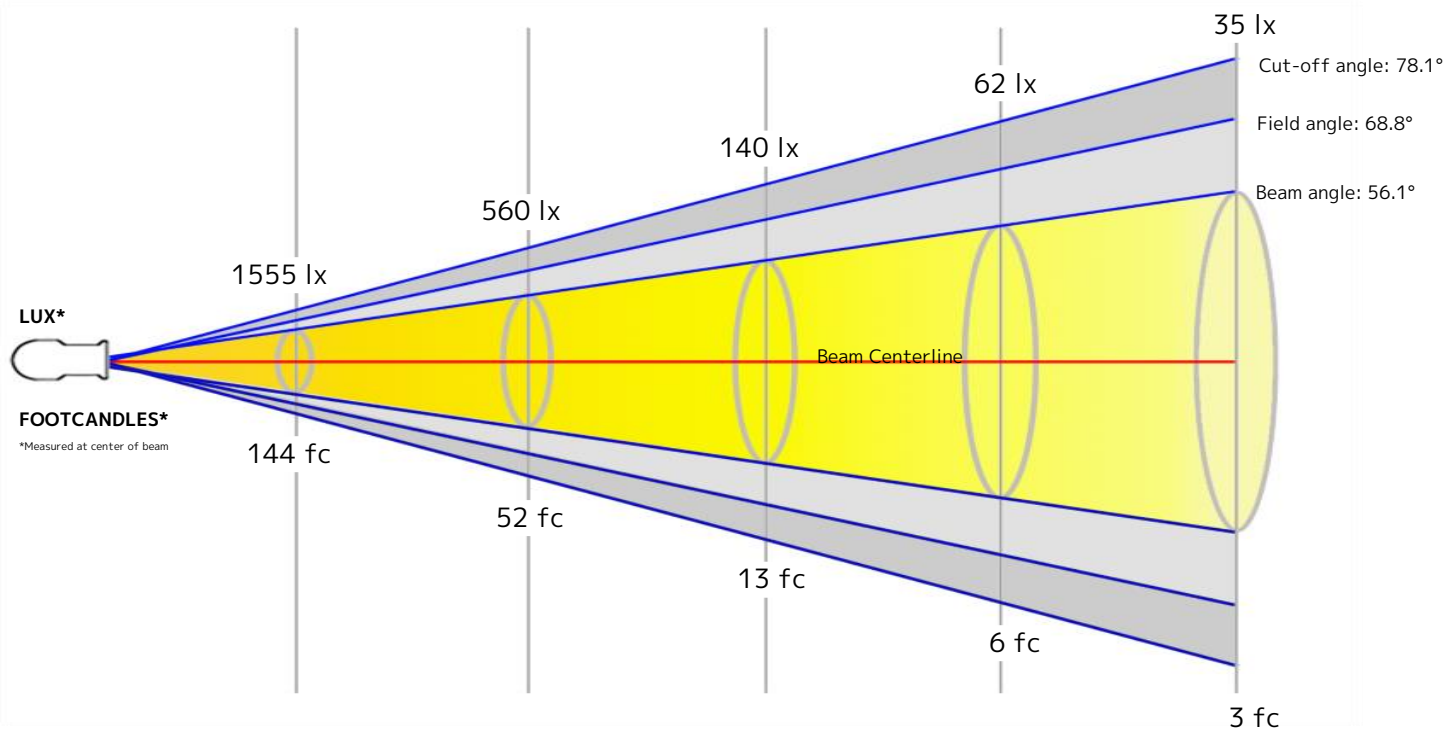
Power: 315 W

Supply Voltage: 117 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	3.2 m	5.3 m	10.7	16 m	21.3 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	10.4 ft	17.5 ft	35 ft	52.4 ft	69.9 ft

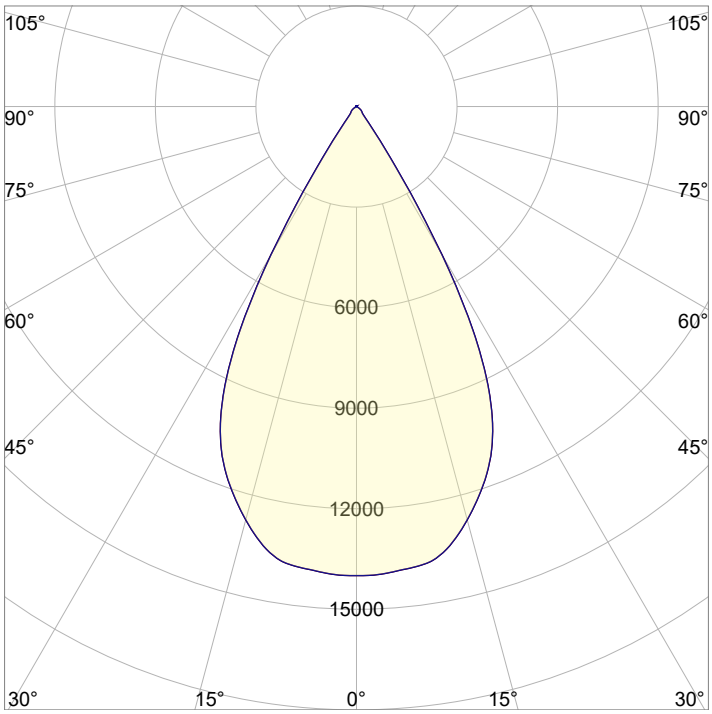
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	13993	3498	1555	875	560	389	286	219	173	140	116	97	83	71	62	55	48	43	39	35
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	1300	325	144.4	81.3	52	36.1	26.5	20.3	16	13	10.7	9	7.7	6.6	5.8	5.1	4.5	4	3.6	3.3

Measurement Date: 5/7/2024

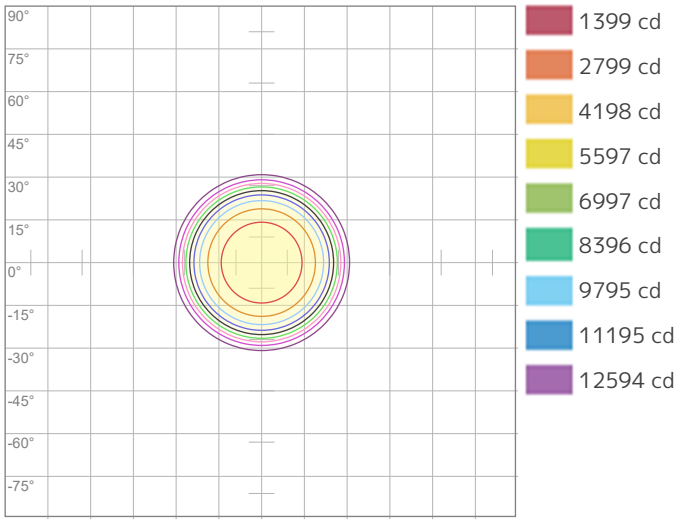
KL Par FC IP (6500K, WFL, High Fidelity)

Angular Distribution



Beam Angle - 50%
56.1°
Field Angle - 10%
68.8°
Cutoff Angle - 2.5%
78.1°

ISO Diagrams

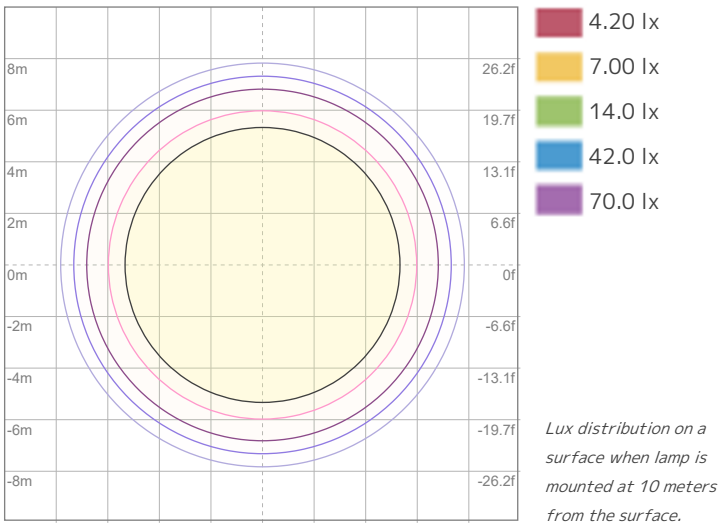


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 13993 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

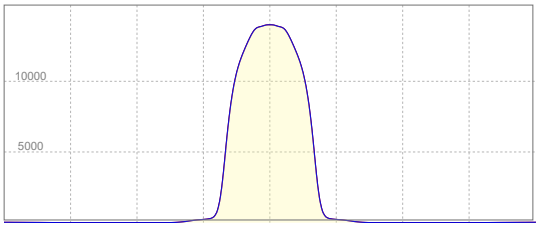
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 140 lx

Linear Distribution



Peak Candela

13993 cd

Calculate Center Beam Intensities

lux = 13993 / distance(m)^2

fc = 13993 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (8500K, WFL)

Key Measurements

Output

Total Lumen Output: 10851 lm

Peak Intensity: 14664 cd

Beam

Beam Angle (50%): 56.3°

Field Angle (10%): 68.8°

Cutoff Angle (2.5%): 78.4°

Color

Color Temperature: 8436 K

CRI: 85.6

TLCI: 78

TM30 R_F: 82.7

TM30 R_g: 96.1

Power Details

Efficacy: 34 Lumen/Watt

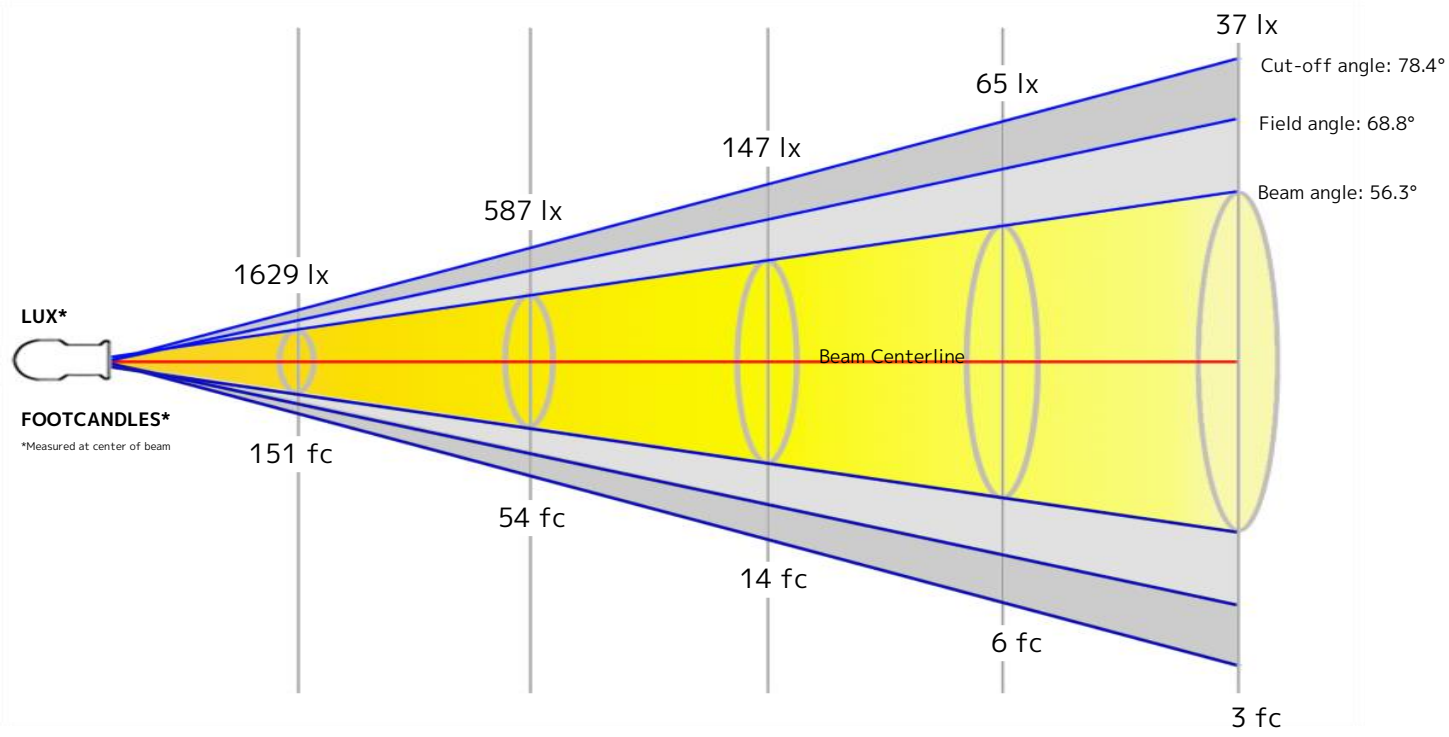
Power: 315 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	3.2 m	5.3 m	10.7	16 m	21.4 m



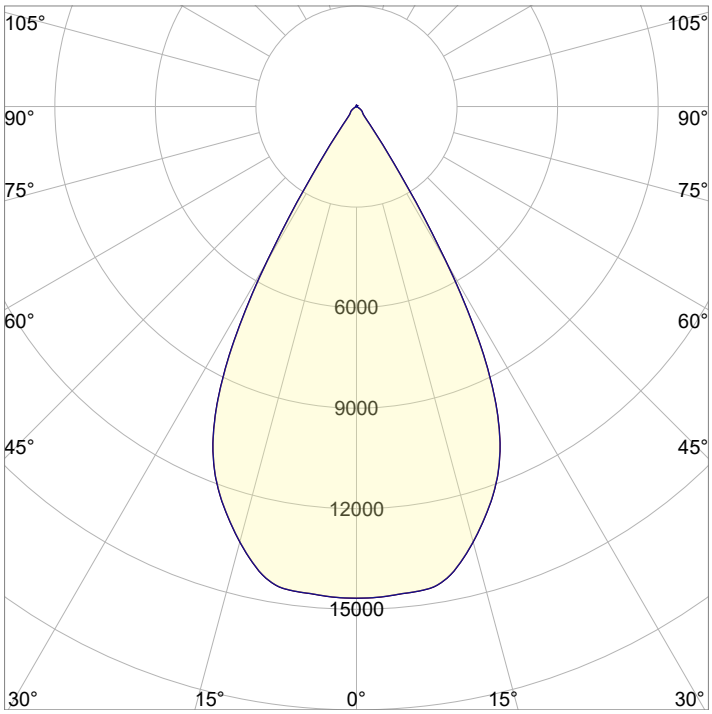
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	10.5 ft	17.5 ft	35.1 ft	52.6 ft	70.1 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	14664	3666	1629	917	587	407	299	229	181	147	121	102	87	75	65	57	51	45	41	37
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	1362.3	340.6	151.4	85.1	54.5	37.8	27.8	21.3	16.8	13.6	11.3	9.5	8.1	7	6.1	5.3	4.7	4.2	3.8	3.4

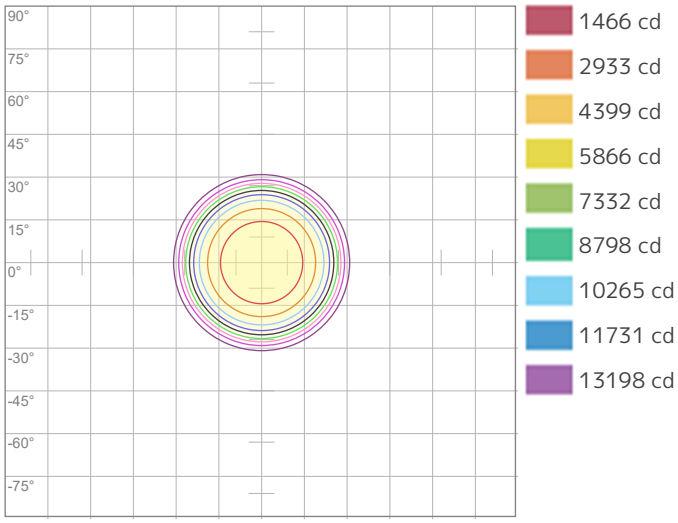
Measurement Date: 5/7/2024

Angular Distribution



Beam Angle - 50%
56.3°
Field Angle - 10%
68.8°
Cutoff Angle - 2.5%
78.4°

ISO Diagrams

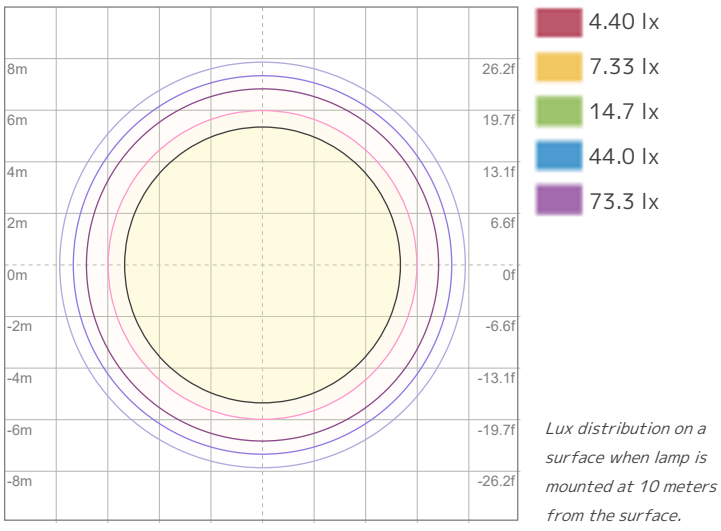


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 14664 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

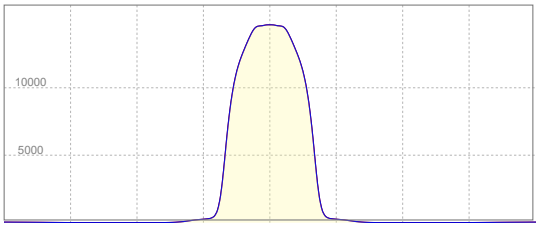
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 147 lx

Linear Distribution



Peak Candela

14664 cd

Calculate Center Beam Intensities

lux = 14664 / distance(m)^2

fc = 14664 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (8500K, WFL, High Fidelity)

Key Measurements

Output

Total Lumen Output: 10604 lm

Peak Intensity: 14360 cd

Beam

Beam Angle (50%): 56.4°

Field Angle (10%): 68.4°

Cutoff Angle (2.5%): 78.6°

Color

Color Temperature: 8535 K

CRI: 89.2

TLCI: 90

TM30 R_F: 86.0

TM30 R_g: 99.0

Power Details

Efficacy: 34 Lumen/Watt

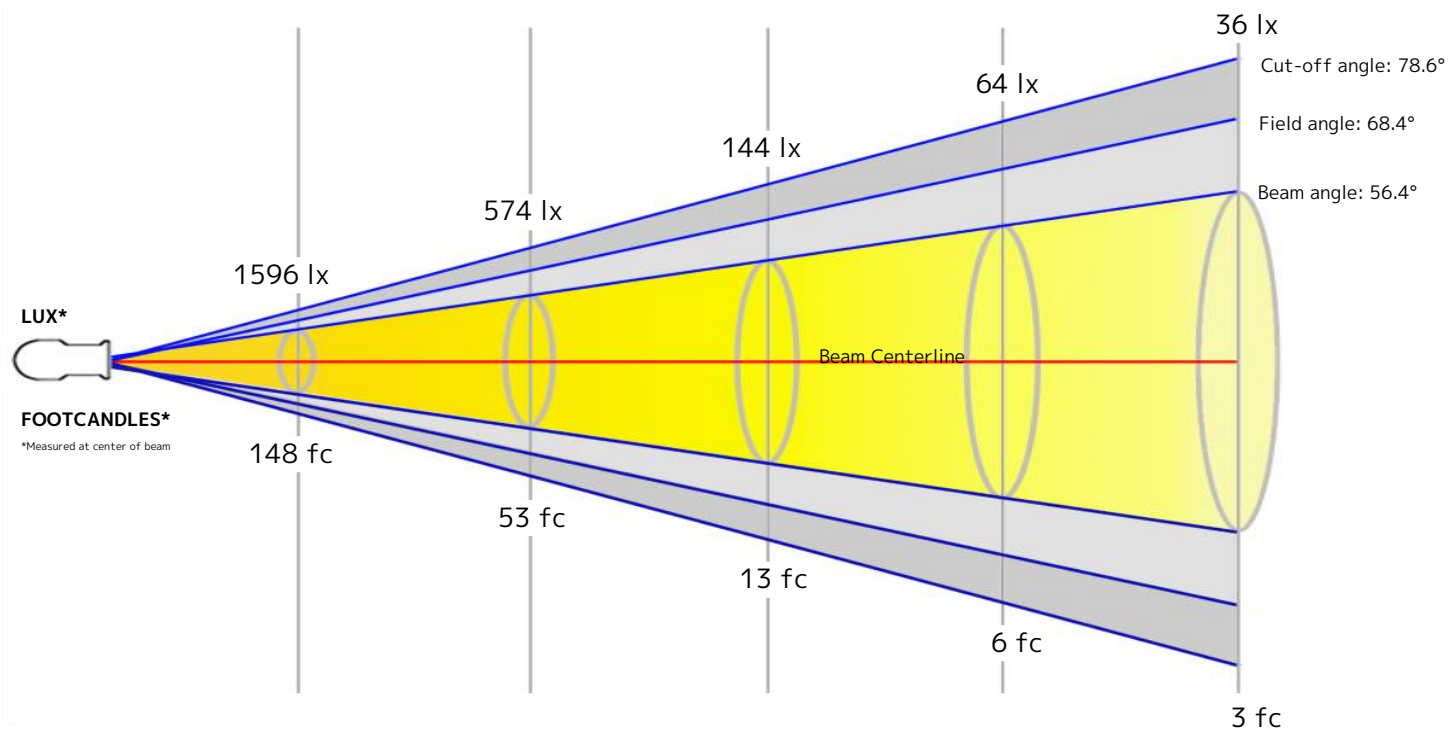
Power: 309 W

Supply Voltage: 117 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	3.2 m	5.4 m	10.7	16.1 m	21.4 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	10.5 ft	17.6 ft	35.1 ft	52.7 ft	70.3 ft

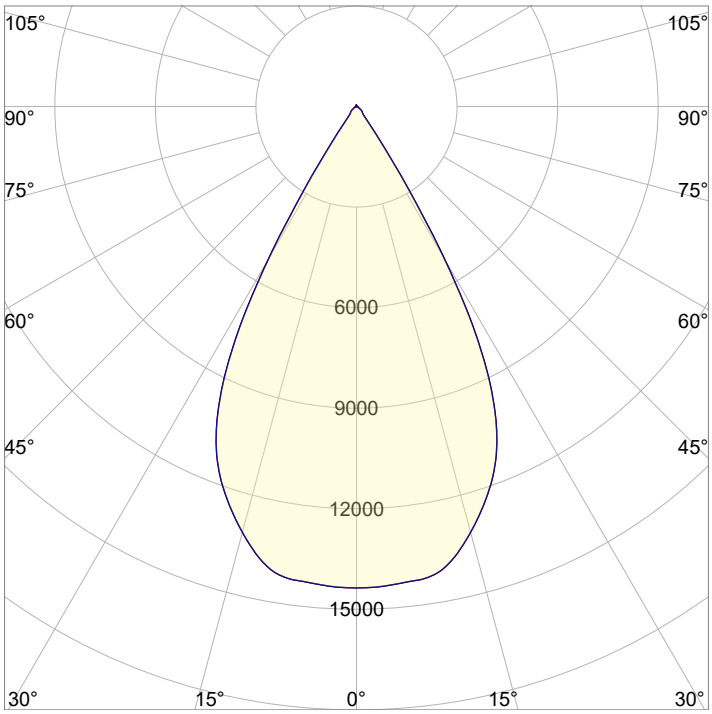
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	14360	3590	1596	897	574	399	293	224	177	144	119	100	85	73	64	56	50	44	40	36
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	1334	333.5	148.2	83.4	53.4	37.1	27.2	20.8	16.5	13.3	11	9.3	7.9	6.8	5.9	5.2	4.6	4.1	3.7	3.3

Measurement Date: 5/7/2024

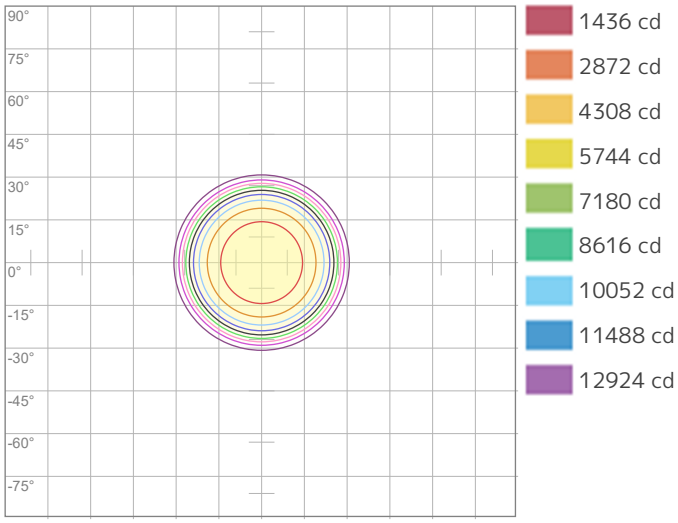
KL Par FC IP (8500K, WFL, High Fidelity)

Angular Distribution



Beam Angle - 50%
56.4°
Field Angle - 10%
68.4°
Cutoff Angle - 2.5%
78.6°

ISO Diagrams

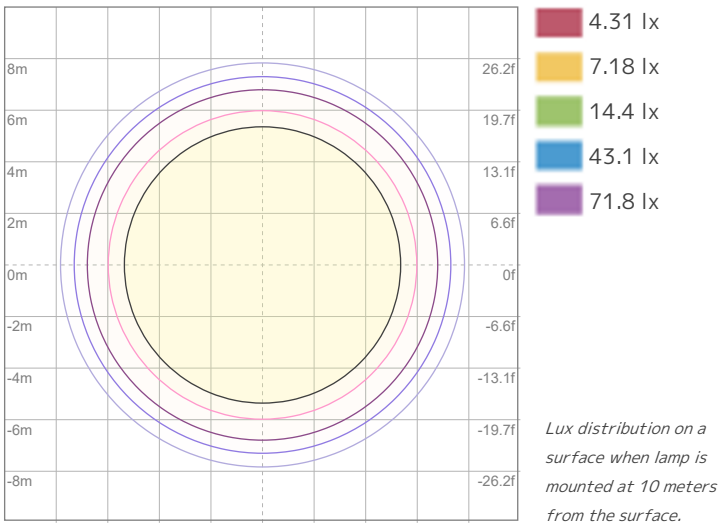


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 14360 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

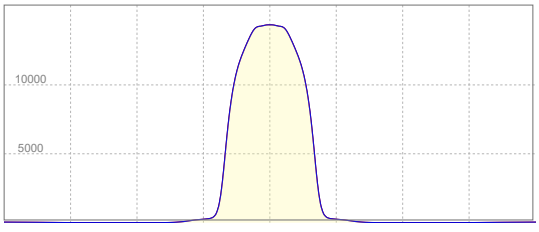
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 144 lx

Linear Distribution



Peak Candela

14360 cd

Calculate Center Beam Intensities

lux = 14360 / distance(m)^2

fc = 14360 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (Full Output, NSP)

Key Measurements

Output

Total Lumen Output: 10375 lm

Peak Intensity: 69066 cd

Beam

Beam Angle (50%): 22.5°

Field Angle (10%): 32°

Cutoff Angle (2.5%): 38.5°

Color

Color Temperature: 6781 K

CRI: 90.2

TLCI: 93

TM30 R_F: 87.8

TM30 R_g: 100.8

Power Details

Efficacy: 32 Lumen/Watt

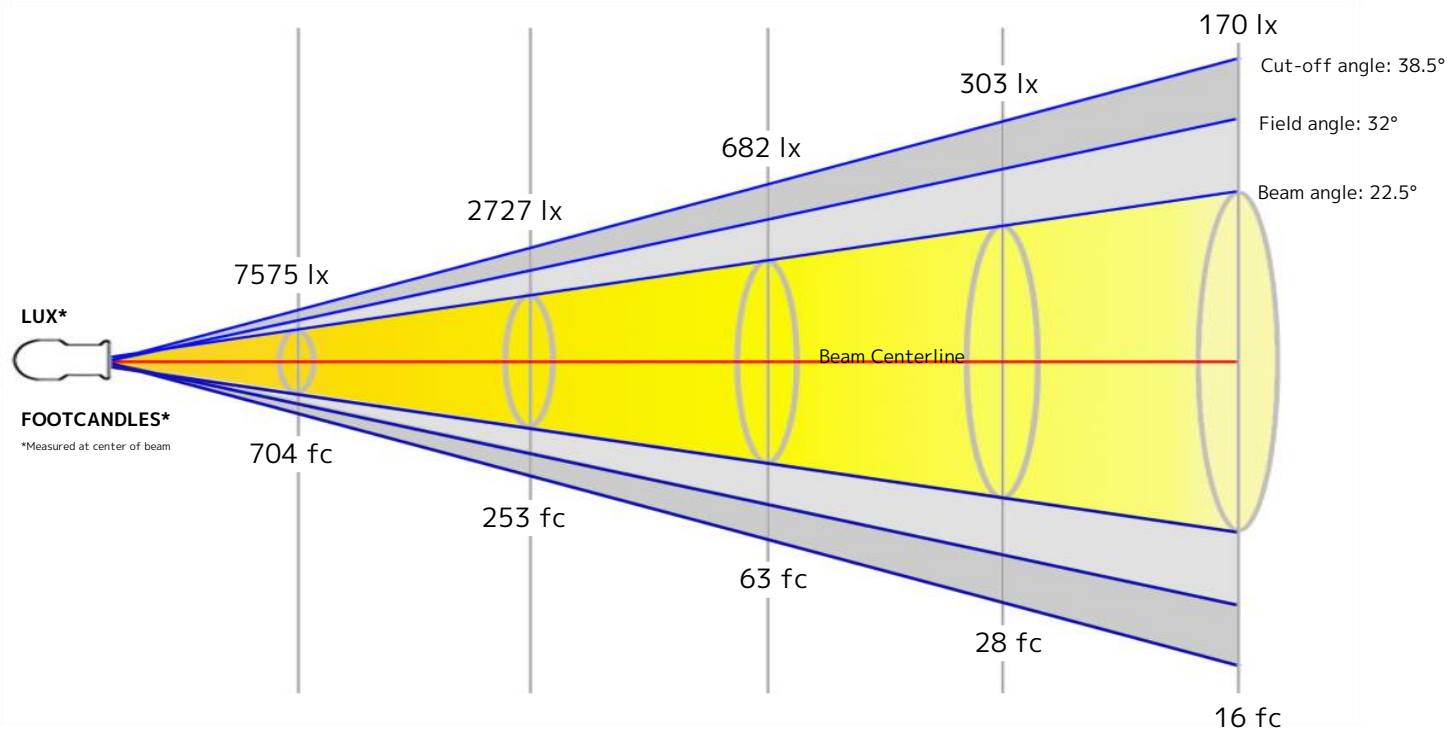
Power: 320 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2 m	4 m	6 m	7.9 m



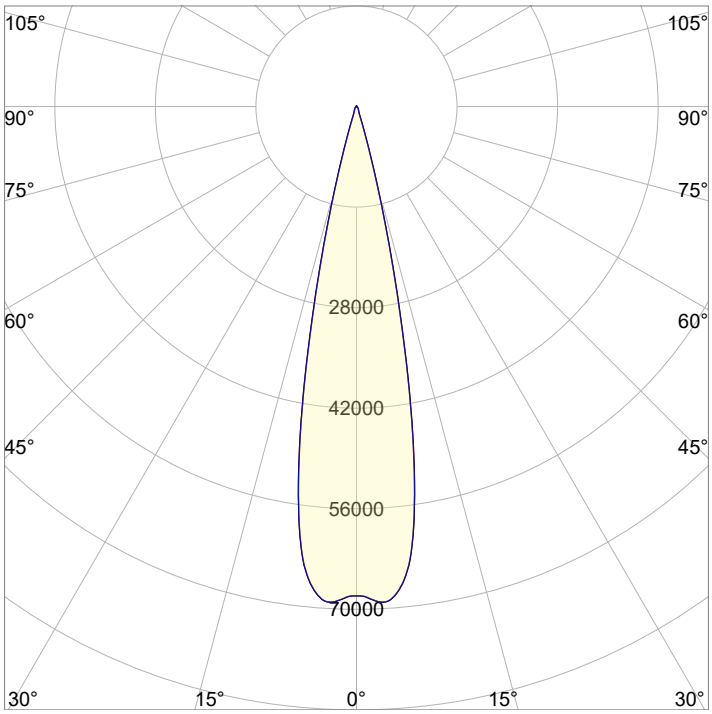
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	3.9 ft	6.5 ft	13 ft	19.6 ft	26.1 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	68177	17044	7575	4261	2727	1894	1391	1065	842	682	563	473	403	348	303	266	236	210	189	170
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	6333.9	1583.5	703.8	395.9	253.4	175.9	129.3	99	78.2	63.3	52.3	44	37.5	32.3	28.2	24.7	21.9	19.5	17.5	15.8

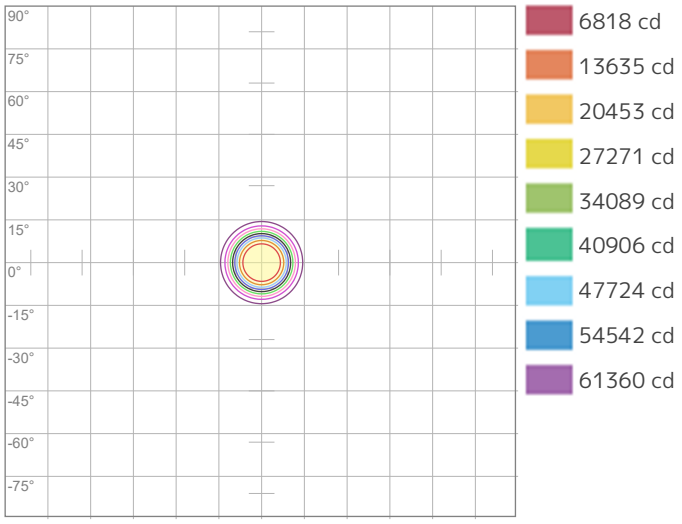
Measurement Date: 5/8/2024

Angular Distribution



Beam Angle - 50%
22.5°
Field Angle - 10%
32°
Cutoff Angle - 2.5%
38.5°

ISO Diagrams

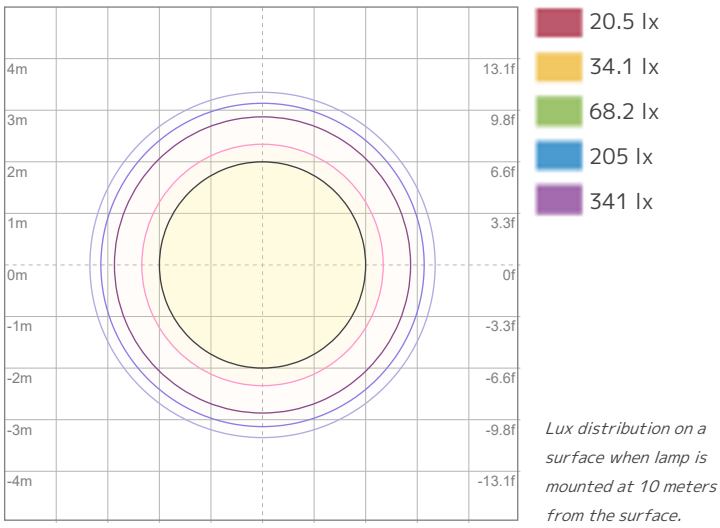


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 68177 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

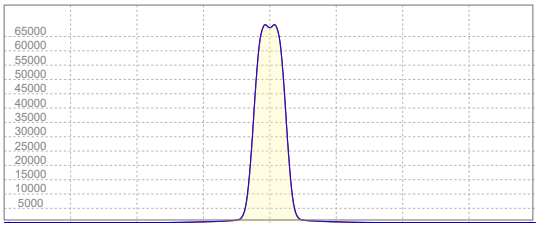
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 682 lx

Linear Distribution



Peak Candela

69066 cd

Calculate Center Beam Intensities

lux = 69066 / distance(m)^2

fc = 69066 / distance(ft)^2

Measurement Date: 5/8/2024

KL Par FC IP (3200K, NSP)

Key Measurements

Output

Total Lumen Output: 9401 lm

Peak Intensity: 65179 cd

Beam

Beam Angle (50%): 22.4°

Field Angle (10%): 31.8°

Cutoff Angle (2.5%): 38.1°

Color

Color Temperature: 3248 K

CRI: 92.2

TLCI: 95

TM30 R_F: 93.1

TM30 R_g: 104.1

Power Details

Efficacy: 31 Lumen/Watt

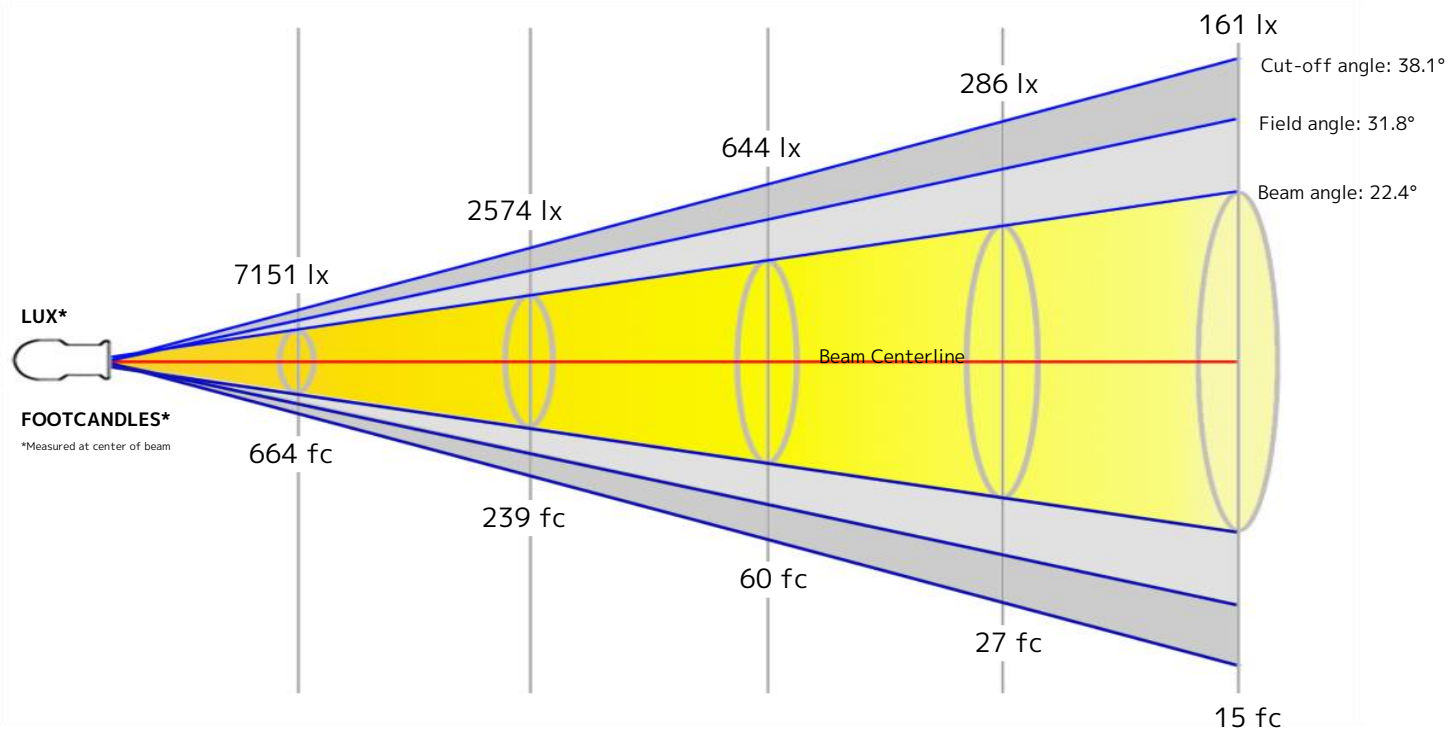
Power: 299 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2 m	4 m	5.9 m	7.9 m



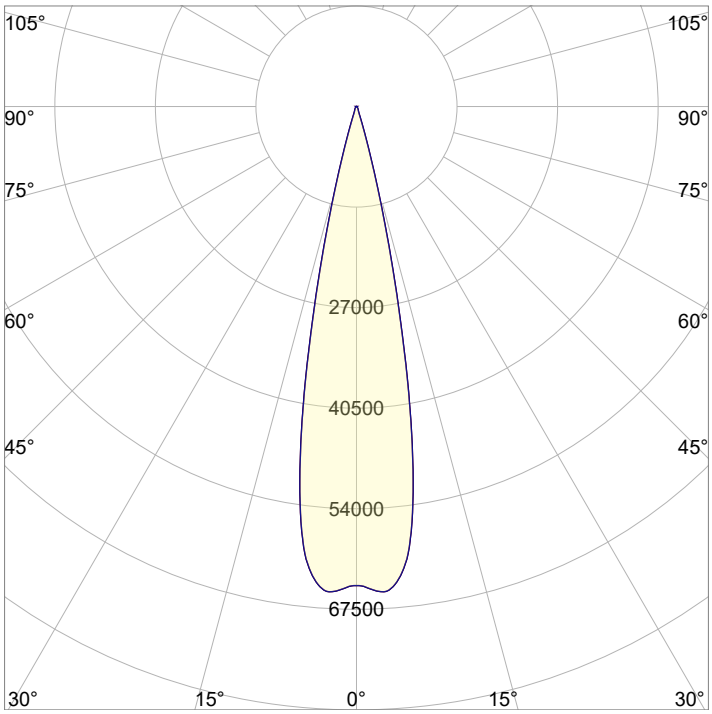
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	3.9 ft	6.5 ft	13 ft	19.4 ft	25.9 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	64362	16090	7151	4023	2574	1788	1314	1006	795	644	532	447	381	328	286	251	223	199	178	161
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	5979.4	1494.9	664.4	373.7	239.2	166.1	122	93.4	73.8	59.8	49.4	41.5	35.4	30.5	26.6	23.4	20.7	18.5	16.6	14.9

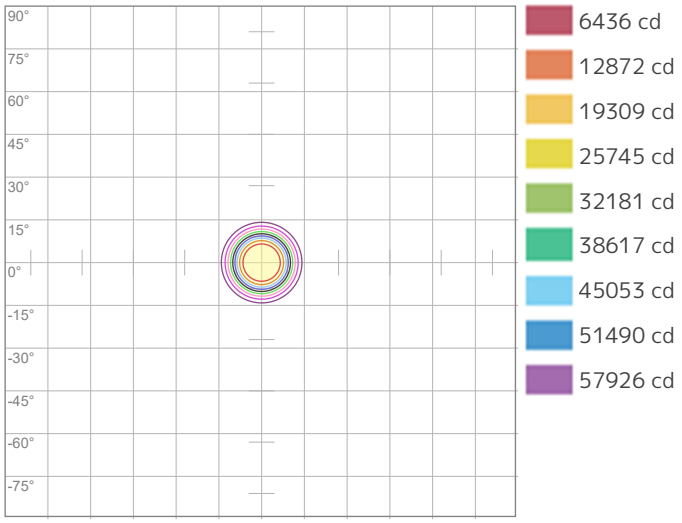
Measurement Date: 5/7/2024

Angular Distribution



Beam Angle - 50%
22.4°
Field Angle - 10%
31.8°
Cutoff Angle - 2.5%
38.1°

ISO Diagrams

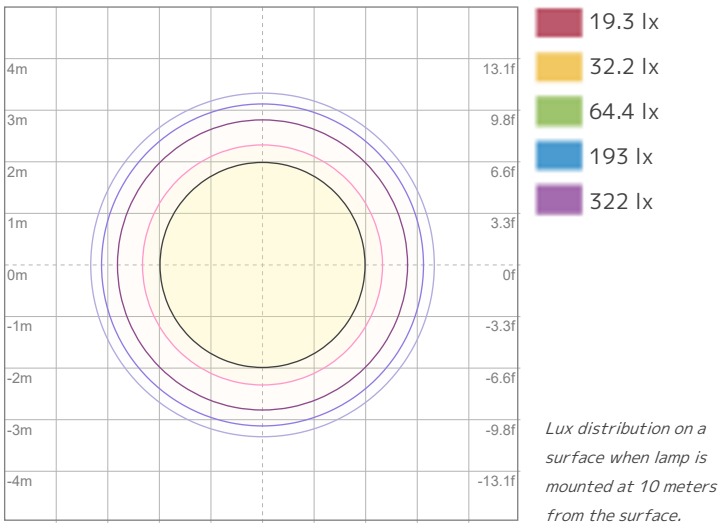


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 64362 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

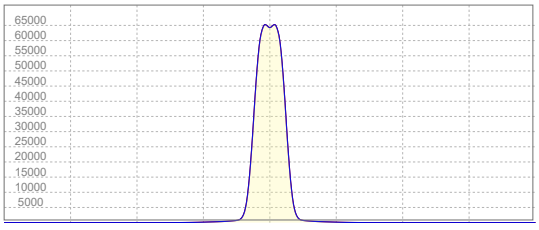
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 644 lx

Linear Distribution



Peak Candela

65179 cd

Calculate Center Beam Intensities

lux = 65179 / distance(m)^2

fc = 65179 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (3200K, NSP, High Fidelity)

Key Measurements

Output

Total Lumen Output: 8011 lm

Peak Intensity: 55256 cd

Beam

Beam Angle (50%): 22.3°

Field Angle (10%): 31.8°

Cutoff Angle (2.5%): 38.2°

Color

Color Temperature: 3184 K

CRI: 93.9

TLCI: 92

TM30 R_F: 93.1

TM30 R_g: 103.4

Power Details

Efficacy: 32 Lumen/Watt

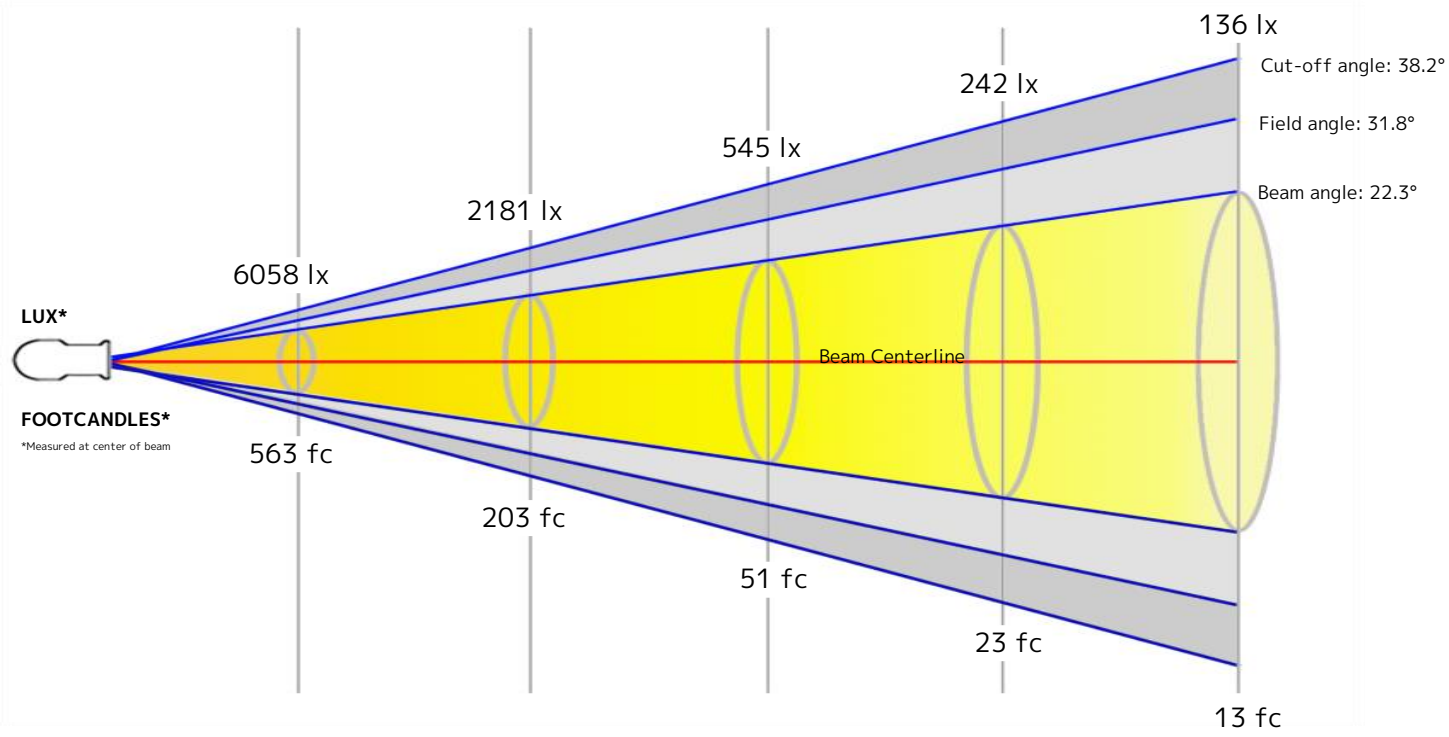
Power: 253 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2 m	3.9 m	5.9 m	7.9 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	3.9 ft	6.5 ft	12.9 ft	19.4 ft	25.9 ft

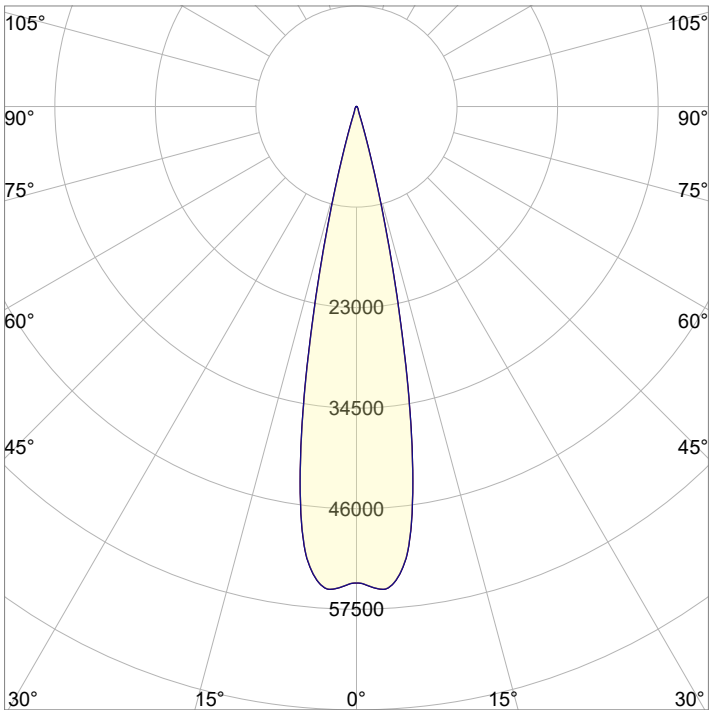
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	54525	13631	6058	3408	2181	1515	1113	852	673	545	451	379	323	278	242	213	189	168	151	136
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	5065.6	1266.4	562.8	316.6	202.6	140.7	103.4	79.1	62.5	50.7	41.9	35.2	30	25.8	22.5	19.8	17.5	15.6	14	12.7

Measurement Date: 5/7/2024

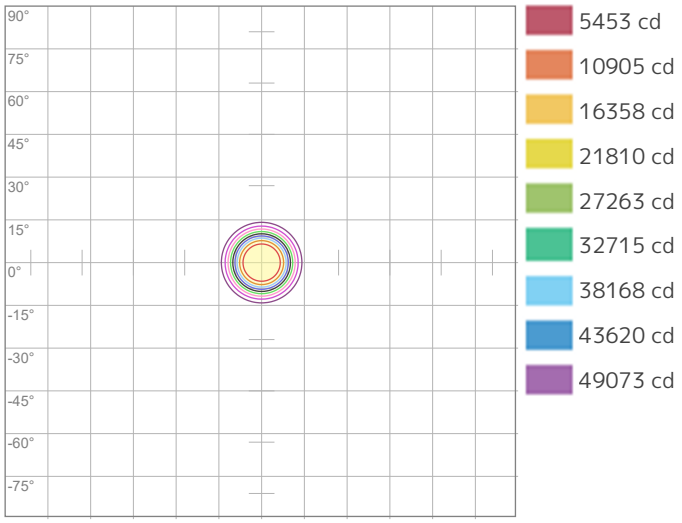
KL Par FC IP (3200K, NSP, High Fidelity)

Angular Distribution



Beam Angle - 50%
22.3°
Field Angle - 10%
31.8°
Cutoff Angle - 2.5%
38.2°

ISO Diagrams

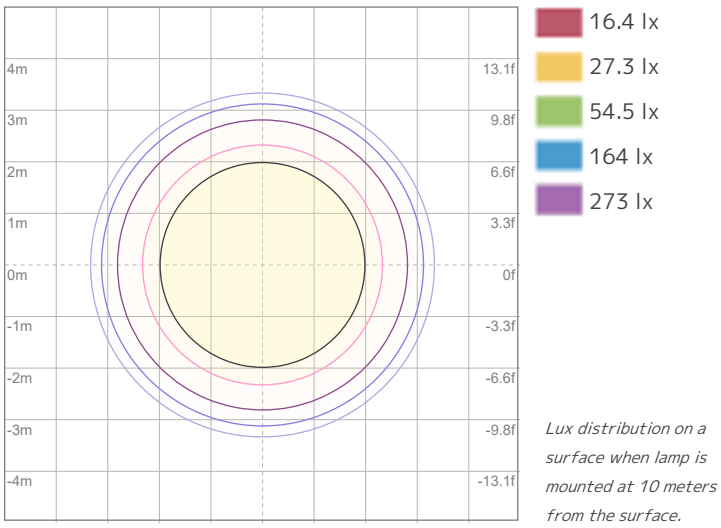


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 54525 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

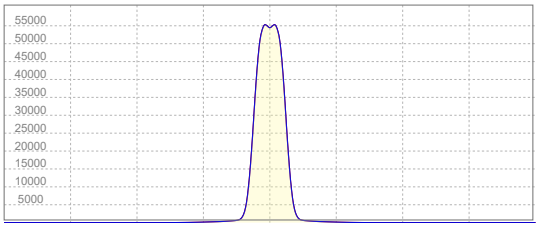
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 545 lx

Linear Distribution



Peak Candela

55256 cd

Calculate Center Beam Intensities

lux = 55256 / distance(m)^2

fc = 55256 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (4500K, NSP)

Prepared For ELATION PROFESSIONAL

Key Measurements

Output

Total Lumen Output: 10084 lm

Peak Intensity: 68856 cd

Beam

Beam Angle (50%): 22.4°

Field Angle (10%): 31.8°

Cutoff Angle (2.5%): 38.1°

Color

Color Temperature: 4509 K

CRI: 91.4

TLCI: 92

TM30 R_F: 89.5

TM30 R_g: 102.0

Power Details

Efficacy: 33 Lumen/Watt

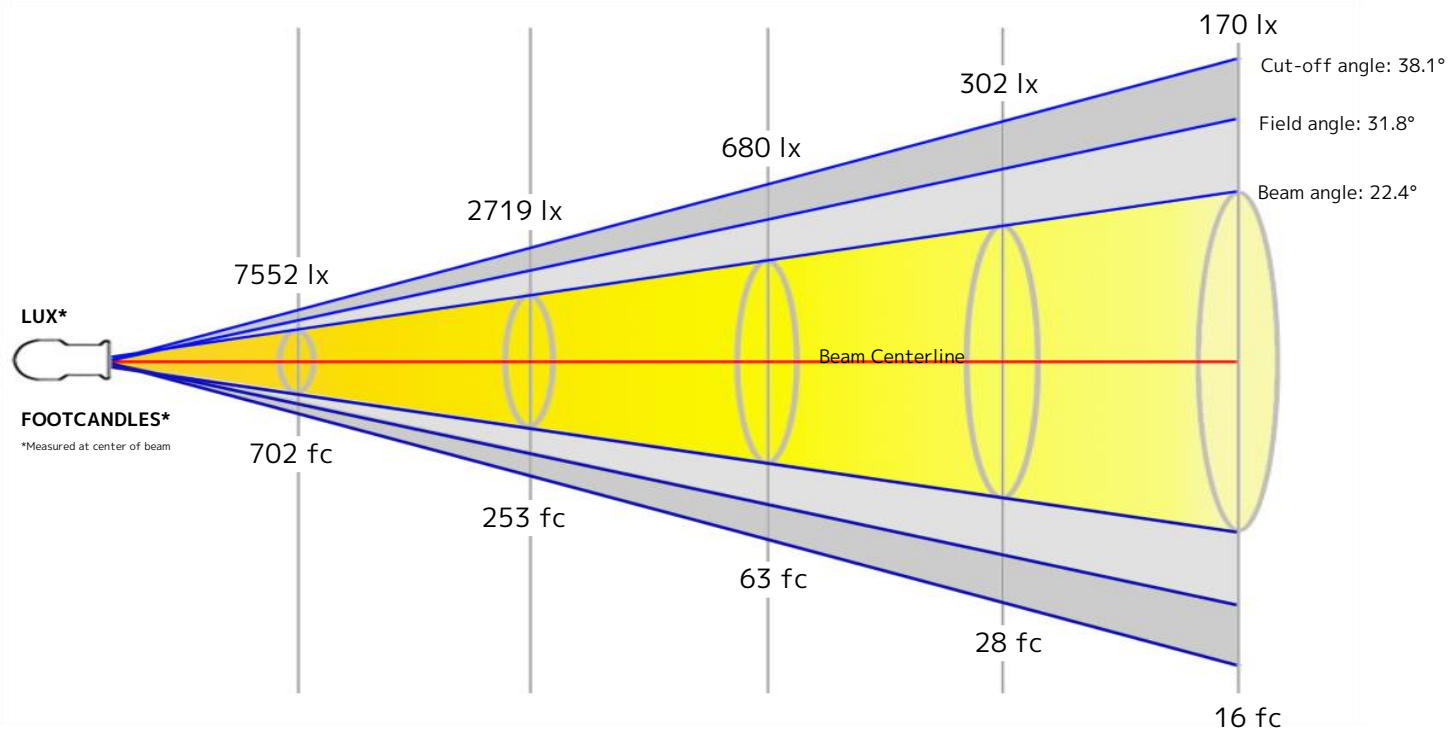
Power: 302 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2 m	4 m	5.9 m	7.9 m



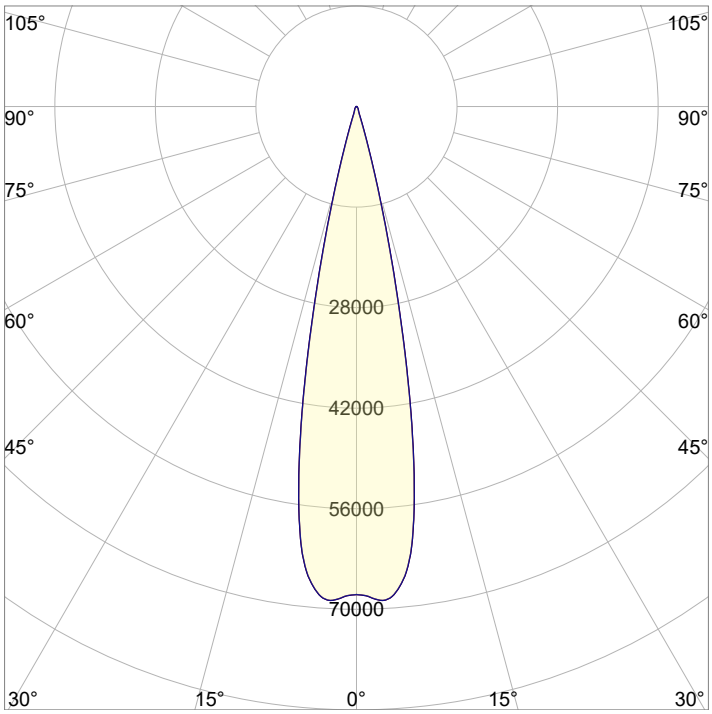
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	3.9 ft	6.5 ft	13 ft	19.5 ft	26 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	67967	16992	7552	4248	2719	1888	1387	1062	839	680	562	472	402	347	302	265	235	210	188	170
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	6314.3	1578.6	701.6	394.6	252.6	175.4	128.9	98.7	78	63.1	52.2	43.8	37.4	32.2	28.1	24.7	21.8	19.5	17.5	15.8

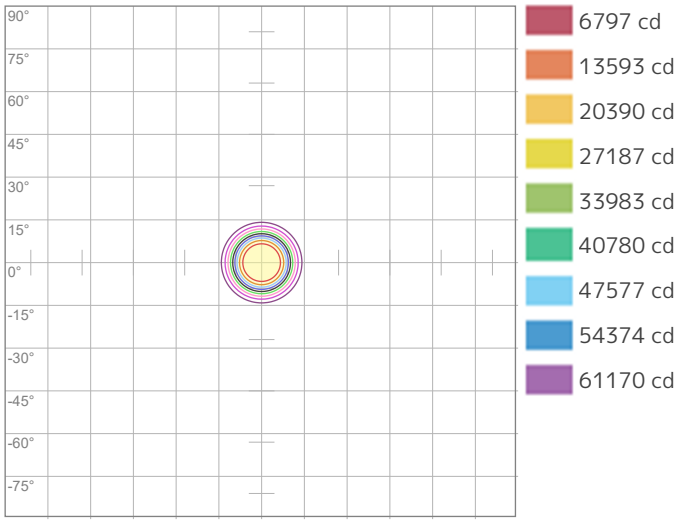
Measurement Date: 5/7/2024

Angular Distribution



Beam Angle - 50%
22.4°
Field Angle - 10%
31.8°
Cutoff Angle - 2.5%
38.1°

ISO Diagrams

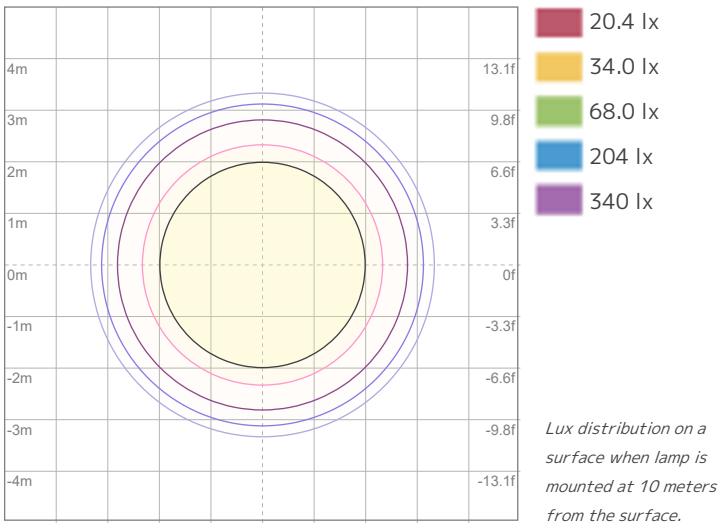


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 67967 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

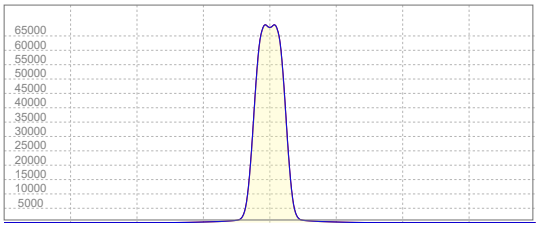
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 680 lx

Linear Distribution



Peak Candela

68856 cd

Calculate Center Beam Intensities

lux = 68856 / distance(m)^2

fc = 68856 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (4500K, NSP, High Fidelity)

Key Measurements

Output

Total Lumen Output: 9890 lm

Peak Intensity: 67672 cd

Beam

Beam Angle (50%): 22.4°

Field Angle (10%): 31.8°

Cutoff Angle (2.5%): 38.1°

Color

Color Temperature: 4458 K

CRI: 91.7

TLCI: 94

TM30 R_F: 91.2

TM30 R_g: 103.7

Power Details

Efficacy: 31 Lumen/Watt

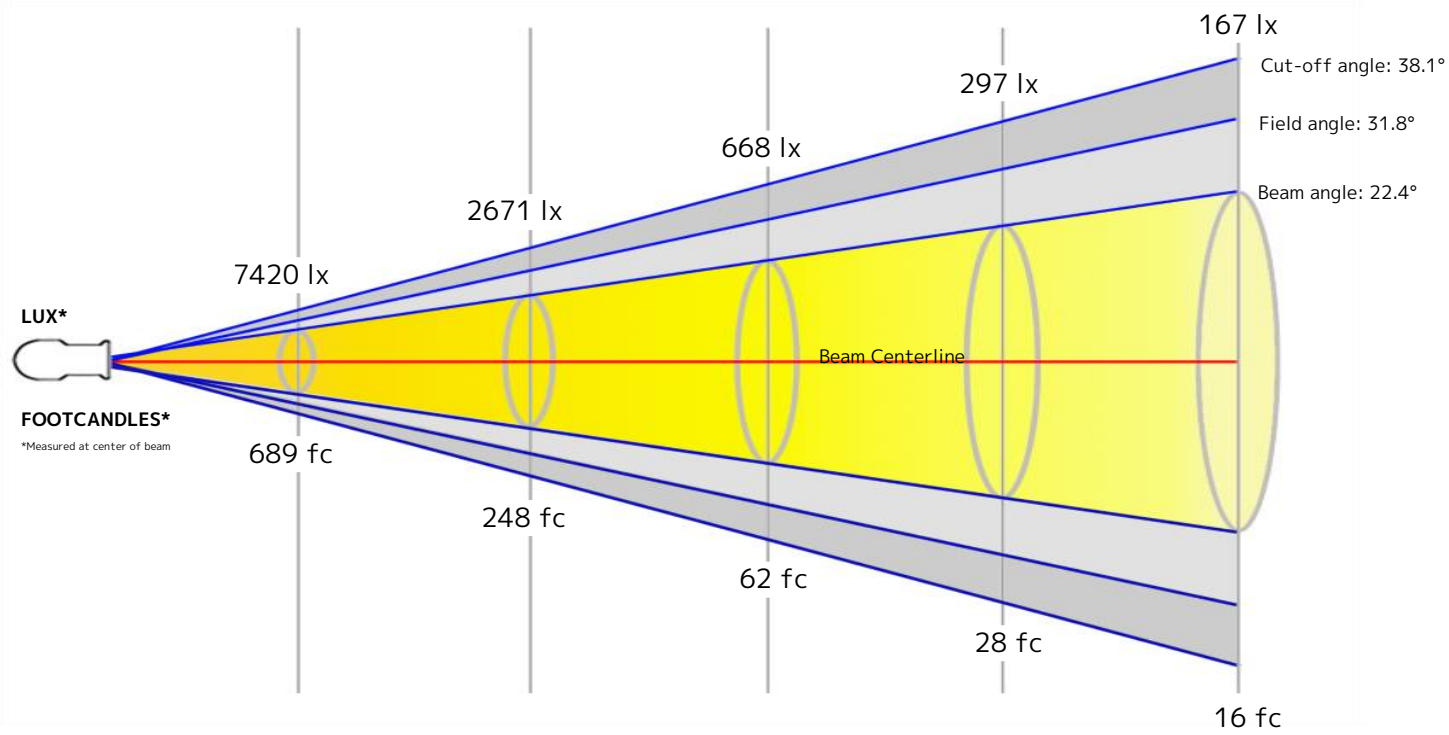
Power: 324 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2 m	4 m	5.9 m	7.9 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	3.9 ft	6.5 ft	13 ft	19.5 ft	26 ft

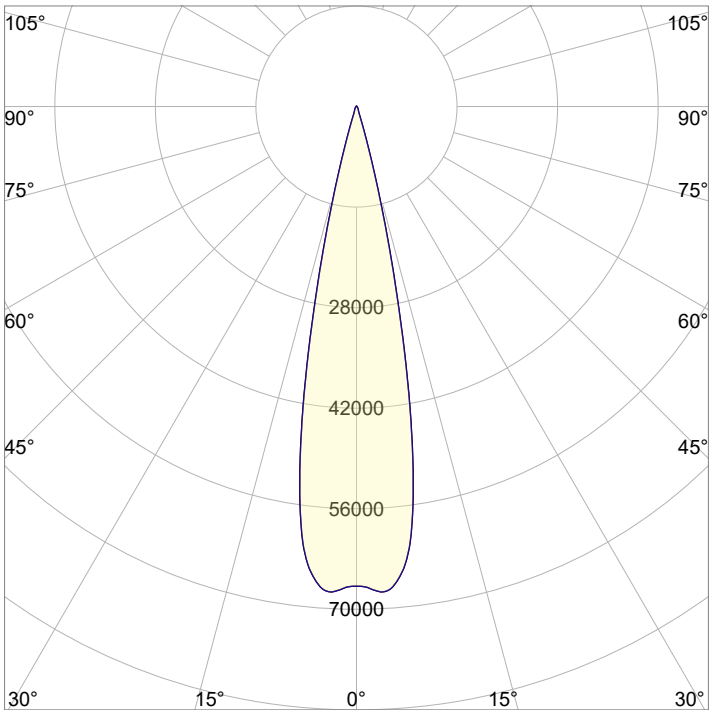
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	66784	16696	7420	4174	2671	1855	1363	1043	824	668	552	464	395	341	297	261	231	206	185	167
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	6204.4	1551.1	689.4	387.8	248.2	172.3	126.6	96.9	76.6	62	51.3	43.1	36.7	31.7	27.6	24.2	21.5	19.1	17.2	15.5

Measurement Date: 5/7/2024

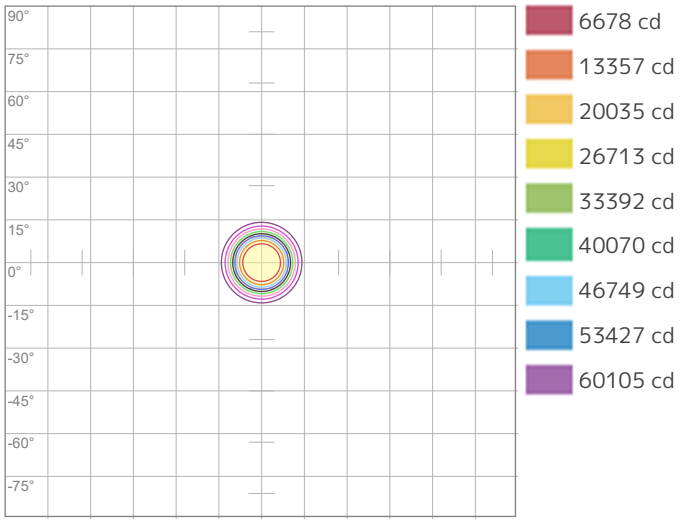
KL Par FC IP (4500K, NSP, High Fidelity)

Angular Distribution



Beam Angle - 50%
22.4°
Field Angle - 10%
31.8°
Cutoff Angle - 2.5%
38.1°

ISO Diagrams

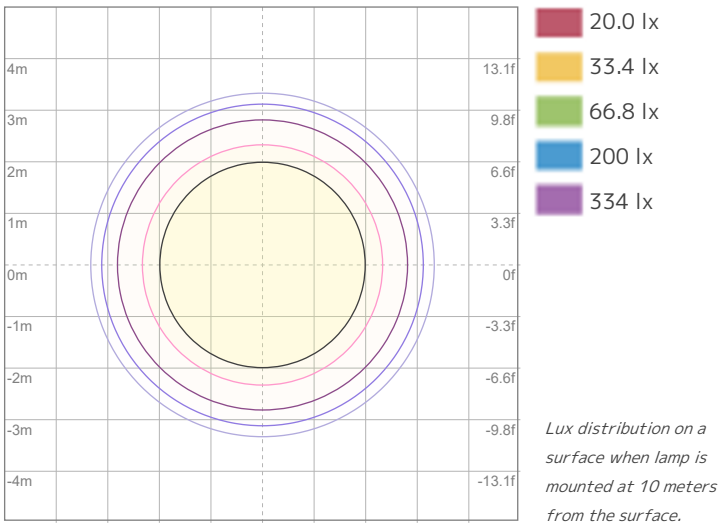


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 66784 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

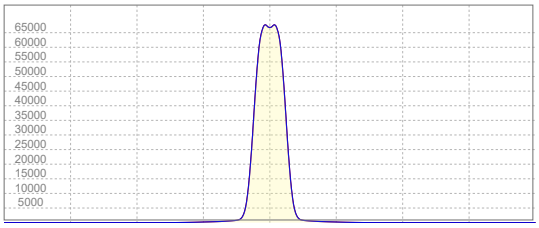
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 668 lx

Linear Distribution



Peak Candela

67672 cd

Calculate Center Beam Intensities

lux = 67672 / distance(m)^2

fc = 67672 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (6500K, NSP)

Prepared For ELATION PROFESSIONAL

Key Measurements

Output

Total Lumen Output: 9846 lm

Peak Intensity: 66095 cd

Beam

Beam Angle (50%): 22.4°

Field Angle (10%): 31.9°

Cutoff Angle (2.5%): 38.4°

Color

Color Temperature: 6520 K

CRI: 90.2

TLCI: 93

TM30 R_F: 88.1

TM30 R_g: 100.5

Power Details

Efficacy: 31 Lumen/Watt

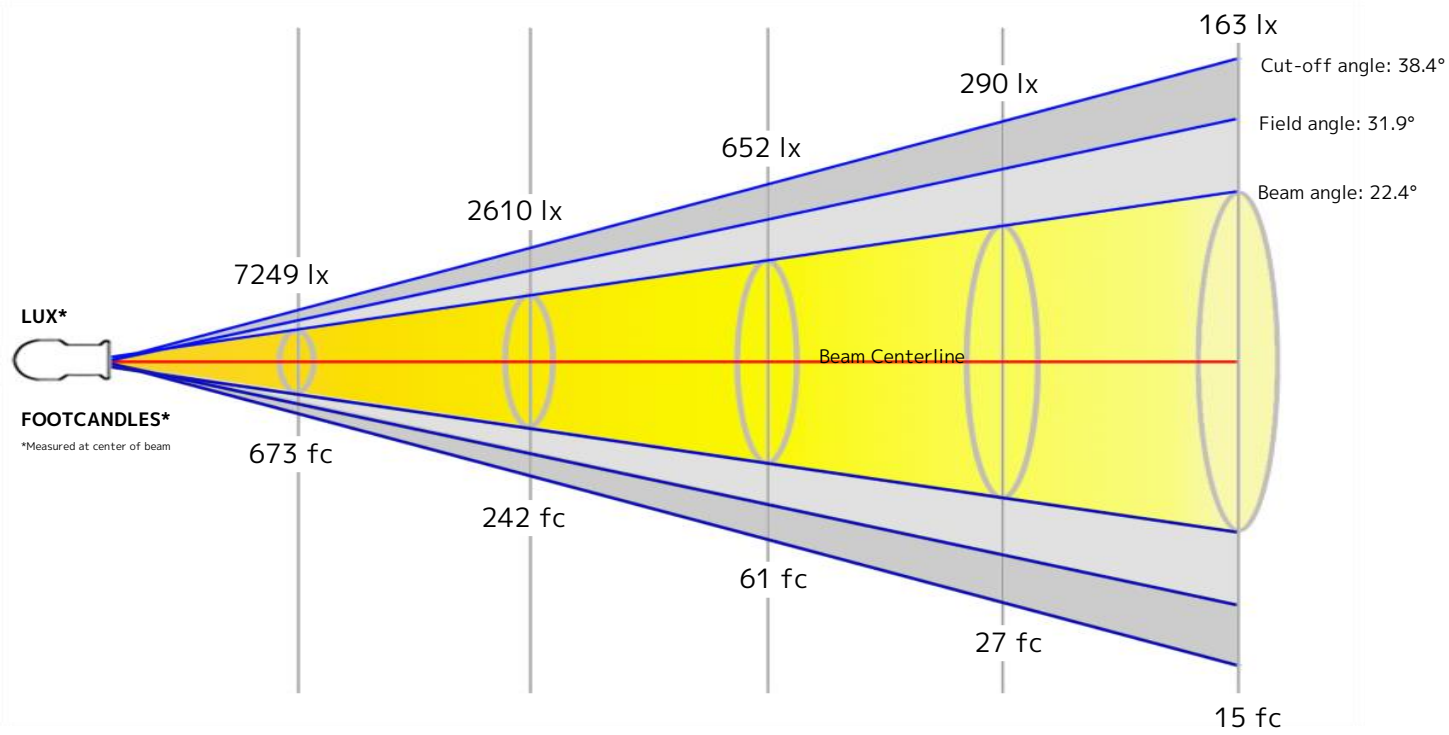
Power: 316 W

Supply Voltage: 117 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2 m	4 m	5.9 m	7.9 m



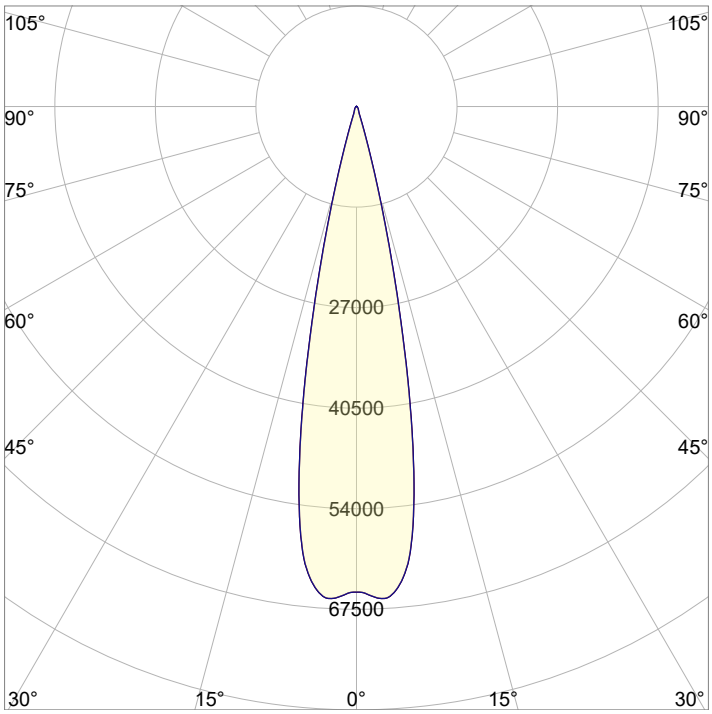
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	3.9 ft	6.5 ft	13 ft	19.5 ft	26 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	65238	16309	7249	4077	2610	1812	1331	1019	805	652	539	453	386	333	290	255	226	201	181	163
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	6060.8	1515.2	673.4	378.8	242.4	168.4	123.7	94.7	74.8	60.6	50.1	42.1	35.9	30.9	26.9	23.7	21	18.7	16.8	15.2

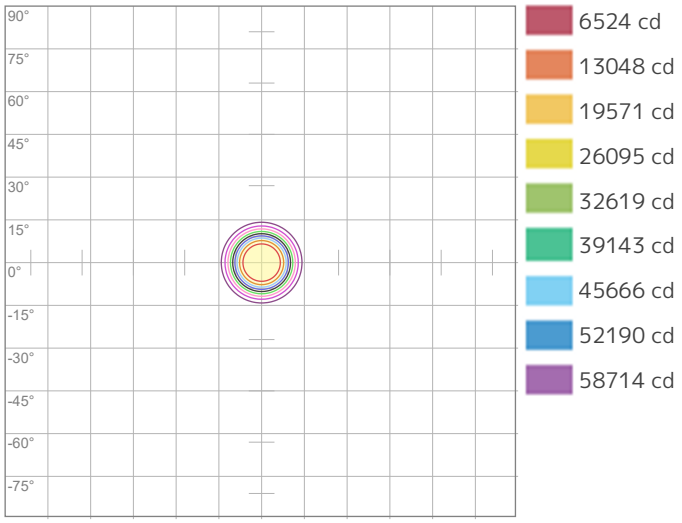
Measurement Date: 5/7/2024

Angular Distribution



Beam Angle - 50%
22.4°
Field Angle - 10%
31.9°
Cutoff Angle - 2.5%
38.4°

ISO Diagrams

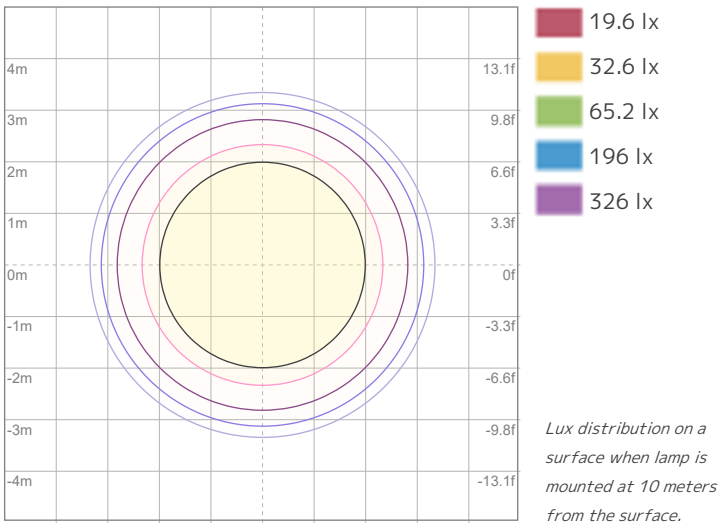


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 65238 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

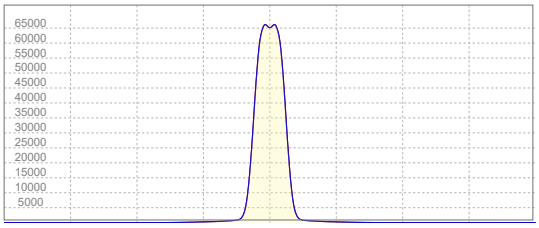
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 652 lx

Linear Distribution



Peak Candela

66095 cd

Calculate Center Beam Intensities

lux = 66095 / distance(m)^2

fc = 66095 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (6500K, NSP, High Fidelity)

Key Measurements

Output

Total Lumen Output: 9752 lm

Peak Intensity: 65557 cd

Beam

Beam Angle (50%): 22.4°

Field Angle (10%): 31.9°

Cutoff Angle (2.5%): 38.4°

Color

Color Temperature: 6533 K

CRI: 90.8

TLCI: 93

TM30 R_F: 88.6

TM30 R_g: 100.8

Power Details

Efficacy: 30 Lumen/Watt

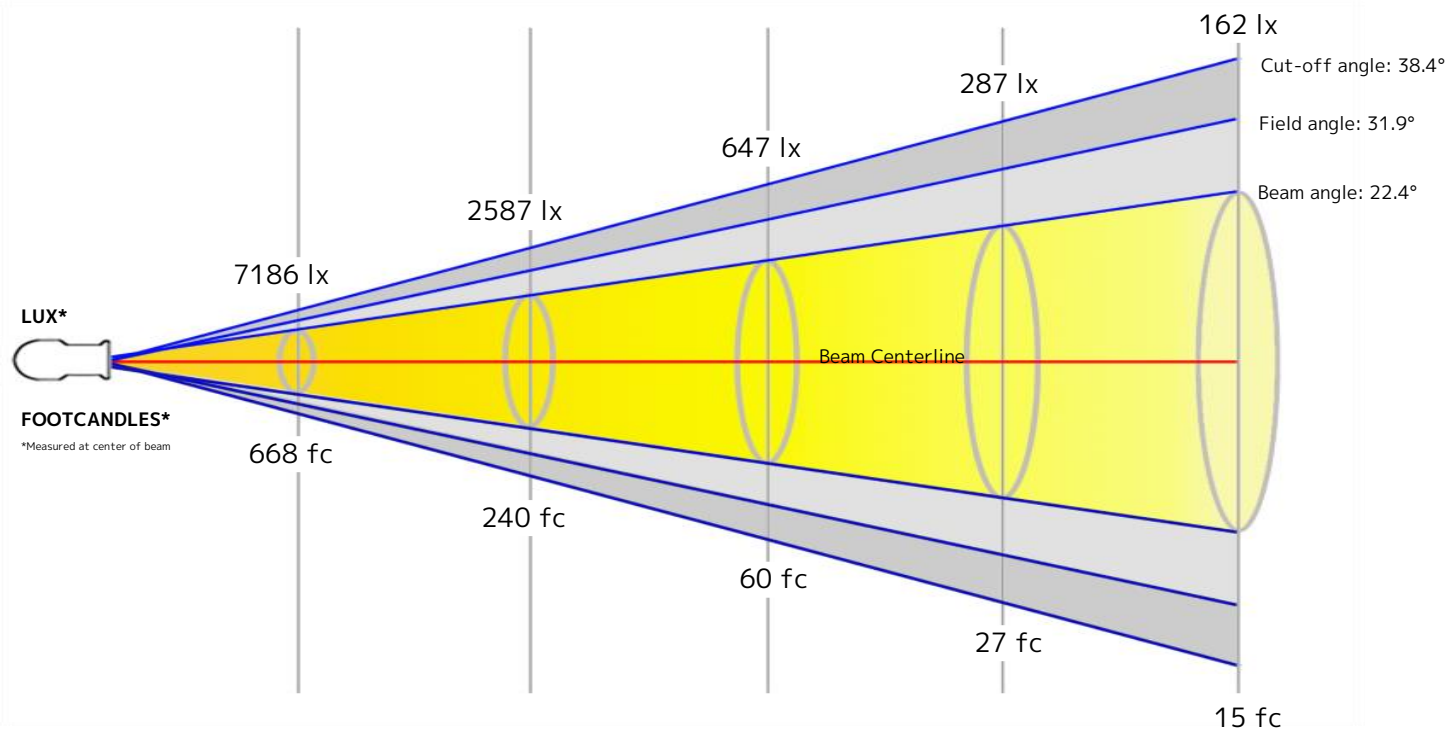
Power: 325 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2 m	4 m	5.9 m	7.9 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	3.9 ft	6.5 ft	13 ft	19.5 ft	26 ft

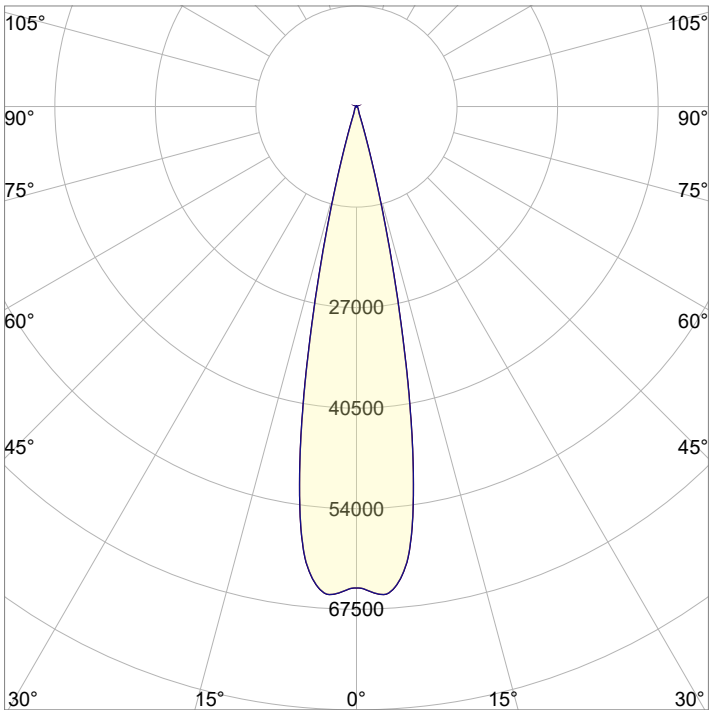
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	64677	16169	7186	4042	2587	1797	1320	1011	798	647	535	449	383	330	287	253	224	200	179	162
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	6008.6	1502.2	667.6	375.5	240.3	166.9	122.6	93.9	74.2	60.1	49.7	41.7	35.6	30.7	26.7	23.5	20.8	18.5	16.6	15

Measurement Date: 5/7/2024

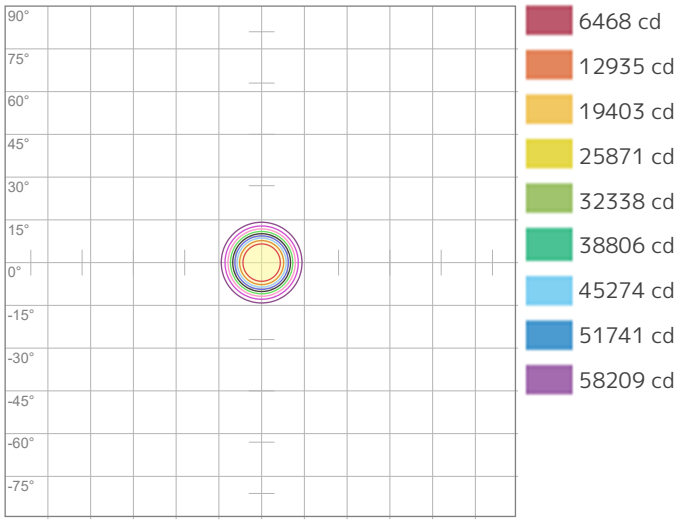
KL Par FC IP (6500K, NSP, High Fidelity)

Angular Distribution



Beam Angle - 50%
22.4°
Field Angle - 10%
31.9°
Cutoff Angle - 2.5%
38.4°

ISO Diagrams

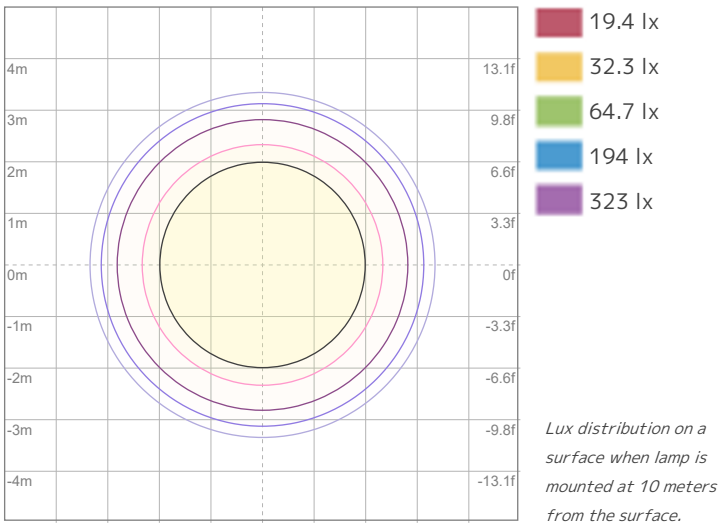


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 64677 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

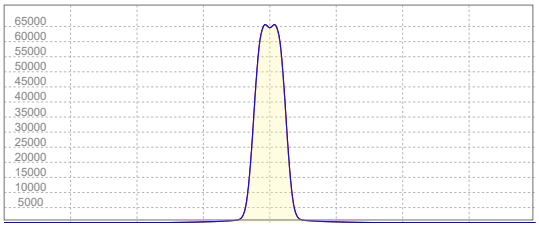
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 647 lx

Linear Distribution



Peak Candela

65557 cd

Calculate Center Beam Intensities

lux = 65557 / distance(m)^2

fc = 65557 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (8500K, NSP)

Key Measurements

Output

Total Lumen Output: 10230 lm

Peak Intensity: 69177 cd

Beam

Beam Angle (50%): 22.4°

Field Angle (10%): 31.8°

Cutoff Angle (2.5%): 38.3°

Color

Color Temperature: 8417 K

CRI: 86.0

TLCI: 80

TM30 R_F: 83.1

TM30 R_g: 96.5

Power Details

Efficacy: 32 Lumen/Watt

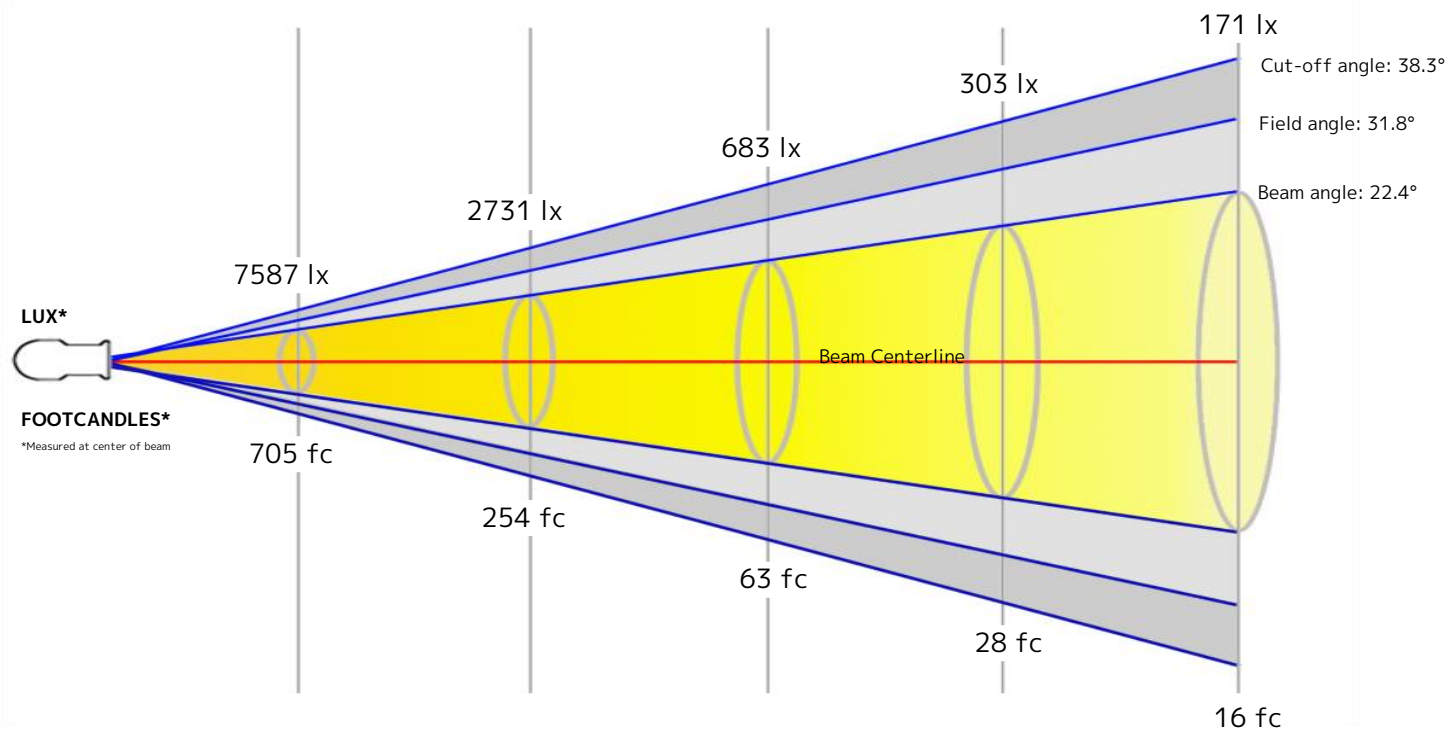
Power: 315 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2 m	4 m	5.9 m	7.9 m



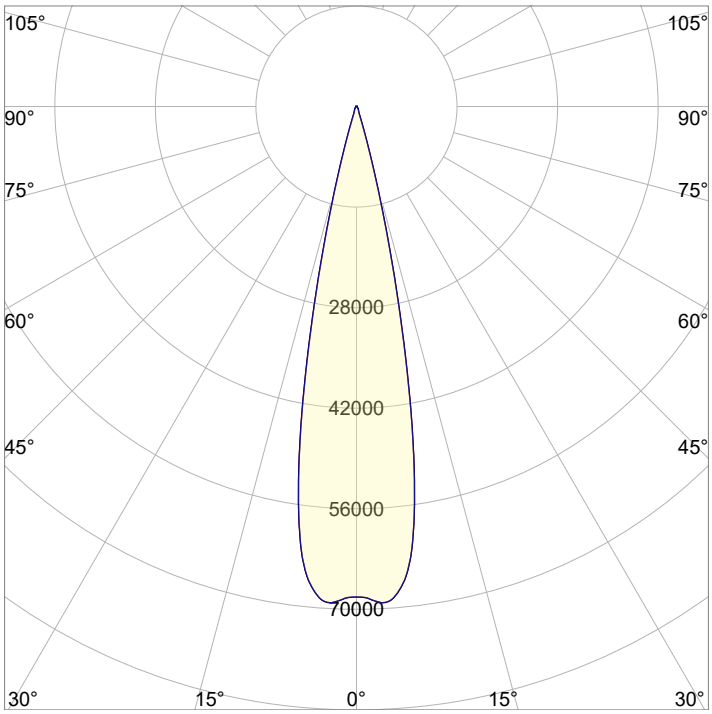
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	3.9 ft	6.5 ft	13 ft	19.5 ft	26 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	68285	17071	7587	4268	2731	1897	1394	1067	843	683	564	474	404	348	303	267	236	211	189	171
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	6343.9	1586	704.9	396.5	253.8	176.2	129.5	99.1	78.3	63.4	52.4	44.1	37.5	32.4	28.2	24.8	22	19.6	17.6	15.9

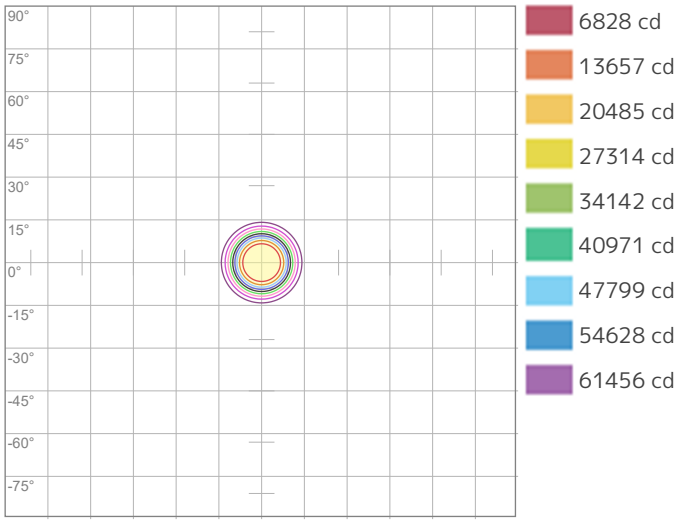
Measurement Date: 5/7/2024

Angular Distribution



Beam Angle - 50%
22.4°
Field Angle - 10%
31.8°
Cutoff Angle - 2.5%
38.3°

ISO Diagrams

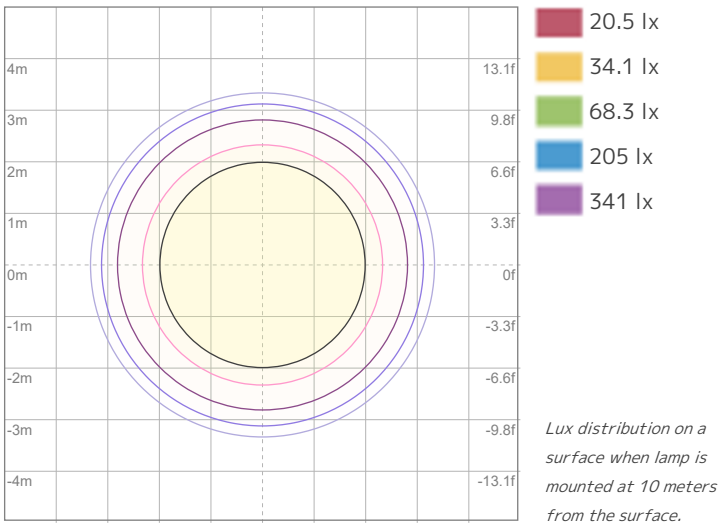


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 68285 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

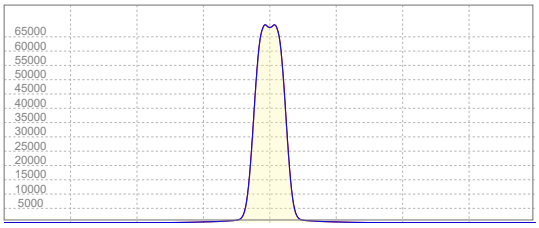
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 683 lx

Linear Distribution



Peak Candela

69177 cd

Calculate Center Beam Intensities

lux = 69177 / distance(m)^2

fc = 69177 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (8500K, NSP, High Fidelity)

Key Measurements

Output

Total Lumen Output: 9965 lm

Peak Intensity: 67695 cd

Beam

Beam Angle (50%): 22.4°

Field Angle (10%): 31.9°

Cutoff Angle (2.5%): 38.2°

Color

Color Temperature: 8494 K

CRI: 88.8

TLCI: 89

TM30 R_F: 85.7

TM30 R_g: 98.8

Power Details

Efficacy: 32 Lumen/Watt

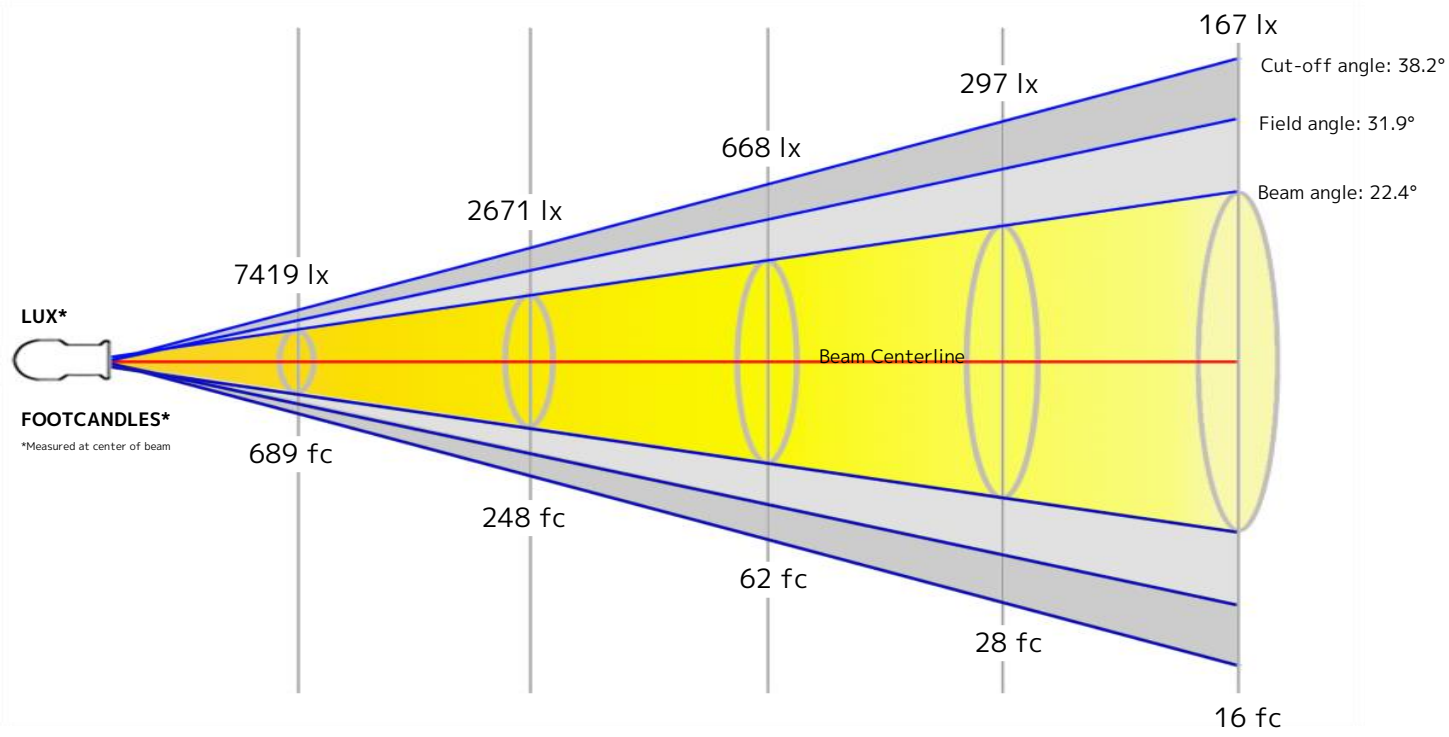
Power: 309 W

Supply Voltage: 117 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2 m	4 m	5.9 m	7.9 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	3.9 ft	6.5 ft	13 ft	19.5 ft	26 ft

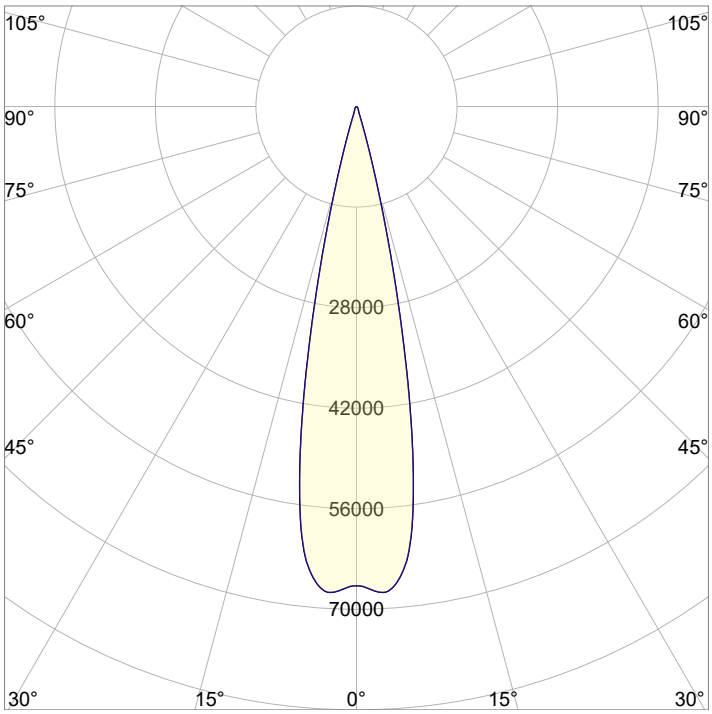
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	66774	16693	7419	4173	2671	1855	1363	1043	824	668	552	464	395	341	297	261	231	206	185	167
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	6203.5	1550.9	689.3	387.7	248.1	172.3	126.6	96.9	76.6	62	51.3	43.1	36.7	31.7	27.6	24.2	21.5	19.1	17.2	15.5

Measurement Date: 5/7/2024

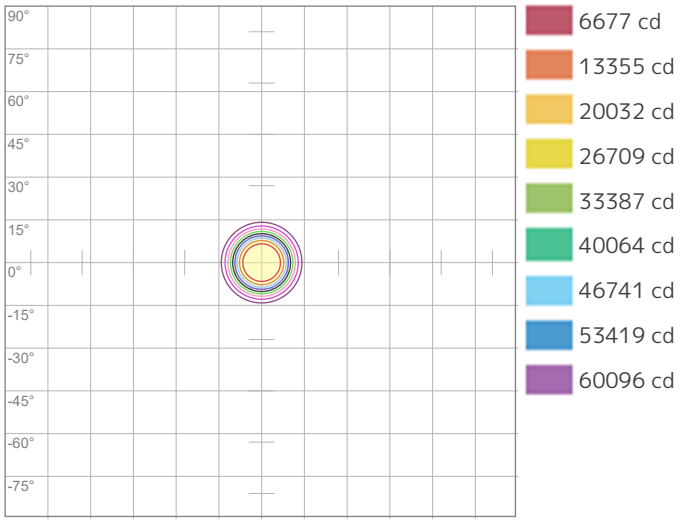
KL Par FC IP (8500K, NSP, High Fidelity)

Angular Distribution



Beam Angle - 50%
22.4°
Field Angle - 10%
31.9°
Cutoff Angle - 2.5%
38.2°

ISO Diagrams

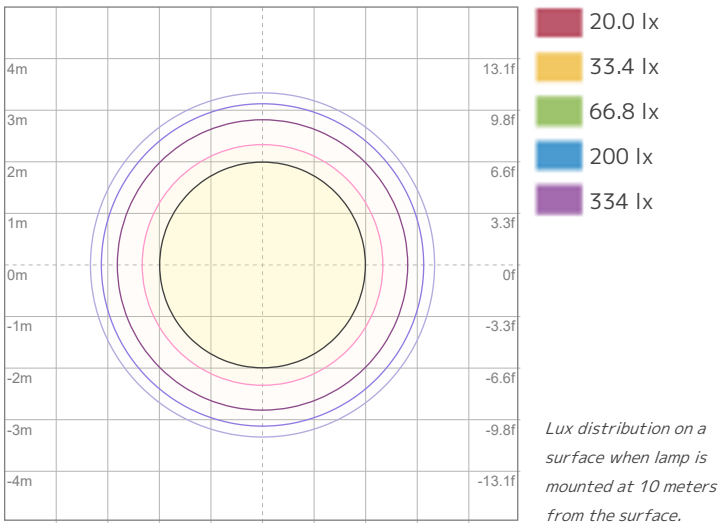


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 66774 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

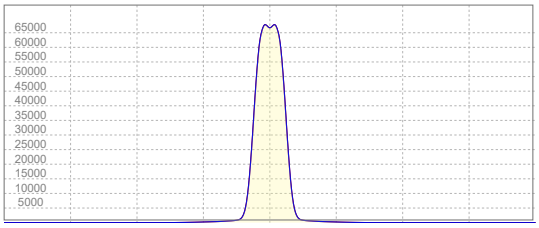
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 668 lx

Linear Distribution



Peak Candela

67695 cd

Calculate Center Beam Intensities

lux = 67695 / distance(m)^2

fc = 67695 / distance(ft)^2

Measurement Date: 5/7/2024

KL Par FC IP (Full Output, VNSP)

Key Measurements

Output

Total Lumen Output: 9523 lm

Peak Intensity: 294126 cd

Beam

Beam Angle (50%): 9.5°

Field Angle (10%): 17.1°

Cutoff Angle (2.5%): 21.3°

Color

Color Temperature: 6802 K

CRI: 90.2

TLCI: 93

TM30 R_F: 87.8

TM30 R_g: 100.8

Power Details

Efficacy: 30 Lumen/Watt

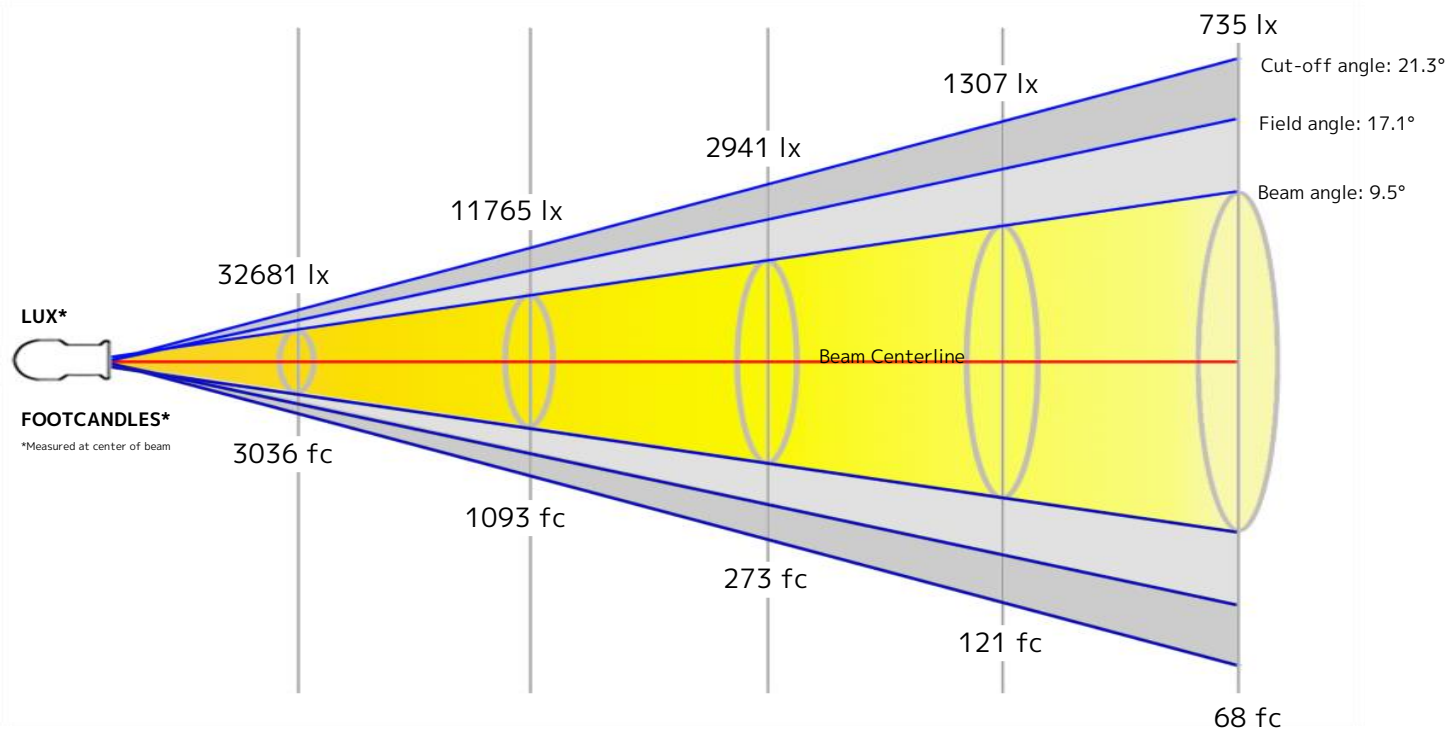
Power: 320 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.5 m	0.8 m	1.7 m	2.5 m	3.3 m



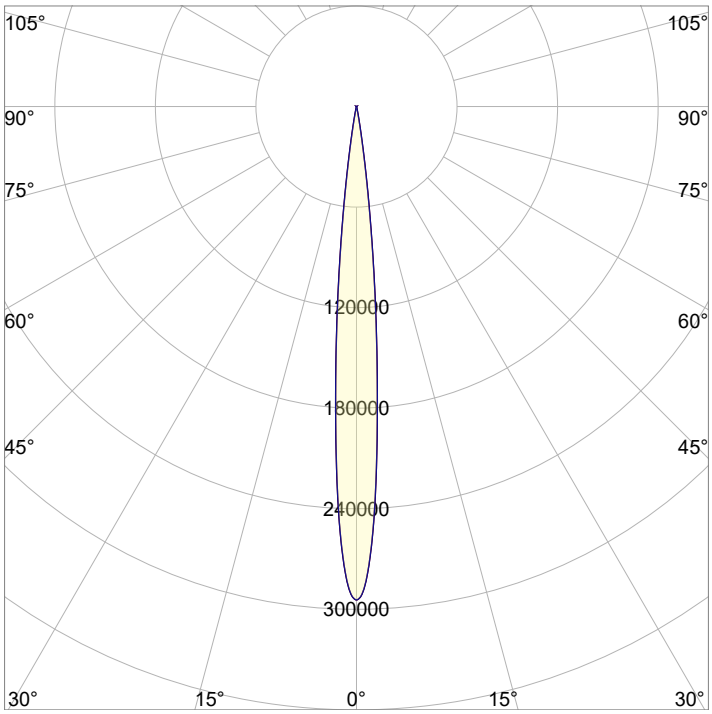
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	1.6 ft	2.7 ft	5.4 ft	8.2 ft	10.9 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	294126	73532	32681	18383	11765	8170	6003	4596	3631	2941	2431	2043	1740	1501	1307	1149	1018	908	815	735
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	27325.2	6831.3	3036.1	1707.8	1093	759	557.7	427	337.3	273.3	225.8	189.8	161.7	139.4	121.4	106.7	94.6	84.3	75.7	68.3

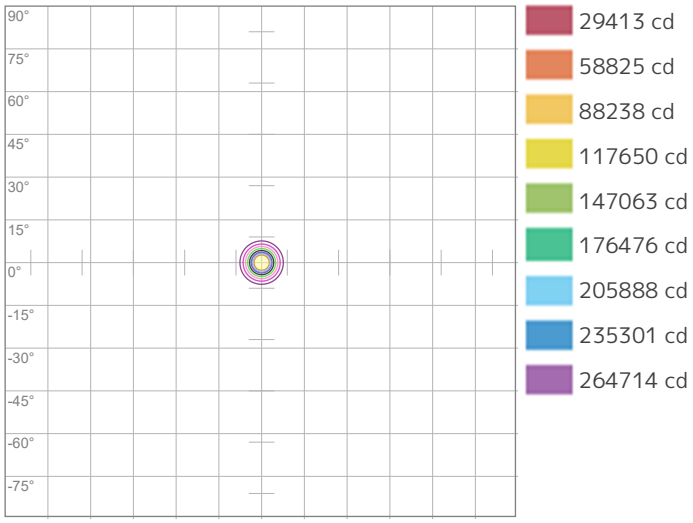
Measurement Date: 5/8/2024

Angular Distribution



Beam Angle - 50%
9.5°
Field Angle - 10%
17.1°
Cutoff Angle - 2.5%
21.3°

ISO Diagrams

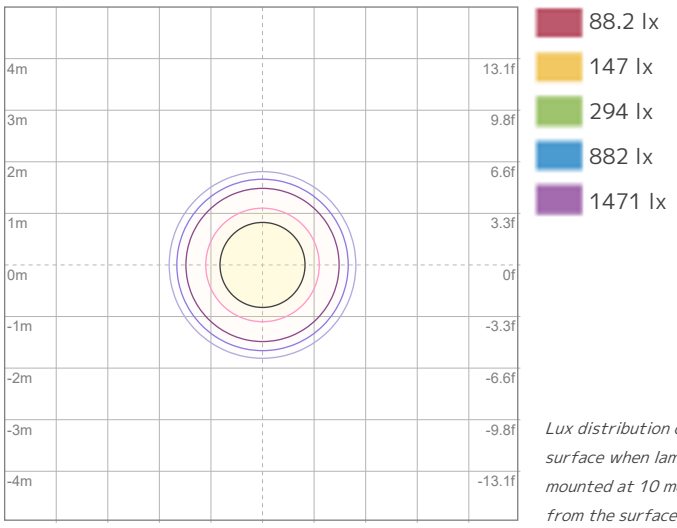


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 294126 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

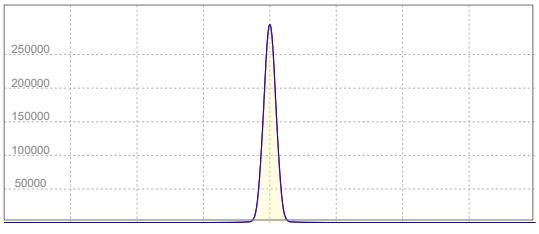
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 2941 lx

Linear Distribution



Peak Candela

294126 cd

Calculate Center Beam Intensities

lux = 294126 / distance(m)^2

fc = 294126 / distance(ft)^2

Measurement Date: 5/8/2024

KL Par FC IP (3200K, VNSP)

Key Measurements

Output

Total Lumen Output: 8923 lm

Peak Intensity: 277576 cd

Beam

Beam Angle (50%): 9.5°

Field Angle (10%): 17.1°

Cutoff Angle (2.5%): 21.3°

Color

Color Temperature: 3255 K

CRI: 92.0

TLCI: 95

TM30 R_F: 93.1

TM30 R_g: 104.2

Power Details

Efficacy: 30 Lumen/Watt

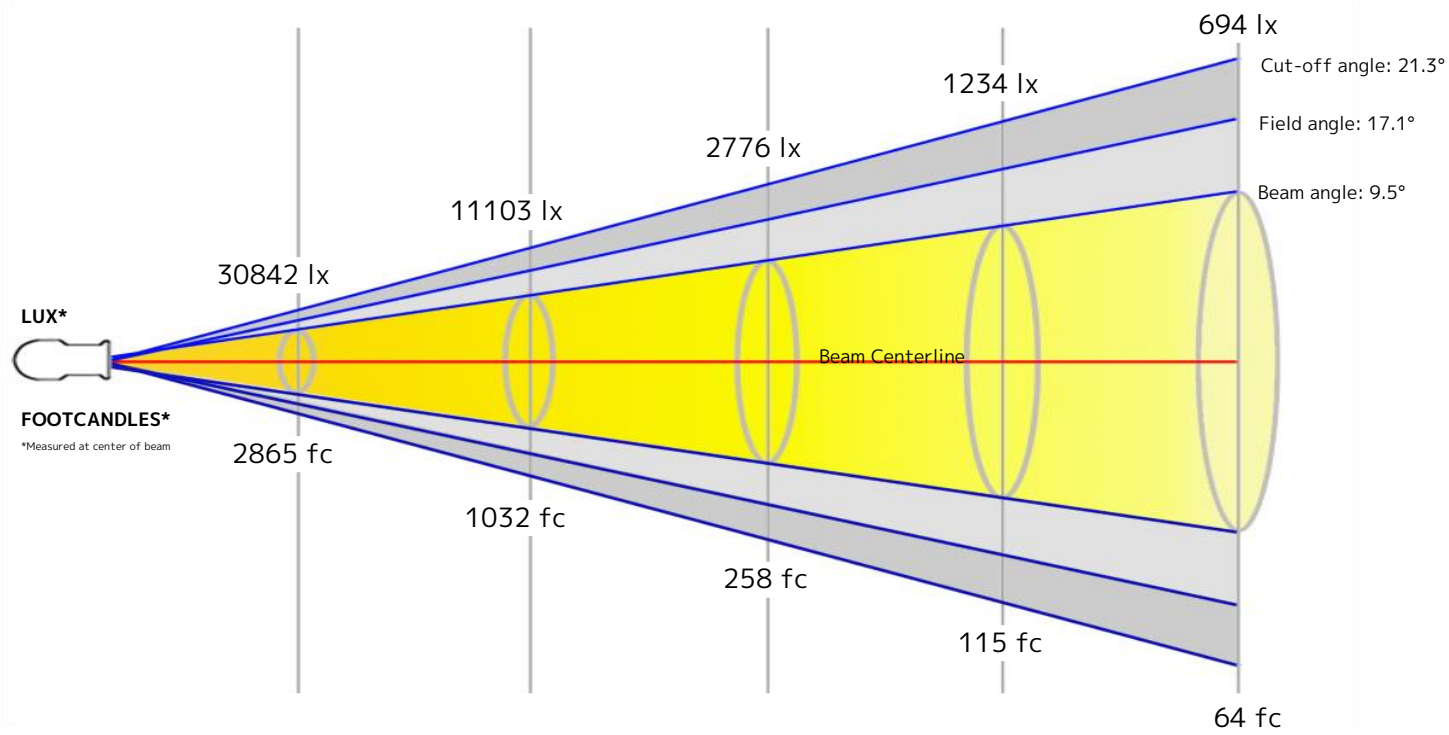
Power: 299 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.5 m	0.8 m	1.7 m	2.5 m	3.3 m



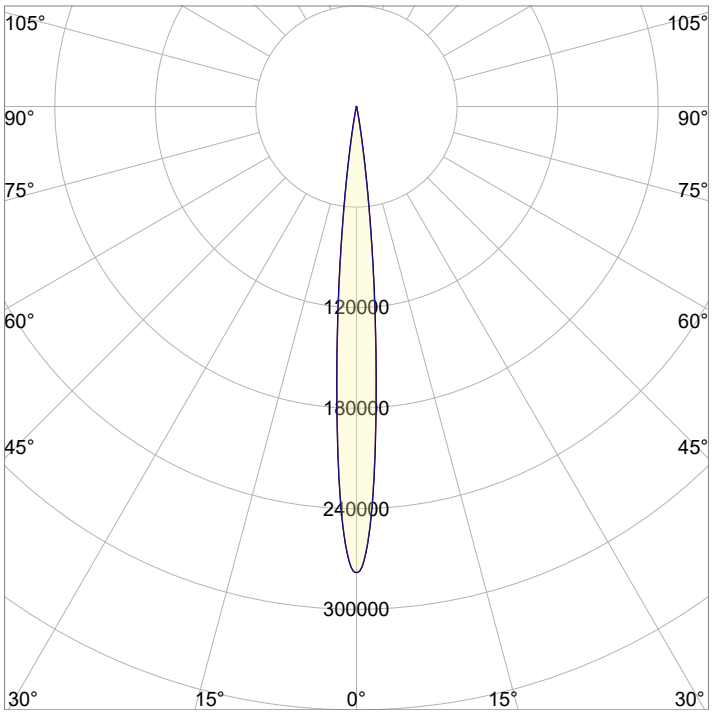
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	1.6 ft	2.7 ft	5.4 ft	8.1 ft	10.8 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	277576	69394	30842	17349	11103	7710	5665	4337	3427	2776	2294	1928	1642	1416	1234	1084	960	857	769	694
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	25787.7	6446.9	2865.3	1611.7	1031.5	716.3	526.3	402.9	318.4	257.9	213.1	179.1	152.6	131.6	114.6	100.7	89.2	79.6	71.4	64.5

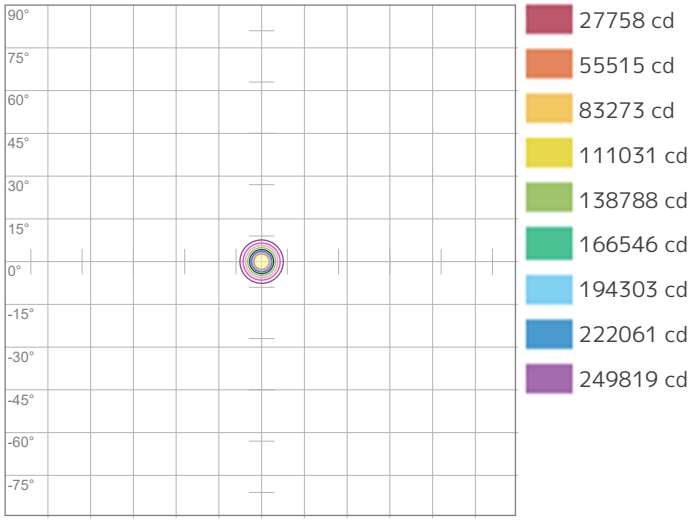
Measurement Date: 5/8/2024

Angular Distribution



Beam Angle - 50%
9.5°
Field Angle - 10%
17.1°
Cutoff Angle - 2.5%
21.3°

ISO Diagrams

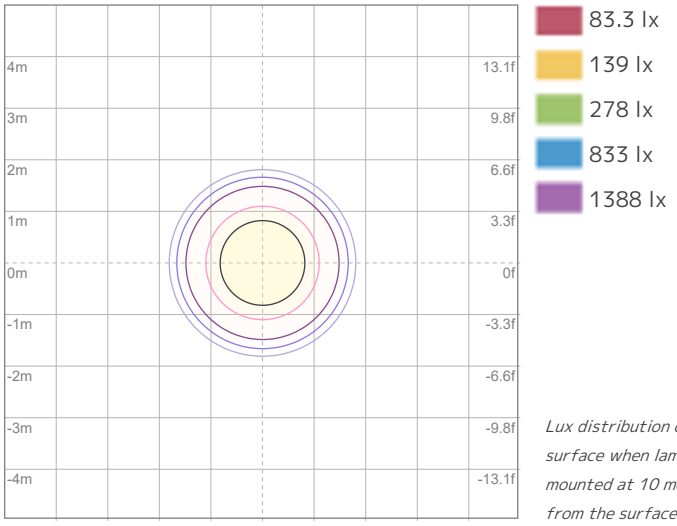


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 277576 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

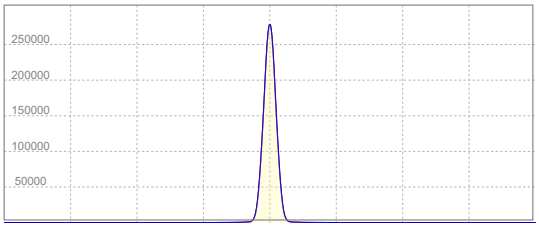
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 2776 lx

Linear Distribution



Peak Candela

277576 cd

Calculate Center Beam Intensities

lux = 277576 / distance(m)^2

fc = 277576 / distance(ft)^2

Measurement Date: 5/8/2024

KL Par FC IP (3200K, VNSP, High Fidelity)

Key Measurements

Output

Total Lumen Output: 7134 lm

Peak Intensity: 233980 cd

Beam

Beam Angle (50%): 9.3°

Field Angle (10%): 17°

Cutoff Angle (2.5%): 21.1°

Color

Color Temperature: 3147 K

CRI: 93.8

TLCI: 92

TM30 R_F: 93.1

TM30 R_g: 103.5

Power Details

Efficacy: 28 Lumen/Watt

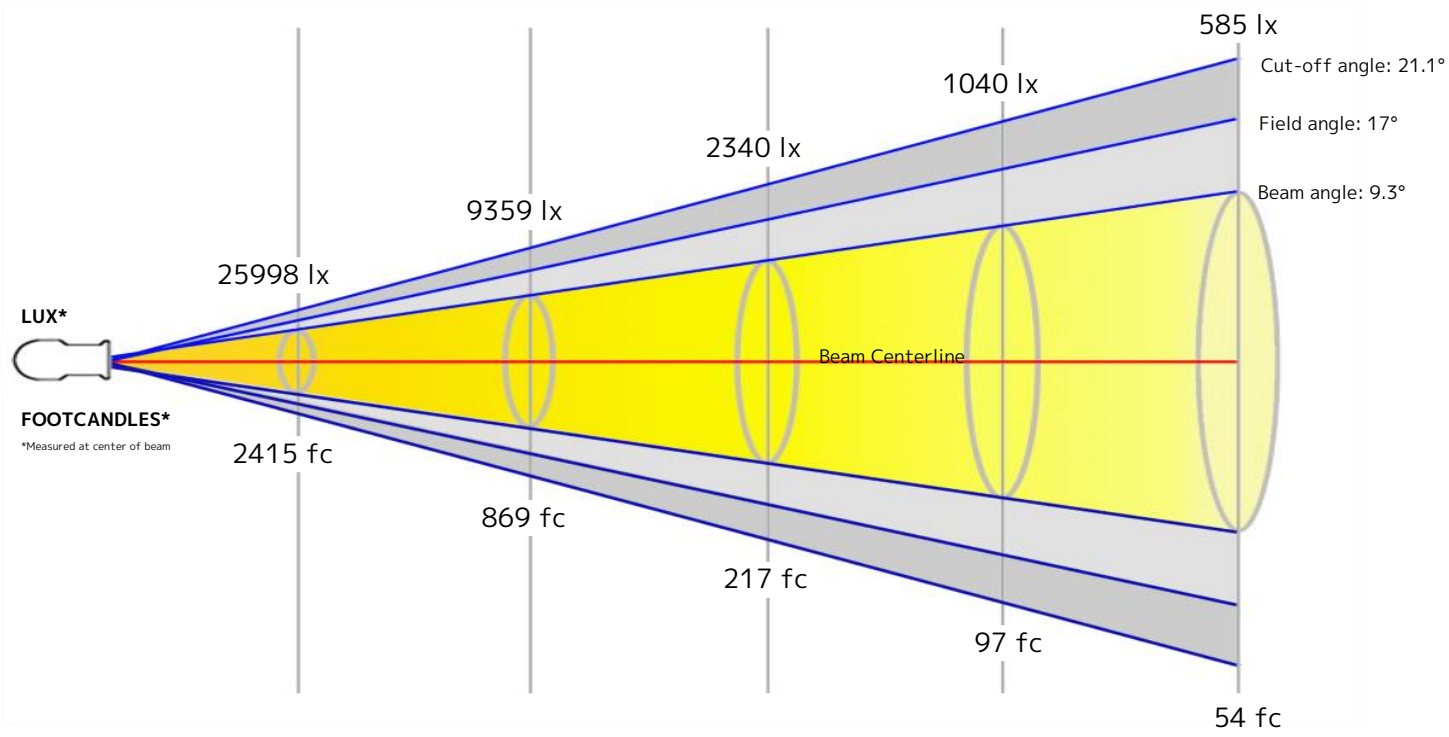
Power: 253 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.5 m	0.8 m	1.6 m	2.4 m	3.3 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	1.6 ft	2.7 ft	5.4 ft	8 ft	10.7 ft

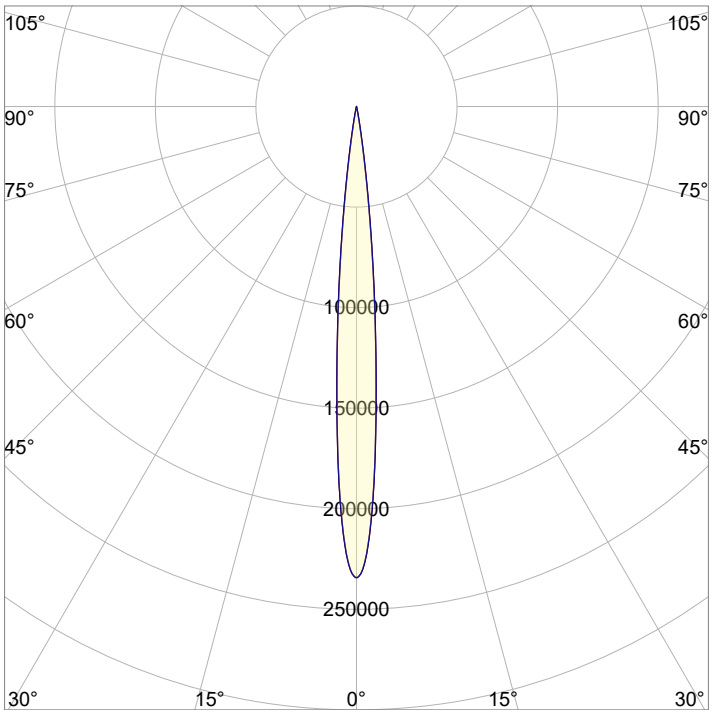
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	233980	58495	25998	14624	9359	6499	4775	3656	2889	2340	1934	1625	1384	1194	1040	914	810	722	648	585
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	21737.4	5434.4	2415.3	1358.6	869.5	603.8	443.6	339.6	268.4	217.4	179.6	151	128.6	110.9	96.6	84.9	75.2	67.1	60.2	54.3

Measurement Date: 5/8/2024

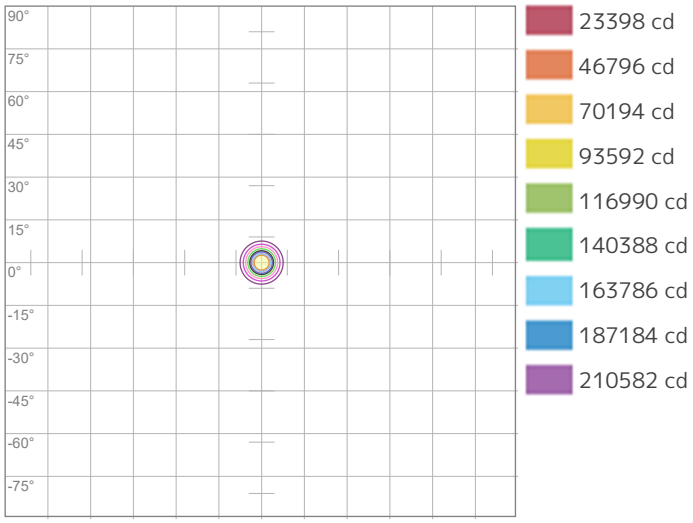
KL Par FC IP (3200K, VNSP, High Fidelity)

Angular Distribution



Beam Angle - 50%
9.3°
Field Angle - 10%
17°
Cutoff Angle - 2.5%
21.1°

ISO Diagrams

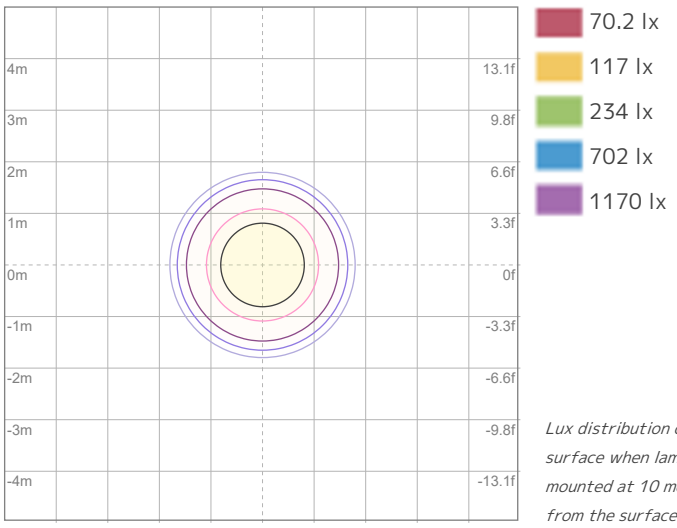


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 233980 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

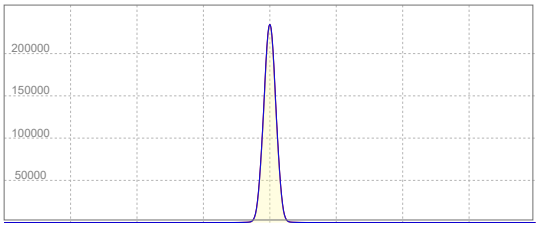
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 2340 lx

Linear Distribution



Peak Candela

233980 cd

Calculate Center Beam Intensities

lux = 233980 / distance(m)^2

fc = 233980 / distance(ft)^2

Measurement Date: 5/8/2024

KL Par FC IP (4500K, VNSP)

Key Measurements

Output

Total Lumen Output: 9371 lm

Peak Intensity: 294590 cd

Beam

Beam Angle (50%): 9.4°

Field Angle (10%): 17.1°

Cutoff Angle (2.5%): 21.3°

Color

Color Temperature: 4517 K

CRI: 91.4

TLCI: 92

TM30 R_F: 89.5

TM30 R_g: 102.2

Power Details

Efficacy: 31 Lumen/Watt

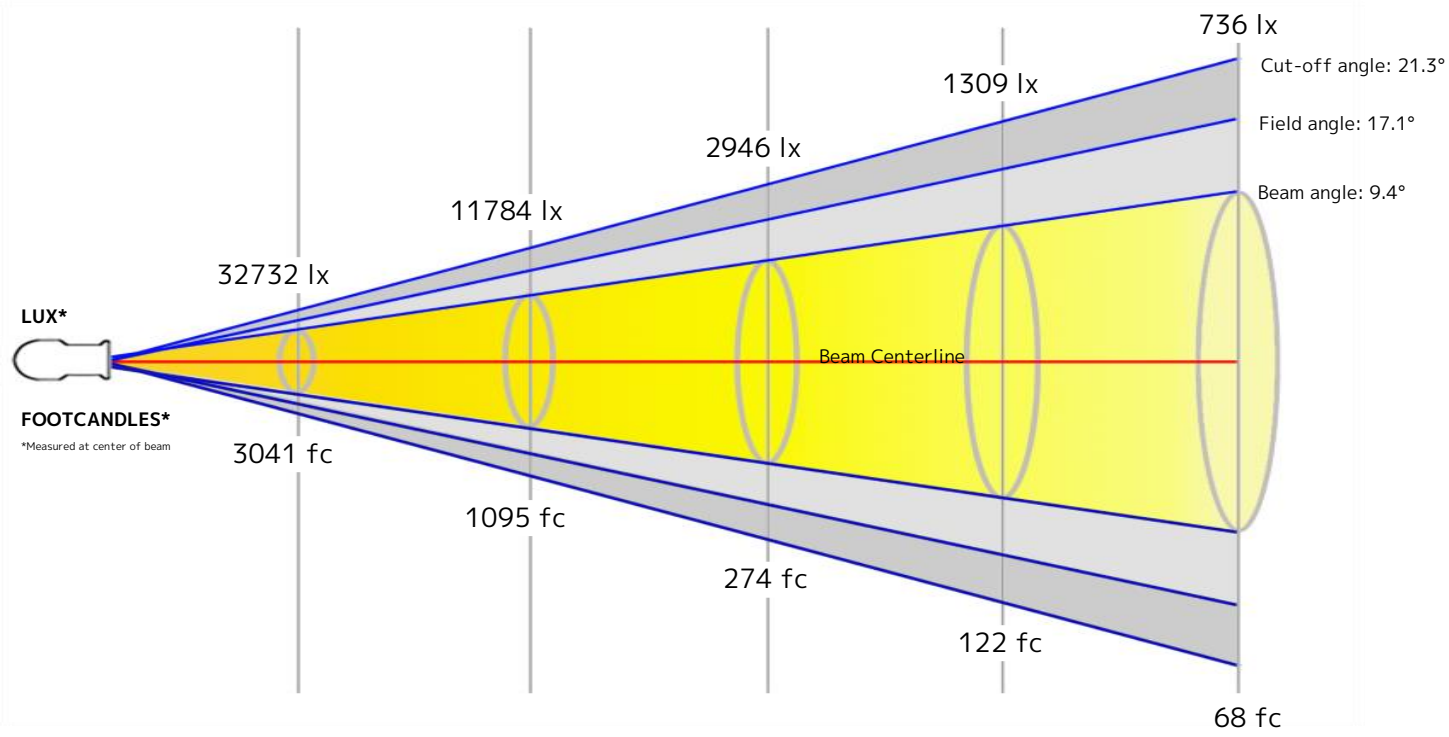
Power: 302 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.5 m	0.8 m	1.6 m	2.5 m	3.3 m



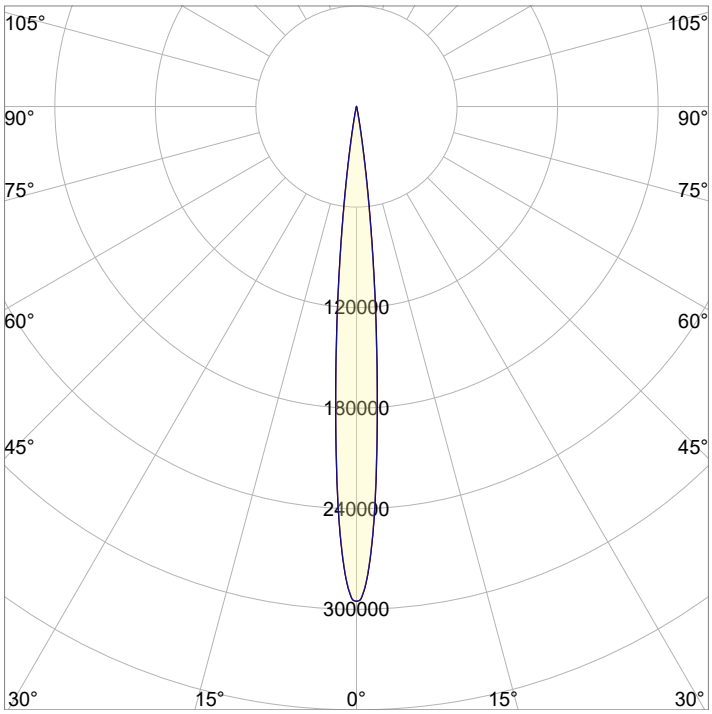
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	1.6 ft	2.7 ft	5.4 ft	8.1 ft	10.8 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	294590	73647	32732	18412	11784	8183	6012	4603	3637	2946	2435	2046	1743	1503	1309	1151	1019	909	816	736
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	27368.3	6842.1	3040.9	1710.5	1094.7	760.2	558.5	427.6	337.9	273.7	226.2	190.1	161.9	139.6	121.6	106.9	94.7	84.5	75.8	68.4

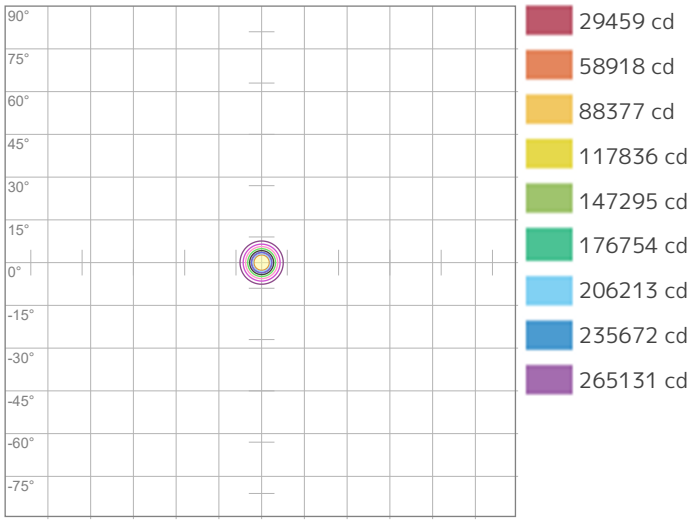
Measurement Date: 5/8/2024

Angular Distribution



Beam Angle - 50%
9.4°
Field Angle - 10%
17.1°
Cutoff Angle - 2.5%
21.3°

ISO Diagrams

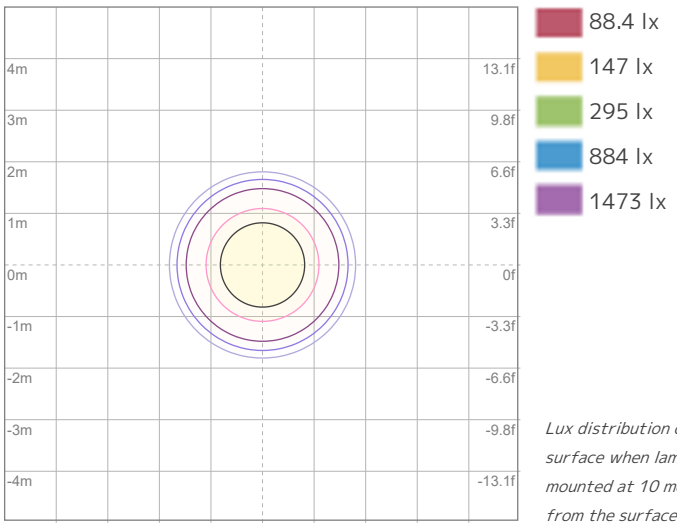


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 294590 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

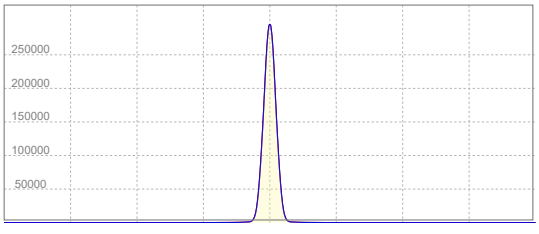
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 2946 lx

Linear Distribution



Peak Candela

294590 cd

Calculate Center Beam Intensities

lux = 294590 / distance(m)^2

fc = 294590 / distance(ft)^2

Measurement Date: 5/8/2024

KL Par FC IP (4500K, VNSP, High Fidelity)

Key Measurements

Output

Total Lumen Output: 9288 lm

Peak Intensity: 287263 cd

Beam

Beam Angle (50%): 9.5°

Field Angle (10%): 17.1°

Cutoff Angle (2.5%): 21.3°

Color

Color Temperature: 4465 K

CRI: 91.7

TLCI: 94

TM30 R_F: 91.2

TM30 R_g: 103.8

Power Details

Efficacy: 29 Lumen/Watt

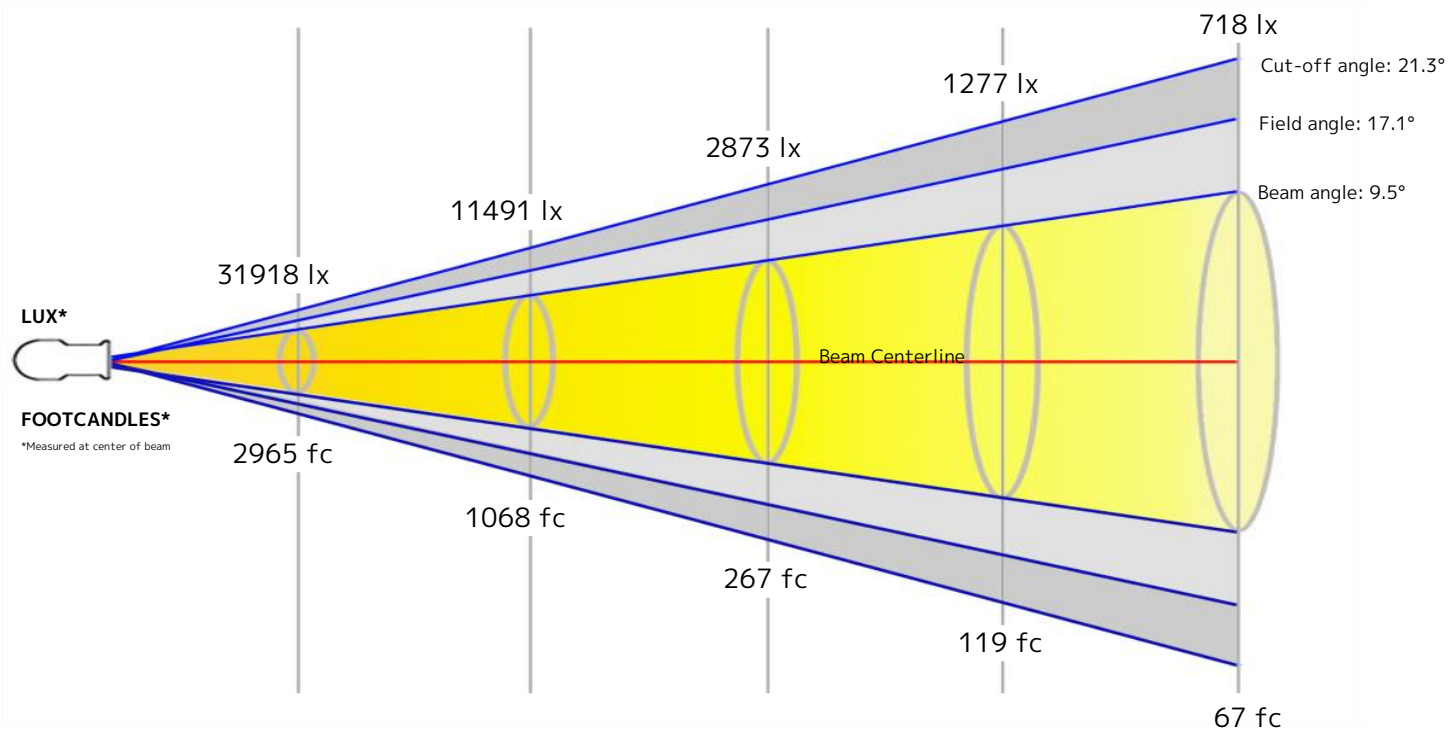
Power: 320 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.5 m	0.8 m	1.7 m	2.5 m	3.3 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	1.6 ft	2.7 ft	5.4 ft	8.1 ft	10.9 ft

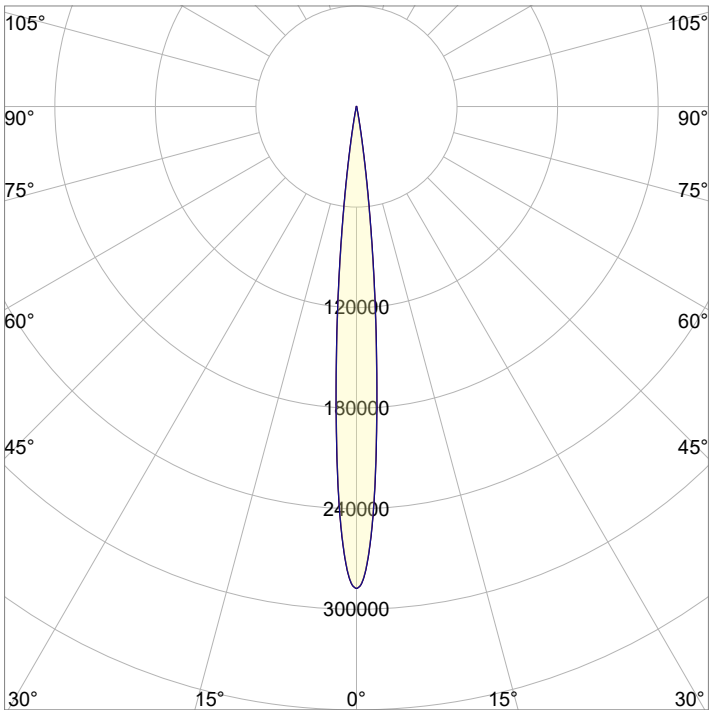
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	287263	71816	31918	17954	11491	7980	5863	4488	3546	2873	2374	1995	1700	1466	1277	1122	994	887	796	718
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	26687.6	6671.9	2965.3	1668	1067.5	741.3	544.6	417	329.5	266.9	220.6	185.3	157.9	136.2	118.6	104.2	92.3	82.4	73.9	66.7

Measurement Date: 5/8/2024

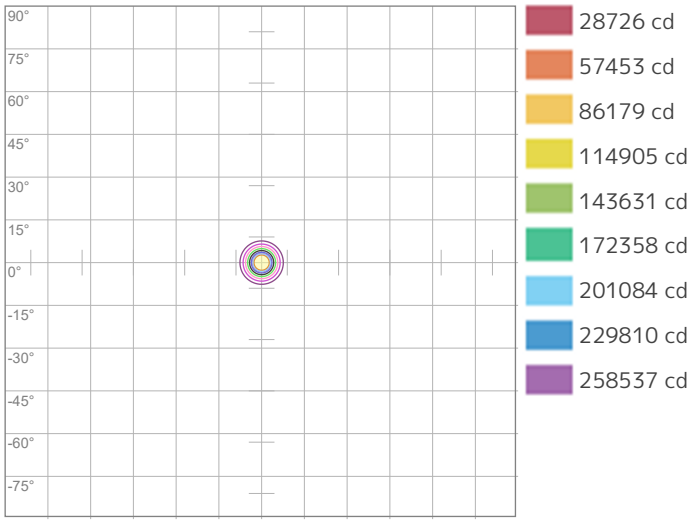
KL Par FC IP (4500K, VNSP, High Fidelity)

Angular Distribution



Beam Angle - 50%
9.5°
Field Angle - 10%
17.1°
Cutoff Angle - 2.5%
21.3°

ISO Diagrams

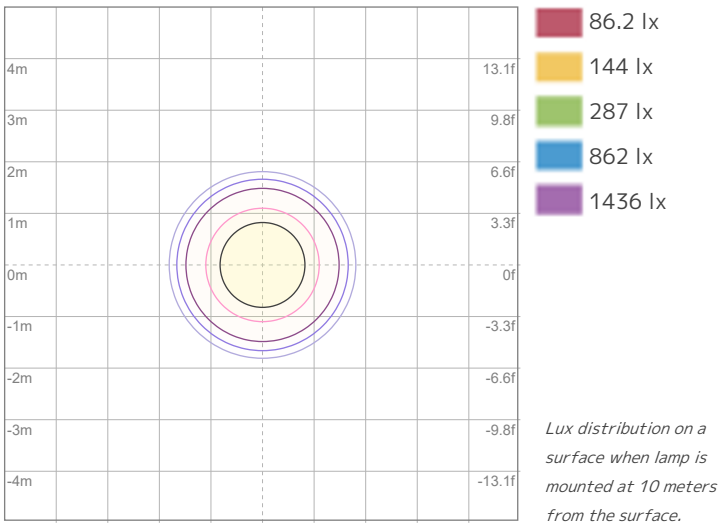


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 287263 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

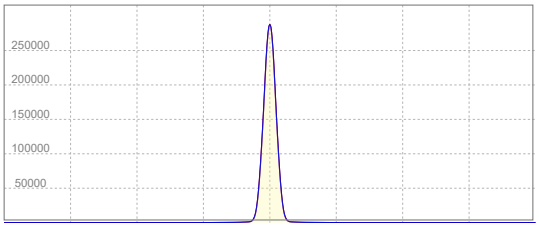
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 2873 lx

Linear Distribution



Peak Candela

287263 cd

Calculate Center Beam Intensities

lux = 287263 / distance(m)^2

fc = 287263 / distance(ft)^2

Measurement Date: 5/8/2024

KL Par FC IP (6500K, VNSP)

Key Measurements

Output

Total Lumen Output: 9031 lm

Peak Intensity: 281590 cd

Beam

Beam Angle (50%): 9.5°

Field Angle (10%): 17.1°

Cutoff Angle (2.5%): 21.3°

Color

Color Temperature: 6436 K

CRI: 90.4

TLCI: 93

TM30 R_F: 88.2

TM30 R_g: 100.9

Power Details

Efficacy: 29 Lumen/Watt

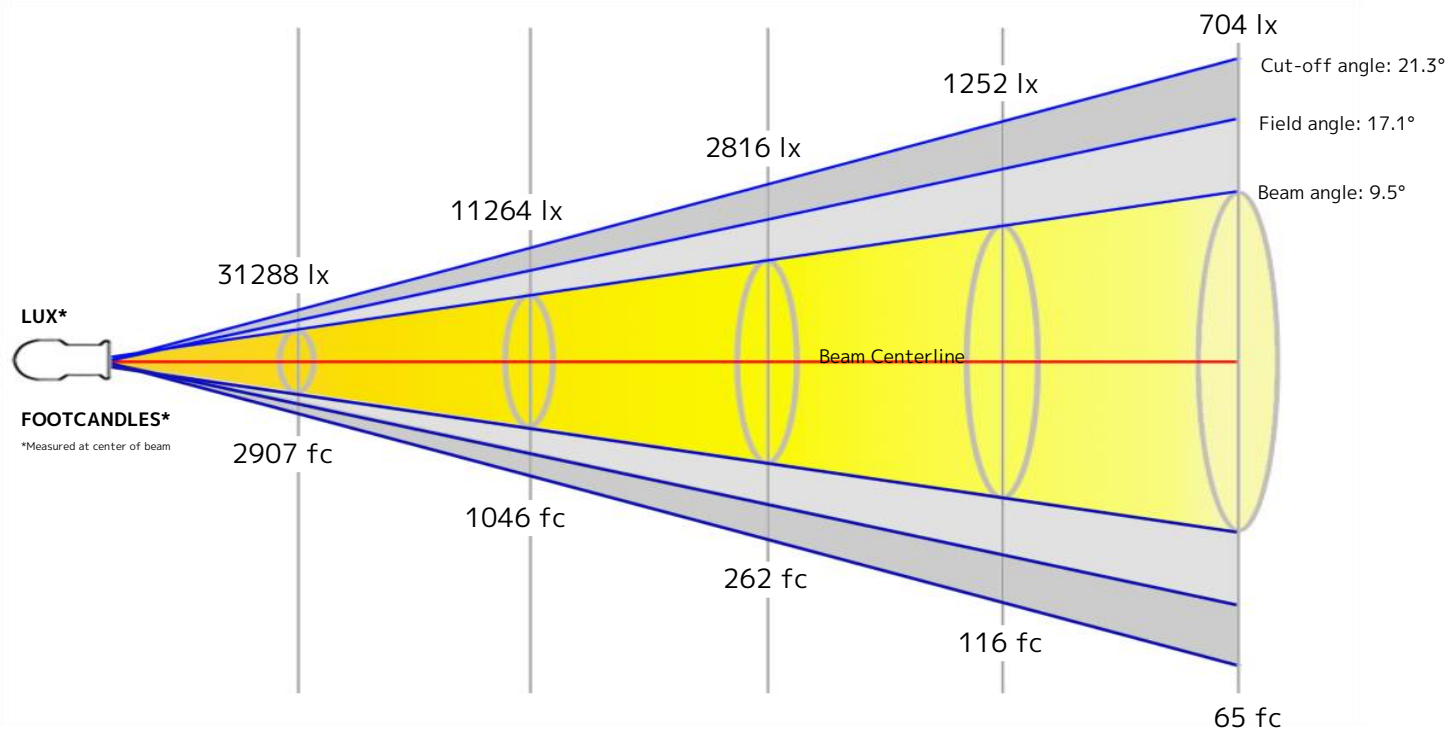
Power: 316 W

Supply Voltage: 118 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.5 m	0.8 m	1.7 m	2.5 m	3.3 m



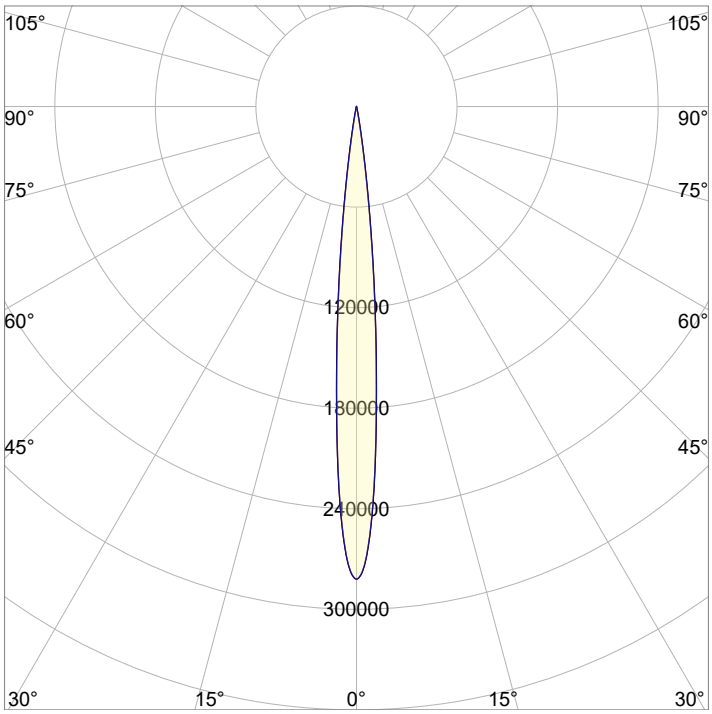
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	1.6 ft	2.7 ft	5.4 ft	8.1 ft	10.9 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	281590	70398	31288	17599	11264	7822	5747	4400	3476	2816	2327	1955	1666	1437	1252	1100	974	869	780	704
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	26160.6	6540.2	2906.7	1635	1046.4	726.7	533.9	408.8	323	261.6	216.2	181.7	154.8	133.5	116.3	102.2	90.5	80.7	72.5	65.4

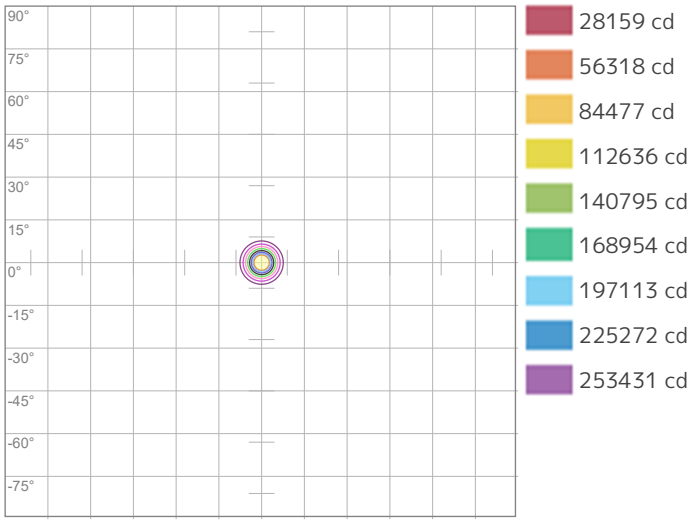
Measurement Date: 5/8/2024

Angular Distribution



Beam Angle - 50%
9.5°
Field Angle - 10%
17.1°
Cutoff Angle - 2.5%
21.3°

ISO Diagrams

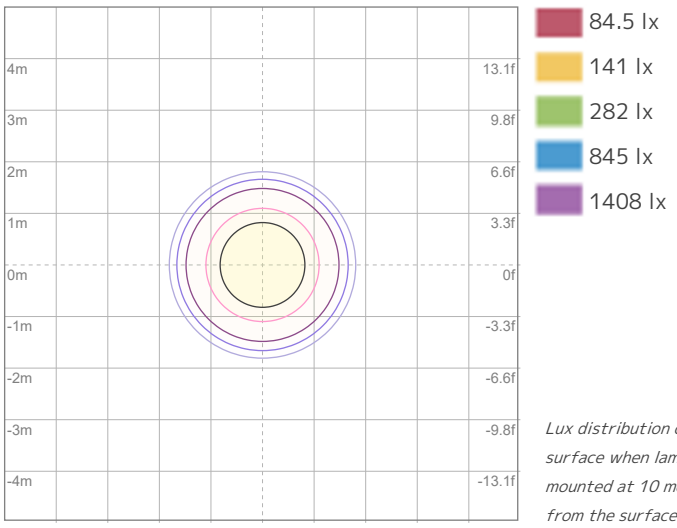


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 281590 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

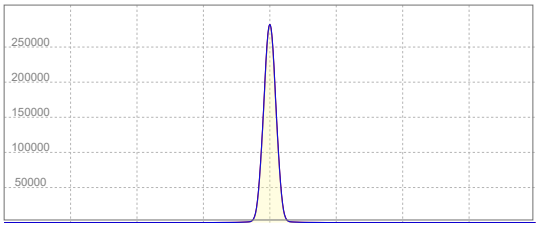
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 2816 lx

Linear Distribution



Peak Candela

281590 cd

Calculate Center Beam Intensities

lux = 281590 / distance(m)^2

fc = 281590 / distance(ft)^2

Measurement Date: 5/8/2024

KL Par FC IP (6500K, VNSP, High Fidelity)

Key Measurements

Output

Total Lumen Output: 8969 lm

Peak Intensity: 277909 cd

Beam

Beam Angle (50%): 9.5°

Field Angle (10%): 17.1°

Cutoff Angle (2.5%): 21.3°

Color

Color Temperature: 6553 K

CRI: 90.8

TLCI: 93

TM30 R_F: 88.6

TM30 R_g: 100.8

Power Details

Efficacy: 28 Lumen/Watt

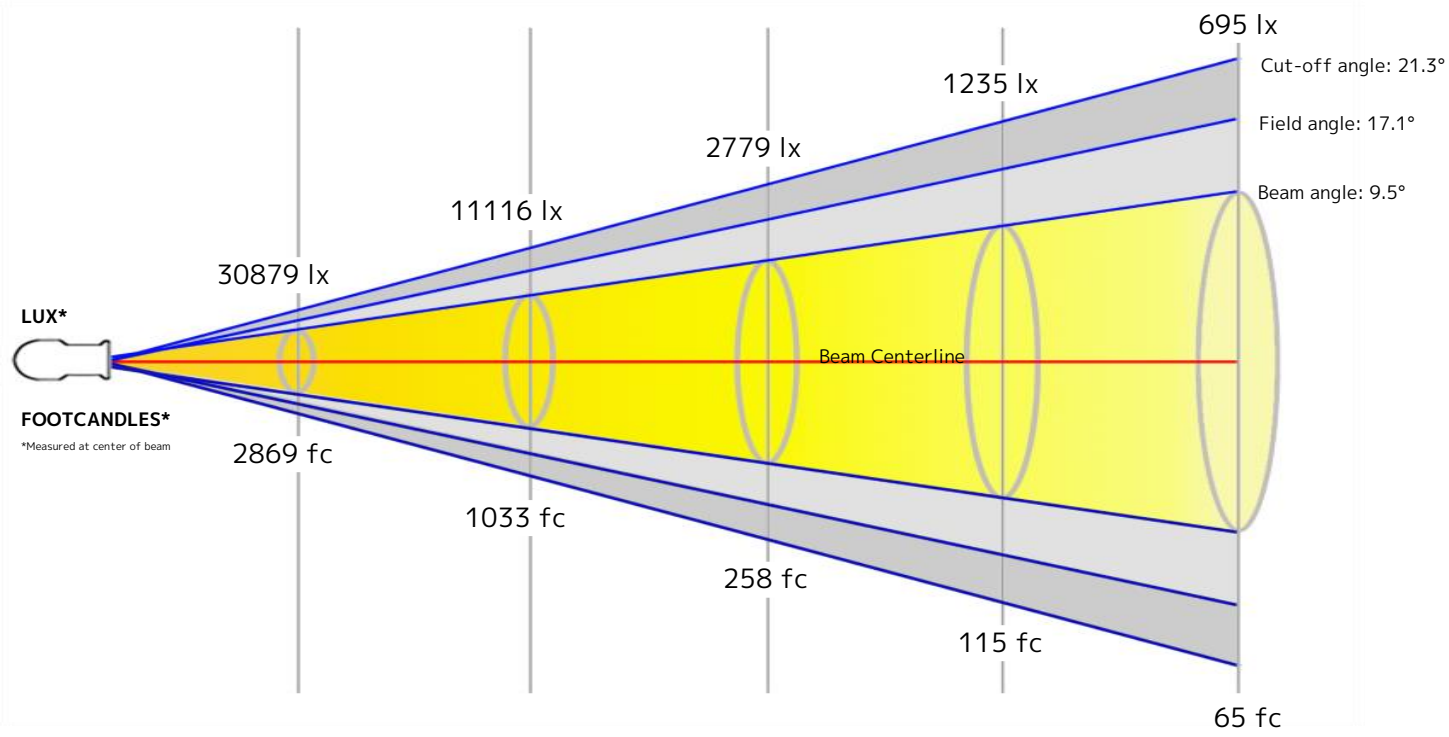
Power: 320 W

Supply Voltage: 119 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.5 m	0.8 m	1.7 m	2.5 m	3.3 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	1.6 ft	2.7 ft	5.4 ft	8.2 ft	10.9 ft

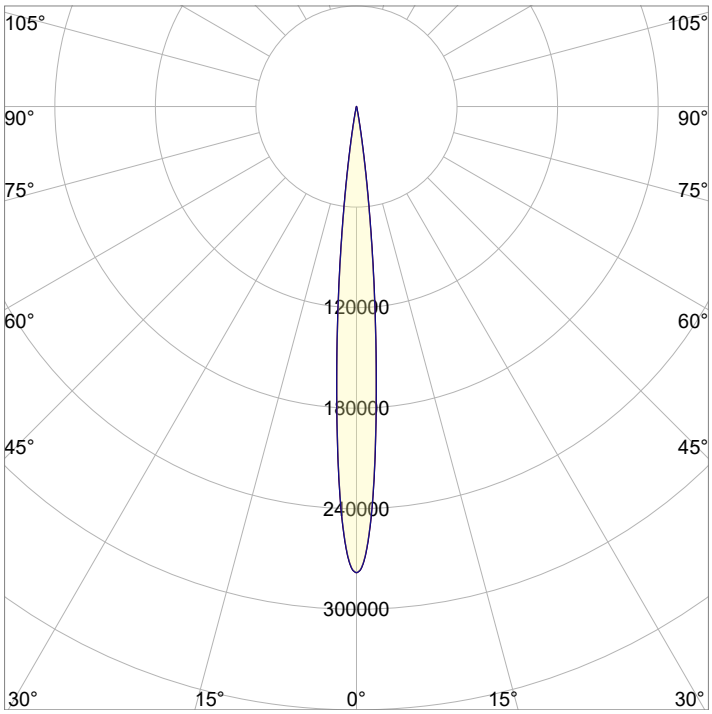
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	277909	69477	30879	17369	11116	7720	5672	4342	3431	2779	2297	1930	1644	1418	1235	1086	962	858	770	695
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	25818.6	6454.7	2868.7	1613.7	1032.7	717.2	526.9	403.4	318.7	258.2	213.4	179.3	152.8	131.7	114.7	100.9	89.3	79.7	71.5	64.5

Measurement Date: 5/8/2024

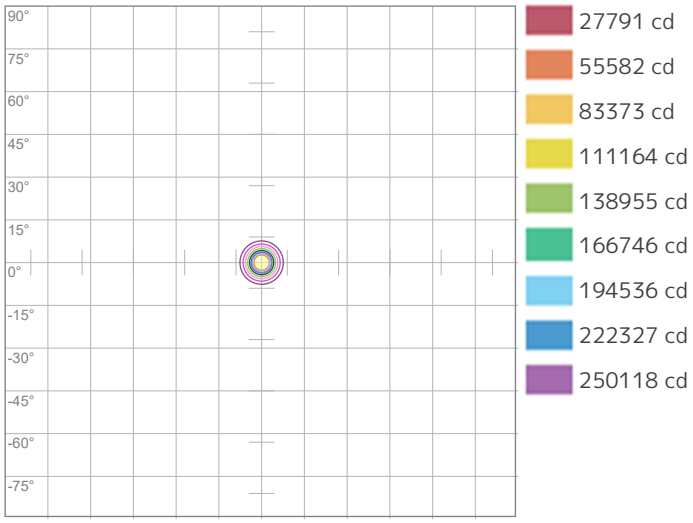
KL Par FC IP (6500K, VNSP, High Fidelity)

Angular Distribution



Beam Angle - 50%
9.5°
Field Angle - 10%
17.1°
Cutoff Angle - 2.5%
21.3°

ISO Diagrams

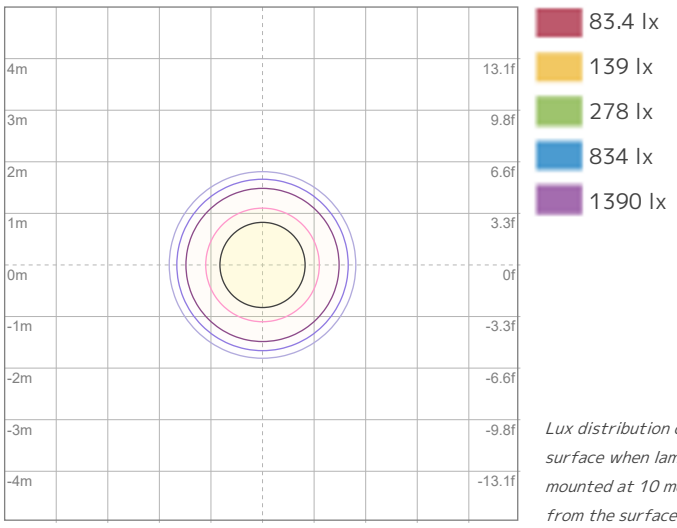


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 277909 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

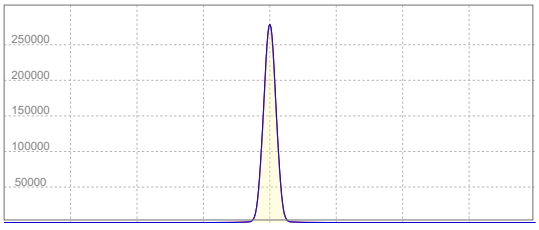
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 2779 lx

Linear Distribution



Peak Candela

277909 cd

Calculate Center Beam Intensities

lux = 277909 / distance(m)^2

fc = 277909 / distance(ft)^2

Measurement Date: 5/8/2024

KL Par FC IP (8500K, VNSP)

Key Measurements

Output

Total Lumen Output: 9752 lm

Peak Intensity: 304577 cd

Beam

Beam Angle (50%): 9.4°

Field Angle (10%): 17.1°

Cutoff Angle (2.5%): 21.3°

Color

Color Temperature: 8470 K

CRI: 86.1

TLCI: 80

TM30 R_F: 83.0

TM30 R_g: 96.7

Power Details

Efficacy: 31 Lumen/Watt

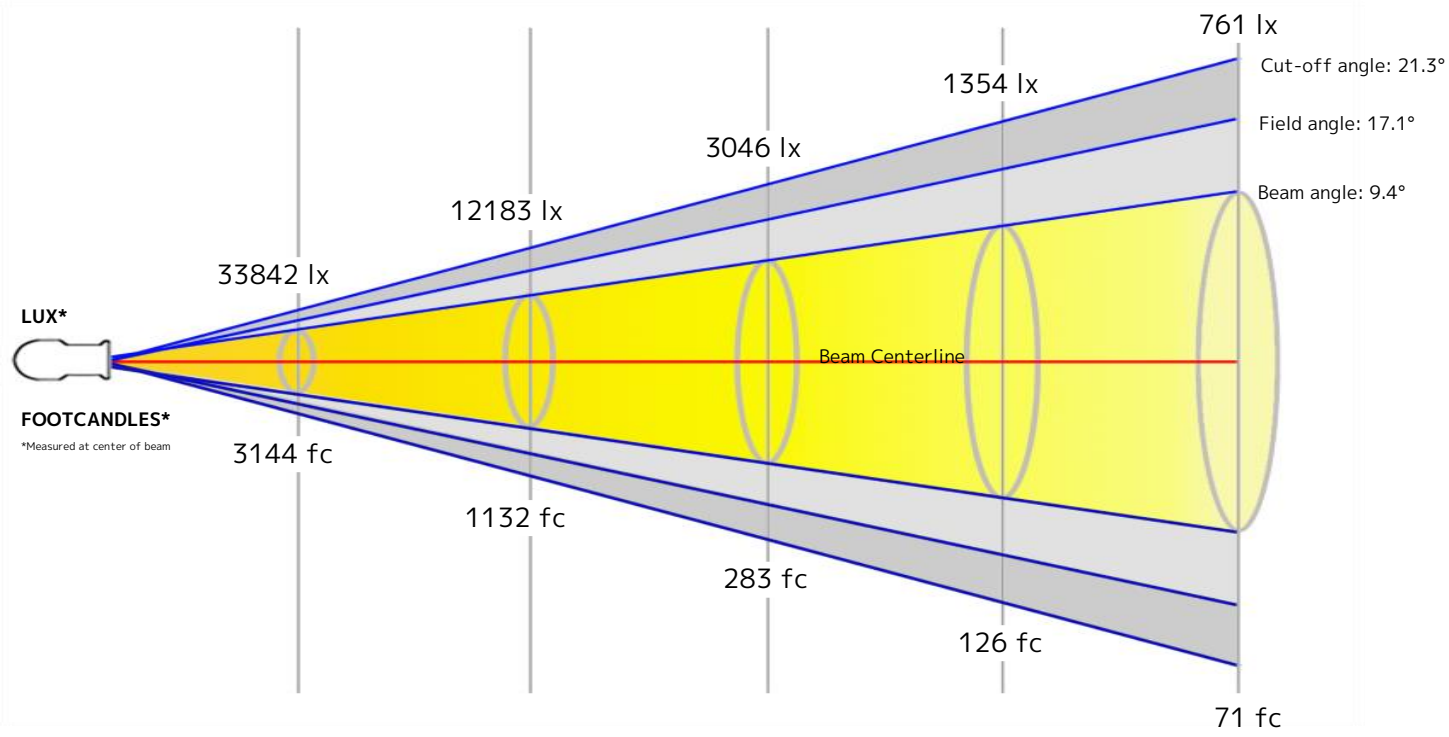
Power: 315 W

Supply Voltage: 119 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.5 m	0.8 m	1.6 m	2.5 m	3.3 m



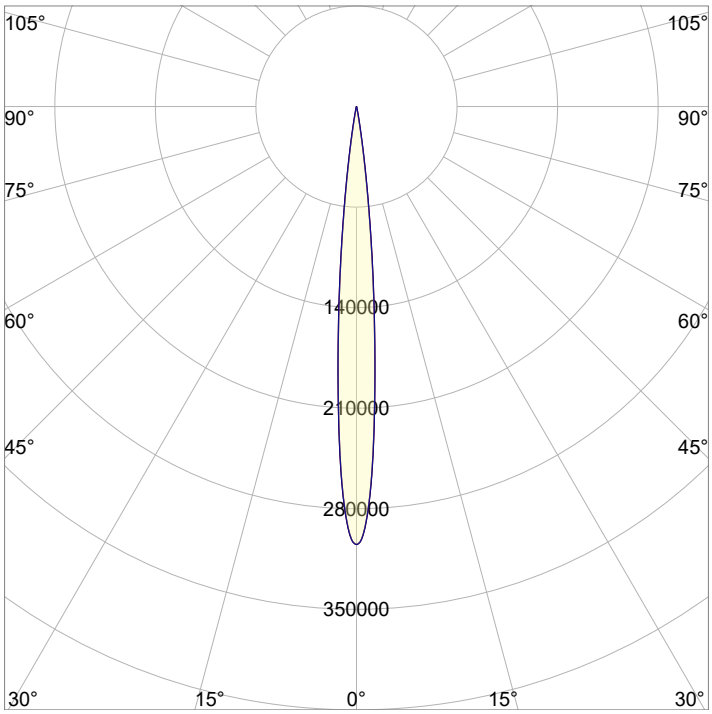
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	1.6 ft	2.7 ft	5.4 ft	8.1 ft	10.8 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	304577	76144	33842	19036	12183	8460	6216	4759	3760	3046	2517	2115	1802	1554	1354	1190	1054	940	844	761
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	28296.2	7074	3144	1768.5	1131.8	786	577.5	442.1	349.3	283	233.9	196.5	167.4	144.4	125.8	110.5	97.9	87.3	78.4	70.7

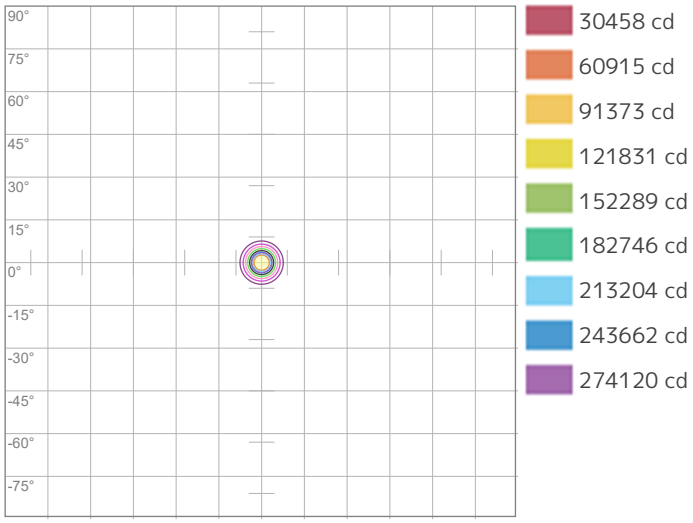
Measurement Date: 5/8/2024

Angular Distribution



Beam Angle - 50%
9.4°
Field Angle - 10%
17.1°
Cutoff Angle - 2.5%
21.3°

ISO Diagrams

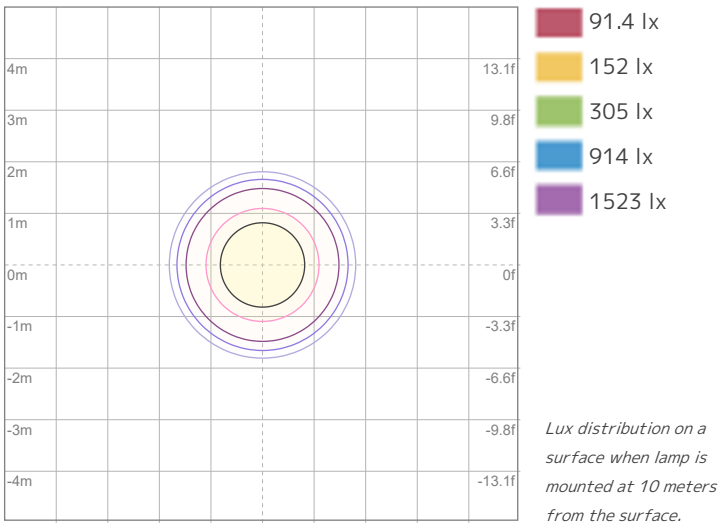


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 304577 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

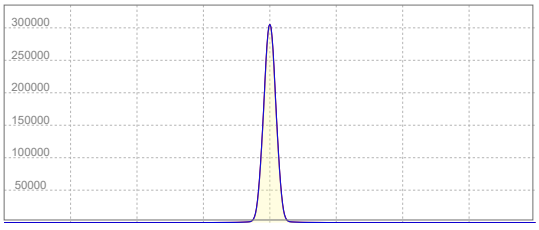
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 3046 lx

Linear Distribution



Peak Candela

304577 cd

Calculate Center Beam Intensities

lux = 304577 / distance(m)^2

fc = 304577 / distance(ft)^2

Measurement Date: 5/8/2024

KL Par FC IP (8500K, VNSP, High Fidelity)

Key Measurements

Output

Total Lumen Output: 9232 lm

Peak Intensity: 286713 cd

Beam

Beam Angle (50%): 9.5°

Field Angle (10%): 17.1°

Cutoff Angle (2.5%): 21.3°

Color

Color Temperature: 8560 K

CRI: 88.8

TLCI: 89

TM30 R_F: 85.6

TM30 R_g: 98.8

Power Details

Efficacy: 30 Lumen/Watt

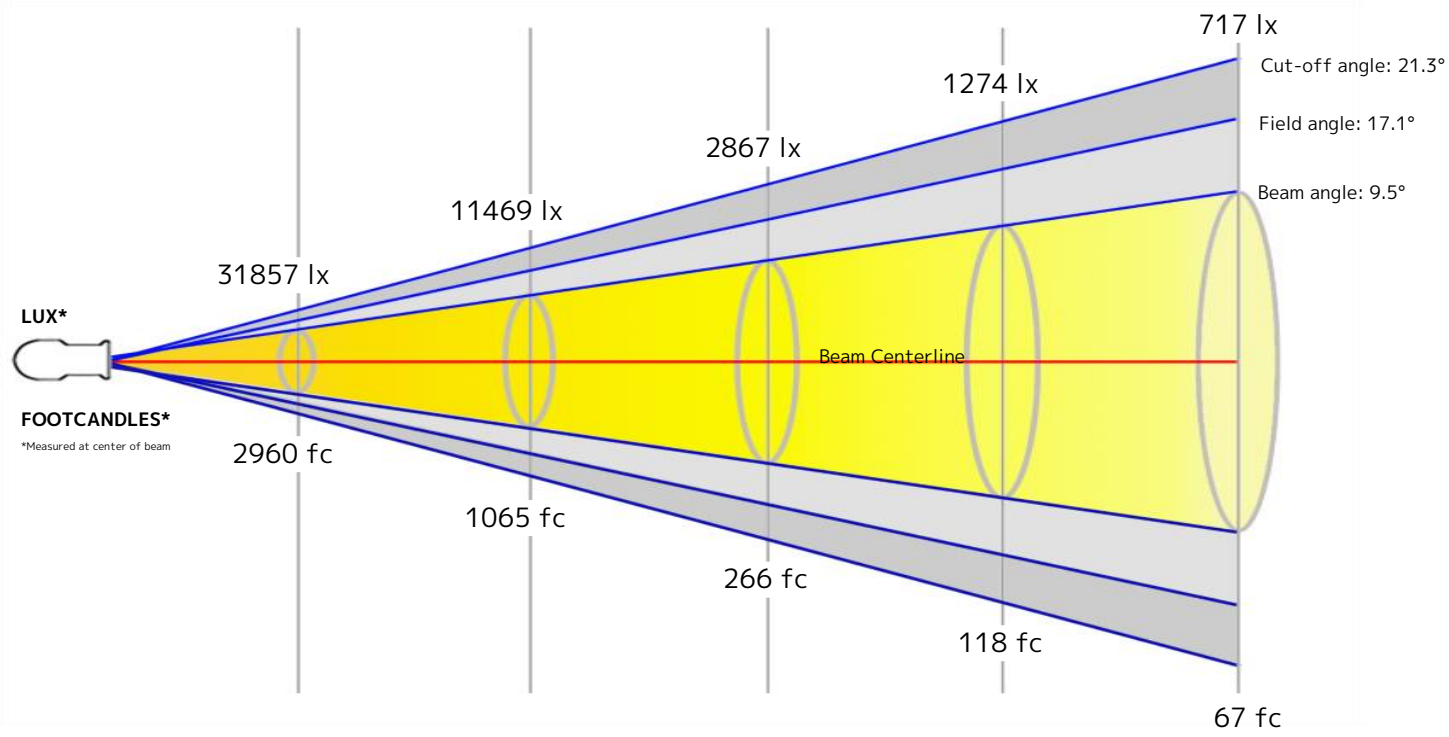
Power: 310 W

Supply Voltage: 119 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.5 m	0.8 m	1.7 m	2.5 m	3.3 m



Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	1.6 ft	2.7 ft	5.4 ft	8.2 ft	10.9 ft

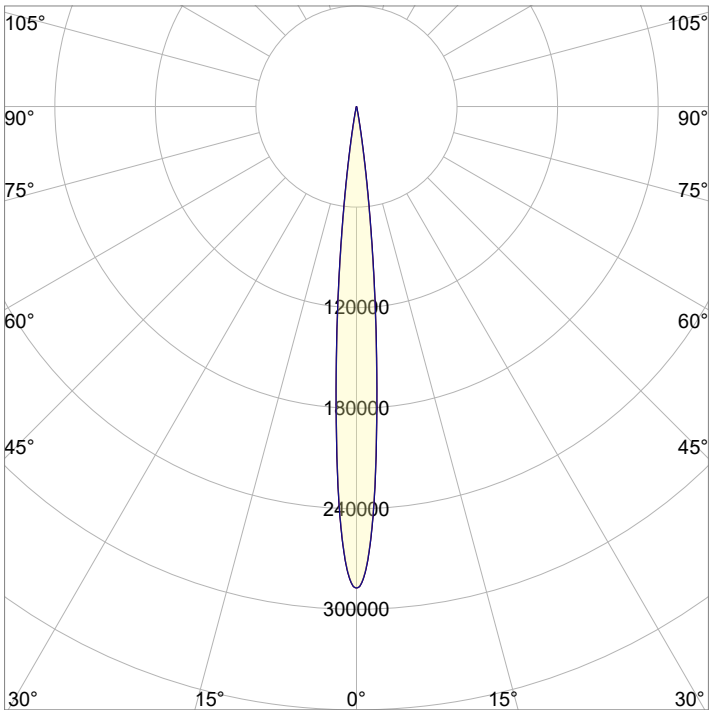
Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	286713	71678	31857	17920	11469	7964	5851	4480	3540	2867	2370	1991	1697	1463	1274	1120	992	885	794	717
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	26636.5	6659.1	2959.6	1664.8	1065.5	739.9	543.6	416.2	328.8	266.4	220.1	185	157.6	135.9	118.4	104	92.2	82.2	73.8	66.6

Measurement Date: 5/8/2024

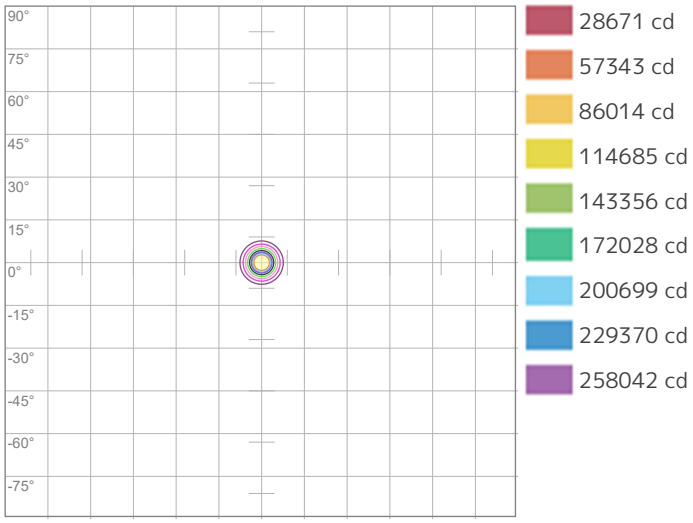
KL Par FC IP (8500K, VNSP, High Fidelity)

Angular Distribution



Beam Angle - 50%
9.5°
Field Angle - 10%
17.1°
Cutoff Angle - 2.5%
21.3°

ISO Diagrams

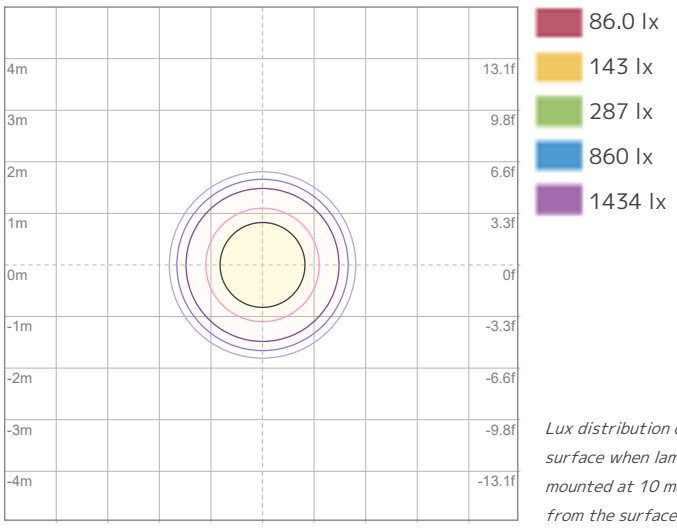


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 286713 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

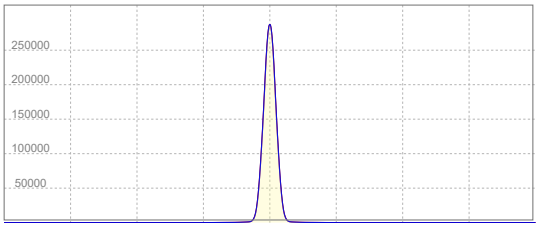
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 2867 lx

Linear Distribution



Peak Candela

286713 cd

Calculate Center Beam Intensities

lux = 286713 / distance(m)^2

fc = 286713 / distance(ft)^2

Measurement Date: 5/8/2024

KL Par FC IP (XWFL)

Key Measurements

Output

Total Lumen Output: 9329 lm

Peak Intensity: 4211 cd

Beam

Beam Angle (50%): 97.4°

Field Angle (10%): 129.1°

Cutoff Angle (2.5%): 149.5°

Color

Color Temperature: 6788 K

CRI: 90.2

TLCI: 93

TM30 R_F: 87.8

TM30 R_g: 100.8

Power Details

Efficacy: 29 Lumen/Watt

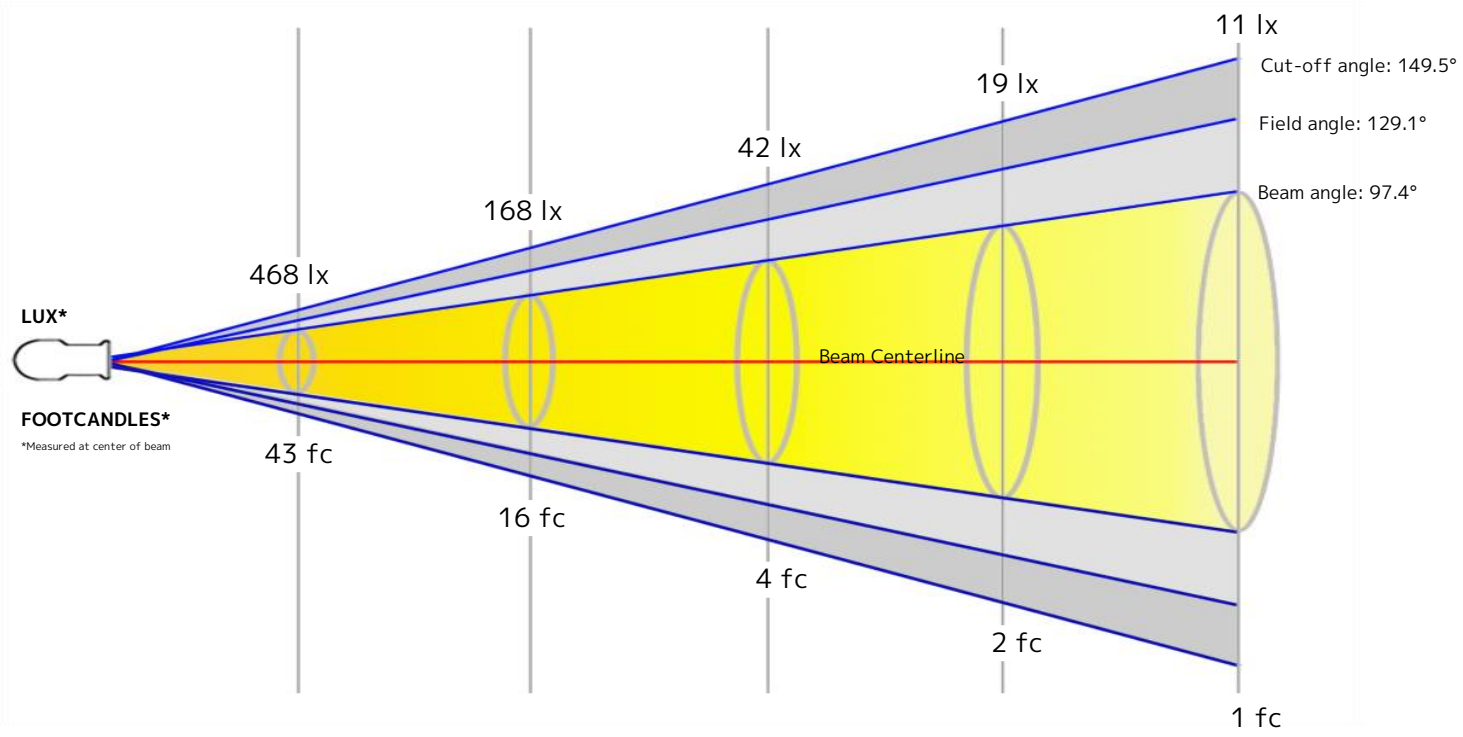
Power: 320 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	6.8 m	11.4 m	22.8	34.1 m	45.5 m



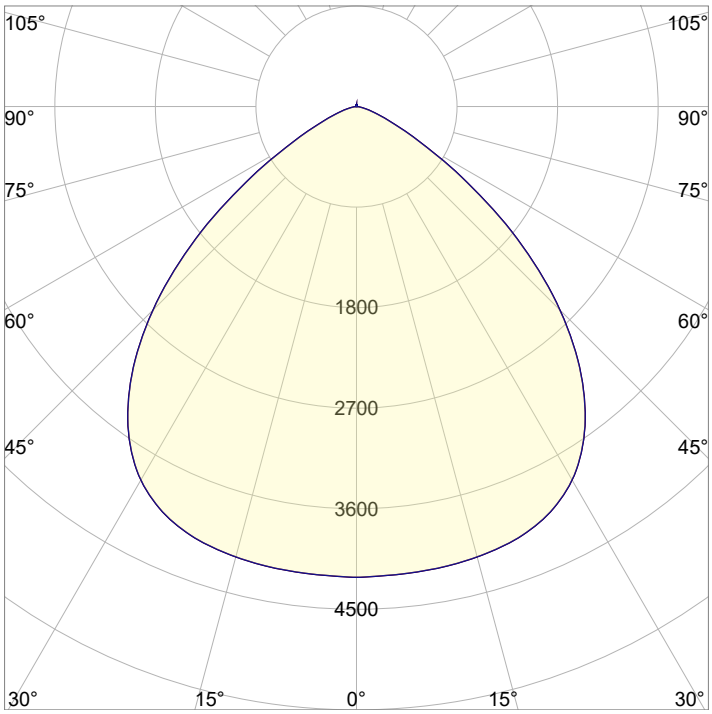
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	22.3 ft	37.3 ft	74.6 ft	111.9 ft	149.3 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	4211	1053	468	263	168	117	86	66	52	42	35	29	25	21	19	16	15	13	12	11
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	391.2	97.8	43.5	24.5	15.6	10.9	8	6.1	4.8	3.9	3.2	2.7	2.3	2	1.7	1.5	1.4	1.2	1.1	1

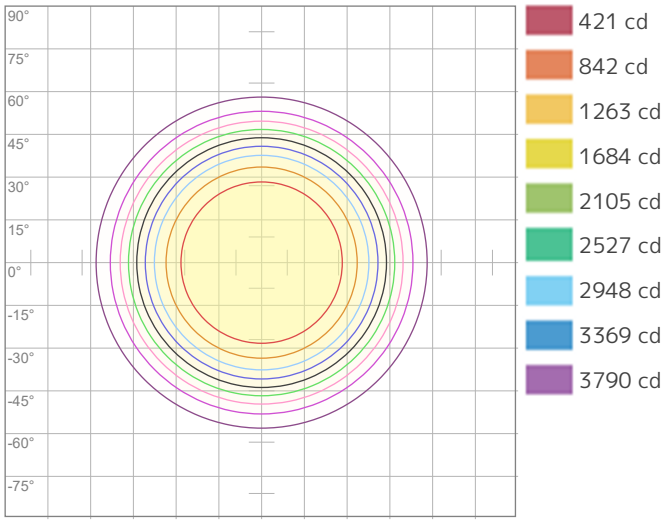
Measurement Date: 5/10/2024

Angular Distribution



Beam Angle - 50%
97.4°
Field Angle - 10%
129.1°
Cutoff Angle - 2.5%
149.5°

ISO Diagrams

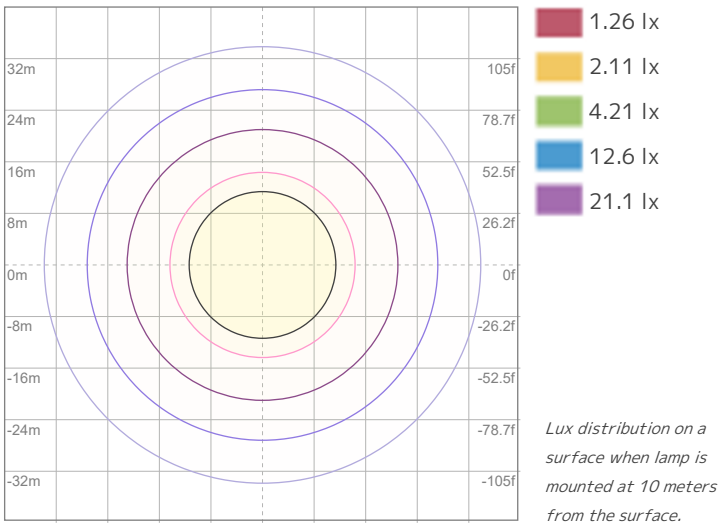


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 4211 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

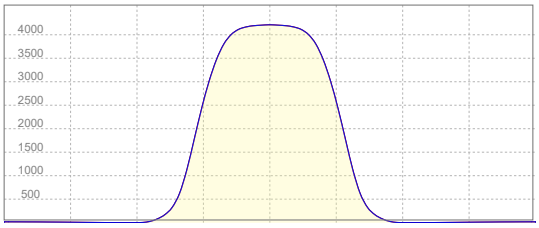
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 42.1 lx

Linear Distribution



Peak Candela

4211 cd

Calculate Center Beam Intensities

lux = 4211 / distance(m)^2

fc = 4211 / distance(ft)^2

Measurement Date: 5/10/2024

KL Par FC IP (Ovalizer)

Key Measurements

Output

Total Lumen Output: 10279 lm

Peak Intensity: 147955 cd

Beam

Beam Angle (50%): 13.2°x 16.4°

Field Angle (10%): 23.6°x 29.5°

Cutoff Angle (2.5%): 30.6°x 38.6°

Color

Color Temperature: 6661 K

CRI: 89.8

TLCI: 93

TM30 R_F: 87.8

TM30 R_g: 99.8

Power Details

Efficacy: 32 Lumen/Watt

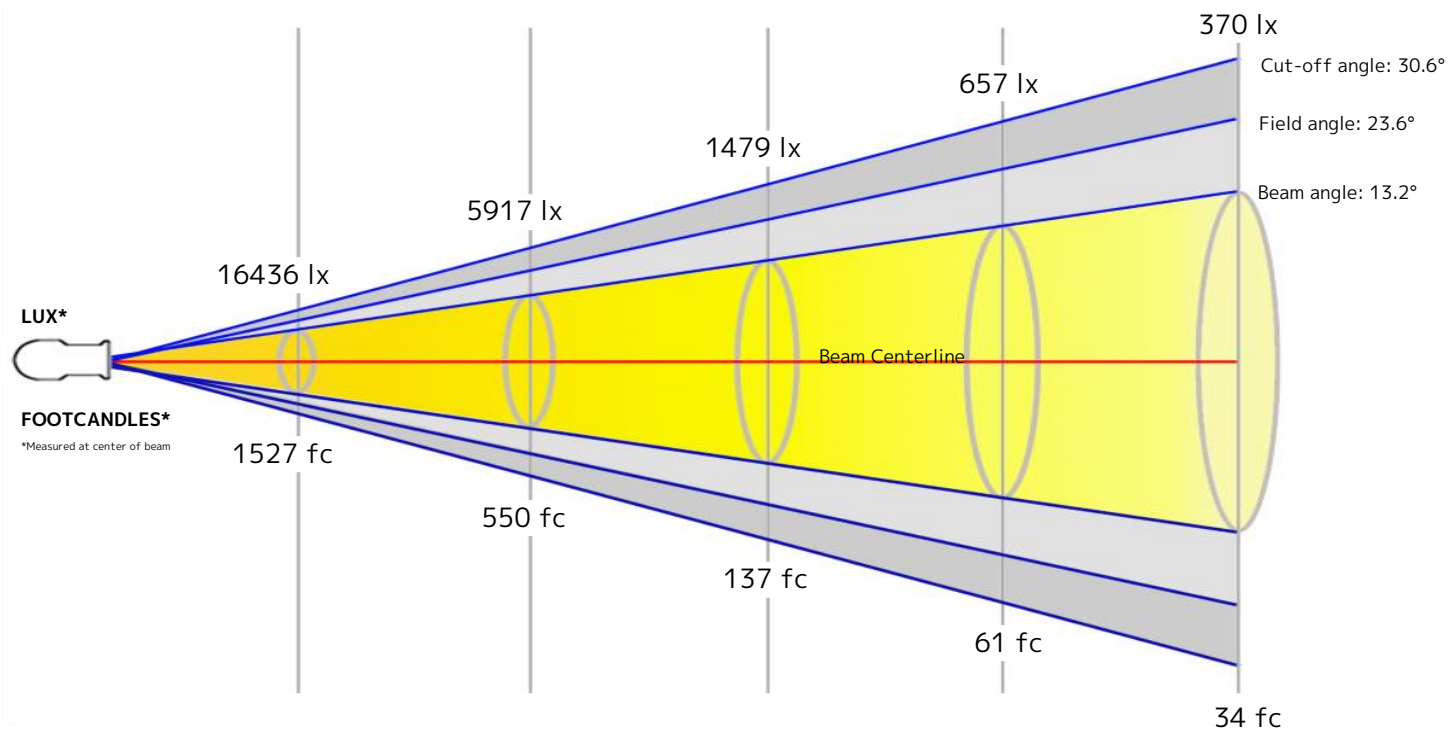
Power: 321 W

Supply Voltage: 120 V

Current: - A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.7 m	1.2 m	2.3 m	3.5 m	4.6 m



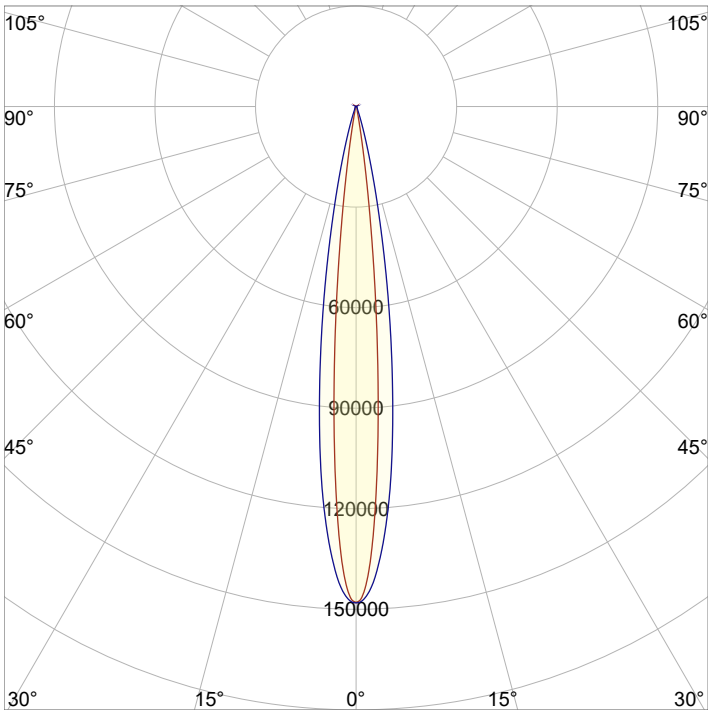
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	2.3 ft	3.8 ft	7.6 ft	11.3 ft	15.1 ft

Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	147926	36981	16436	9245	5917	4109	3019	2311	1826	1479	1223	1027	875	755	657	578	512	457	410	370
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	13742.8	3435.7	1527	858.9	549.7	381.7	280.5	214.7	169.7	137.4	113.6	95.4	81.3	70.1	61.1	53.7	47.6	42.4	38.1	34.4

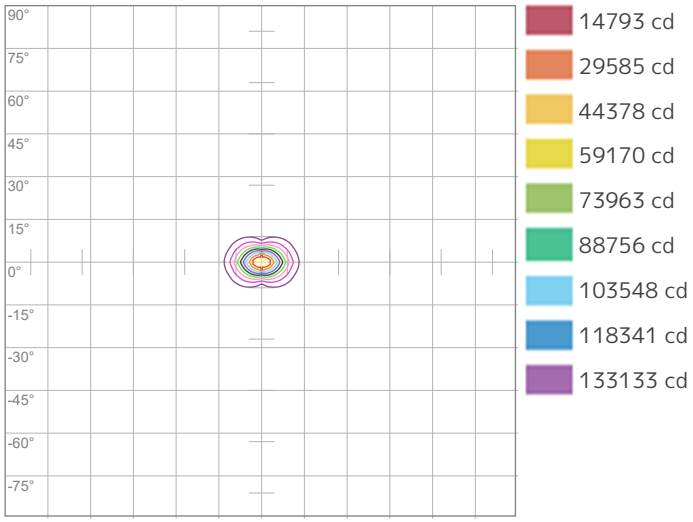
Measurement Date: 5/10/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
13.2°	16.4°
Field Angle - 10%	Field Angle - 10%
23.6°	29.5°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
30.6°	38.6°

ISO Diagrams

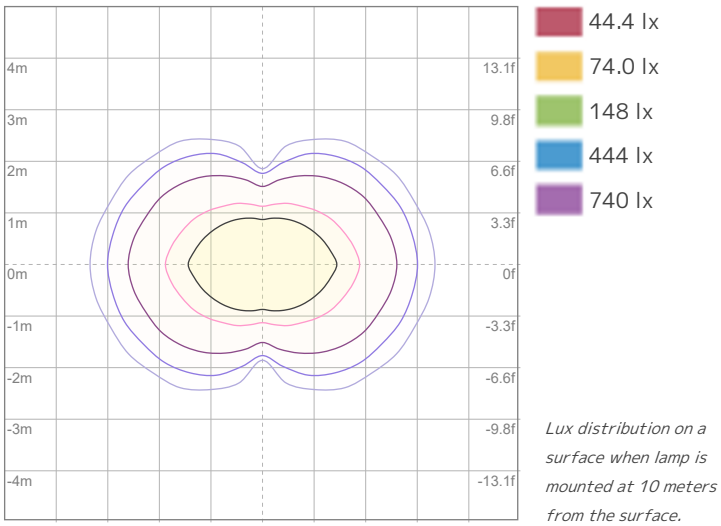


ISO Candela Diagram

Conditions:

Number of c-planes: 4

Candela at center: 147926 cd



Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

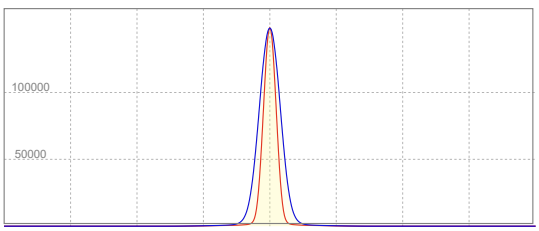
ISO LUX Diagram

Conditions:

Number of c-planes: 4

LUX at center: 1479 lx

Linear Distribution



Peak Candela

147955 cd

Calculate Center Beam Intensities

lux = 147955 / distance(m)^2

fc = 147955 / distance(ft)^2

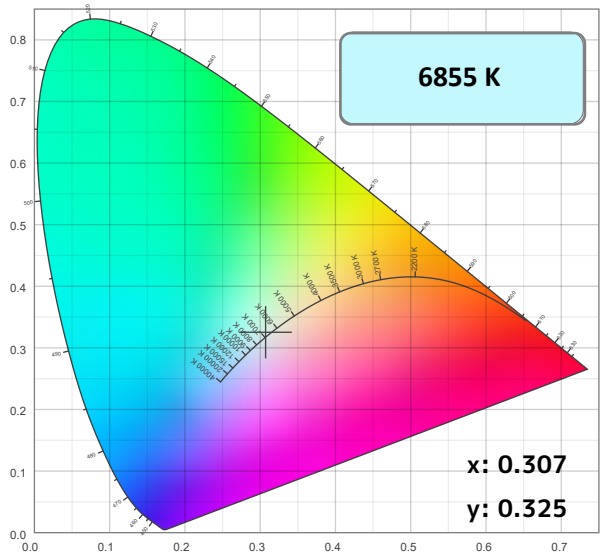
Measurement Date: 5/10/2024

Color Temperature: 6855K

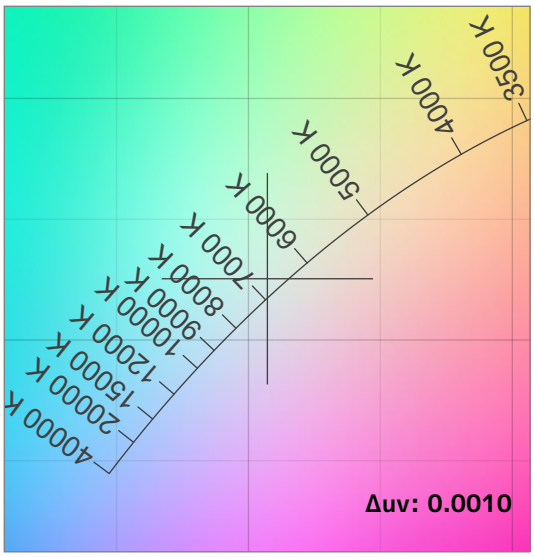
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
90.3	82.0	87.9	100.9	93	88.9	0.307	0.325	0.0010	22	58

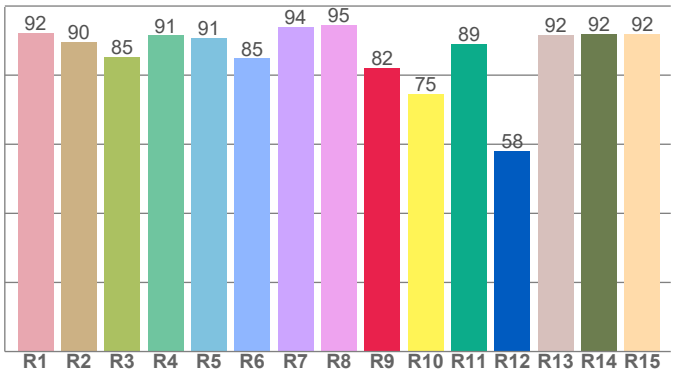
CIE 1931



CIE 1931 ZOOMED

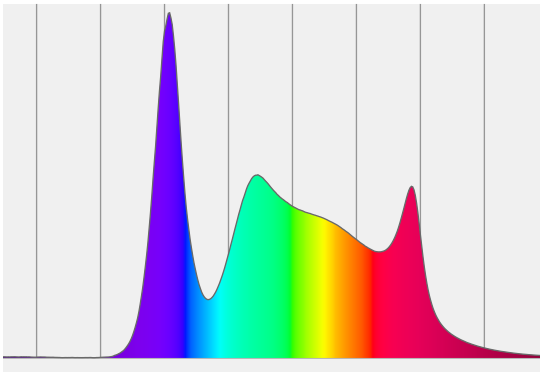


CRI: 90.3 (R1-R8)



Spectral Power Distribution (SPD)

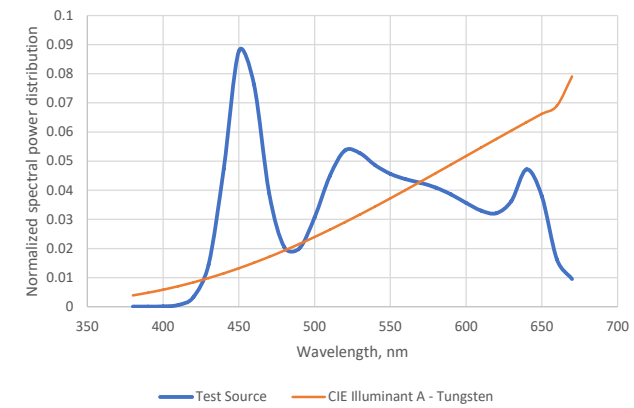
Dominant Wavelength 483 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 22

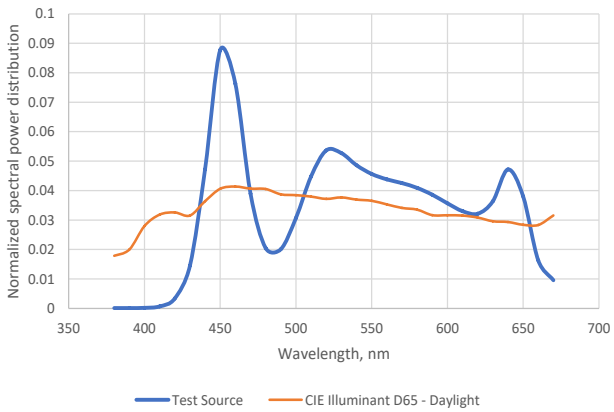
Spectral variance



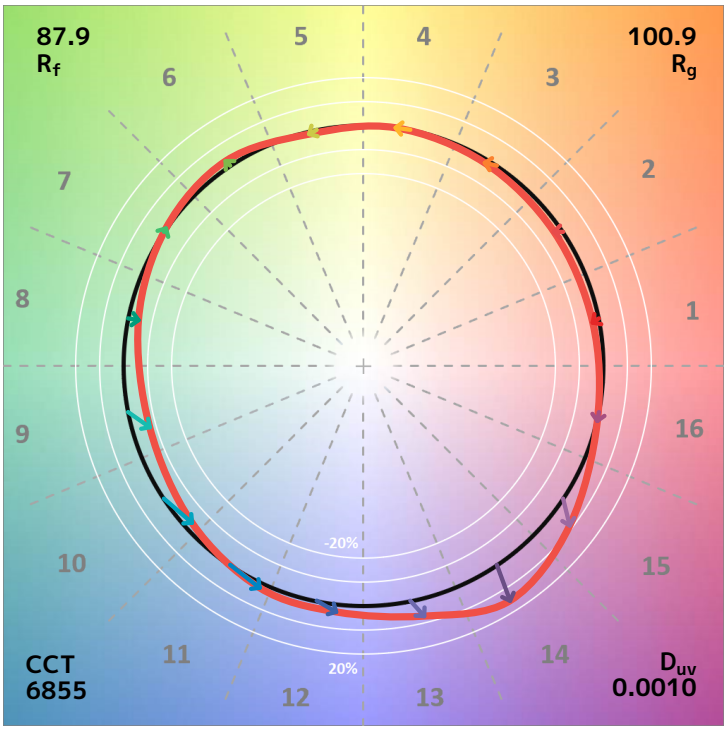
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 58

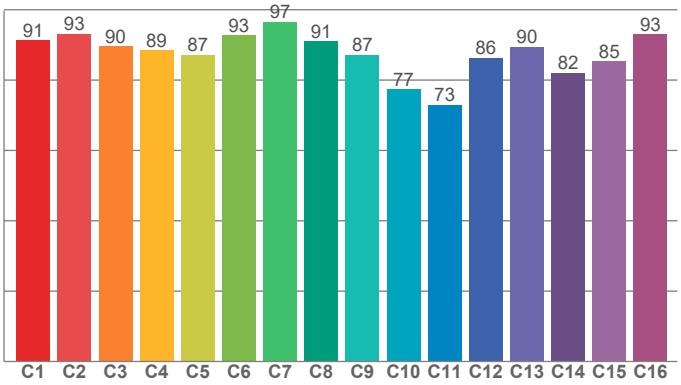
Spectral variance



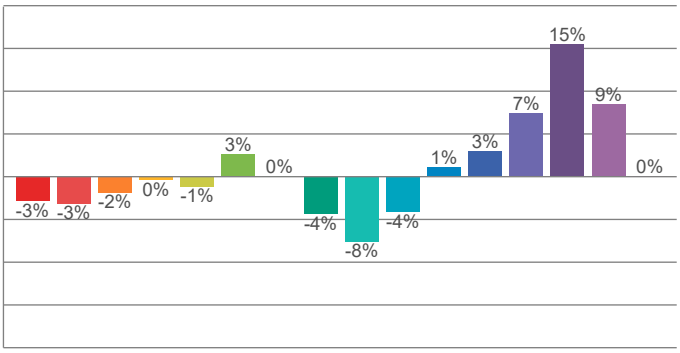
Measurement Date: 5/3/2024



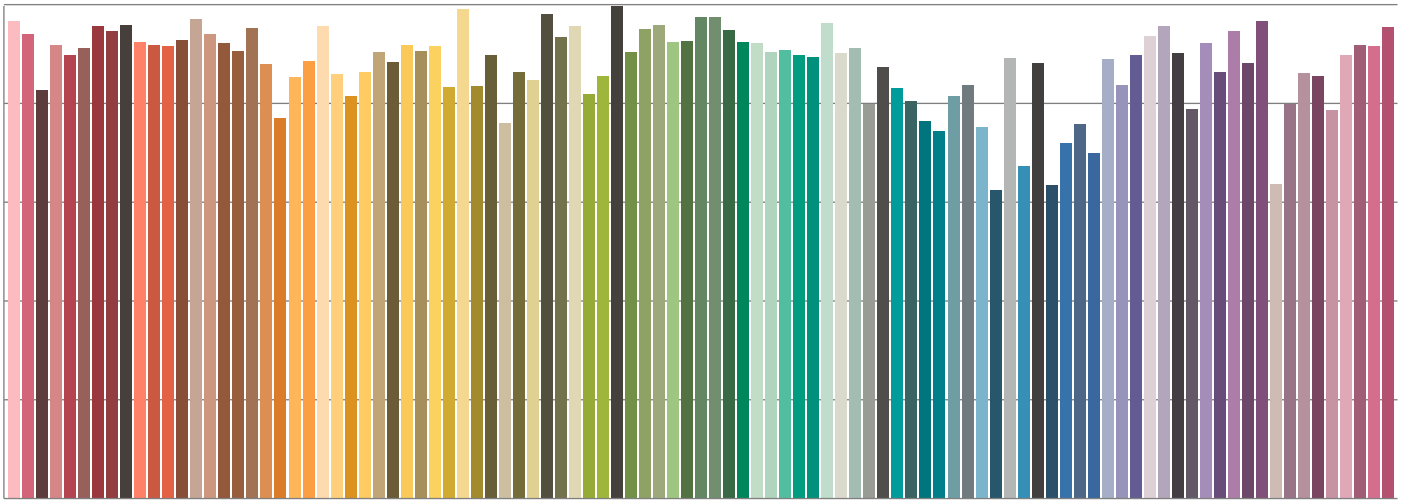
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



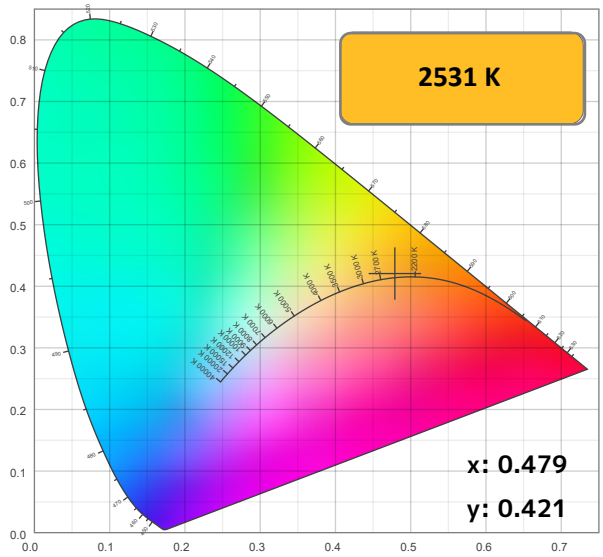
Measurement Date: 5/3/2024

Color Temperature: 2531K

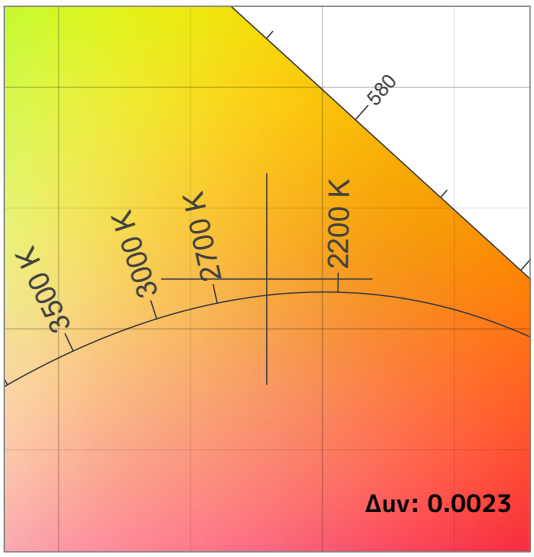
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
90.3	60.7	93.3	104.4	91	89.4	0.479	0.421	0.0023	62	6

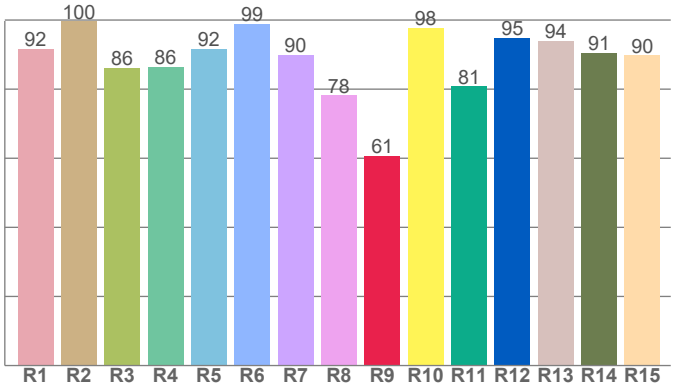
CIE 1931



CIE 1931 ZOOMED

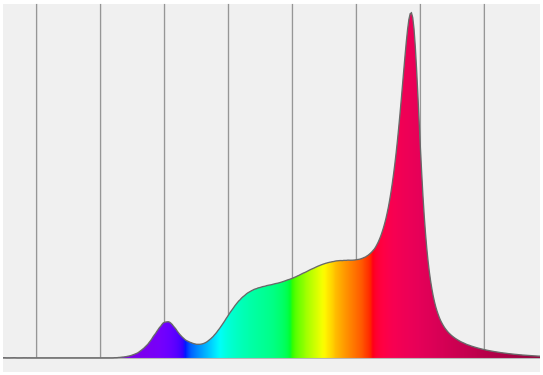


CRI: 90.3 (R1-R8)



Spectral Power Distribution (SPD)

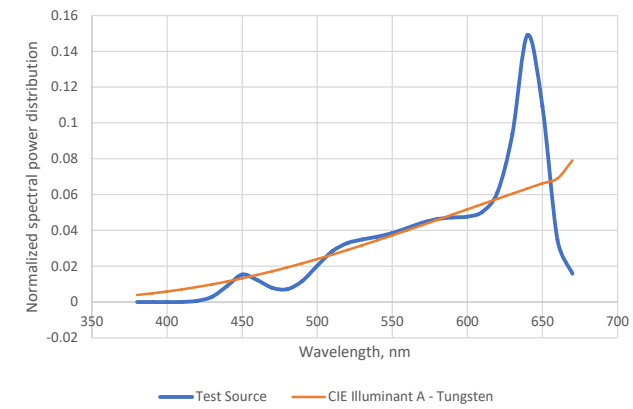
Dominant Wavelength 585 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 62

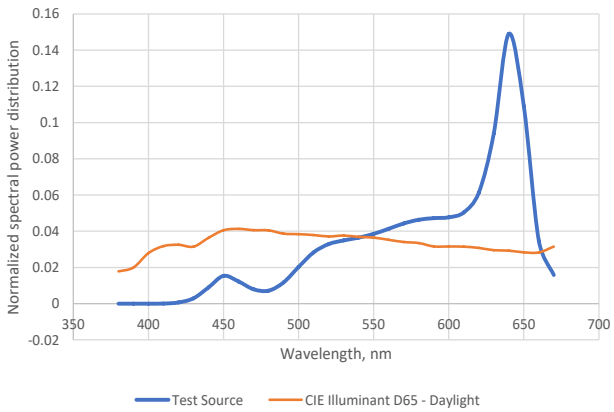
Spectral variance



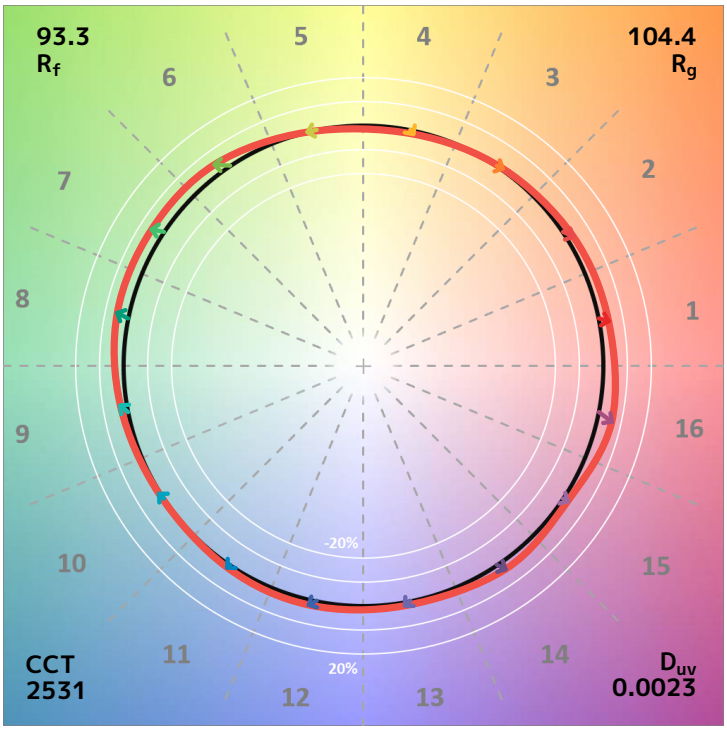
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 6

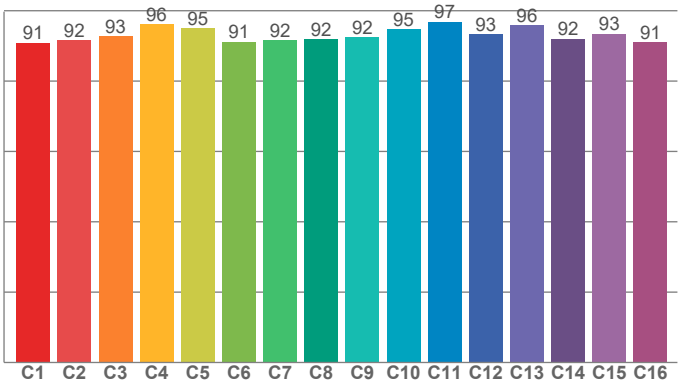
Spectral variance



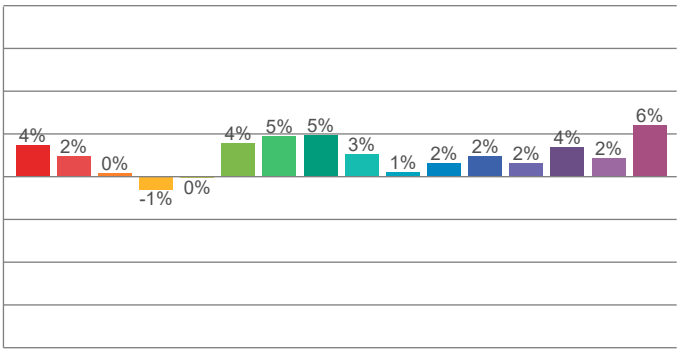
Measurement Date: 5/6/2024



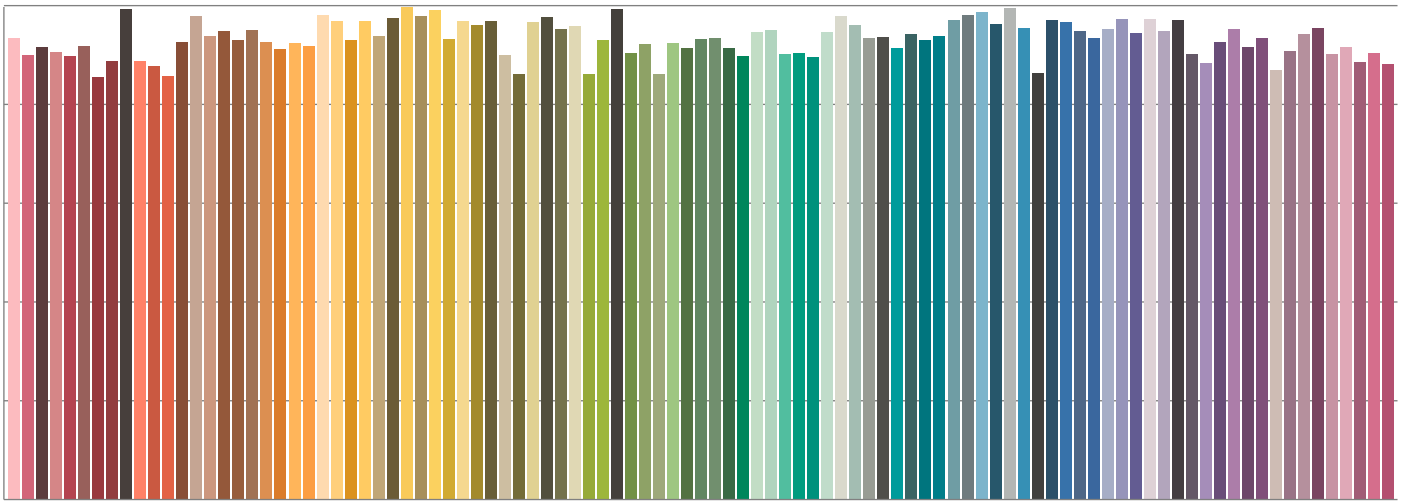
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



Measurement Date: 5/6/2024

KL Par FC IP (2700K, High Fidelity)

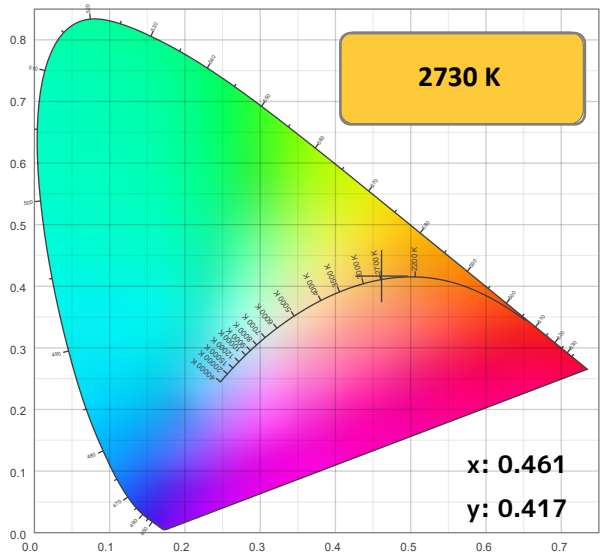
Prepared For ELATION PROFESSIONAL

Color Temperature: 2730K

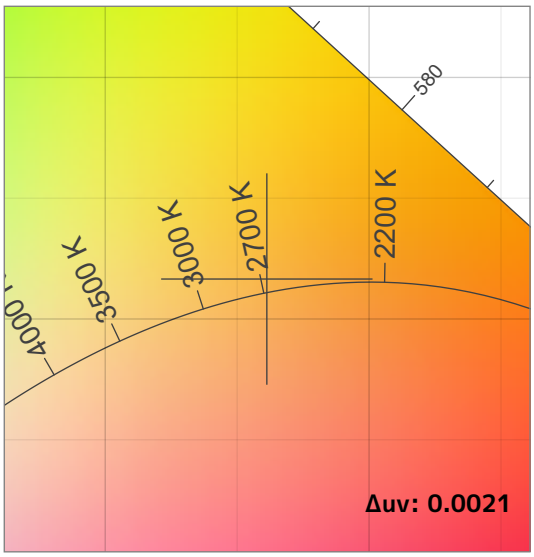
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
94.9	87.3	94.2	103.5	91	93.1	0.461	0.417	0.0021	69	18

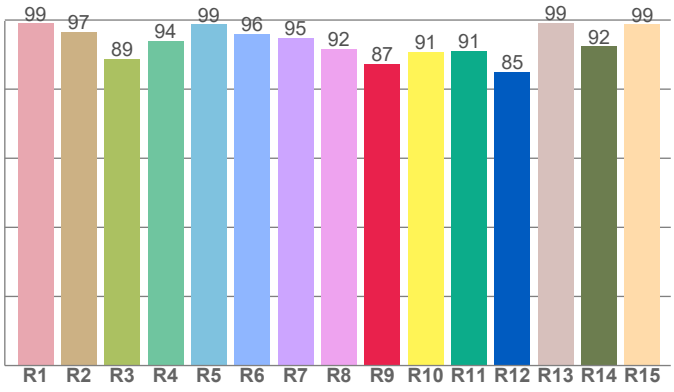
CIE 1931



CIE 1931 ZOOMED

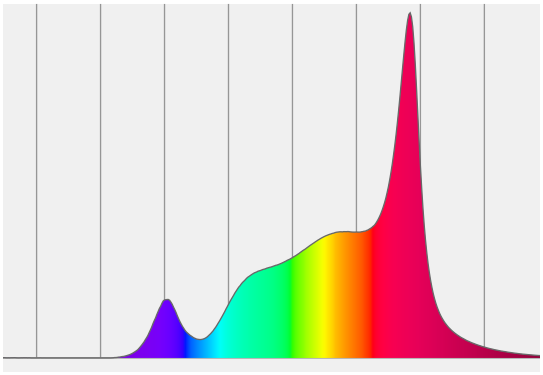


CRI: 94.9 (R1-R8)



Spectral Power Distribution (SPD)

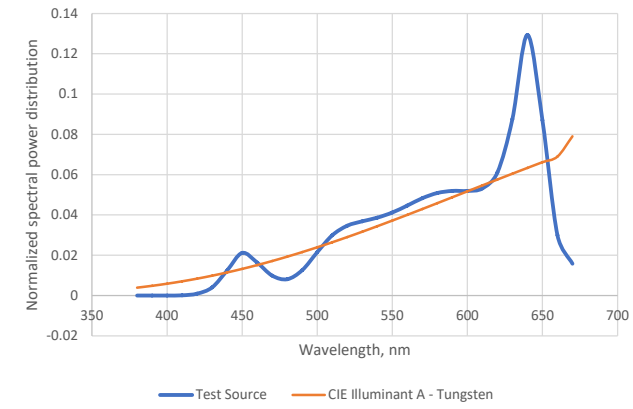
Dominant Wavelength 584 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 69

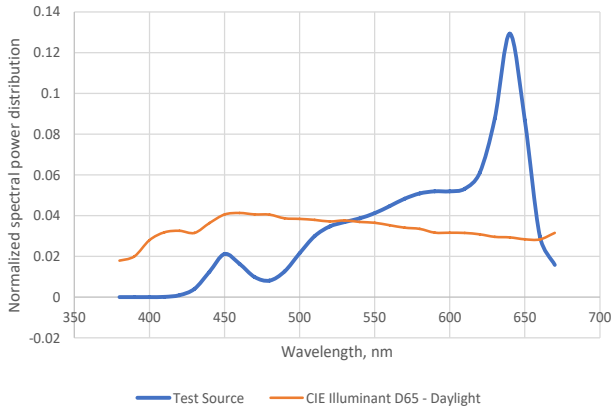
Spectral variance



SSI Spectral Variance Graph- Daylight

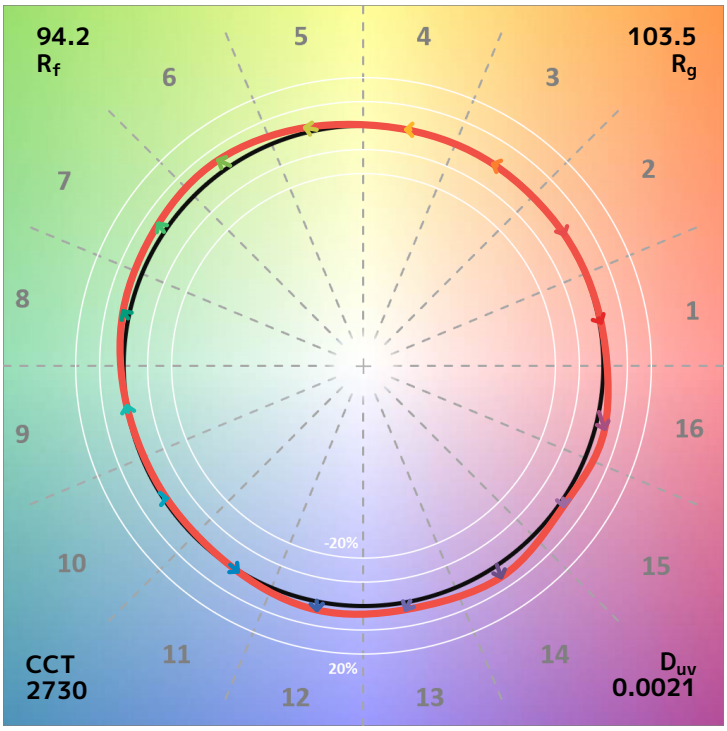
SSI [CIE D65] 18

Spectral variance

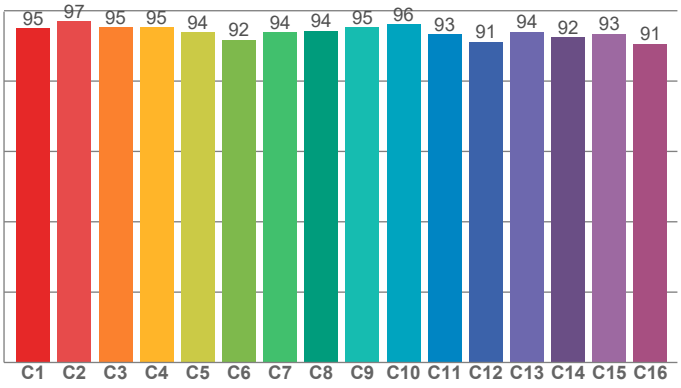


Measurement Date: 5/7/2024

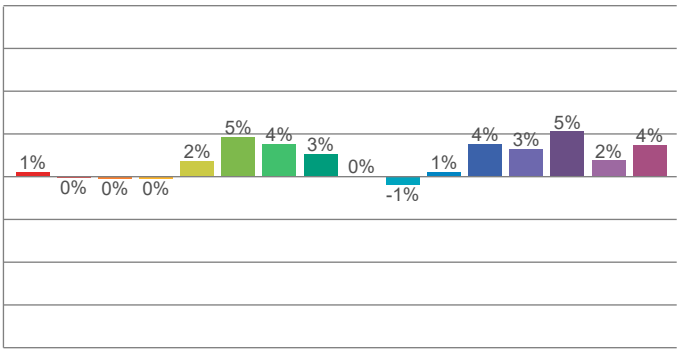
KL Par FC IP (2700K, High Fidelity)



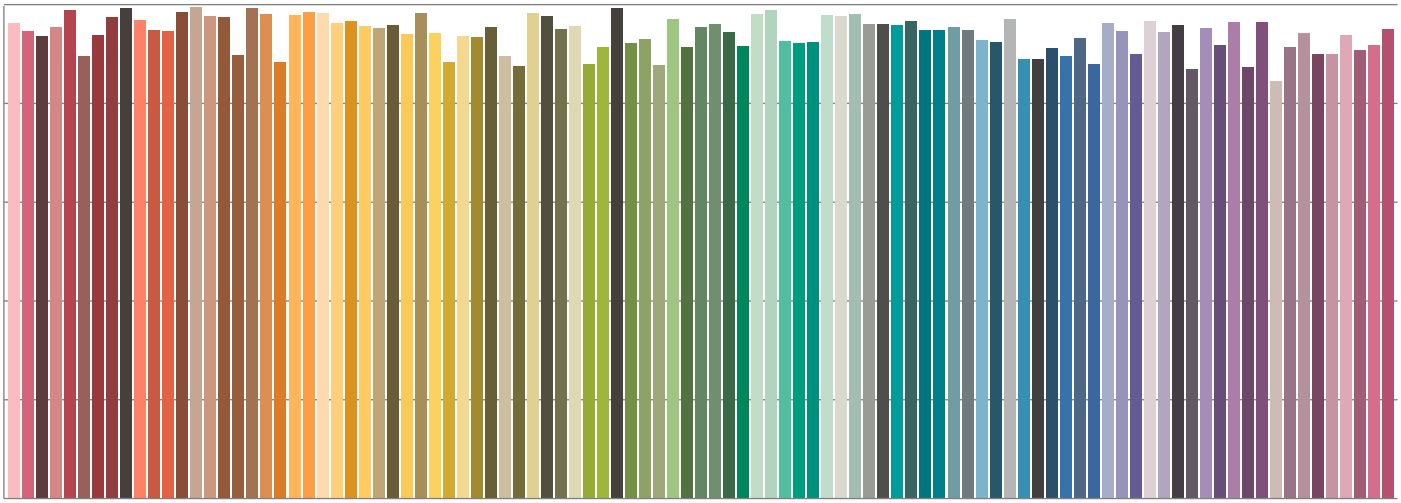
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



Measurement Date: 5/7/2024

KL Par FC IP (3200K)

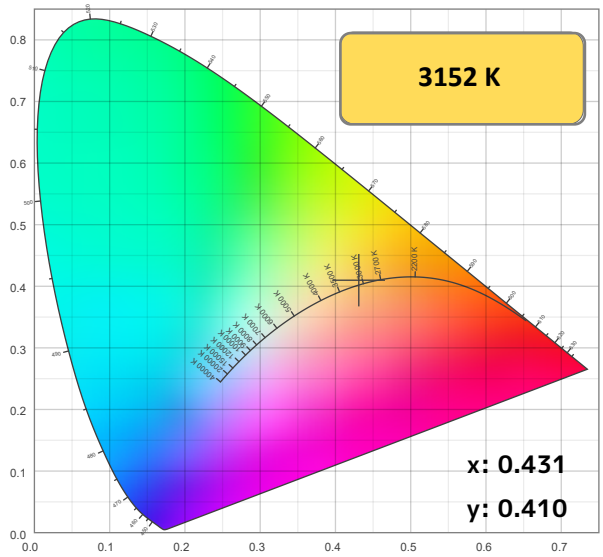
Prepared For ELATION PROFESSIONAL

Color Temperature: 3152K

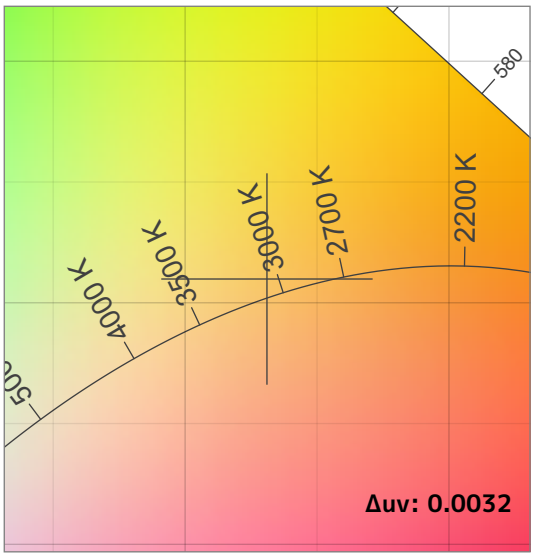
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
91.8	68.3	93.3	104.5	94	93.4	0.431	0.410	0.0032	71	26

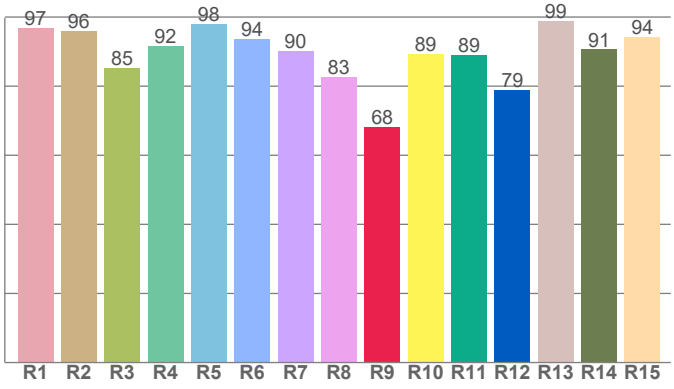
CIE 1931



CIE 1931 ZOOMED

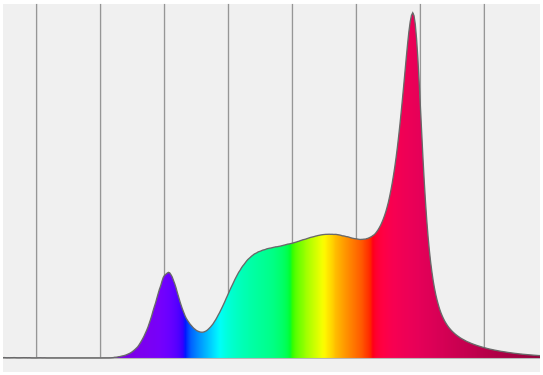


CRI: 91.8 (R1-R8)



Spectral Power Distribution (SPD)

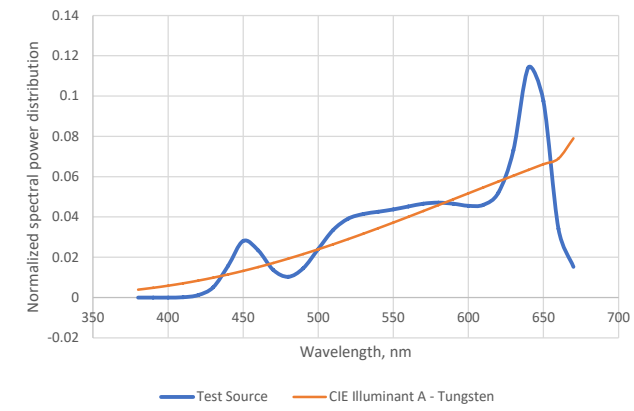
Dominant Wavelength 582 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 71

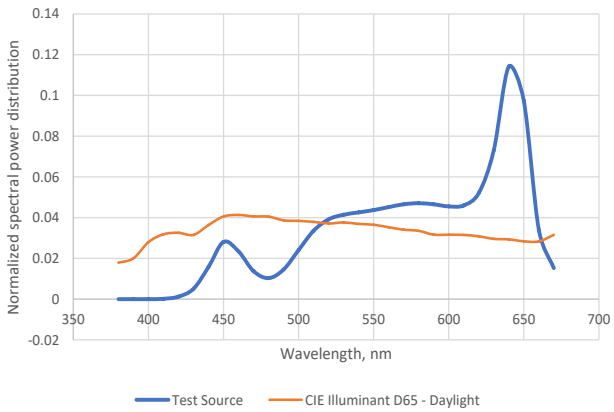
Spectral variance



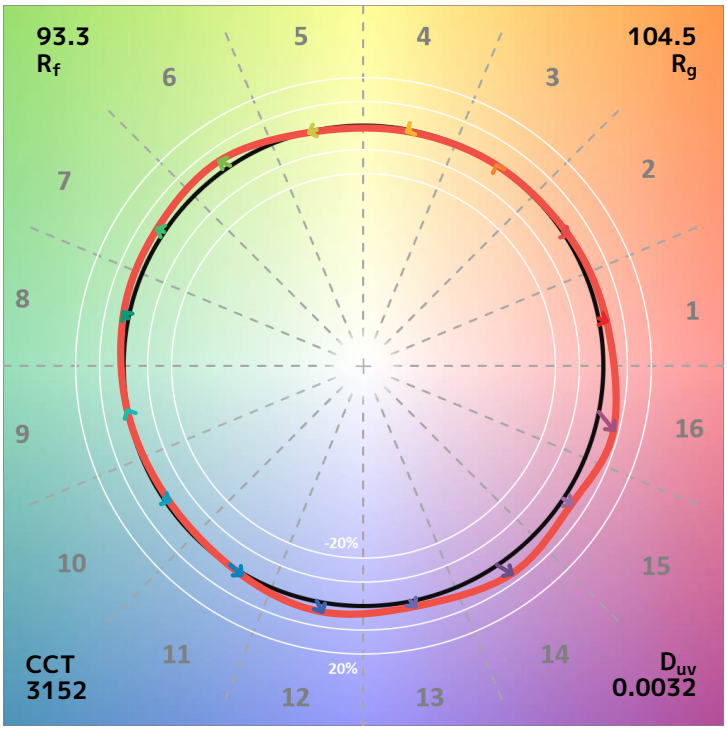
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 26

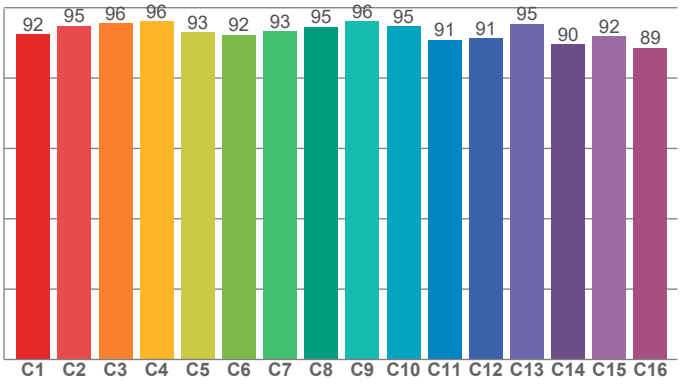
Spectral variance



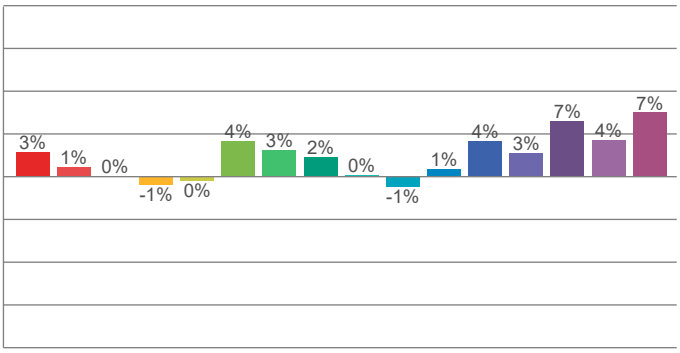
Measurement Date: 5/6/2024



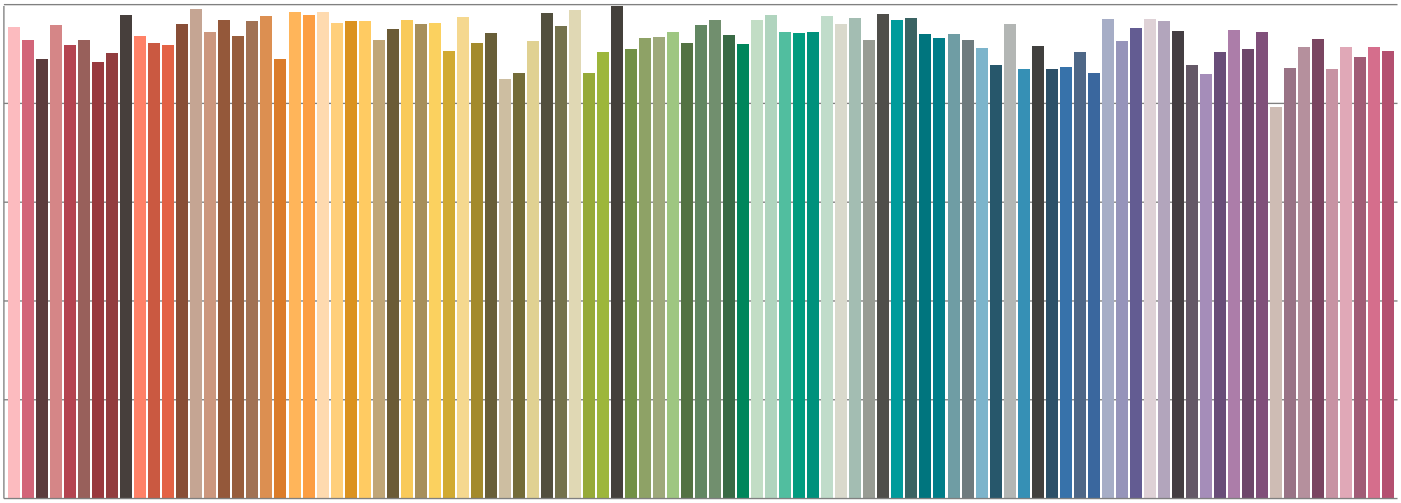
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



Measurement Date: 5/6/2024

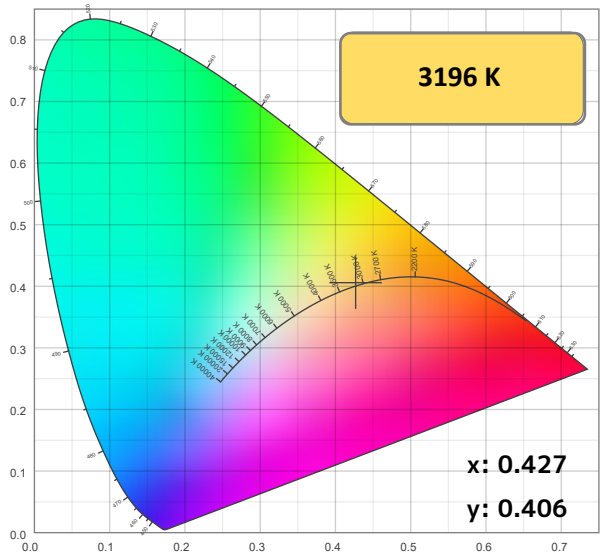
KL Par FC IP (3200K, High Fidelity)

Color Temperature: 3196K

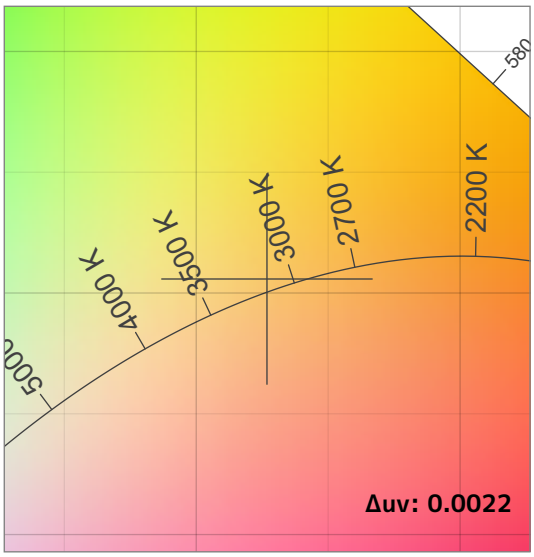
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
93.9	90.5	93.1	103.6	92	93.3	0.427	0.406	0.0022	71	32

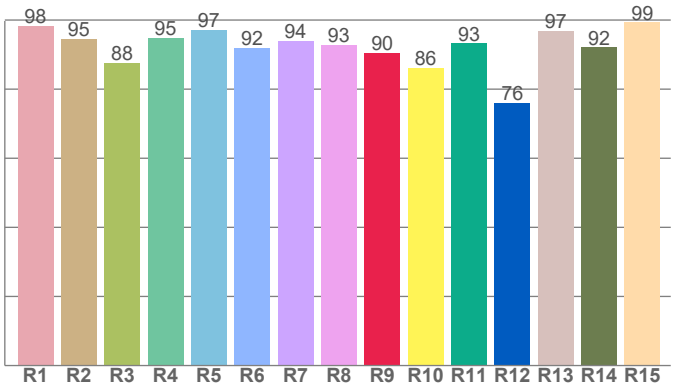
CIE 1931



CIE 1931 ZOOMED

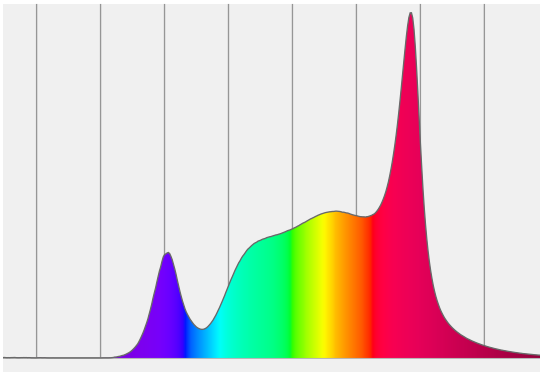


CRI: 93.9 (R1-R8)



Spectral Power Distribution (SPD)

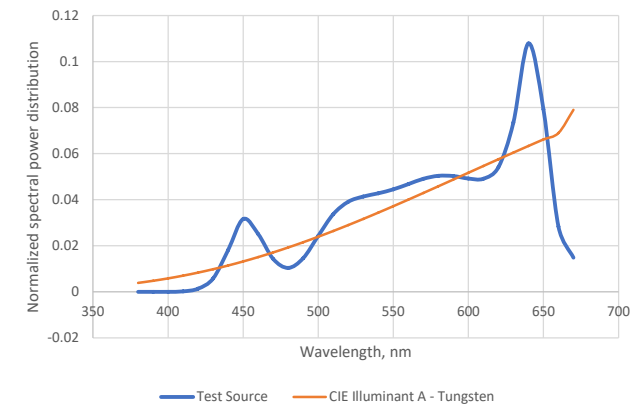
Dominant Wavelength 582 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 71

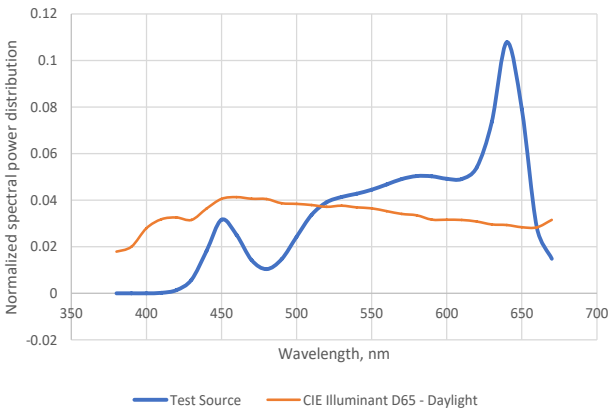
Spectral variance



SSI Spectral Variance Graph- Daylight

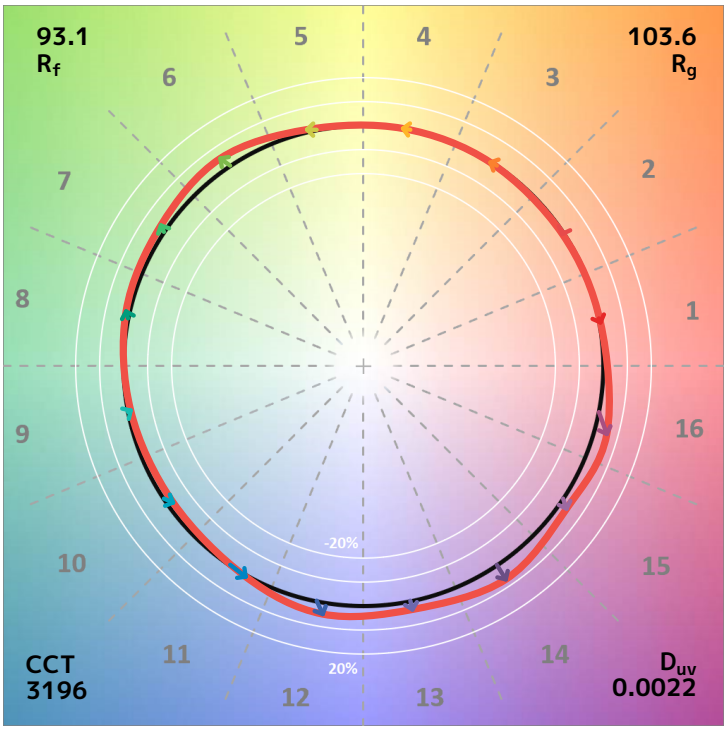
SSI [CIE D65] 32

Spectral variance

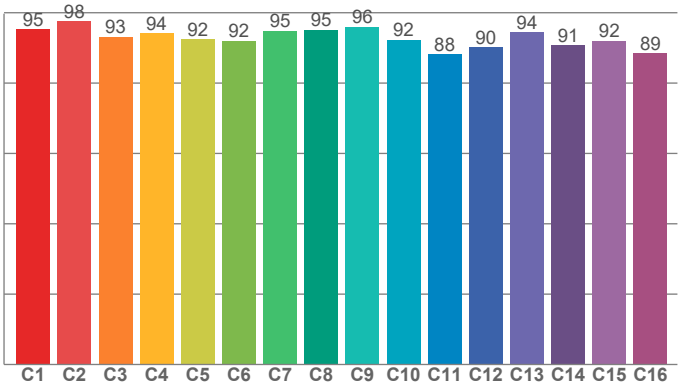


Measurement Date: 5/7/2024

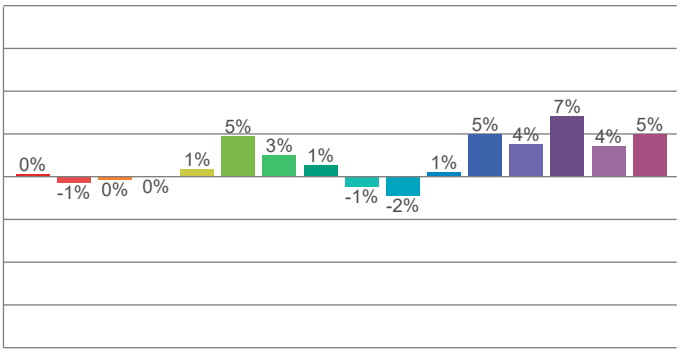
KL Par FC IP (3200K, High Fidelity)



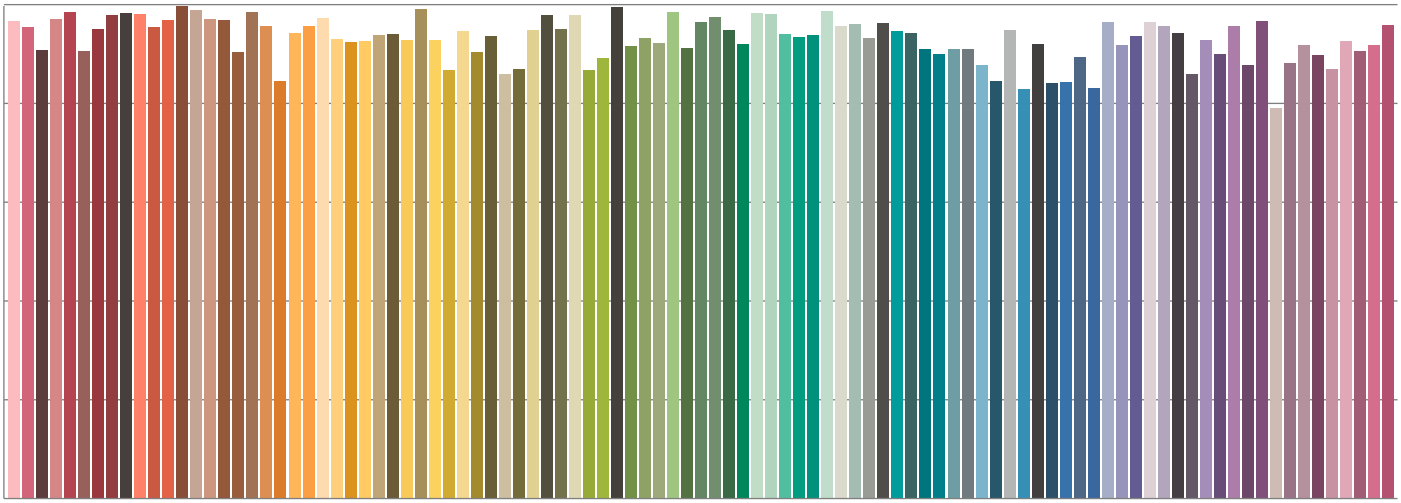
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



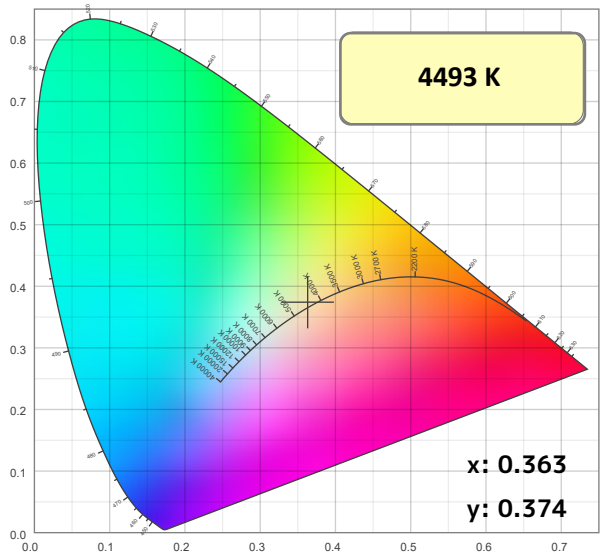
Measurement Date: 5/7/2024

Color Temperature: 4493K

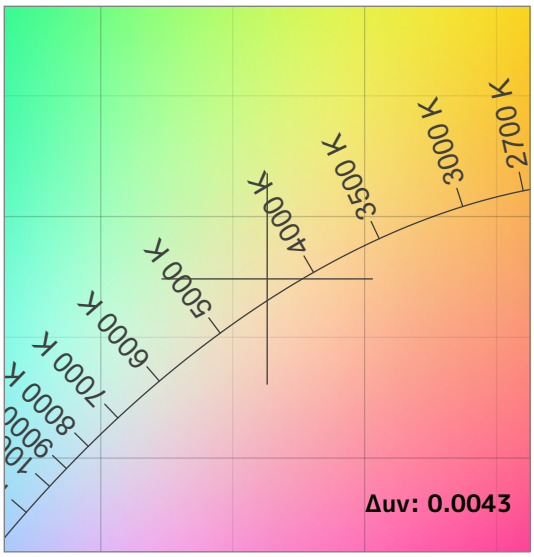
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
91.8	79.5	91.2	103.9	94	93.3	0.363	0.374	0.0043	54	50

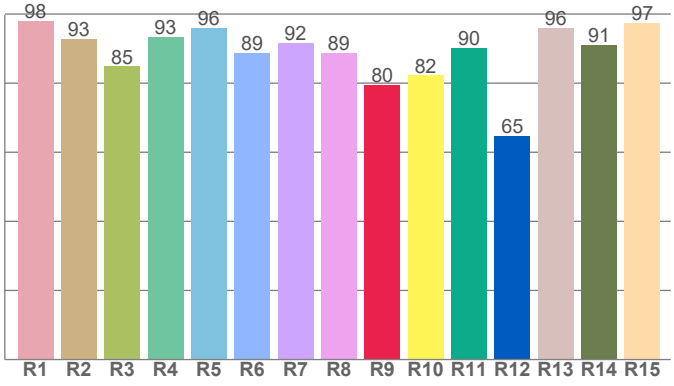
CIE 1931



CIE 1931 ZOOMED

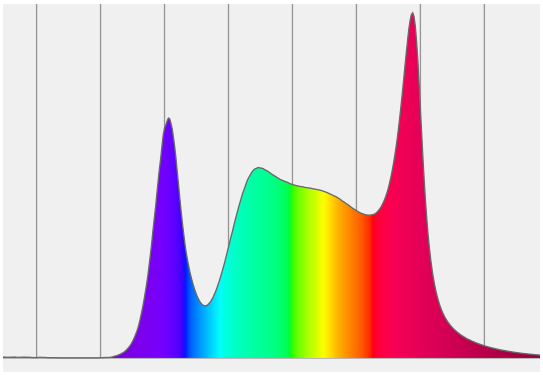


CRI: 91.8 (R1-R8)



Spectral Power Distribution (SPD)

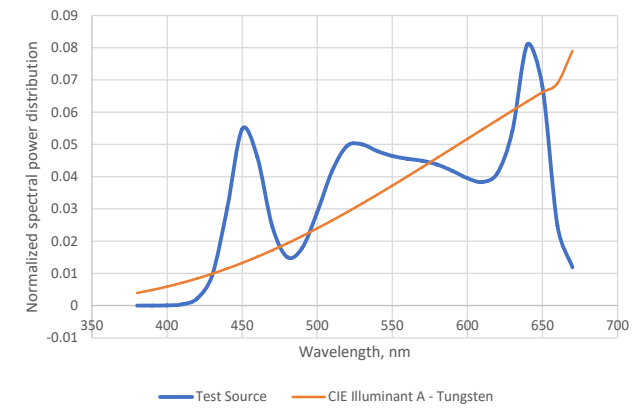
Dominant Wavelength 578 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 54

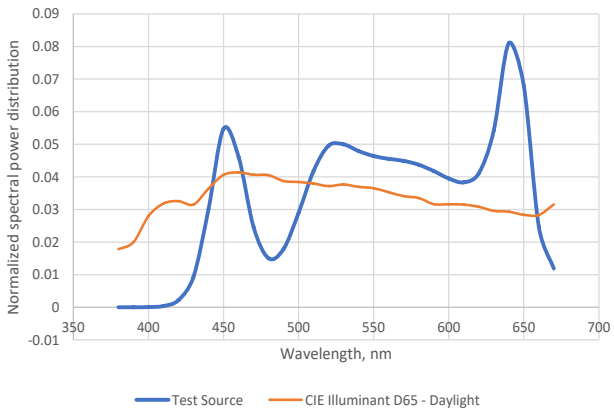
Spectral variance



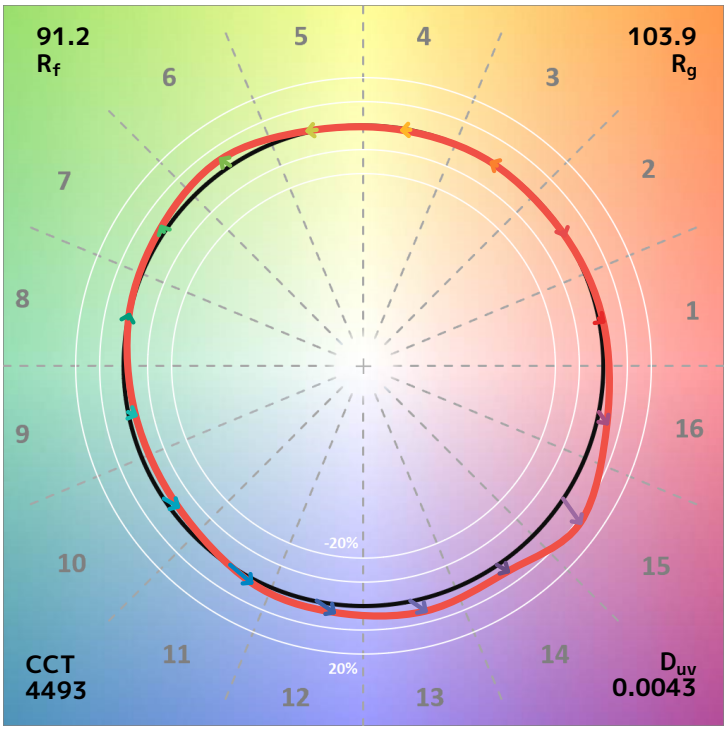
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 50

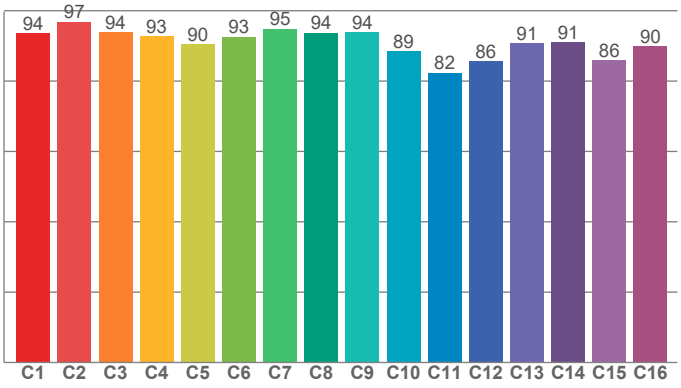
Spectral variance



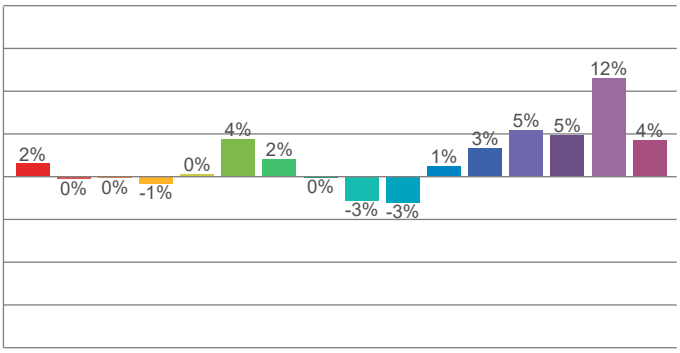
Measurement Date: 5/6/2024



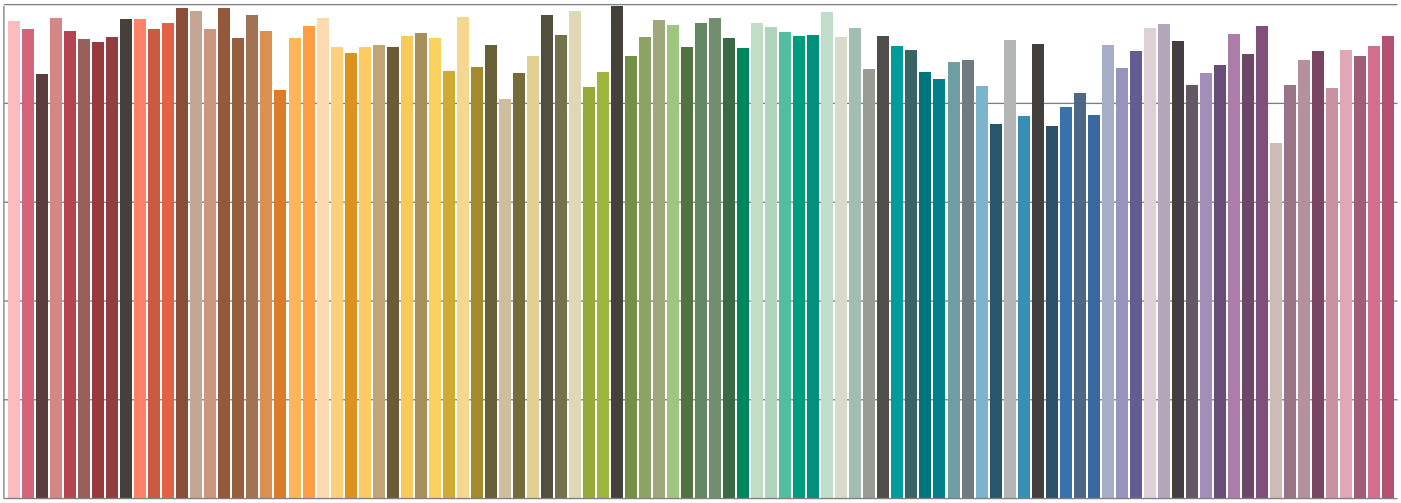
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



Measurement Date: 5/6/2024

KL Par FC IP (4500K, High Fidelity)

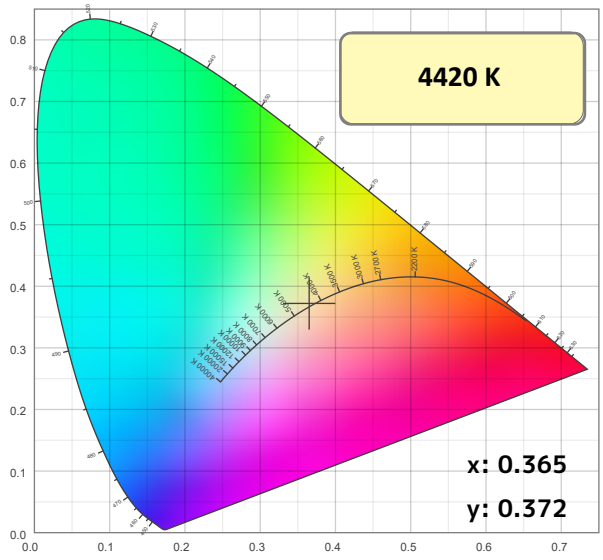
Prepared For ELATION PROFESSIONAL

Color Temperature: 4420K

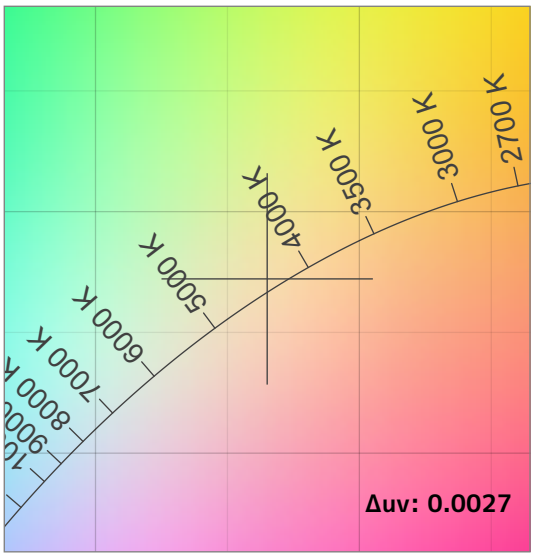
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
91.5	96.4	89.6	102.1	92	90.9	0.365	0.372	0.0027	54	52

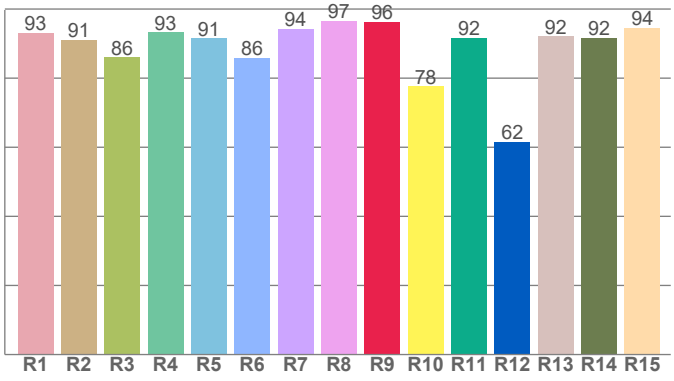
CIE 1931



CIE 1931 ZOOMED

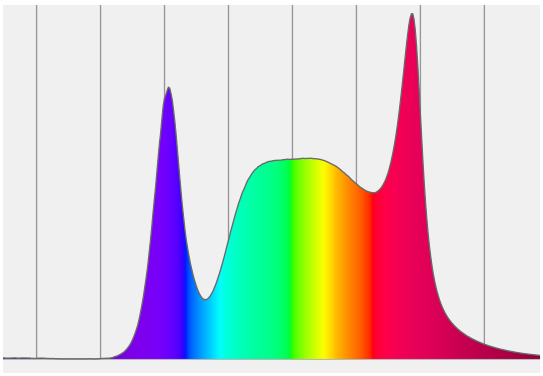


CRI: 91.5 (R1-R8)



Spectral Power Distribution (SPD)

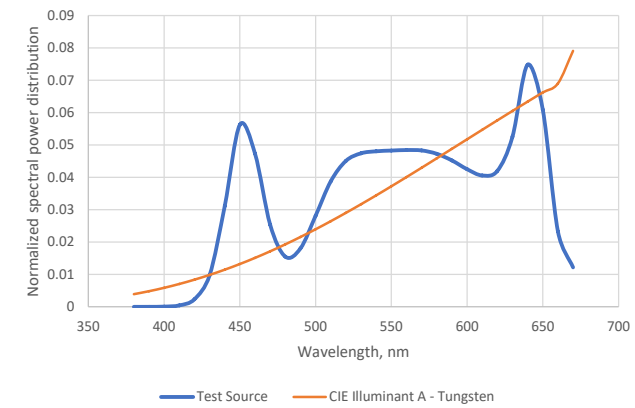
Dominant Wavelength 579 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 54

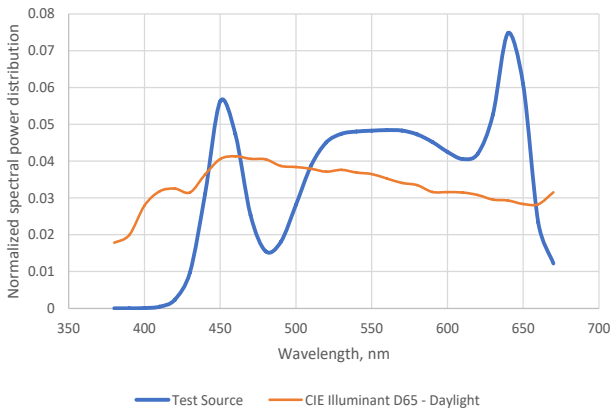
Spectral variance



SSI Spectral Variance Graph- Daylight

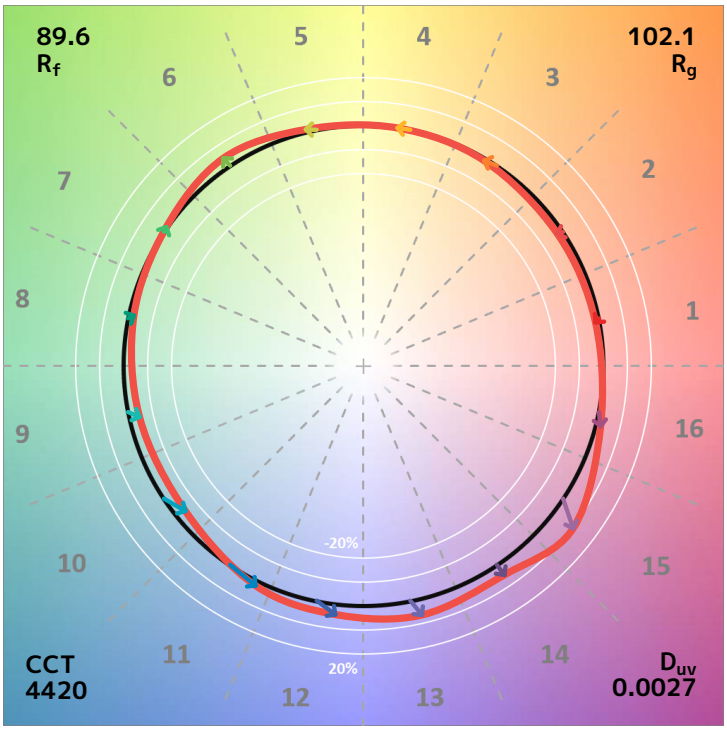
SSI [CIE D65] 52

Spectral variance

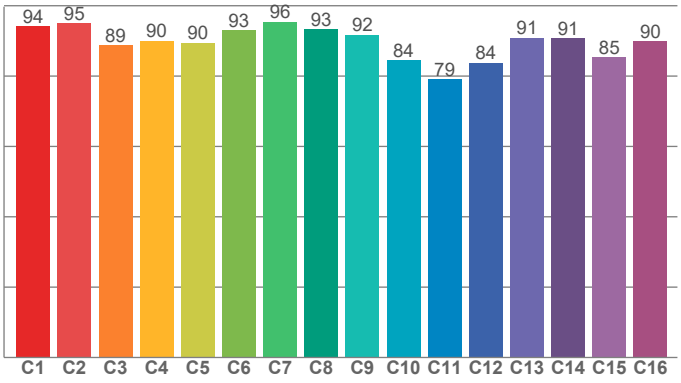


Measurement Date: 5/7/2024

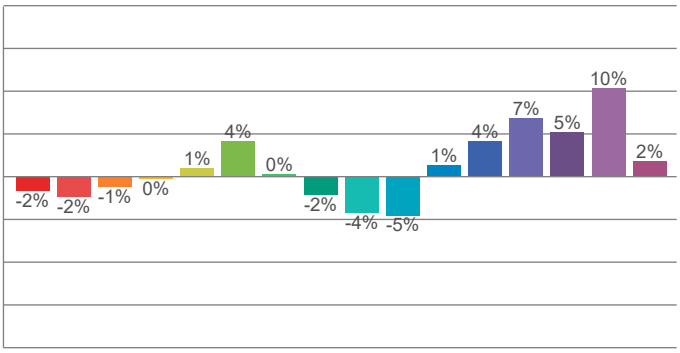
KL Par FC IP (4500K, High Fidelity)



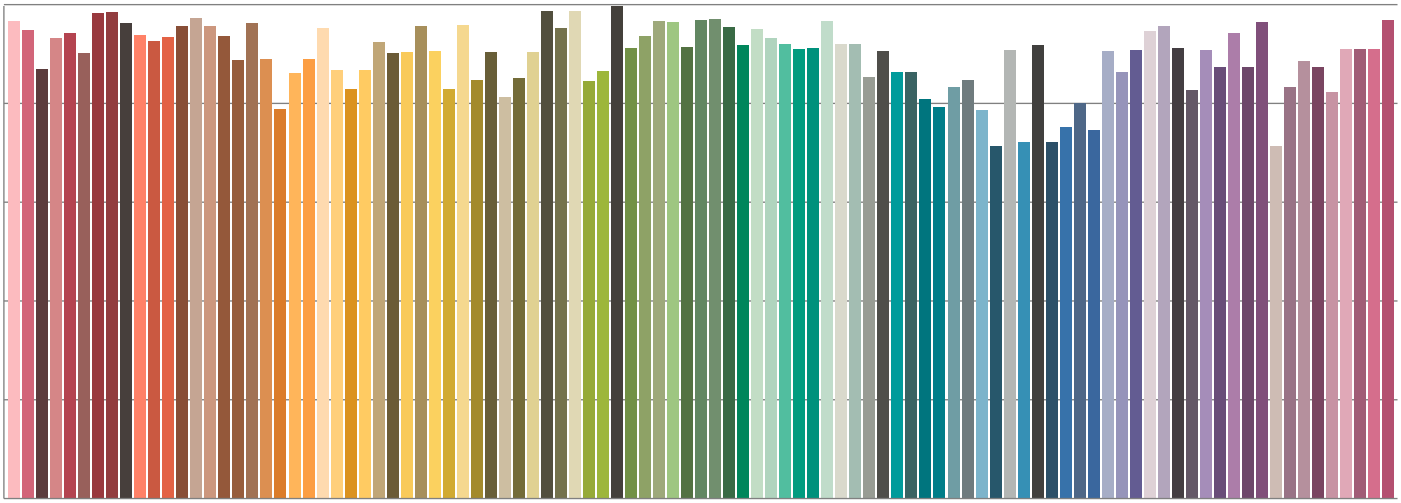
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



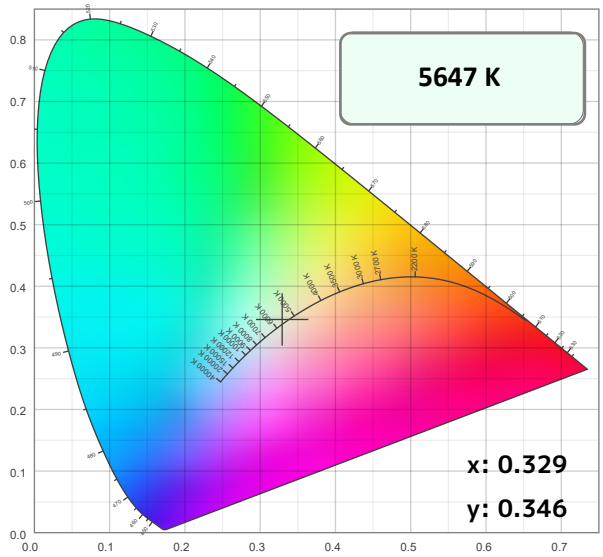
Measurement Date: 5/7/2024

Color Temperature: 5647K

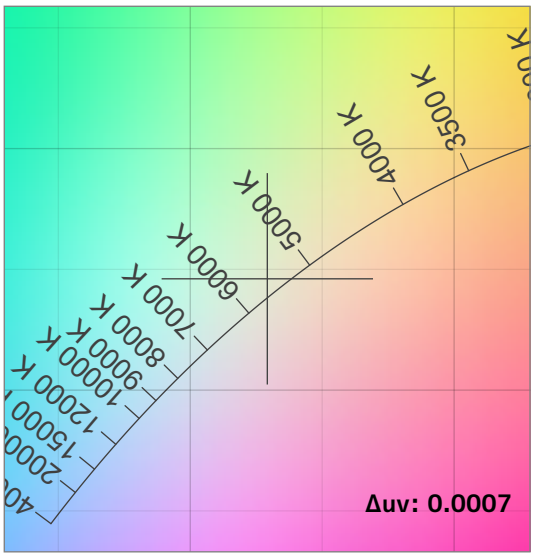
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
91.1	90.9	89.2	102.0	93	90.2	0.329	0.346	0.0007	36	58

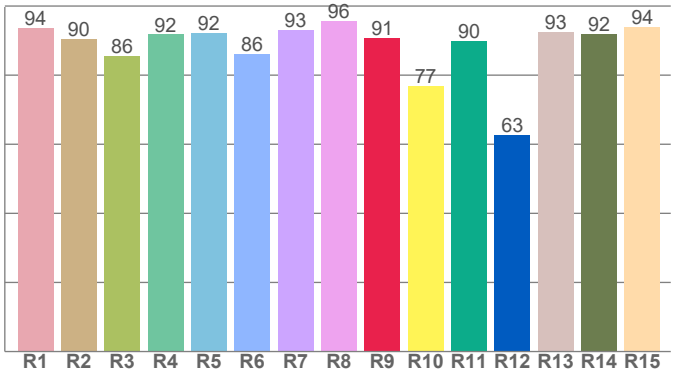
CIE 1931



CIE 1931 ZOOMED

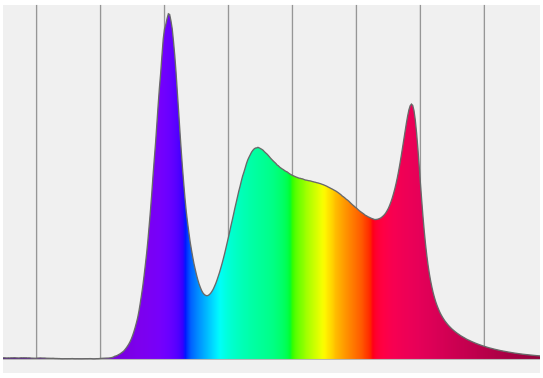


CRI: 91.1 (R1-R8)



Spectral Power Distribution (SPD)

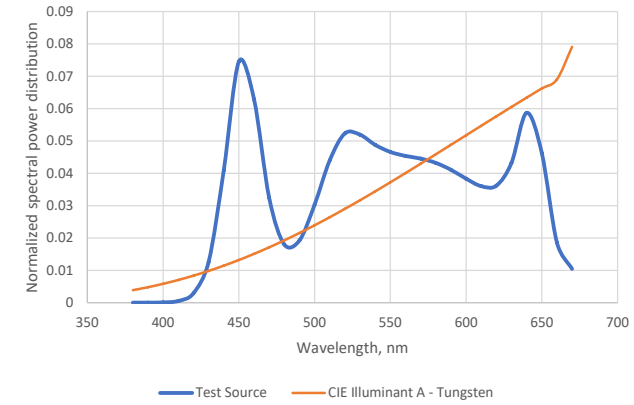
Dominant Wavelength 576 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 36

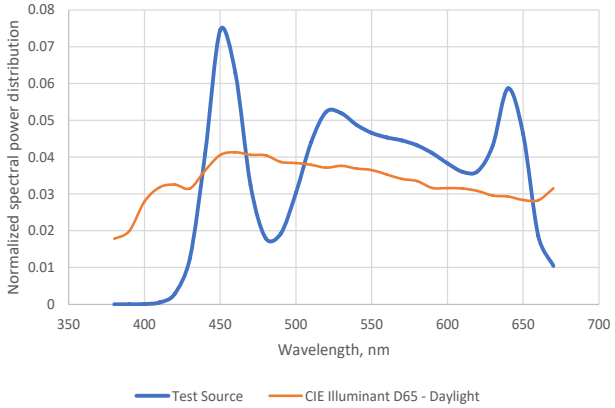
Spectral variance



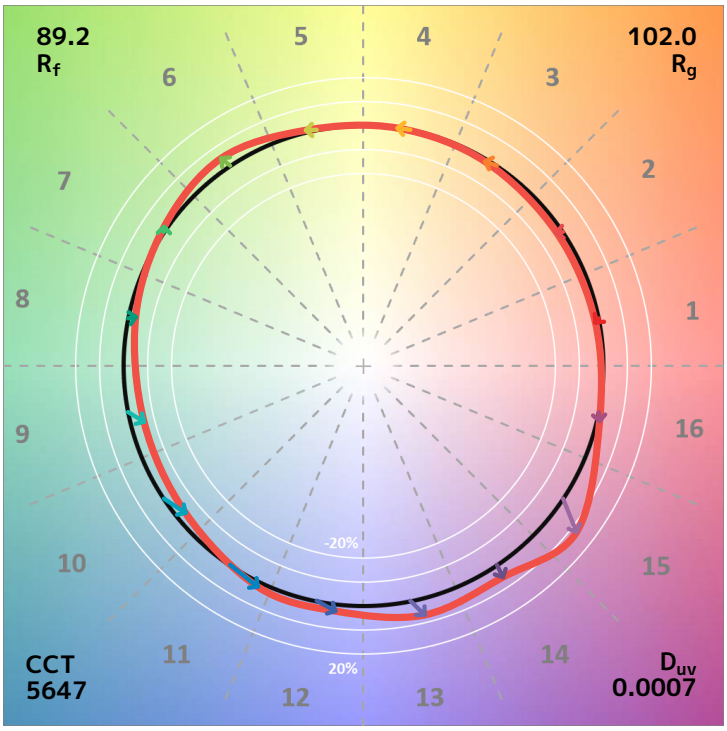
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 58

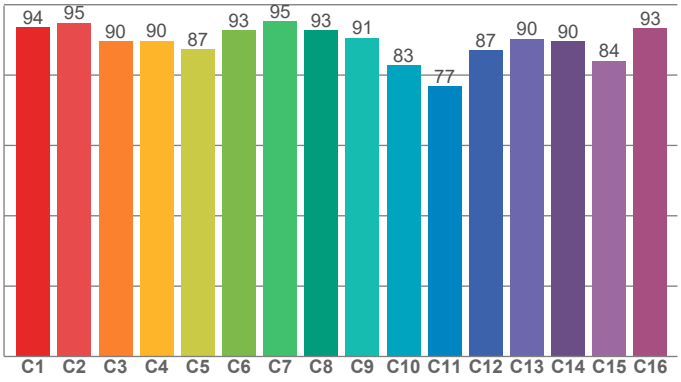
Spectral variance



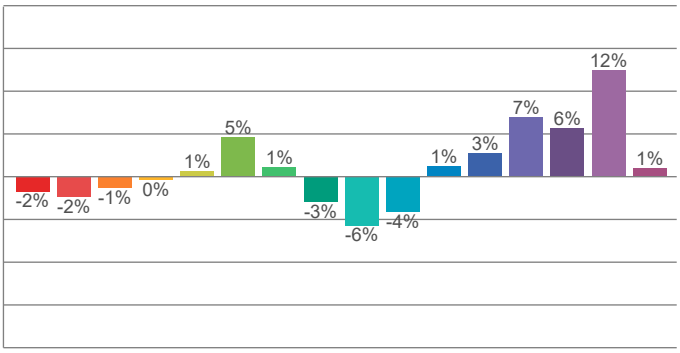
Measurement Date: 5/7/2024



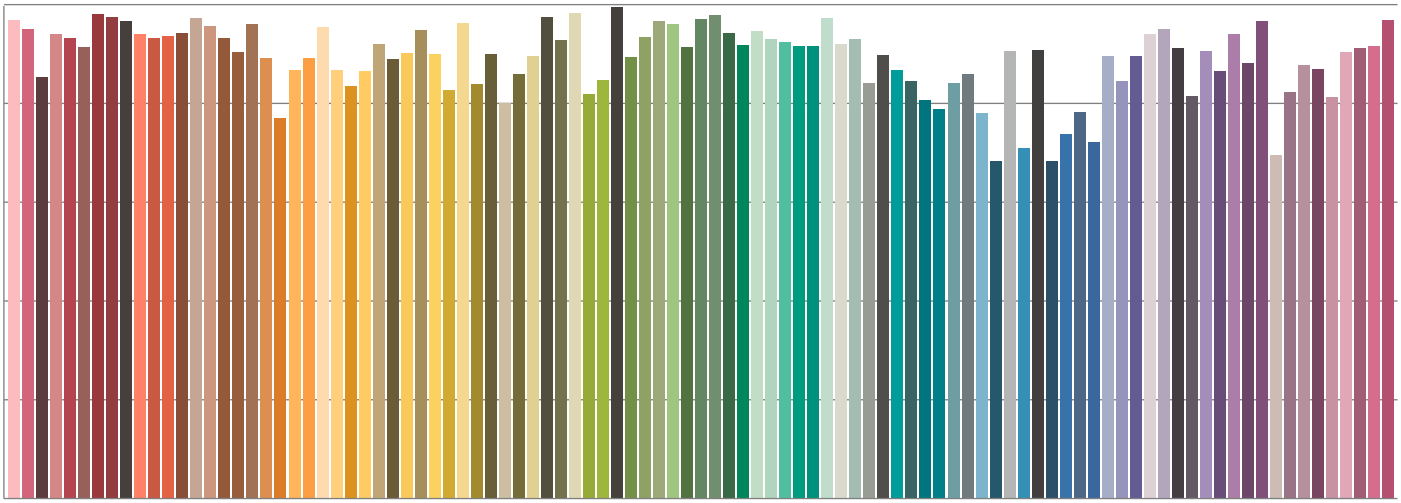
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



Measurement Date: 5/7/2024

KL Par FC IP (5600K, High Fidelity)

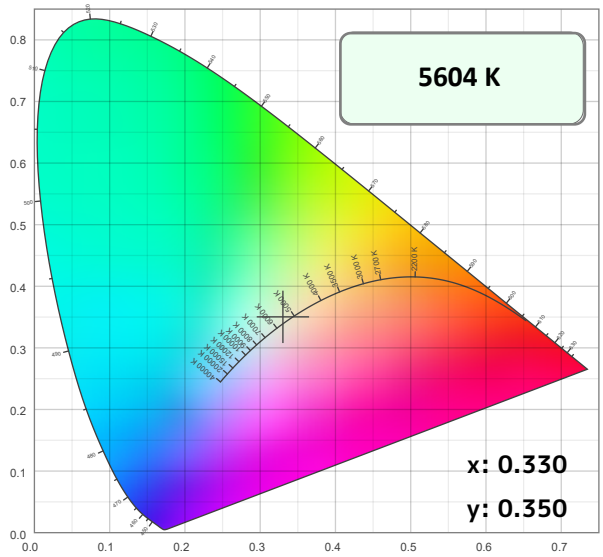
Prepared For ELATION PROFESSIONAL

Color Temperature: 5604K

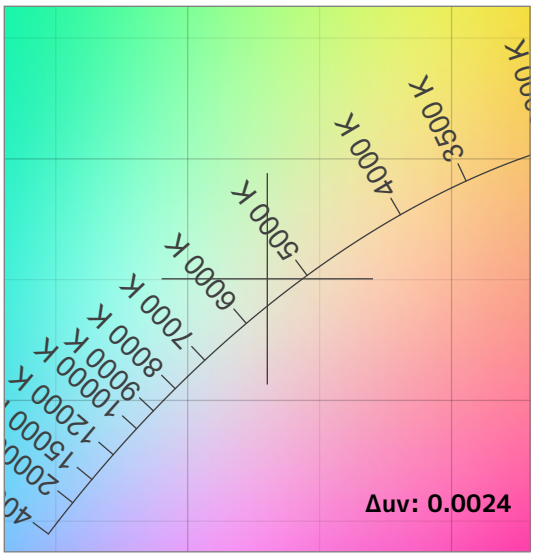
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
91.4	80.2	90.6	104.2	94	92.8	0.330	0.350	0.0024	38	56

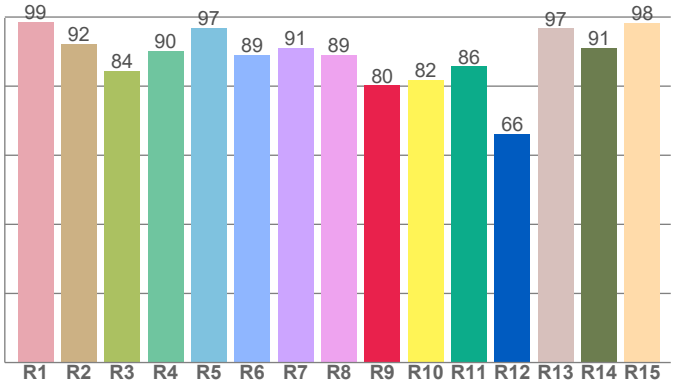
CIE 1931



CIE 1931 ZOOMED

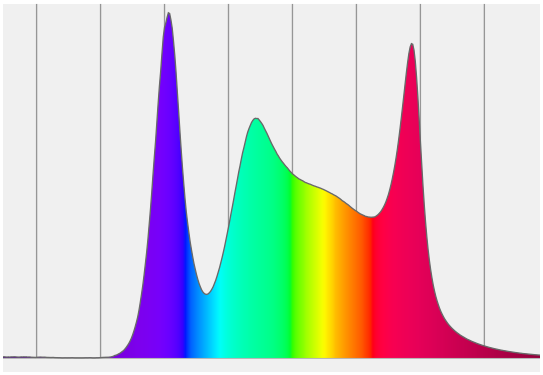


CRI: 91.4 (R1-R8)



Spectral Power Distribution (SPD)

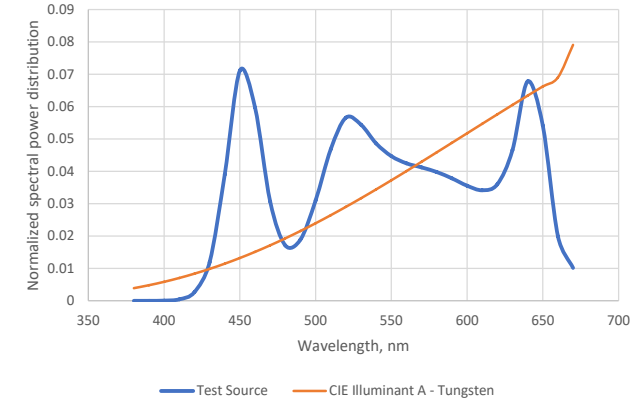
Dominant Wavelength 574 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 38

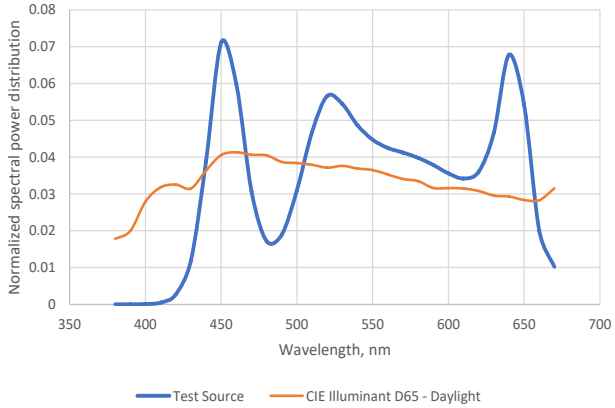
Spectral variance



SSI Spectral Variance Graph- Daylight

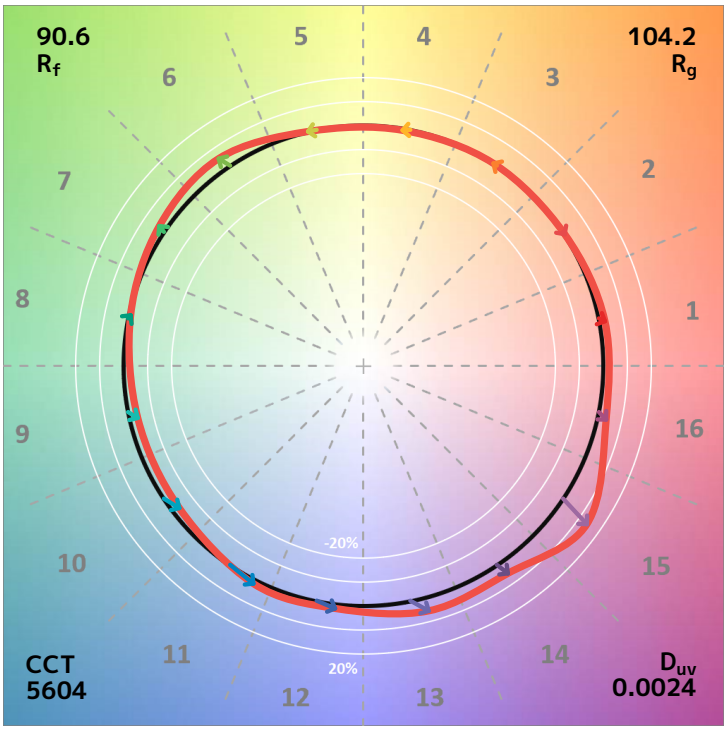
SSI [CIE D65] 56

Spectral variance

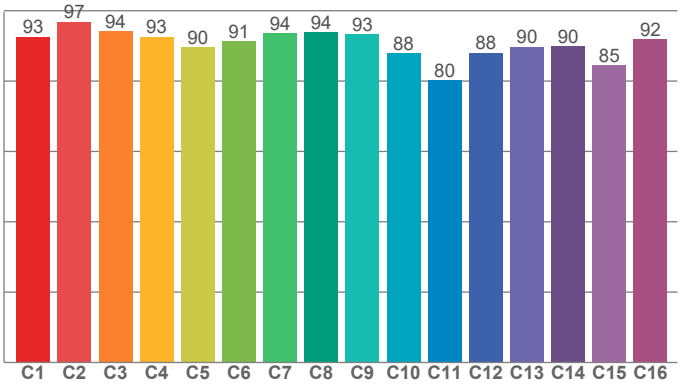


Measurement Date: 5/6/2024

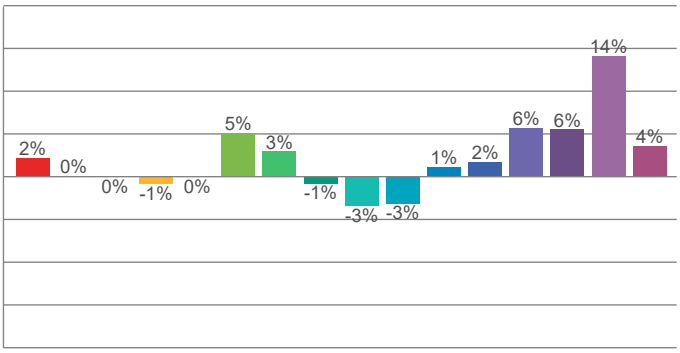
KL Par FC IP (5600K, High Fidelity)



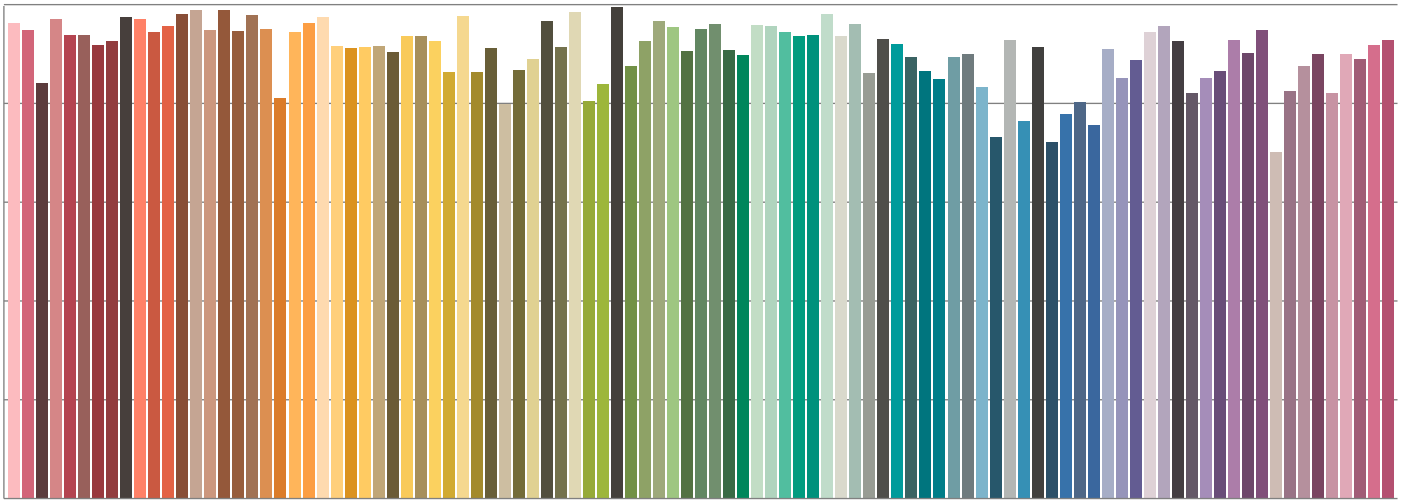
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



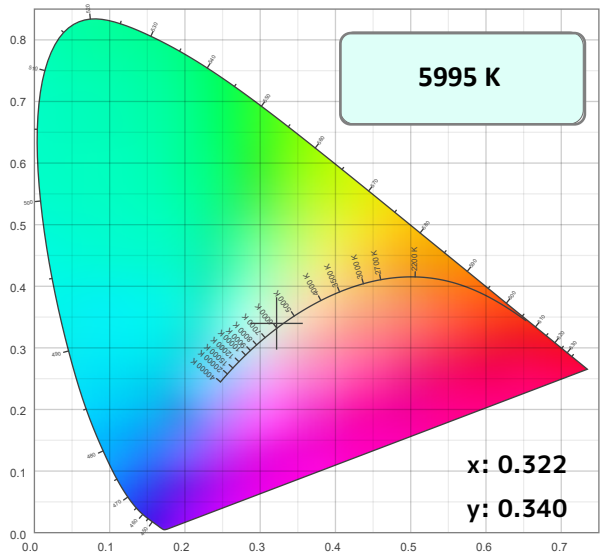
Measurement Date: 5/6/2024

Color Temperature: 5995K

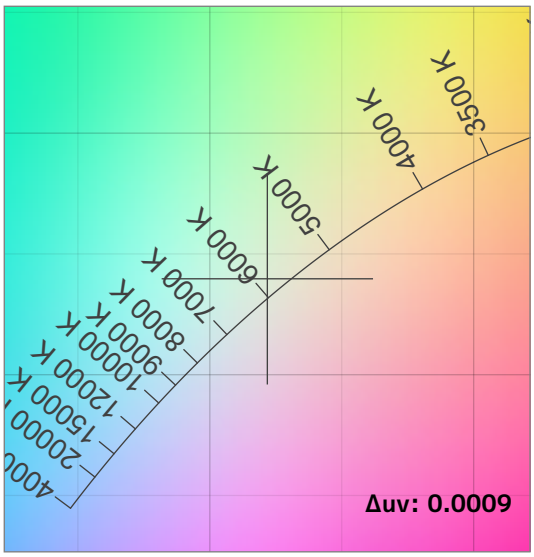
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
90.7	86.1	88.7	101.6	93	89.8	0.322	0.340	0.0009	31	58

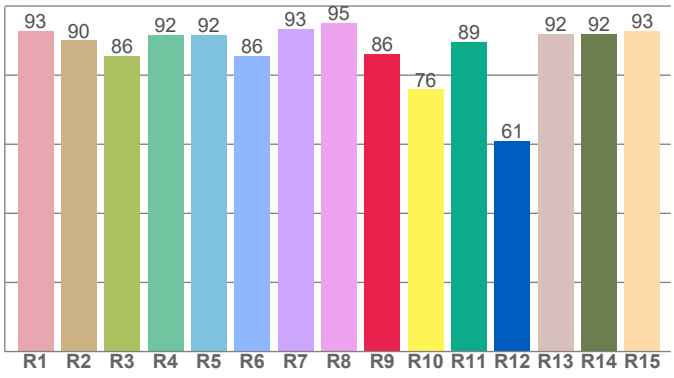
CIE 1931



CIE 1931 ZOOMED

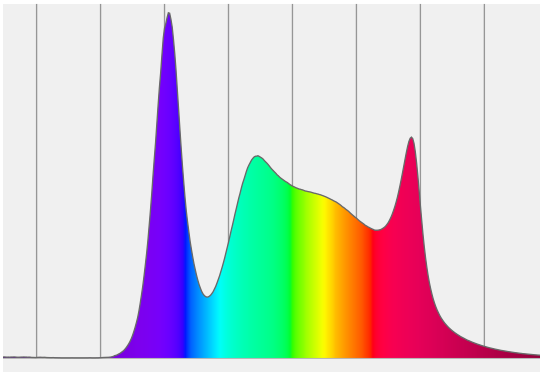


CRI: 90.7 (R1-R8)



Spectral Power Distribution (SPD)

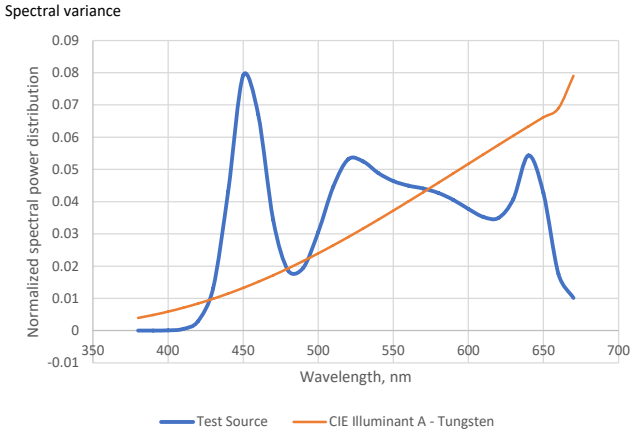
Dominant Wavelength 575 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 31

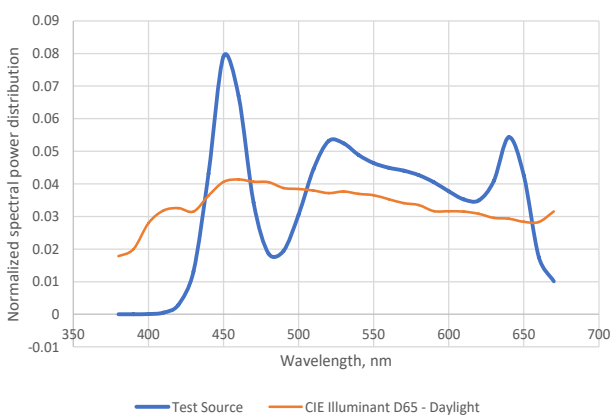
Spectral variance



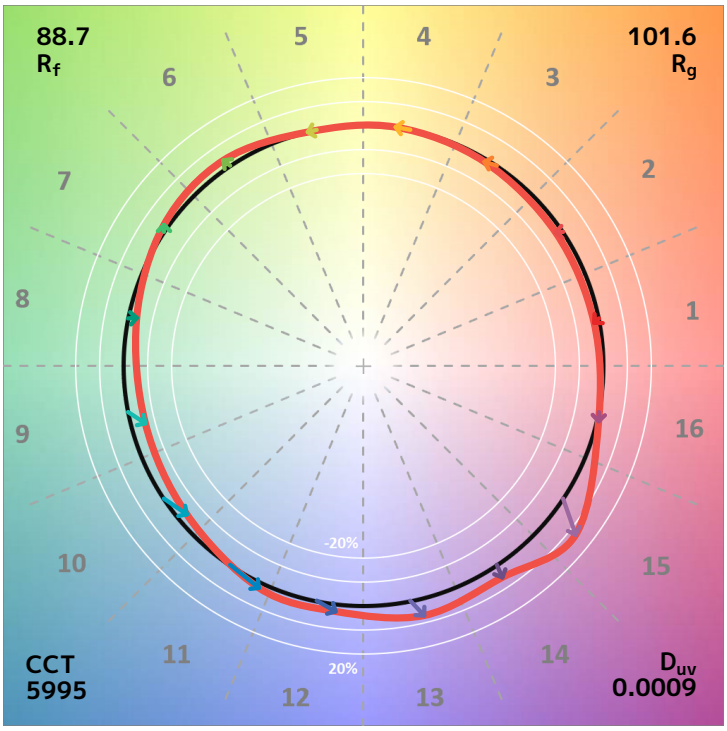
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 58

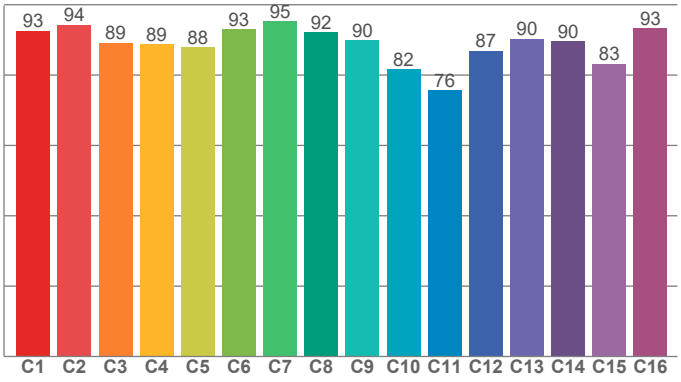
Spectral variance



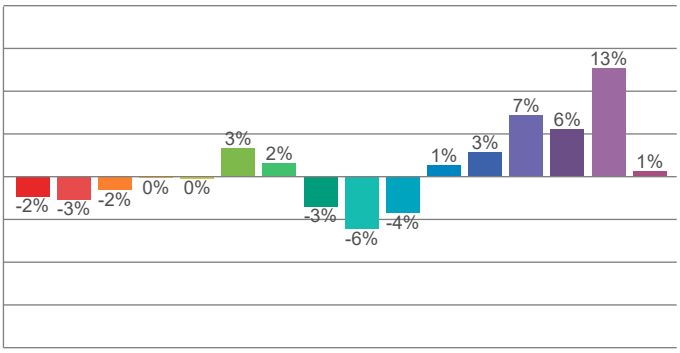
Measurement Date: 5/7/2024



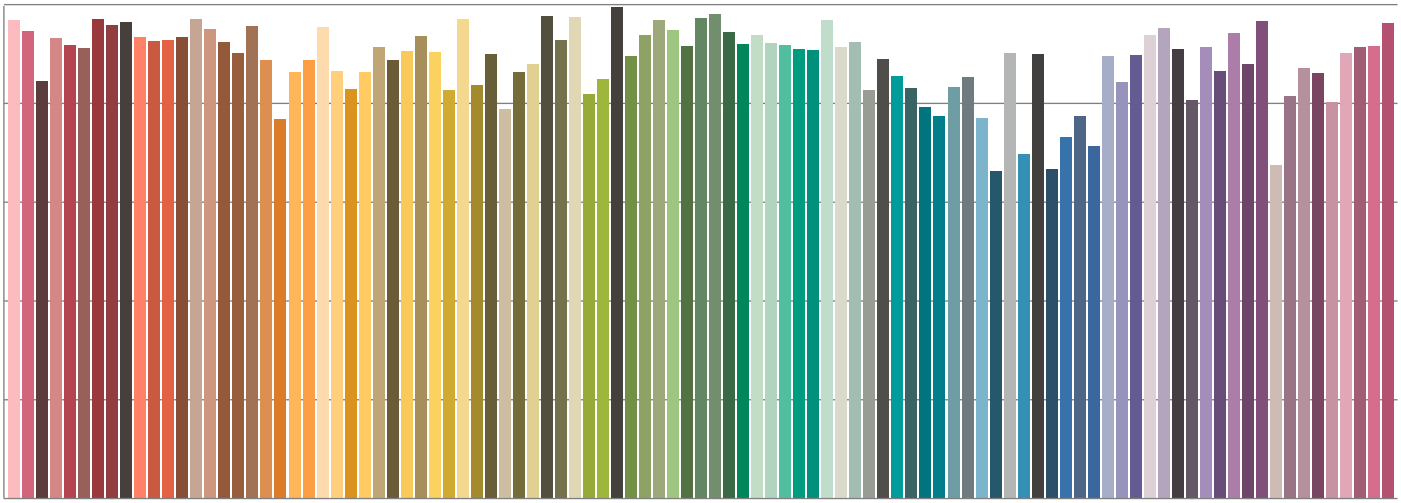
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



Measurement Date: 5/7/2024

KL Par FC IP (6000K, High Fidelity)

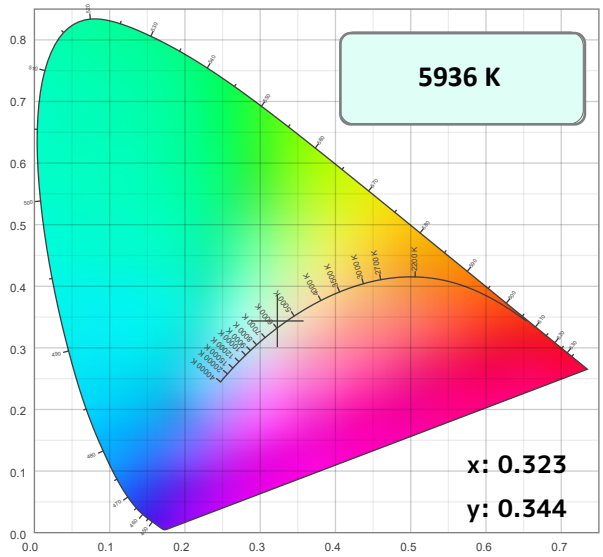
Prepared For ELATION PROFESSIONAL

Color Temperature: 5936K

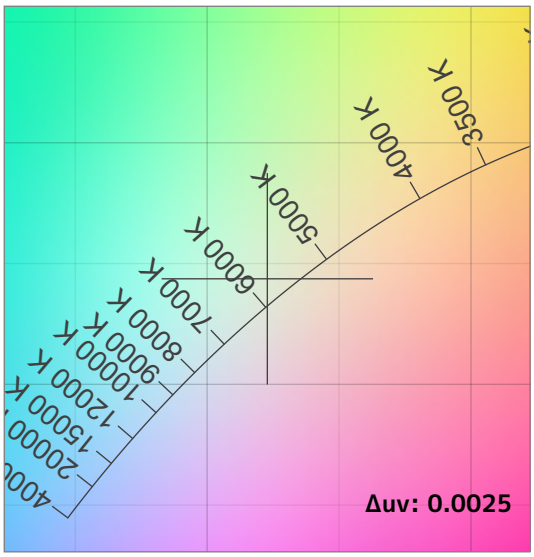
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
91.5	89.4	90.2	103.4	94	92.2	0.323	0.344	0.0025	33	57

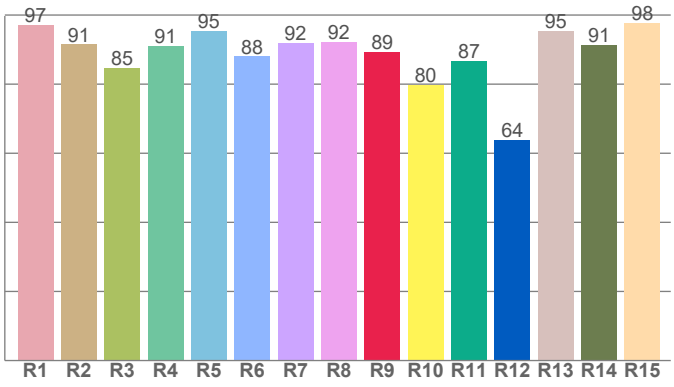
CIE 1931



CIE 1931 ZOOMED

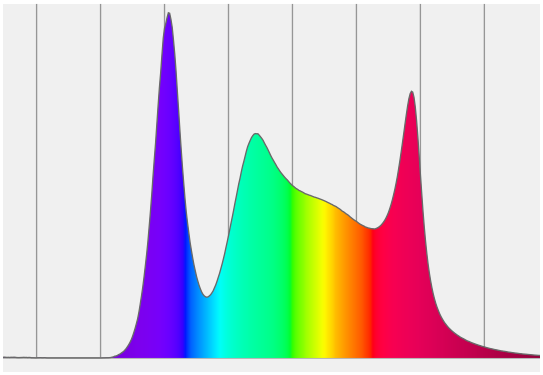


CRI: 91.5 (R1-R8)



Spectral Power Distribution (SPD)

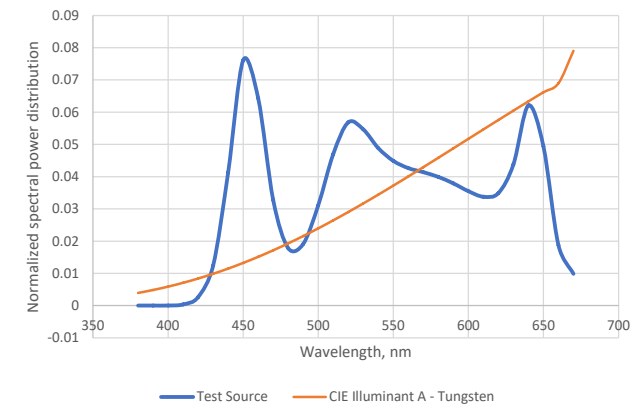
Dominant Wavelength 572 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 33

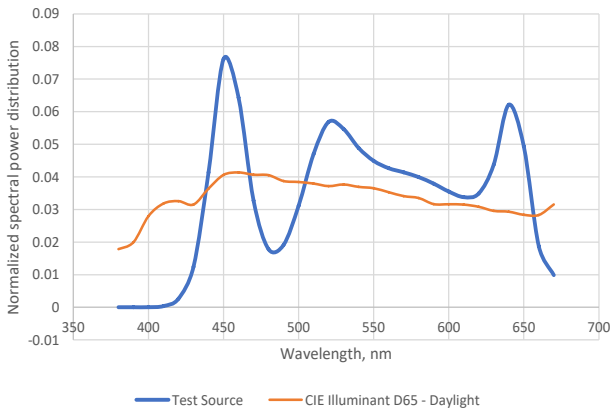
Spectral variance



SSI Spectral Variance Graph- Daylight

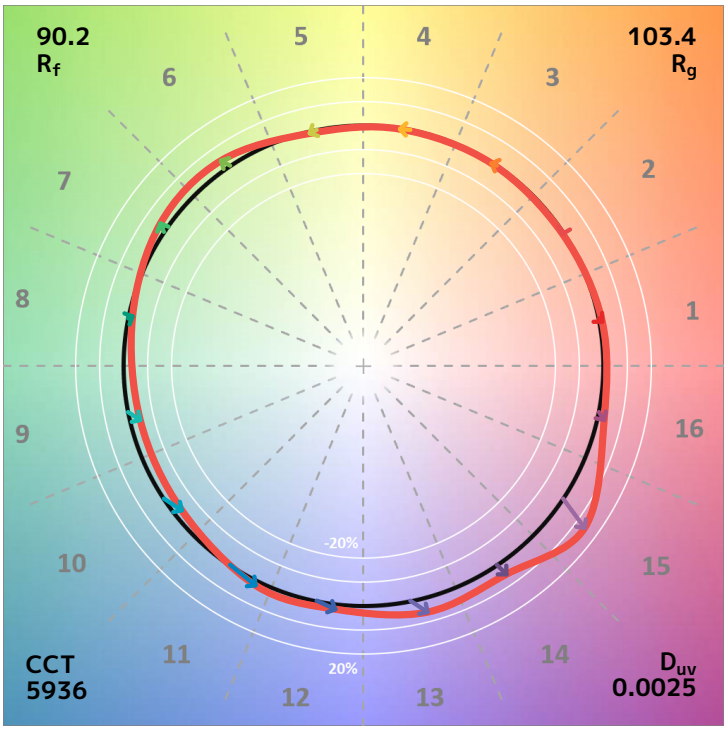
SSI [CIE D65] 57

Spectral variance

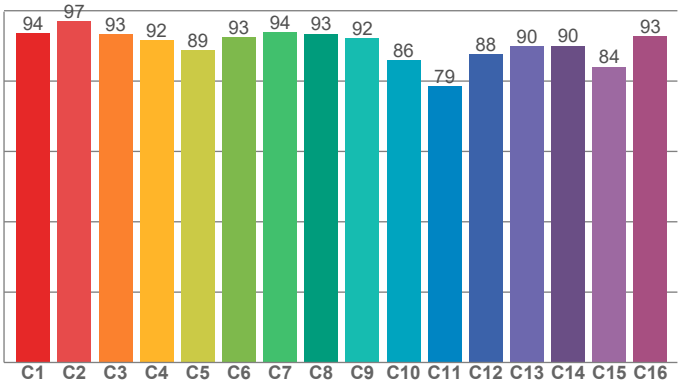


Measurement Date: 5/6/2024

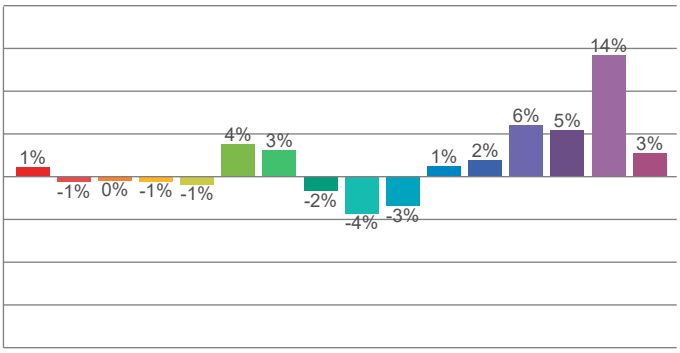
KL Par FC IP (6000K, High Fidelity)



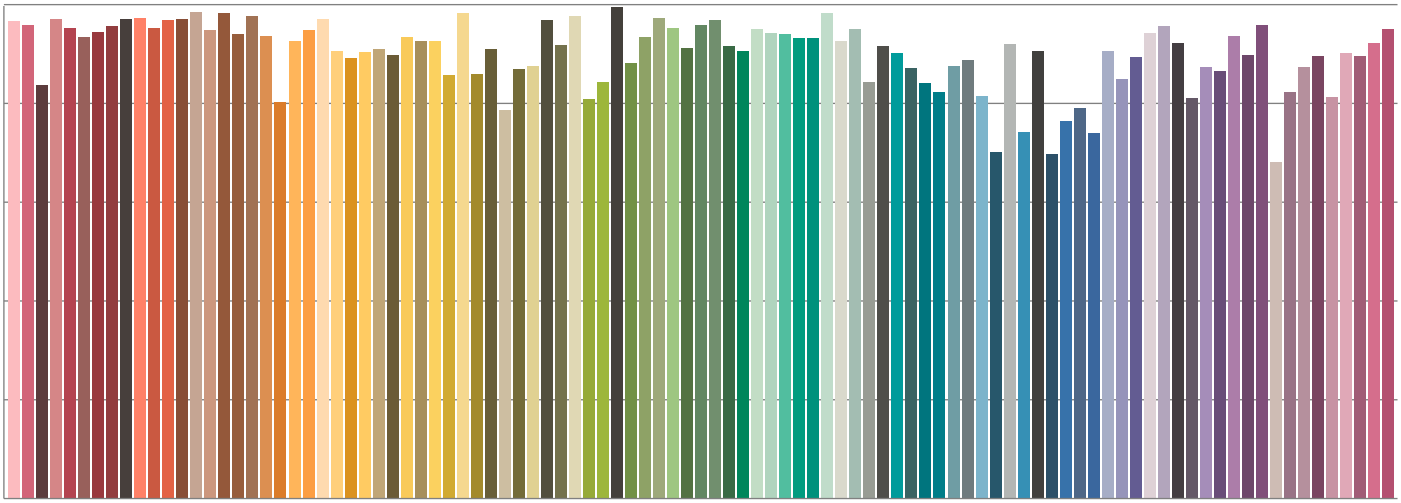
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



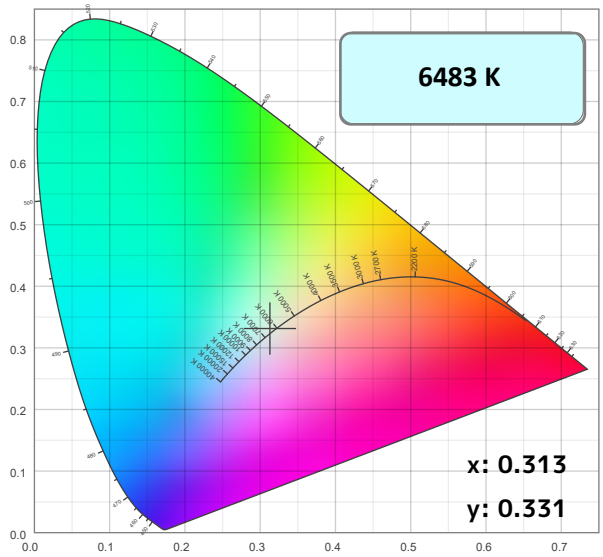
Measurement Date: 5/6/2024

Color Temperature: 6483K

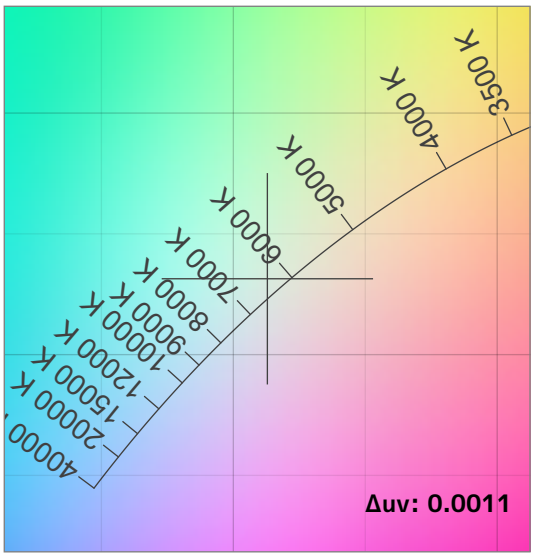
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
90.4	82.2	88.2	100.9	93	89.3	0.313	0.331	0.0011	25	58

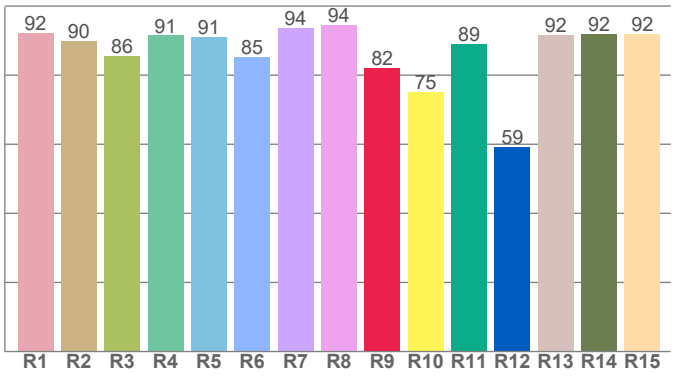
CIE 1931



CIE 1931 ZOOMED

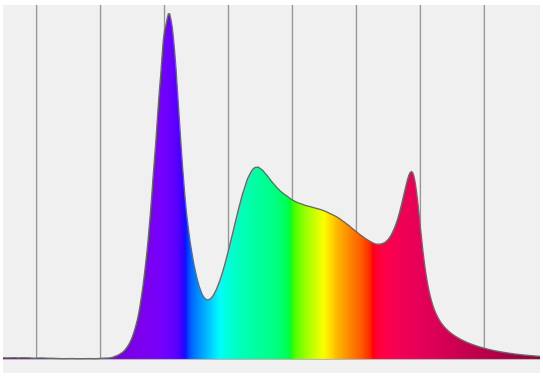


CRI: 90.4 (R1-R8)



Spectral Power Distribution (SPD)

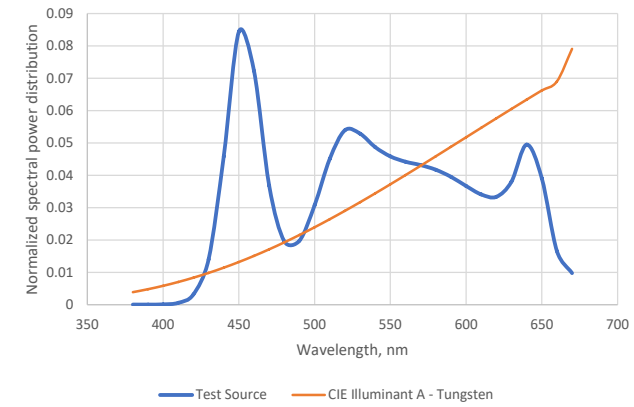
Dominant Wavelength 555 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 25

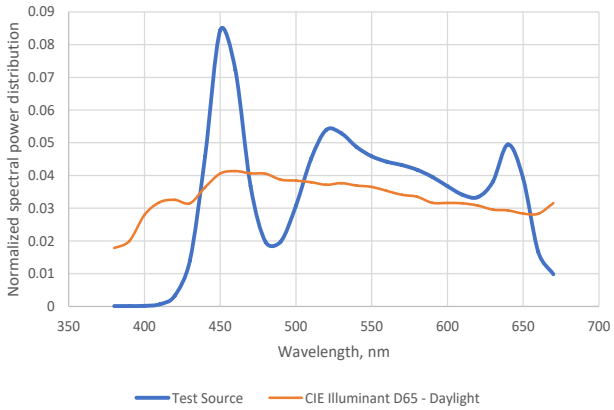
Spectral variance



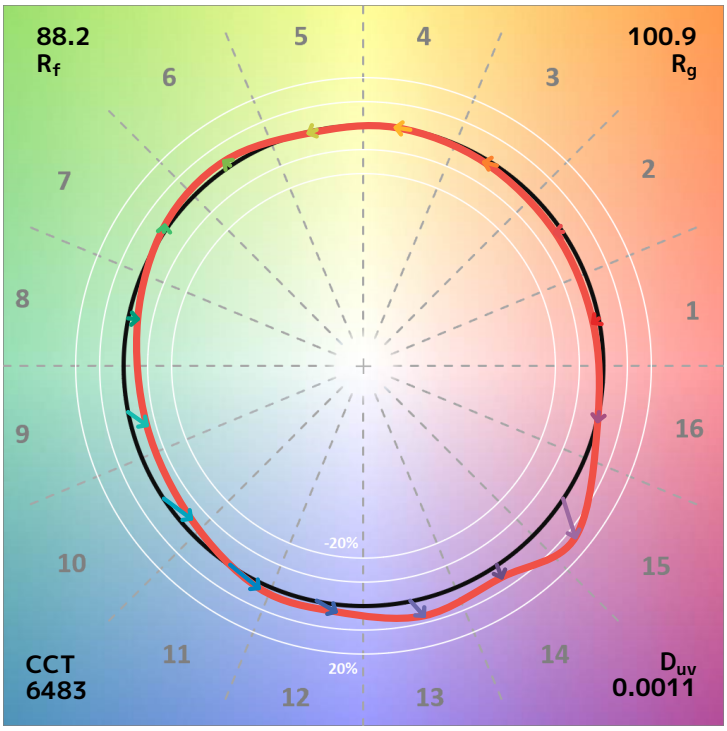
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 58

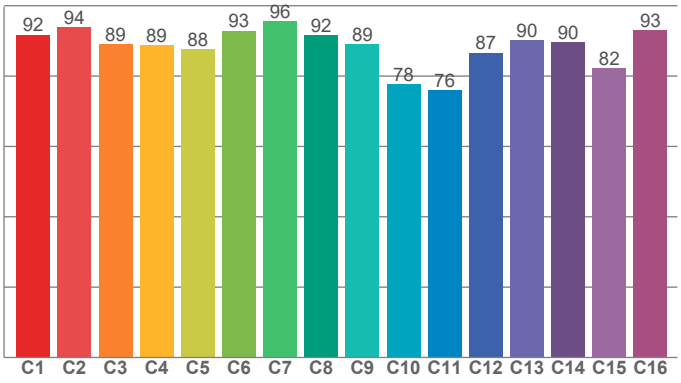
Spectral variance



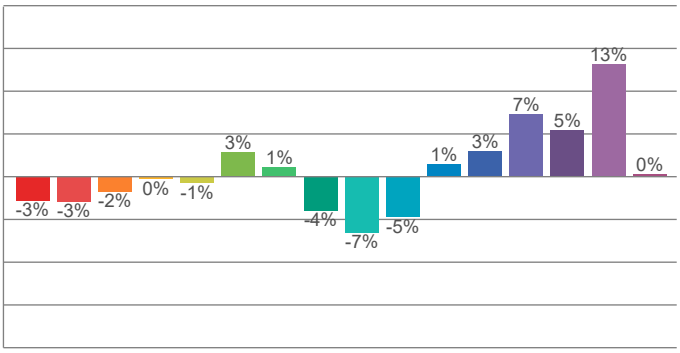
Measurement Date: 5/7/2024



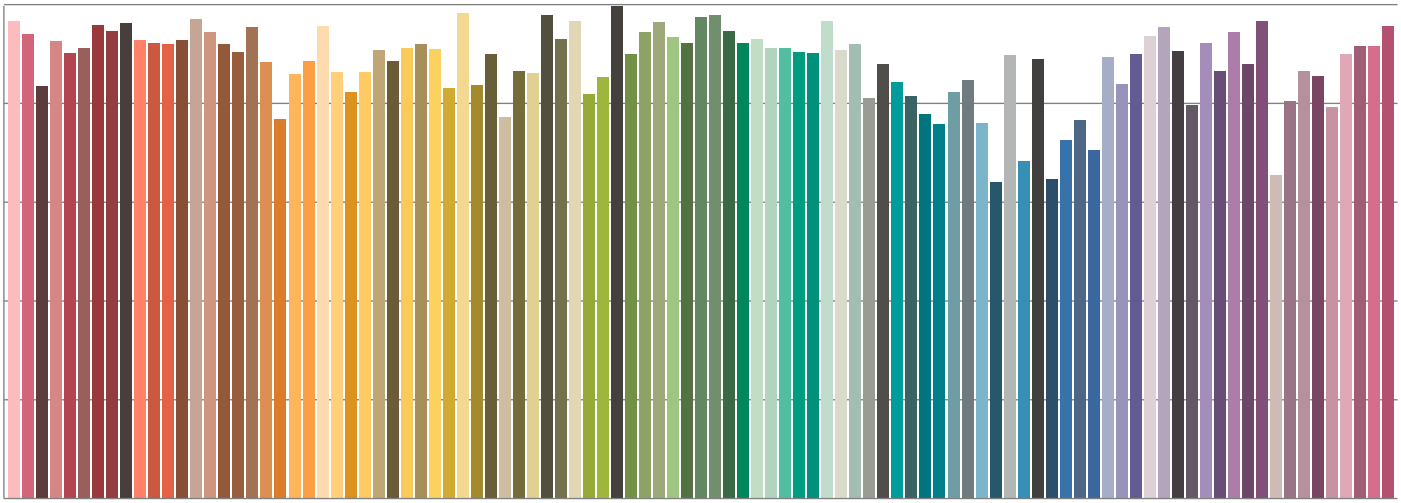
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



Measurement Date: 5/7/2024

KL Par FC IP (6500K, High Fidelity)

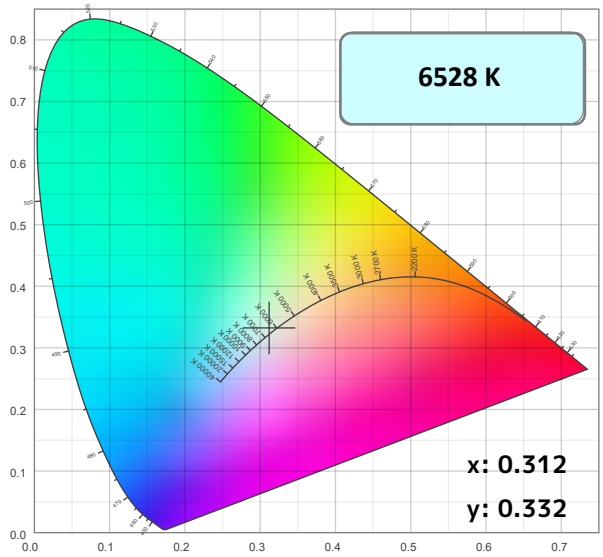
Prepared For ELATION PROFESSIONAL

Color Temperature: 6528K

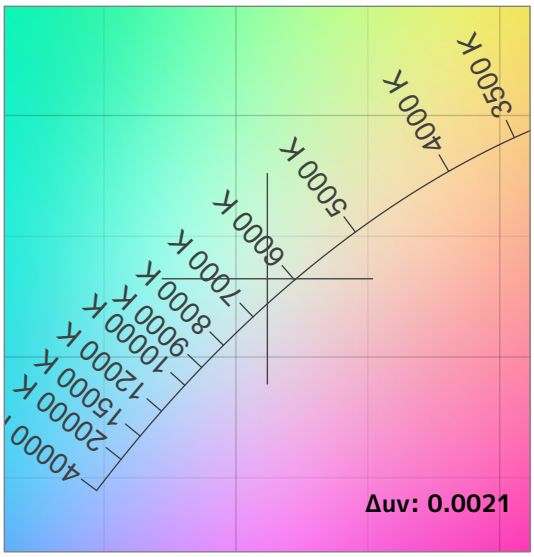
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
91.3	95.5	89.3	101.5	94	91.0	0.312	0.332	0.0021	26	58

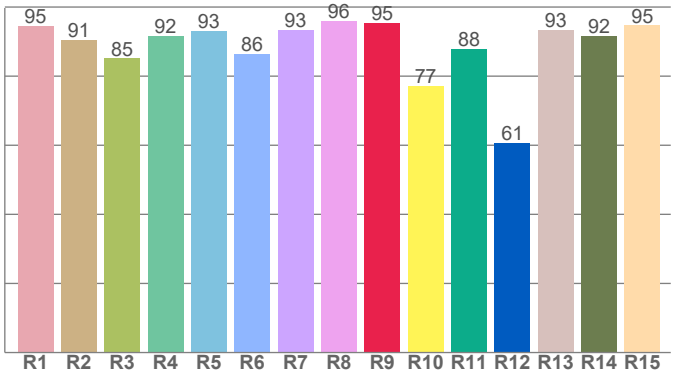
CIE 1931



CIE 1931 ZOOMED

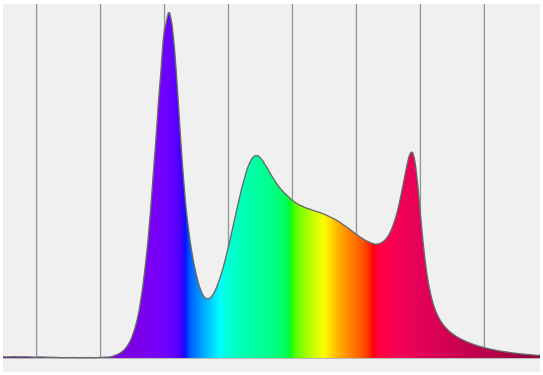


CRI: 91.3 (R1-R8)



Spectral Power Distribution (SPD)

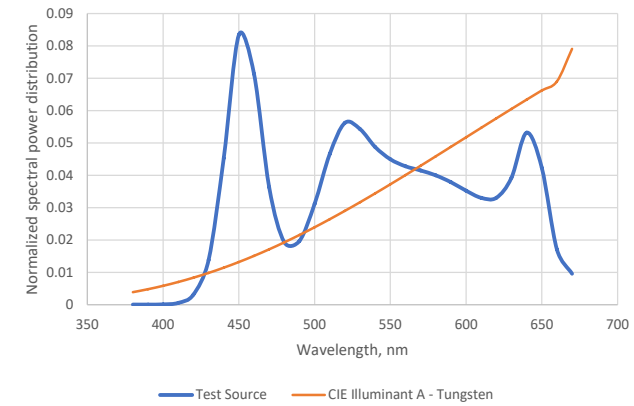
Dominant Wavelength 537 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 26

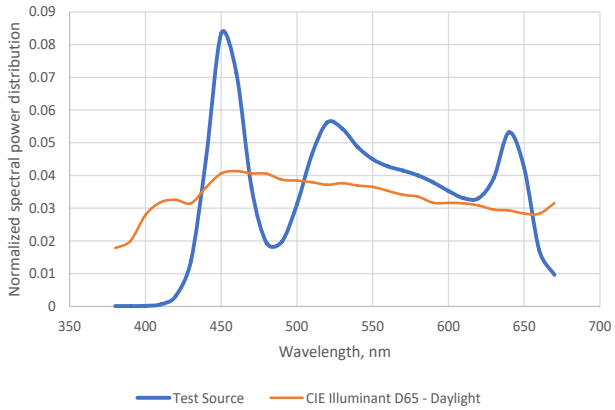
Spectral variance



SSI Spectral Variance Graph- Daylight

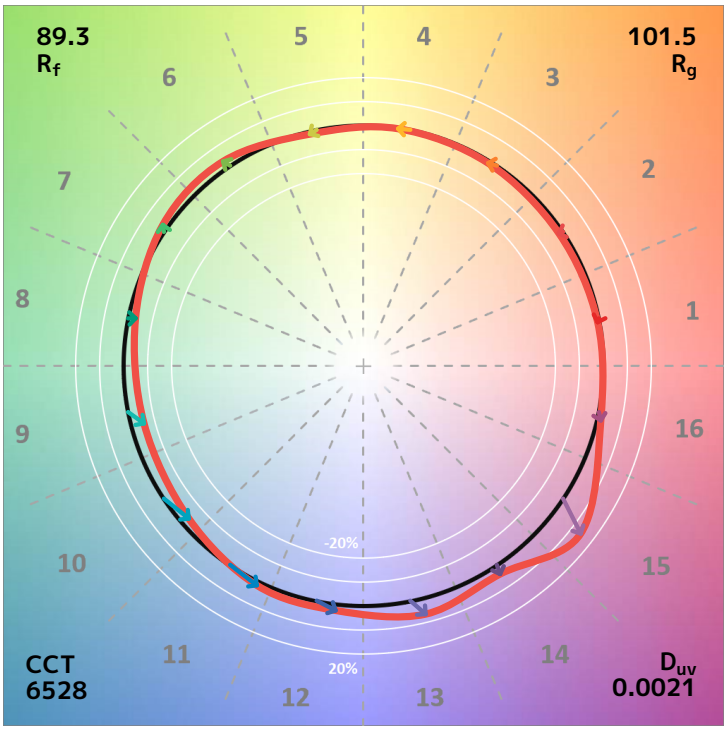
SSI [CIE D65] 58

Spectral variance

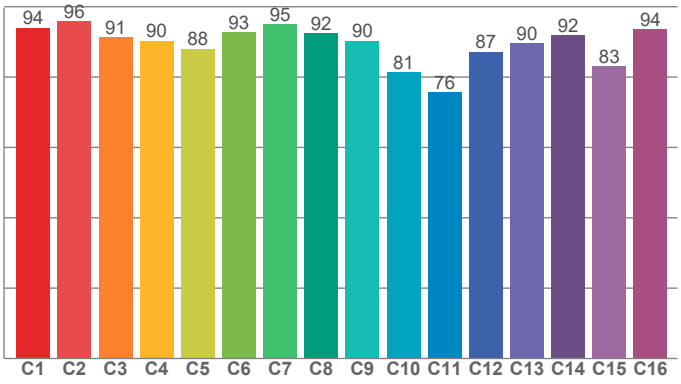


Measurement Date: 5/7/2024

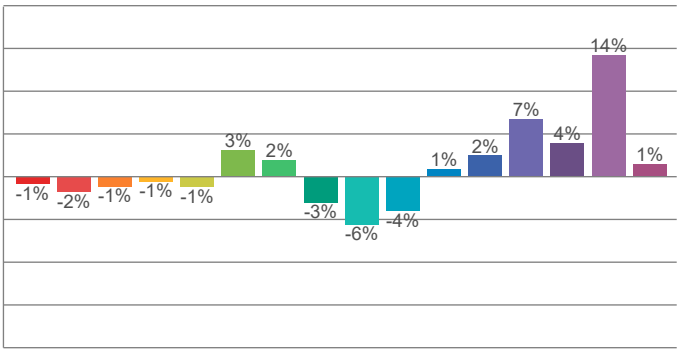
KL Par FC IP (6500K, High Fidelity)



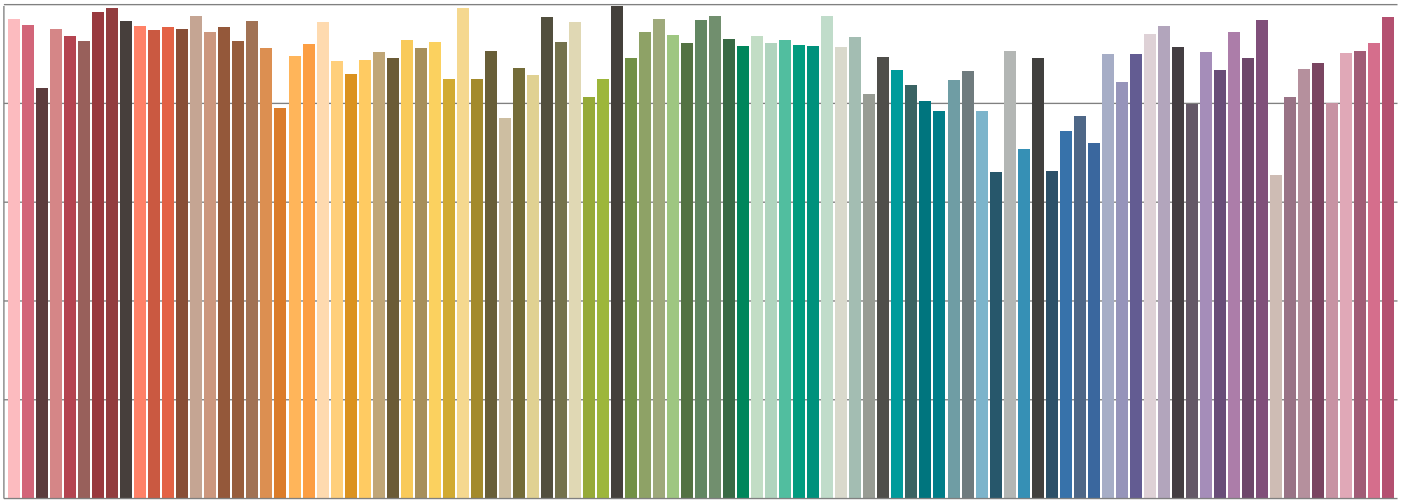
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



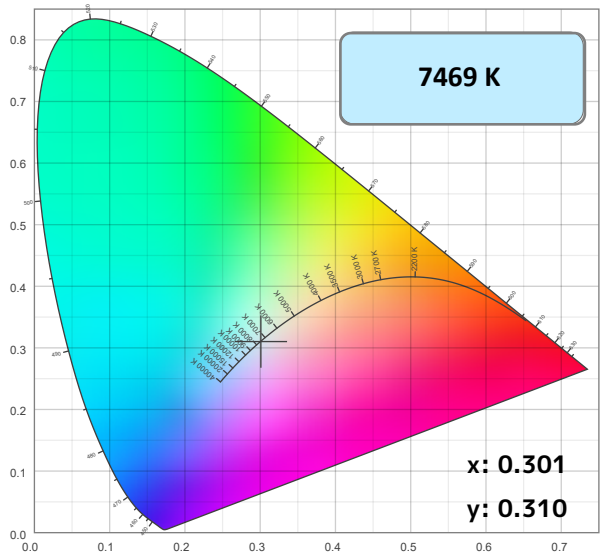
Measurement Date: 5/7/2024

Color Temperature: 7469K

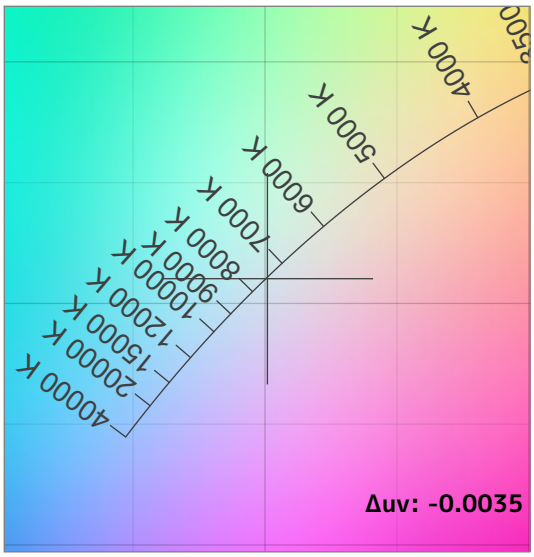
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
83.1	19.5	80.9	94.8	69	78.4	0.301	0.310	-0.0035	10	54

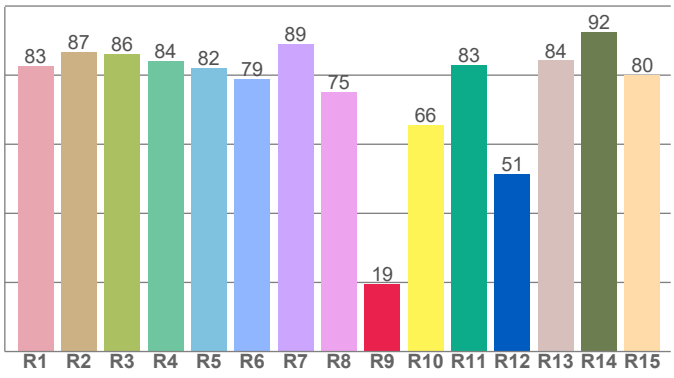
CIE 1931



CIE 1931 ZOOMED

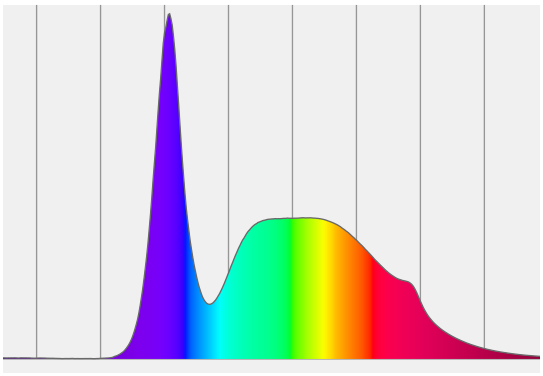


CRI: 83.1 (R1-R8)



Spectral Power Distribution (SPD)

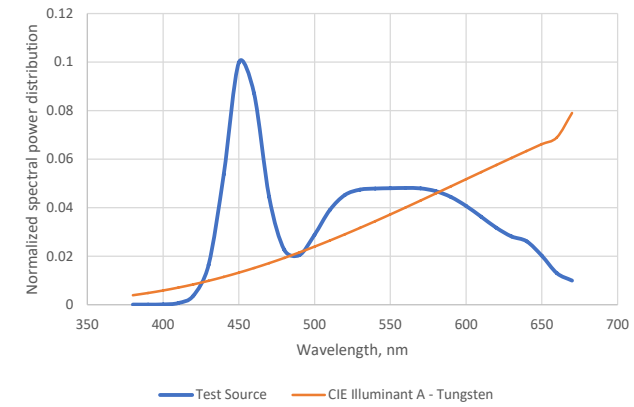
Dominant Wavelength 466 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 10

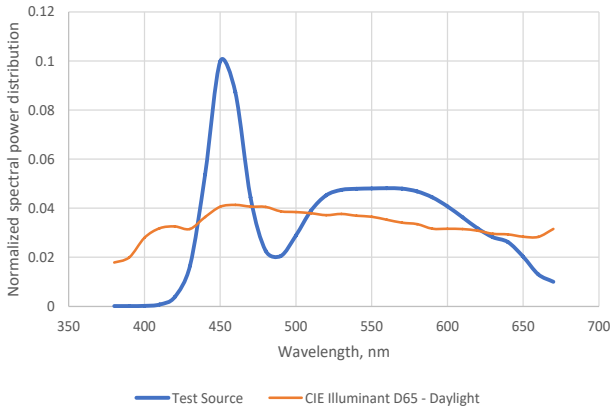
Spectral variance



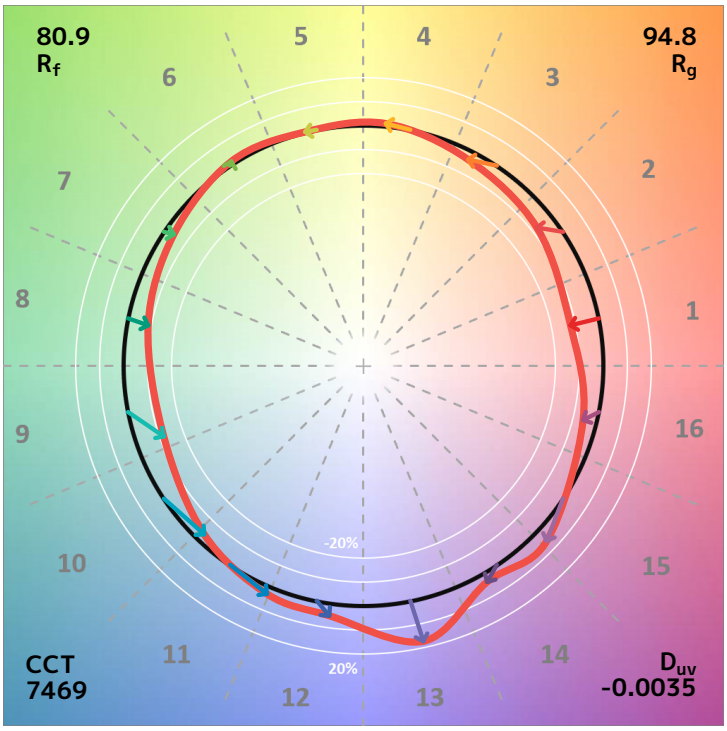
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 54

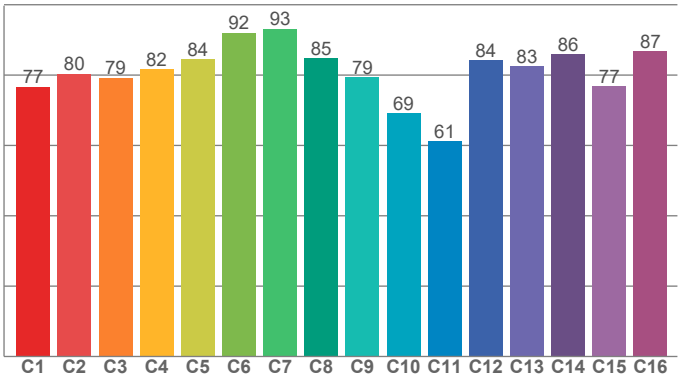
Spectral variance



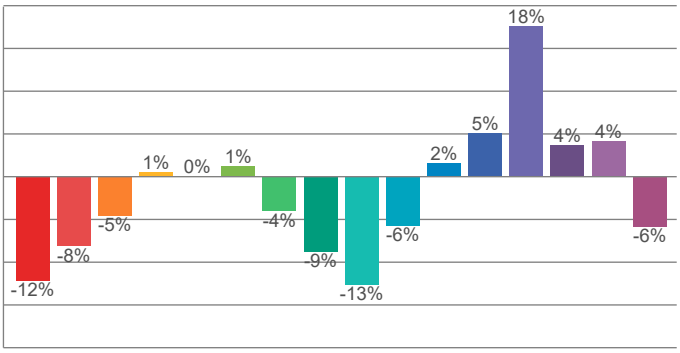
Measurement Date: 5/7/2024



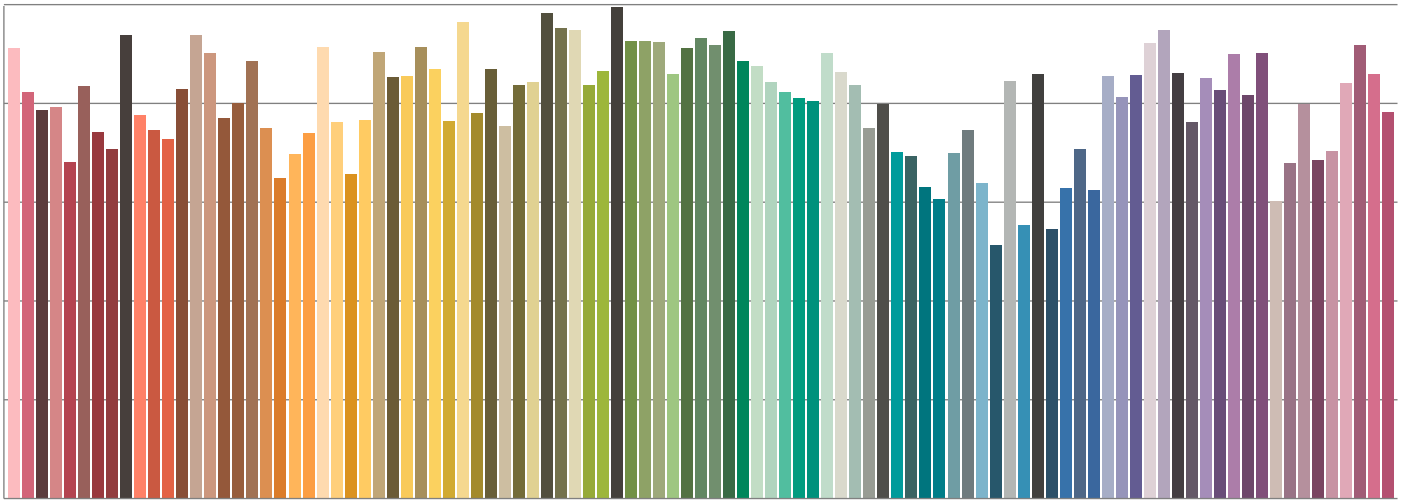
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



Measurement Date: 5/7/2024

KL Par FC IP (7500K, High Fidelity)

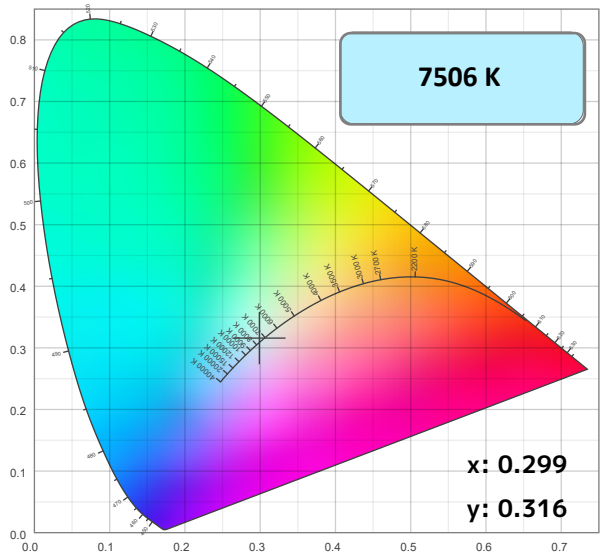
Prepared For ELATION PROFESSIONAL

Color Temperature: 7506K

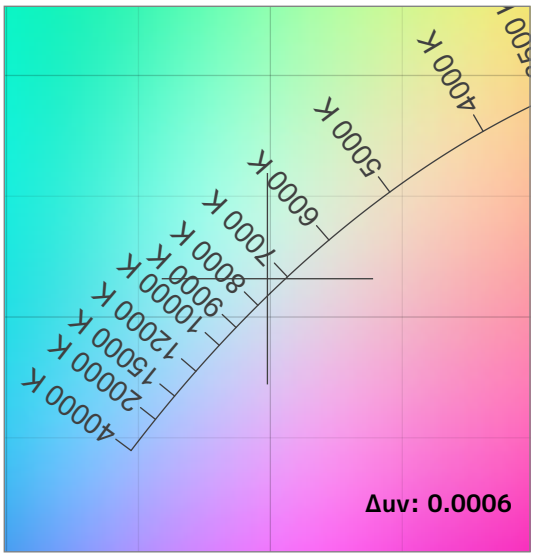
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
89.7	81.1	86.9	99.9	91	87.8	0.299	0.316	0.0006	16	56

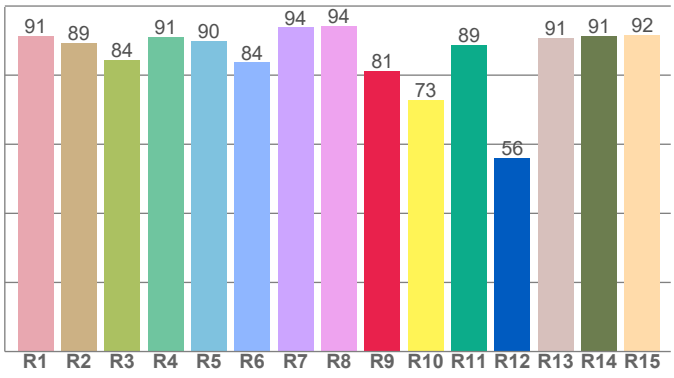
CIE 1931



CIE 1931 ZOOMED

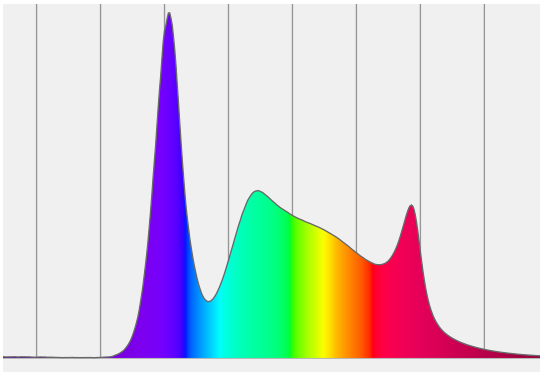


CRI: 89.7 (R1-R8)



Spectral Power Distribution (SPD)

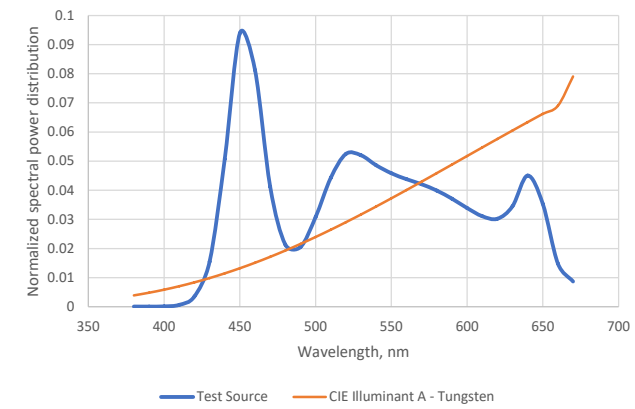
Dominant Wavelength 479 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 16

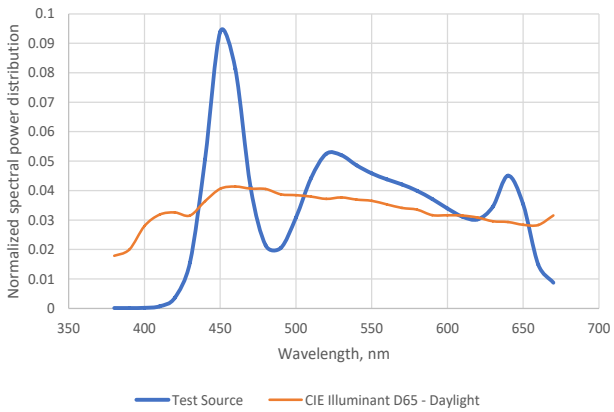
Spectral variance



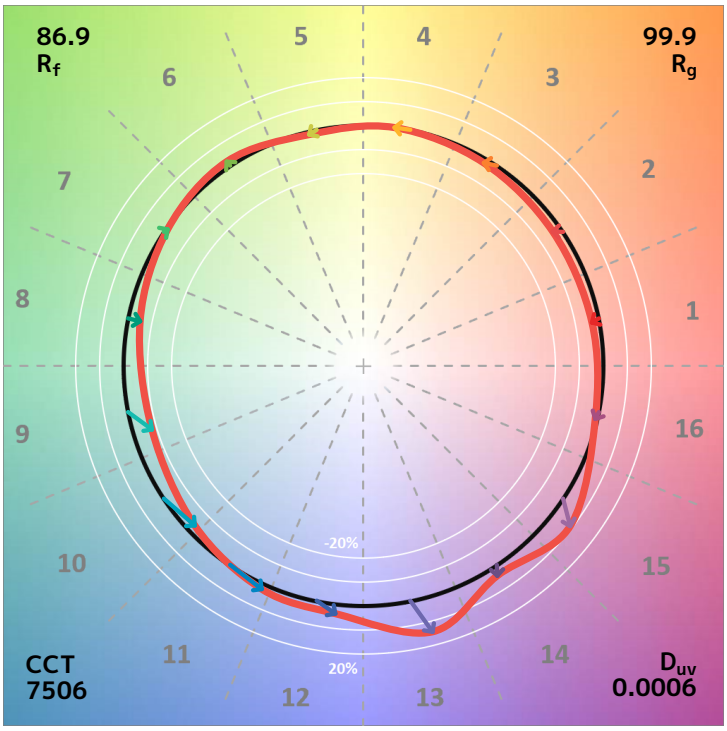
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 56

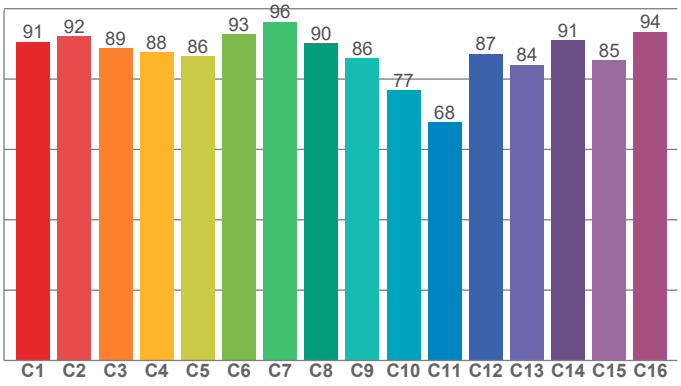
Spectral variance



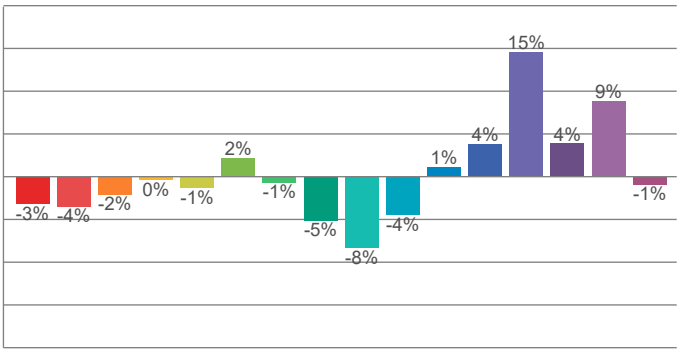
Measurement Date: 5/7/2024



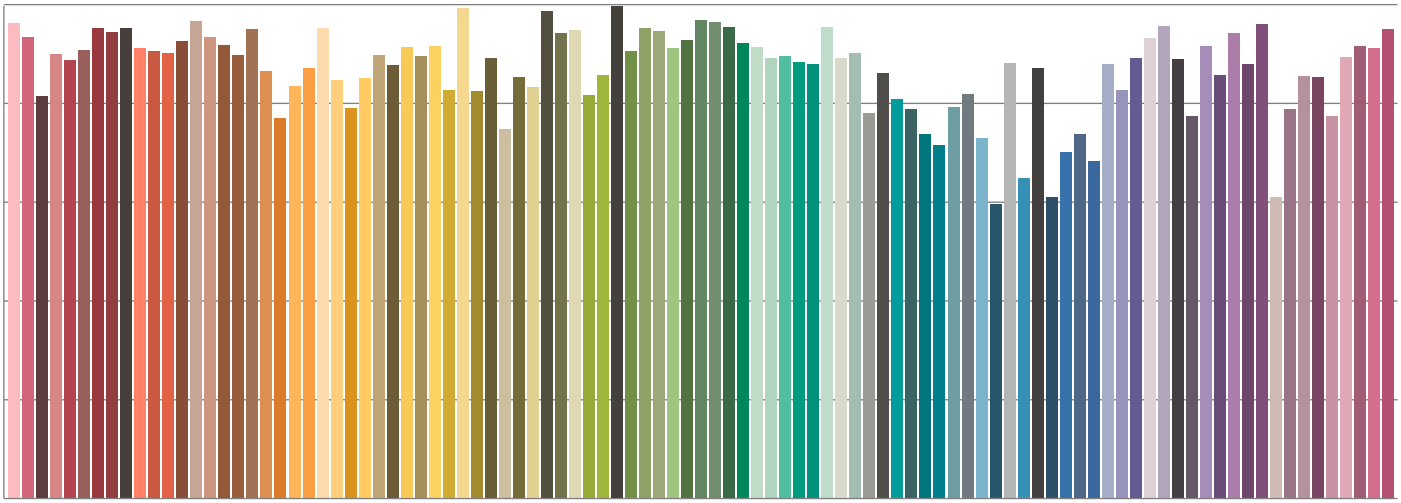
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



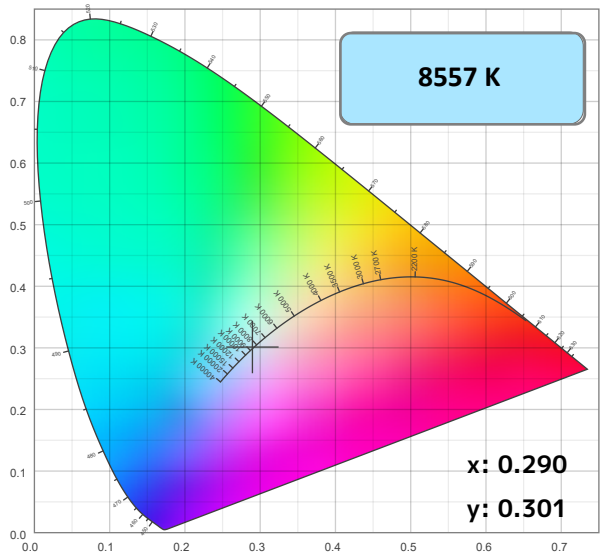
Measurement Date: 5/7/2024

Color Temperature: 8557K

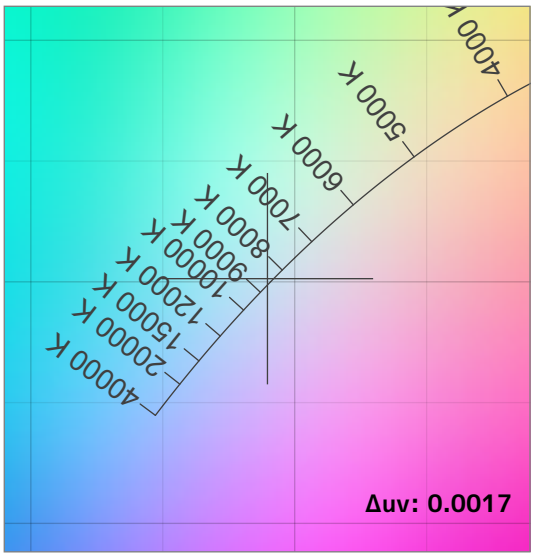
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
86.2	57.3	83.1	96.8	80	82.4	0.290	0.301	0.0017	6	53

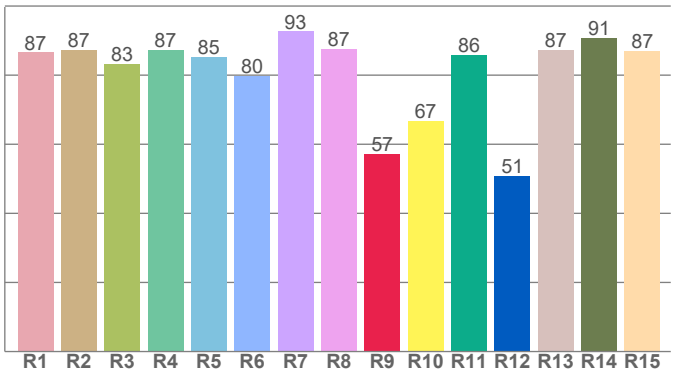
CIE 1931



CIE 1931 ZOOMED

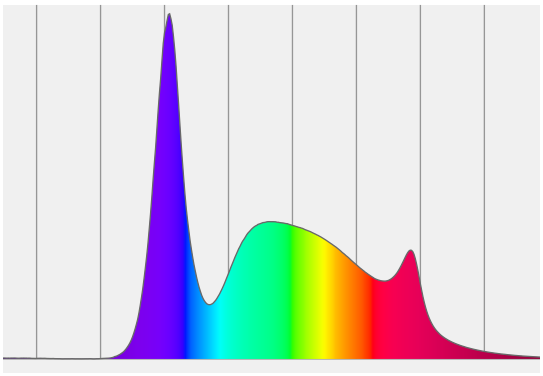


CRI: 86.2 (R1-R8)



Spectral Power Distribution (SPD)

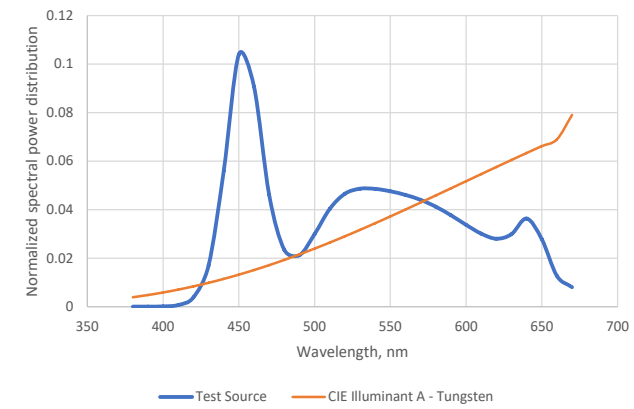
Dominant Wavelength 475 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 6

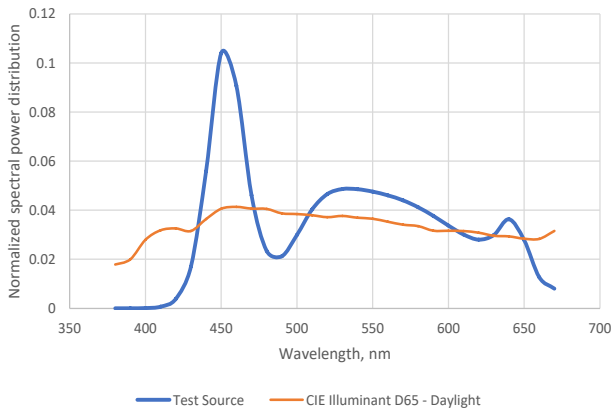
Spectral variance



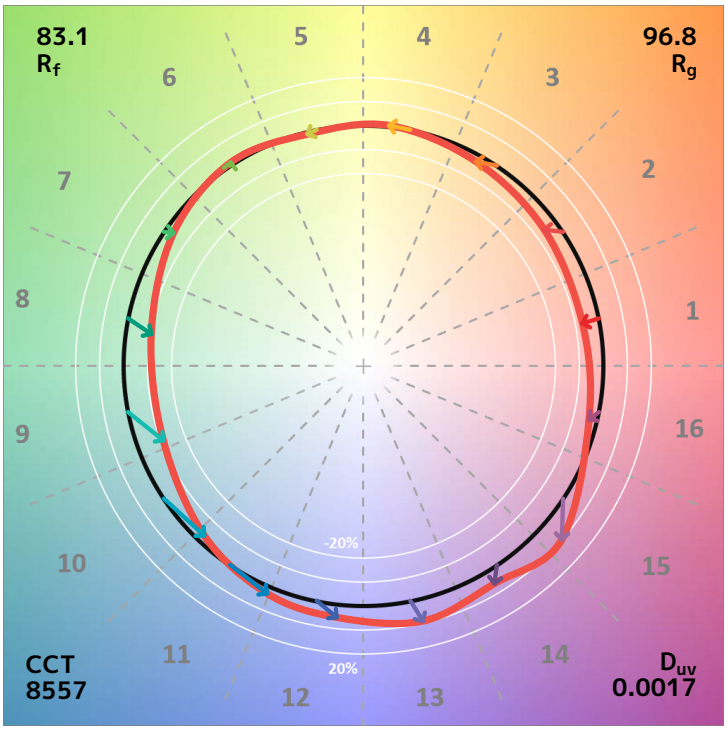
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 53

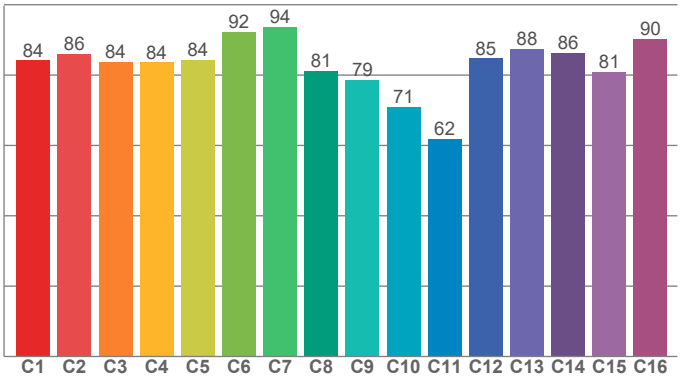
Spectral variance



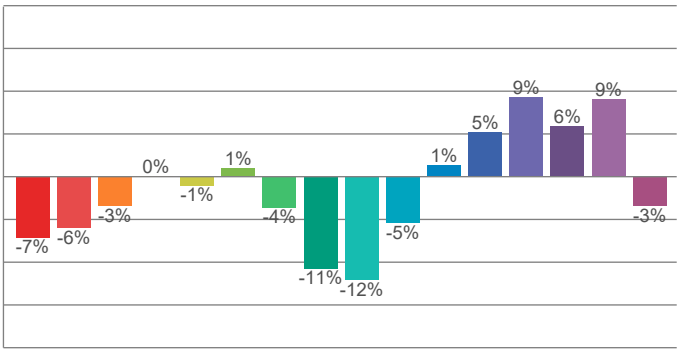
Measurement Date: 5/7/2024



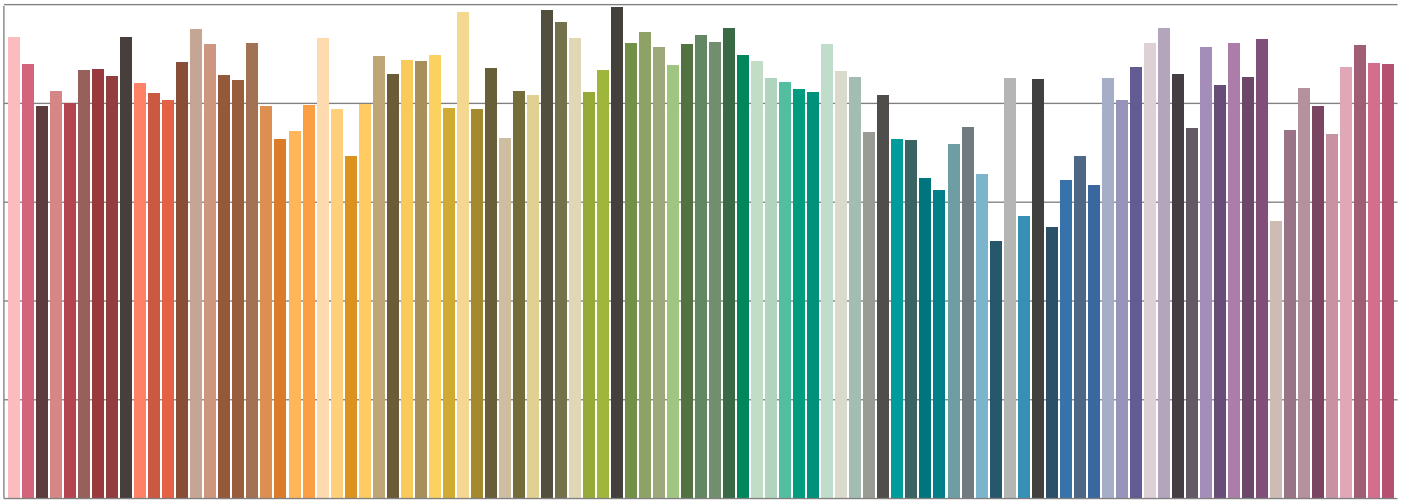
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



Measurement Date: 5/7/2024

KL Par FC IP (8500K, High Fidelity)

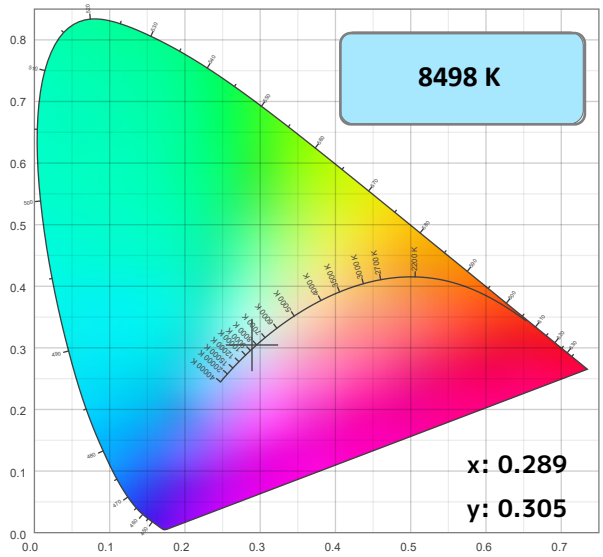
Prepared For ELATION PROFESSIONAL

Color Temperature: 8498K

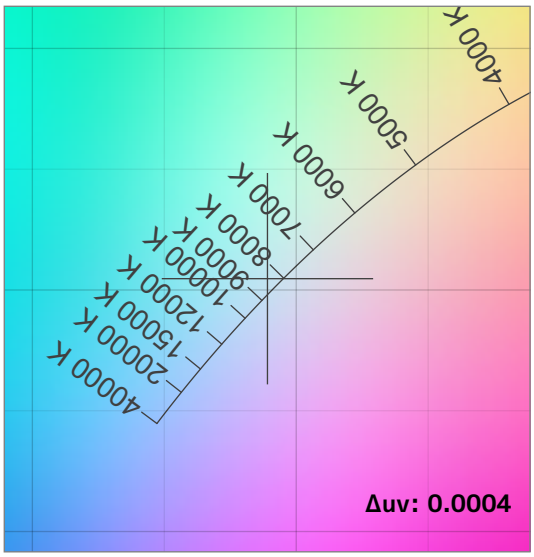
Accuracy Metric Overview

Color Rendering Index	Color Rendering Index, R9 (Red Component)	TM-30 Color Fidelity	TM-30 Color Gamut	Television Lighting Consistency Index	Color Quality Scale	Color Coordinate-CIE 1931	Color Coordinate-CIE 1931	Deviation from Black Body Locus	SSI [CIE A] Tungsten	SSI [CIE D65] Daylight
CRI	CRI R9	TM30 R_f	TM30 R_g	TLCI	CQS	x	Y	Δuv	SSIt	SSId
89.1	81.9	86.0	98.9	90	86.8	0.289	0.305	0.0004	9	54

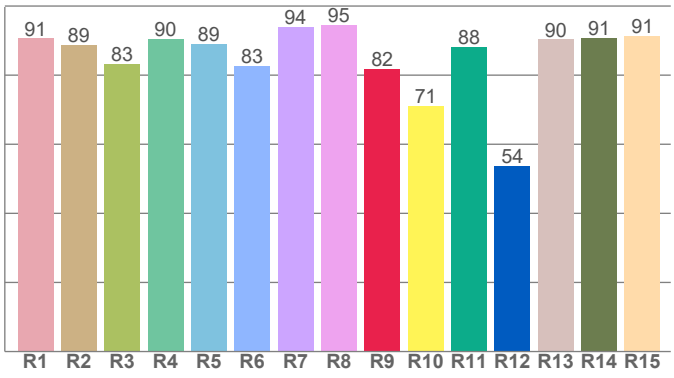
CIE 1931



CIE 1931 ZOOMED

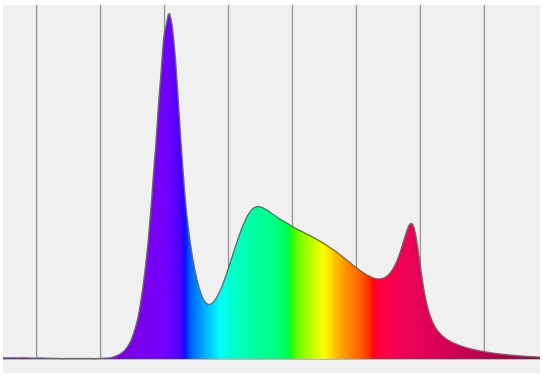


CRI: 89.1 (R1-R8)



Spectral Power Distribution (SPD)

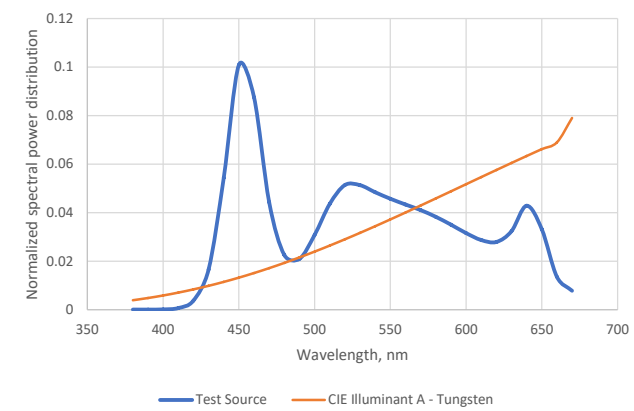
Dominant Wavelength 478 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 9

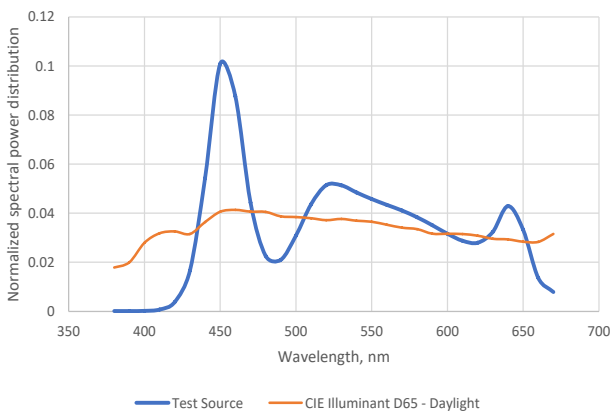
Spectral variance



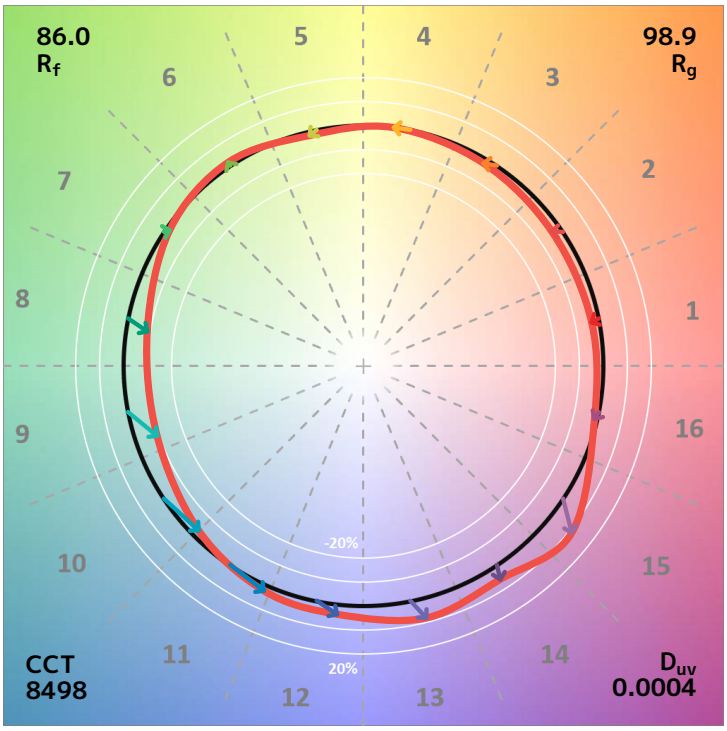
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 54

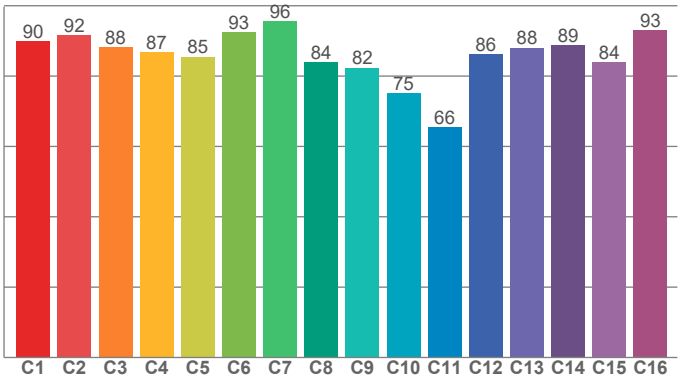
Spectral variance



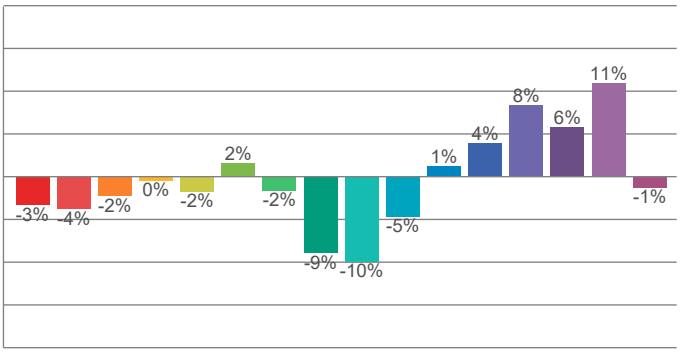
Measurement Date: 5/7/2024



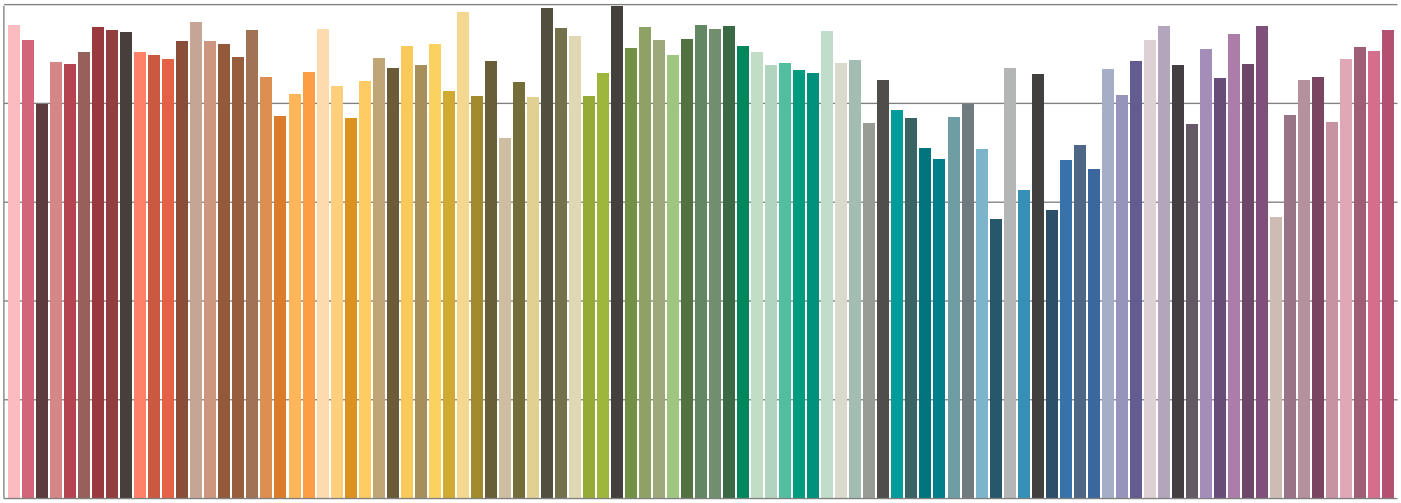
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)



Measurement Date: 5/7/2024

Measurements

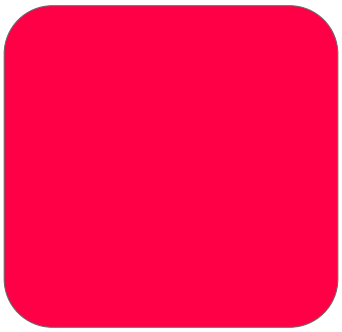
Total Lumen Output: 1527 lm

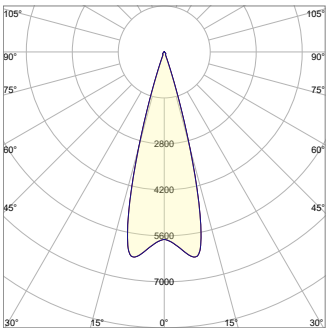
Peak Intensity: 6292 cd

Efficacy: 19 Lumen/Watt

Power: 81.0 W

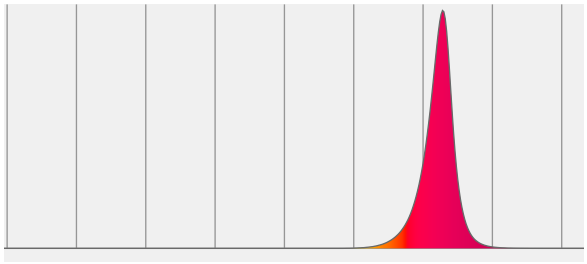
Voltage: 120 V, Current: - A

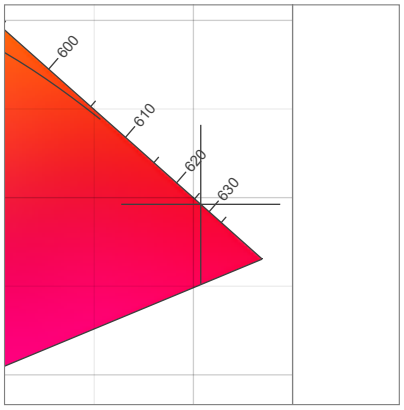




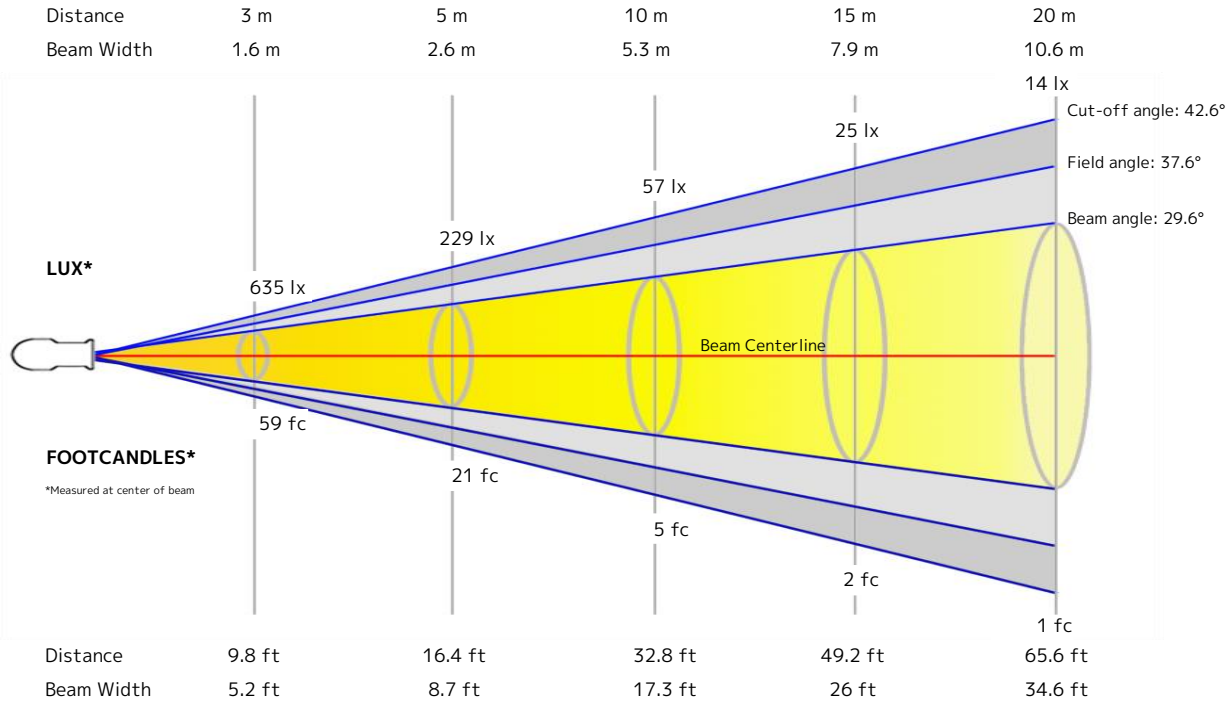
Spectral Power Distribution

Dominant Wavelength 627 nm





Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
627	0.704	0.296	0.547	0.345



Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
LX	5715	1429	635	357	229	159	117	89	71	57	47	40	34	29	25	22	20	18	16	14
FC	531	132.7	59	33.2	21.2	14.7	10.8	8.3	6.6	5.3	4.4	3.7	3.1	2.7	2.4	2.1	1.8	1.6	1.5	1.3

Measurement Date: 5/3/2024

Measurements

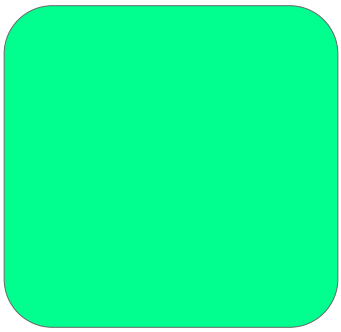
Total Lumen Output: 1974 lm

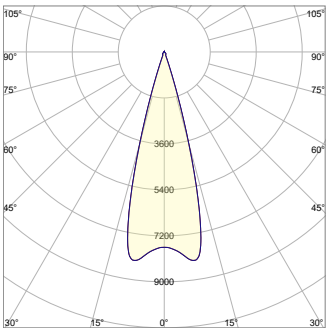
Peak Intensity: 8236 cd

Efficacy: 31 Lumen/Watt

Power: 63.0 W

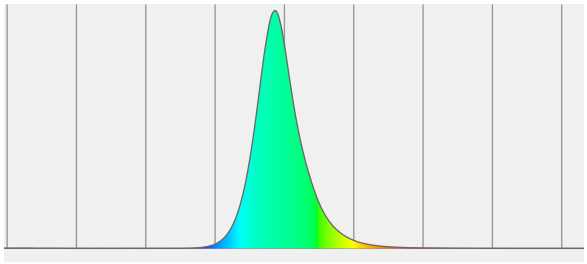
Voltage: 121 V, Current: - A

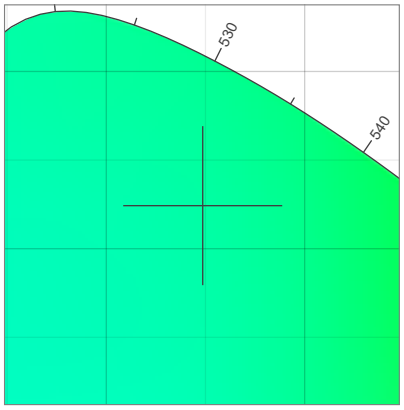




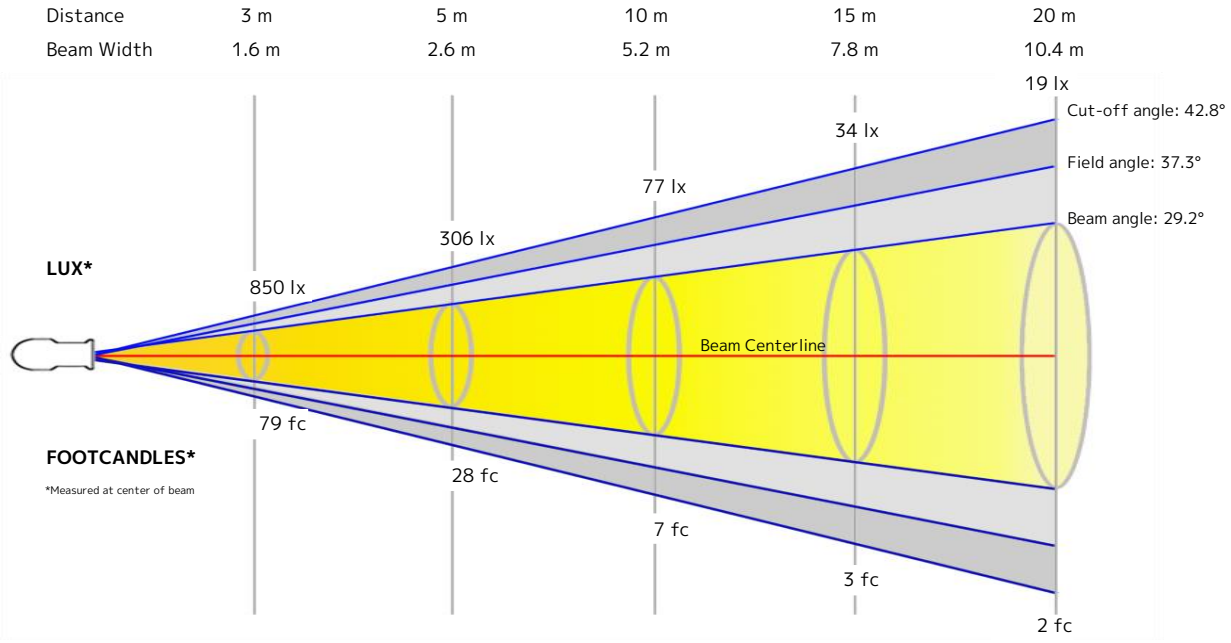
Spectral Power Distribution

Dominant Wavelength 524 nm





Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
524	0.149	0.724	0.052	0.381



Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
LX	7654	1913	850	478	306	213	156	120	94	77	63	53	45	39	34	30	26	24	21	19
FC	711.1	177.8	79	44.4	28.4	19.8	14.5	11.1	8.8	7.1	5.9	4.9	4.2	3.6	3.2	2.8	2.5	2.2	2	1.8

Measurement Date: 5/6/2024

Measurements

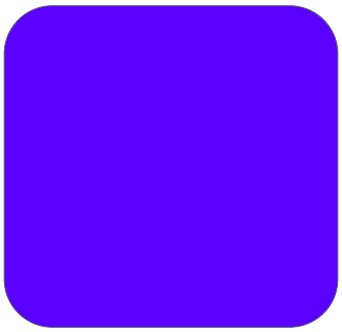
Total Lumen Output: 521 lm

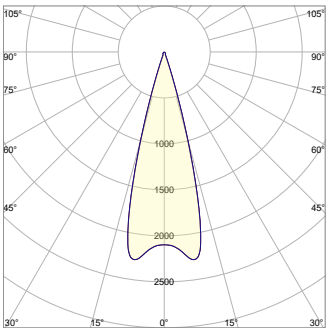
Peak Intensity: 2277 cd

Efficacy: 6 Lumen/Watt

Power: 88.0 W

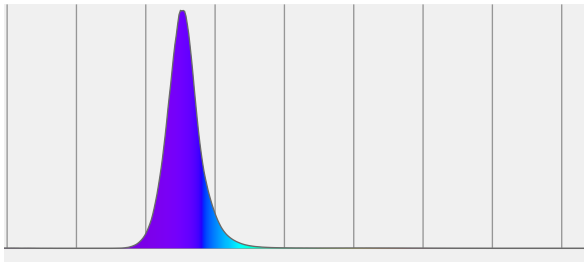
Voltage: 121 V, Current: - A

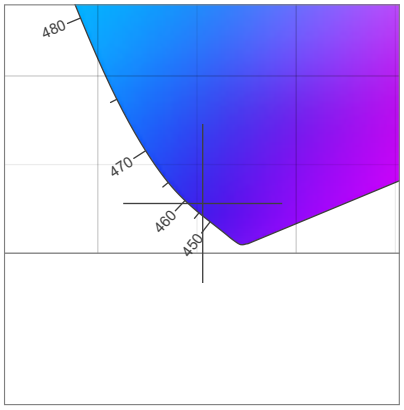




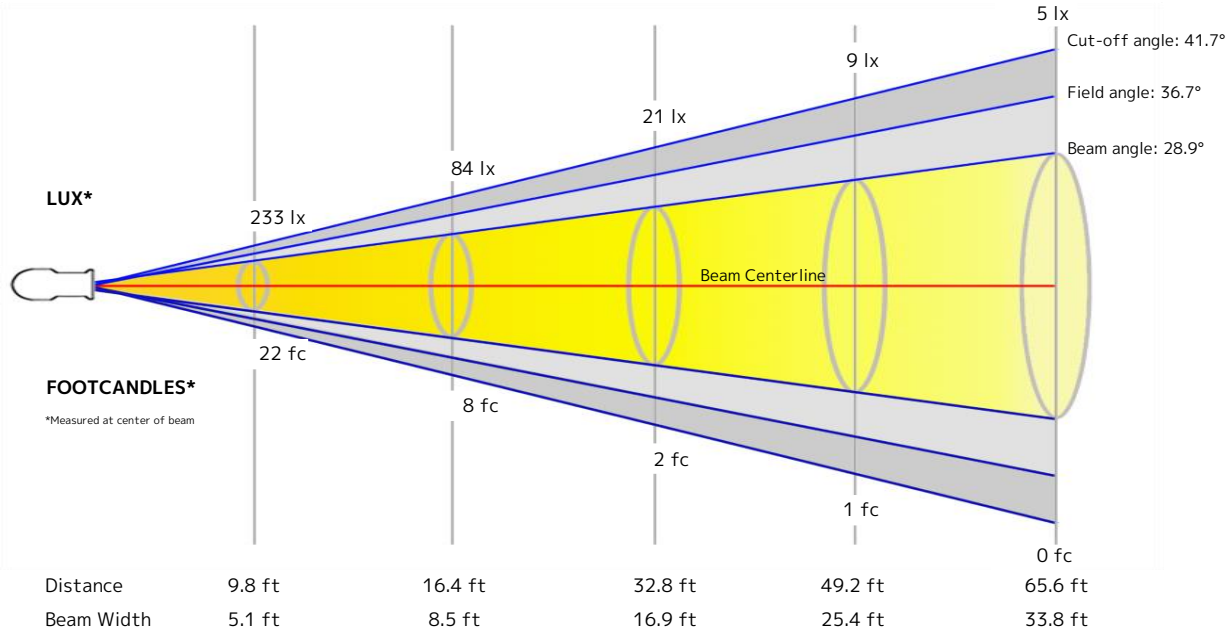
Spectral Power Distribution

Dominant Wavelength 455 nm





Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
455	0.153	0.028	0.202	0.056



Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
LX	2097	524	233	131	84	58	43	33	26	21	17	15	12	11	9	8	7	6	6	5
FC	194.9	48.7	21.7	12.2	7.8	5.4	4	3	2.4	1.9	1.6	1.4	1.2	1	0.9	0.8	0.7	0.6	0.5	0.5

Measurement Date: 5/6/2024

Measurements

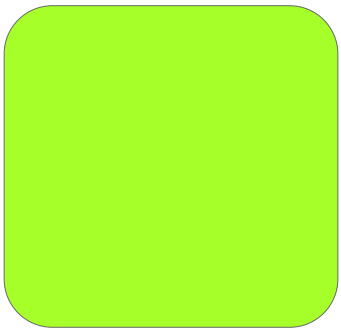
Total Lumen Output: 10435 lm

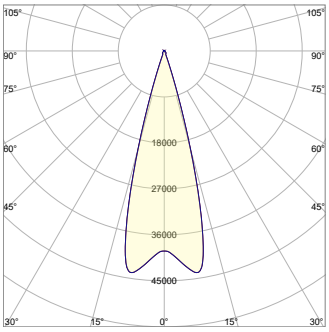
Peak Intensity: 43766 cd

Efficacy: 47 Lumen/Watt

Power: 221 W

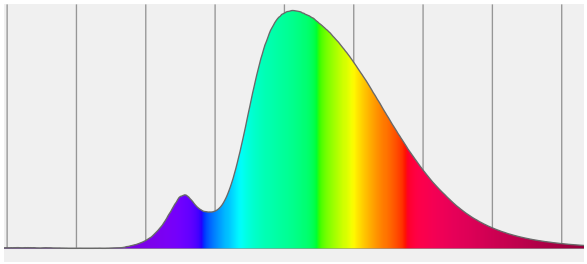
Voltage: 120 V, Current: - A

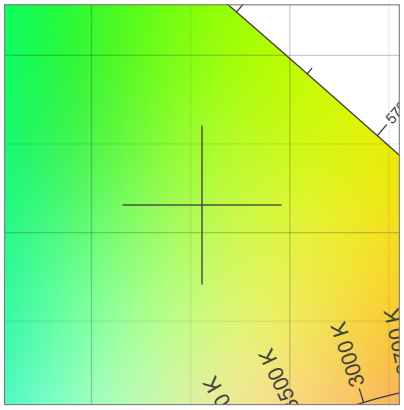




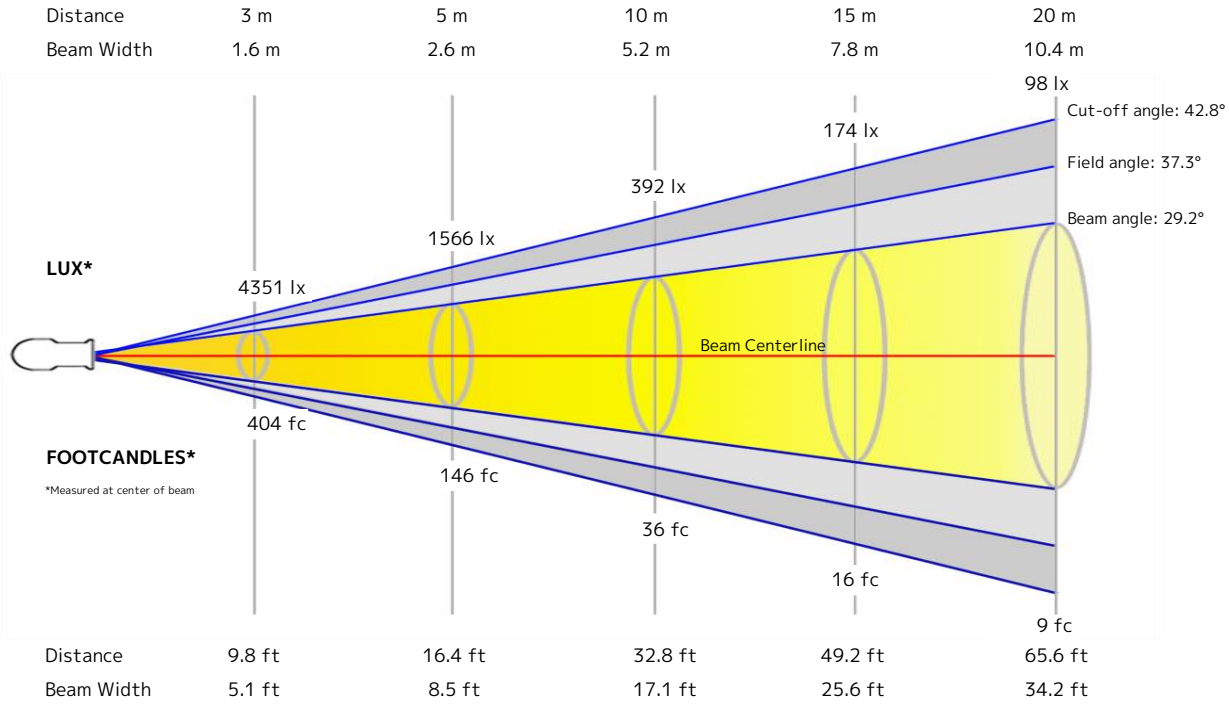
Spectral Power Distribution

Dominant Wavelength 561 nm





Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
561	0.356	0.516	0.168	0.365



Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
LX	39158	9790	4351	2447	1566	1088	799	612	483	392	324	272	232	200	174	153	135	121	108	98
FC	3637.9	909.5	404.2	227.4	145.5	101.1	74.2	56.8	44.9	36.4	30.1	25.3	21.5	18.6	16.2	14.2	12.6	11.2	10.1	9.1

Measurement Date: 5/6/2024

Measurements

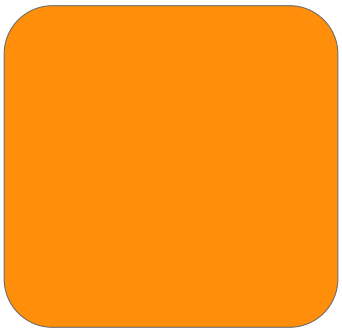
Total Lumen Output: 2415 lm

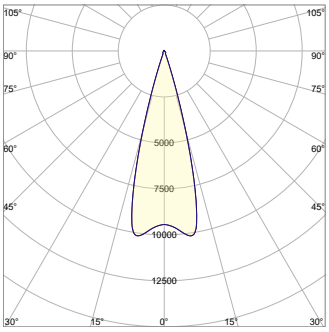
Peak Intensity: 10137 cd

Efficacy: 21 Lumen/Watt

Power: 113 W

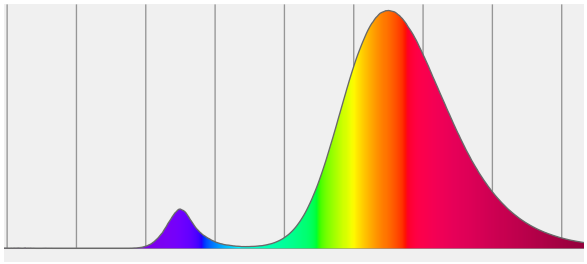
Voltage: 120 V, Current: - A

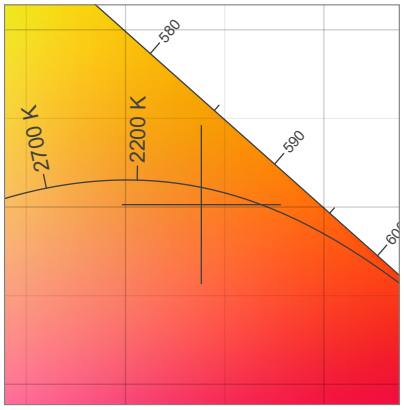




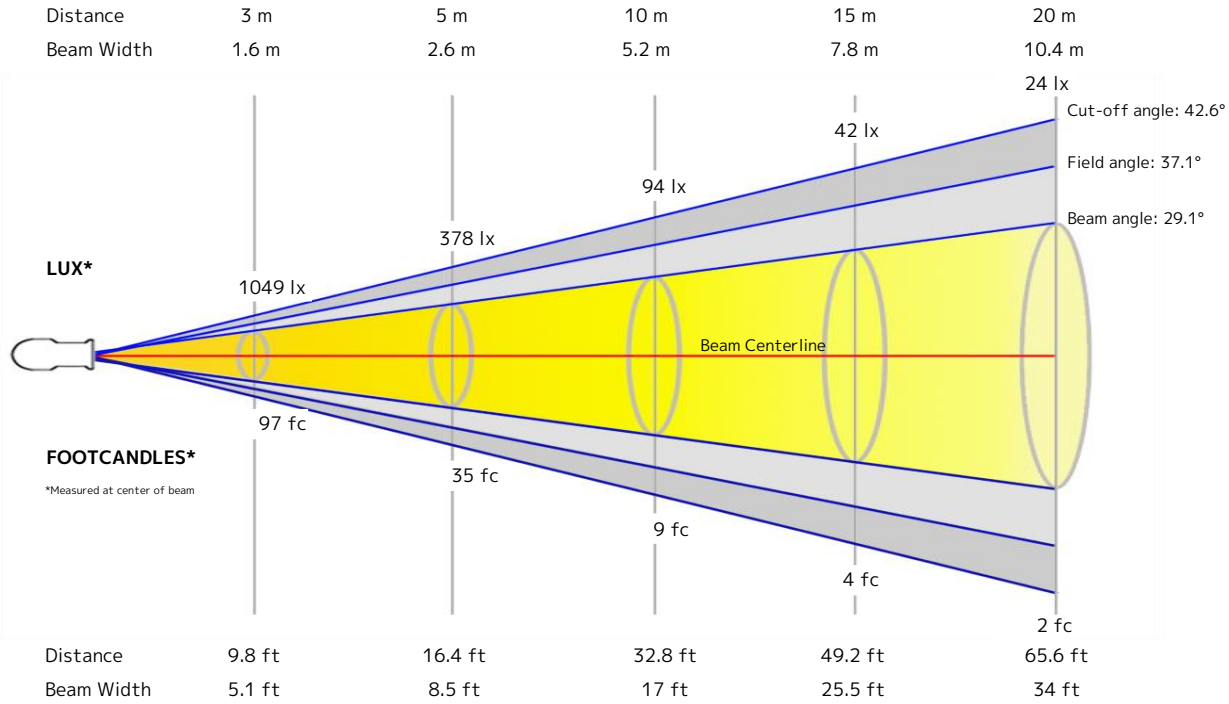
Spectral Power Distribution

Dominant Wavelength 591 nm





Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
591	0.538	0.401	0.319	0.357



Beam Intensities from 1-20m

M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
LX	9442	2361	1049	590	378	262	193	148	117	94	78	66	56	48	42	37	33	29	26	24
FC	877.2	219.3	97.5	54.8	35.1	24.4	17.9	13.7	10.8	8.8	7.2	6.1	5.2	4.5	3.9	3.4	3	2.7	2.4	2.2

Measurement Date: 5/6/2024