SIX+ PAR L Optional Lenses

Photometric &

Chromaticity Test Reports

CONTENTS

Elation Professional USA | 6122 S. Eastern Ave. | Los Angeles, CA. 90040
323-582-3322 | 323-832-9142 fax | www.elationlighting.com | info@elationlighting.com
Elation Professional B.V. | Junostraat 2 | 6468 EW Kerkrade, The Netherlands
+31 45 546 85 66 | +31 45 546 85 96 fax | www.elationlighting.eu | info@elationlighting.eu
Elation Professional Mexico | AV Santa Ana 30 | Parque Industrial Lerma, Lerma, Mexico 52000
+52 (728) 282-7070

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

Six+ Par L (60°, Full Output- No UV)

Prepared For ELATION PROFESSIONAL

Key Measurements

Output

Total Lumen Output: 4526 lm

Peak Intensity: 4430 cd

Beam

Beam Angle (50%): 53.7°

Field Angle (10%): 103.8°

Cutoff Angle (2.5%): 133.4°

Color

Color Temperature: 7706 K

CRI: 69.1

TLCI: 80

TM30 R_F: 78.6

TM30 R_g: 119.4

Power Details

Efficacy: 43 Lumen/Watt

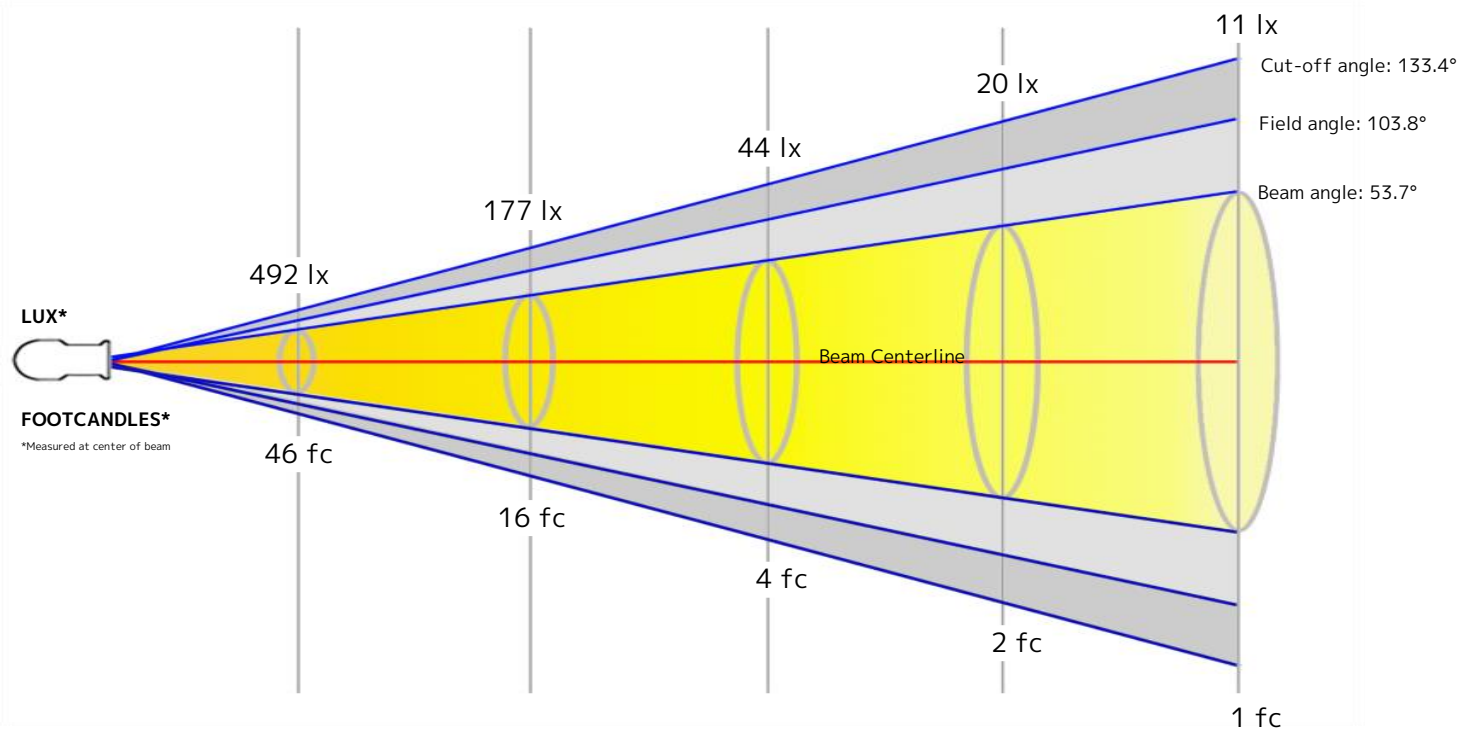
Power: 105.4 W

Supply Voltage: 118 V

Current: 0.896 A

Beam Details

Distance	3 m 3	5 m	10 m	15 m	20 m
Beam Width	m	5.1 m	10.1	15.2 m	20.3 m



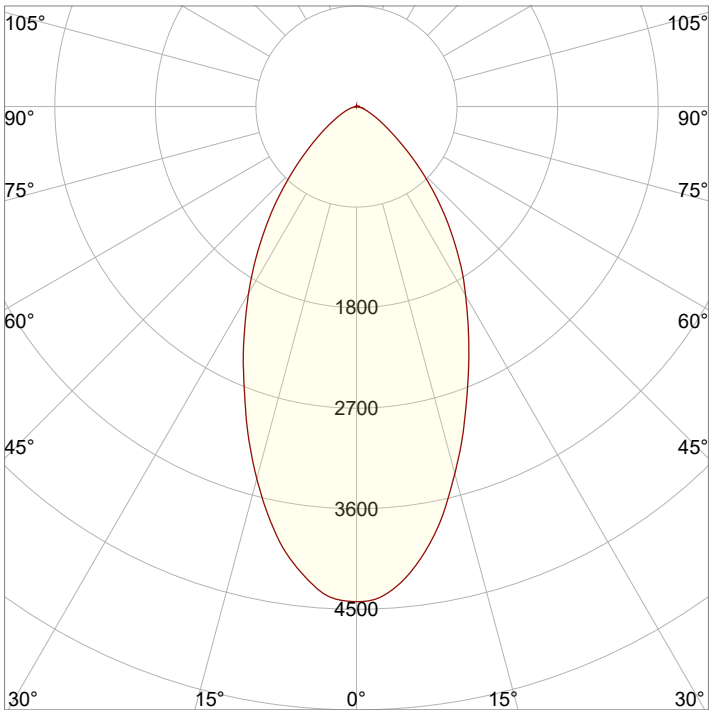
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	9.9 ft	16.6 ft	33.2 ft	49.8 ft	66.4 ft

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	4426	1106	492	277	177	123	90	69	55	44	37	31	26	23	20	17	15	14	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	411.2	102.8	45.7	25.7	16.4	11.4	8.4	6.4	5.1	4.1	3.4	2.9	2.4	2.1	1.8	1.6	1.4	1.3	1.1	1

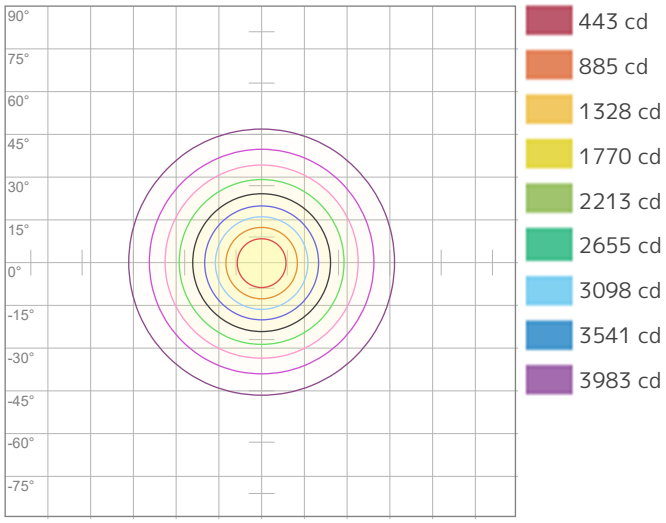
Measurement Date: 6/24/2024

Angular Distribution



Beam Angle - 50%
53.7°
Field Angle - 10%
103.8°
Cutoff Angle - 2.5%
133.4°

ISO Diagrams

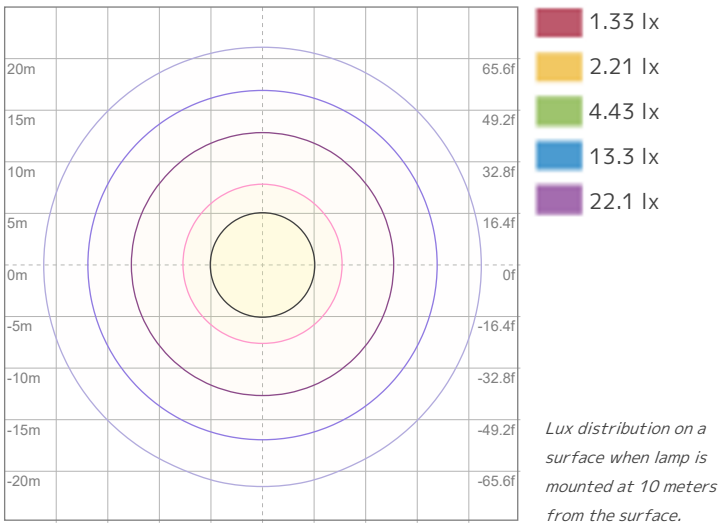


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 4426 cd



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

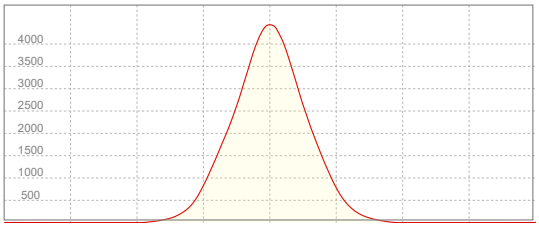
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 44.3 lx

Linear Distribution



Peak Candela

4430 cd

Calculate Center Beam Intensities

lux = 4430 / distance(m)^2

fc = 4430 / distance(ft)^2

Measurement Date: 6/24/2024

Six+ Par L (60°, Full Output)

Key Measurements

Output

Total Lumen Output: 4326 lm

Peak Intensity: 4237 cd

Beam

Beam Angle (50%): 53.6°

Field Angle (10%): 103.9°

Cutoff Angle (2.5%): 133.5°

Color

Color Temperature: 8282 K

CRI: 67.2

TLCI: 78

TM30 R_F: 76.8

TM30 R_g: 119.8

Power Details

Efficacy: 37 Lumen/Watt

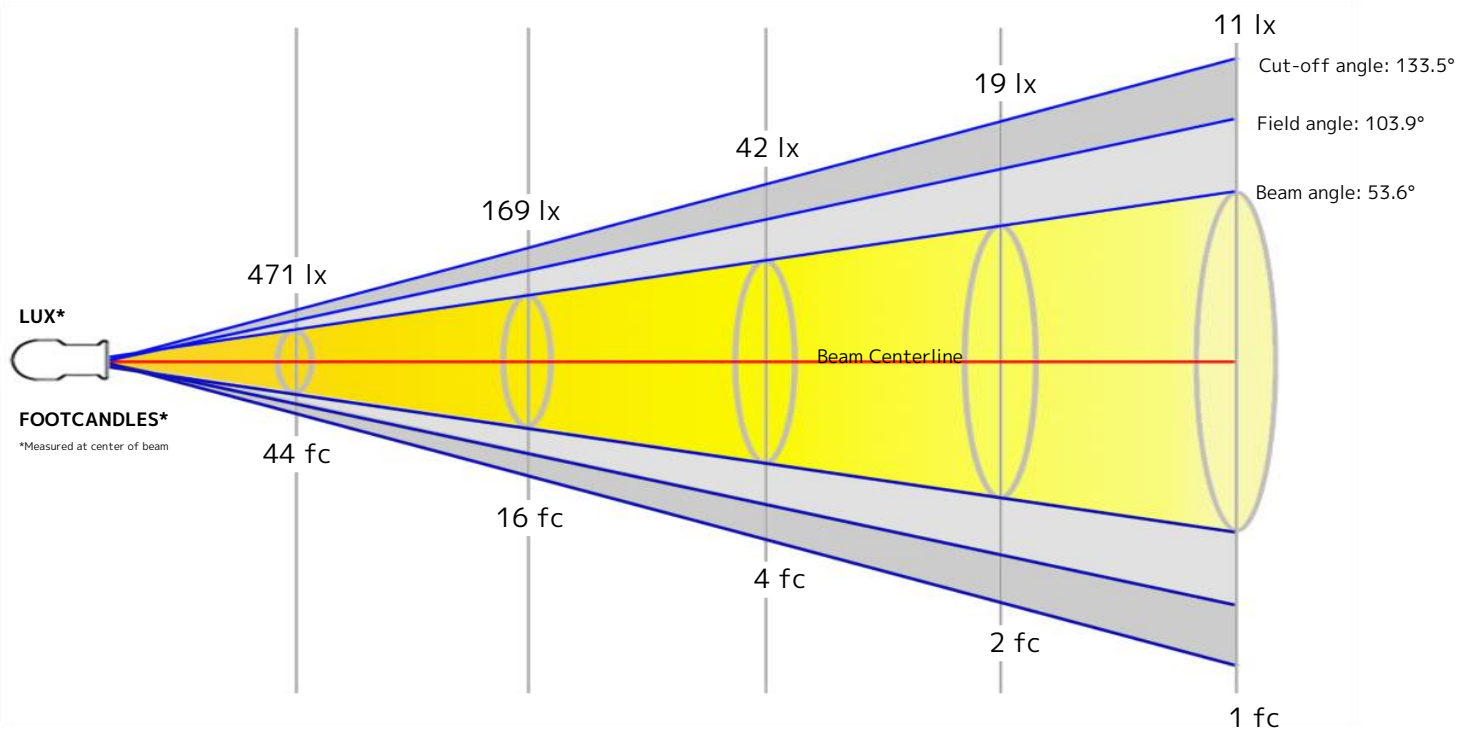
Power: 116.2 W

Supply Voltage: 118 V

Current: 0.986 A

Beam Details

Distance	3 m 3	5 m	10 m	15 m	20 m
Beam Width	m	5.1 m	10.1	15.2 m	20.2 m



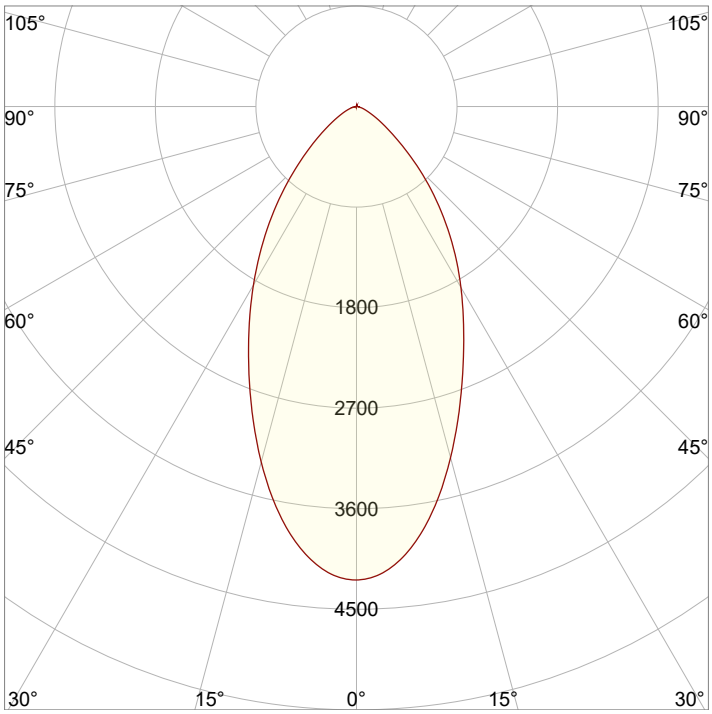
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	9.9 ft	16.6 ft	33.2 ft	49.8 ft	66.3 ft

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	4235	1059	471	265	169	118	86	66	52	42	35	29	25	22	19	17	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	393.5	98.4	43.7	24.6	15.7	10.9	8	6.1	4.9	3.9	3.3	2.7	2.3	2	1.7	1.5	1.4	1.2	1.1	1

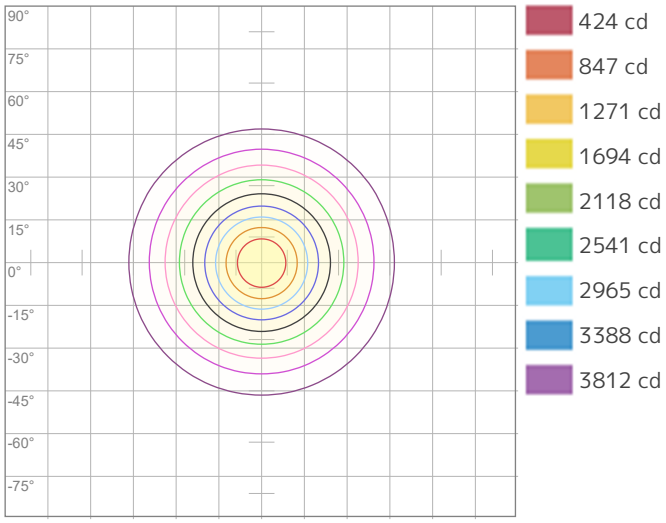
Measurement Date: 6/24/2024

Angular Distribution



Beam Angle - 50%
53.6°
Field Angle - 10%
103.9°
Cutoff Angle - 2.5%
133.5°

ISO Diagrams

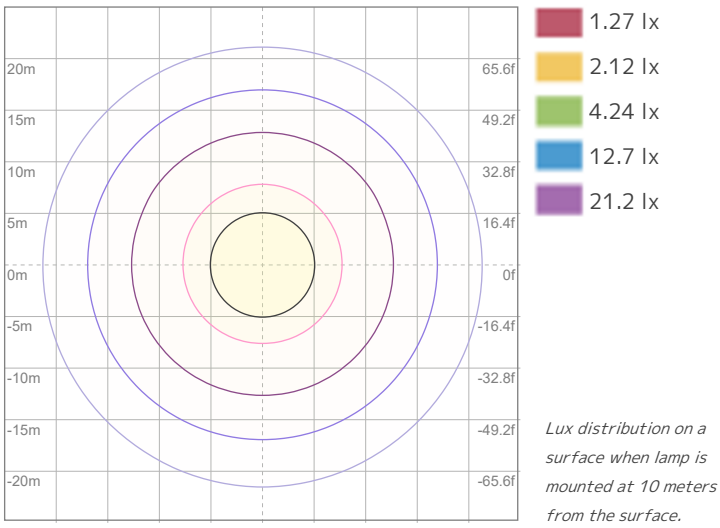


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 4235 cd



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

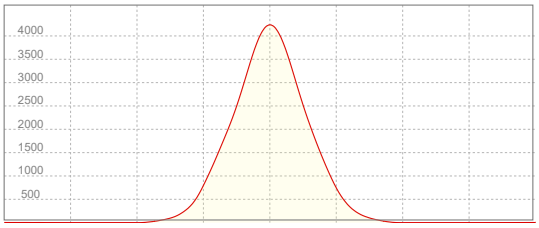
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 42.4 lx

Linear Distribution



Peak Candela

4237 cd

Calculate Center Beam Intensities

$lux = 4237 / distance(m)^2$

$fc = 4237 / distance(ft)^2$

Measurement Date: 6/24/2024

Key Measurements

Output

Total Lumen Output: 4426 lm

Peak Intensity: 4381 cd

Beam

Beam Angle (50%): 53.4°

Field Angle (10%): 103.5°

Cutoff Angle (2.5%): 131.1°

Color

Color Temperature: 2431 K

CRI: 84.0

TLCI: 77

TM30 R_F: 88.7

TM30 R_g: 105.7

Power Details

Efficacy: 48 Lumen/Watt

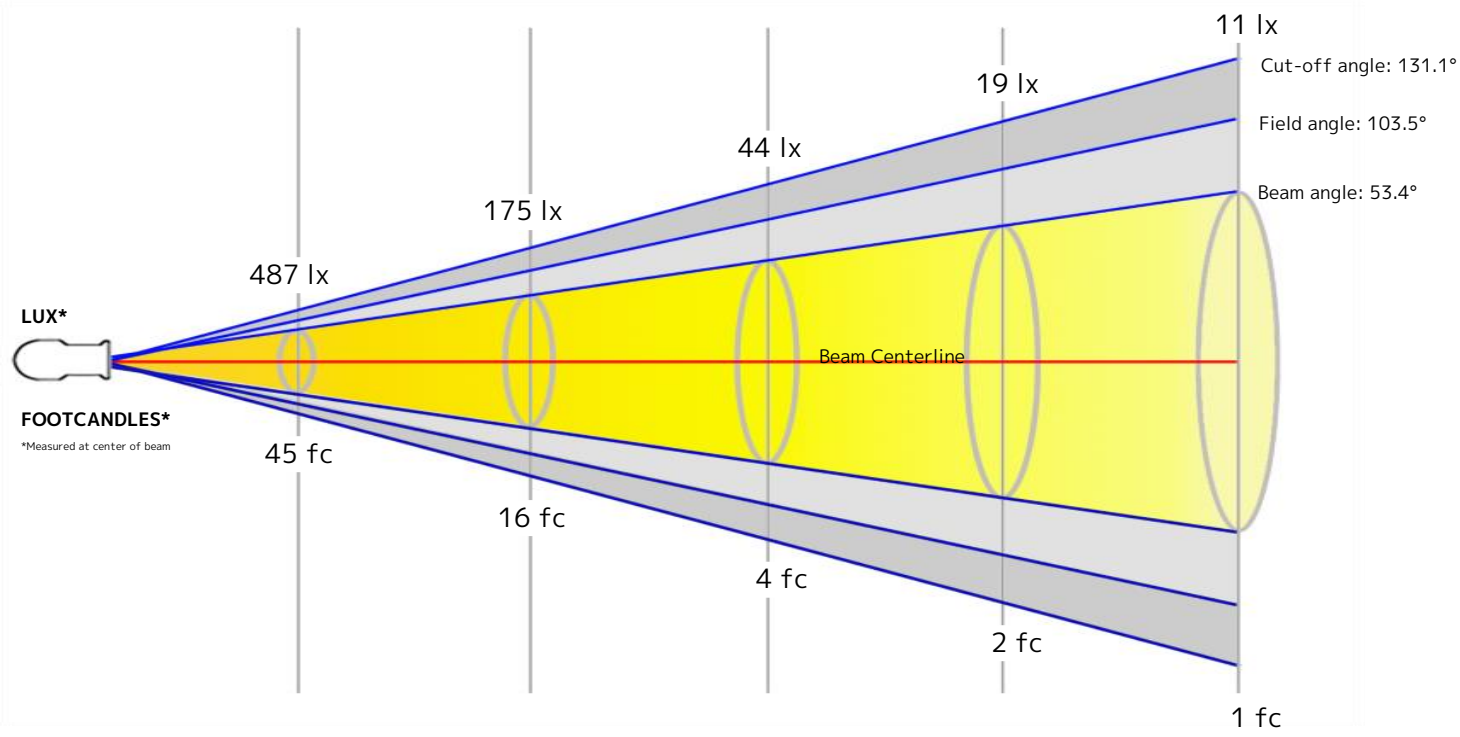
Power: 91.9 W

Supply Voltage: 119 V

Current: 0.780 A

Beam Details

Distance	3 m 3	5 m	10 m	15 m	20 m
Beam Width	m	5 m	10.1	15.1 m	20.1 m



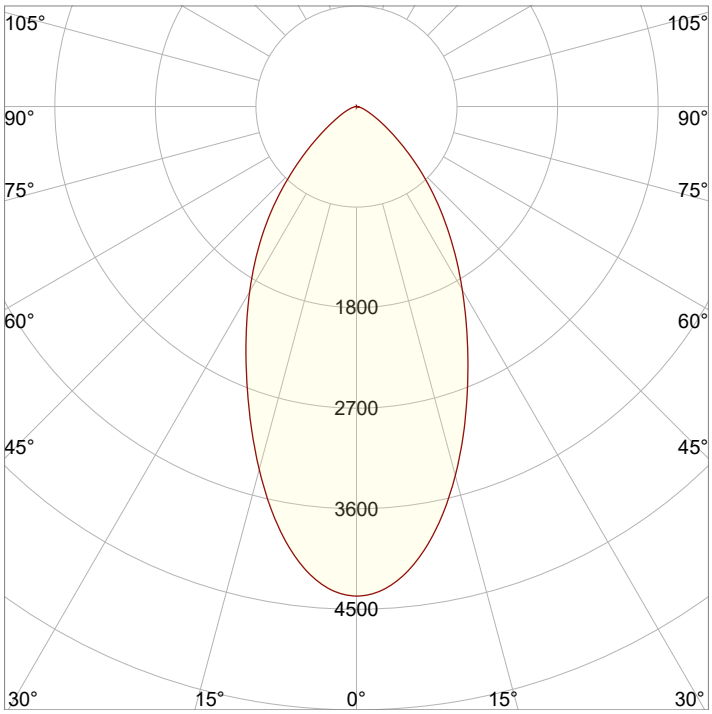
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	9.9 ft	16.5 ft	33 ft	49.5 ft	65.9 ft

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	4381	1095	487	274	175	122	89	68	54	44	36	30	26	22	19	17	15	14	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	407	101.8	45.2	25.4	16.3	11.3	8.3	6.4	5	4.1	3.4	2.8	2.4	2.1	1.8	1.6	1.4	1.3	1.1	1

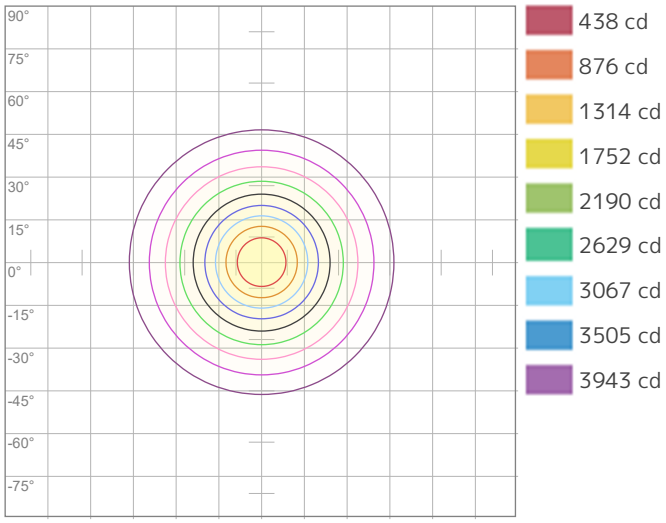
Measurement Date: 6/24/2024

Angular Distribution



Beam Angle - 50%
53.4°
Field Angle - 10%
103.5°
Cutoff Angle - 2.5%
131.1°

ISO Diagrams

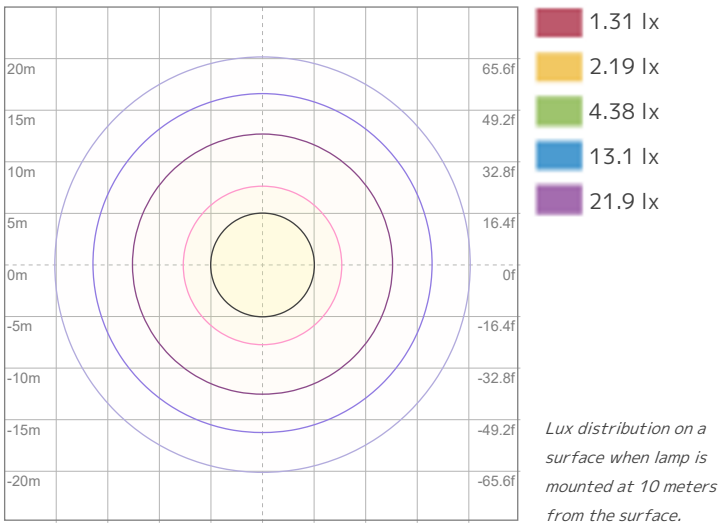


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 4381 cd



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

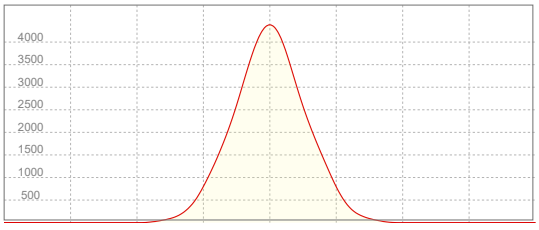
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 43.8 lx

Linear Distribution



Peak Candela

4381 cd

Calculate Center Beam Intensities

lux = 4381 / distance(m)^2

fc = 4381 / distance(ft)^2

Measurement Date: 6/24/2024

Six+ Par L (60°, 3200K)

Key Measurements

Output

Total Lumen Output: 4857 lm

Peak Intensity: 4769 cd

Beam

Beam Angle (50%): 53.5°

Field Angle (10%): 103.8°

Cutoff Angle (2.5%): 132.1°

Color

Color Temperature: 3226 K

CRI: 89.5

TLCI: 83

TM30 R_F: 91.6

TM30 R_g: 107.6

Power Details

Efficacy: 51 Lumen/Watt

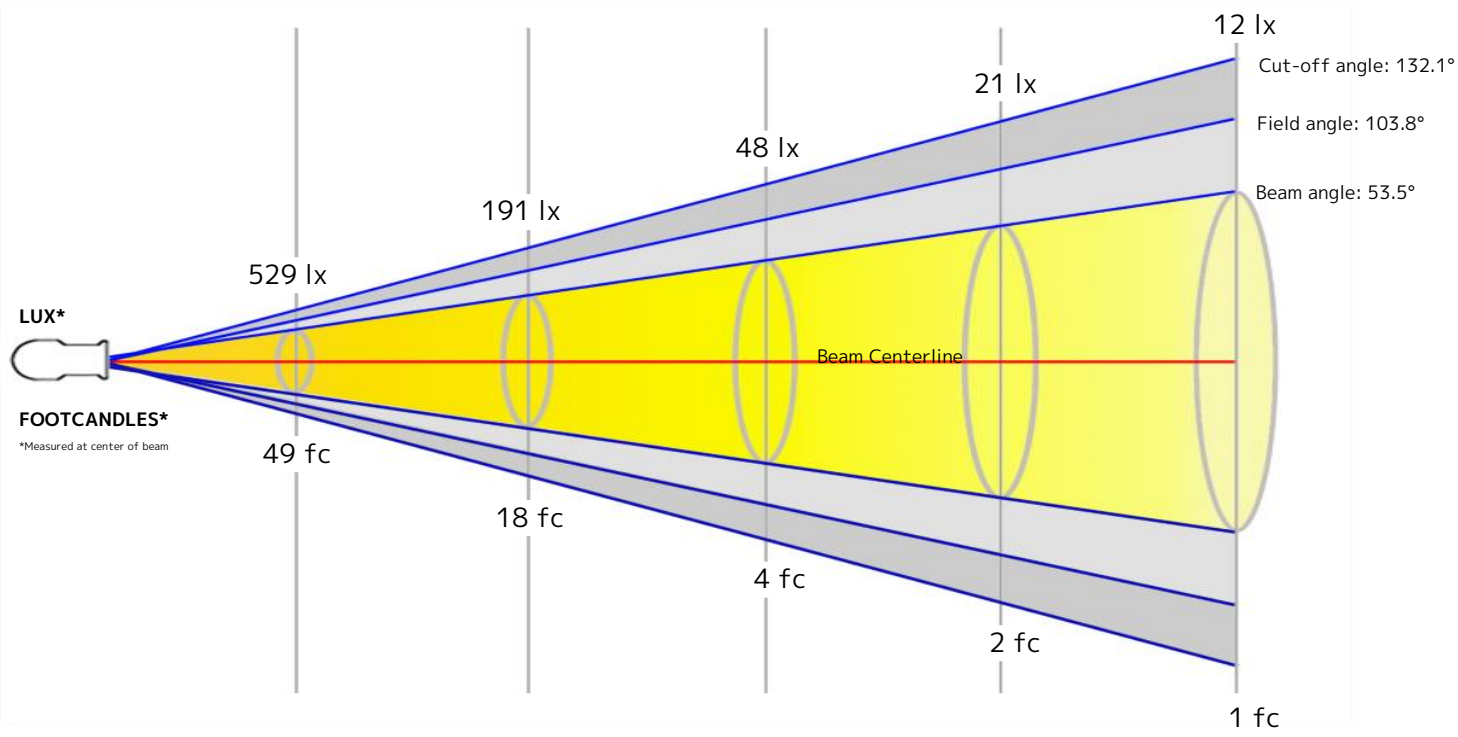
Power: 96.1 W

Supply Voltage: 118 V

Current: 0.817 A

Beam Details

Distance	3 m 3	5 m	10 m	15 m	20 m
Beam Width	m	5 m	10.1	15.1 m	20.2 m



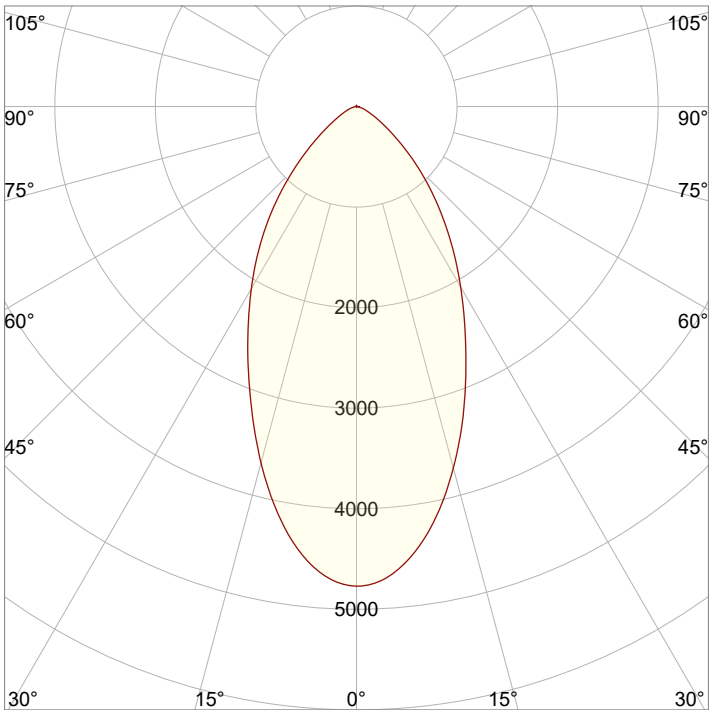
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	9.9 ft	16.5 ft	33.1 ft	49.6 ft	66.2 ft

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	4764	1191	529	298	191	132	97	74	59	48	39	33	28	24	21	19	16	15	13	12
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	442.6	110.7	49.2	27.7	17.7	12.3	9	6.9	5.5	4.4	3.7	3.1	2.6	2.3	2	1.7	1.5	1.4	1.2	1.1

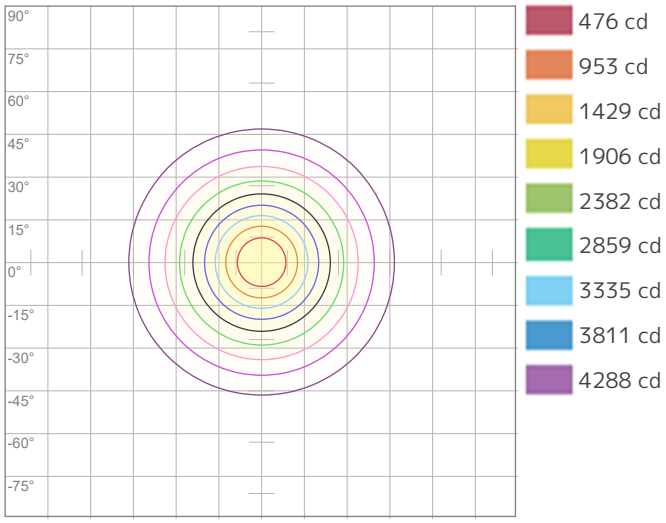
Measurement Date: 6/24/2024

Angular Distribution



Beam Angle - 50%
53.5°
Field Angle - 10%
103.8°
Cutoff Angle - 2.5%
132.1°

ISO Diagrams

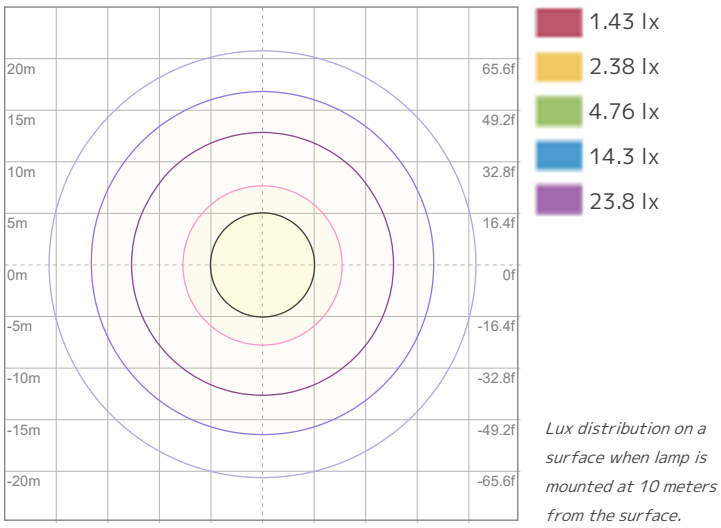


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 4764 cd



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

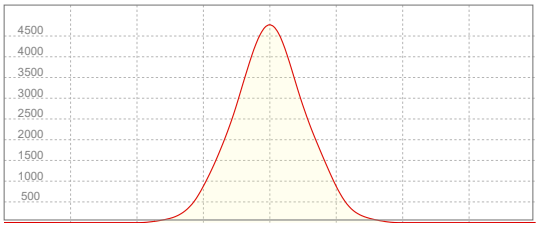
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 47.6 lx

Linear Distribution



Peak Candela

4769 cd

Calculate Center Beam Intensities

lux = 4769 / distance(m)^2

fc = 4769 / distance(ft)^2

Measurement Date: 6/24/2024

Key Measurements

Output

Total Lumen Output: 4816 lm

Peak Intensity: 4689 cd

Beam

Beam Angle (50%): 53.9°

Field Angle (10%): 104°

Cutoff Angle (2.5%): 133.1°

Color

Color Temperature: 4540 K

CRI: 90.2

TLCI: 83

TM30 R_F: 90.7

TM30 R_g: 107.9

Power Details

Efficacy: 50 Lumen/Watt

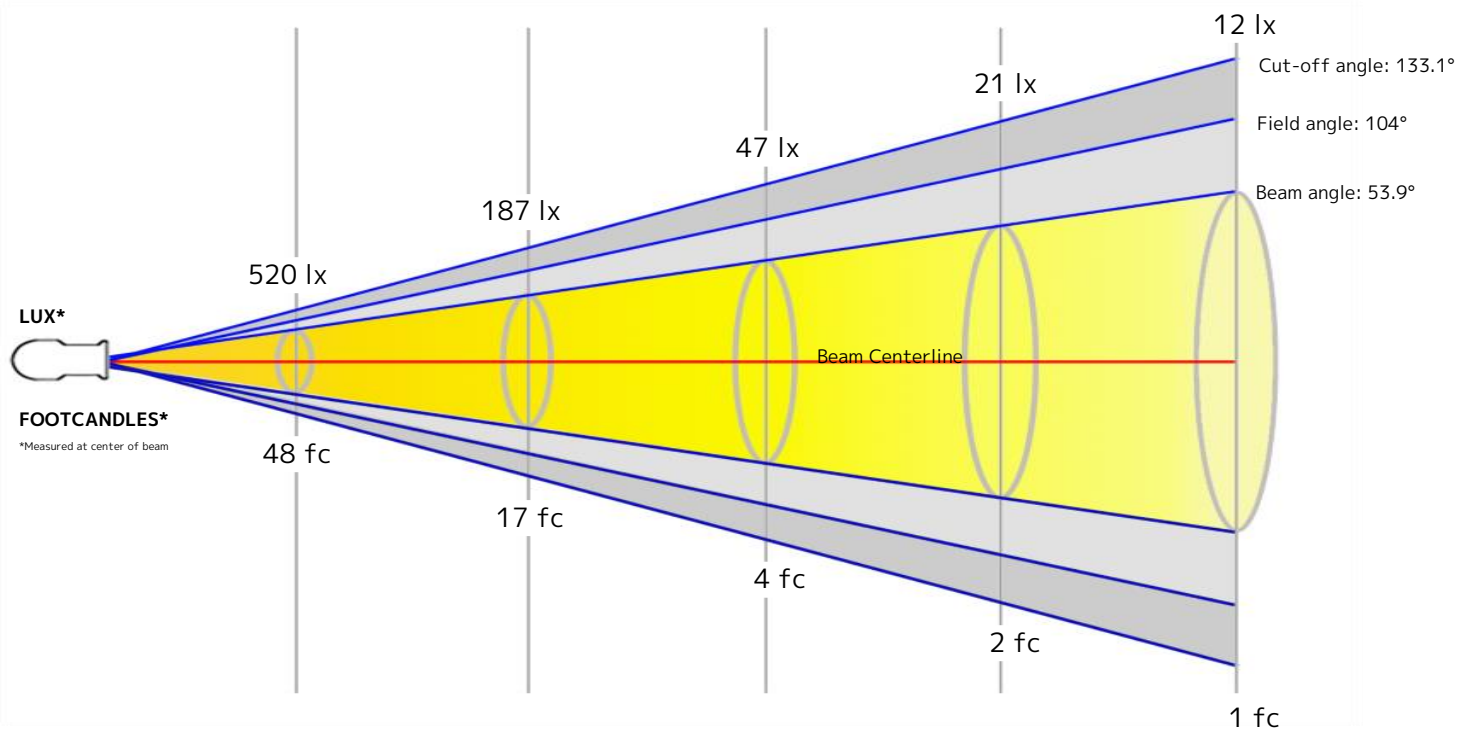
Power: 96.4 W

Supply Voltage: 118 V

Current: 0.819 A

Beam Details

Distance	3 m 3	5 m	10 m	15 m	20 m
Beam Width	m	5.1 m	10.2	15.2 m	20.3 m



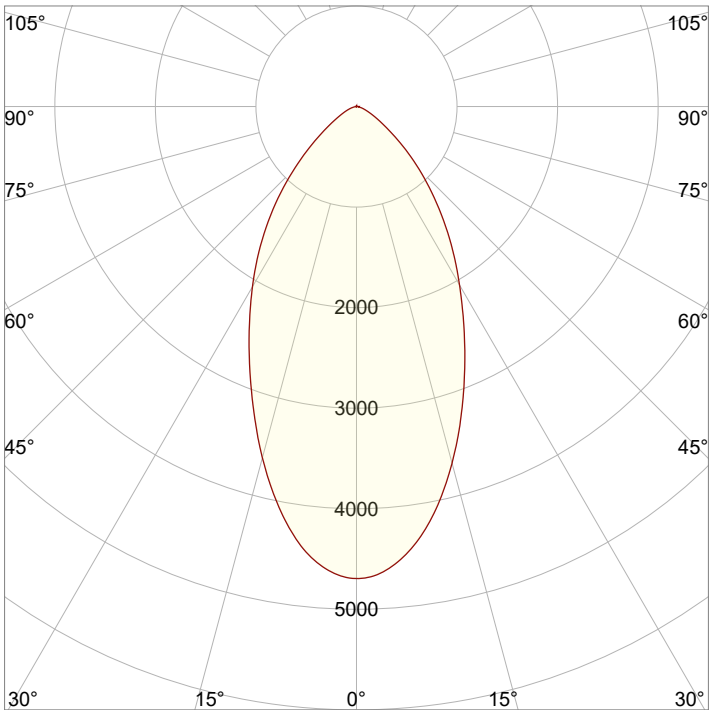
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	10 ft	16.7 ft	33.3 ft	50 ft	66.6 ft

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	4684	1171	520	293	187	130	96	73	58	47	39	33	28	24	21	18	16	14	13	12
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	435.2	108.8	48.4	27.2	17.4	12.1	8.9	6.8	5.4	4.4	3.6	3	2.6	2.2	1.9	1.7	1.5	1.3	1.2	1.1

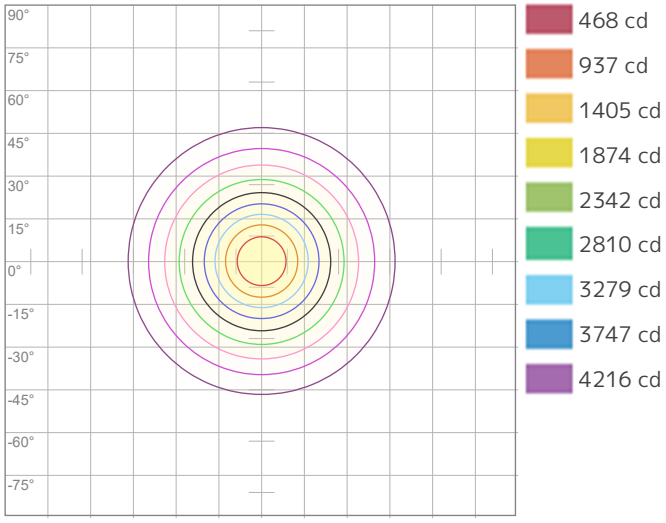
Measurement Date: 6/24/2024

Angular Distribution



Beam Angle - 50%
53.9°
Field Angle - 10%
104°
Cutoff Angle - 2.5%
133.1°

ISO Diagrams

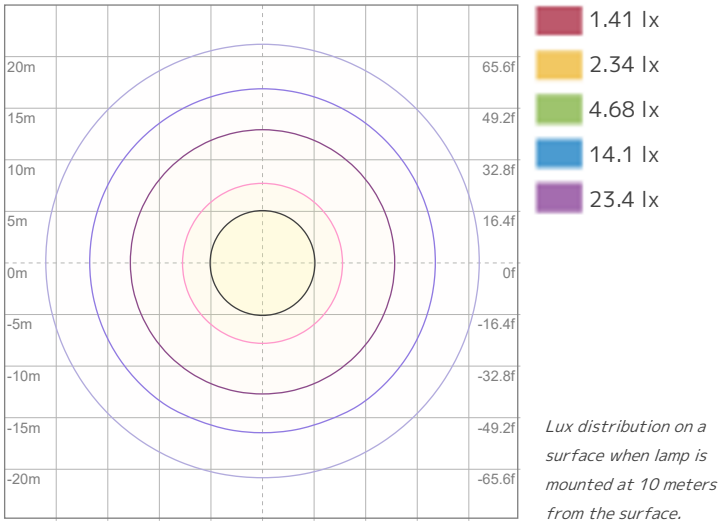


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 4684 cd



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

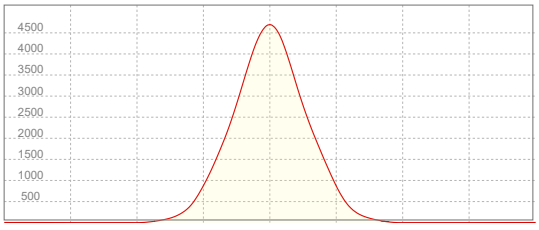
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 46.8 lx

Linear Distribution



Peak Candela

4689 cd

Calculate Center Beam Intensities

lux = 4689 / distance(m)^2

fc = 4689 / distance(ft)^2

Measurement Date: 6/24/2024

Key Measurements

Output

Total Lumen Output: 4705 lm

Peak Intensity: 4561 cd

Beam

Beam Angle (50%): 54°

Field Angle (10%): 104.3°

Cutoff Angle (2.5%): 133.3°

Color

Color Temperature: 6472 K

CRI: 89.3

TLCI: 87

TM30 R_F: 88.8

TM30 R_g: 107.3

Power Details

Efficacy: 48 Lumen/Watt

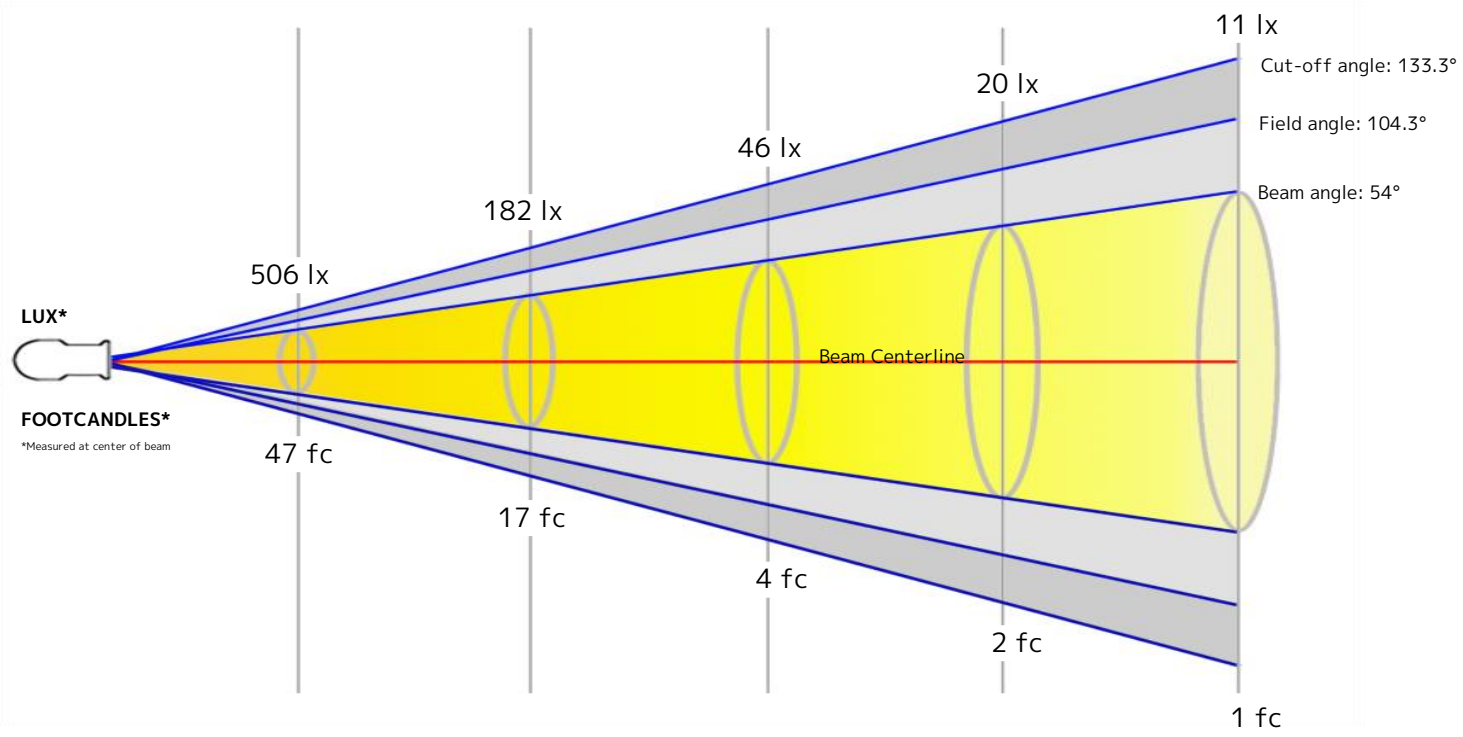
Power: 97.1 W

Supply Voltage: 119 V

Current: 0.824 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	3.1 m	5.1 m	10.2	15.3 m	20.4 m



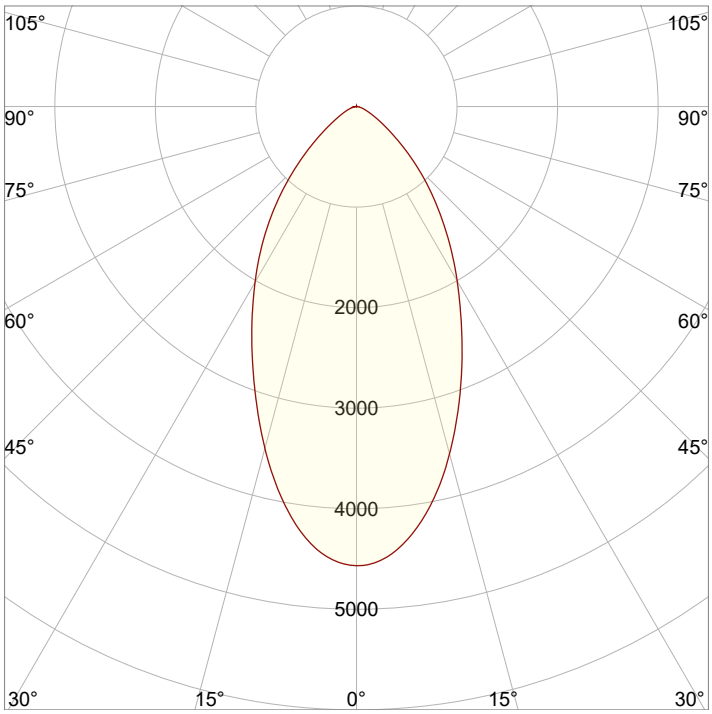
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	10 ft	16.7 ft	33.4 ft	50.1 ft	66.8 ft

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	4555	1139	506	285	182	127	93	71	56	46	38	32	27	23	20	18	16	14	13	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	423.2	105.8	47	26.4	16.9	11.8	8.6	6.6	5.2	4.2	3.5	2.9	2.5	2.2	1.9	1.7	1.5	1.3	1.2	1.1

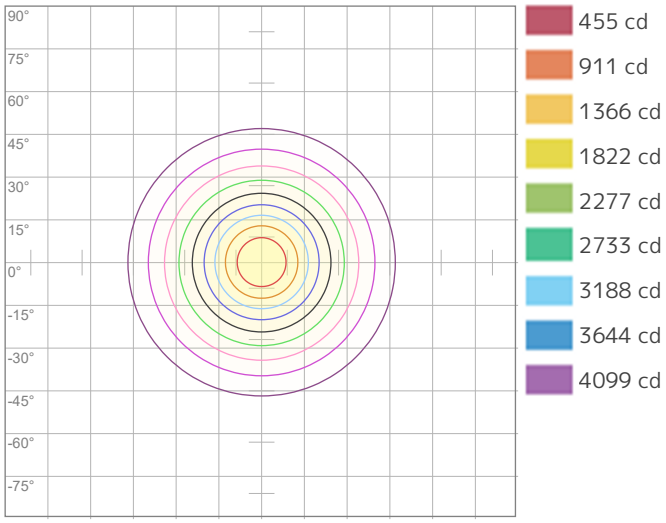
Measurement Date: 6/24/2024

Angular Distribution



Beam Angle - 50%
54°
Field Angle - 10%
104.3°
Cutoff Angle - 2.5%
133.3°

ISO Diagrams

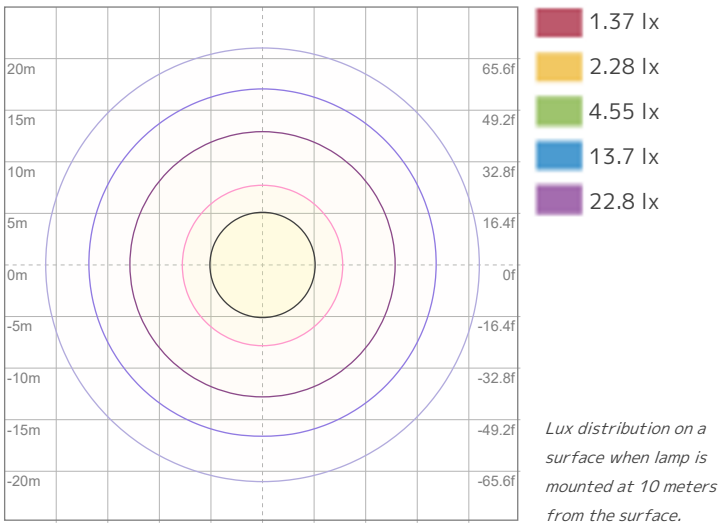


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 4555 cd



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

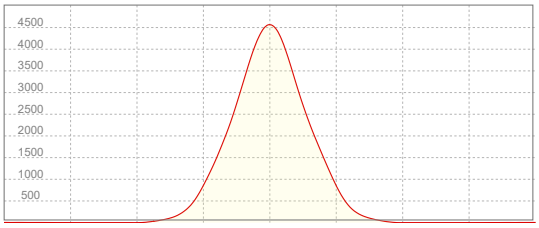
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 45.5 lx

Linear Distribution



Peak Candela

4561 cd

Calculate Center Beam Intensities

lux = 4561 / distance(m)^2

fc = 4561 / distance(ft)^2

Measurement Date: 6/24/2024

Key Measurements

Output

Total Lumen Output: 4718 lm

Peak Intensity: 4535 cd

Beam

Beam Angle (50%): 54.3°

Field Angle (10%): 104.6°

Cutoff Angle (2.5%): 133.9°

Color

Color Temperature: 8539 K

CRI: 89.3

TLCI: 88

TM30 R_F: 87.5

TM30 R_g: 105.0

Power Details

Efficacy: 48 Lumen/Watt

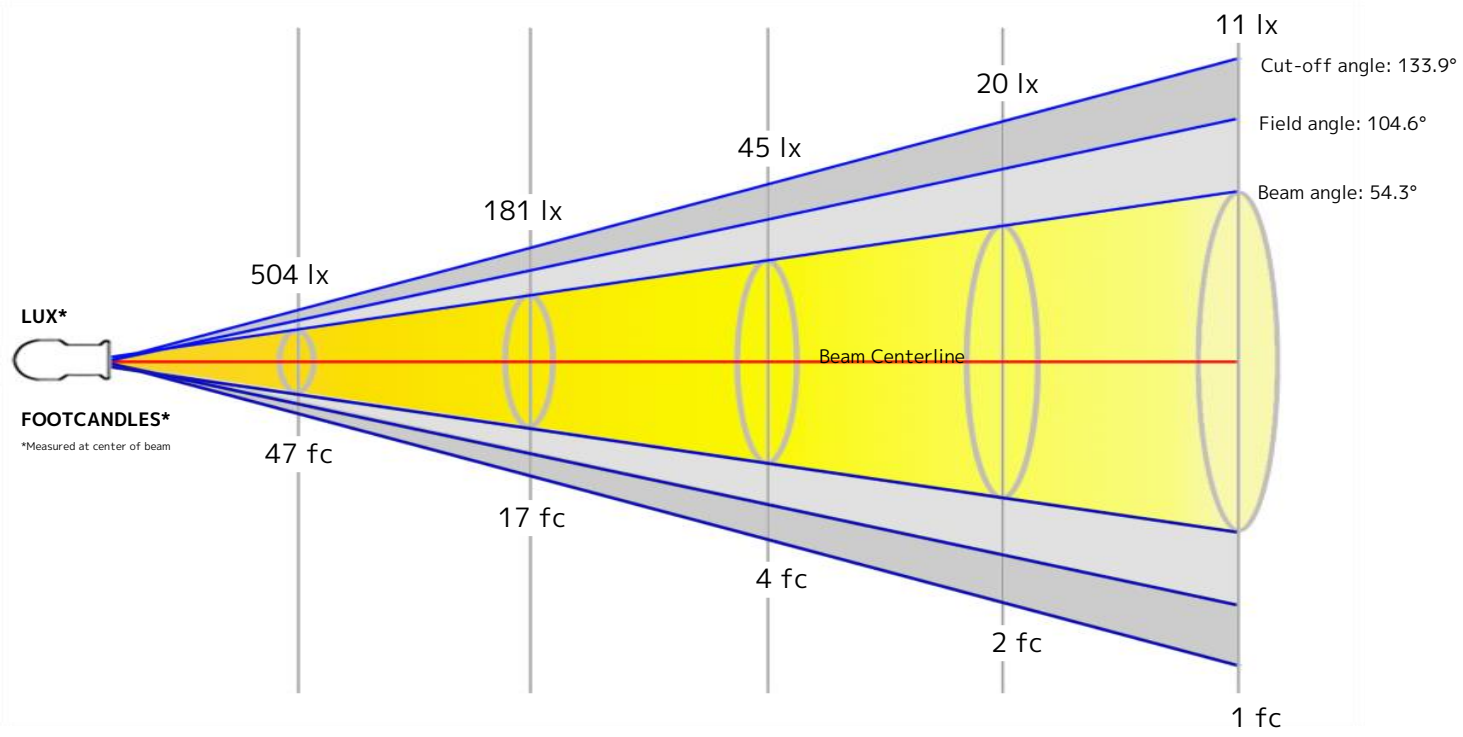
Power: 99.1 W

Supply Voltage: 119 V

Current: 0.835 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	3.1 m	5.1 m	10.2	15.4 m	20.5 m



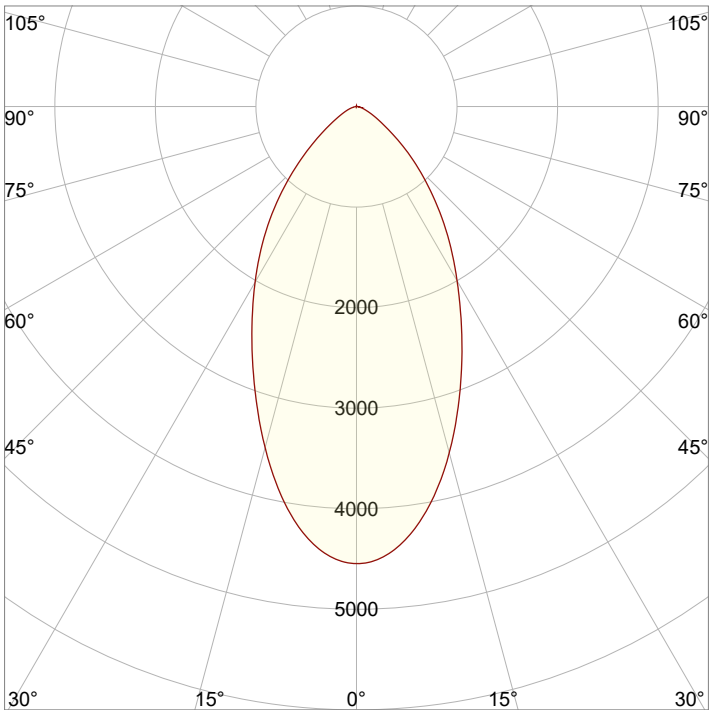
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	10 ft	16.8 ft	33.6 ft	50.4 ft	67.2 ft

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	4534	1133	504	283	181	126	93	71	56	45	37	31	27	23	20	18	16	14	13	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	421.2	105.3	46.8	26.3	16.8	11.7	8.6	6.6	5.2	4.2	3.5	2.9	2.5	2.1	1.9	1.6	1.5	1.3	1.2	1.1

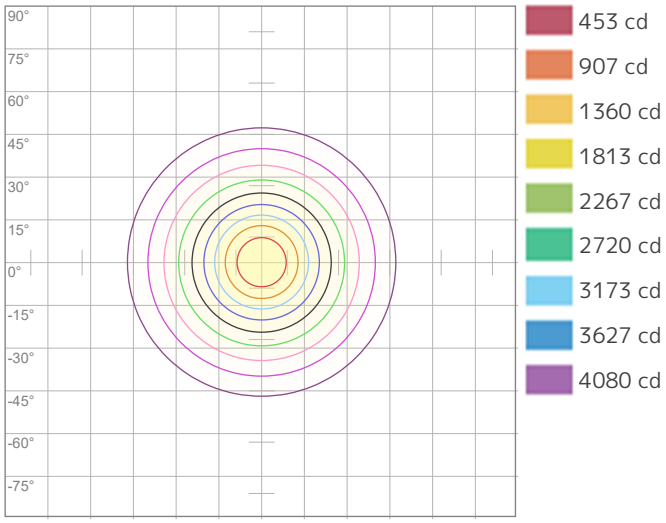
Measurement Date: 6/24/2024

Angular Distribution



Beam Angle - 50%
54.3°
Field Angle - 10%
104.6°
Cutoff Angle - 2.5%
133.9°

ISO Diagrams

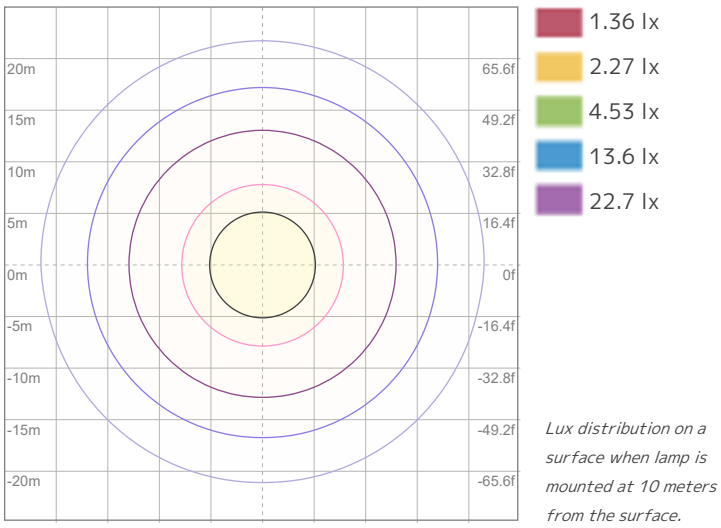


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 4534 cd



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

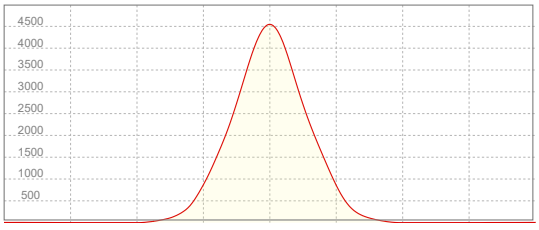
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 45.3 lx

Linear Distribution



Peak Candela

4535 cd

Calculate Center Beam Intensities

lux = 4535 / distance(m)^2

fc = 4535 / distance(ft)^2

Measurement Date: 6/24/2024

Six+ Par L (100°, Full Output- No UV)

Key Measurements

Output

Total Lumen Output: 6083 lm

Peak Intensity: 3586 cd

Beam

Beam Angle (50%): 82.6°

Field Angle (10%): 116.3°

Cutoff Angle (2.5%): 148.7°

Color

Color Temperature: 7394 K

CRI: 66.8

TLCI: 77

TM30 R_F: 77.7

TM30 R_g: 120.5

Power Details

Efficacy: 44 Lumen/Watt

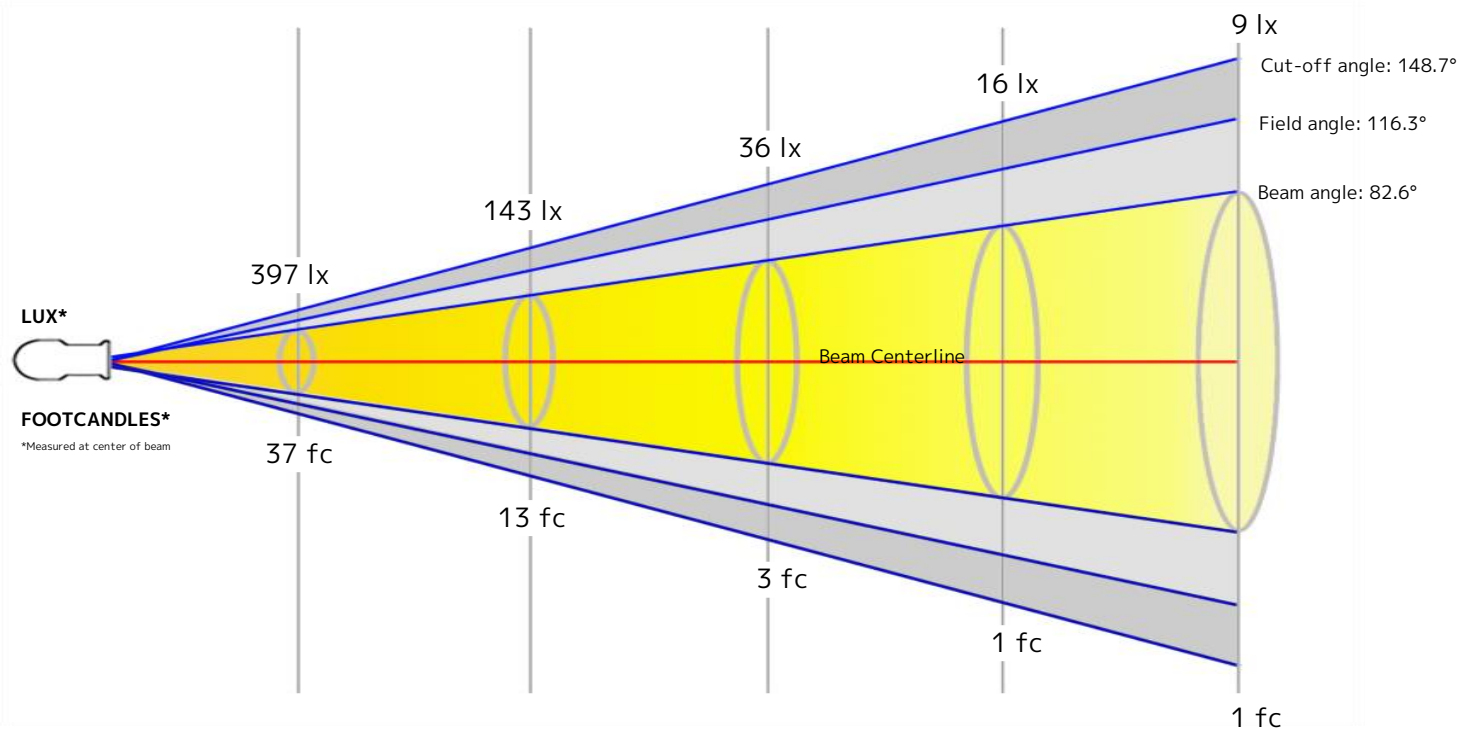
Power: 137.7 W

Supply Voltage: 119 V

Current: 1.16 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	5.3 m	8.8 m	17.6	26.4 m	35.2 m



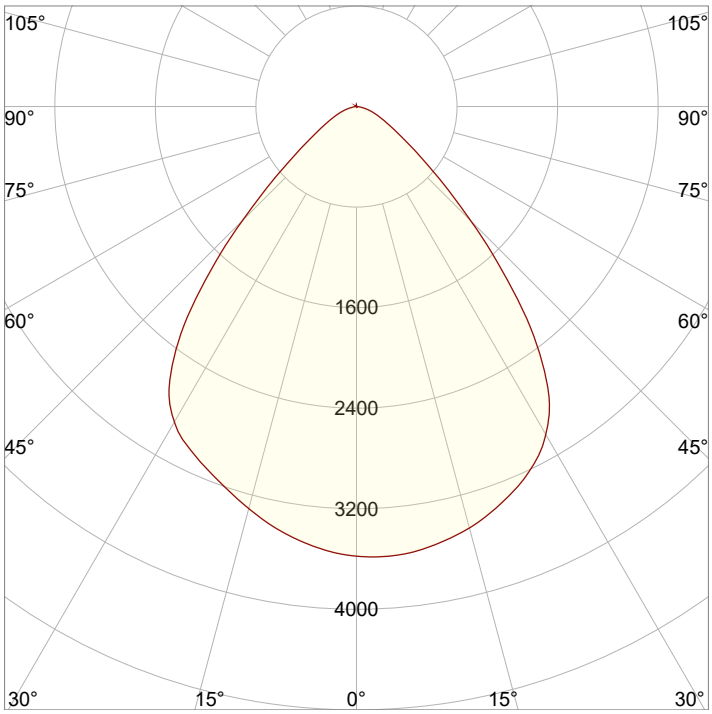
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	17.2 ft	28.8 ft	57.7 ft	86.5 ft	115.3 ft

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	3573	893	397	223	143	99	73	56	44	36	30	25	21	18	16	14	12	11	10	9
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	331.9	83	36.9	20.7	13.3	9.2	6.8	5.2	4.1	3.3	2.7	2.3	2	1.7	1.5	1.3	1.1	1	0.9	0.8

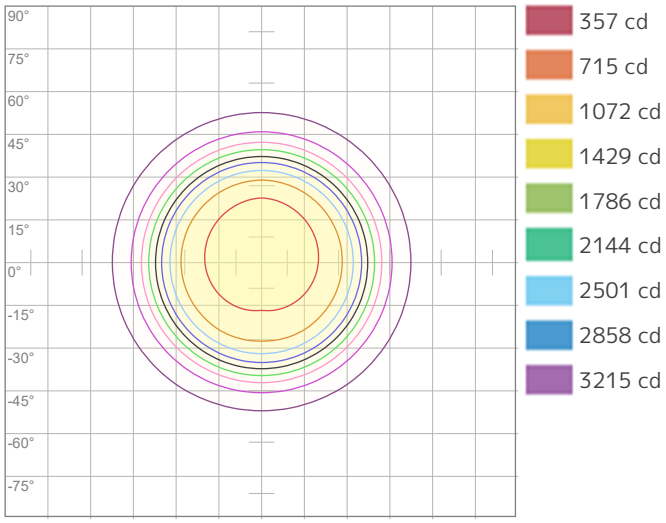
Measurement Date: 6/21/2024

Angular Distribution



Beam Angle - 50%
82.6°
Field Angle - 10%
116.3°
Cutoff Angle - 2.5%
148.7°

ISO Diagrams

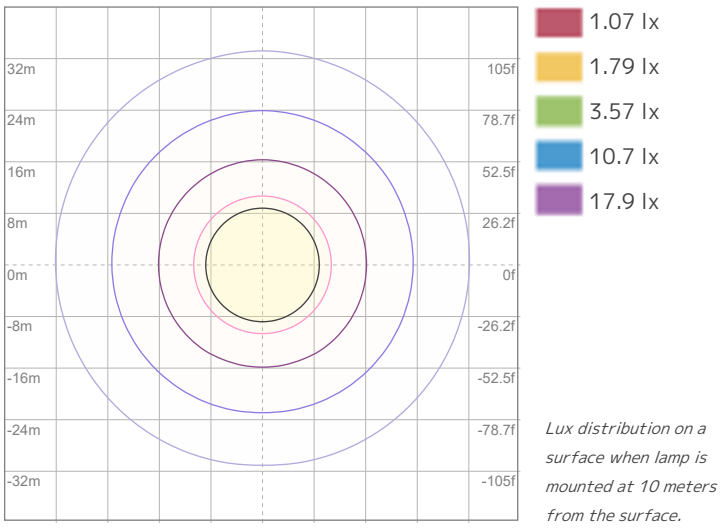


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 3573 cd



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

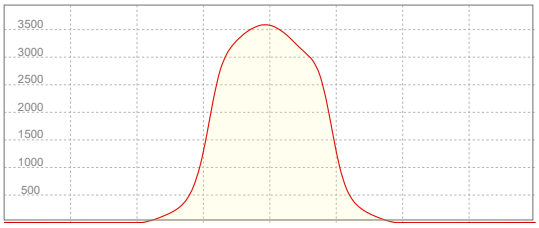
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 35.7 lx

Linear Distribution



Peak Candela

3586 cd

Calculate Center Beam Intensities

$lux = 3586 / distance(m)^2$

$fc = 3586 / distance(ft)^2$

Measurement Date: 6/21/2024

Six+ Par L (100°, Full Output)

Key Measurements

Output

Total Lumen Output: 5266 lm

Peak Intensity: 3098 cd

Beam

Beam Angle (50%): 82.7°

Field Angle (10%): 116.2°

Cutoff Angle (2.5%): 148.7°

Color

Color Temperature: 8040 K

CRI: 65.5

TLCI: 76

TM30 R_F: 76.1

TM30 R_g: 120.9

Power Details

Efficacy: 38 Lumen/Watt

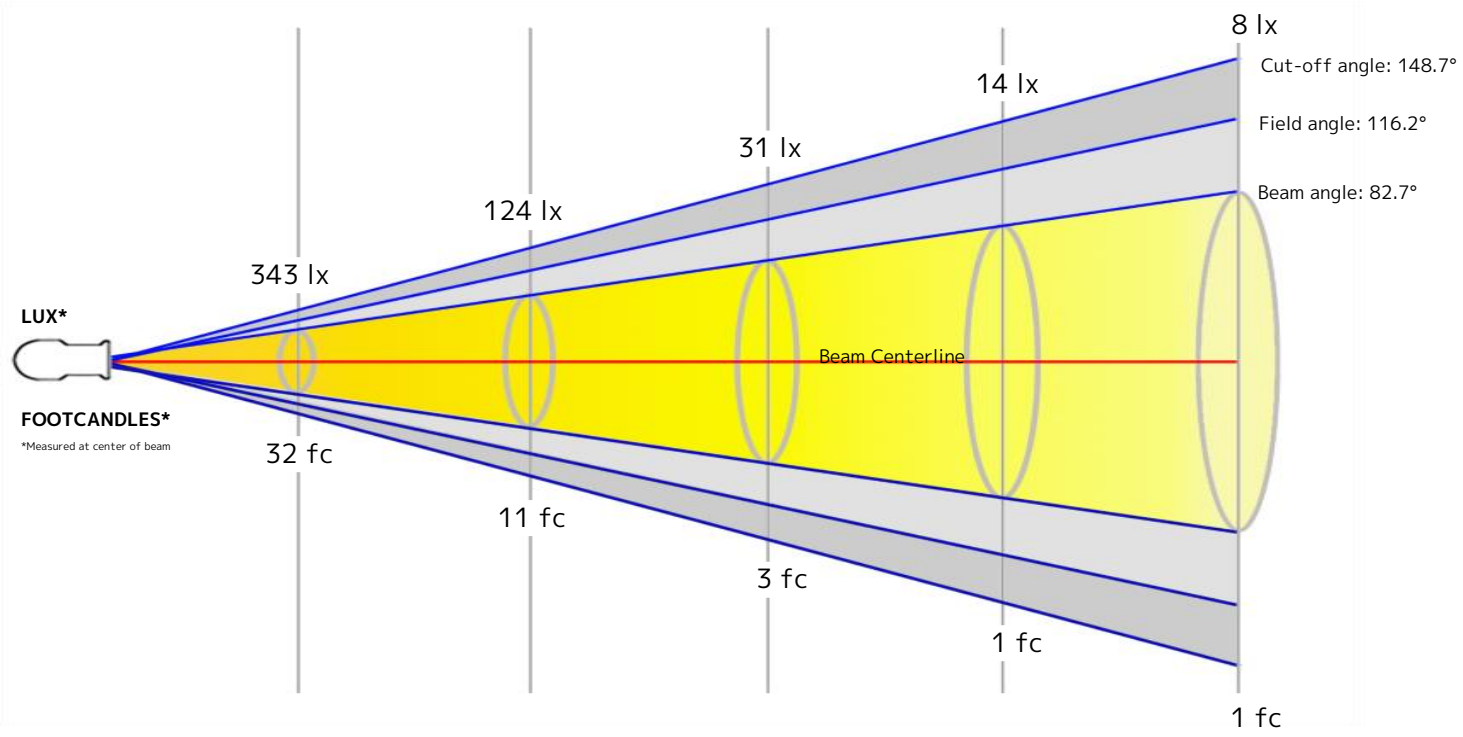
Power: 138.2 W

Supply Voltage: 119 V

Current: 1.17 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	5.3 m	8.8 m	17.6	26.4 m	35.2 m



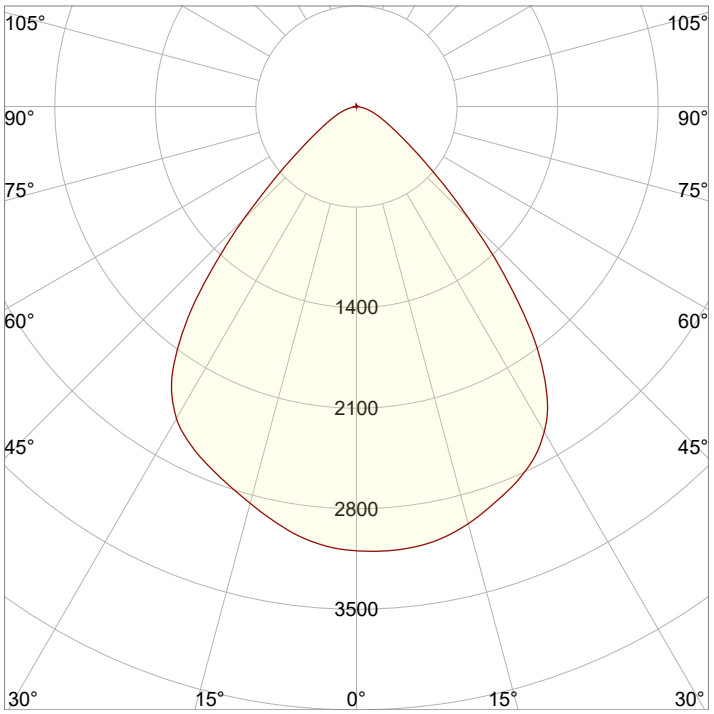
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	17.3 ft	28.9 ft	57.8 ft	86.6 ft	115.5 ft

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	3090	772	343	193	124	86	63	48	38	31	26	21	18	16	14	12	11	10	9	8
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	287.1	71.8	31.9	17.9	11.5	8	5.9	4.5	3.5	2.9	2.4	2	1.7	1.5	1.3	1.1	1	0.9	0.8	0.7

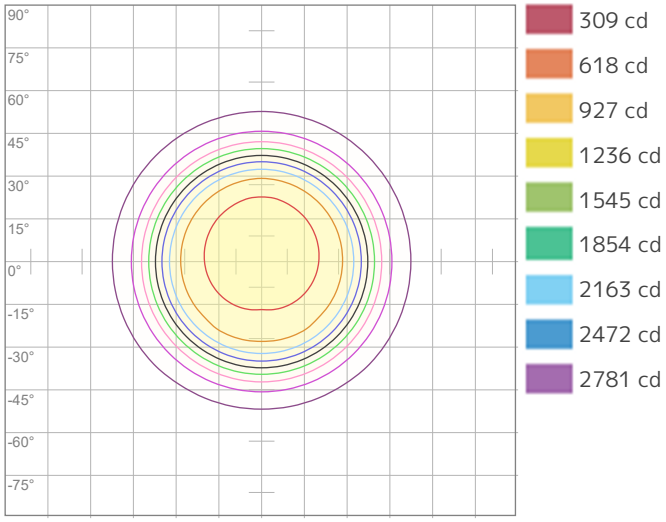
Measurement Date: 6/21/2024

Angular Distribution



Beam Angle - 50%
82.7°
Field Angle - 10%
116.2°
Cutoff Angle - 2.5%
148.7°

ISO Diagrams

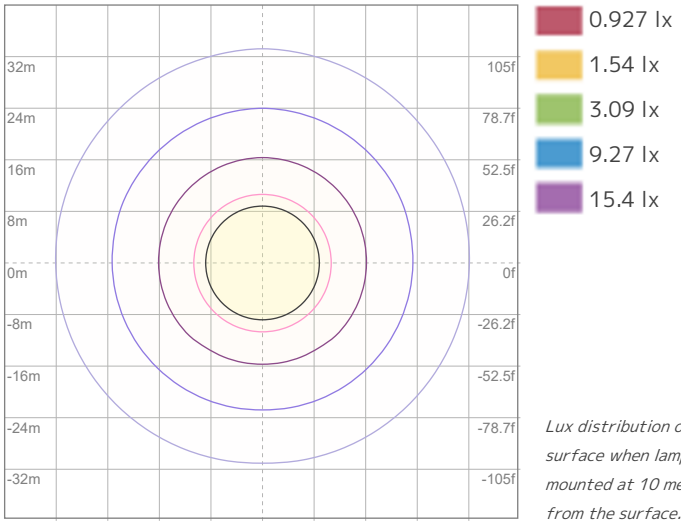


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 3090 cd



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

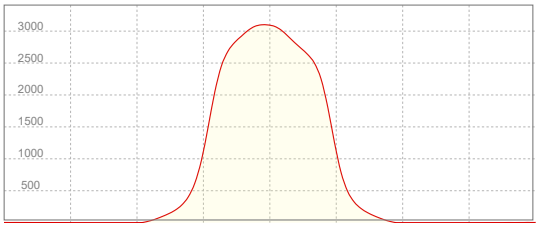
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 30.9 lx

Linear Distribution



Peak Candela

3098 cd

Calculate Center Beam Intensities

$lux = 3098 / distance(m)^2$

$fc = 3098 / distance(ft)^2$

Measurement Date: 6/21/2024

Key Measurements

Output

Total Lumen Output: 4847 lm

Peak Intensity: 2889 cd

Beam

Beam Angle (50%): 82.3°

Field Angle (10%): 115.1°

Cutoff Angle (2.5%): 147.6°

Color

Color Temperature: 2473 K

CRI: 84.7

TLCI: 77

TM30 R_F: 89.0

TM30 R_g: 106.5

Power Details

Efficacy: 50 Lumen/Watt

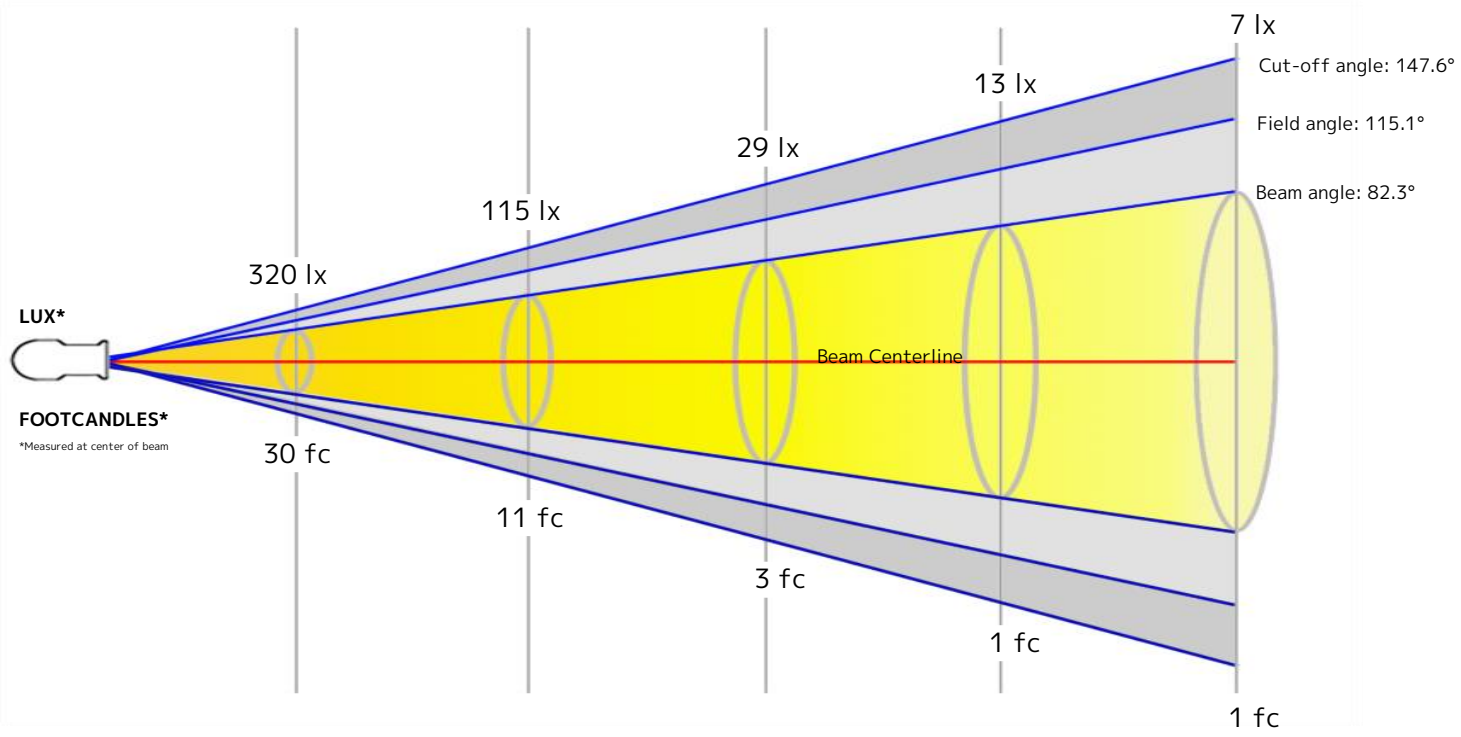
Power: 97.4 W

Supply Voltage: 120 V

Current: 0.820 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	5.2 m	8.7 m	17.5	26.2 m	35 m



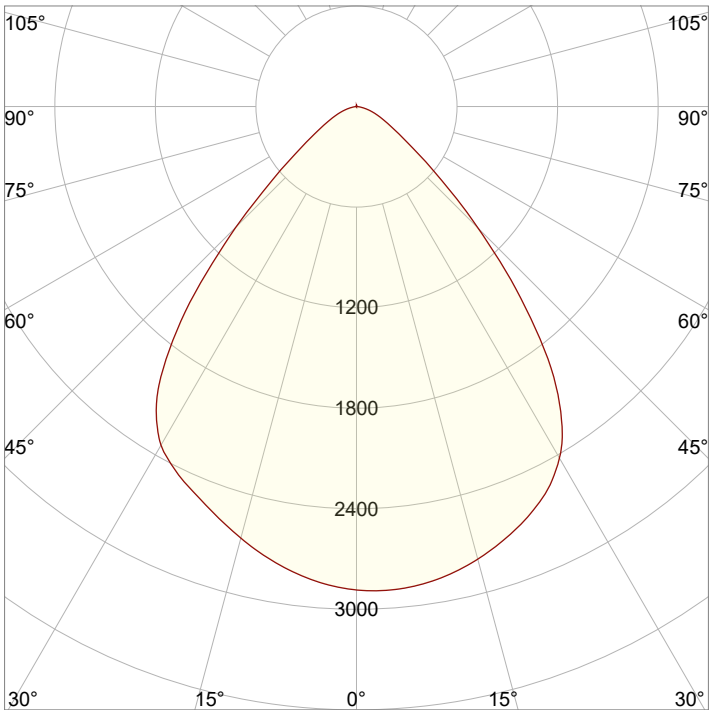
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	17.1 ft	28.7 ft	57.3 ft	86 ft	114.7 ft

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	2883	721	320	180	115	80	59	45	36	29	24	20	17	15	13	11	10	9	8	7
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	267.8	66.9	29.8	16.7	10.7	7.4	5.5	4.2	3.3	2.7	2.2	1.9	1.6	1.4	1.2	1	0.9	0.8	0.7	0.7

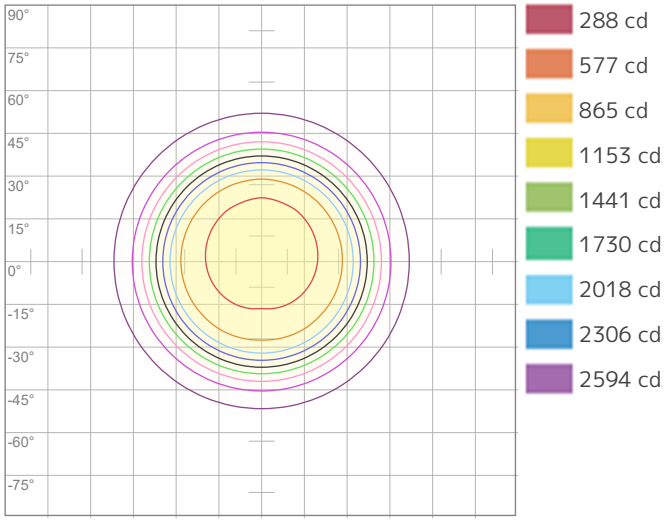
Measurement Date: 6/21/2024

Angular Distribution



Beam Angle - 50%
82.3°
Field Angle - 10%
115.1°
Cutoff Angle - 2.5%
147.6°

ISO Diagrams

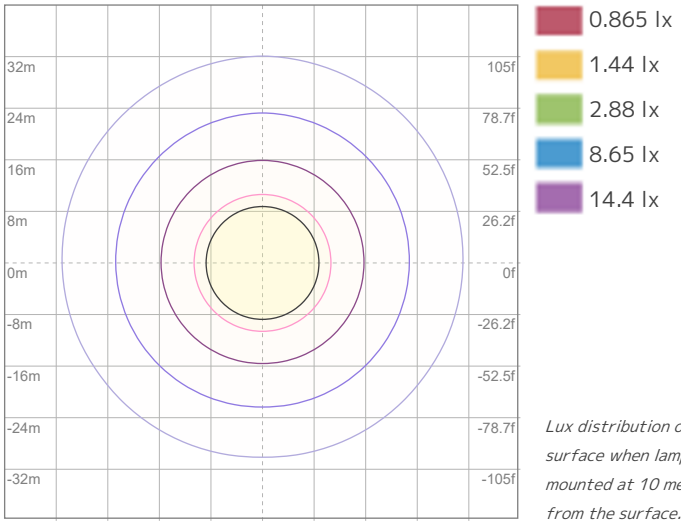


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 2883 cd



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

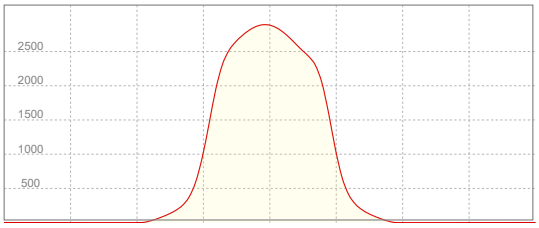
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 28.8 lx

Linear Distribution



Peak Candela

2889 cd

Calculate Center Beam Intensities

lux = 2889 / distance(m)^2

fc = 2889 / distance(ft)^2

Key Measurements

Output

Total Lumen Output: 5839 lm

Peak Intensity: 3478 cd

Beam

Beam Angle (50%): 82.2°

Field Angle (10%): 115.5°

Cutoff Angle (2.5%): 148.1°

Color

Color Temperature: 3245 K

CRI: 89.7

TLCI: 83

TM30 R_F: 91.6

TM30 R_g: 107.5

Power Details

Efficacy: 50 Lumen/Watt

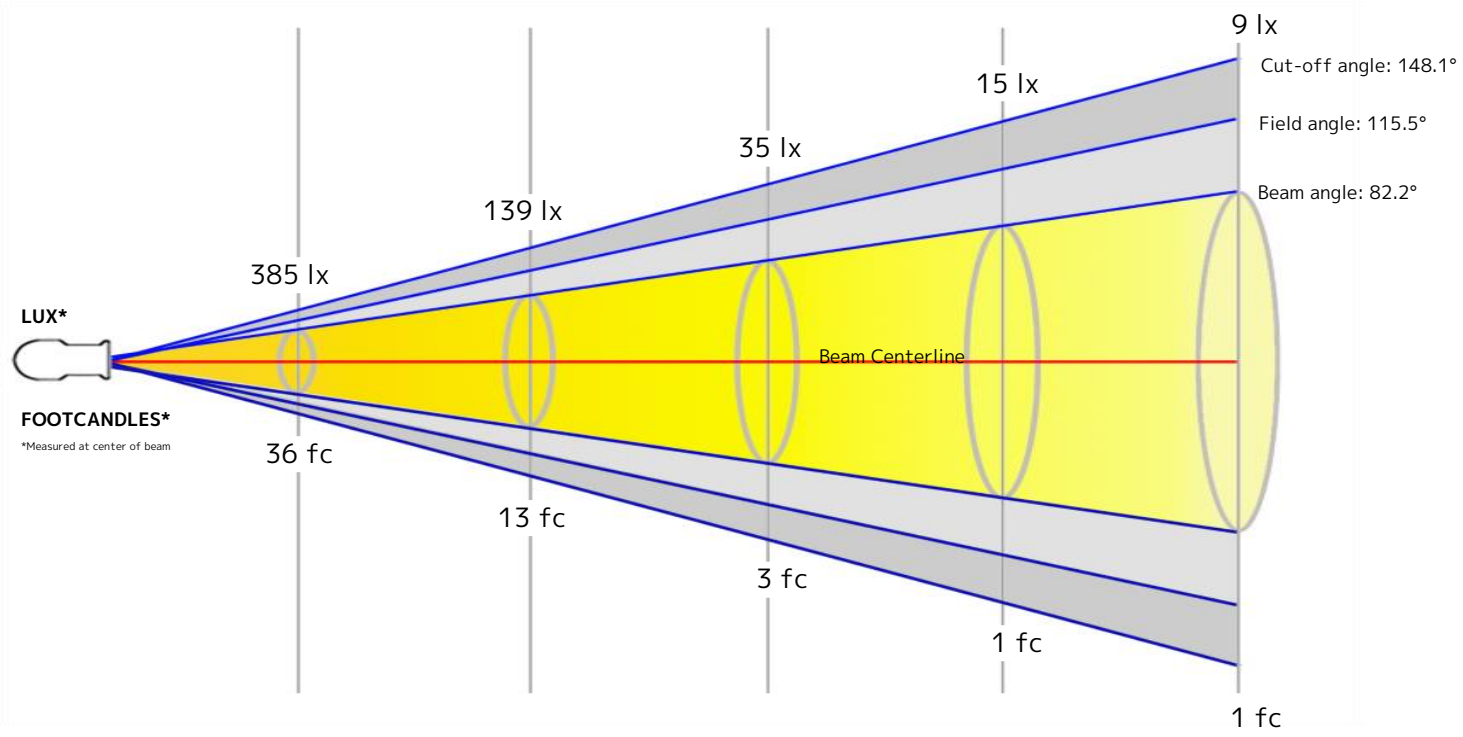
Power: 116.6 W

Supply Voltage: 119 V

Current: 0.982 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	5.2 m	8.7 m	17.4	26.2 m	34.9 m



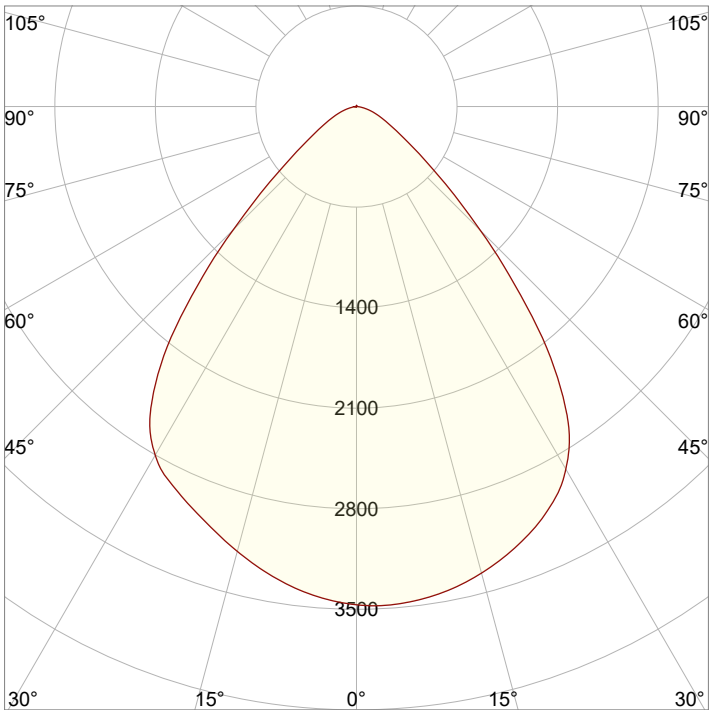
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	17.1 ft	28.6 ft	57.2 ft	85.8 ft	114.5 ft

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	3464	866	385	216	139	96	71	54	43	35	29	24	20	18	15	14	12	11	10	9
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	321.8	80.5	35.8	20.1	12.9	8.9	6.6	5	4	3.2	2.7	2.2	1.9	1.6	1.4	1.3	1.1	1	0.9	0.8

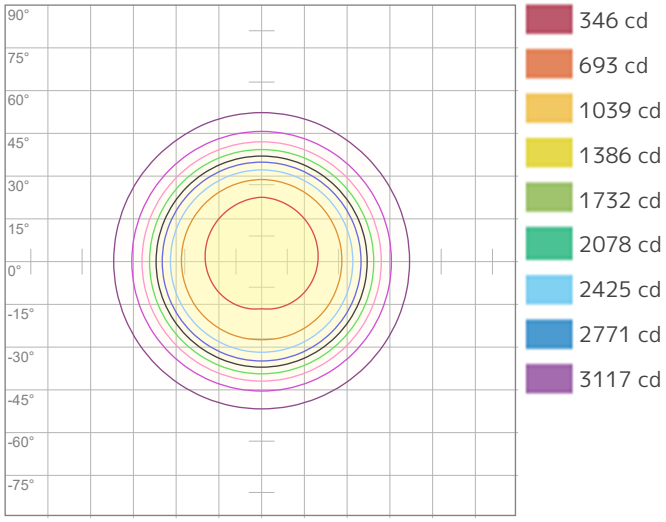
Measurement Date: 6/21/2024

Angular Distribution



Beam Angle - 50%
82.2°
Field Angle - 10%
115.5°
Cutoff Angle - 2.5%
148.1°

ISO Diagrams

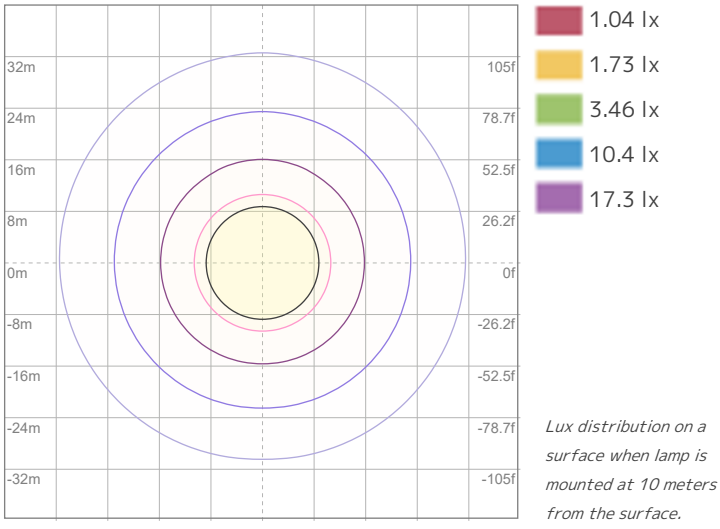


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 3464 cd



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

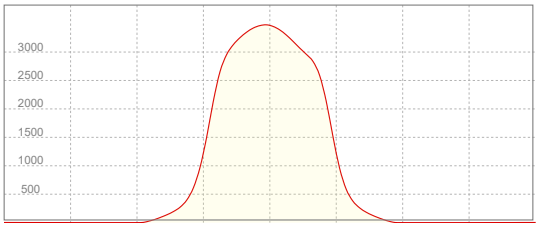
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 34.6 lx

Linear Distribution



Peak Candela

3478 cd

Calculate Center Beam Intensities

$lux = 3478 / distance(m)^2$

$fc = 3478 / distance(ft)^2$

Measurement Date: 6/21/2024

Key Measurements

Output

Total Lumen Output: 7418 lm

Peak Intensity: 4366 cd

Beam

Beam Angle (50%): 82.7°

Field Angle (10%): 116.4°

Cutoff Angle (2.5%): 148.9°

Color

Color Temperature: 4517 K

CRI: 91.0

TLCI: 80

TM30 R_F: 90.5

TM30 R_g: 107.7

Power Details

Efficacy: 52 Lumen/Watt

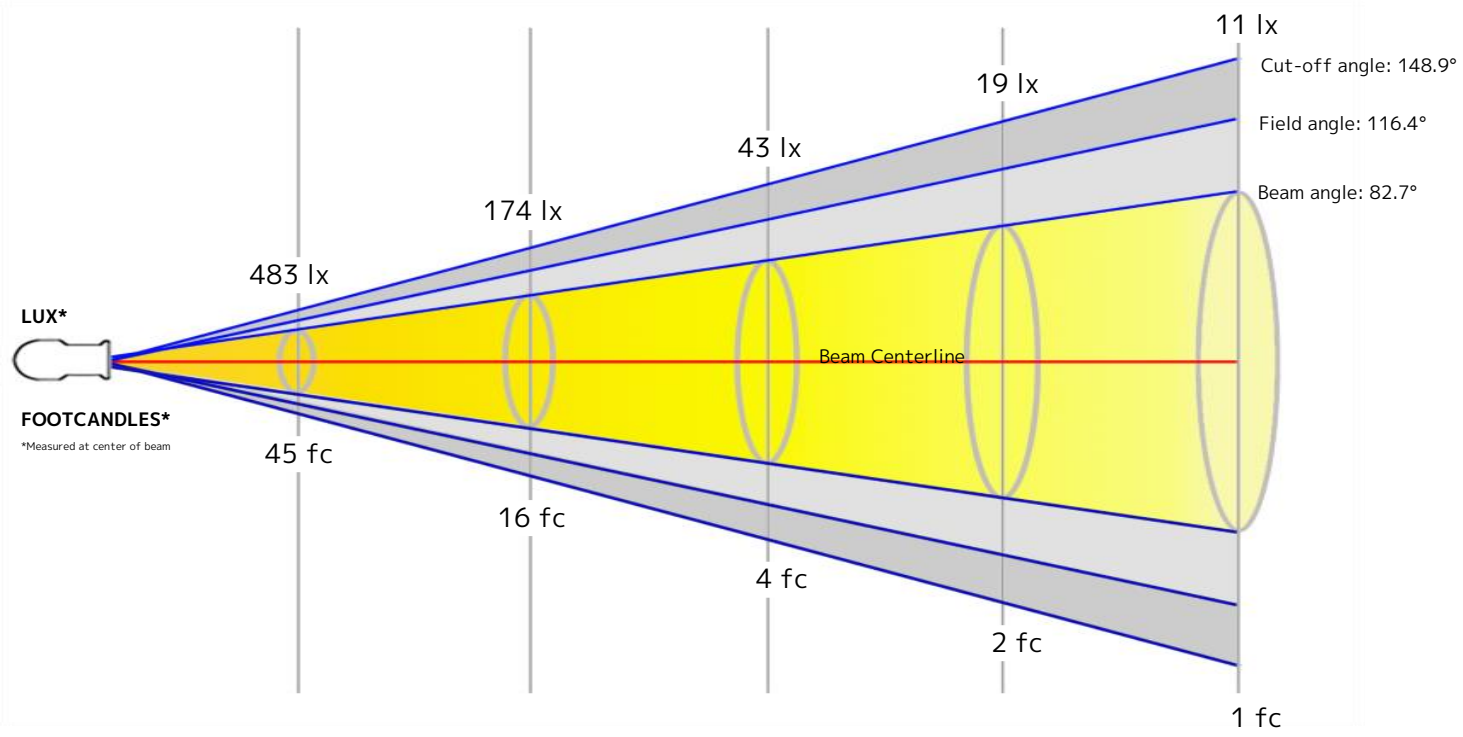
Power: 141.4 W

Supply Voltage: 119 V

Current: 1.20 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	5.3 m	8.8 m	17.6	26.4 m	35.2 m



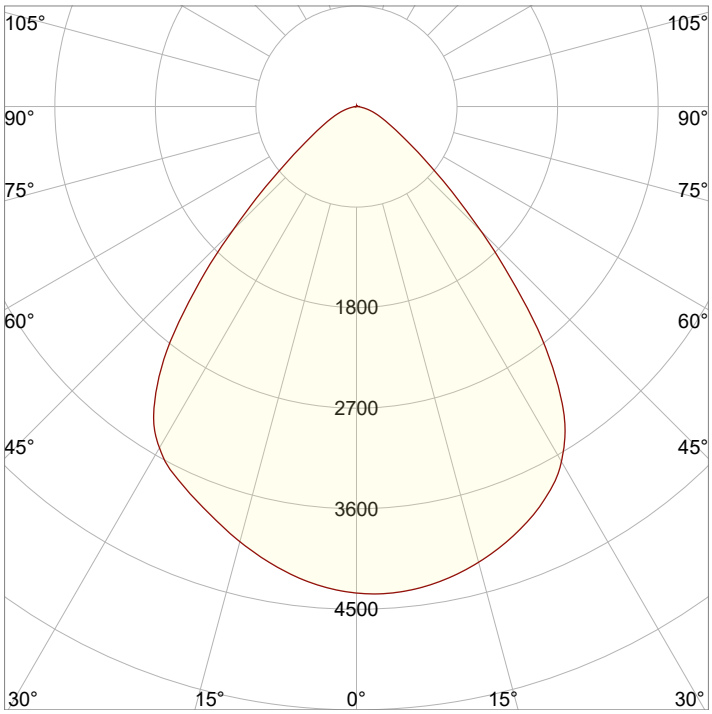
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	17.2 ft	28.9 ft	57.7 ft	86.6 ft	115.4 ft

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	4349	1087	483	272	174	121	89	68	54	43	36	30	26	22	19	17	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	404	101	44.9	25.3	16.2	11.2	8.2	6.3	5	4	3.3	2.8	2.4	2.1	1.8	1.6	1.4	1.2	1.1	1

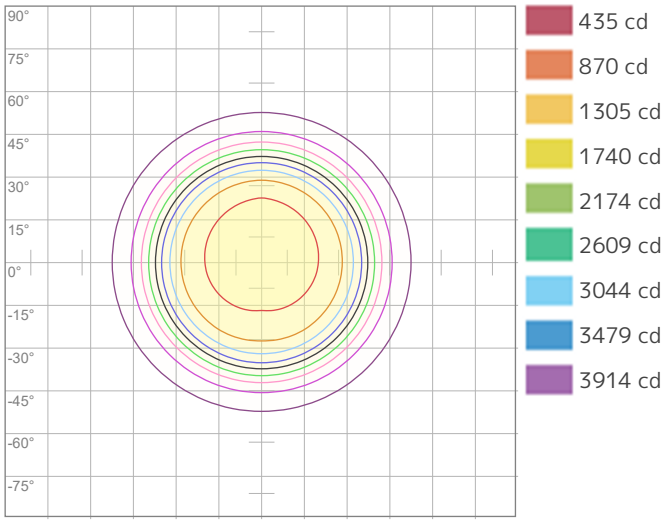
Measurement Date: 6/24/2024

Angular Distribution



Beam Angle - 50%
82.7°
Field Angle - 10%
116.4°
Cutoff Angle - 2.5%
148.9°

ISO Diagrams

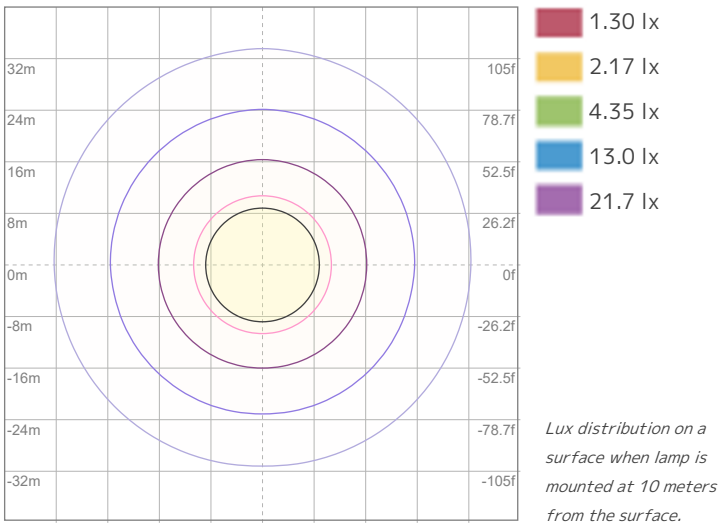


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 4349 cd



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

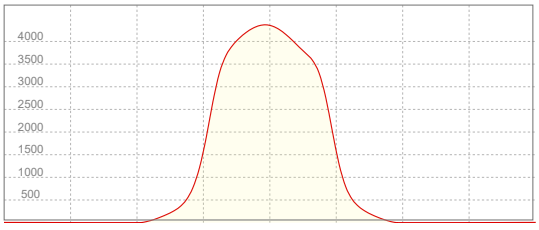
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 43.5 lx

Linear Distribution



Peak Candela

4366 cd

Calculate Center Beam Intensities

$lux = 4366 / distance(m)^2$

$fc = 4366 / distance(ft)^2$

Measurement Date: 6/24/2024

Key Measurements

Output

Total Lumen Output: 6677 lm

Peak Intensity: 3926 cd

Beam

Beam Angle (50%): 82.8°

Field Angle (10%): 116°

Cutoff Angle (2.5%): 149.5°

Color

Color Temperature: 6475 K

CRI: 89.5

TLCI: 87

TM30 R_F: 88.8

TM30 R_g: 106.9

Power Details

Efficacy: 48 Lumen/Watt

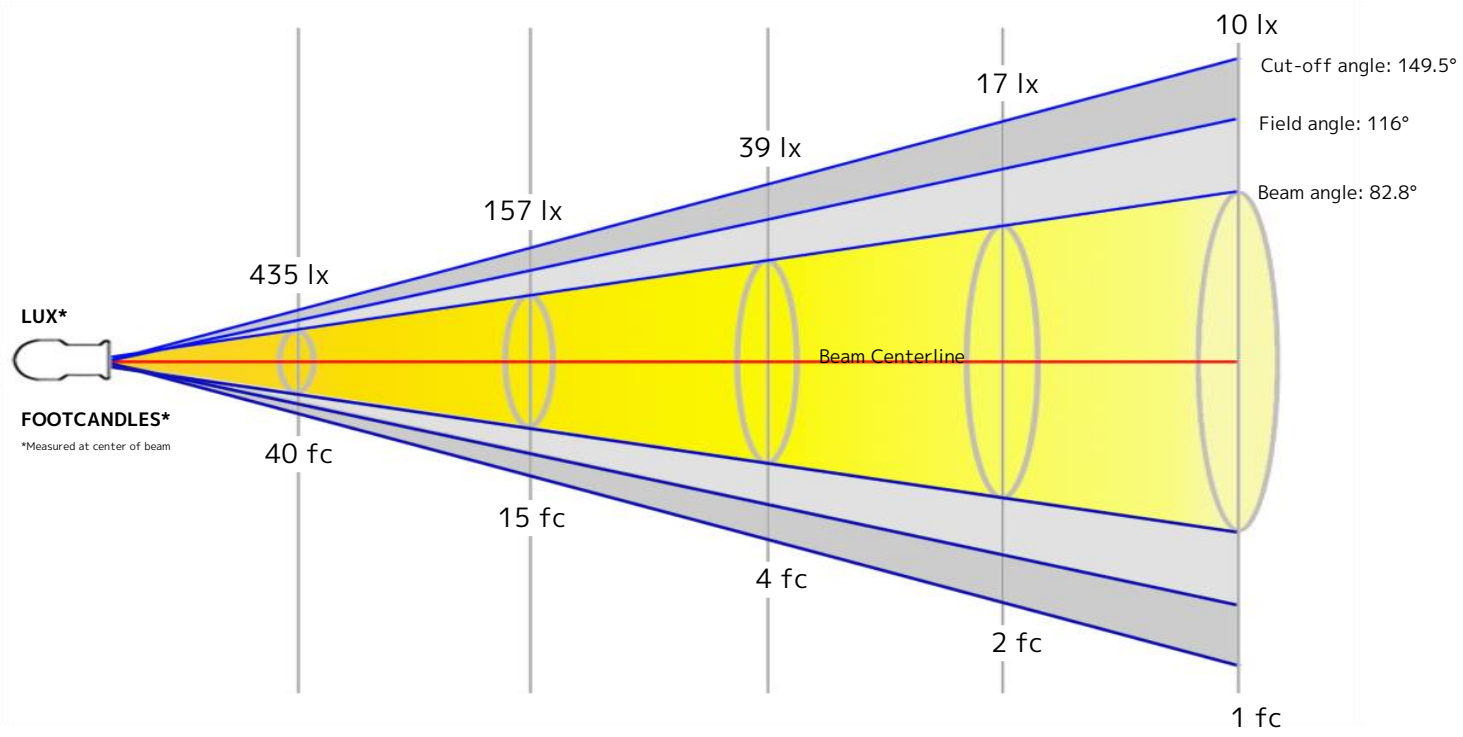
Power: 138.1 W

Supply Voltage: 118 V

Current: 1.17 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	5.3 m	8.8 m	17.6	26.5 m	35.3 m



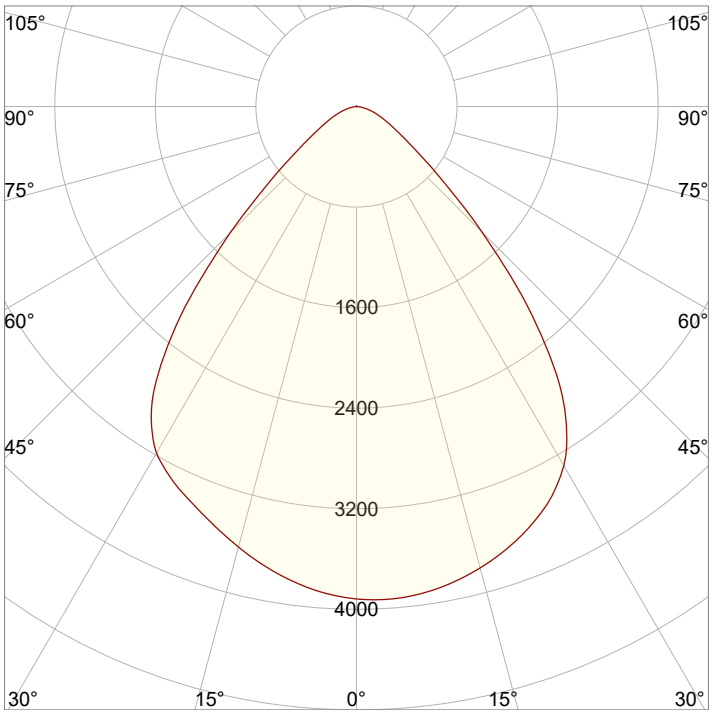
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	17.3 ft	28.9 ft	57.9 ft	86.8 ft	115.7 ft

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	3916	979	435	245	157	109	80	61	48	39	32	27	23	20	17	15	14	12	11	10
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	363.8	91	40.4	22.7	14.6	10.1	7.4	5.7	4.5	3.6	3	2.5	2.2	1.9	1.6	1.4	1.3	1.1	1	0.9

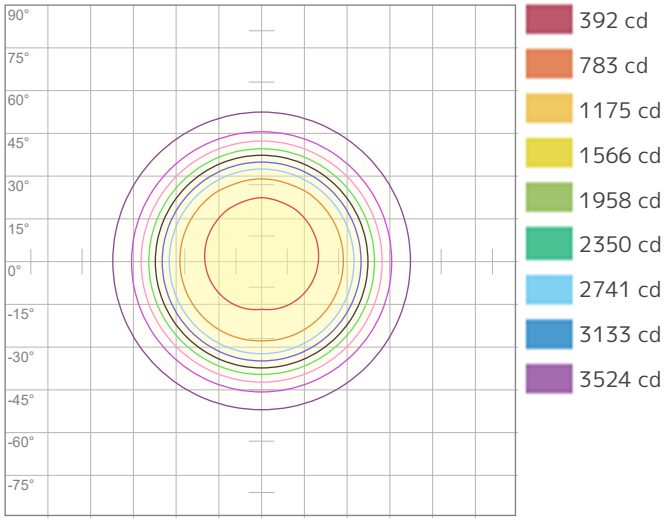
Measurement Date: 6/24/2024

Angular Distribution



Beam Angle - 50%
82.8°
Field Angle - 10%
116°
Cutoff Angle - 2.5%
149.5°

ISO Diagrams

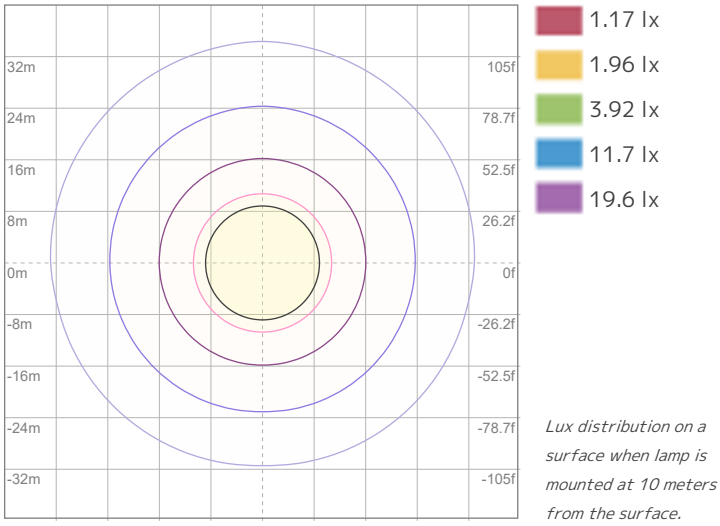


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 3916 cd



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

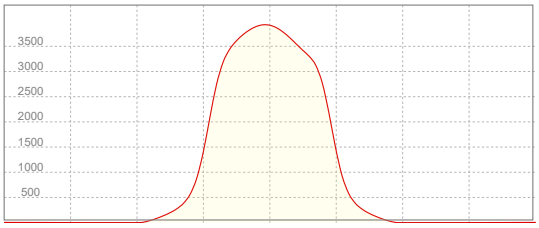
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 39.2 lx

Linear Distribution



Peak Candela
3926 cd

Calculate Center Beam Intensities

lux = 3926 / distance(m)^2

fc = 3926 / distance(ft)^2

Measurement Date: 6/24/2024

Key Measurements

Output

Total Lumen Output: 5029 lm

Peak Intensity: 2975 cd

Beam

Beam Angle (50%): 82.6°

Field Angle (10%): 115.6°

Cutoff Angle (2.5%): 148.6°

Color

Color Temperature: 8558 K

CRI: 89.2

TLCI: 88

TM30 R_F: 87.5

TM30 R_g: 104.9

Power Details

Efficacy: 47 Lumen/Watt

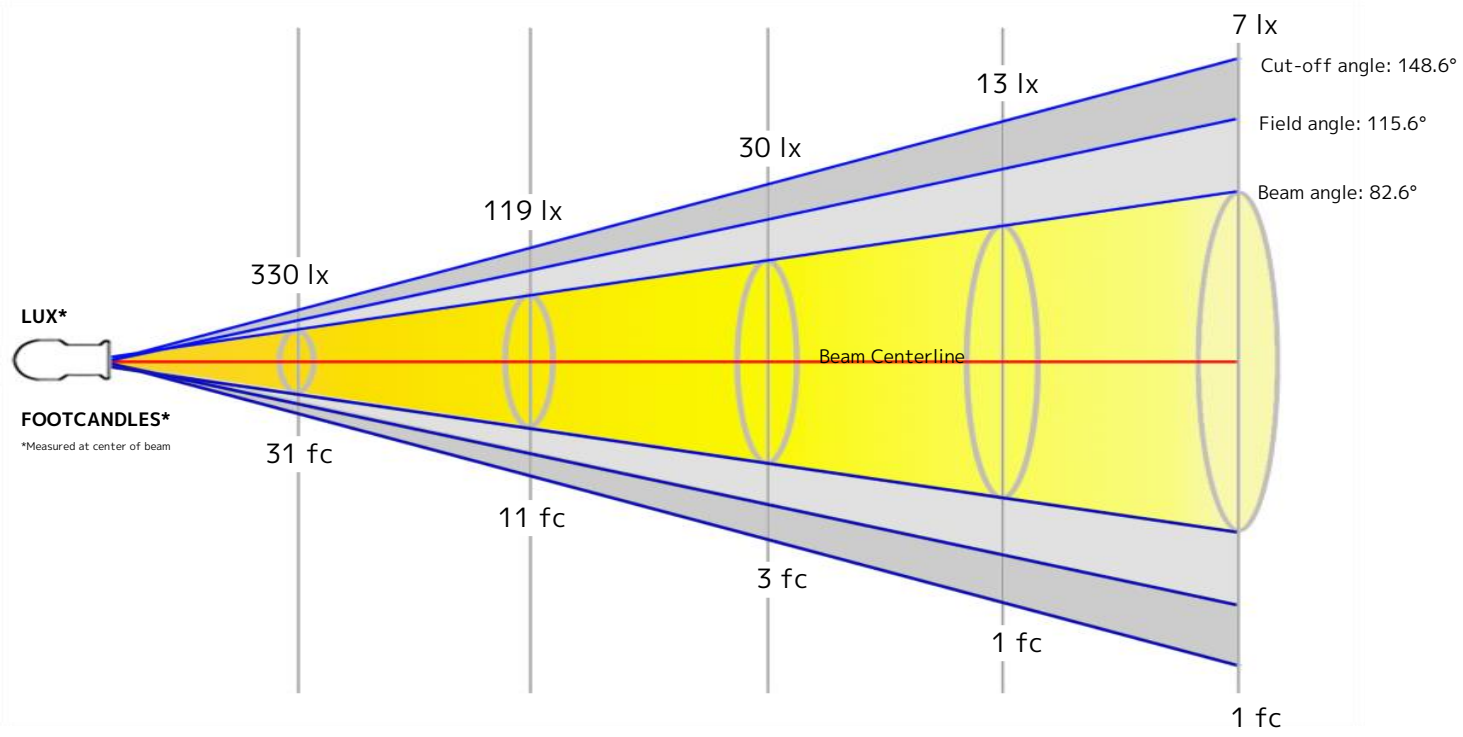
Power: 106.5 W

Supply Voltage: 119 V

Current: 0.901 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	5.3 m	8.8 m	17.6	26.3 m	35.1 m



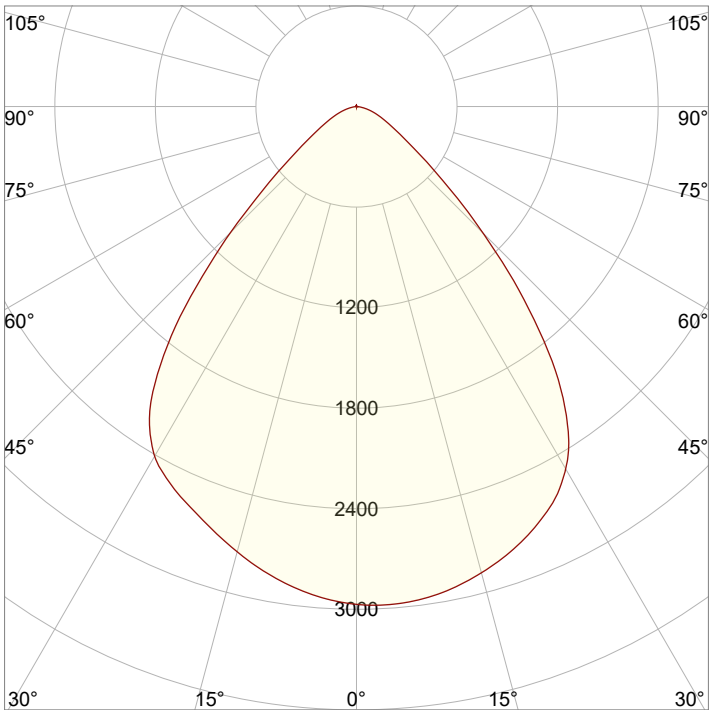
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	17.2 ft	28.8 ft	57.6 ft	86.4 ft	115.2 ft

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	2968	742	330	185	119	82	61	46	37	30	25	21	18	15	13	12	10	9	8	7
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	275.7	68.9	30.6	17.2	11	7.7	5.6	4.3	3.4	2.8	2.3	1.9	1.6	1.4	1.2	1.1	1	0.9	0.8	0.7

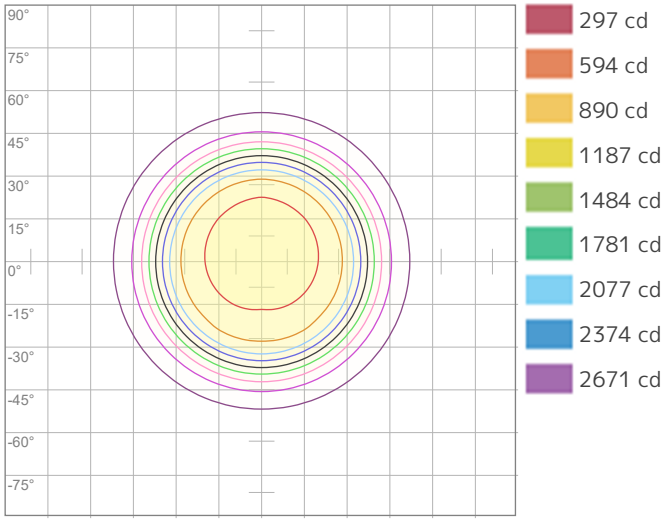
Measurement Date: 6/24/2024

Angular Distribution



Beam Angle - 50%
82.6°
Field Angle - 10%
115.6°
Cutoff Angle - 2.5%
148.6°

ISO Diagrams

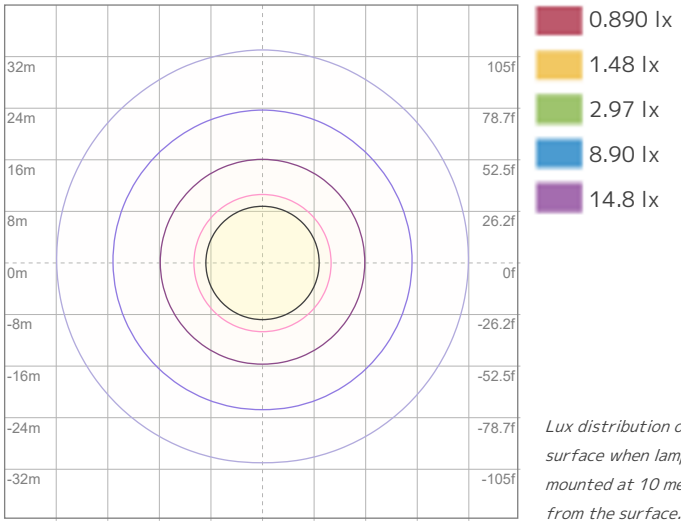


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 2968 cd



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

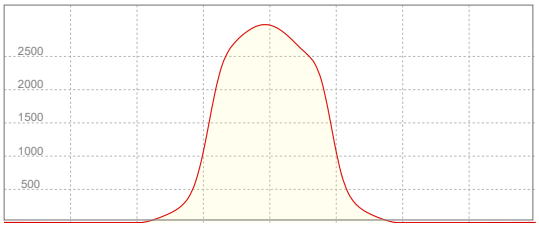
ISO LUX Diagram

Conditions:

Number of c-planes: 2

LUX at center: 29.7 lx

Linear Distribution



Peak Candela

2975 cd

Calculate Center Beam Intensities

lux = 2975 / distance(m)^2

fc = 2975 / distance(ft)^2

Measurement Date: 6/24/2024

Key Measurements

Output

Total Lumen Output: 4289 lm

Peak Intensity: 13328 cd

Beam

Beam Angle (50%): 28°x 18.3°

Field Angle (10%): 52.7°x 36.2°

Cutoff Angle (2.5%): 74.9°x 57.5°

Color

Color Temperature: 7678 K

CRI: 69.1

TLCI: 80

TM30 R_F: 78.6

TM30 R_g: 119.3

Power Details

Efficacy: 40 Lumen/Watt

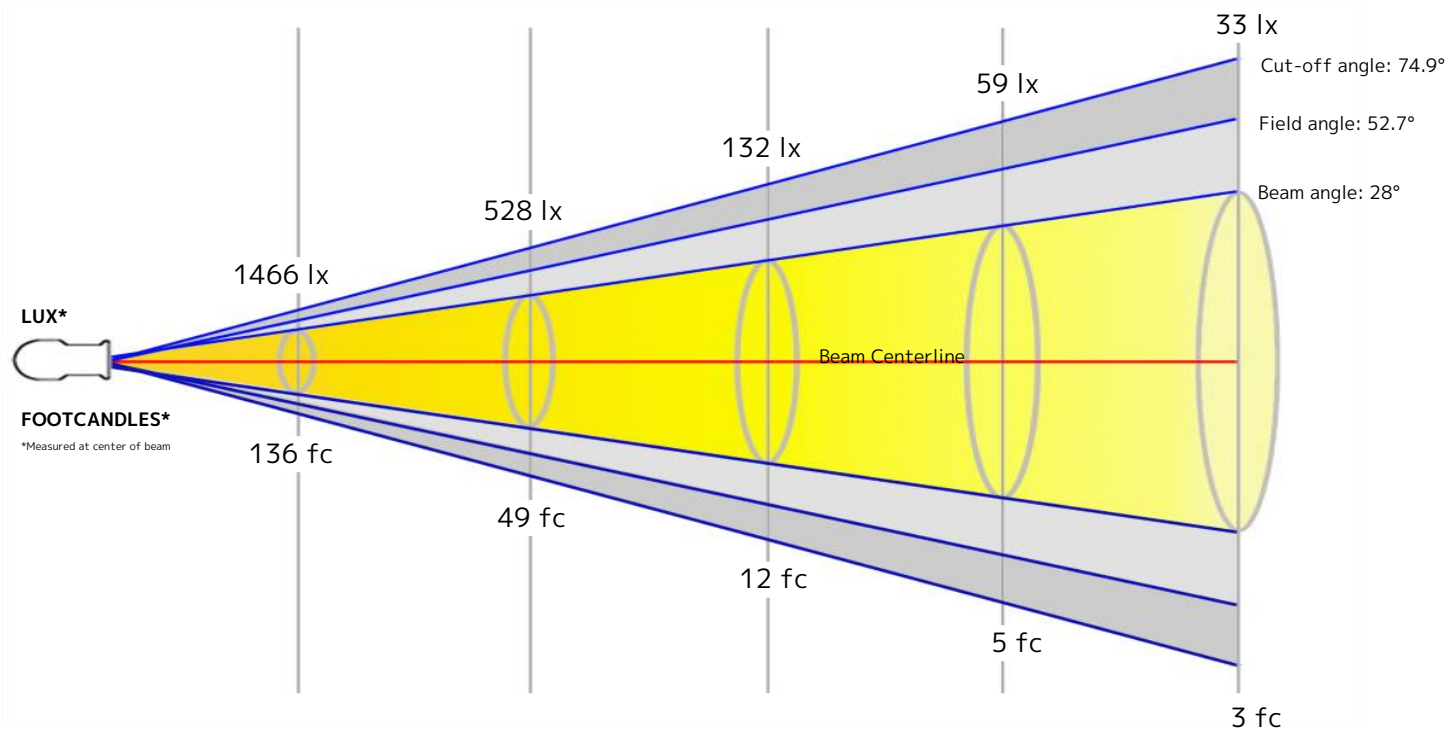
Power: 107 W

Supply Voltage: 119 V

Current: 0.908 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.5 m	2.5 m	5 m	7.5 m	10 m



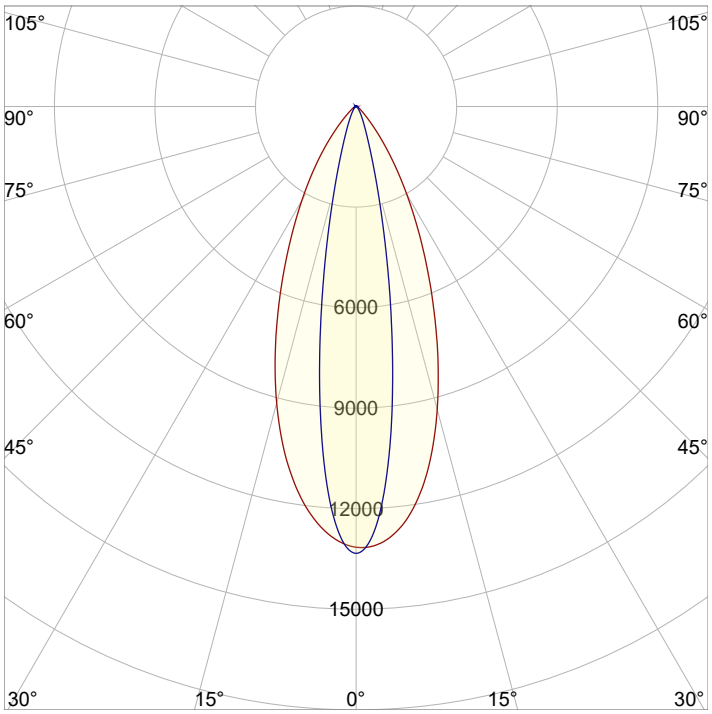
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4.9 ft	8.2 ft	16.4 ft	24.5 ft	32.7 ft

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	13197	3299	1466	825	528	367	269	206	163	132	109	92	78	67	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	1226.1	306.5	136.2	76.6	49	34.1	25	19.2	15.1	12.3	10.1	8.5	7.3	6.3	5.4	4.8	4.2	3.8	3.4	3.1

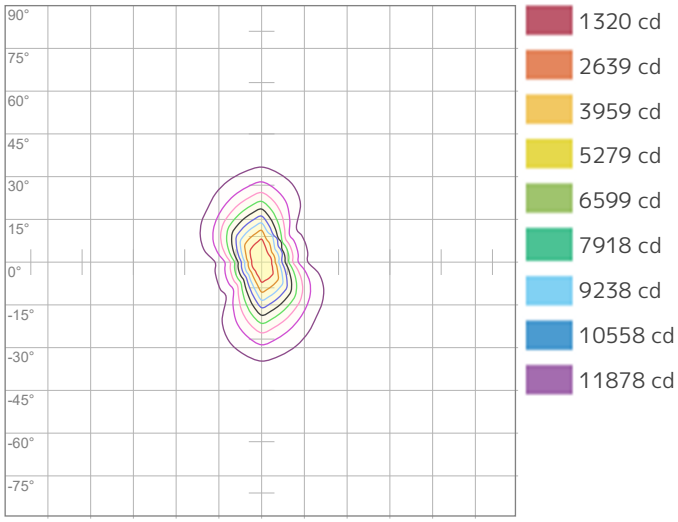
Measurement Date: 6/20/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
28°	18.3°
Field Angle - 10%	Field Angle - 10%
52.7°	36.2°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
74.9°	57.5°

ISO Diagrams

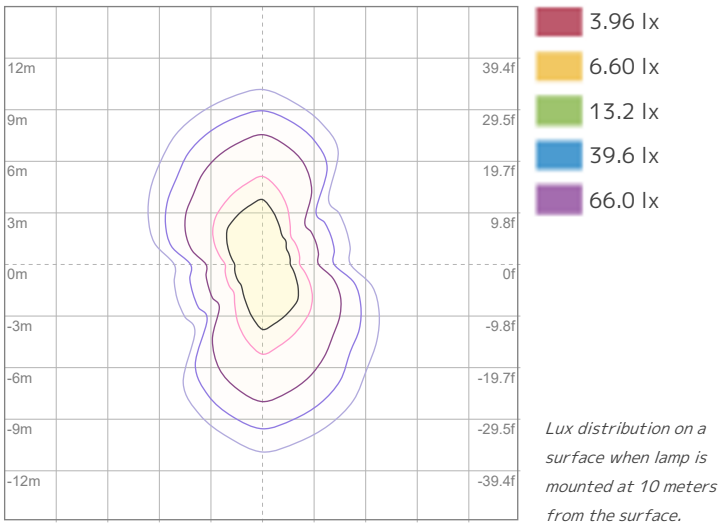


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 13197 cd



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

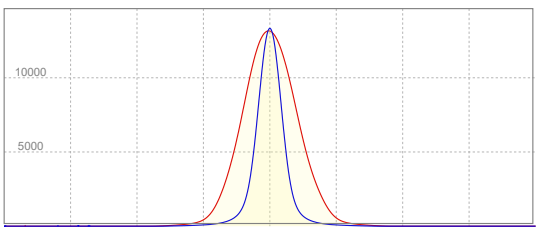
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 132 lx

Linear Distribution



Peak Candela

13328 cd

Calculate Center Beam Intensities

lux = 13328 / distance(m)^2

fc = 13328 / distance(ft)^2

Measurement Date: 6/20/2024

Key Measurements

Output

Total Lumen Output: 4467 lm

Peak Intensity: 13603 cd

Beam

Beam Angle (50%): 28°x 18.3°

Field Angle (10%): 52.9°x 36.2°

Cutoff Angle (2.5%): 75.4°x 57.7°

Color

Color Temperature: 8200 K

CRI: 67.0

TLCI: 78

TM30 R_F: 76.7

TM30 R_g: 120.0

Power Details

Efficacy: 33 Lumen/Watt

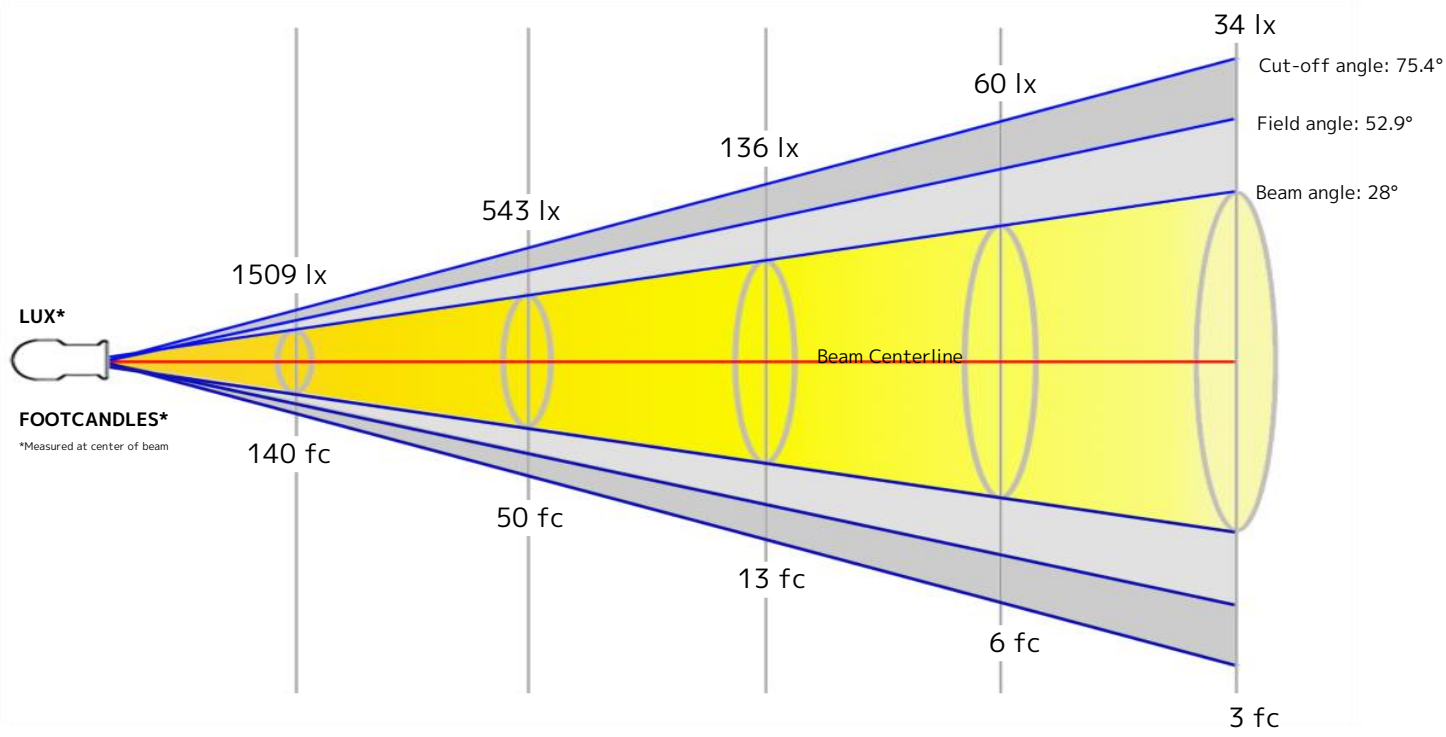
Power: 137 W

Supply Voltage: 119 V

Current: 1.16 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.5 m	2.5 m	5 m	7.5 m	10 m



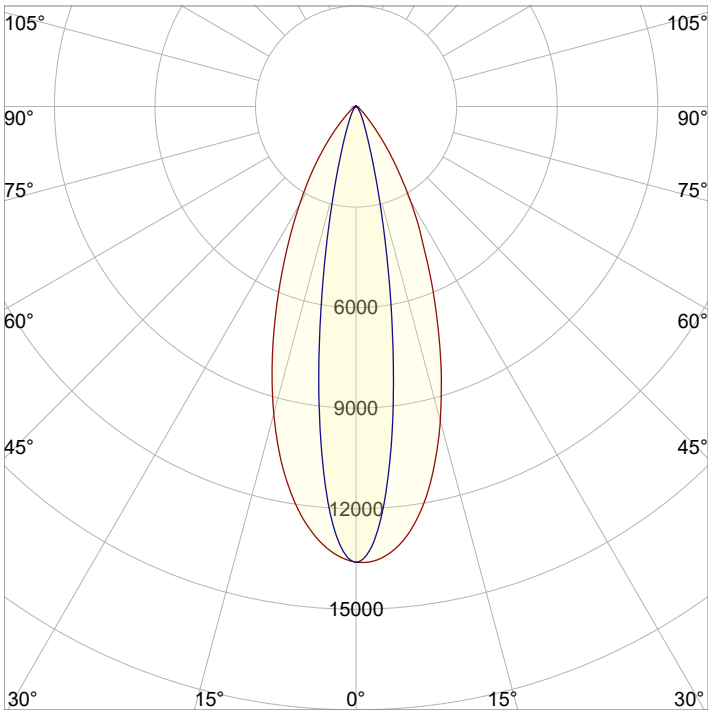
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4.9 ft	8.2 ft	16.4 ft	24.6 ft	32.8 ft

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	13583	3396	1509	849	543	377	277	212	168	136	112	94	80	69	60	53	47	42	38	34
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	1261.9	315.5	140.2	78.9	50.5	35.1	25.8	19.7	15.6	12.6	10.4	8.8	7.5	6.4	5.6	4.9	4.4	3.9	3.5	3.2

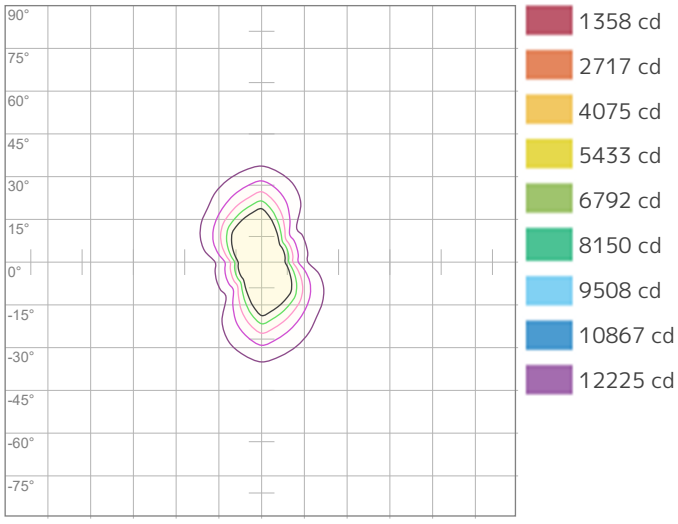
Measurement Date: 6/20/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
28°	18.3°
Field Angle - 10%	Field Angle - 10%
52.9°	36.2°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
75.4°	57.7°

ISO Diagrams

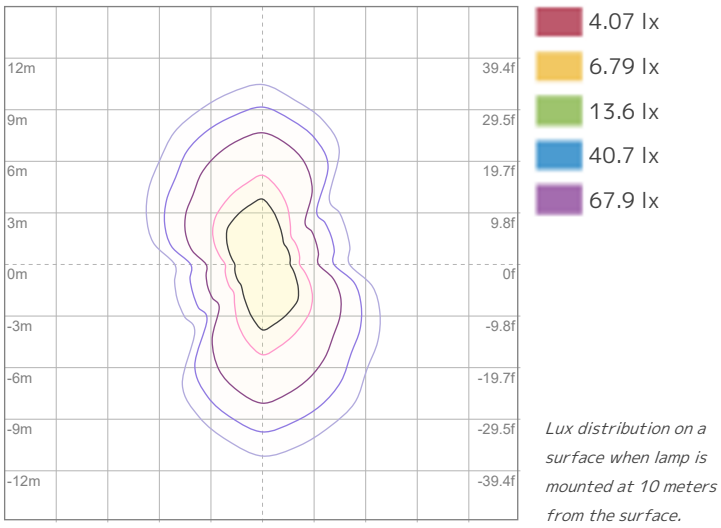


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 13583 cd



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

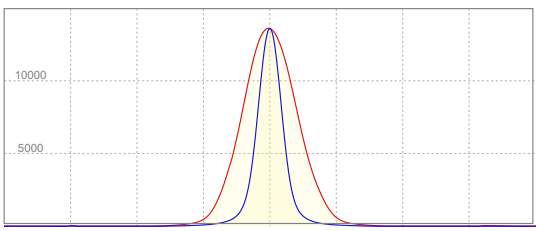
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 136 lx

Linear Distribution



Peak Candela

13603 cd

Calculate Center Beam Intensities

lux = 13603 / distance(m)^2

fc = 13603 / distance(ft)^2

Measurement Date: 6/20/2024

Key Measurements

Output

Total Lumen Output: 4861 lm

Peak Intensity: 15345 cd

Beam

Beam Angle (50%): 27.6°x 18.4°

Field Angle (10%): 52.4°x 36.4°

Cutoff Angle (2.5%): 74.6°x 57.7°

Color

Color Temperature: 2464 K

CRI: 85.9

TLCI: 77

TM30 R_F: 89.4

TM30 R_g: 105.6

Power Details

Efficacy: 47 Lumen/Watt

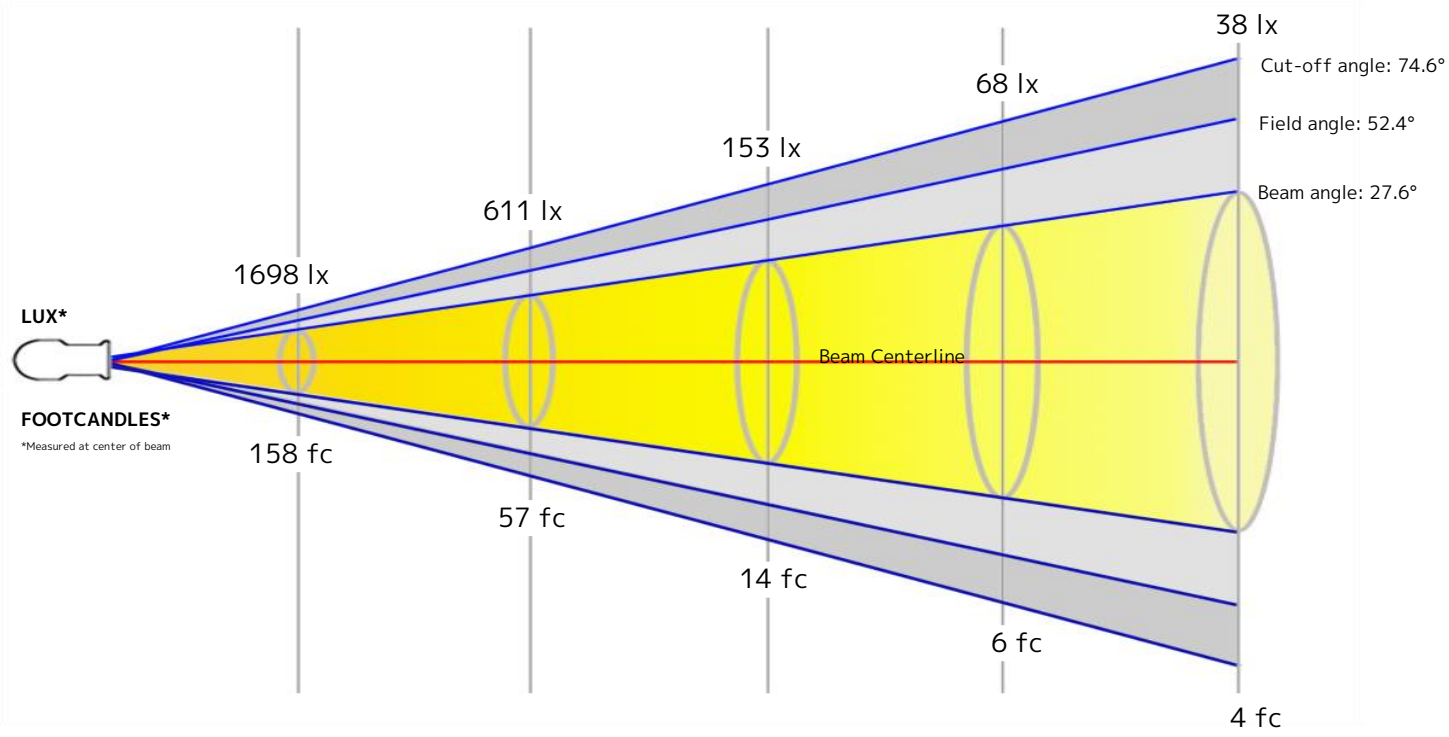
Power: 102.9 W

Supply Voltage: 120 V

Current: 0.866 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.5 m	2.5 m	4.9 m	7.4 m	9.8 m



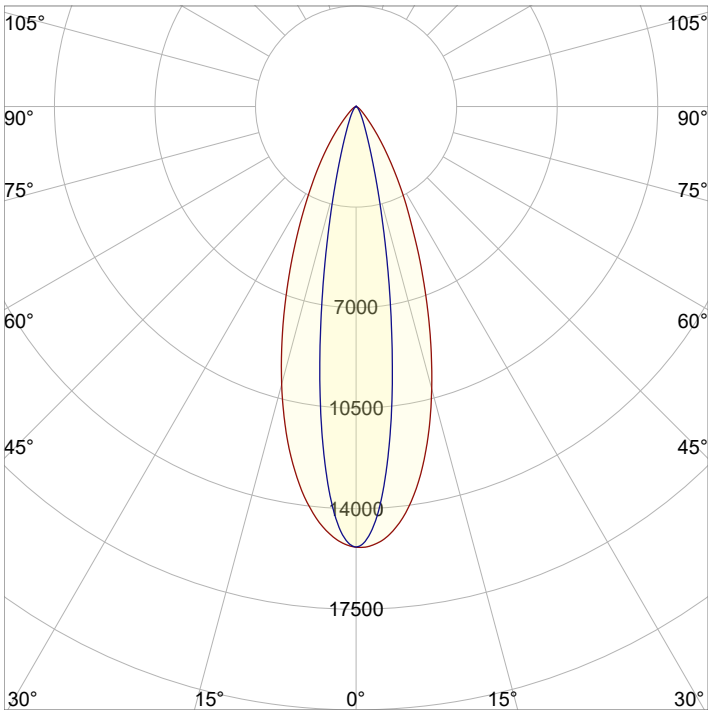
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4.8 ft	8.1 ft	16.1 ft	24.2 ft	32.2 ft

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	15286	3821	1698	955	611	425	312	239	189	153	126	106	90	78	68	60	53	47	42	38
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	1420.1	355	157.8	88.8	56.8	39.4	29	22.2	17.5	14.2	11.7	9.9	8.4	7.2	6.3	5.5	4.9	4.4	3.9	3.6

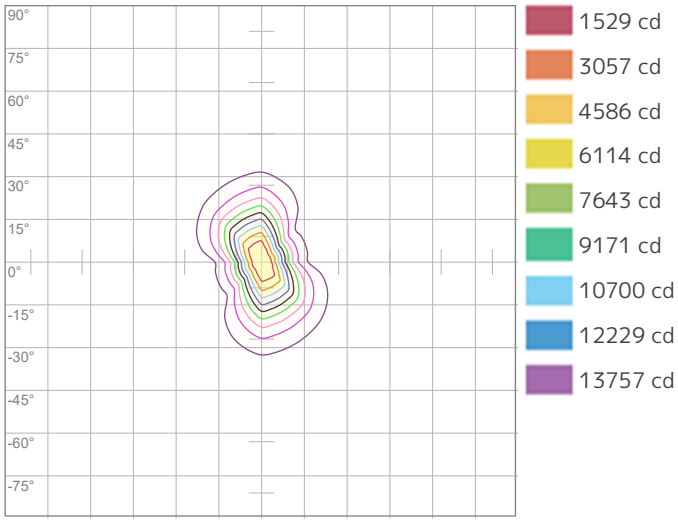
Measurement Date: 6/20/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
27.6°	18.4°
Field Angle - 10%	Field Angle - 10%
52.4°	36.4°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
74.6°	57.7°

ISO Diagrams

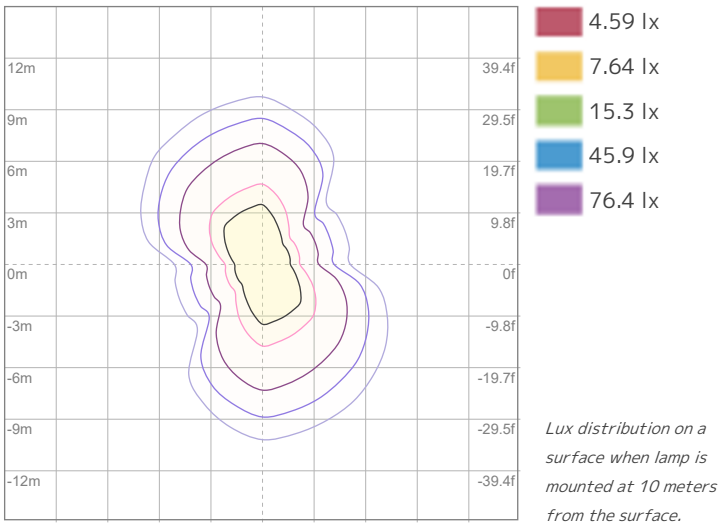


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 15286 cd



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

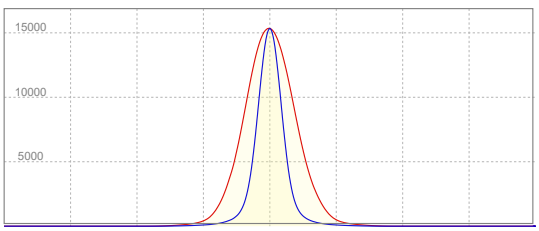
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 153 lx

Linear Distribution



Peak Candela

15345 cd

Calculate Center Beam Intensities

lux = 15345 / distance(m)^2

fc = 15345 / distance(ft)^2

Key Measurements

Output

Total Lumen Output: 6154 lm

Peak Intensity: 19318 cd

Beam

Beam Angle (50%): 27.6°x 18.5°

Field Angle (10%): 52.5°x 36.5°

Cutoff Angle (2.5%): 74.9°x 58°

Color

Color Temperature: 3248 K

CRI: 90.1

TLCI: 83

TM30 R_F: 91.8

TM30 R_g: 107.0

Power Details

Efficacy: 48 Lumen/Watt

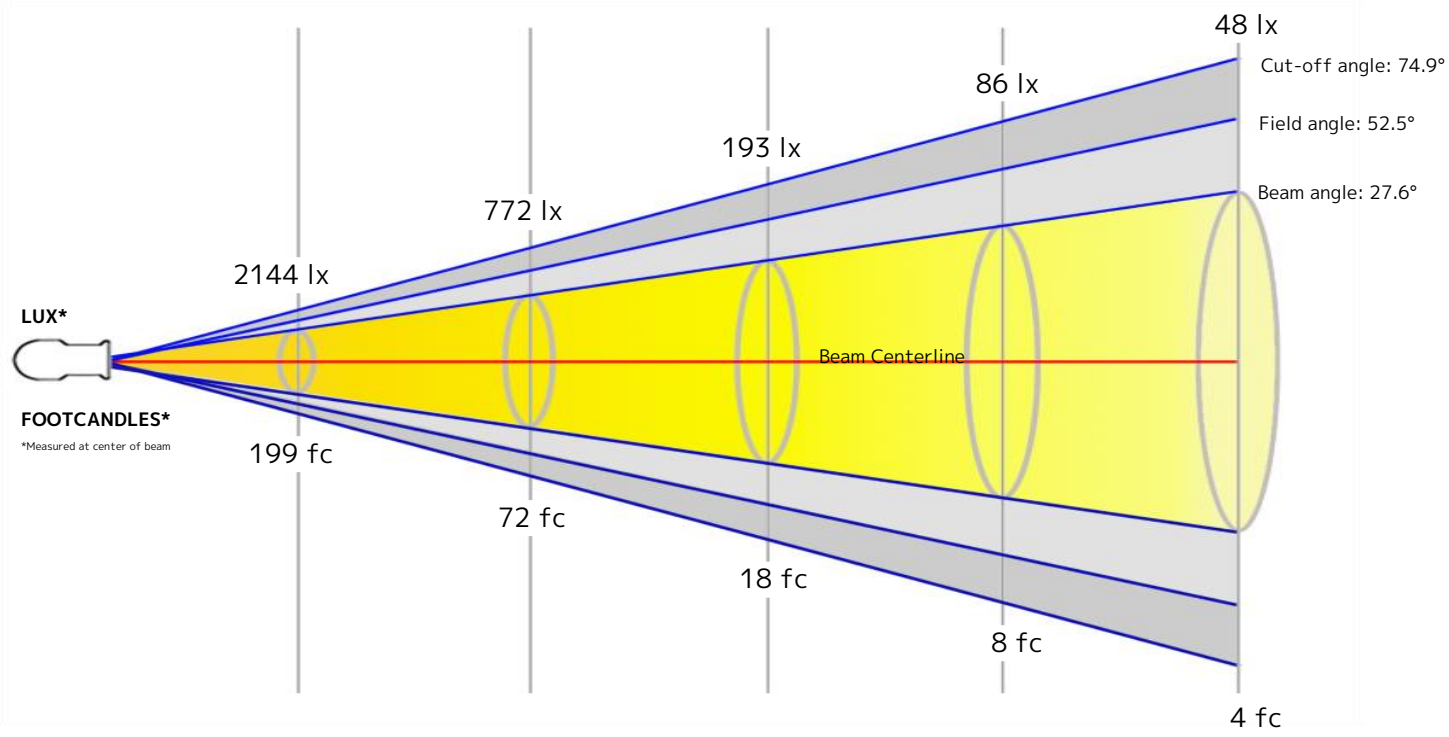
Power: 129.3 W

Supply Voltage: 120 V

Current: 1.08 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.5 m	2.5 m	4.9 m	7.4 m	9.8 m



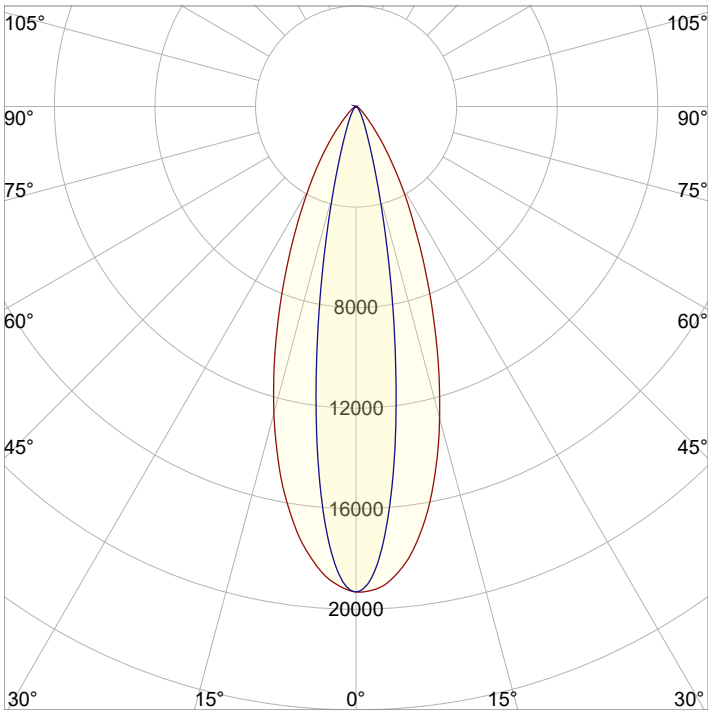
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4.8 ft	8.1 ft	16.1 ft	24.2 ft	32.3 ft

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	19292	4823	2144	1206	772	536	394	301	238	193	159	134	114	98	86	75	67	60	53	48
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	1792.2	448.1	199.1	112	71.7	49.8	36.6	28	22.1	17.9	14.8	12.4	10.6	9.1	8	7	6.2	5.5	5	4.5

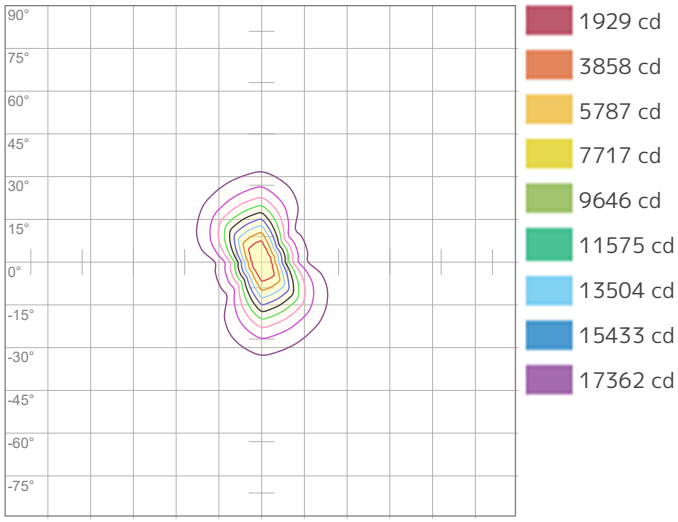
Measurement Date: 6/20/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
27.6°	18.5°
Field Angle - 10%	Field Angle - 10%
52.5°	36.5°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
74.9°	58°

ISO Diagrams

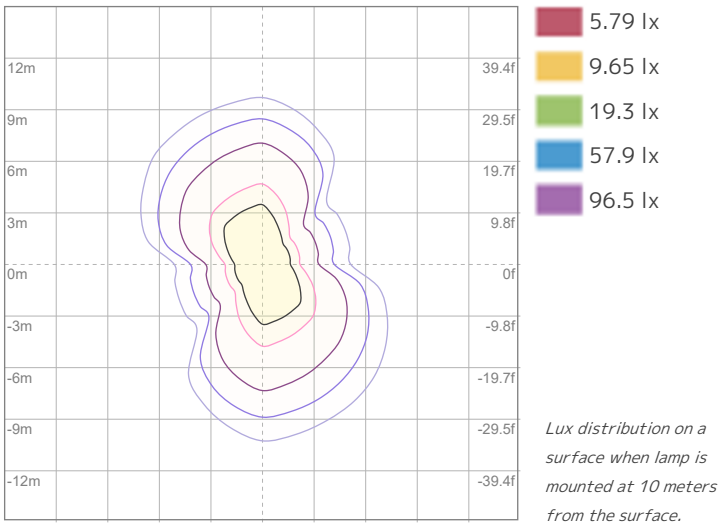


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 19292 cd



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

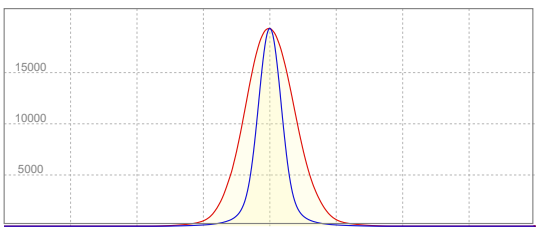
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 193 lx

Linear Distribution



Peak Candela

19318 cd

Calculate Center Beam Intensities

lux = 19318 / distance(m)^2

fc = 19318 / distance(ft)^2

Measurement Date: 6/20/2024

Six+ Par L (10°x 60°, 4500K)

Key Measurements

Output

Total Lumen Output: 6910 lm

Peak Intensity: 21181 cd

Beam

Beam Angle (50%): 28°x 18.6°

Field Angle (10%): 53.1°x 36.8°

Cutoff Angle (2.5%): 76.1°x 59°

Color

Color Temperature: 4503 K

CRI: 90.9

TLCI: 81

TM30 R_F: 90.5

TM30 R_g: 107.7

Power Details

Efficacy: 49 Lumen/Watt

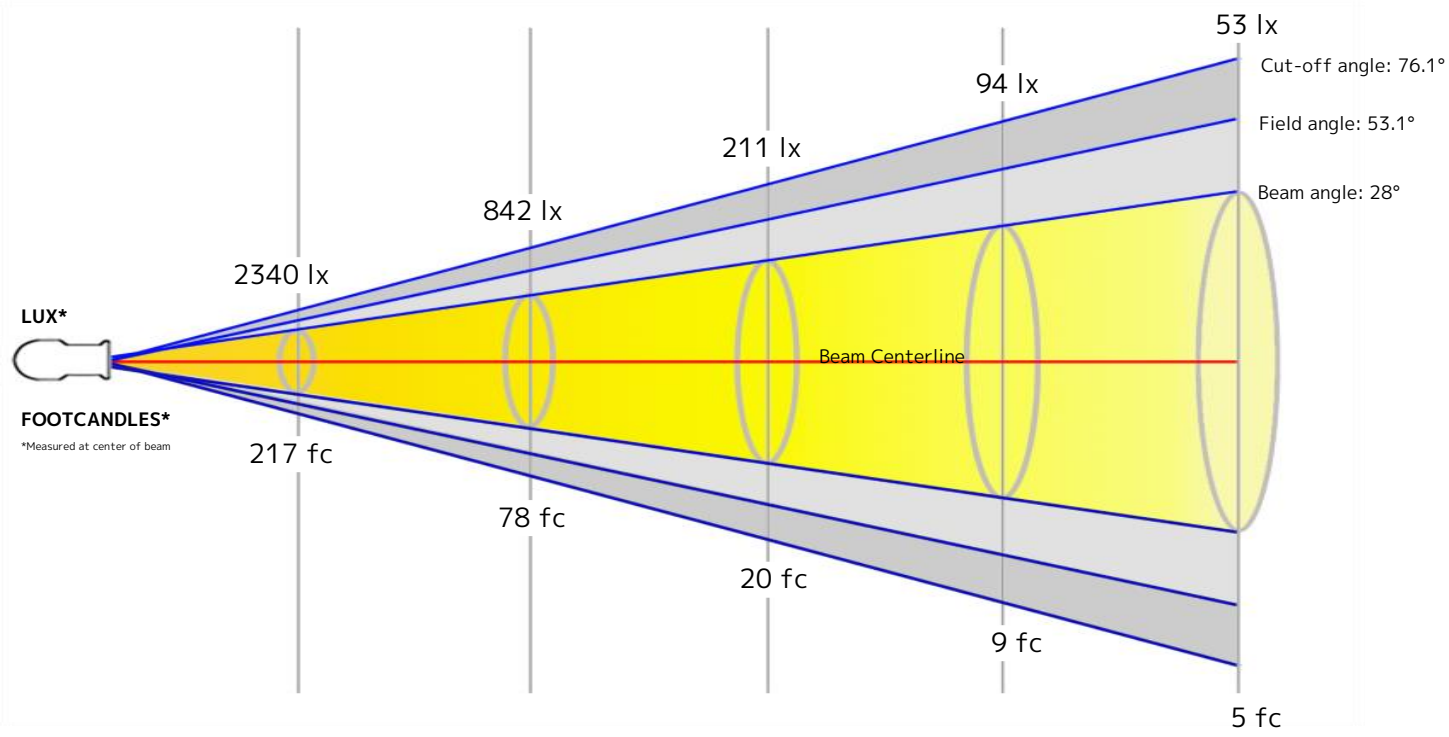
Power: 141.2 W

Supply Voltage: 120 V

Current: 1.18 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.5 m	2.5 m	5 m	7.5 m	10 m



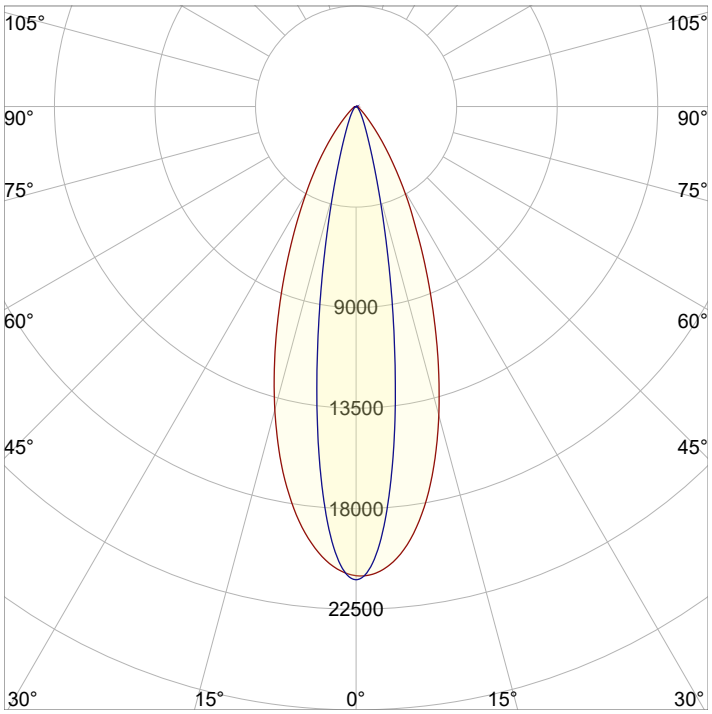
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4.9 ft	8.2 ft	16.3 ft	24.5 ft	32.7 ft

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	21061	5265	2340	1316	842	585	430	329	260	211	174	146	125	107	94	82	73	65	58	53
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	1956.6	489.2	217.4	122.3	78.3	54.4	39.9	30.6	24.2	19.6	16.2	13.6	11.6	10	8.7	7.6	6.8	6	5.4	4.9

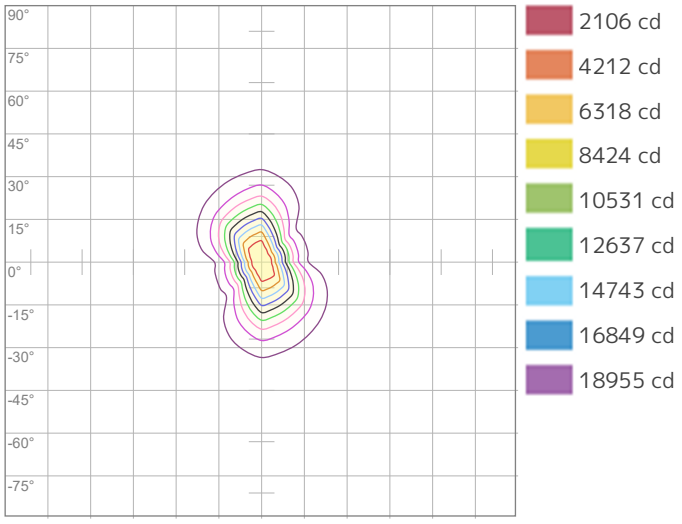
Measurement Date: 6/21/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
28°	18.6°
Field Angle - 10%	Field Angle - 10%
53.1°	36.8°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
76.1°	59°

ISO Diagrams

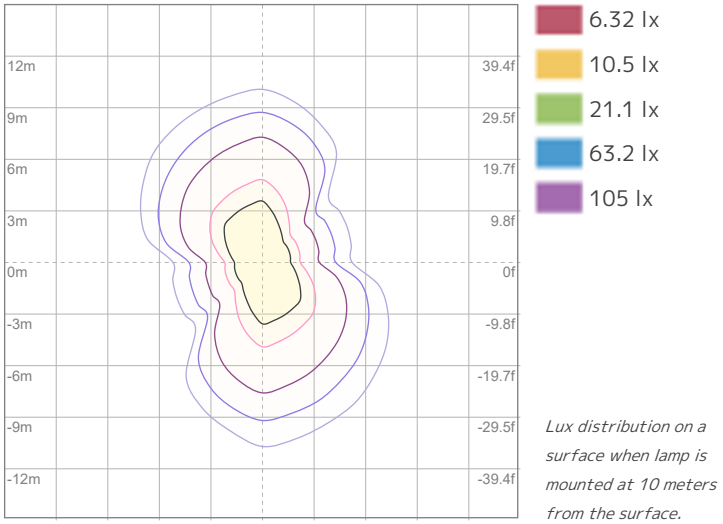


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 21061 cd



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

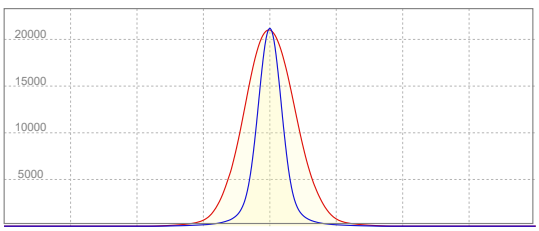
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 211 lx

Linear Distribution



Peak Candela

21181 cd

Calculate Center Beam Intensities

lux = 21181 / distance(m)^2

fc = 21181 / distance(ft)^2

Measurement Date: 6/21/2024

Six+ Par L (10°x 60°, 6500K)

Key Measurements

Output

Total Lumen Output: 4829 lm

Peak Intensity: 14835 cd

Beam

Beam Angle (50%): 27.9°x 18.5°

Field Angle (10%): 53°x 36.7°

Cutoff Angle (2.5%): 75.8°x 58.7°

Color

Color Temperature: 6462 K

CRI: 89.3

TLCI: 86

TM30 R_F: 88.8

TM30 R_g: 107.1

Power Details

Efficacy: 45 Lumen/Watt

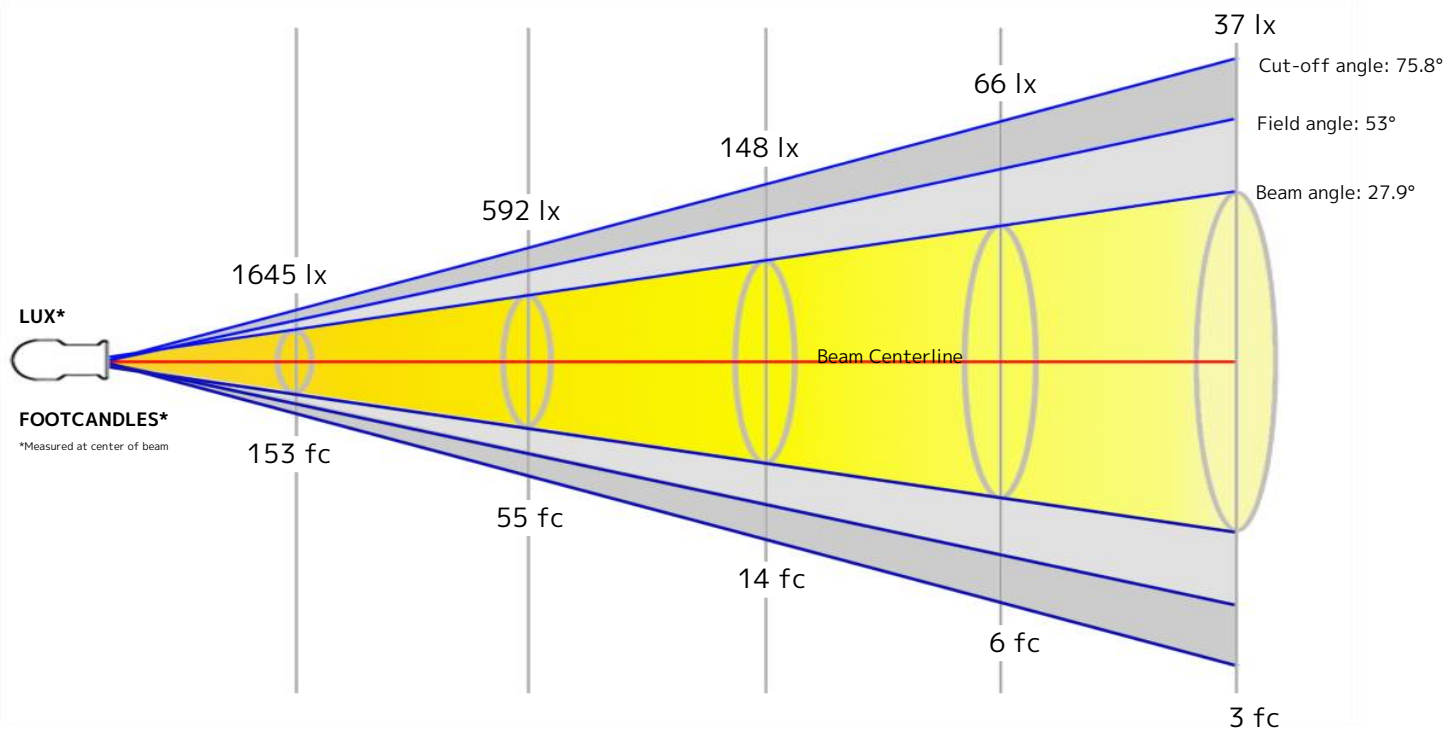
Power: 106.4 W

Supply Voltage: 120 V

Current: 0.892 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.5 m	2.5 m	5 m	7.4 m	9.9 m



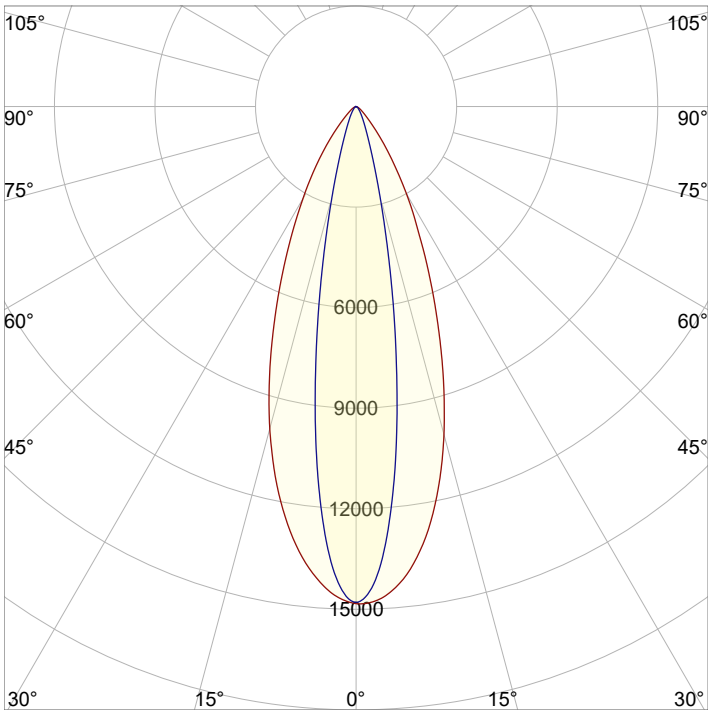
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4.9 ft	8.1 ft	16.3 ft	24.4 ft	32.6 ft

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	14801	3700	1645	925	592	411	302	231	183	148	122	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	1375	343.8	152.8	85.9	55	38.2	28.1	21.5	17	13.8	11.4	9.5	8.1	7	6.1	5.4	4.8	4.2	3.8	3.4

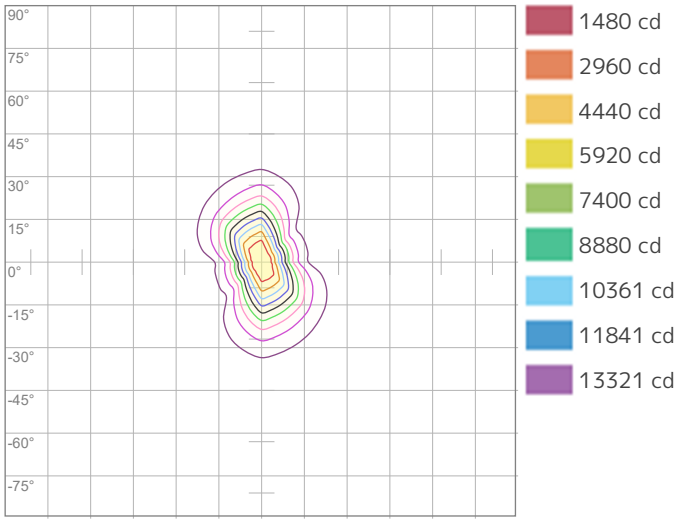
Measurement Date: 6/21/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
27.9°	18.5°
Field Angle - 10%	Field Angle - 10%
53°	36.7°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
75.8°	58.7°

ISO Diagrams

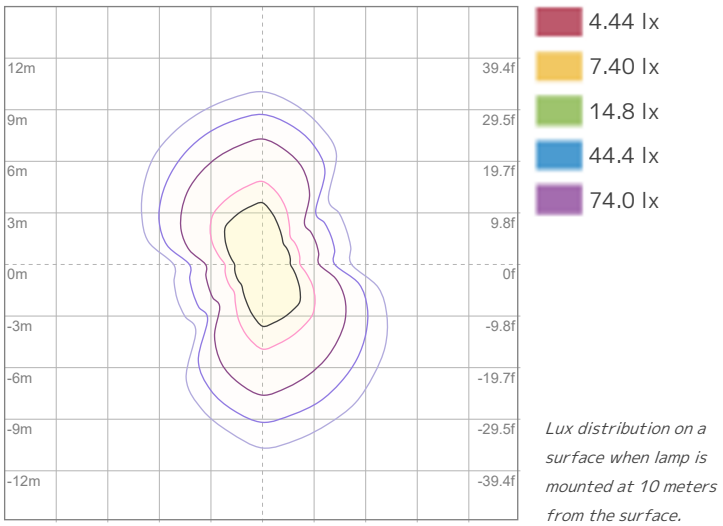


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 14801 cd



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

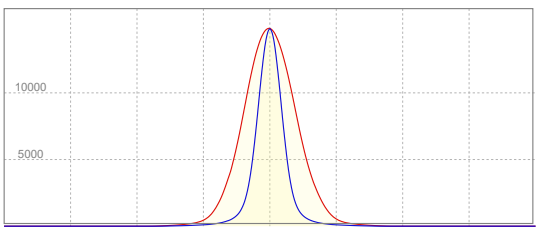
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 148 lx

Linear Distribution



Peak Candela

14835 cd

Calculate Center Beam Intensities

lux = 14835 / distance(m)^2

fc = 14835 / distance(ft)^2

Measurement Date: 6/21/2024

Six+ Par L (10°x 60°, 8500K)

Key Measurements

Output

Total Lumen Output: 4791 lm

Peak Intensity: 14532 cd

Beam

Beam Angle (50%): 27.9°x 18.6°

Field Angle (10%): 53.1°x 36.8°

Cutoff Angle (2.5%): 76.5°x 59.4°

Color

Color Temperature: 8576 K

CRI: 89.2

TLCI: 88

TM30 R_F: 87.5

TM30 R_g: 104.9

Power Details

Efficacy: 45 Lumen/Watt

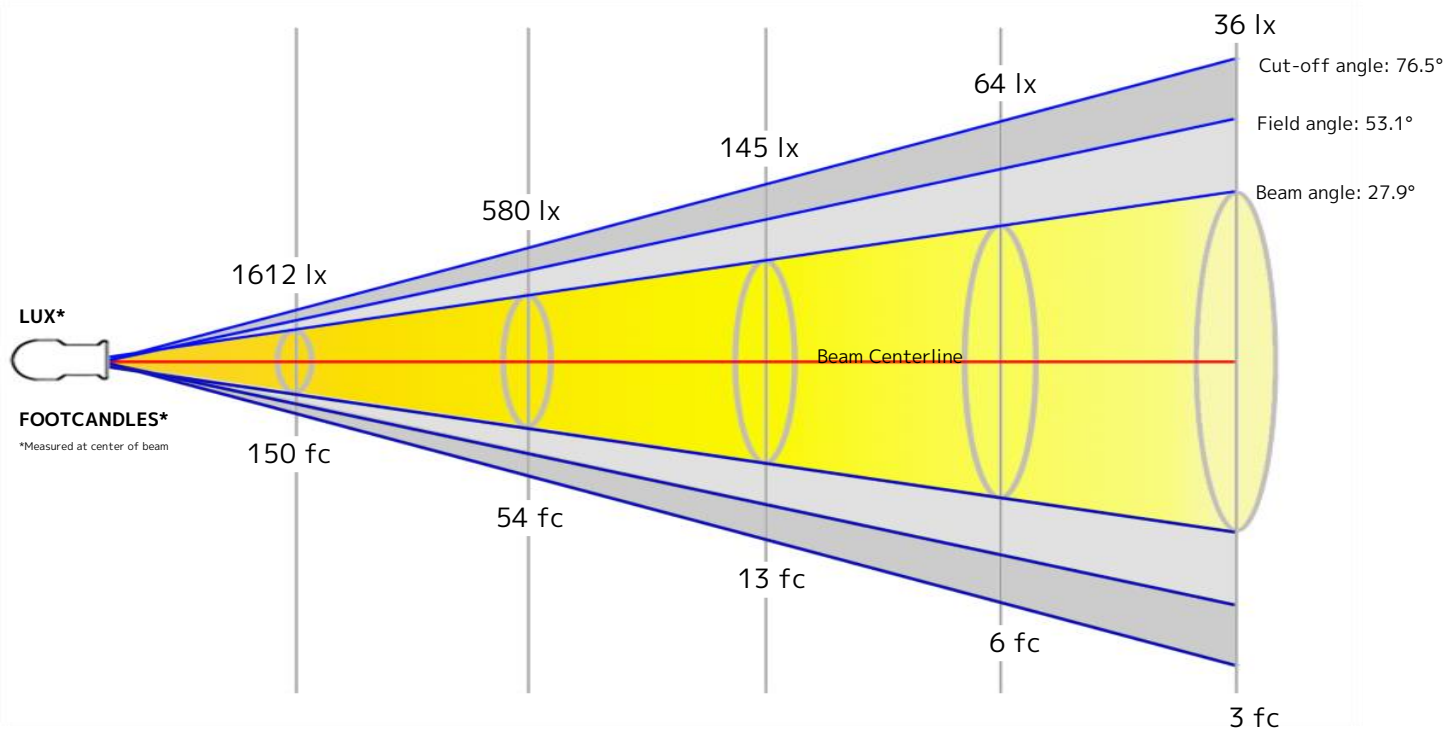
Power: 106.5 W

Supply Voltage: 121 V

Current: 0.889 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.5 m	2.5 m	5 m	7.5 m	9.9 m



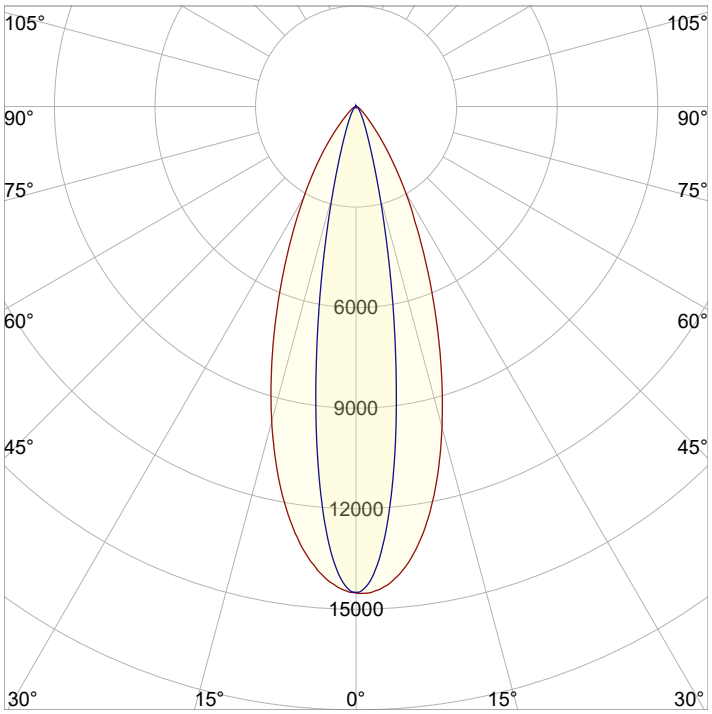
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4.9 ft	8.2 ft	16.3 ft	24.5 ft	32.6 ft

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	14512	3628	1612	907	580	403	296	227	179	145	120	101	86	74	64	57	50	45	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	1348.2	337.1	149.8	84.3	53.9	37.5	27.5	21.1	16.6	13.5	11.1	9.4	8	6.9	6	5.3	4.7	4.2	3.7	3.4

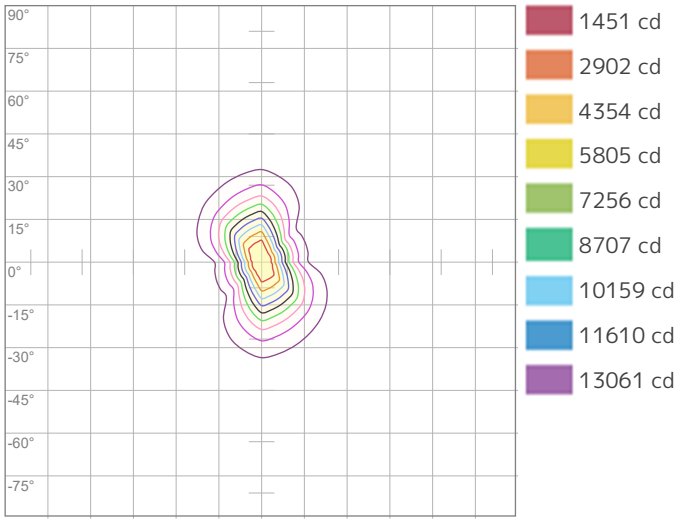
Measurement Date: 6/21/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
27.9°	18.6°
Field Angle - 10%	Field Angle - 10%
53.1°	36.8°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
76.5°	59.4°

ISO Diagrams

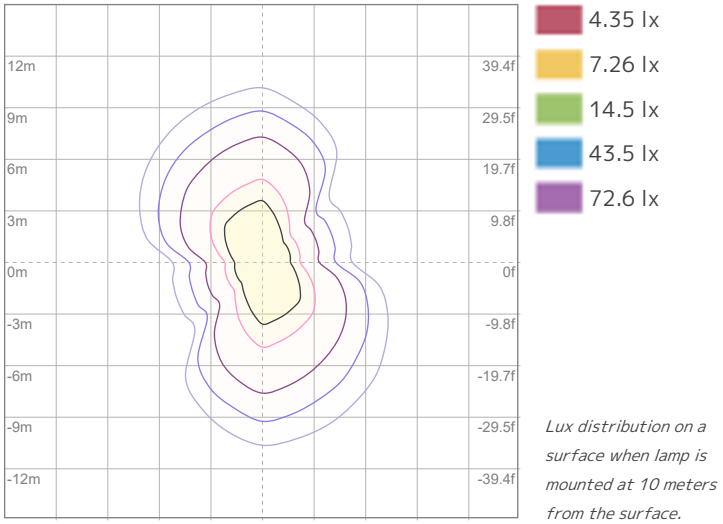


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 14512 cd



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

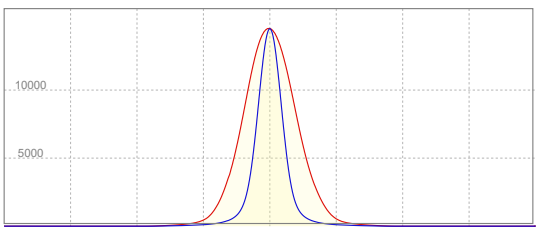
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 145 lx

Linear Distribution



Peak Candela

14532 cd

Calculate Center Beam Intensities

lux = 14532 / distance(m)^2

fc = 14532 / distance(ft)^2

Measurement Date: 6/21/2024

Six+ Par L (1°x 40°, Full Output- No UV)

Key Measurements

Output

Total Lumen Output: 5036 lm

Peak Intensity: 24260 cd

Beam

Beam Angle (50%): 23.2°x 14.6°

Field Angle (10%): 39.8°x 26.3°

Cutoff Angle (2.5%): 57.7°x 45.7°

Color

Color Temperature: 7463 K

CRI: 69.4

TLCI: 80

TM30 R_F: 78.7

TM30 R_g: 118.6

Power Details

Efficacy: 44 Lumen/Watt

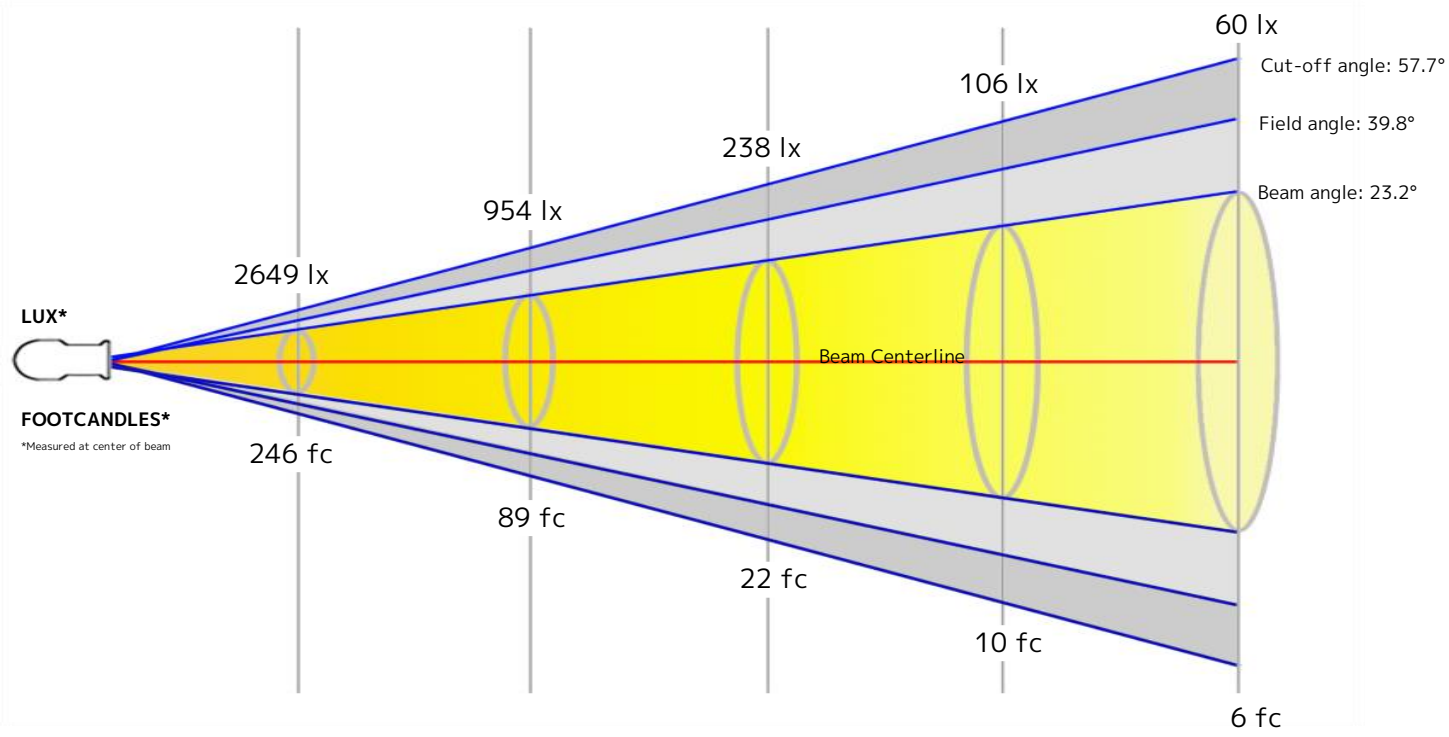
Power: 115.4 W

Supply Voltage: 119 V

Current: 0.975 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2.1 m	4.1 m	6.2 m	8.2 m



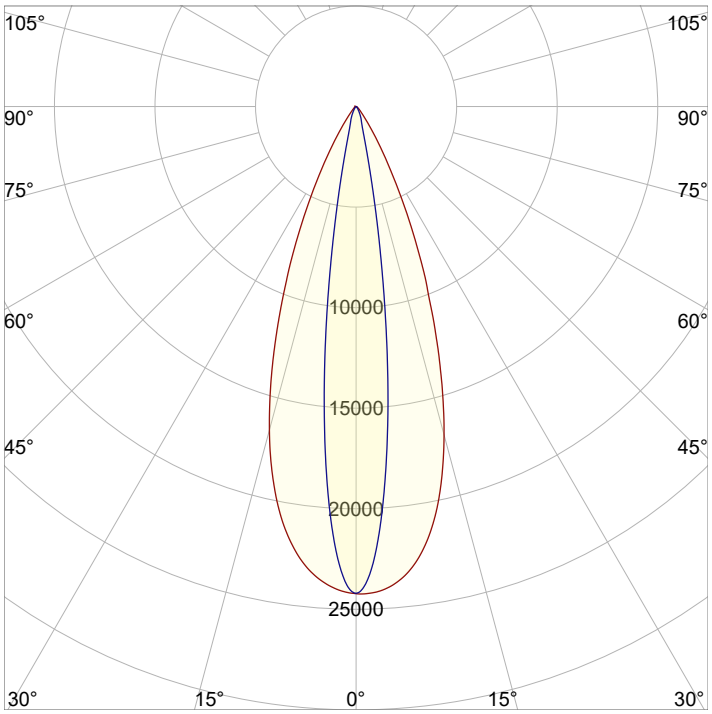
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4 ft	6.7 ft	13.5 ft	20.2 ft	26.9 ft

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	23844	5961	2649	1490	954	662	487	373	294	238	197	166	141	122	106	93	83	74	66	60
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	2215.2	553.8	246.1	138.4	88.6	61.5	45.2	34.6	27.3	22.2	18.3	15.4	13.1	11.3	9.8	8.7	7.7	6.8	6.1	5.5

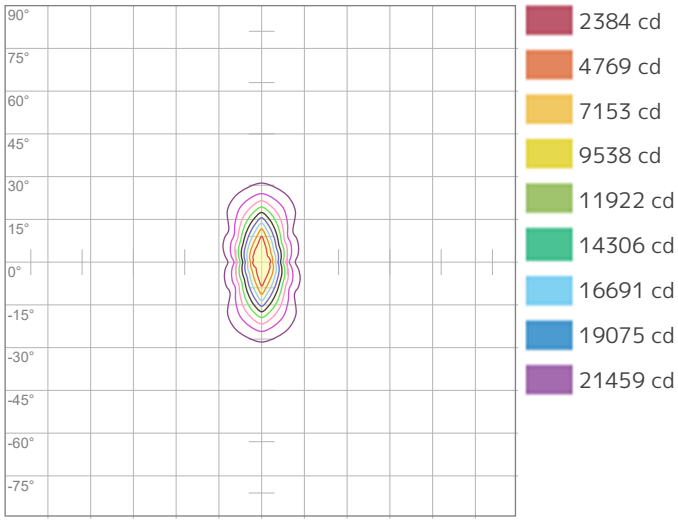
Measurement Date: 6/21/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
23.2°	14.6°
Field Angle - 10%	Field Angle - 10%
39.8°	26.3°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
57.7°	45.7°

ISO Diagrams

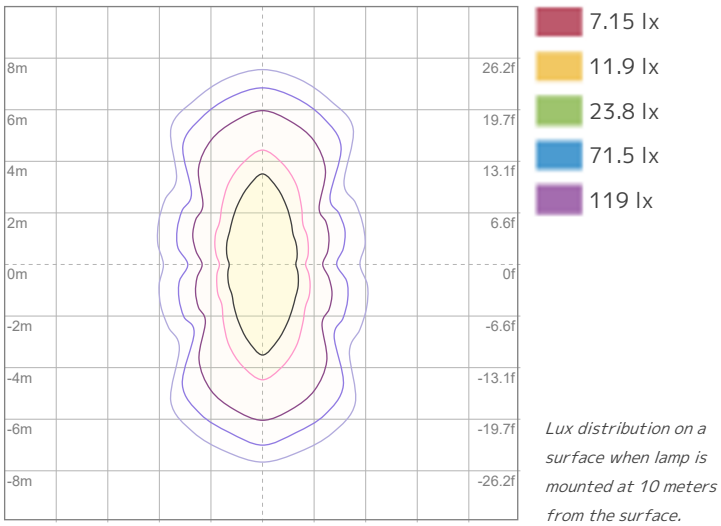


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 23844 cd



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

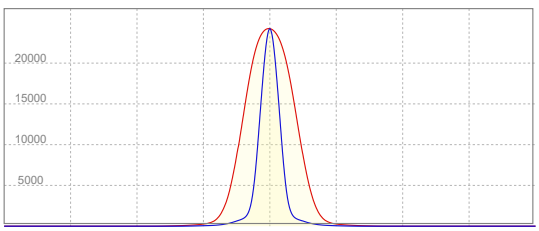
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 238 lx

Linear Distribution



Peak Candela

24260 cd

Calculate Center Beam Intensities

lux = 24260 / distance(m)^2

fc = 24260 / distance(ft)^2

Measurement Date: 6/21/2024

Key Measurements

Output

Total Lumen Output: 4654 lm

Peak Intensity: 22973 cd

Beam

Beam Angle (50%): 23.2°x 14.6°

Field Angle (10%): 39.9°x 26.3°

Cutoff Angle (2.5%): 57.6°x 45.6°

Color

Color Temperature: 7986 K

CRI: 67.2

TLCI: 78

TM30 R_F: 76.8

TM30 R_g: 119.9

Power Details

Efficacy: 37 Lumen/Watt

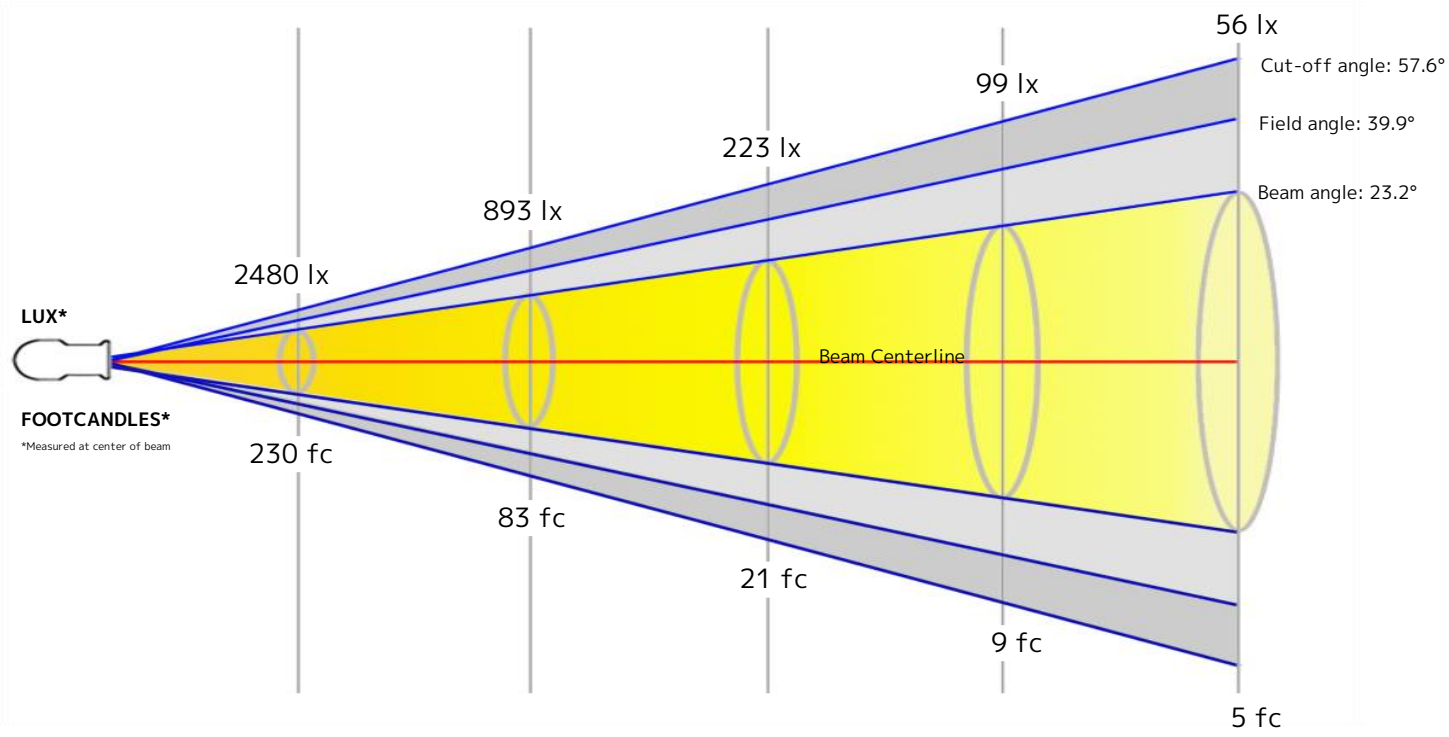
Power: 126.1 W

Supply Voltage: 119 V

Current: 1.07 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2.1 m	4.1 m	6.2 m	8.2 m



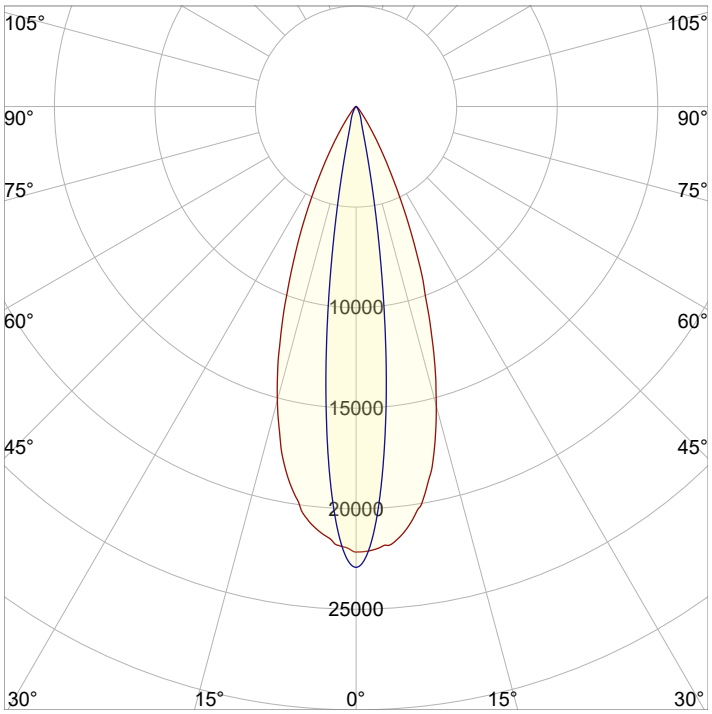
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4 ft	6.7 ft	13.5 ft	20.2 ft	26.9 ft

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	22317	5579	2480	1395	893	620	455	349	276	223	184	155	132	114	99	87	77	69	62	56
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	2073.3	518.3	230.4	129.6	82.9	57.6	42.3	32.4	25.6	20.7	17.1	14.4	12.3	10.6	9.2	8.1	7.2	6.4	5.7	5.2

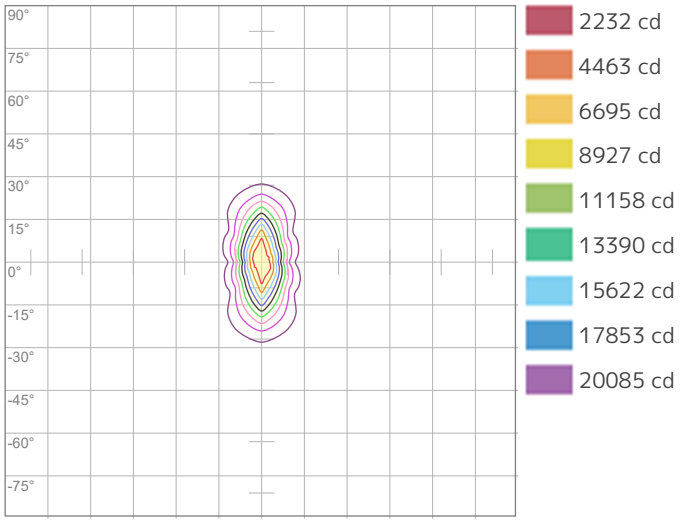
Measurement Date: 6/21/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
23.2°	14.6°
Field Angle - 10%	Field Angle - 10%
39.9°	26.3°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
57.6°	45.6°

ISO Diagrams

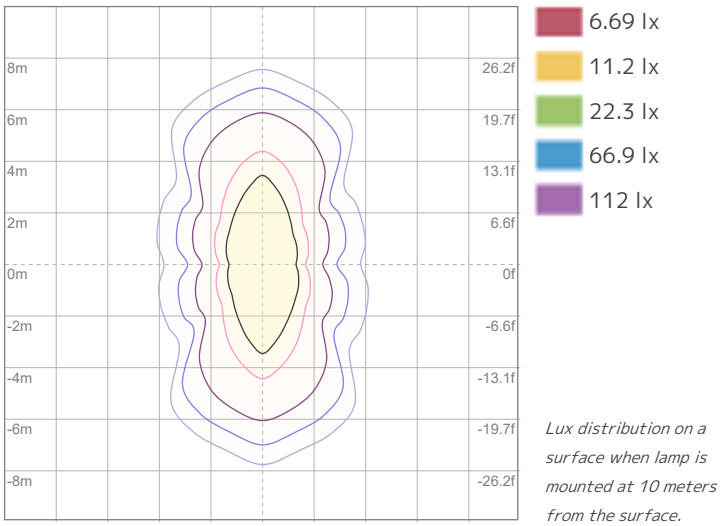


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 22317 cd



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

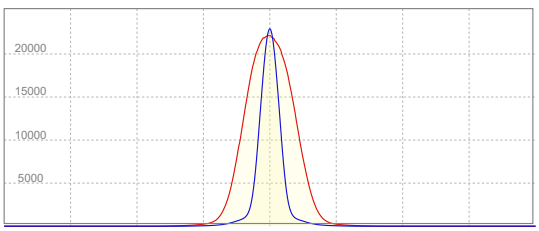
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 223 lx

Linear Distribution



Peak Candela

22973 cd

Calculate Center Beam Intensities

lux = 22973 / distance(m)^2

fc = 22973 / distance(ft)^2

Measurement Date: 6/21/2024

Six+ Par L (1°x 40°, 2400K)

Key Measurements

Output

Total Lumen Output: 5678 lm

Peak Intensity: 27571 cd

Beam

Beam Angle (50%): 23.1°x 14.4°

Field Angle (10%): 39.5°x 25.9°

Cutoff Angle (2.5%): 56.8°x 44.8°

Color

Color Temperature: 2457 K

CRI: 87.4

TLCI: 78

TM30 R_F: 89.9

TM30 R_g: 105.1

Power Details

Efficacy: 53 Lumen/Watt

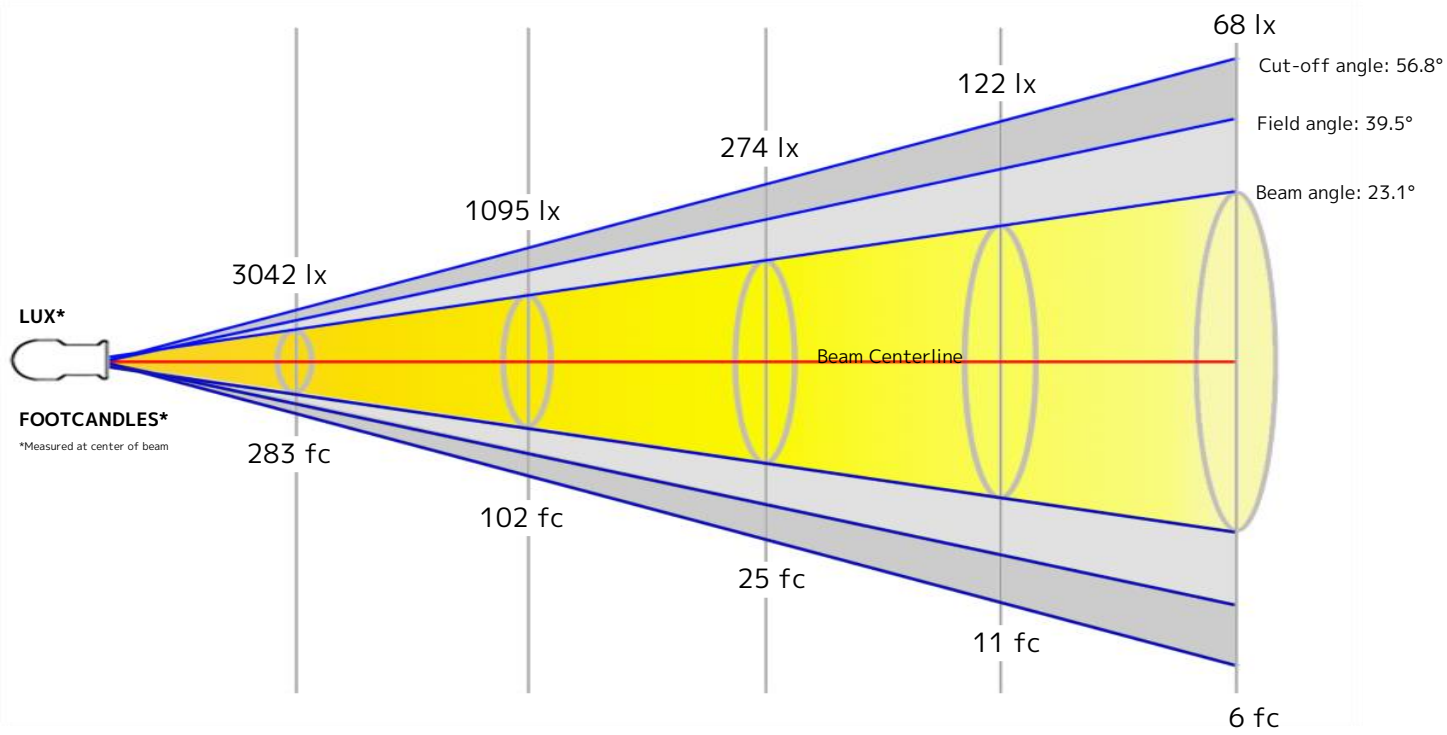
Power: 107.6 W

Supply Voltage: 119 V

Current: 0.911 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2 m	4.1 m	6.1 m	8.2 m



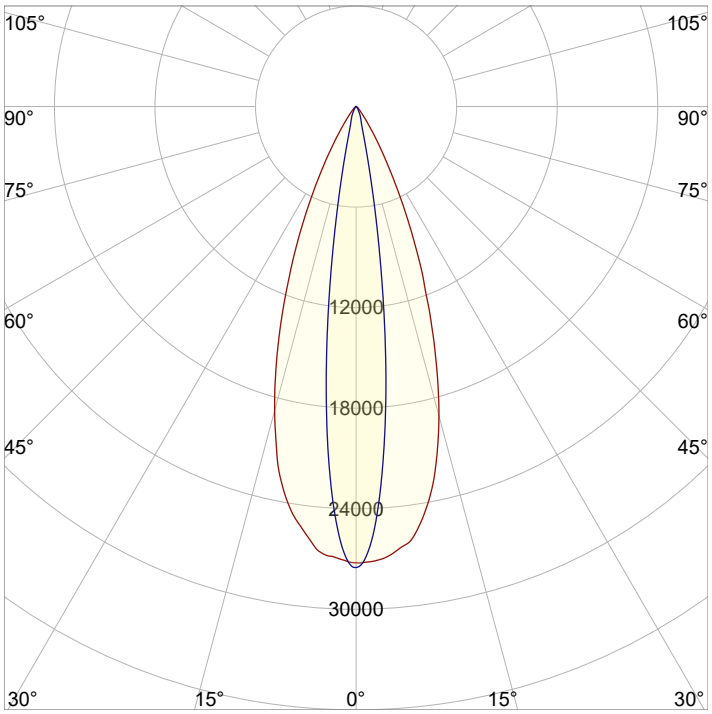
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4 ft	6.7 ft	13.4 ft	20.1 ft	26.8 ft

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	27379	6845	3042	1711	1095	761	559	428	338	274	226	190	162	140	122	107	95	85	76	68
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	2543.6	635.9	282.6	159	101.7	70.7	51.9	39.7	31.4	25.4	21	17.7	15.1	13	11.3	9.9	8.8	7.9	7	6.4

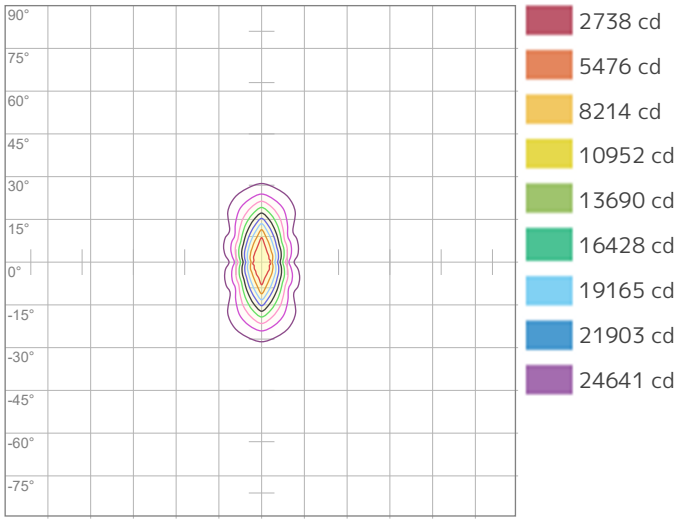
Measurement Date: 6/21/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
23.1°	14.4°
Field Angle - 10%	Field Angle - 10%
39.5°	25.9°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
56.8°	44.8°

ISO Diagrams

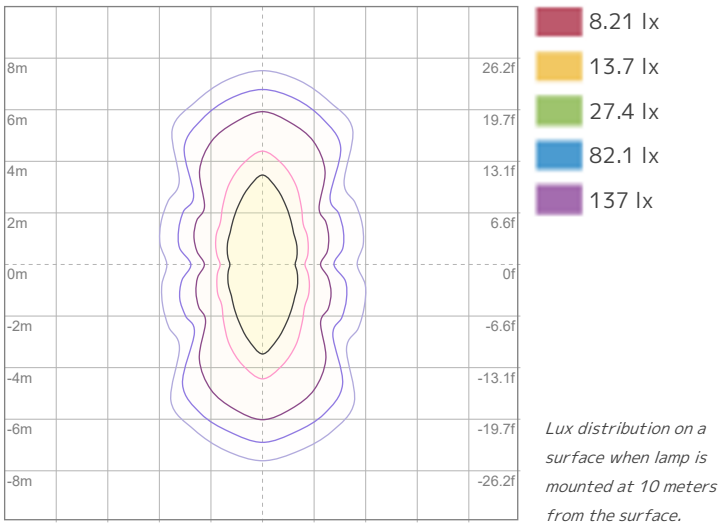


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 27379 cd



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

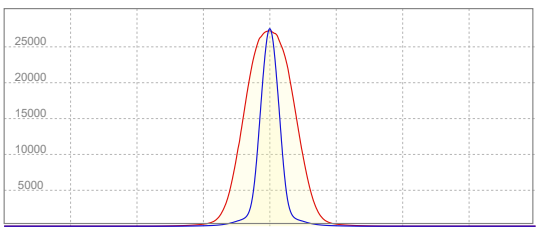
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 274 lx

Linear Distribution



Peak Candela

27571 cd

Calculate Center Beam Intensities

lux = 27571 / distance(m)^2

fc = 27571 / distance(ft)^2

Measurement Date: 6/21/2024

Key Measurements

Output

Total Lumen Output: 7109 lm

Peak Intensity: 34140 cd

Beam

Beam Angle (50%): 23.1°x 14.5°

Field Angle (10%): 39.6°x 26.1°

Cutoff Angle (2.5%): 57.3°x 45.3°

Color

Color Temperature: 3238 K

CRI: 91.1

TLCI: 81

TM30 R_F: 91.5

TM30 R_g: 107.1

Power Details

Efficacy: 55 Lumen/Watt

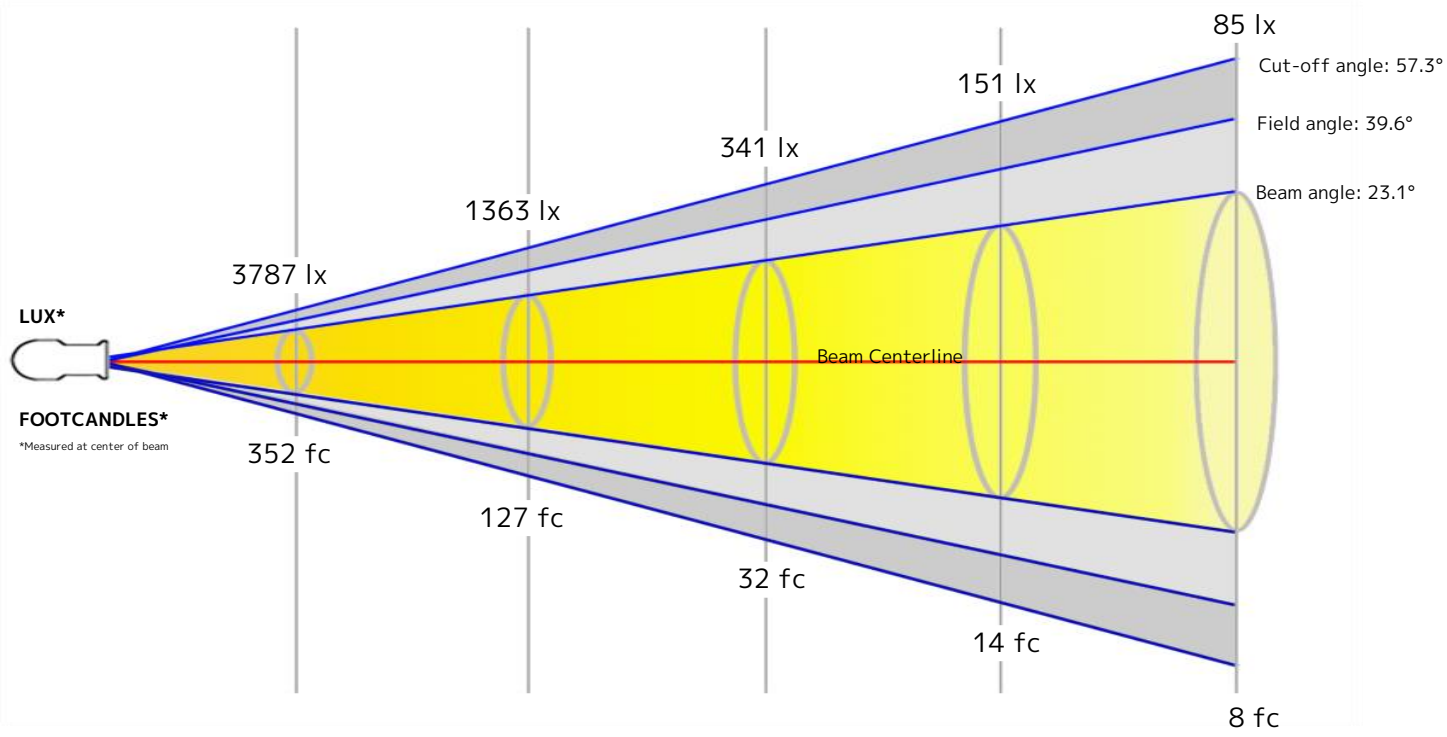
Power: 129.1 W

Supply Voltage: 119 V

Current: 1.09 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2 m	4.1 m	6.1 m	8.2 m



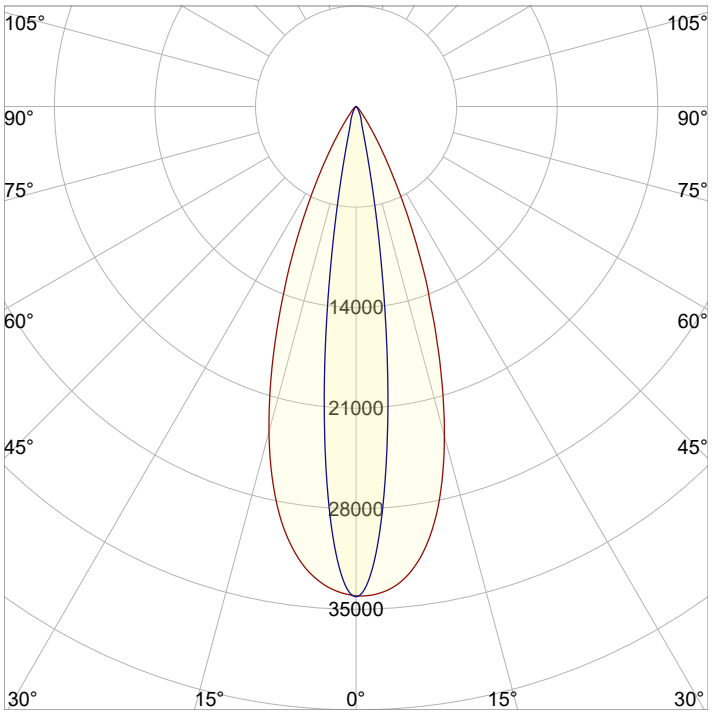
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4 ft	6.7 ft	13.4 ft	20.1 ft	26.8 ft

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	34086	8522	3787	2130	1363	947	696	533	421	341	282	237	202	174	151	133	118	105	94	85
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	3166.7	791.7	351.9	197.9	126.7	88	64.6	49.5	39.1	31.7	26.2	22	18.7	16.2	14.1	12.4	11	9.8	8.8	7.9

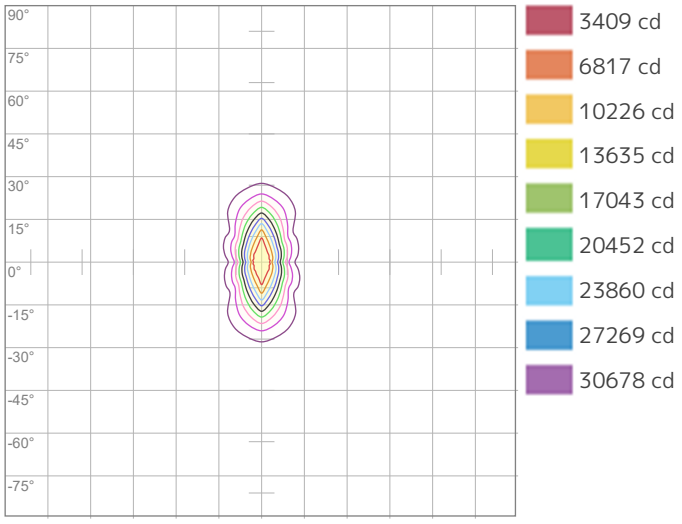
Measurement Date: 6/21/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
23.1°	14.5°
Field Angle - 10%	Field Angle - 10%
39.6°	26.1°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
57.3°	45.3°

ISO Diagrams

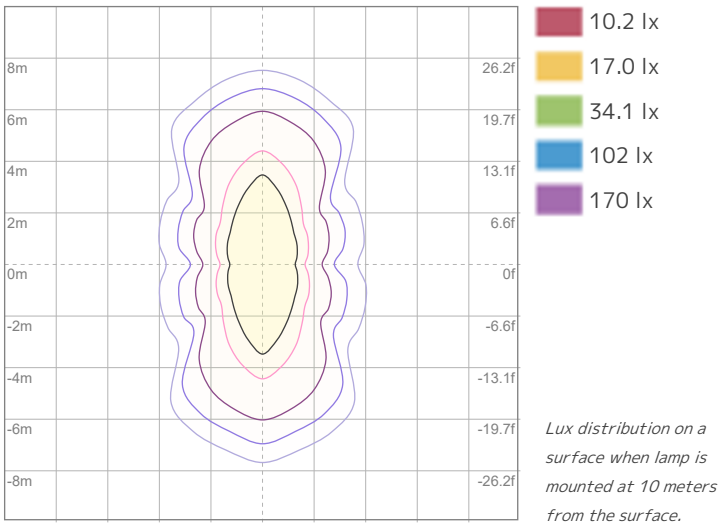


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 34086 cd



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

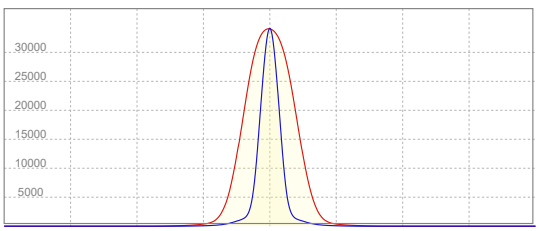
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 341 lx

Linear Distribution



Peak Candela

34140 cd

Calculate Center Beam Intensities

lux = 34140 / distance(m)^2

fc = 34140 / distance(ft)^2

Measurement Date: 6/21/2024

Six+ Par L (1°x 40°, 4500K)

Key Measurements

Output

Total Lumen Output: 5373 lm

Peak Intensity: 25792 cd

Beam

Beam Angle (50%): 23.1°x 14.5°

Field Angle (10%): 39.7°x 26.1°

Cutoff Angle (2.5%): 57.3°x 45.4°

Color

Color Temperature: 4469 K

CRI: 90.4

TLCI: 83

TM30 R_F: 90.8

TM30 R_g: 107.8

Power Details

Efficacy: 51 Lumen/Watt

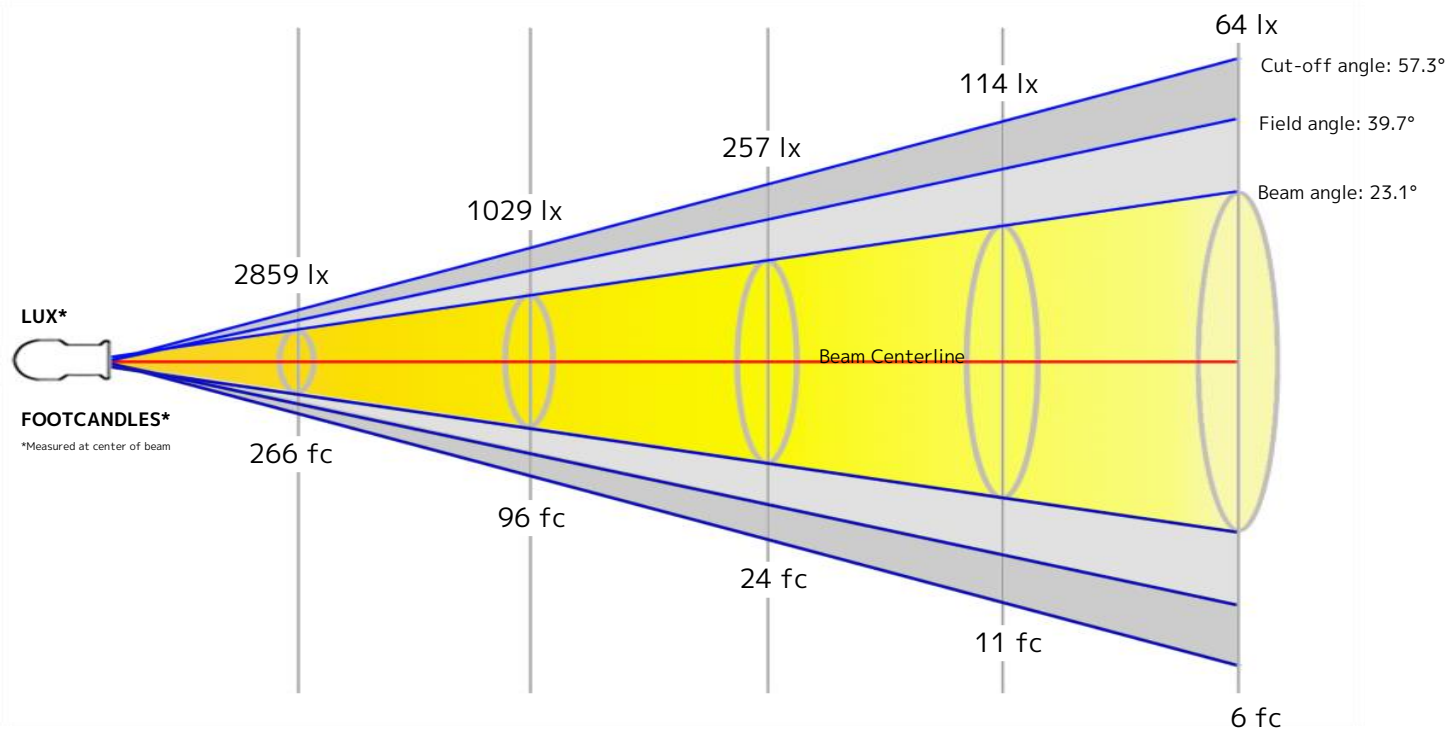
Power: 105.3 W

Supply Voltage: 120 V

Current: 0.884 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2 m	4.1 m	6.1 m	8.2 m



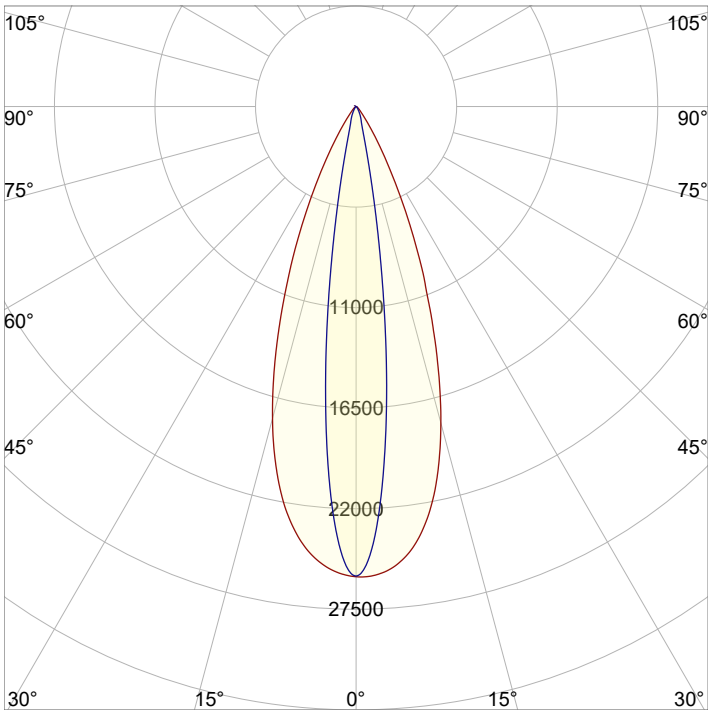
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4 ft	6.7 ft	13.4 ft	20.1 ft	26.8 ft

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	25730	6432	2859	1608	1029	715	525	402	318	257	213	179	152	131	114	101	89	79	71	64
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	2390.3	597.6	265.6	149.4	95.6	66.4	48.8	37.3	29.5	23.9	19.8	16.6	14.1	12.2	10.6	9.3	8.3	7.4	6.6	6

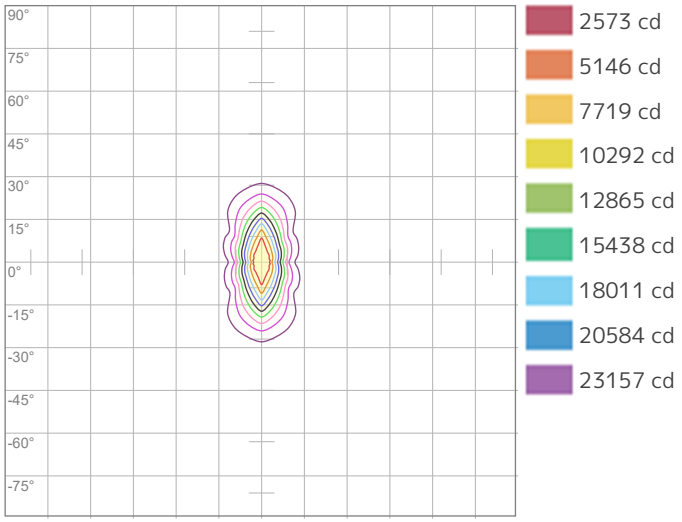
Measurement Date: 6/21/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
23.1°	14.5°
Field Angle - 10%	Field Angle - 10%
39.7°	26.1°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
57.3°	45.4°

ISO Diagrams

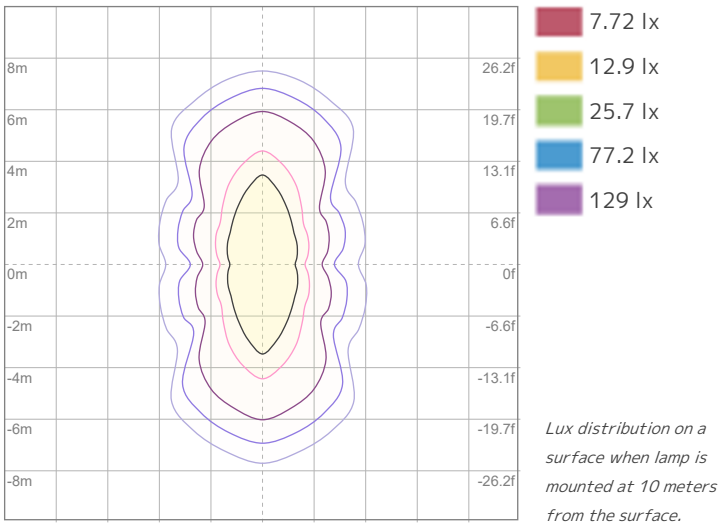


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 25730 cd



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

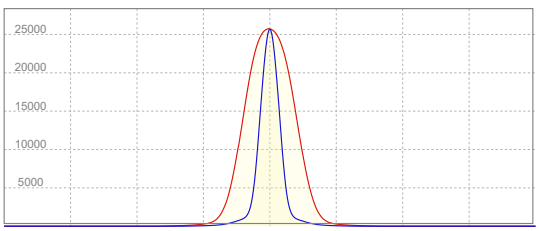
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 257 lx

Linear Distribution



Peak Candela

25792 cd

Calculate Center Beam Intensities

lux = 25792 / distance(m)^2

fc = 25792 / distance(ft)^2

Measurement Date: 6/21/2024

Six+ Par L (1°x 40°, 6500K)

Key Measurements

Output

Total Lumen Output: 5259 lm

Peak Intensity: 24908 cd

Beam

Beam Angle (50%): 23.2°x 14.5°

Field Angle (10%): 39.9°x 26.3°

Cutoff Angle (2.5%): 58.3°x 46.3°

Color

Color Temperature: 6471 K

CRI: 89.4

TLCI: 87

TM30 R_F: 88.7

TM30 R_g: 107.1

Power Details

Efficacy: 50 Lumen/Watt

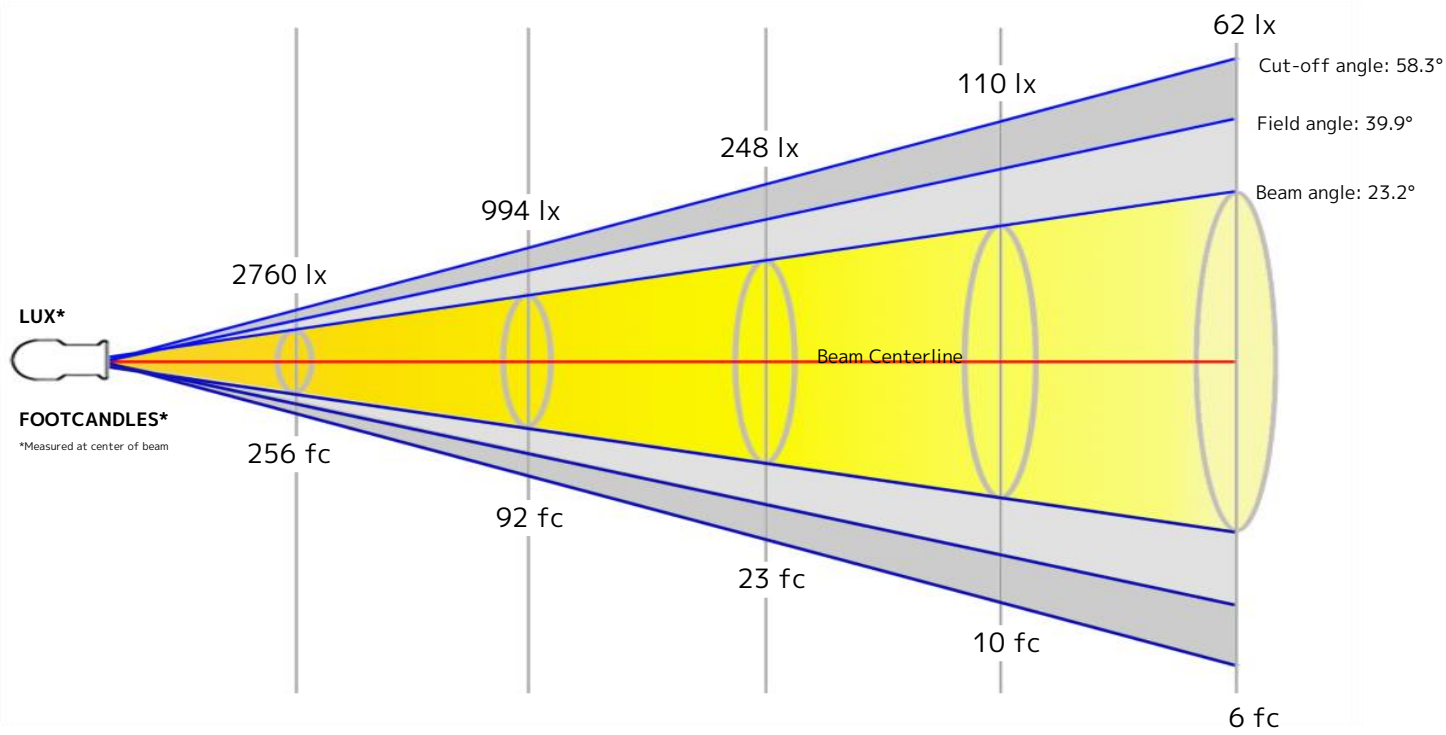
Power: 105.9 W

Supply Voltage: 120 V

Current: 0.887 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2.1 m	4.1 m	6.2 m	8.2 m



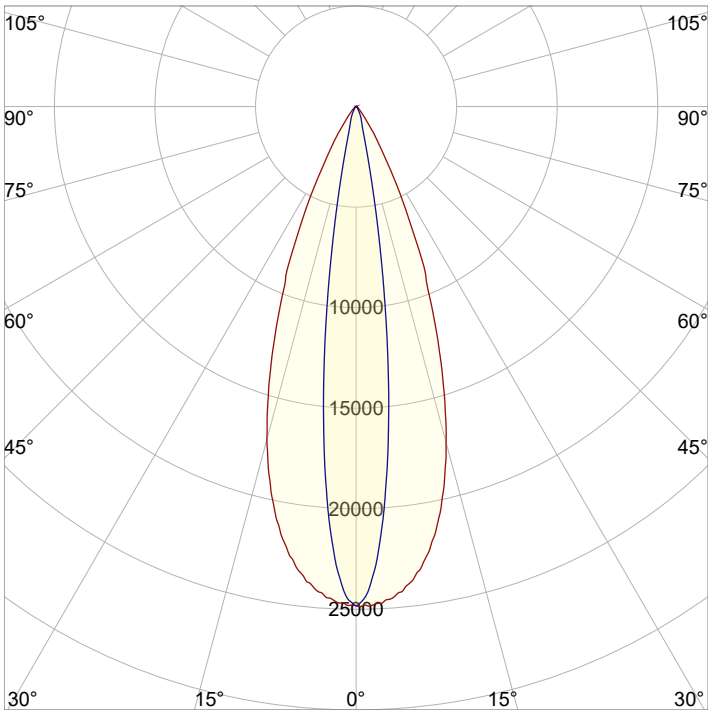
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4 ft	6.7 ft	13.5 ft	20.2 ft	26.9 ft

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	24842	6210	2760	1553	994	690	507	388	307	248	205	173	147	127	110	97	86	77	69	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	2307.9	577	256.4	144.2	92.3	64.1	47.1	36.1	28.5	23.1	19.1	16	13.7	11.8	10.3	9	8	7.1	6.4	5.8

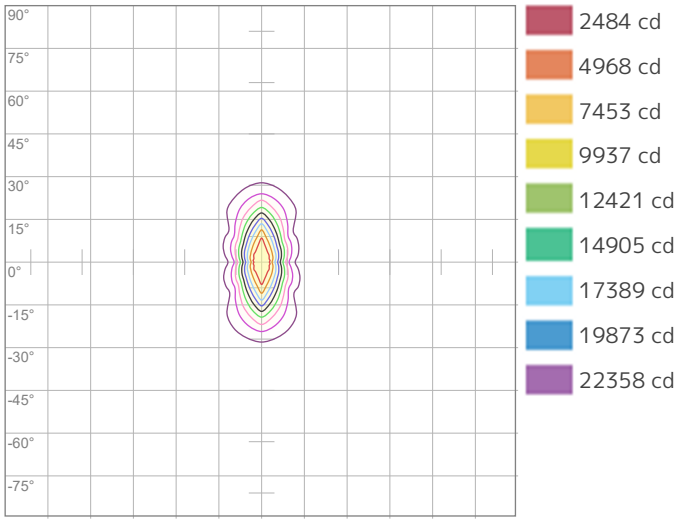
Measurement Date: 6/21/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
23.2°	14.5°
Field Angle - 10%	Field Angle - 10%
39.9°	26.3°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
58.3°	46.3°

ISO Diagrams

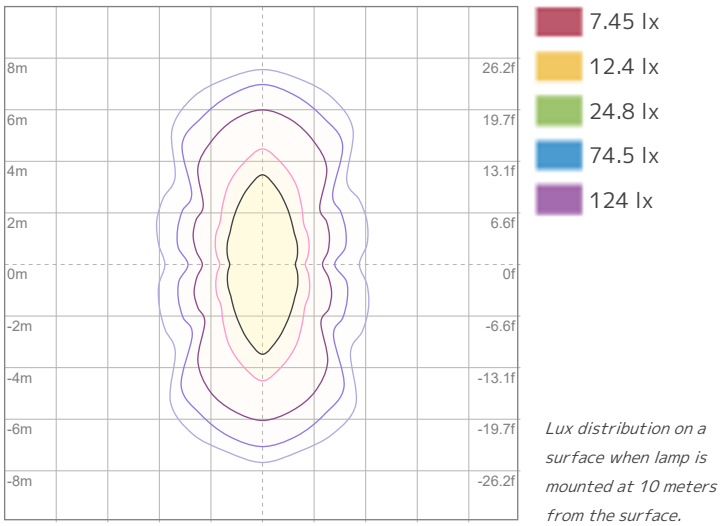


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 24842 cd



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

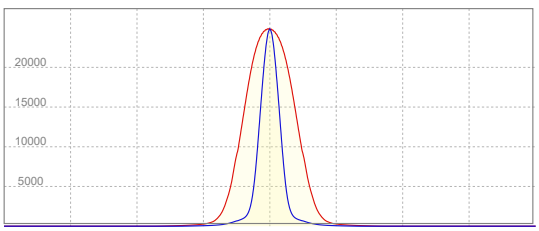
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 248 lx

Linear Distribution



Peak Candela

24908 cd

Calculate Center Beam Intensities

lux = 24908 / distance(m)^2

fc = 24908 / distance(ft)^2

Six+ Par L (1°x 40°, 8500K)

Key Measurements

Output

Total Lumen Output: 5283 lm

Peak Intensity: 24544 cd

Beam

Beam Angle (50%): 23.2°x 14.6°

Field Angle (10%): 40.1°x 26.5°

Cutoff Angle (2.5%): 58.7°x 46.9°

Color

Color Temperature: 8508 K

CRI: 89.3

TLCI: 88

TM30 R_F: 87.5

TM30 R_g: 105.1

Power Details

Efficacy: 50 Lumen/Watt

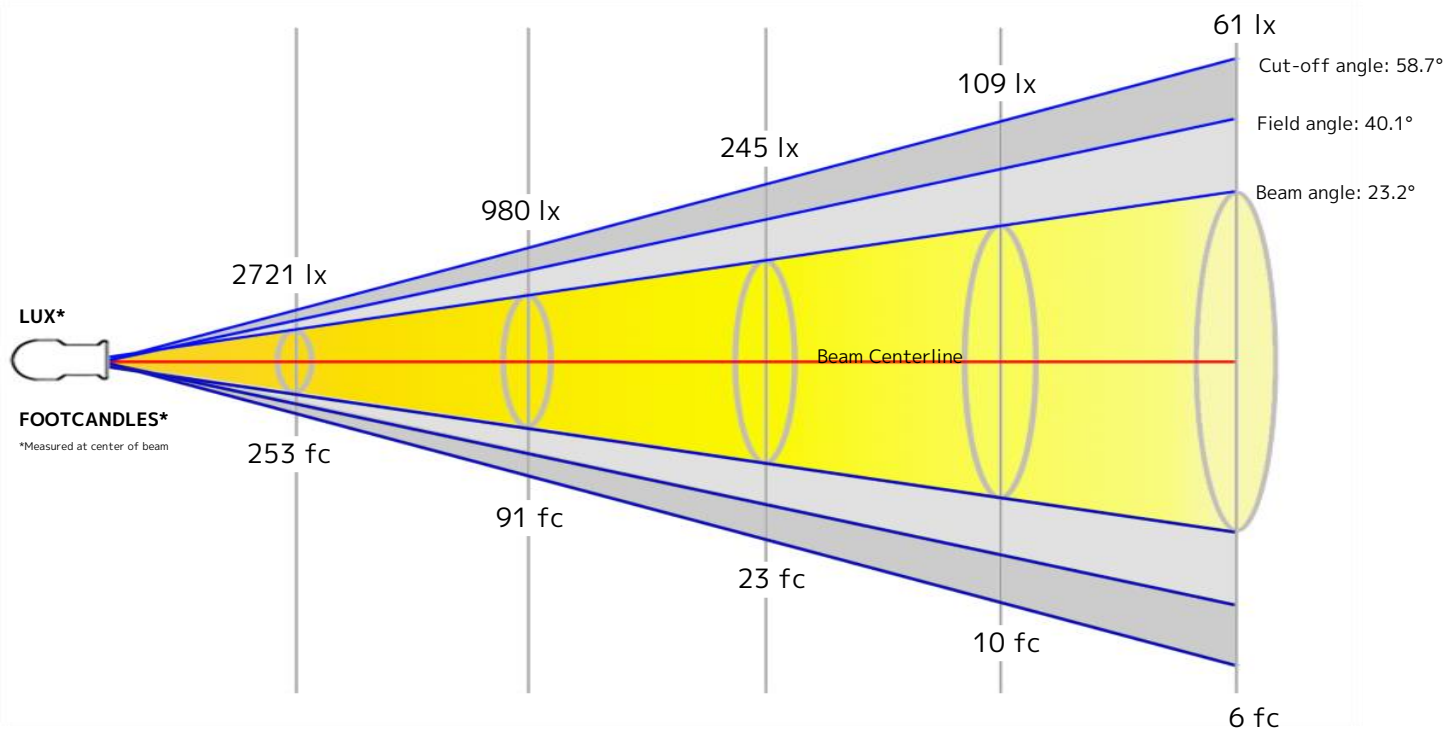
Power: 106.3 W

Supply Voltage: 120 V

Current: 0.890 A

Beam Details

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.2 m	2.1 m	4.1 m	6.2 m	8.2 m



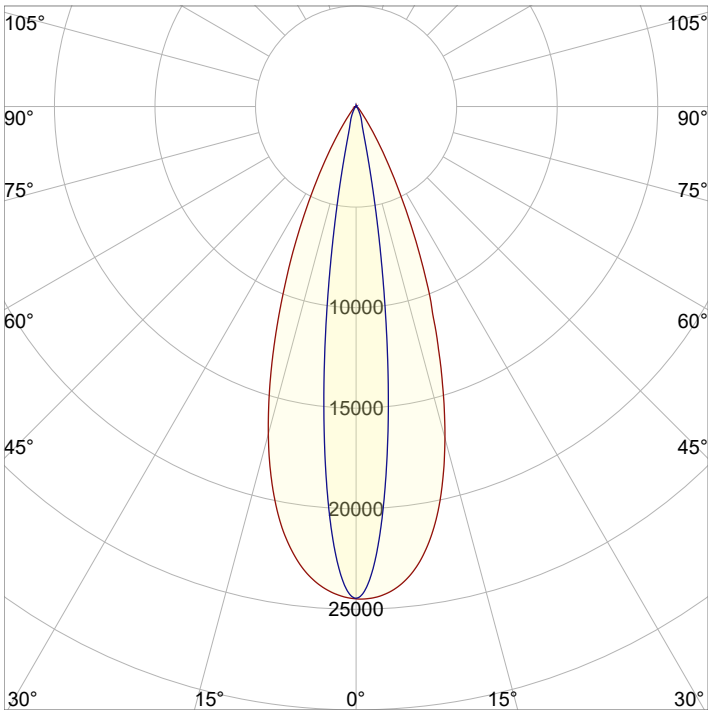
Distance	9.8 ft	16.4 ft	32.8 ft	49.2 ft	65.6 ft
Beam Width	4 ft	6.7 ft	13.5 ft	20.2 ft	27 ft

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	24492	6123	2721	1531	980	680	500	383	302	245	202	170	145	125	109	96	85	76	68	61
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	2275.3	568.8	252.8	142.2	91	63.2	46.4	35.6	28.1	22.8	18.8	15.8	13.5	11.6	10.1	8.9	7.9	7	6.3	5.7

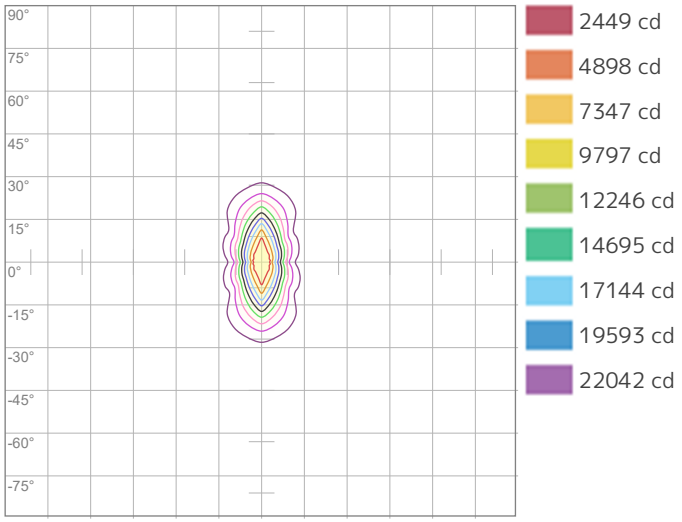
Measurement Date: 6/21/2024

Angular Distribution



Plane A	Plane B
Beam Angle - 50%	Beam Angle - 50%
23.2°	14.6°
Field Angle - 10%	Field Angle - 10%
40.1°	26.5°
Cutoff Angle - 2.5%	Cutoff Angle - 2.5%
58.7°	46.9°

ISO Diagrams

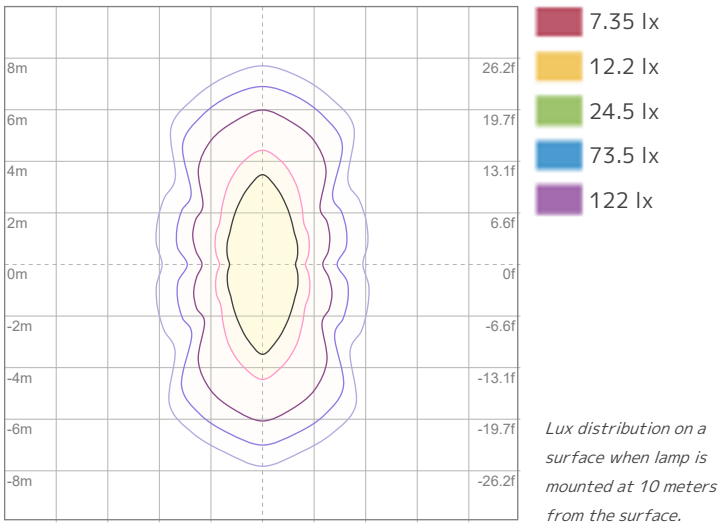


ISO Candela Diagram

Conditions:

Number of c-planes: 8

Candela at center: 24492 cd



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

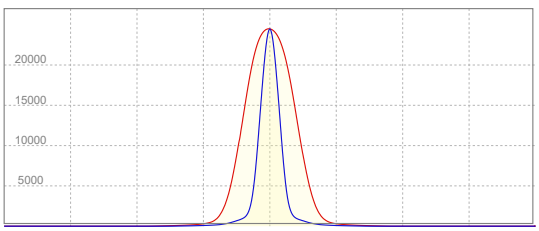
ISO LUX Diagram

Conditions:

Number of c-planes: 8

LUX at center: 245 lx

Linear Distribution



Peak Candela

24544 cd

Calculate Center Beam Intensities

lux = 24544 / distance(m)^2

fc = 24544 / distance(ft)^2

Measurement Date: 6/21/2024