



SIX+ PAR S

Photometric &
Chromaticity Test Reports



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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: 4329 lm
Peak Intensity: 66528 cd

Beam

Beam Angle (50%): 13.7°
Field Angle (10%): 24.1°
Cutoff Angle (2.5%): 30.4°

Color

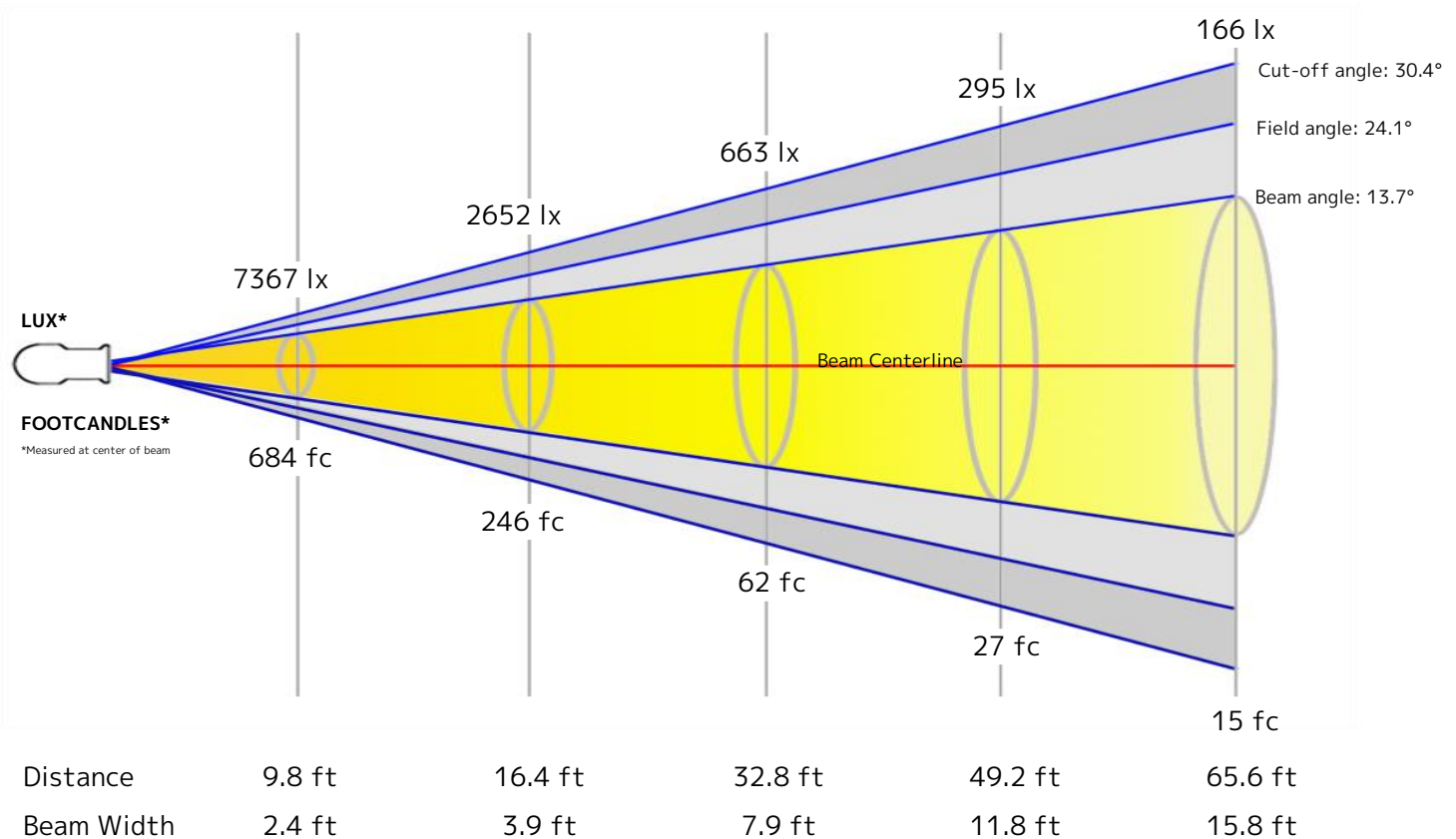
Color Temperature: 6388 K
CRI: 62.9
TLCI: 70
TM30 R_F: 76.5
TM30 R_G: 123.8

Power Details

Efficacy: 47 Lumen/Watt
Power: 92.1 W
Supply Voltage: 119 V
Current: 0.779 A

Beam Details

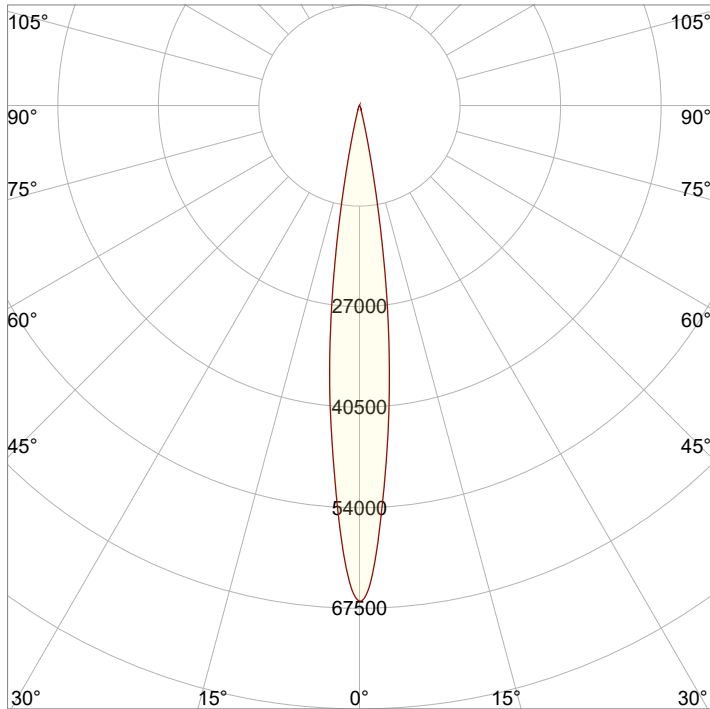
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.7 m	1.2 m	2.4 m	3.6 m	4.8 m



Beam Intensities from 1-20m

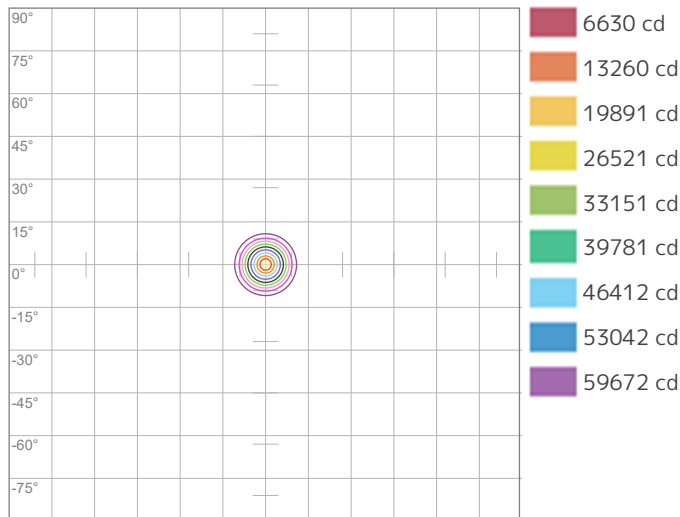
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	66302	16576	7367	4144	2652	1842	1353	1036	819	663	548	460	392	338	295	259	229	205	184	166
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	6159.7	1539.9	684.4	385	246.4	171.1	125.7	96.2	76	61.6	50.9	42.8	36.4	31.4	27.4	24.1	21.3	19	17.1	15.4

Angular Distribution



Beam Angle - 50%
13.7°
Field Angle - 10%
24.1°
Cutoff Angle - 2.5%
30.4°

ISO Diagrams

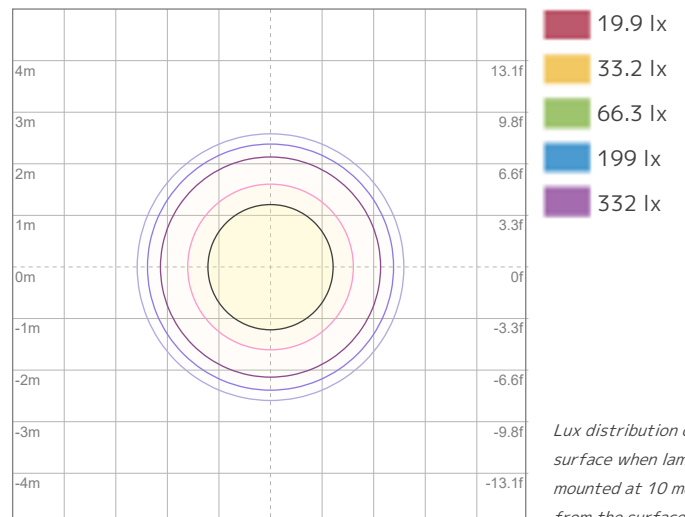


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 66302 cd



ISO LUX Diagram

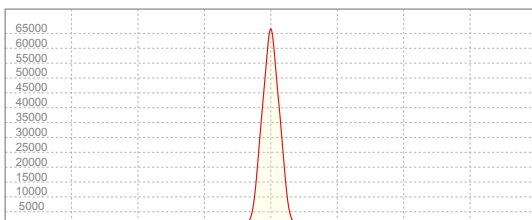
Conditions:

Number of c-planes: 2

LUX at center: 663 lx

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

Linear Distribution



Peak Candela
66528 cd

Calculate Center Beam Intensities

$$\text{lux} = 66528 / \text{distance(m)}^2$$

$$\text{fc} = 66528 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3554 lm
Peak Intensity: 54322 cd

Beam

Beam Angle (50%): 13.7°
Field Angle (10%): 24°
Cutoff Angle (2.5%): 30.4°

Color

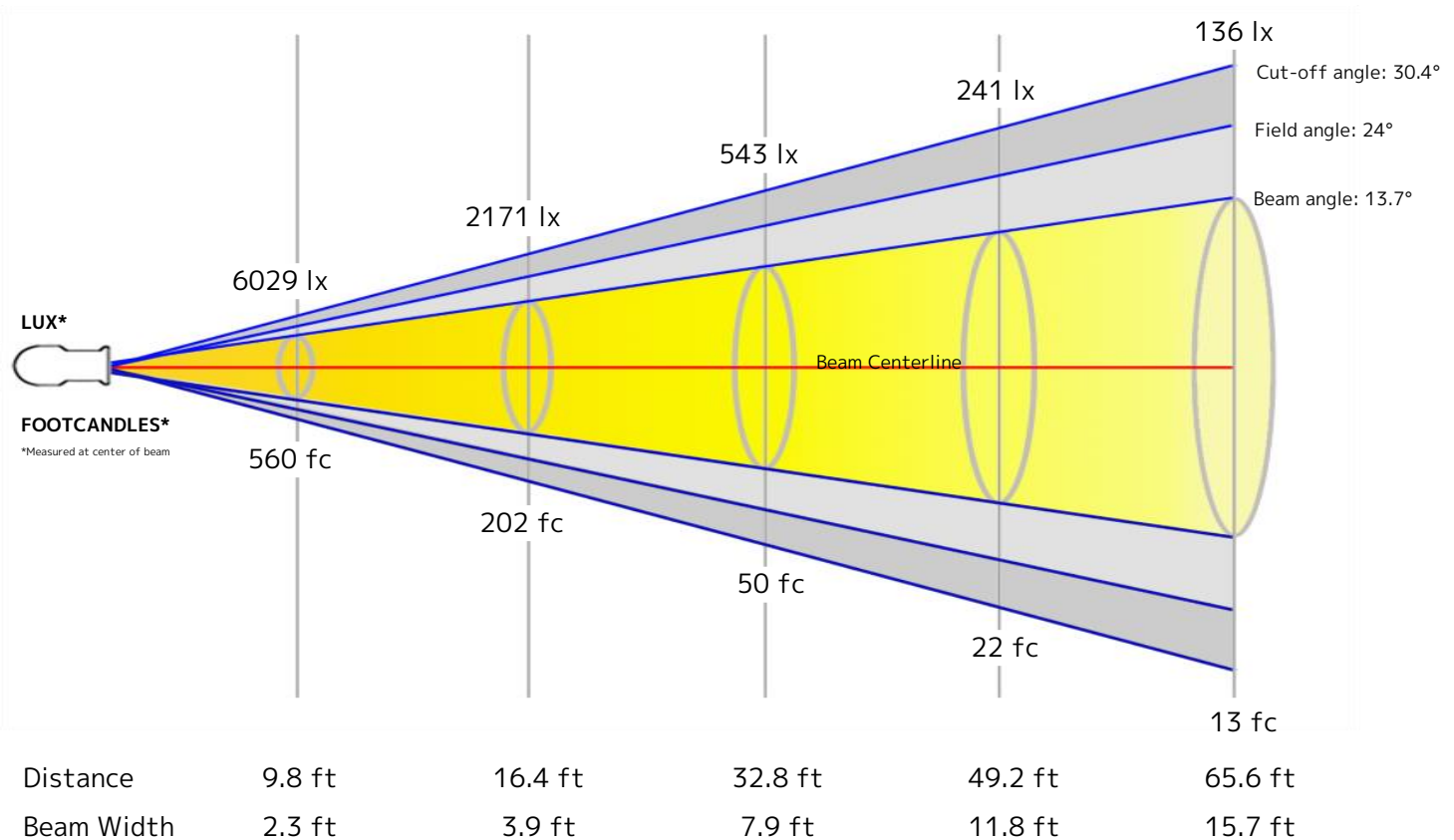
Color Temperature: 7326 K
CRI: 64.1
TLCI: 73
TM30 R_F: 75.9
TM30 R_G: 122.2

Power Details

Efficacy: 40 Lumen/Watt
Power: 87.9 W
Supply Voltage: 119 V
Current: 0.745 A

Beam Details

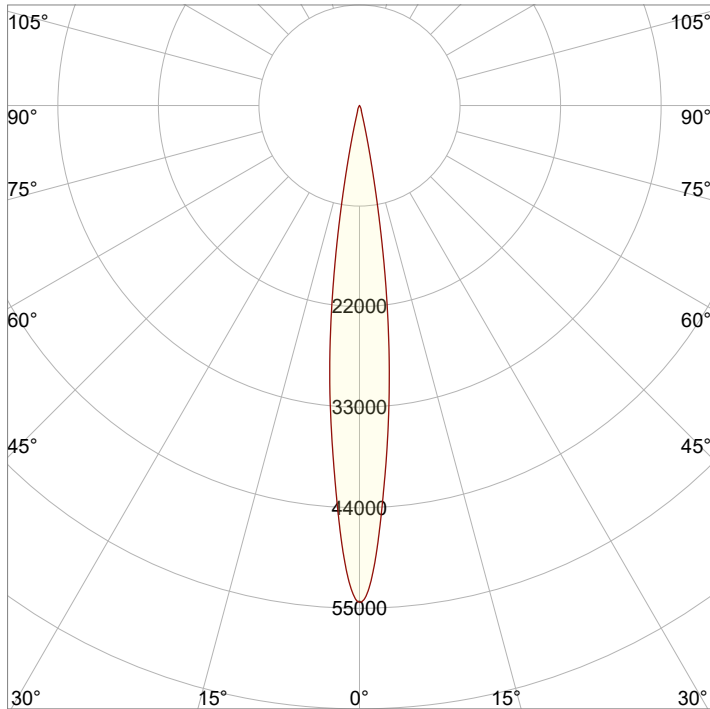
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.7 m	1.2 m	2.4 m	3.6 m	4.8 m



Beam Intensities from 1-20m

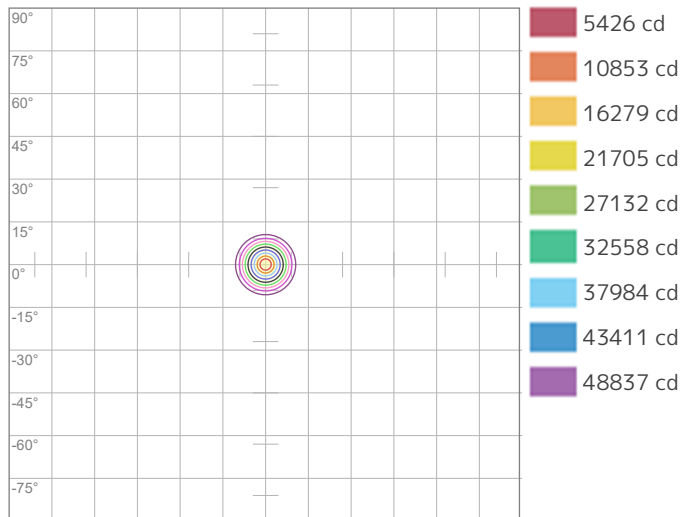
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	54263	13566	6029	3391	2171	1507	1107	848	670	543	448	377	321	277	241	212	188	167	150	136
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	5041.2	1260.3	560.1	315.1	201.6	140	102.9	78.8	62.2	50.4	41.7	35	29.8	25.7	22.4	19.7	17.4	15.6	14	12.6

Angular Distribution



Beam Angle - 50%
13.7°
Field Angle - 10%
24°
Cutoff Angle - 2.5%
30.4°

ISO Diagrams

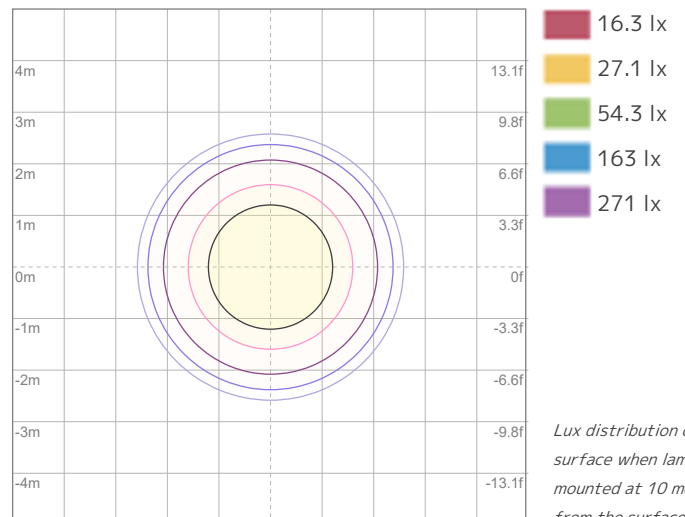


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 54263 cd



ISO LUX Diagram

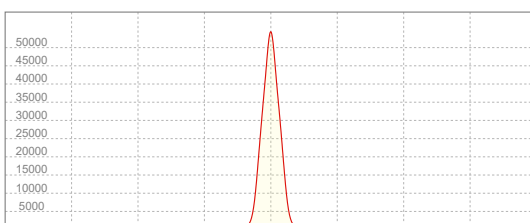
Conditions:

Number of c-planes: 2

LUX at center: 543 lx

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

Linear Distribution



Peak Candela

54322 cd

Calculate Center Beam Intensities

$$\text{lux} = 54322 / \text{distance(m)}^2$$

$$\text{fc} = 54322 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3574 lm
Peak Intensity: 56945 cd

Beam

Beam Angle (50%): 13.3°
Field Angle (10%): 23.6°
Cutoff Angle (2.5%): 29.9°

Color

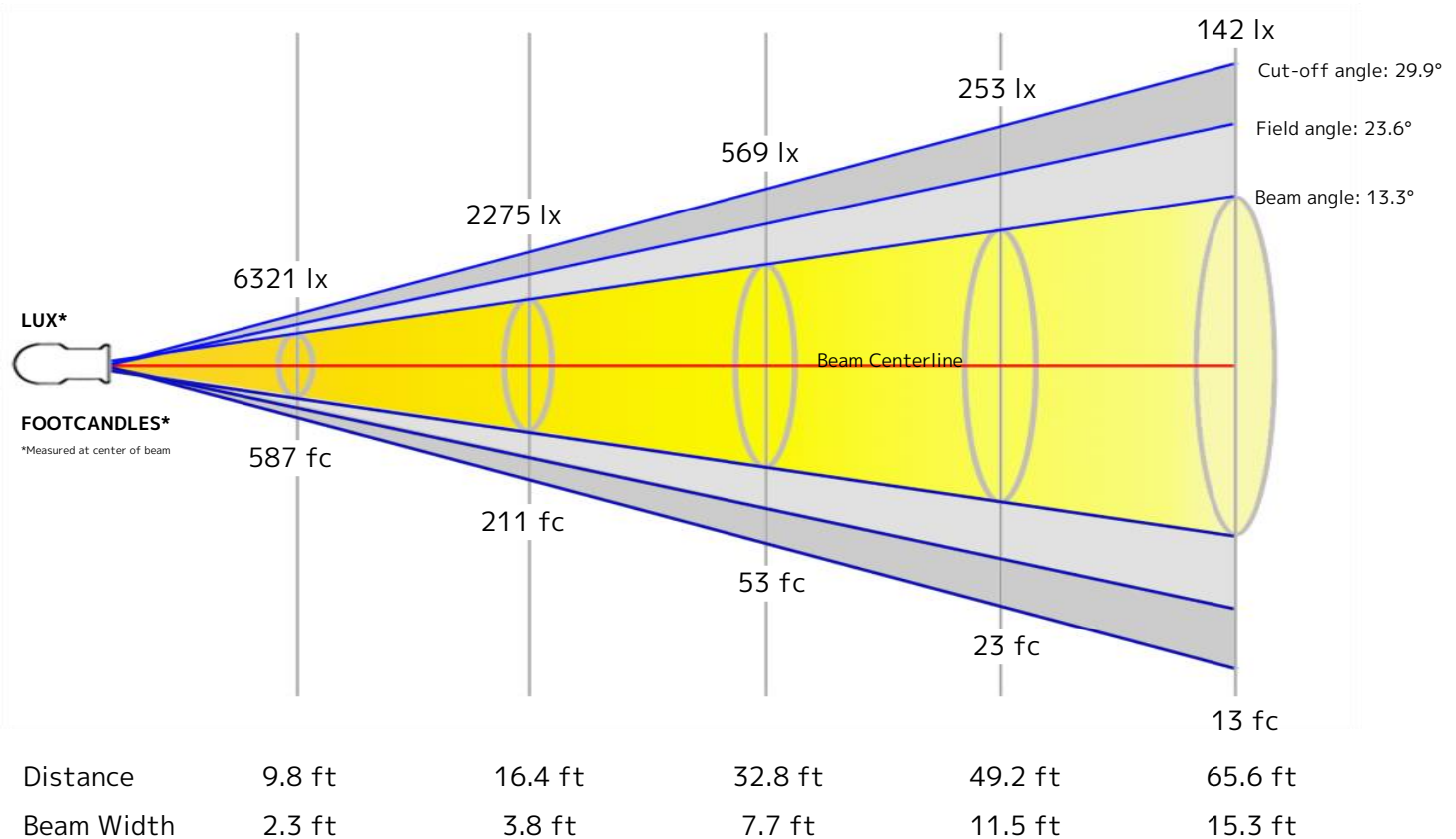
Color Temperature: 2669 K
CRI: 89.5
TLCI: 77
TM30 R_F: 90.5
TM30 R_G: 105.1

Power Details

Efficacy: 55 Lumen/Watt
Power: 64.6 W
Supply Voltage: 119 V
Current: 0.553 A

Beam Details

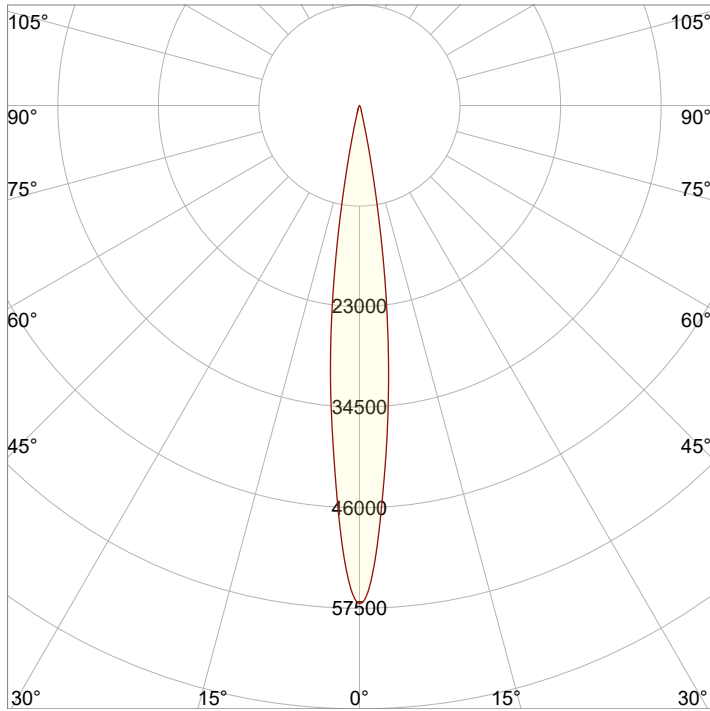
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.7 m	1.2 m	2.3 m	3.5 m	4.7 m



Beam Intensities from 1-20m

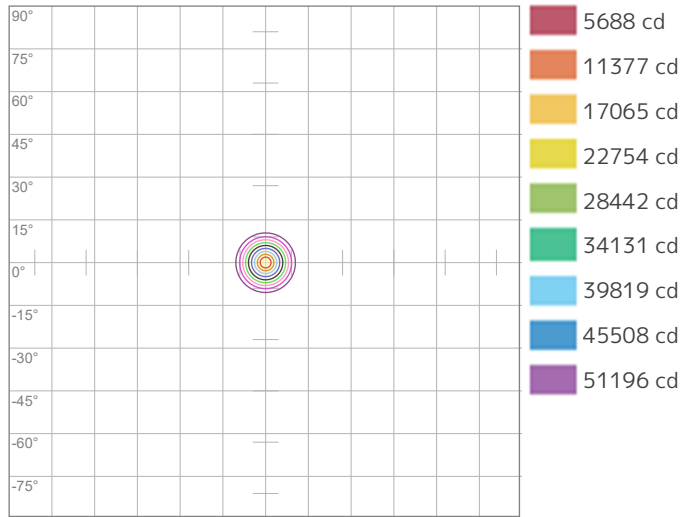
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	56885	14221	6321	3555	2275	1580	1161	889	702	569	470	395	337	290	253	222	197	176	158	142
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	5284.8	1321.2	587.2	330.3	211.4	146.8	107.9	82.6	65.2	52.8	43.7	36.7	31.3	27	23.5	20.6	18.3	16.3	14.6	13.2

Angular Distribution



Beam Angle - 50%
13.3°
Field Angle - 10%
23.6°
Cutoff Angle - 2.5%
29.9°

ISO Diagrams

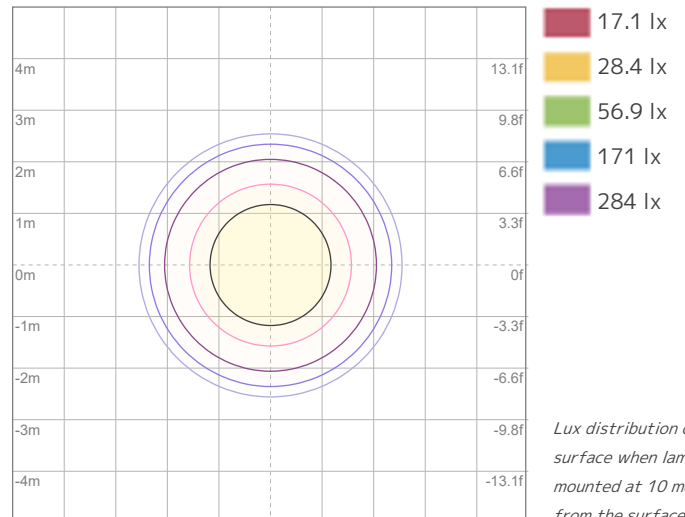


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 56885 cd



ISO LUX Diagram

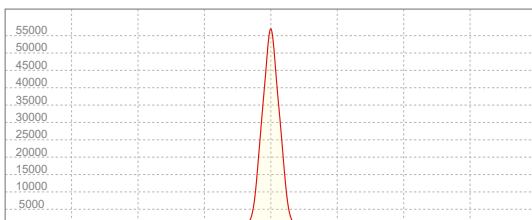
Conditions:

Number of c-planes: 2

LUX at center: 569 lx

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

Linear Distribution



Peak Candela
56945 cd

Calculate Center Beam Intensities

$$\text{lux} = 56945 / \text{distance(m)}^2$$

$$\text{fc} = 56945 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3660 lm
Peak Intensity: 57663 cd

Beam

Beam Angle (50%): 13.4°
Field Angle (10%): 23.7°
Cutoff Angle (2.5%): 30.2°

Color

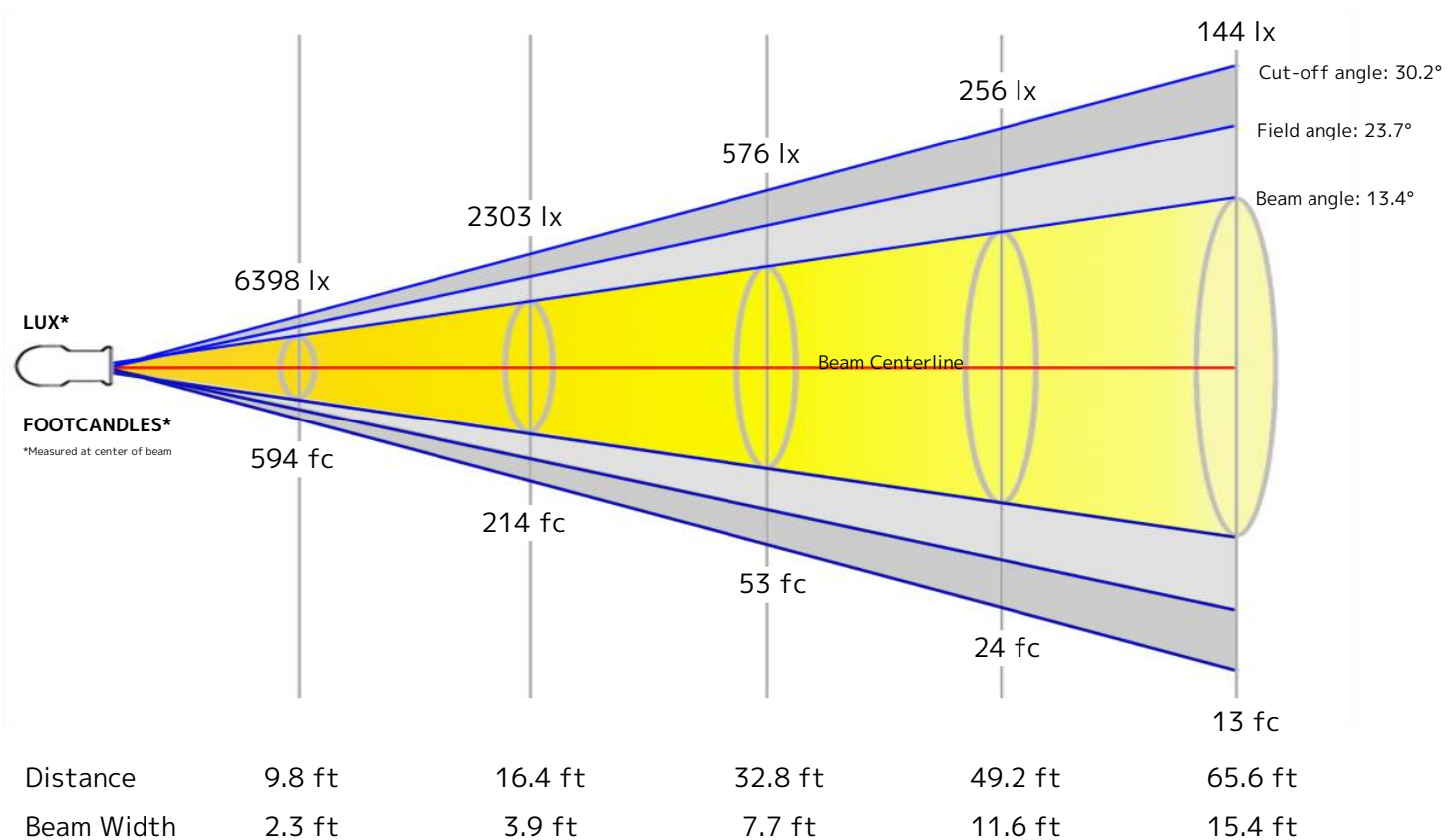
Color Temperature: 3244 K
CRI: 89.1
TLCI: 78
TM30 R_F: 91.0
TM30 R_g: 107.0

Power Details

Efficacy: 54 Lumen/Watt
Power: 67.5 W
Supply Voltage: 119 V
Current: 0.577 A

Beam Details

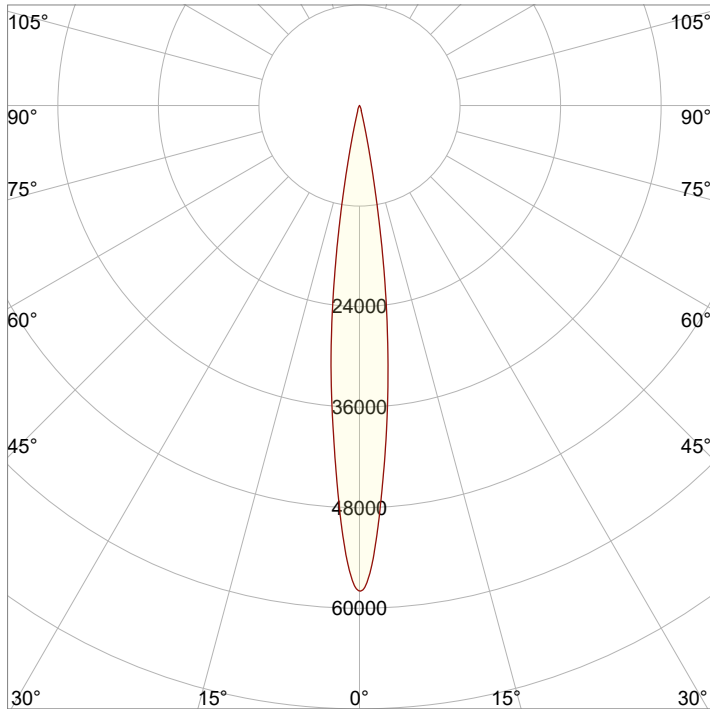
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.7 m	1.2 m	2.4 m	3.5 m	4.7 m



Beam Intensities from 1-20m

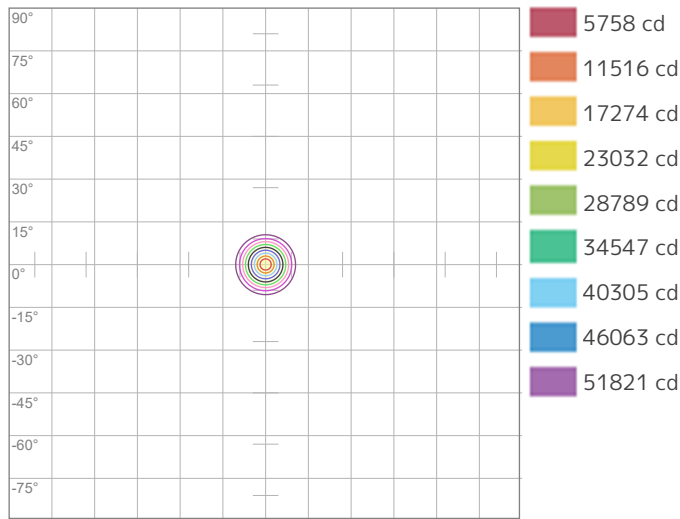
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	57579	14395	6398	3599	2303	1599	1175	900	711	576	476	400	341	294	256	225	199	178	159	144
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	5349.3	1337.3	594.4	334.3	214	148.6	109.2	83.6	66	53.5	44.2	37.1	31.7	27.3	23.8	20.9	18.5	16.5	14.8	13.4

Angular Distribution

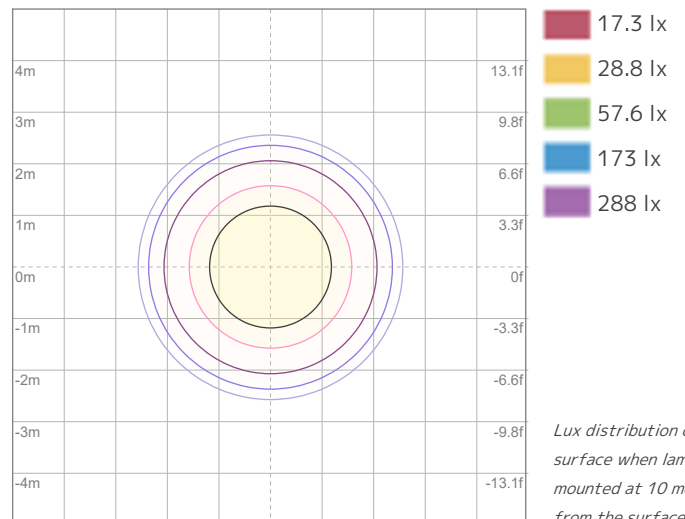


Beam Angle - 50%
13.4°
Field Angle - 10%
23.7°
Cutoff Angle - 2.5%
30.2°

ISO Diagrams



ISO Candela Diagram



ISO LUX Diagram

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

Conditions:

Number of c-planes: 2

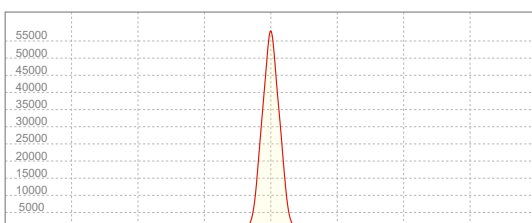
Candela at center: 57579 cd

Conditions:

Number of c-planes: 2

LUX at center: 576 lx

Linear Distribution



Peak Candela
57663 cd

Calculate Center Beam Intensities

$$\text{lux} = 57663 / \text{distance(m)}^2$$

$$\text{fc} = 57663 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3837 lm
Peak Intensity: 59215 cd

Beam

Beam Angle (50%): 13.5°
Field Angle (10%): 23.8°
Cutoff Angle (2.5%): 30.4°

Color

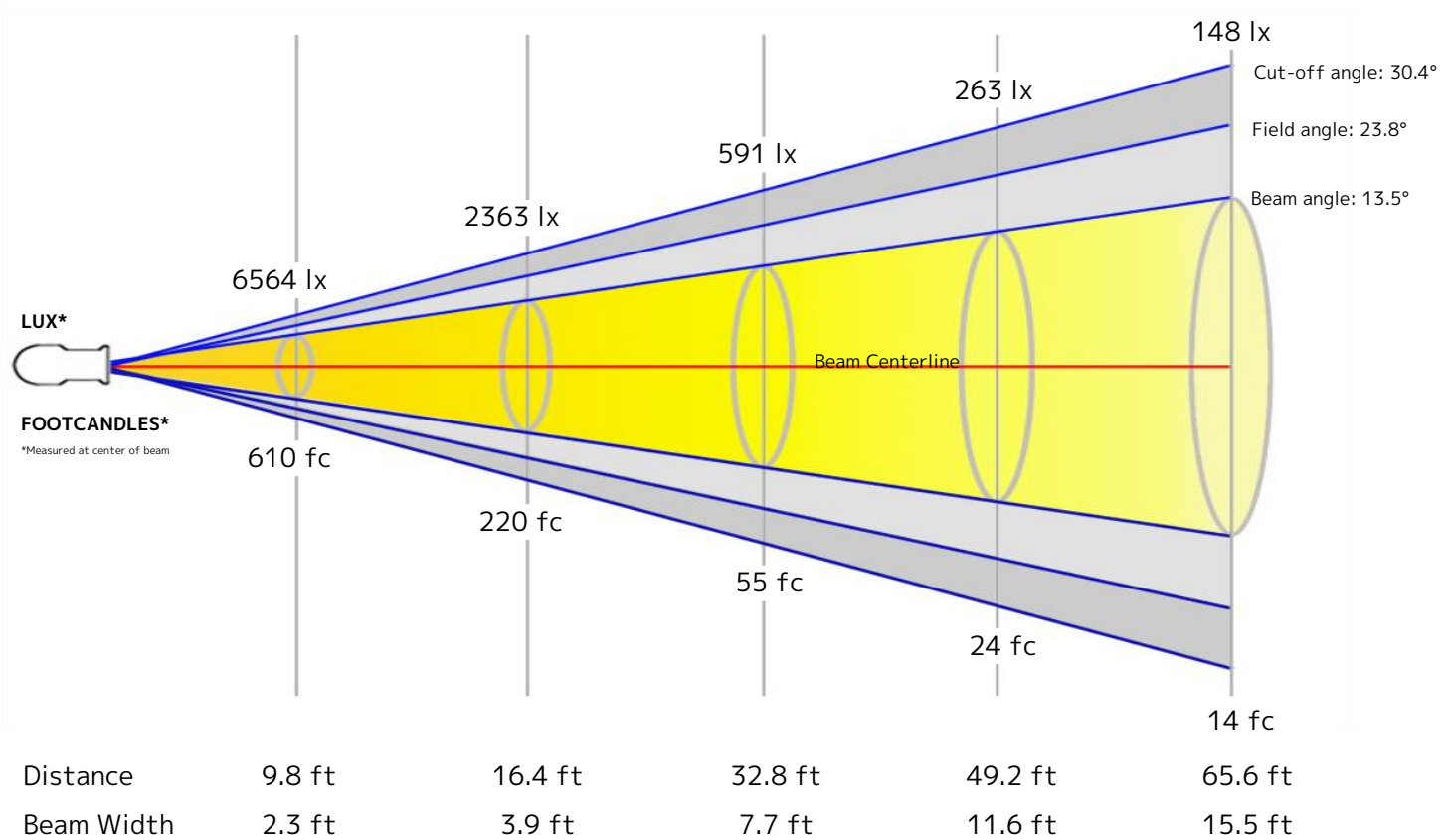
Color Temperature: 4516 K
CRI: 90.4
TLCI: 81
TM30 R_F: 90.7
TM30 R_g: 107.4

Power Details

Efficacy: 54 Lumen/Watt
Power: 71.3 W
Supply Voltage: 120 V
Current: 0.603 A

Beam Details

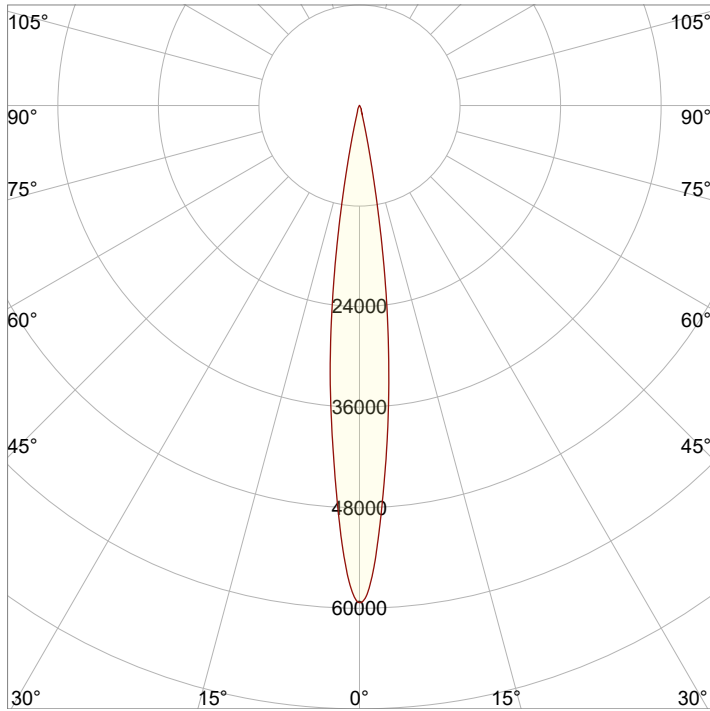
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.7 m	1.2 m	2.4 m	3.5 m	4.7 m



Beam Intensities from 1-20m

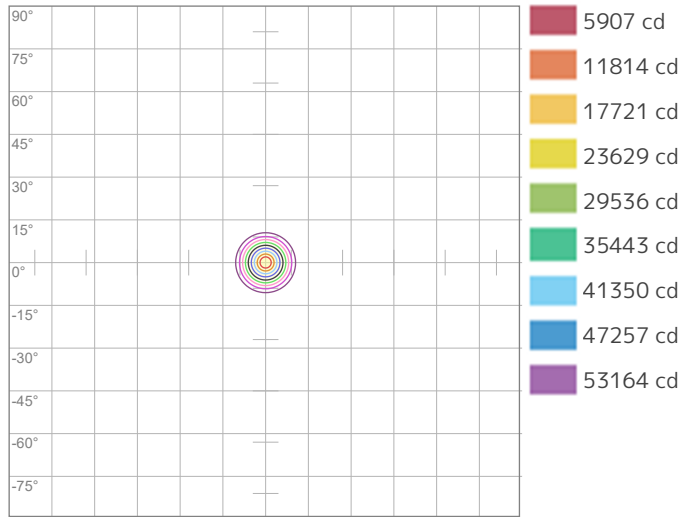
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	59072	14768	6564	3692	2363	1641	1206	923	729	591	488	410	350	301	263	231	204	182	164	148
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	5487.9	1372	609.8	343	219.5	152.4	112	85.7	67.8	54.9	45.4	38.1	32.5	28	24.4	21.4	19	16.9	15.2	13.7

Angular Distribution

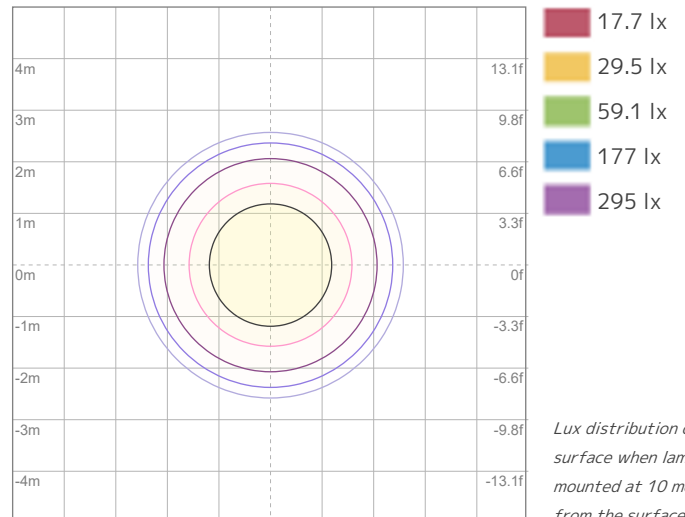


Beam Angle - 50%
13.5°
Field Angle - 10%
23.8°
Cutoff Angle - 2.5%
30.4°

ISO Diagrams



ISO Candela Diagram



ISO LUX Diagram

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

Conditions:

Number of c-planes: 2

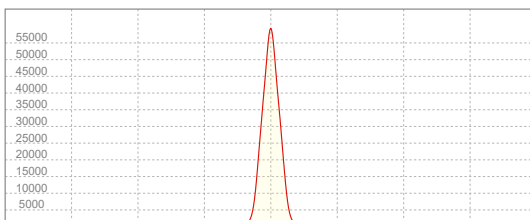
Candela at center: 59072 cd

Conditions:

Number of c-planes: 2

LUX at center: 591 lx

Linear Distribution



Peak Candela
59215 cd

Calculate Center Beam Intensities

$$\text{lux} = 59215 / \text{distance(m)}^2$$

$$\text{fc} = 59215 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3986 lm
Peak Intensity: 60908 cd

Beam

Beam Angle (50%): 13.5°
Field Angle (10%): 23.8°
Cutoff Angle (2.5%): 30.5°

Color

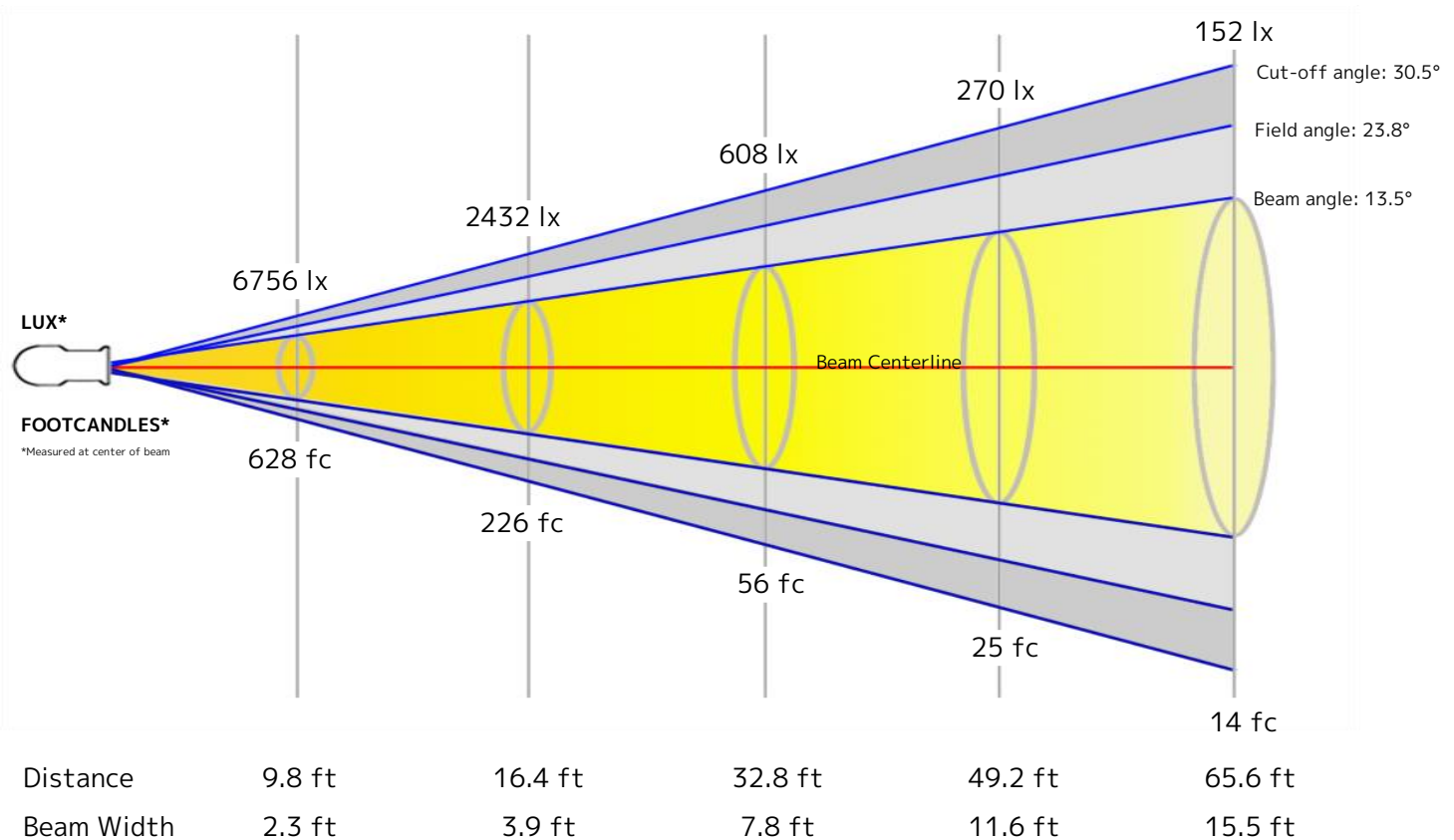
Color Temperature: 5563 K
CRI: 89.3
TLCI: 84
TM30 R_F: 89.5
TM30 R_G: 107.3

Power Details

Efficacy: 52 Lumen/Watt
Power: 76.1 W
Supply Voltage: 119 V
Current: 0.646 A

Beam Details

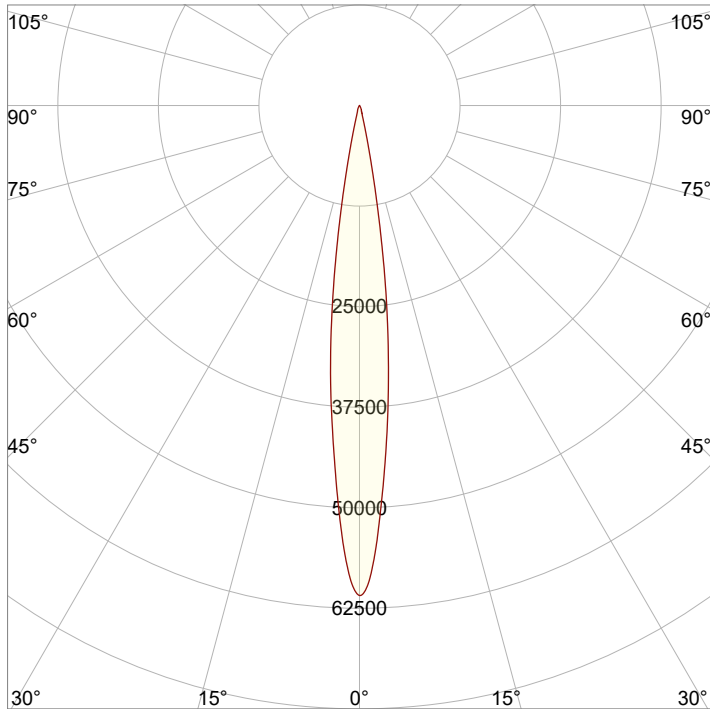
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.7 m	1.2 m	2.4 m	3.5 m	4.7 m



Beam Intensities from 1-20m

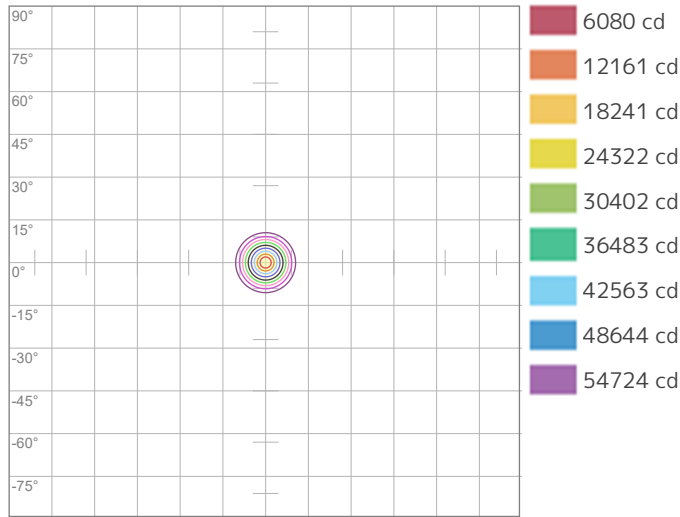
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	60804	15201	6756	3800	2432	1689	1241	950	751	608	503	422	360	310	270	238	210	188	168	152
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	5648.9	1412.2	627.7	353.1	226	156.9	115.3	88.3	69.7	56.5	46.7	39.2	33.4	28.8	25.1	22.1	19.5	17.4	15.6	14.1

Angular Distribution



Beam Angle - 50%
13.5°
Field Angle - 10%
23.8°
Cutoff Angle - 2.5%
30.5°

ISO Diagrams

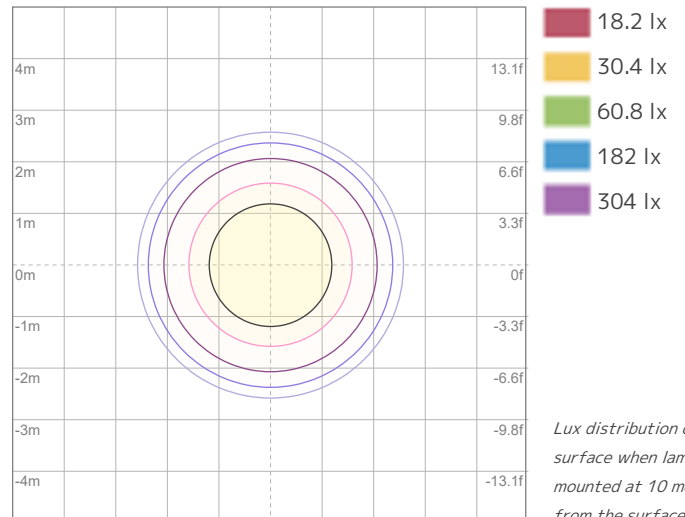


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 60804 cd



ISO LUX Diagram

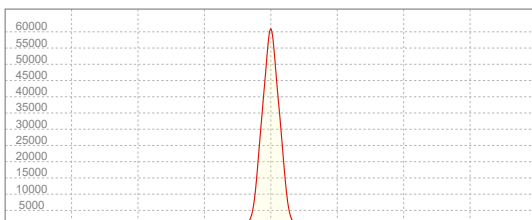
Conditions:

Number of c-planes: 2

LUX at center: 608 lx

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

Linear Distribution



Peak Candela
60908 cd

Calculate Center Beam Intensities

$$\text{lux} = 60908 / \text{distance(m)}^2$$

$$\text{fc} = 60908 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3857 lm
Peak Intensity: 58738 cd

Beam

Beam Angle (50%): 13.5°
Field Angle (10%): 23.8°
Cutoff Angle (2.5%): 30.7°

Color

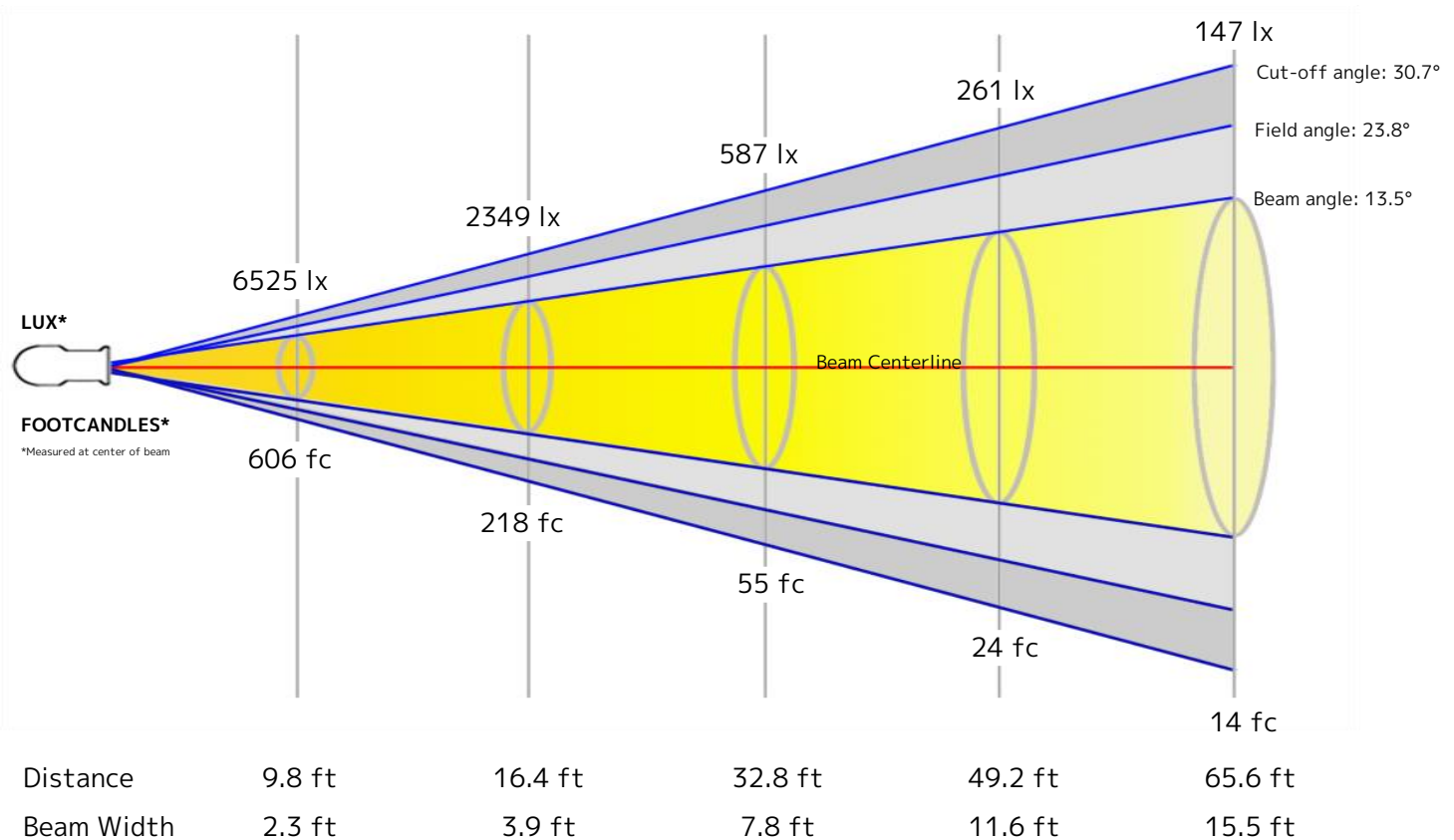
Color Temperature: 6015 K
CRI: 88.9
TLCI: 85
TM30 R_F: 89.2
TM30 R_G: 107.4

Power Details

Efficacy: 51 Lumen/Watt
Power: 75.1 W
Supply Voltage: 119 V
Current: 0.641 A

Beam Details

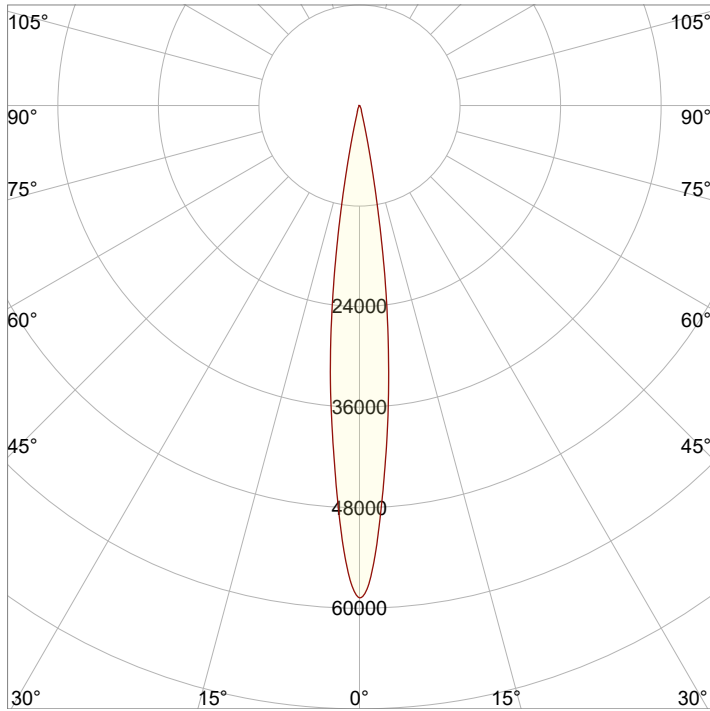
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.7 m	1.2 m	2.4 m	3.5 m	4.7 m



Beam Intensities from 1-20m

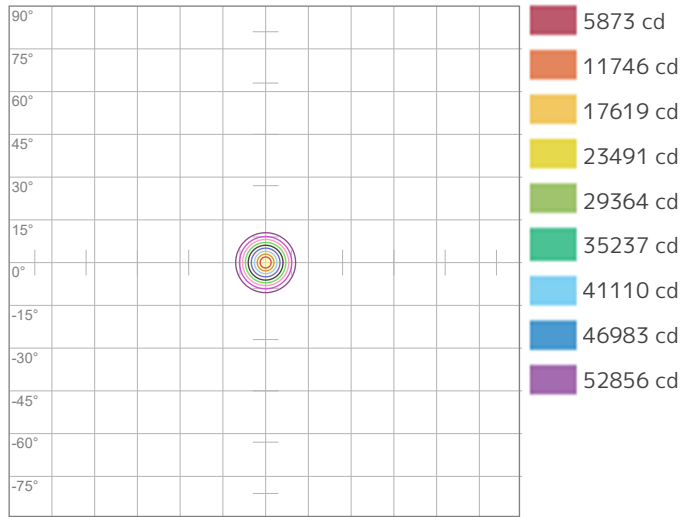
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	58728	14682	6525	3671	2349	1631	1199	918	725	587	485	408	348	300	261	229	203	181	163	147
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	5456.1	1364	606.2	341	218.2	151.6	111.3	85.3	67.4	54.6	45.1	37.9	32.3	27.8	24.2	21.3	18.9	16.8	15.1	13.6

Angular Distribution

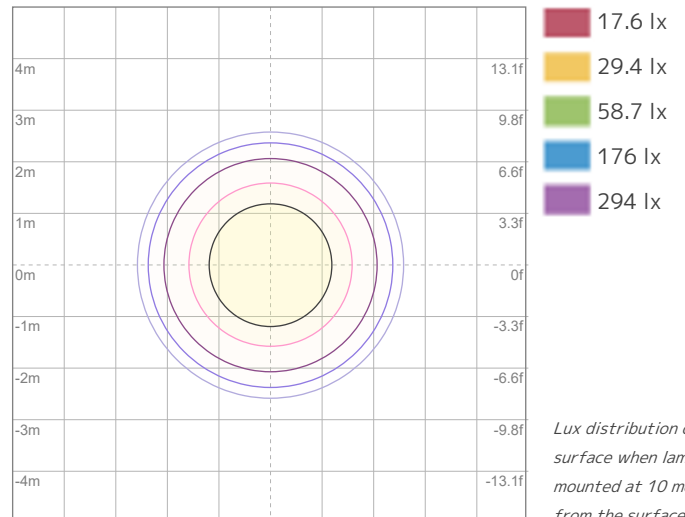


Beam Angle - 50%
13.5°
Field Angle - 10%
23.8°
Cutoff Angle - 2.5%
30.7°

ISO Diagrams



ISO Candela Diagram



ISO LUX Diagram

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

Conditions:

Number of c-planes: 2

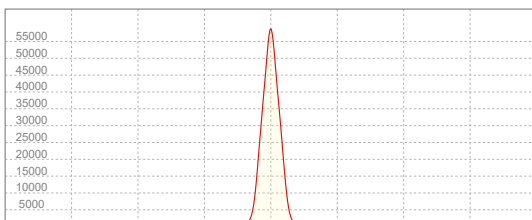
Candela at center: 58728 cd

Conditions:

Number of c-planes: 2

LUX at center: 587 lx

Linear Distribution



Peak Candela
58738 cd

Calculate Center Beam Intensities

$$\text{lux} = 58738 / \text{distance(m)}^2$$

$$\text{fc} = 58738 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3740 lm
Peak Intensity: 57014 cd

Beam

Beam Angle (50%): 13.5°
Field Angle (10%): 23.9°
Cutoff Angle (2.5%): 31°

Color

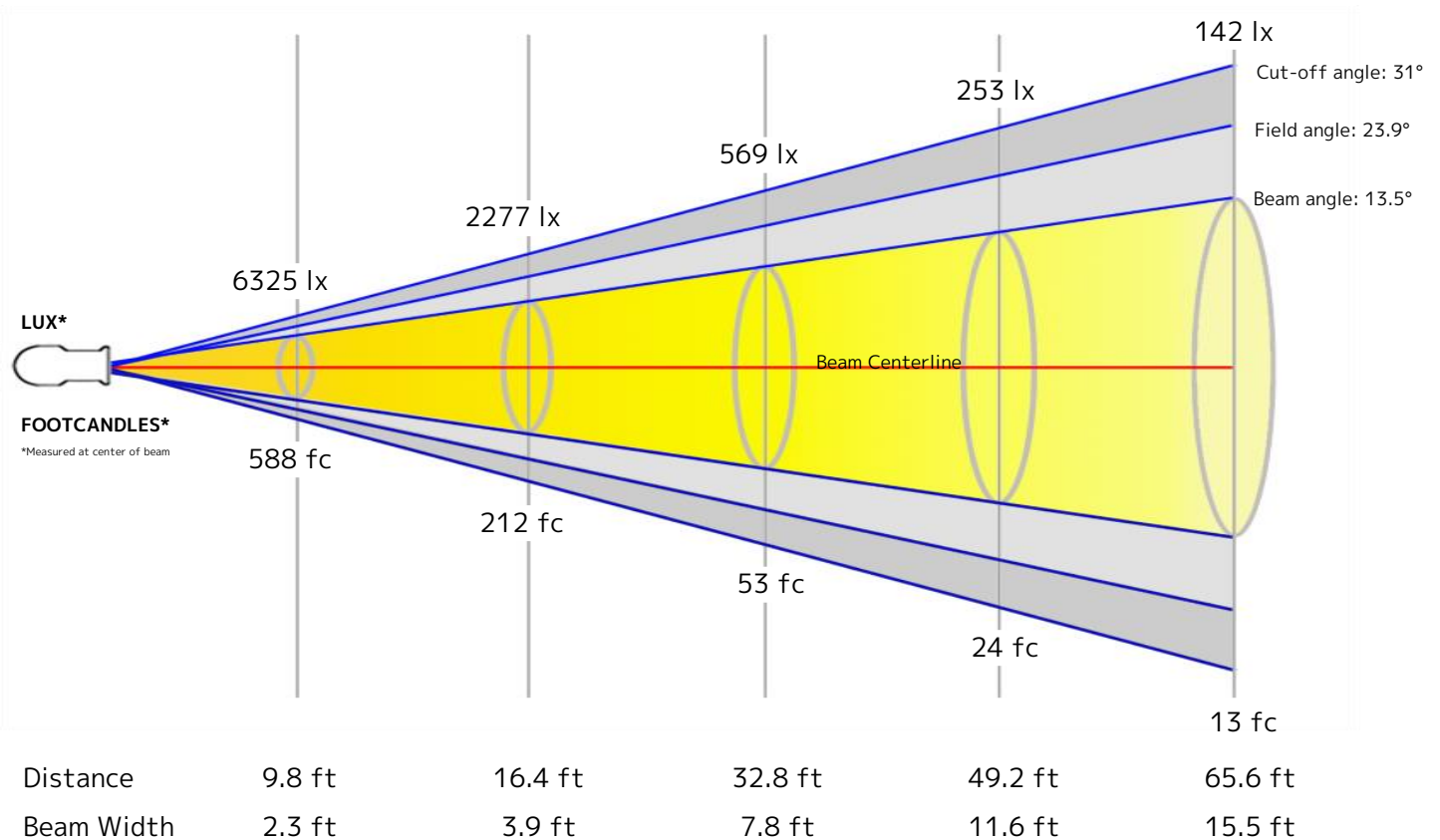
Color Temperature: 6452 K
CRI: 89.1
TLCI: 86
TM30 R_F: 88.9
TM30 R_g: 106.7

Power Details

Efficacy: 51 Lumen/Watt
Power: 73.7 W
Supply Voltage: 120 V
Current: 0.622 A

Beam Details

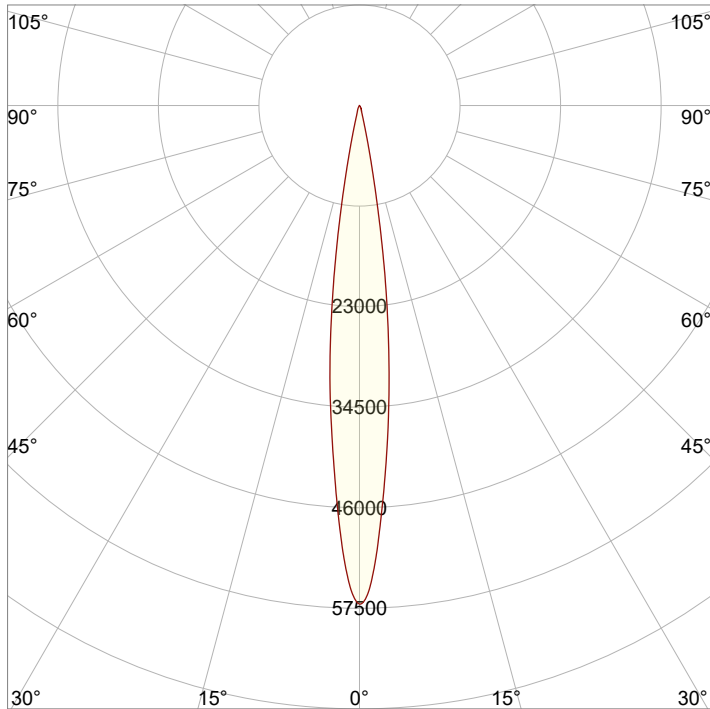
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.7 m	1.2 m	2.4 m	3.6 m	4.7 m



Beam Intensities from 1-20m

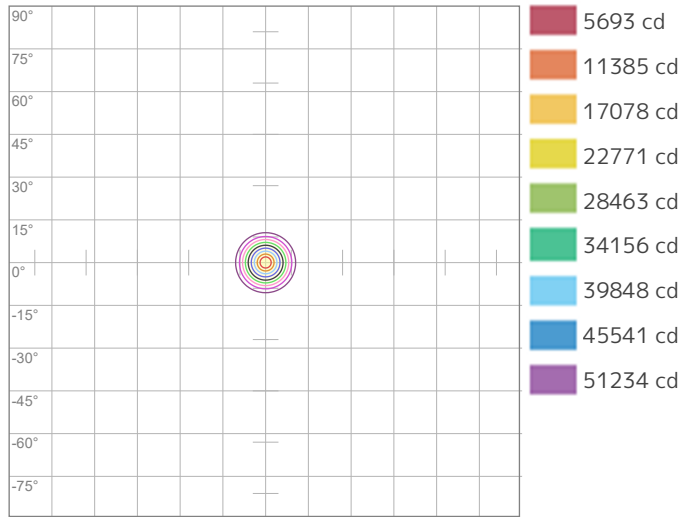
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	56926	14232	6325	3558	2277	1581	1162	889	703	569	470	395	337	290	253	222	197	176	158	142
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	5288.6	1322.2	587.6	330.5	211.5	146.9	107.9	82.6	65.3	52.9	43.7	36.7	31.3	27	23.5	20.7	18.3	16.3	14.6	13.2

Angular Distribution



Beam Angle - 50%
13.5°
Field Angle - 10%
23.9°
Cutoff Angle - 2.5%
31°

ISO Diagrams

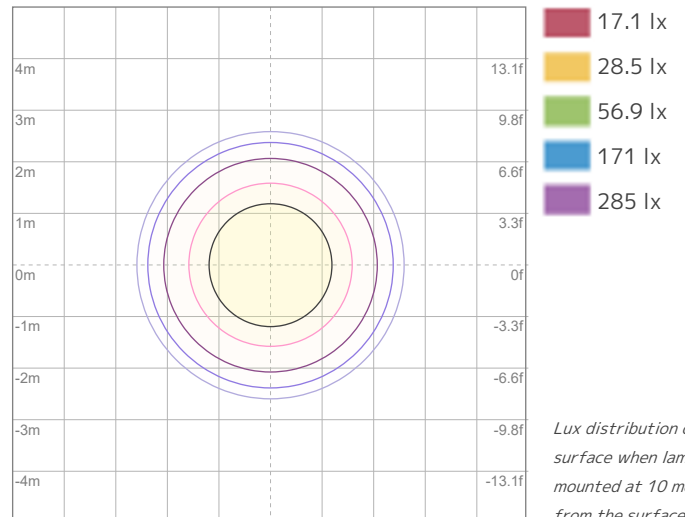


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 56926 cd



ISO LUX Diagram

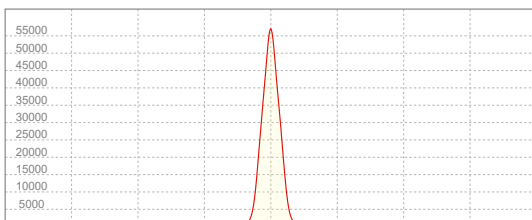
Conditions:

Number of c-planes: 2

LUX at center: 569 lx

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

Linear Distribution



Peak Candela
57014 cd

Calculate Center Beam Intensities

$$\text{lux} = 57014 / \text{distance(m)}^2$$

$$\text{fc} = 57014 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3629 lm
Peak Intensity: 53695 cd

Beam

Beam Angle (50%): 13.6°
Field Angle (10%): 24.1°
Cutoff Angle (2.5%): 31.6°

Color

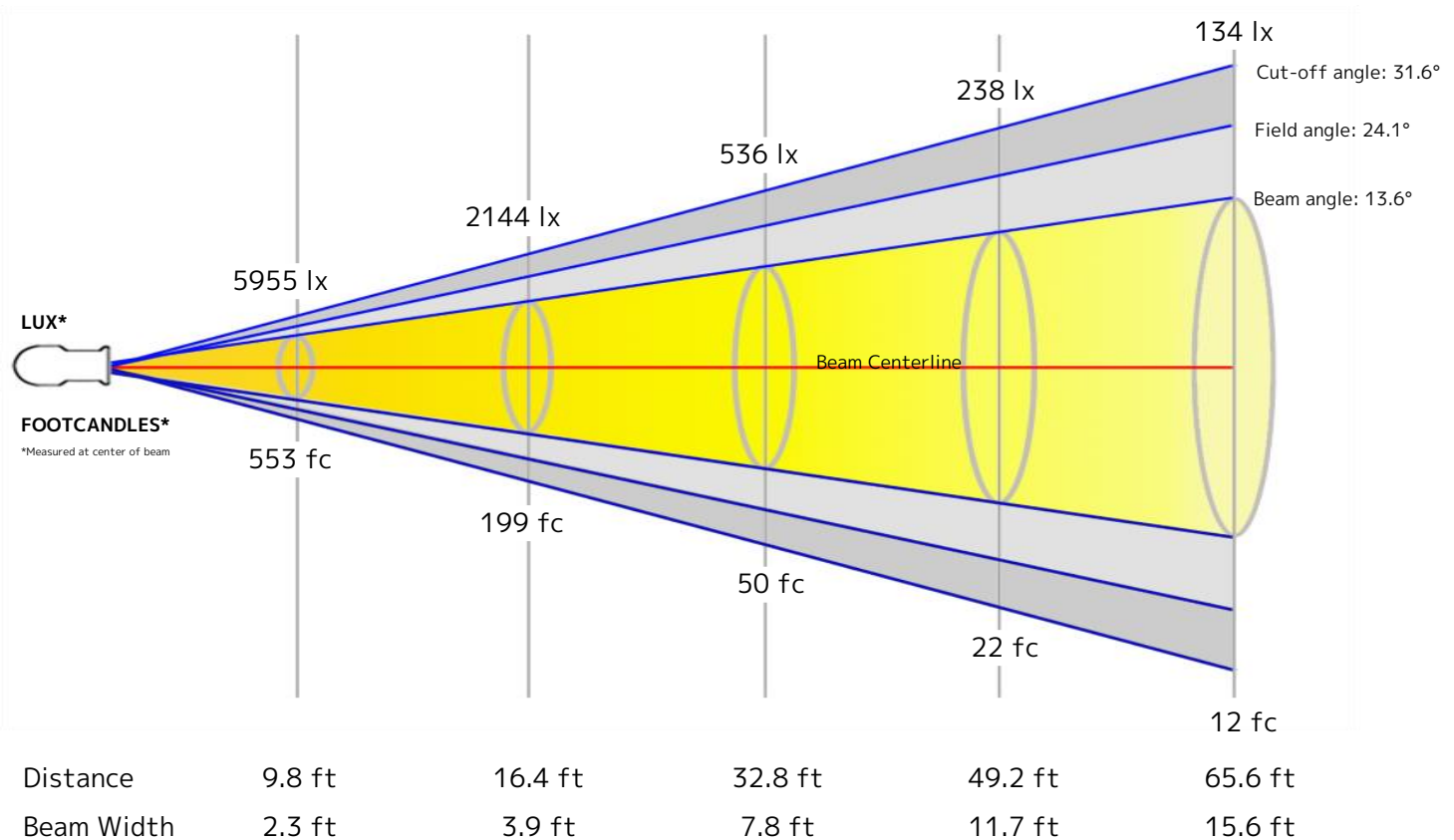
Color Temperature: 8508 K
CRI: 88.4
TLCI: 88
TM30 R_F: 87.6
TM30 R_g: 105.0

Power Details

Efficacy: 51 Lumen/Watt
Power: 71.7 W
Supply Voltage: 120 V
Current: 0.607 A

Beam Details

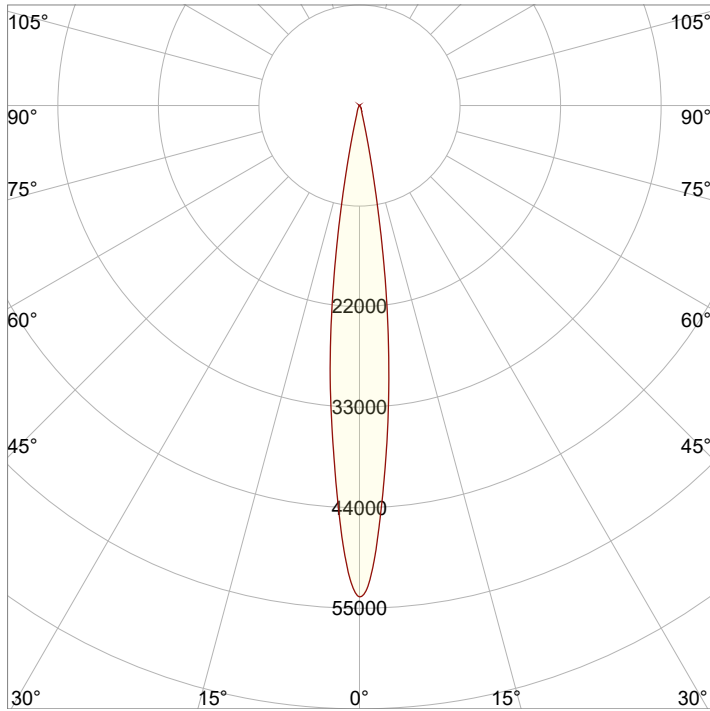
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.7 m	1.2 m	2.4 m	3.6 m	4.8 m



Beam Intensities from 1-20m

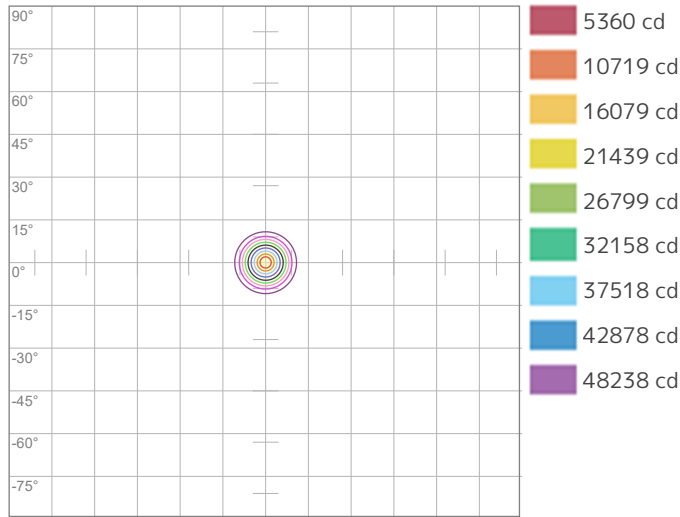
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	53597	13399	5955	3350	2144	1489	1094	837	662	536	443	372	317	273	238	209	185	165	148	134
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	4979.4	1244.8	553.3	311.2	199.2	138.3	101.6	77.8	61.5	49.8	41.2	34.6	29.5	25.4	22.1	19.5	17.2	15.4	13.8	12.4

Angular Distribution



Beam Angle - 50%
13.6°
Field Angle - 10%
24.1°
Cutoff Angle - 2.5%
31.6°

ISO Diagrams

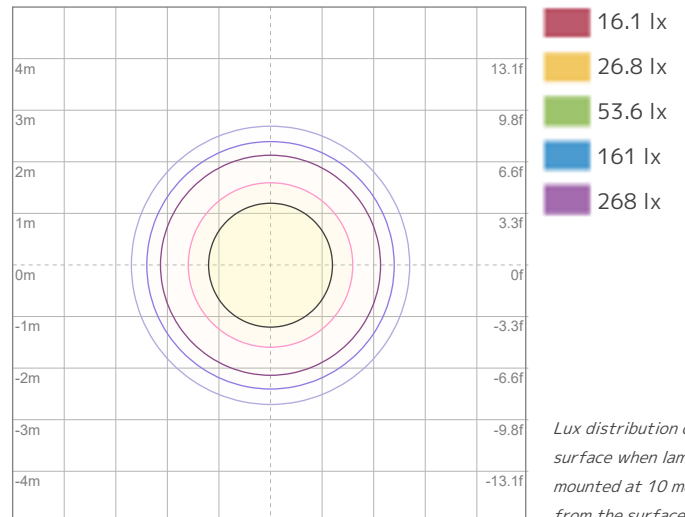


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 53597 cd



ISO LUX Diagram

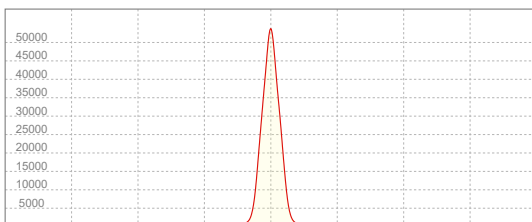
Conditions:

Number of c-planes: 2

LUX at center: 536 lx

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

Linear Distribution



Peak Candela
53695 cd

Calculate Center Beam Intensities

$$\text{lux} = 53695 / \text{distance(m)}^2$$

$$\text{fc} = 53695 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3995 lm
Peak Intensity: 28041 cd

Beam

Beam Angle (50%): 19.8°
Field Angle (10%): 35.9°
Cutoff Angle (2.5%): 48.4°

Color

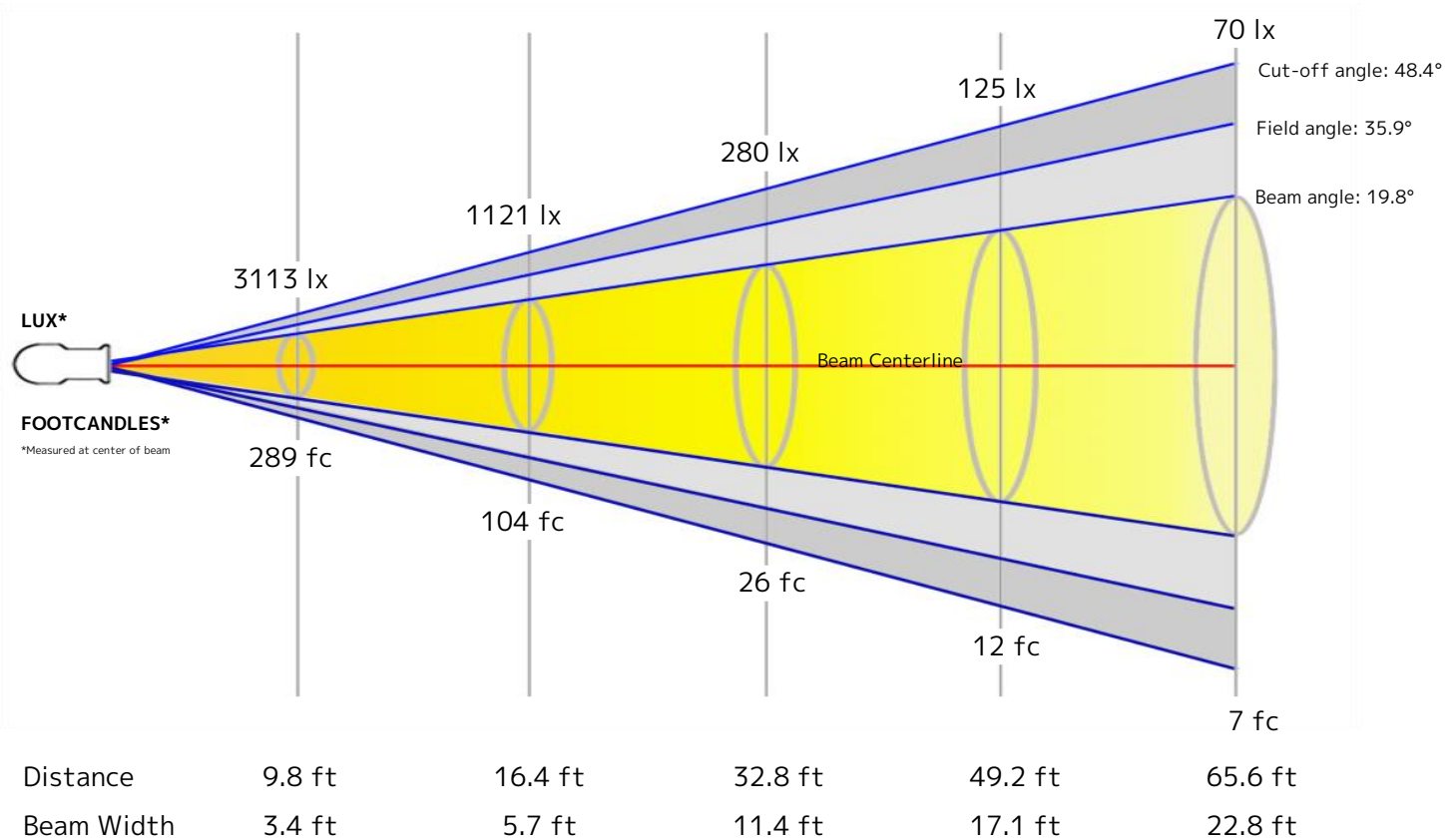
Color Temperature: 6809 K
CRI: 65.6
TLCI: 75
TM30 R_F: 77.5
TM30 R_g: 121.7

Power Details

Efficacy: 46 Lumen/Watt
Power: 87.5 W
Supply Voltage: 120 V
Current: 0.732 A

Beam Details

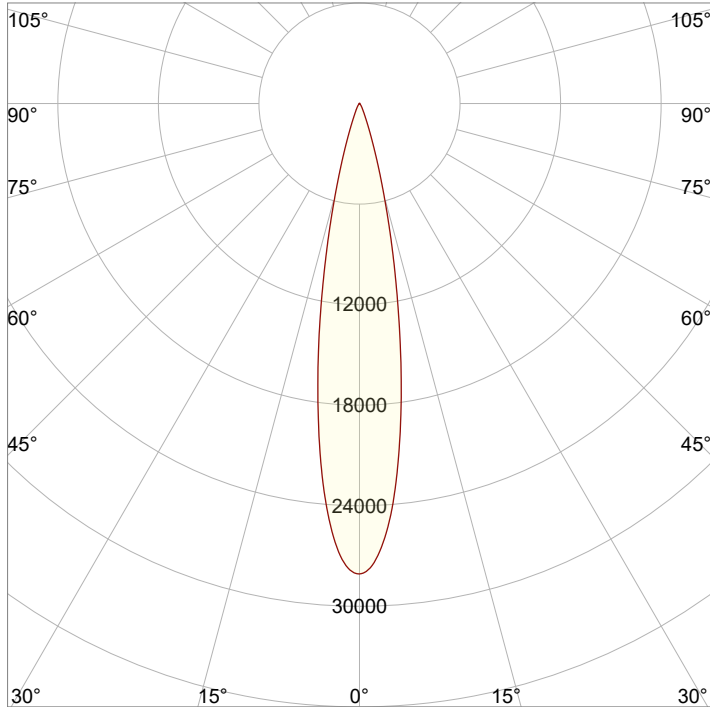
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1 m	1.7 m	3.5 m	5.2 m	7 m



Beam Intensities from 1-20m

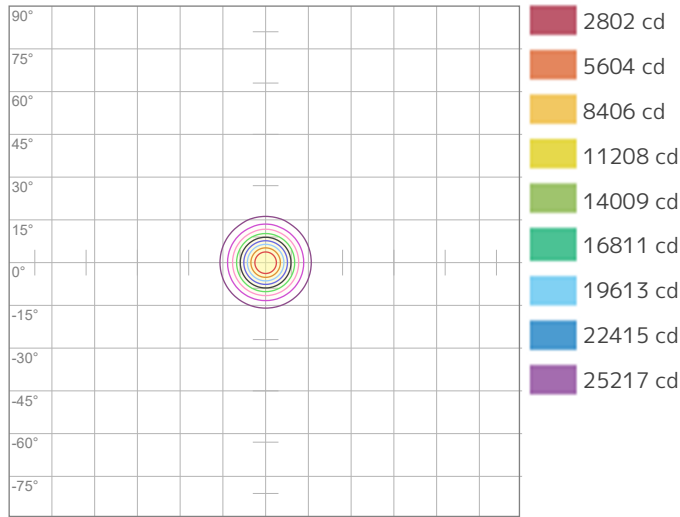
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	28019	7005	3113	1751	1121	778	572	438	346	280	232	195	166	143	125	109	97	86	78	70
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	2603	650.8	289.2	162.7	104.1	72.3	53.1	40.7	32.1	26	21.5	18.1	15.4	13.3	11.6	10.2	9	8	7.2	6.5

Angular Distribution



Beam Angle - 50%
19.8°
Field Angle - 10%
35.9°
Cutoff Angle - 2.5%
48.4°

ISO Diagrams

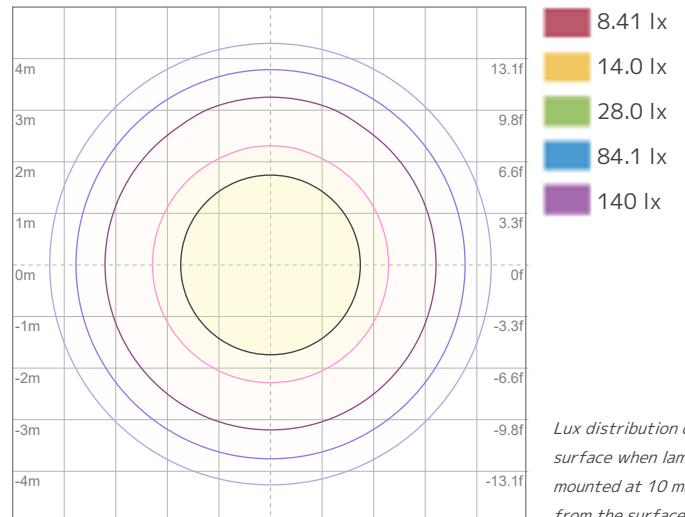


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 28019 cd



ISO LUX Diagram

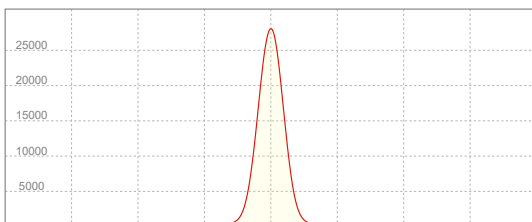
Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

Conditions:

Number of c-planes: 2

LUX at center: 280 lx

Linear Distribution



Peak Candela
28041 cd

Calculate Center Beam Intensities

$$\text{lux} = 28041 / \text{distance(m)}^2$$

$$\text{fc} = 28041 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3331 lm
Peak Intensity: 23440 cd

Beam

Beam Angle (50%): 19.7°
Field Angle (10%): 35.8°
Cutoff Angle (2.5%): 48.4°

Color

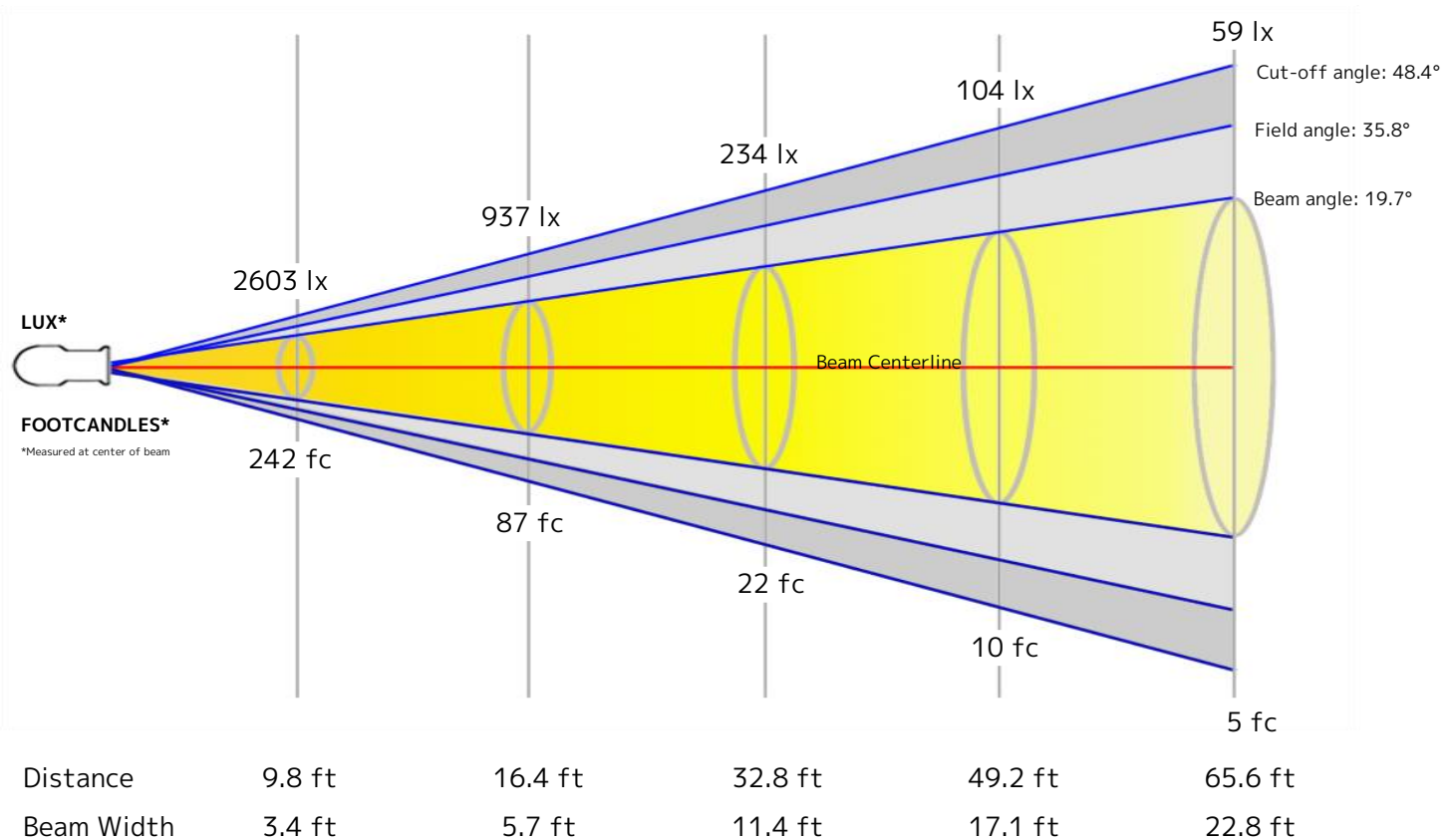
Color Temperature: 7613 K
CRI: 66.0
TLCI: 75
TM30 R_F: 76.6
TM30 R_G: 121.0

Power Details

Efficacy: 39 Lumen/Watt
Power: 85.5 W
Supply Voltage: 120 V
Current: 0.715 A

Beam Details

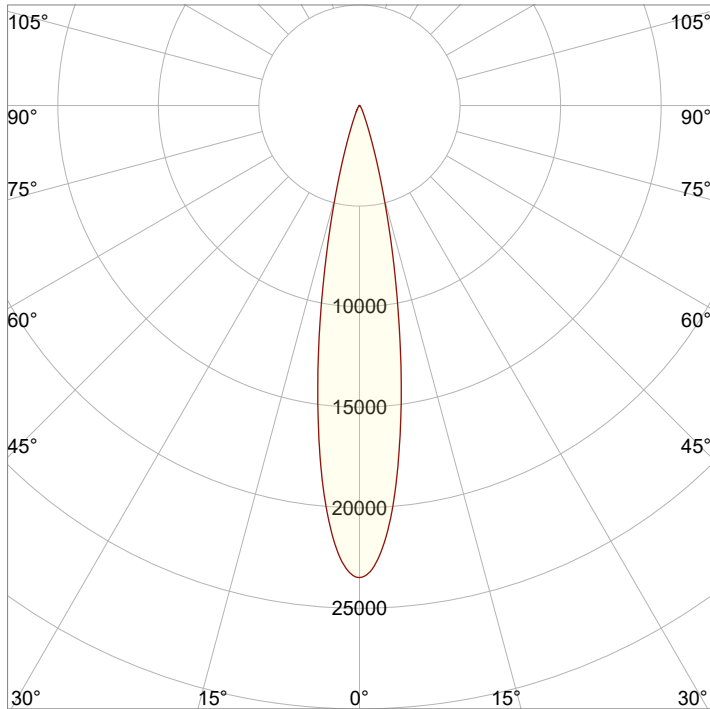
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1 m	1.7 m	3.5 m	5.2 m	6.9 m



Beam Intensities from 1-20m

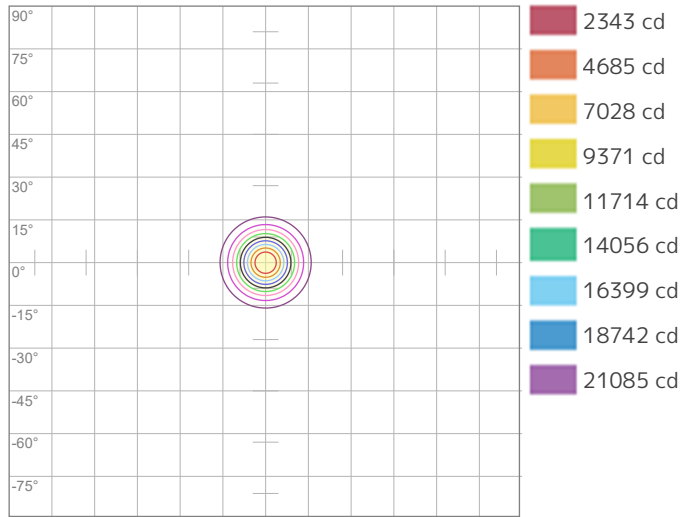
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	23427	5857	2603	1464	937	651	478	366	289	234	194	163	139	120	104	92	81	72	65	59
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	2176.5	544.1	241.8	136	87.1	60.5	44.4	34	26.9	21.8	18	15.1	12.9	11.1	9.7	8.5	7.5	6.7	6	5.4

Angular Distribution

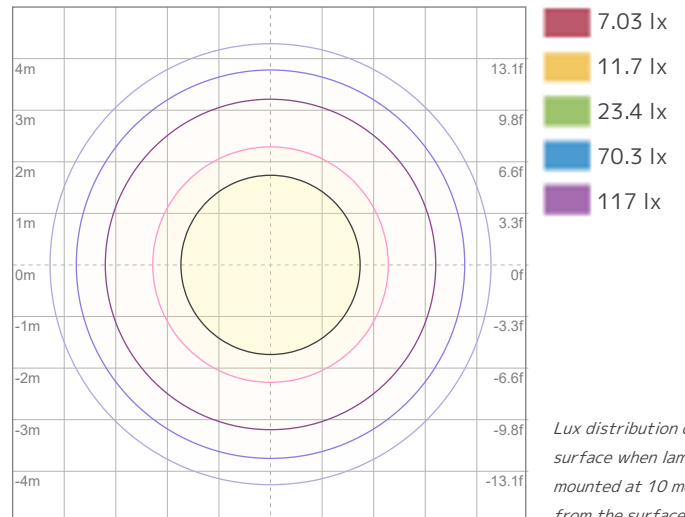


Beam Angle - 50%
19.7°
Field Angle - 10%
35.8°
Cutoff Angle - 2.5%
48.4°

ISO Diagrams



ISO Candela Diagram



ISO LUX Diagram

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

Conditions:

Number of c-planes: 2

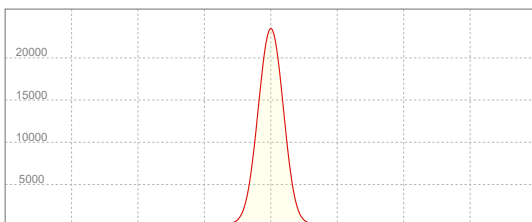
Candela at center: 23427 cd

Conditions:

Number of c-planes: 2

LUX at center: 234 lx

Linear Distribution



Peak Candela
23440 cd

Calculate Center Beam Intensities

$$\text{lux} = 23440 / \text{distance(m)}^2$$

$$\text{fc} = 23440 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 2621 lm
Peak Intensity: 19343 cd

Beam

Beam Angle (50%): 19.4°
Field Angle (10%): 35.3°
Cutoff Angle (2.5%): 46.9°

Color

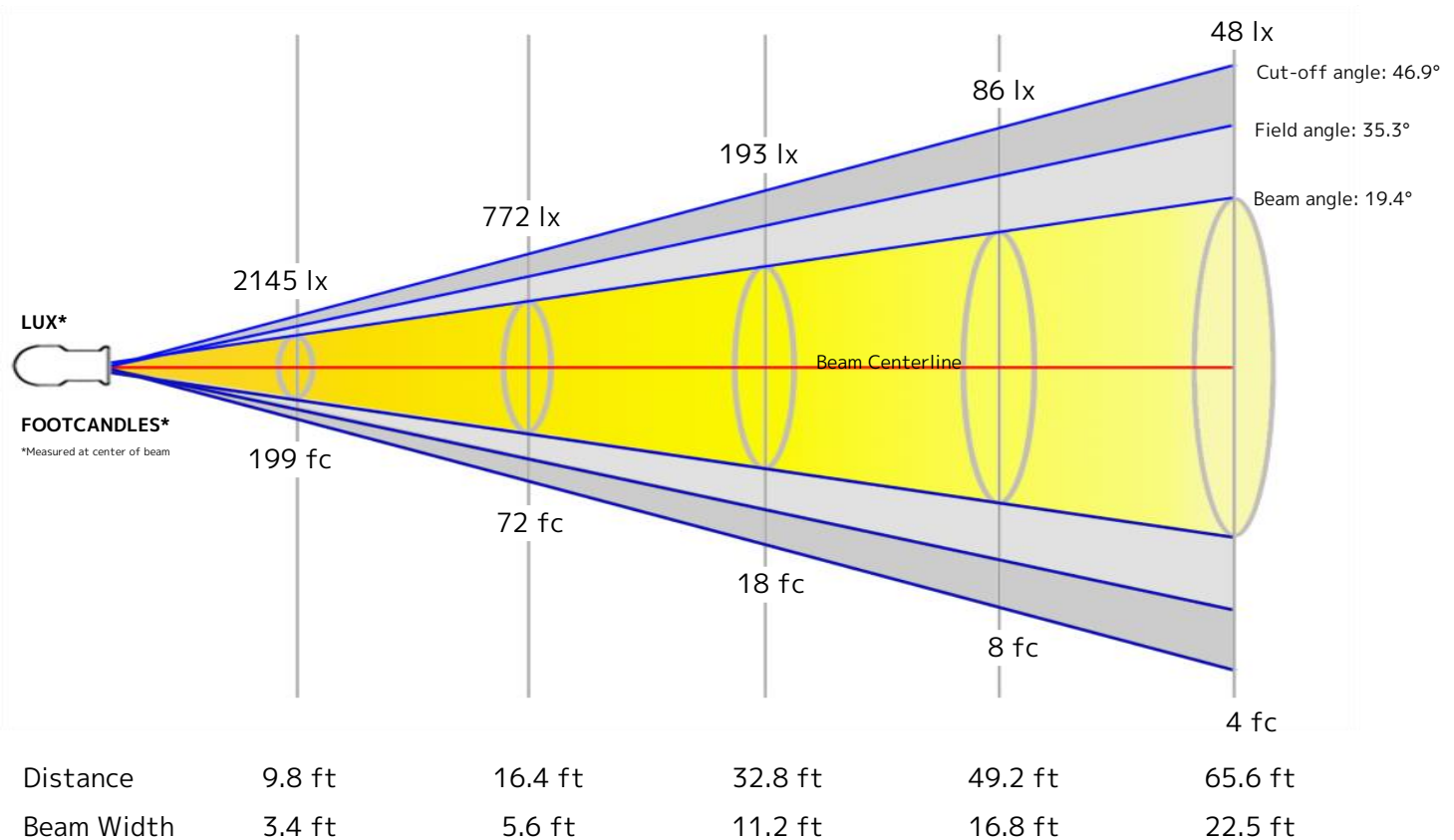
Color Temperature: 2663 K
CRI: 85.6
TLCI: 77
TM30 R_F: 89.6
TM30 R_G: 104.7

Power Details

Efficacy: 48 Lumen/Watt
Power: 54.7 W
Supply Voltage: 121 V
Current: 0.463 A

Beam Details

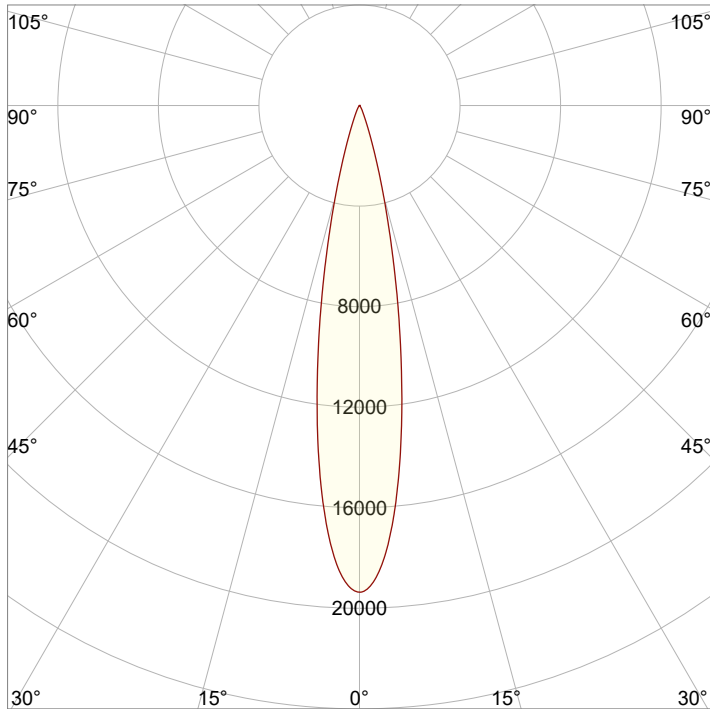
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1 m	1.7 m	3.4 m	5.1 m	6.8 m



Beam Intensities from 1-20m

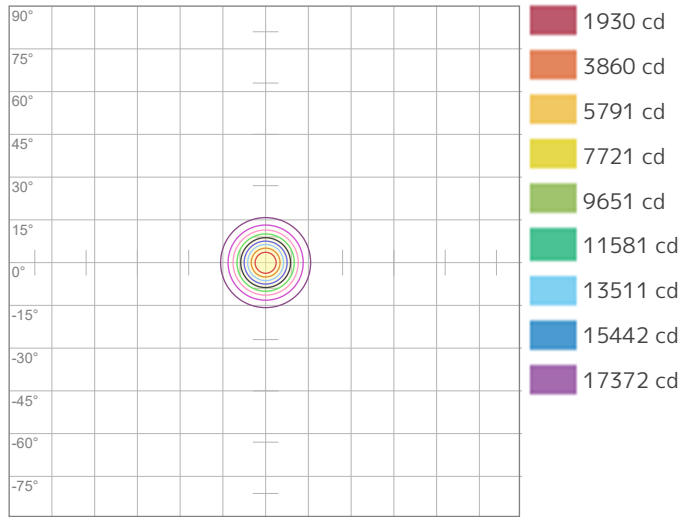
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	19302	4825	2145	1206	772	536	394	302	238	193	160	134	114	98	86	75	67	60	53	48
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	1793.2	448.3	199.2	112.1	71.7	49.8	36.6	28	22.1	17.9	14.8	12.5	10.6	9.1	8	7	6.2	5.5	5	4.5

Angular Distribution



Beam Angle - 50%
19.4°
Field Angle - 10%
35.3°
Cutoff Angle - 2.5%
46.9°

ISO Diagrams

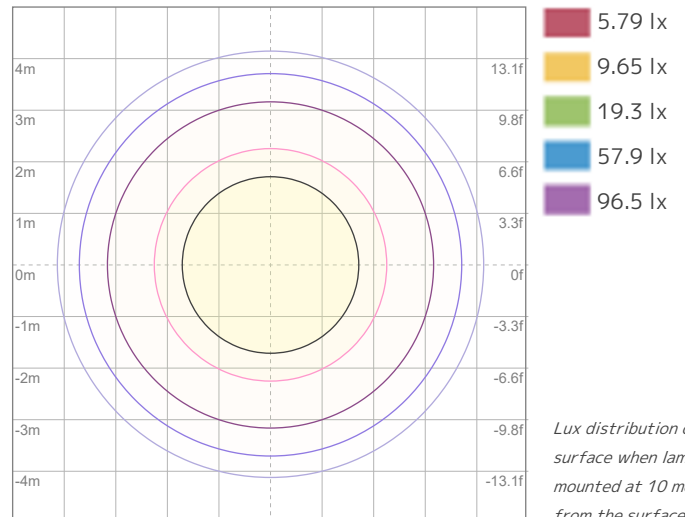


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 19302 cd



ISO LUX Diagram

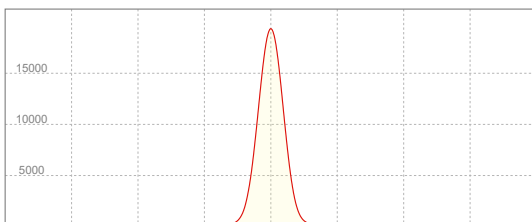
Conditions:

Number of c-planes: 2

LUX at center: 193 lx

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

Linear Distribution



Peak Candela
19343 cd

Calculate Center Beam Intensities

$$\text{lux} = 19343 / \text{distance(m)}^2$$

$$\text{fc} = 19343 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3364 lm
Peak Intensity: 24475 cd

Beam

Beam Angle (50%): 19.5°
Field Angle (10%): 35.4°
Cutoff Angle (2.5%): 47.3°

Color

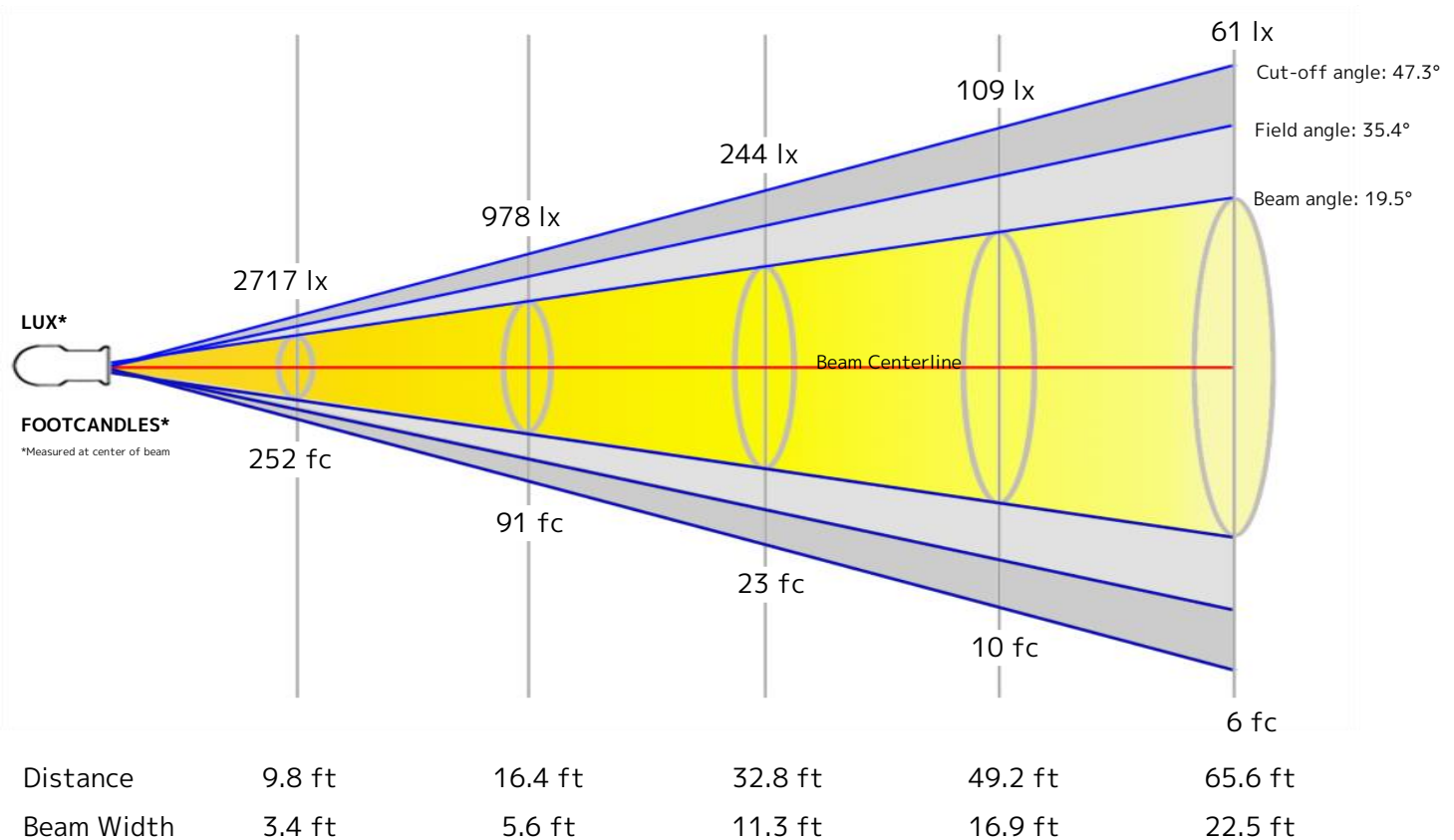
Color Temperature: 3235 K
CRI: 87.4
TLCI: 80
TM30 R_F: 90.9
TM30 R_g: 106.8

Power Details

Efficacy: 49 Lumen/Watt
Power: 68.7 W
Supply Voltage: 121 V
Current: 0.578 A

Beam Details

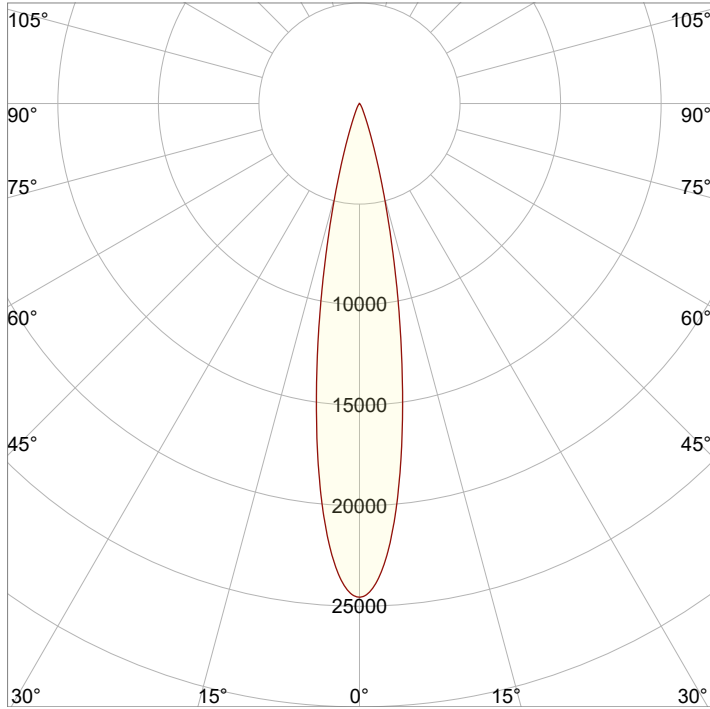
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1 m	1.7 m	3.4 m	5.2 m	6.9 m



Beam Intensities from 1-20m

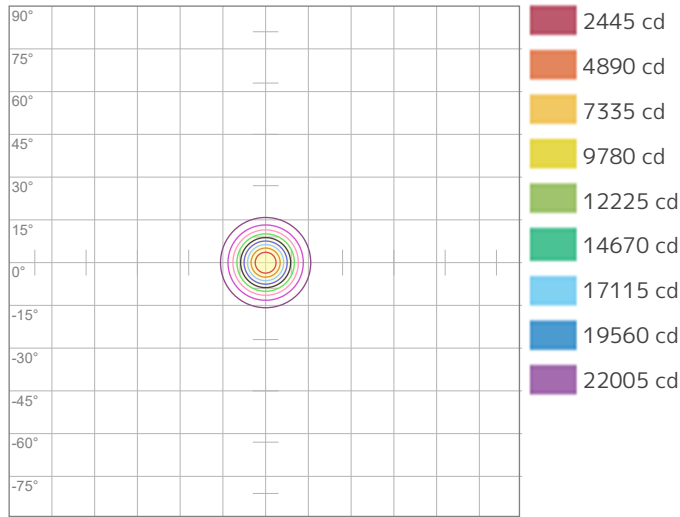
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	24450	6112	2717	1528	978	679	499	382	302	244	202	170	145	125	109	96	85	75	68	61
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	2271.5	567.9	252.4	142	90.9	63.1	46.4	35.5	28	22.7	18.8	15.8	13.4	11.6	10.1	8.9	7.9	7	6.3	5.7

Angular Distribution

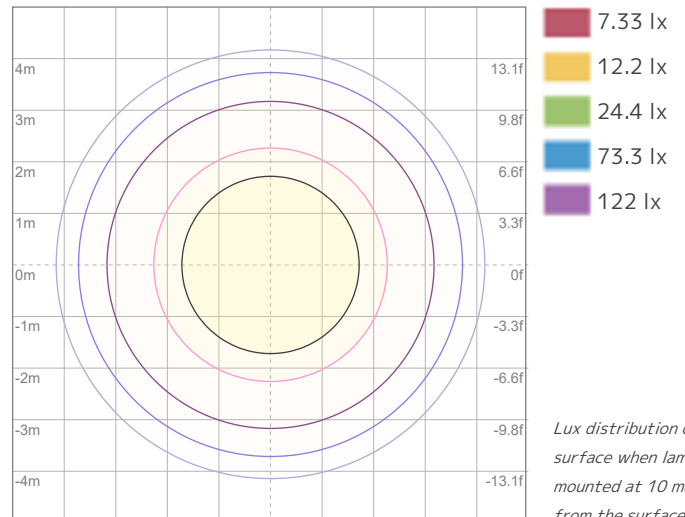


Beam Angle - 50%
19.5°
Field Angle - 10%
35.4°
Cutoff Angle - 2.5%
47.3°

ISO Diagrams



ISO Candela Diagram



ISO LUX Diagram

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

Conditions:

Number of c-planes: 2

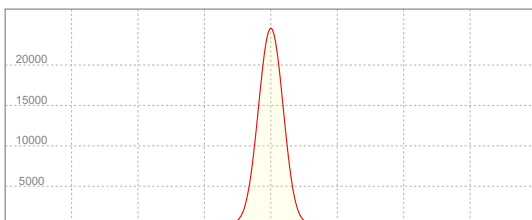
Candela at center: 24450 cd

Conditions:

Number of c-planes: 2

LUX at center: 244 lx

Linear Distribution



Peak Candela
24475 cd

Calculate Center Beam Intensities

$$\text{lux} = 24475 / \text{distance(m)}^2$$

$$\text{fc} = 24475 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3505 lm
Peak Intensity: 24777 cd

Beam

Beam Angle (50%): 19.6°
Field Angle (10%): 35.6°
Cutoff Angle (2.5%): 48.3°

Color

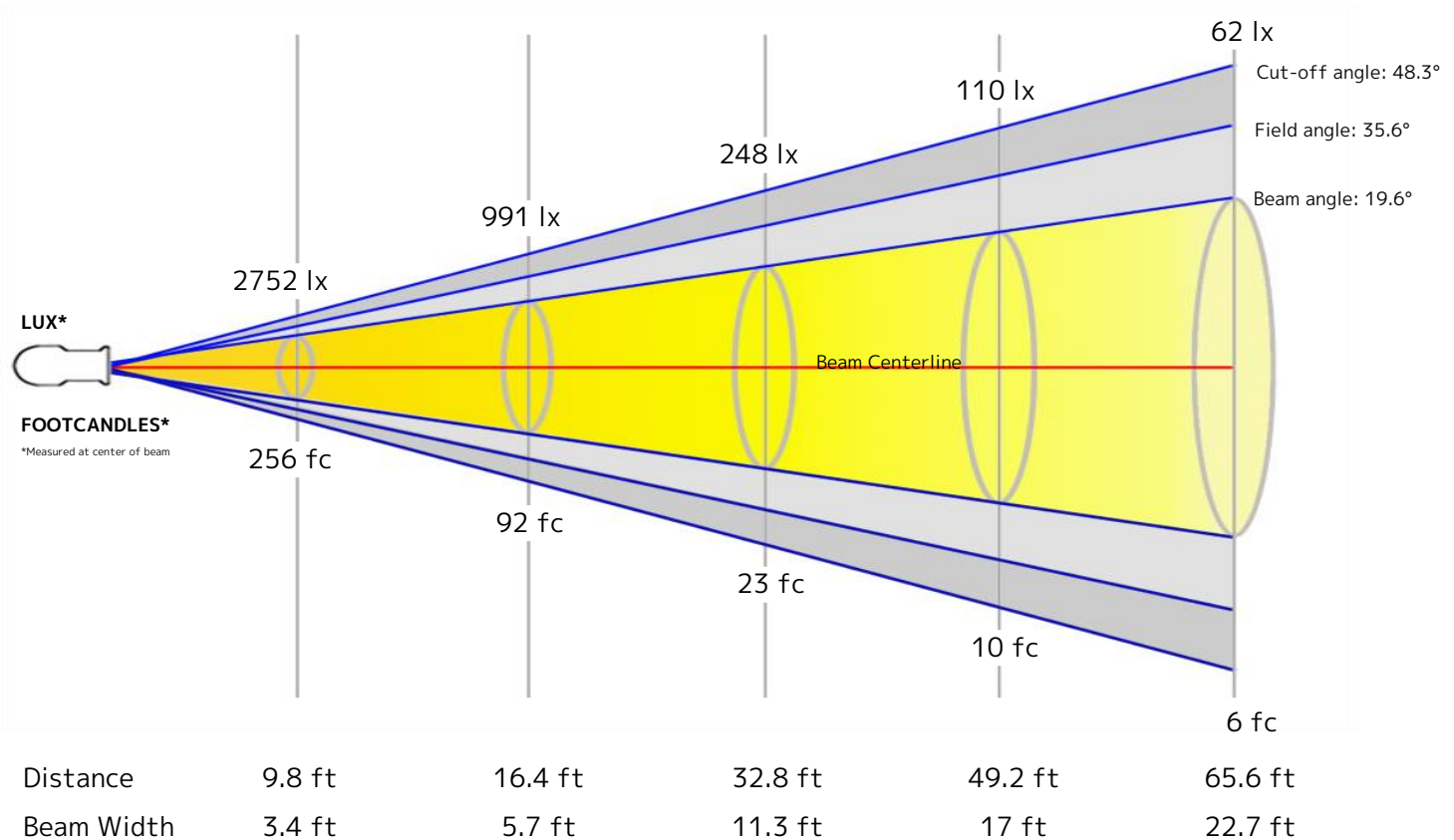
Color Temperature: 4494 K
CRI: 89.8
TLCI: 83
TM30 R_F: 90.8
TM30 R_g: 107.5

Power Details

Efficacy: 51 Lumen/Watt
Power: 69.0 W
Supply Voltage: 121 V
Current: 0.579 A

Beam Details

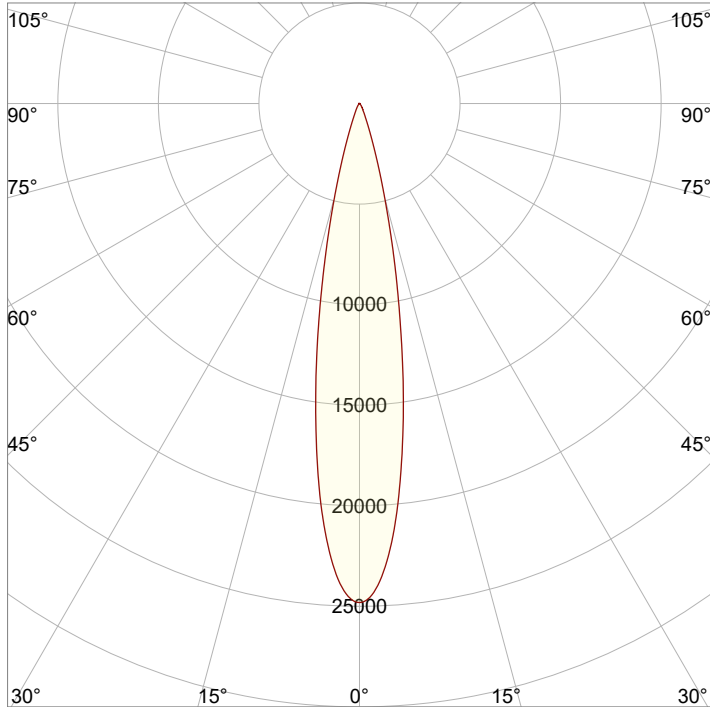
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1 m	1.7 m	3.5 m	5.2 m	6.9 m



Beam Intensities from 1-20m

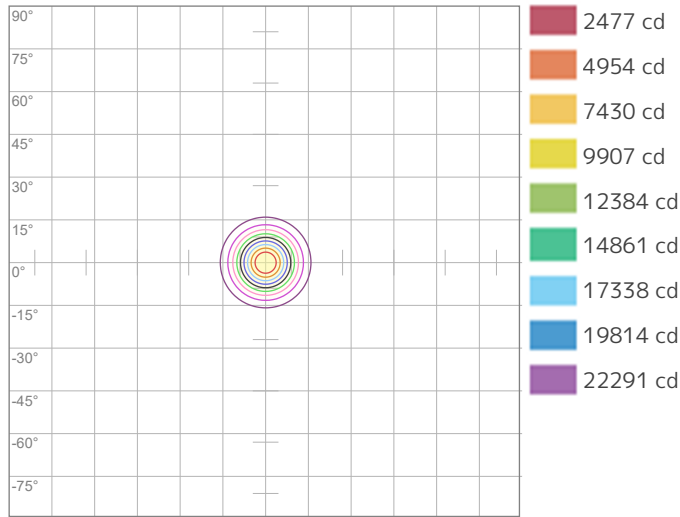
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	24768	6192	2752	1548	991	688	505	387	306	248	205	172	147	126	110	97	86	76	69	62
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	2301	575.3	255.7	143.8	92	63.9	47	36	28.4	23	19	16	13.6	11.7	10.2	9	8	7.1	6.4	5.8

Angular Distribution



Beam Angle - 50%
19.6°
Field Angle - 10%
35.6°
Cutoff Angle - 2.5%
48.3°

ISO Diagrams

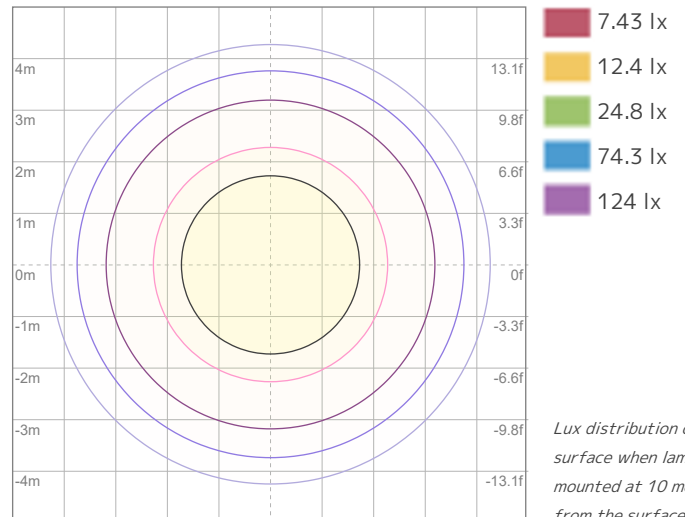


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 24768 cd



ISO LUX Diagram

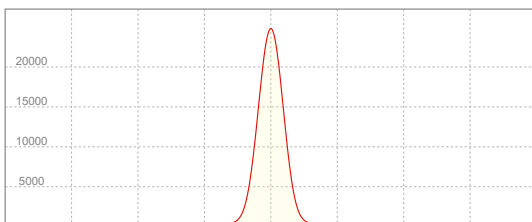
Conditions:

Number of c-planes: 2

LUX at center: 248 lx

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

Linear Distribution



Peak Candela
24777 cd

Calculate Center Beam Intensities

$$\text{lux} = 24777 / \text{distance(m)}^2$$

$$\text{fc} = 24777 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3635 lm
Peak Intensity: 25453 cd

Beam

Beam Angle (50%): 19.6°
Field Angle (10%): 35.7°
Cutoff Angle (2.5%): 48.6°

Color

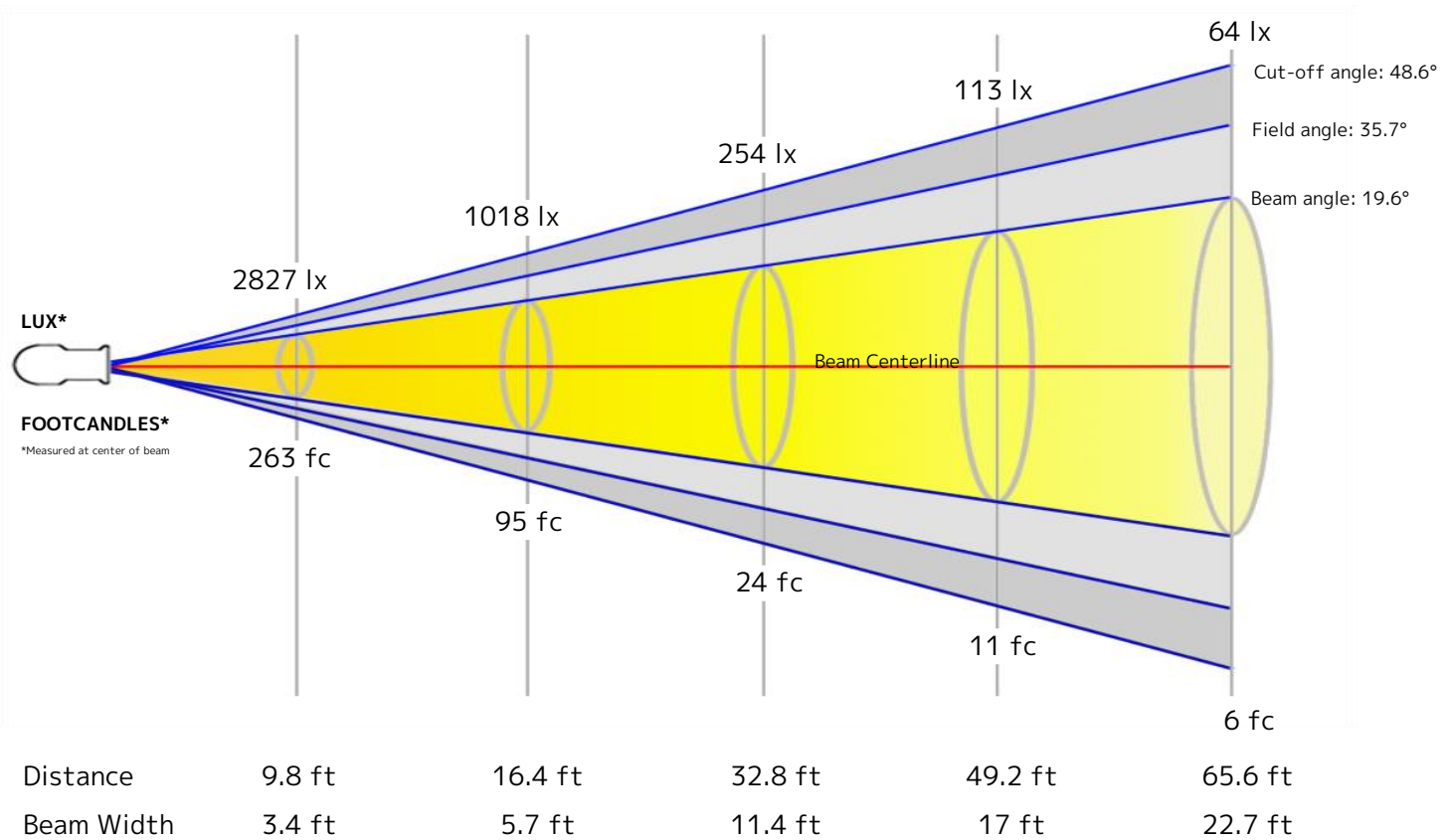
Color Temperature: 5656 K
CRI: 89.2
TLCI: 85
TM30 R_F: 89.5
TM30 R_G: 107.3

Power Details

Efficacy: 51 Lumen/Watt
Power: 71.8 W
Supply Voltage: 121 V
Current: 0.600 A

Beam Details

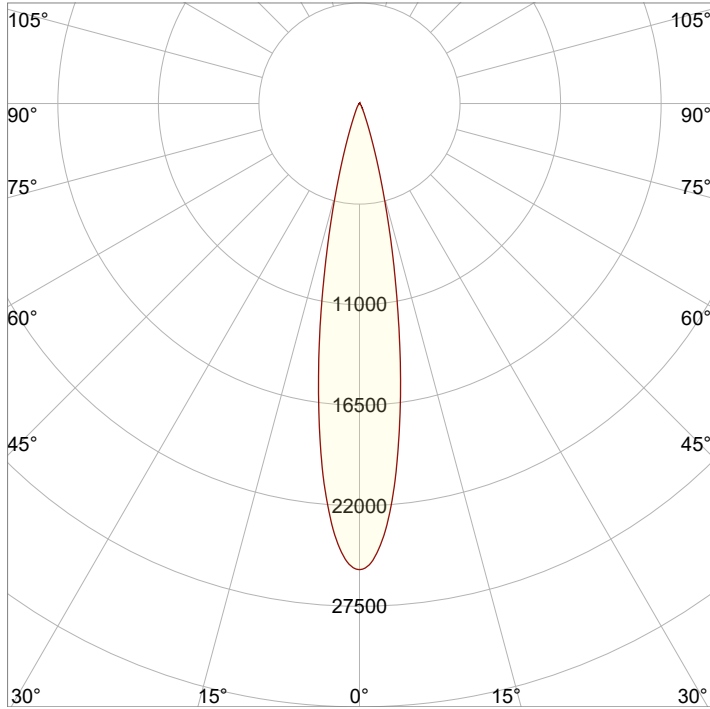
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1 m	1.7 m	3.5 m	5.2 m	6.9 m



Beam Intensities from 1-20m

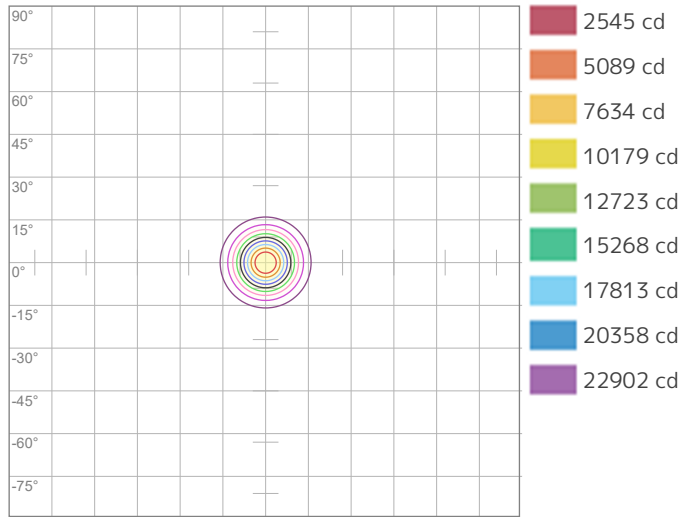
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	25447	6362	2827	1590	1018	707	519	398	314	254	210	177	151	130	113	99	88	79	70	64
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	2364.1	591	262.7	147.8	94.6	65.7	48.2	36.9	29.2	23.6	19.5	16.4	14	12.1	10.5	9.2	8.2	7.3	6.5	5.9

Angular Distribution

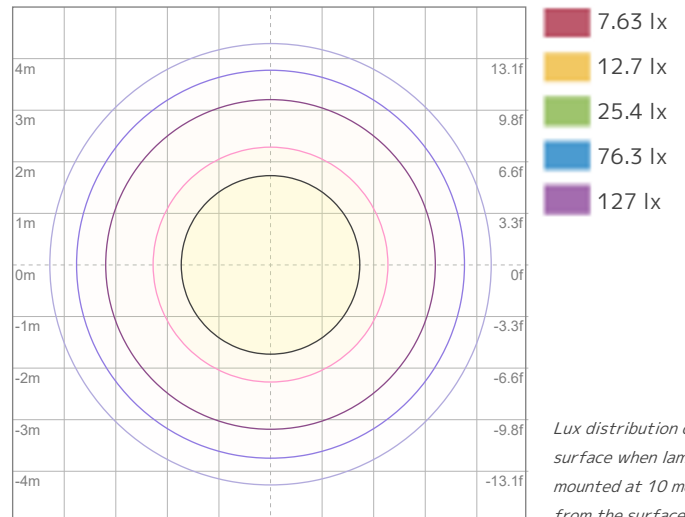


Beam Angle - 50%
19.6°
Field Angle - 10%
35.7°
Cutoff Angle - 2.5%
48.6°

ISO Diagrams



ISO Candela Diagram



ISO LUX Diagram

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

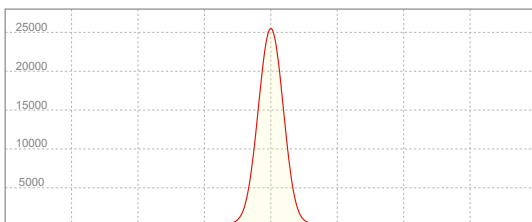
Conditions:

Number of c-planes: 2
Candela at center: 25447 cd

Conditions:

Number of c-planes: 2
LUX at center: 254 lx

Linear Distribution



Peak Candela
25453 cd

Calculate Center Beam Intensities
 $lux = 25453 / distance(m)^2$
 $fc = 25453 / distance(ft)^2$

Key Measurements

Output

Total Lumen Output: 3758 lm
Peak Intensity: 26314 cd

Beam

Beam Angle (50%): 19.6°
Field Angle (10%): 35.7°
Cutoff Angle (2.5%): 48.6°

Color

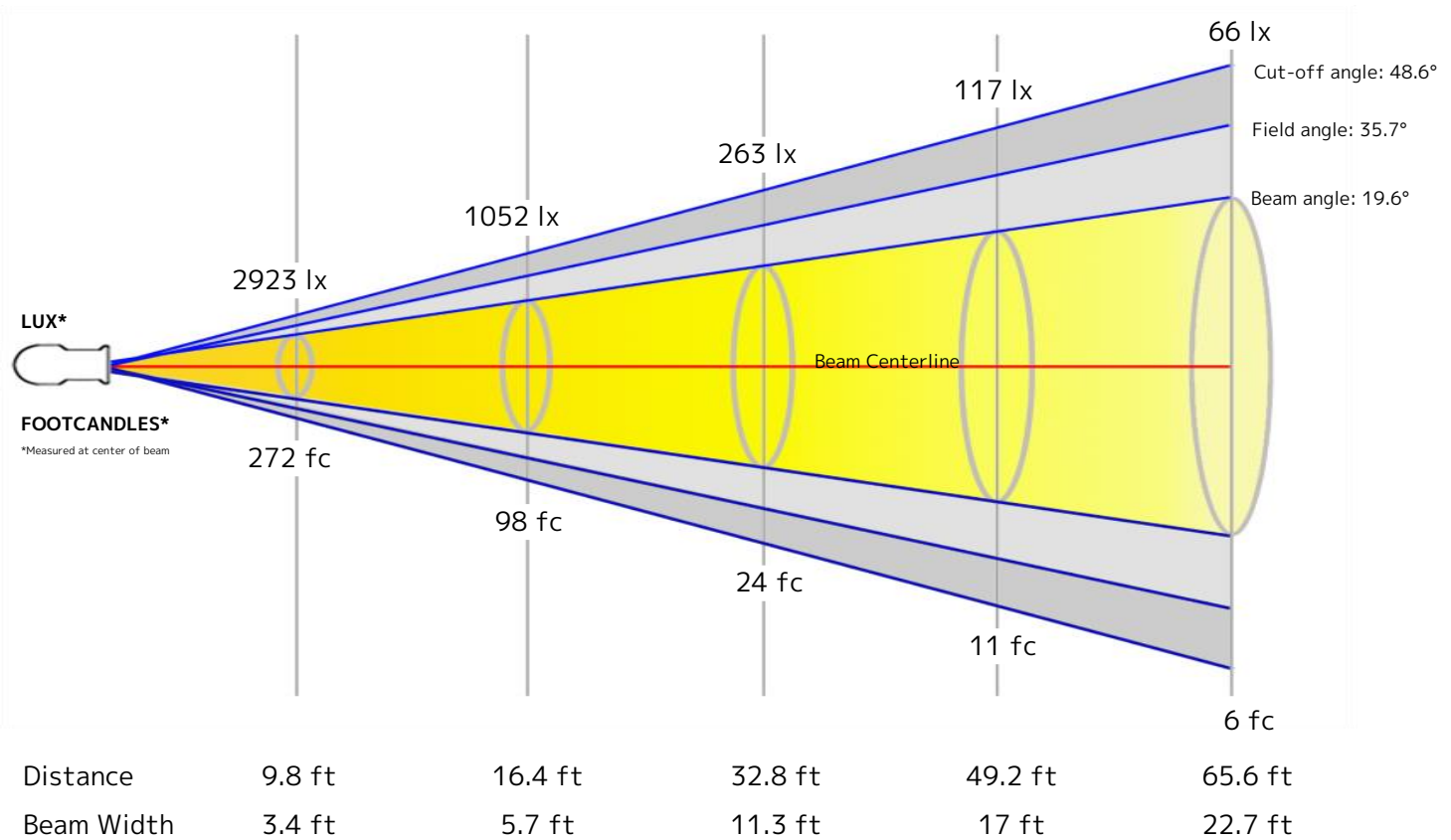
Color Temperature: 6002 K
CRI: 88.9
TLCI: 85
TM30 R_F: 89.2
TM30 R_G: 107.3

Power Details

Efficacy: 50 Lumen/Watt
Power: 75.1 W
Supply Voltage: 121 V
Current: 0.630 A

Beam Details

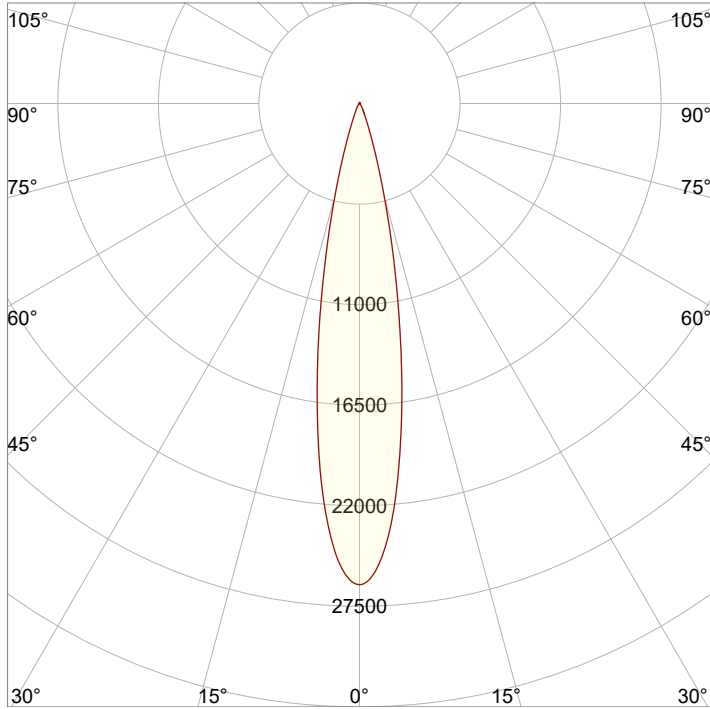
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1 m	1.7 m	3.5 m	5.2 m	6.9 m



Beam Intensities from 1-20m

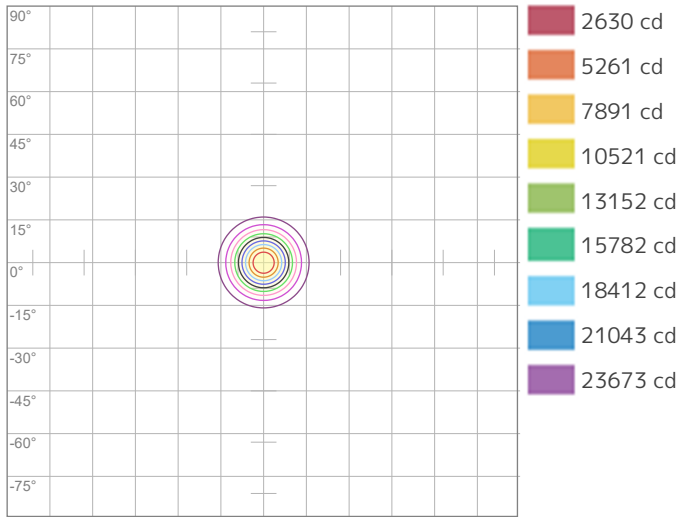
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	26303	6576	2923	1644	1052	731	537	411	325	263	217	183	156	134	117	103	91	81	73	66
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	2443.7	610.9	271.5	152.7	97.7	67.9	49.9	38.2	30.2	24.4	20.2	17	14.5	12.5	10.9	9.5	8.5	7.5	6.8	6.1

Angular Distribution



Beam Angle - 50%
19.6°
Field Angle - 10%
35.7°
Cutoff Angle - 2.5%
48.6°

ISO Diagrams

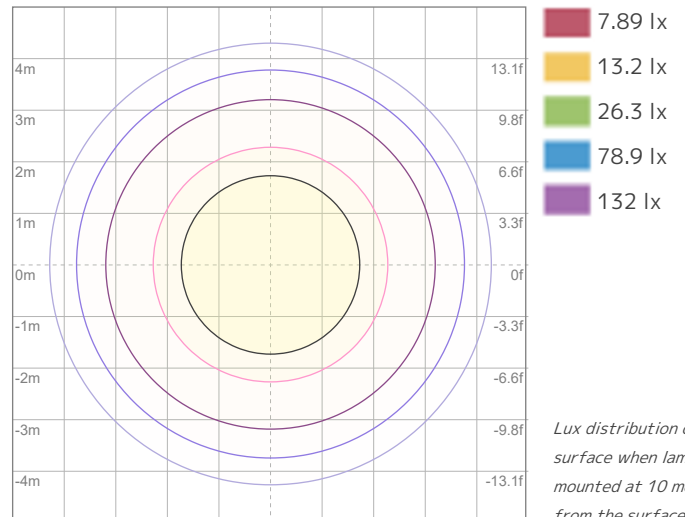


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 26303 cd



ISO LUX Diagram

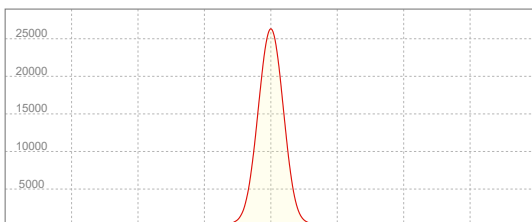
Conditions:

Number of c-planes: 2

LUX at center: 263 lx

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

Linear Distribution



Peak Candela
26314 cd

Calculate Center Beam Intensities

$$\text{lux} = 26314 / \text{distance(m)}^2$$

$$\text{fc} = 26314 / \text{distance(ft)}^2$$

Key Measurements

Output

Total Lumen Output: 3727 lm
Peak Intensity: 25867 cd

Beam

Beam Angle (50%): 19.7°
Field Angle (10%): 35.9°
Cutoff Angle (2.5%): 48.7°

Color

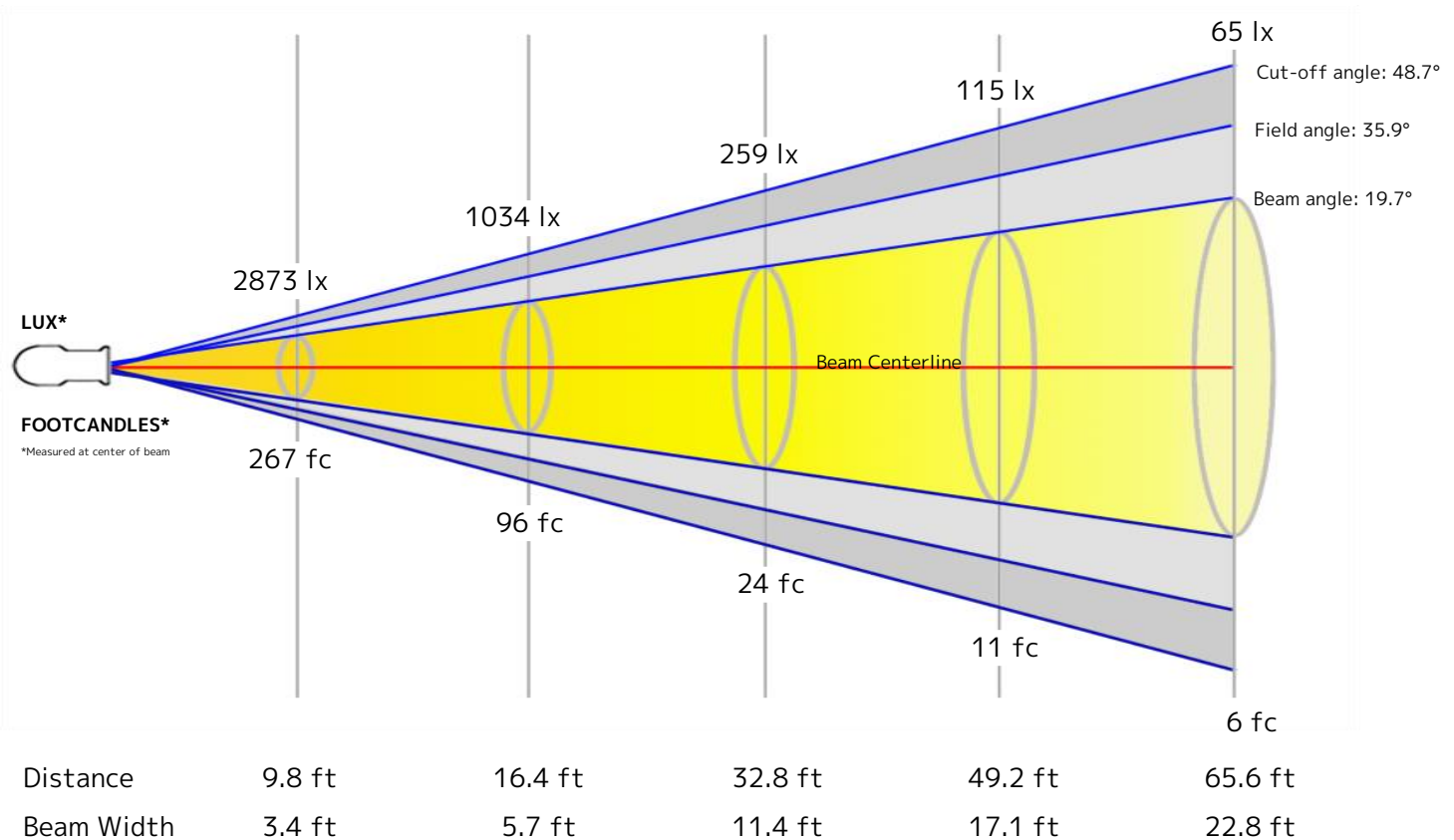
Color Temperature: 6495 K
CRI: 89.2
TLCI: 86
TM30 R_F: 88.9
TM30 R_G: 106.6

Power Details

Efficacy: 50 Lumen/Watt
Power: 74.5 W
Supply Voltage: 121 V
Current: 0.625 A

Beam Details

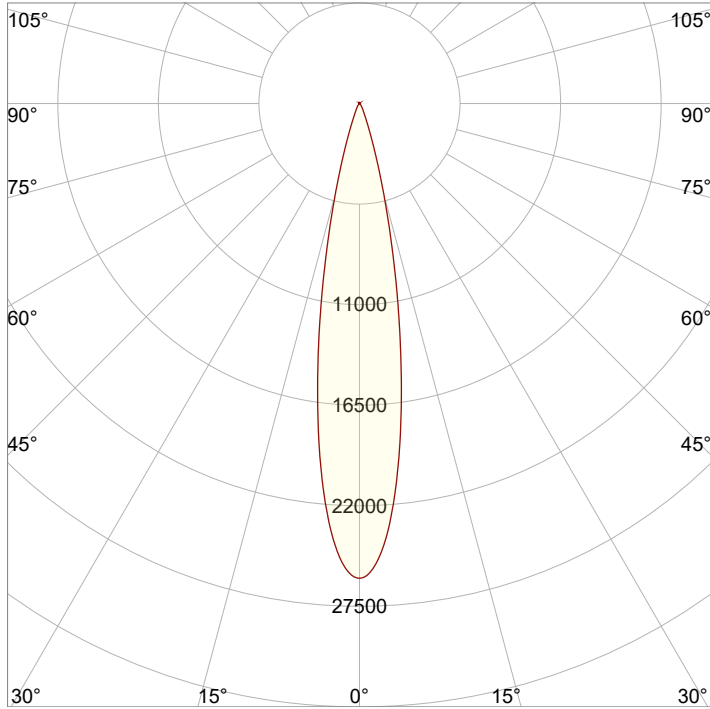
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1 m	1.7 m	3.5 m	5.2 m	7 m



Beam Intensities from 1-20m

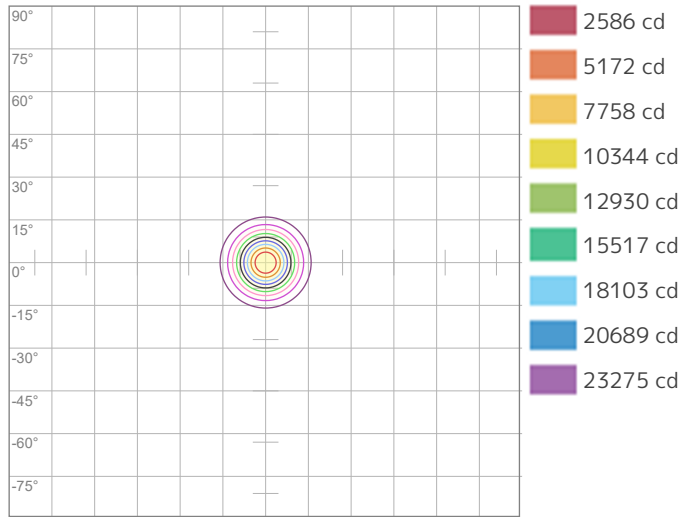
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	25861	6465	2873	1616	1034	718	528	404	319	259	214	180	153	132	115	101	89	80	72	65
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	2402.6	600.6	267	150.2	96.1	66.7	49	37.5	29.7	24	19.9	16.7	14.2	12.3	10.7	9.4	8.3	7.4	6.7	6

Angular Distribution

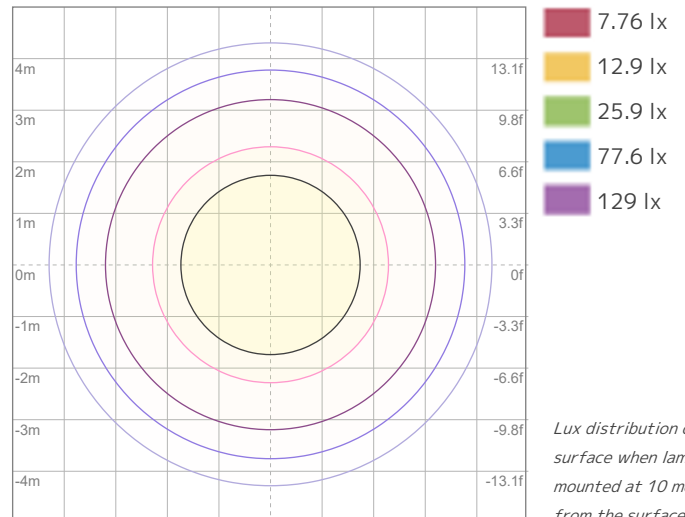


Beam Angle - 50%
19.7°
Field Angle - 10%
35.9°
Cutoff Angle - 2.5%
48.7°

ISO Diagrams



ISO Candela Diagram



ISO LUX Diagram

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

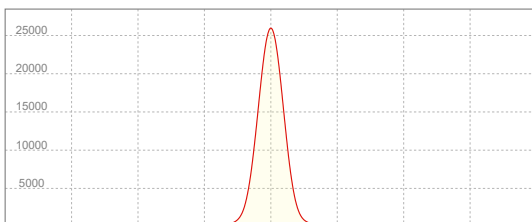
Conditions:

Number of c-planes: 2
Candela at center: 25861 cd

Conditions:

Number of c-planes: 2
LUX at center: 259 lx

Linear Distribution



Peak Candela
25867 cd

Calculate Center Beam Intensities
 $lux = 25867 / distance(m)^2$
 $fc = 25867 / distance(ft)^2$

Key Measurements

Output

Total Lumen Output: 3781 lm
Peak Intensity: 26114 cd

Beam

Beam Angle (50%): 19.7°
Field Angle (10%): 35.9°
Cutoff Angle (2.5%): 49°

Color

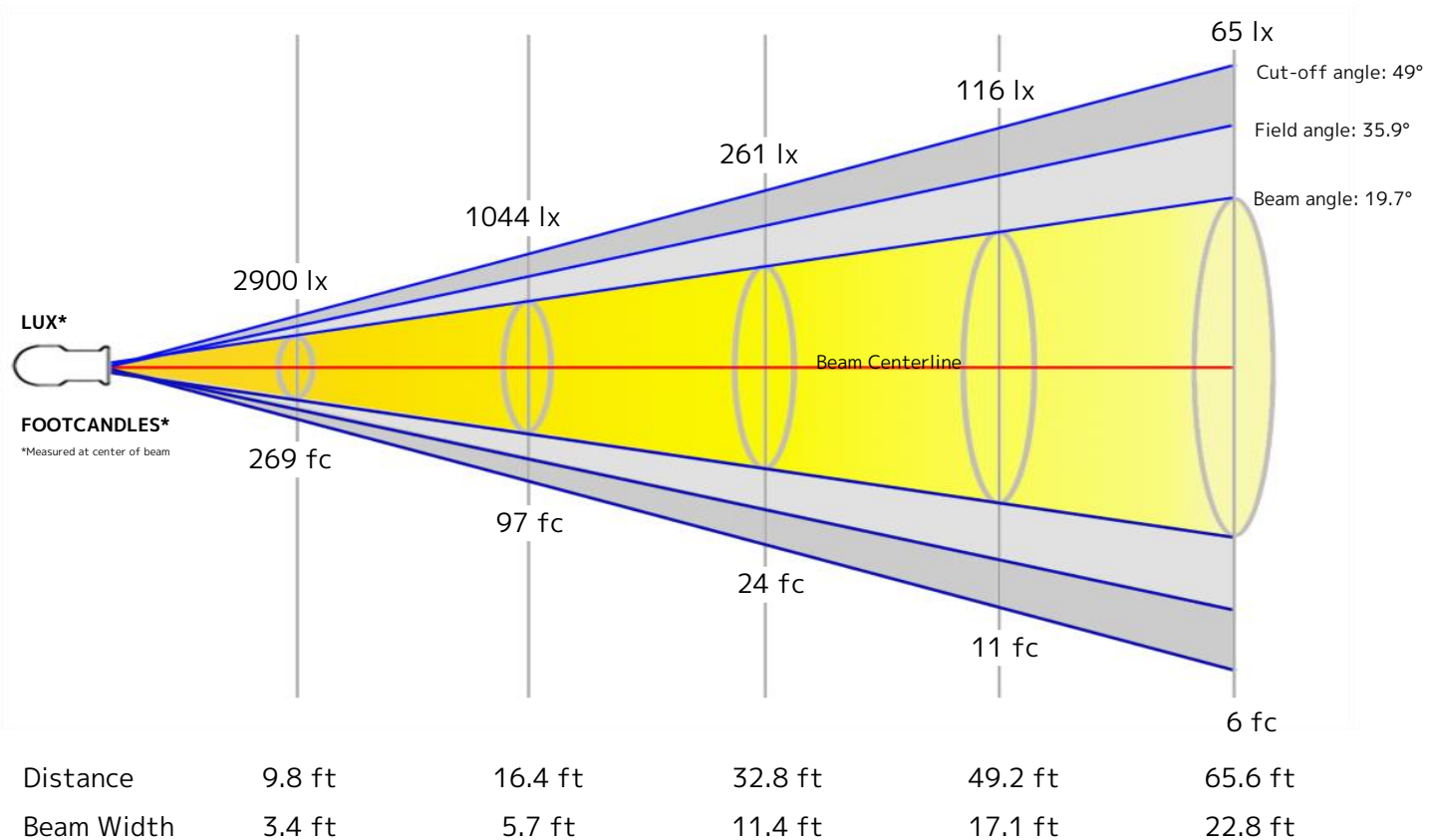
Color Temperature: 8458 K
CRI: 88.4
TLCI: 86
TM30 R_F: 87.5
TM30 R_G: 105.0

Power Details

Efficacy: 51 Lumen/Watt
Power: 74.1 W
Supply Voltage: 120 V
Current: 0.623 A

Beam Details

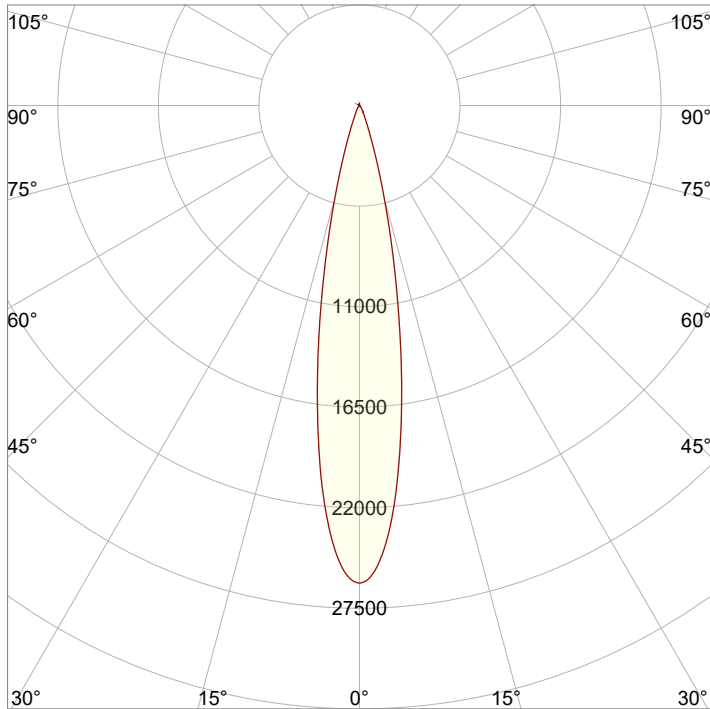
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1 m	1.7 m	3.5 m	5.2 m	6.9 m



Beam Intensities from 1-20m

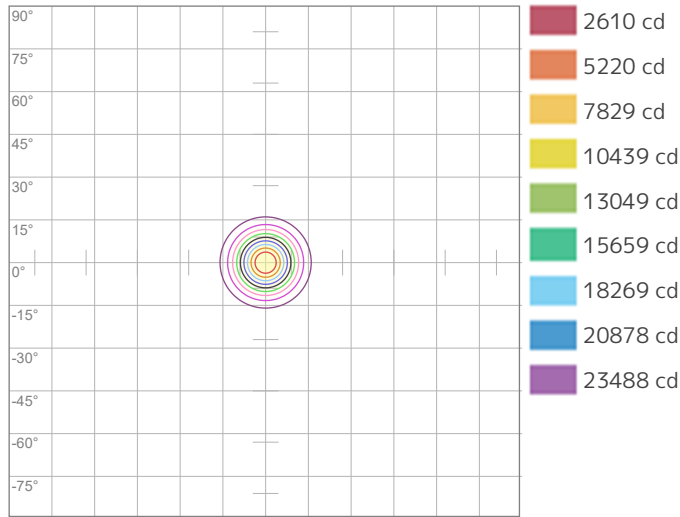
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LX	26098	6524	2900	1631	1044	725	533	408	322	261	216	181	154	133	116	102	90	81	72	65
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
FC	2424.6	606.1	269.4	151.5	97	67.3	49.5	37.9	29.9	24.2	20	16.8	14.3	12.4	10.8	9.5	8.4	7.5	6.7	6.1

Angular Distribution



Beam Angle - 50%
19.7°
Field Angle - 10%
35.9°
Cutoff Angle - 2.5%
49°

ISO Diagrams

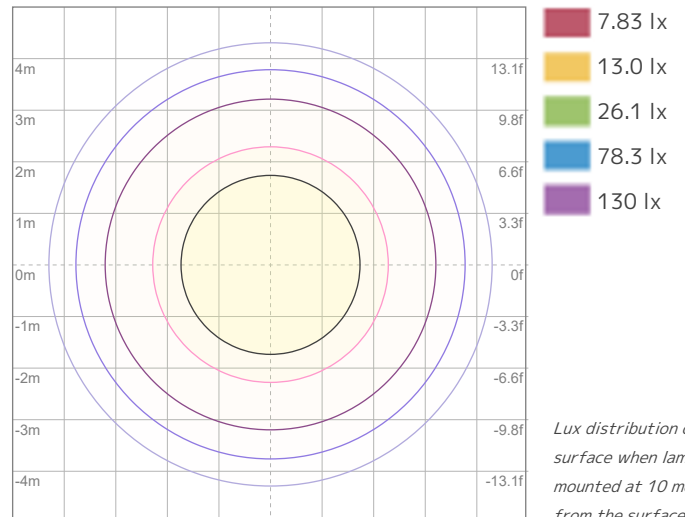


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 26098 cd



ISO LUX Diagram

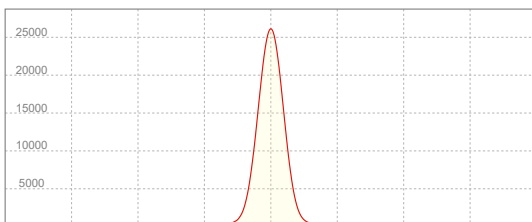
Conditions:

Number of c-planes: 2

LUX at center: 261 lx

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

Linear Distribution



Peak Candela
26114 cd

Calculate Center Beam Intensities

$$\text{lux} = 26114 / \text{distance(m)}^2$$

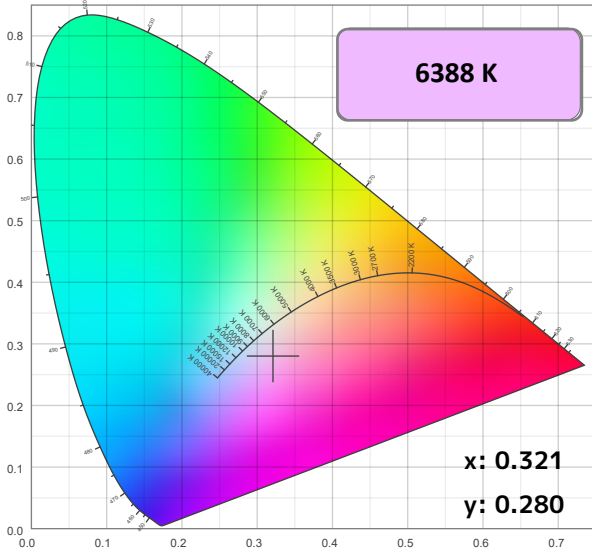
$$\text{fc} = 26114 / \text{distance(ft)}^2$$

Color Temperature: 6388K

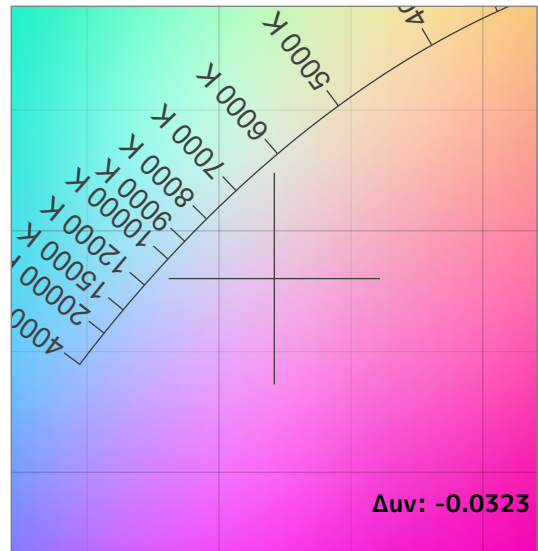
Accuracy Metric Overview

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
62.9	-54.3	76.5	123.8	70	85.2	0.321	0.280	-0.0323	4	36

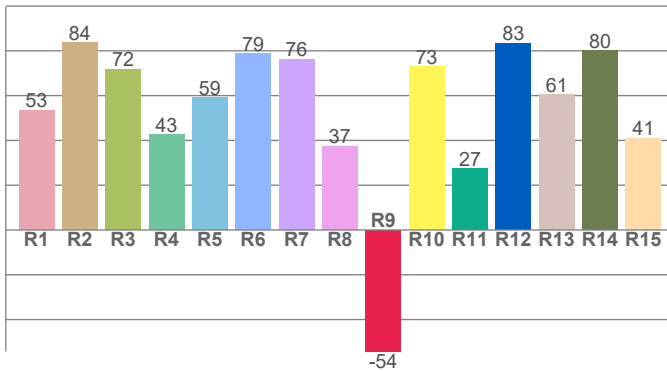
CIE 1931



CIE 1931 ZOOMED

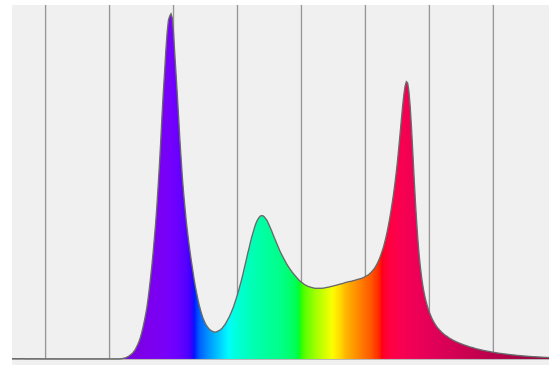


CRI: 62.9 (R1-R8)



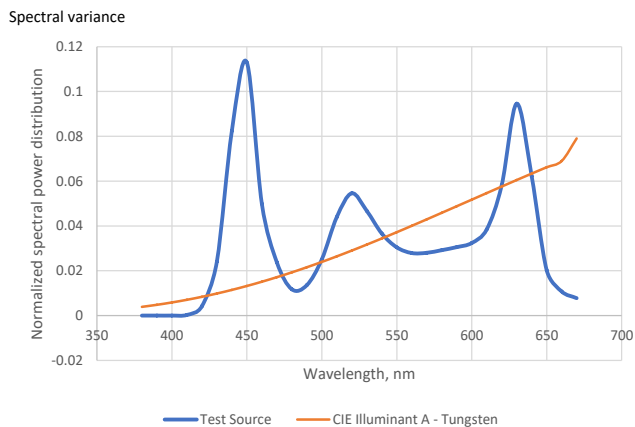
Spectral Power Distribution (SPD)

Dominant Wavelength 360 nm



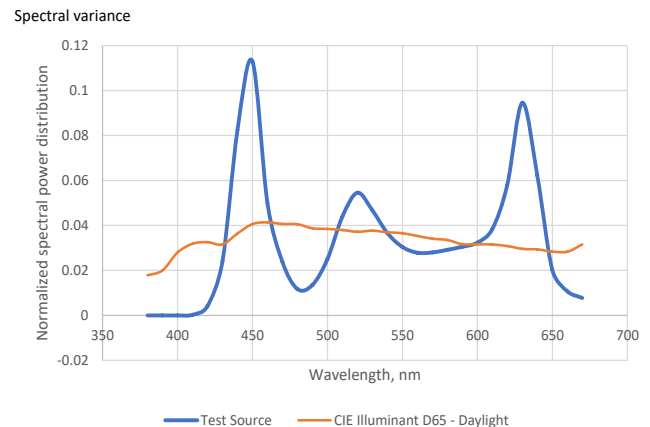
SSI Spectral Variance Graph- Tungsten

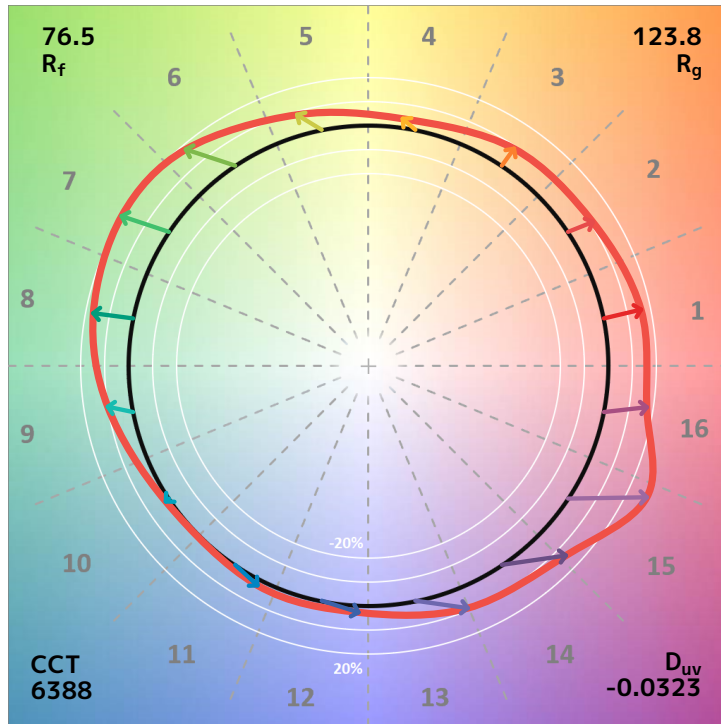
SSI [CIE A] 4



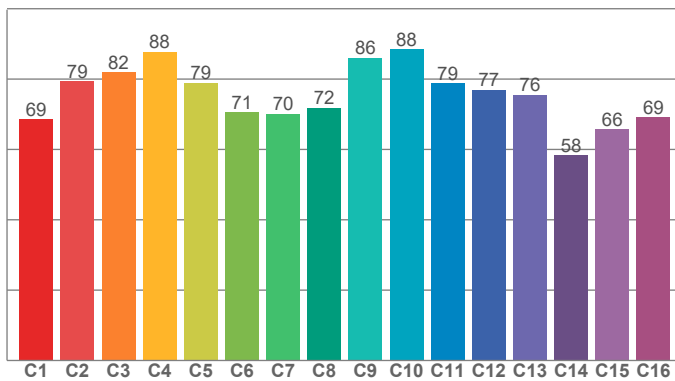
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 36

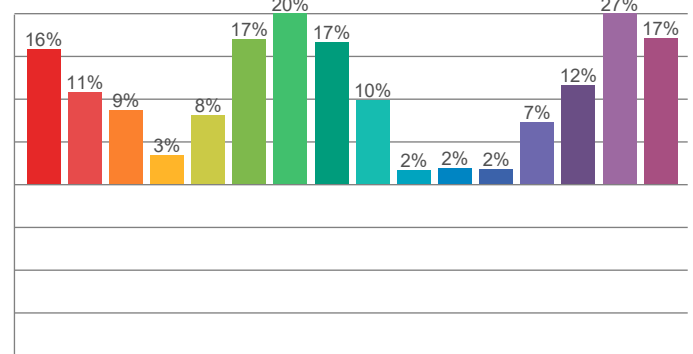




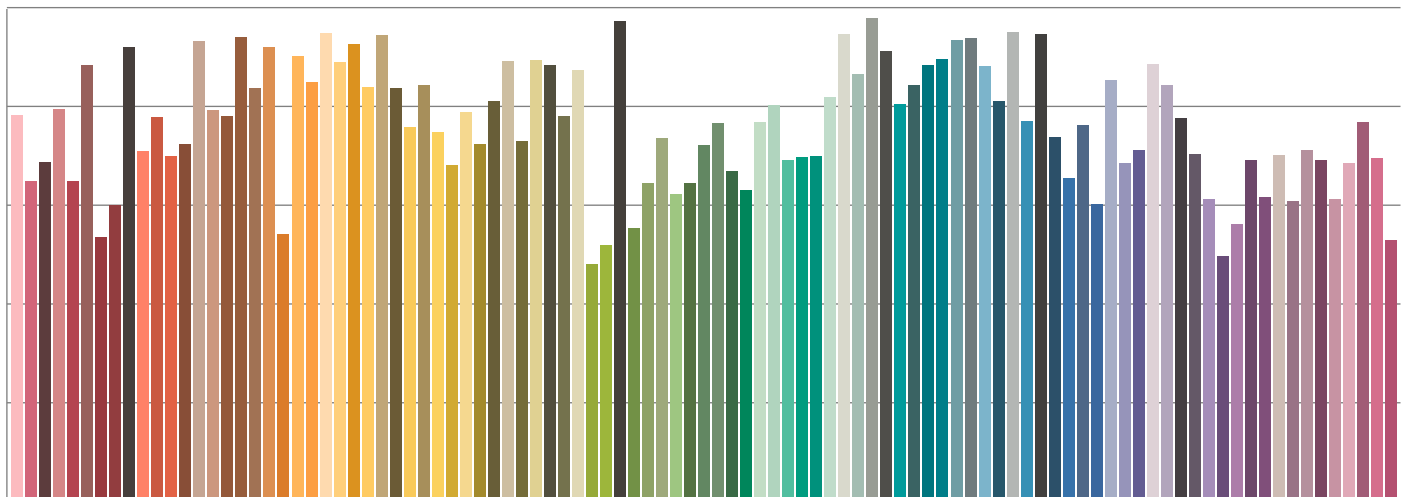
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)

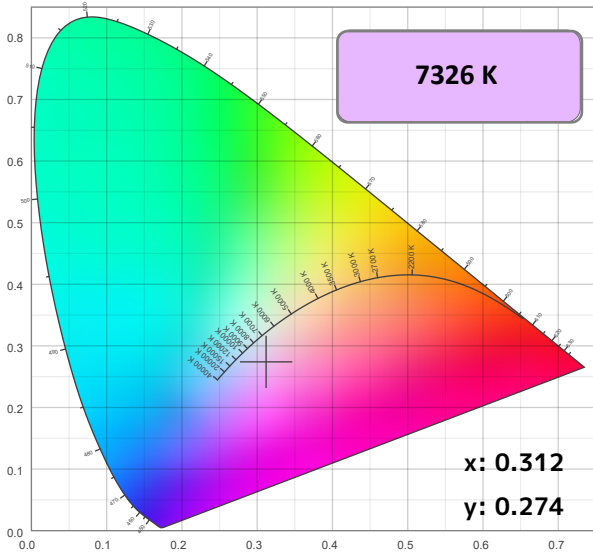


Color Temperature: 7326K

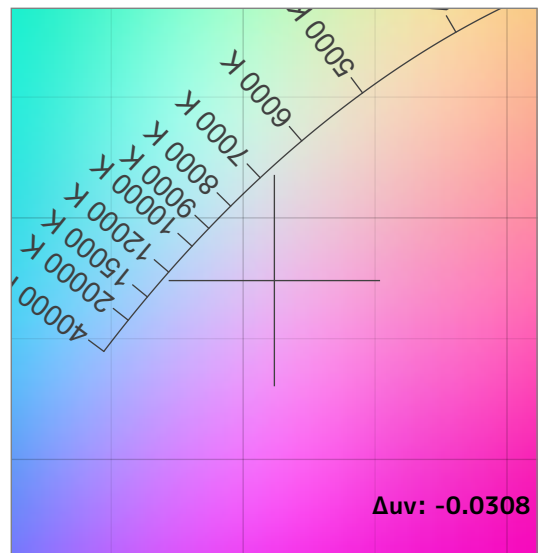
Accuracy Metric Overview

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
64.1	-60.3	75.9	122.2	73	85.2	0.312	0.274	-0.0308	7	50

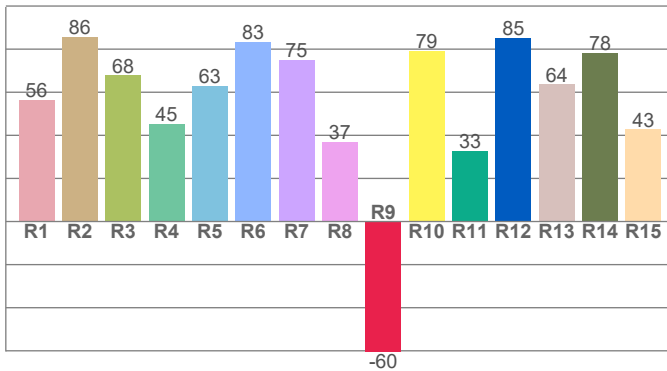
CIE 1931



CIE 1931 ZOOMED

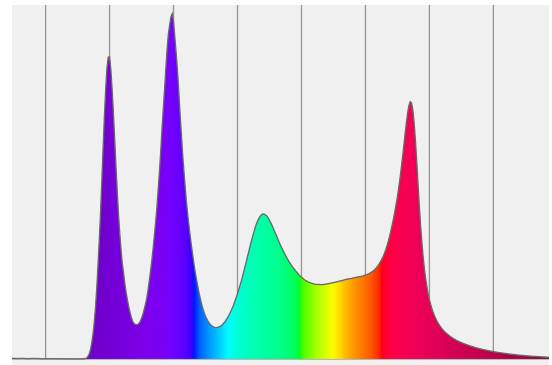


CRI: 64.1 (R1-R8)



Spectral Power Distribution (SPD)

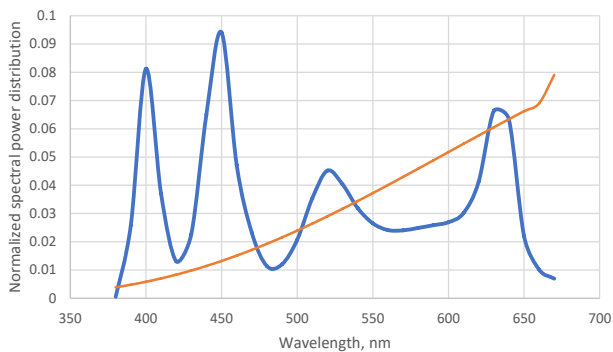
Dominant Wavelength 360 nm



SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 7

Spectral variance

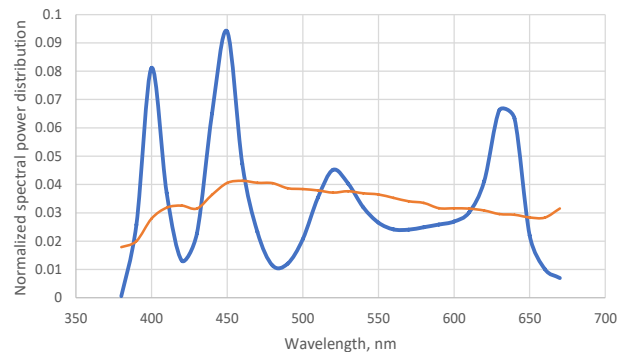


— Test Source — CIE Illuminant A - Tungsten

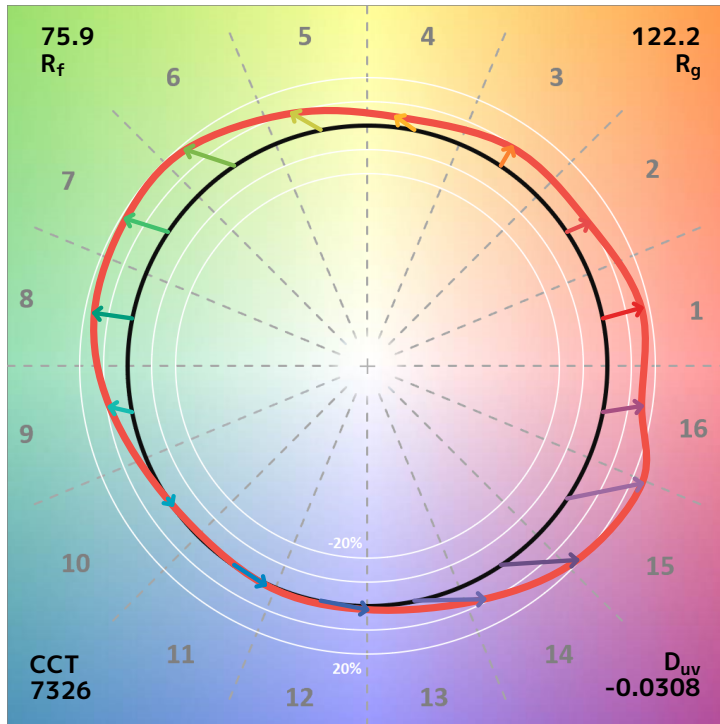
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 50

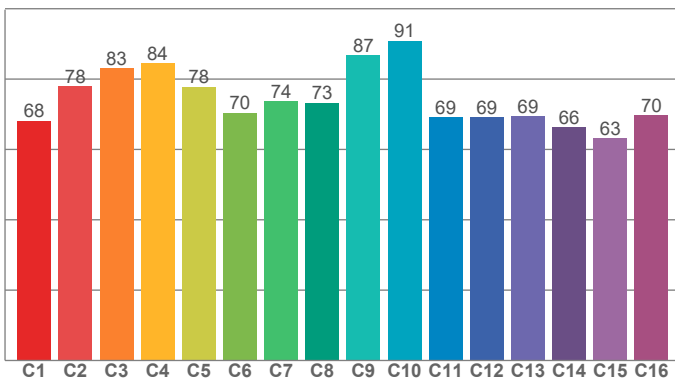
Spectral variance



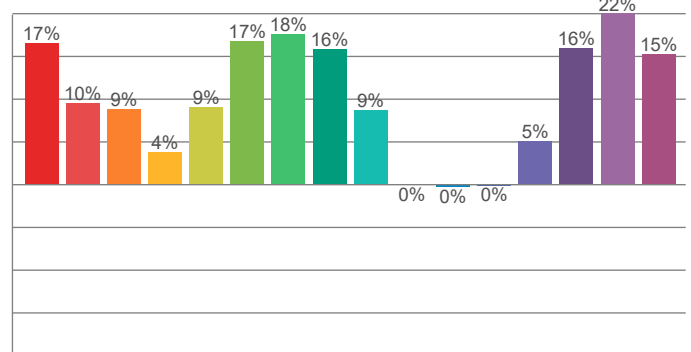
— Test Source — CIE Illuminant D65 - Daylight



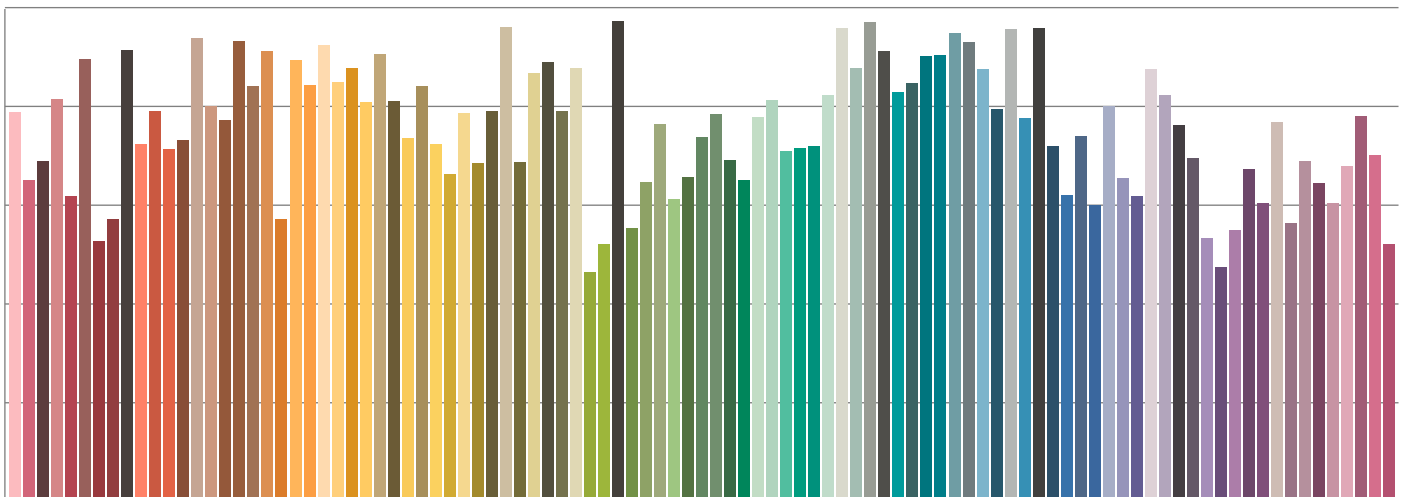
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)

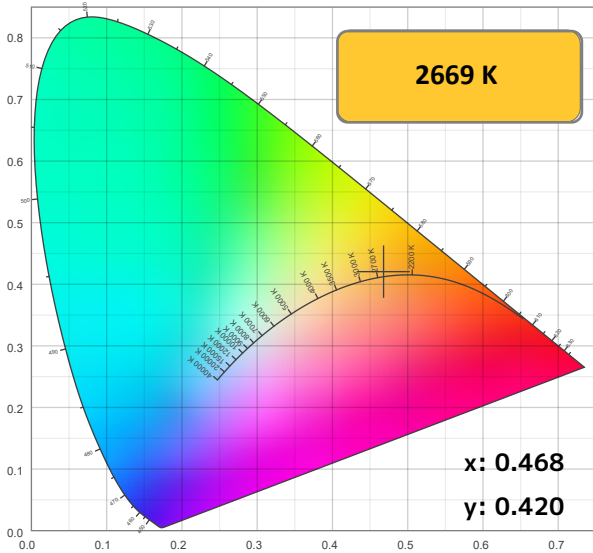


Color Temperature: 2669K

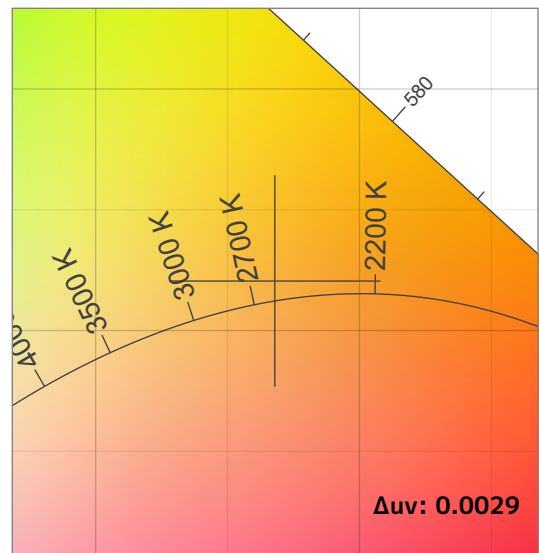
Accuracy Metric Overview

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
89.5	81.2	90.5	105.1	77	87.0	0.468	0.420	0.0029	60	12

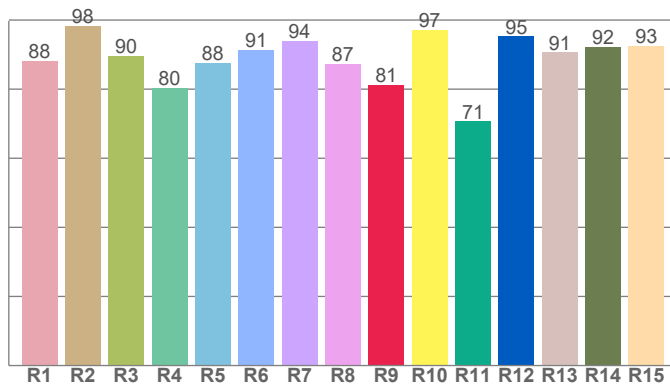
CIE 1931



CIE 1931 ZOOMED

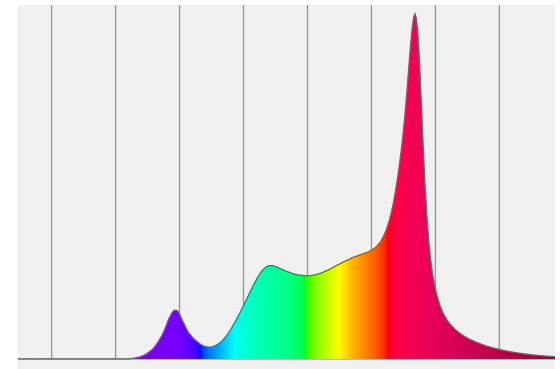


CRI: 89.5 (R1-R8)



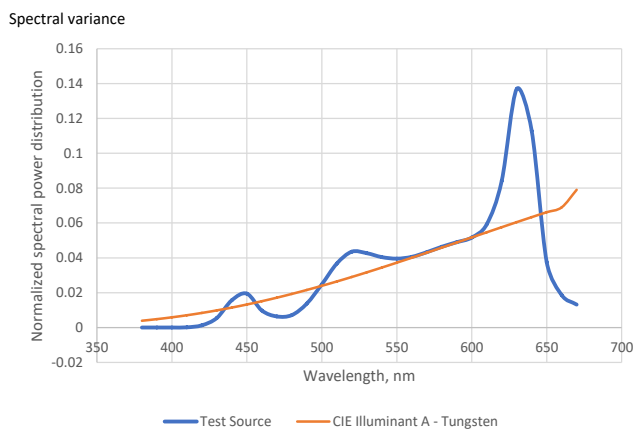
Spectral Power Distribution (SPD)

Dominant Wavelength 584 nm



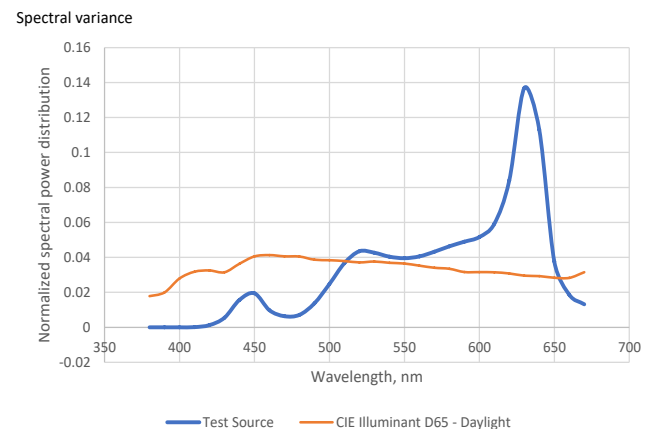
SSI Spectral Variance Graph- Tungsten

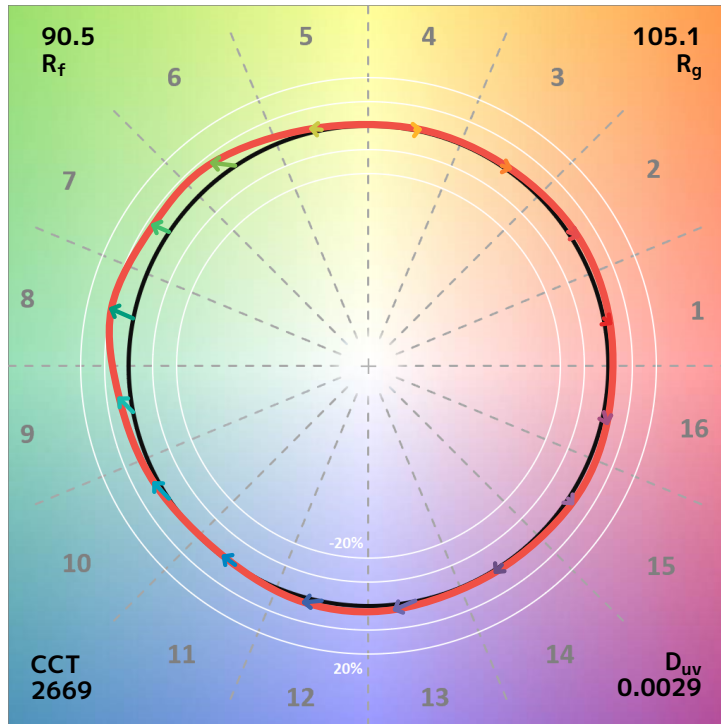
SSI [CIE A] 60



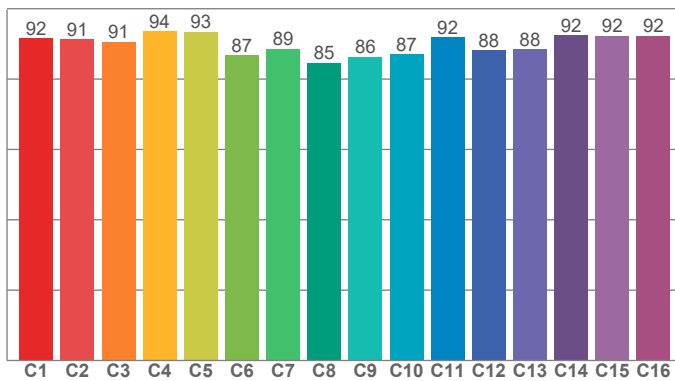
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 12

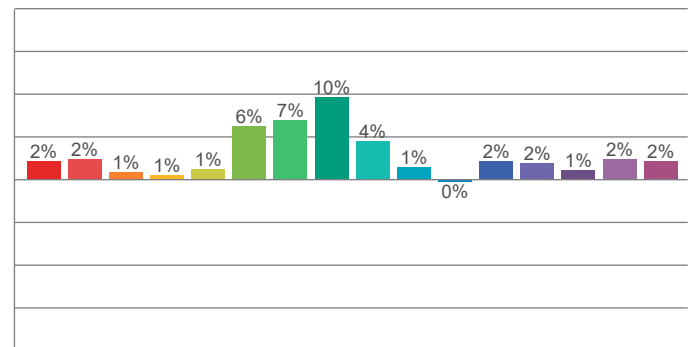




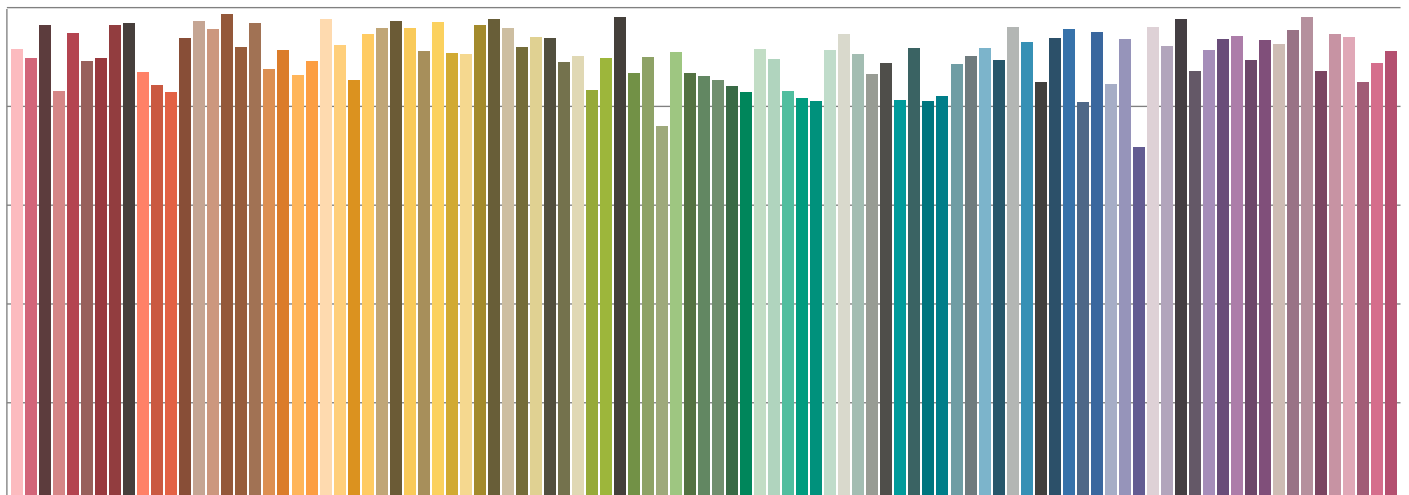
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)

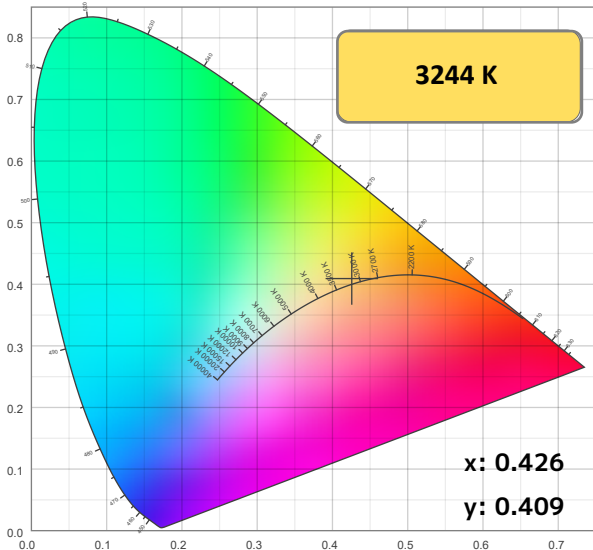


Color Temperature: 3244K

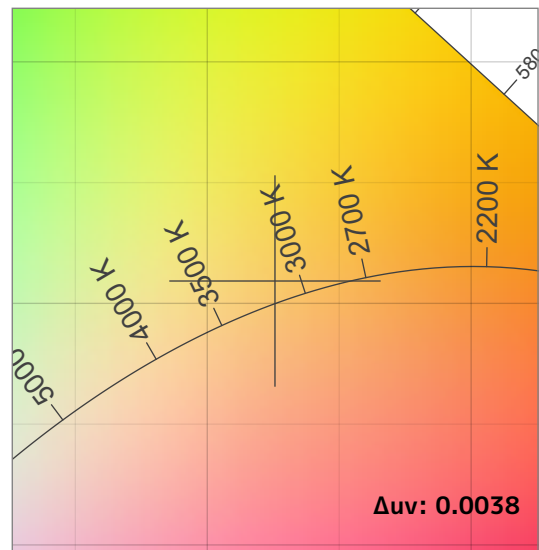
Accuracy Metric Overview

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	73.3	91.0	107.0	78	89.4	0.426	0.409	0.0038	62	28

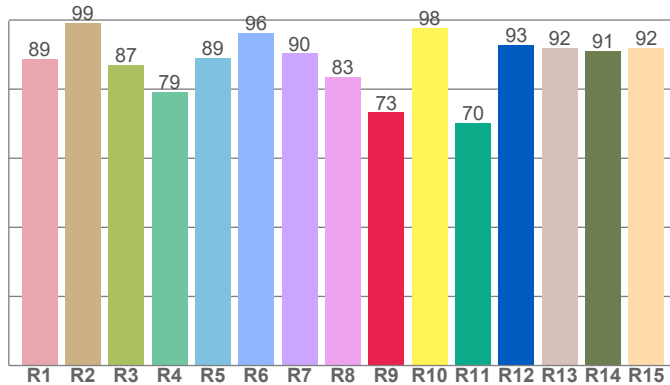
CIE 1931



CIE 1931 ZOOMED

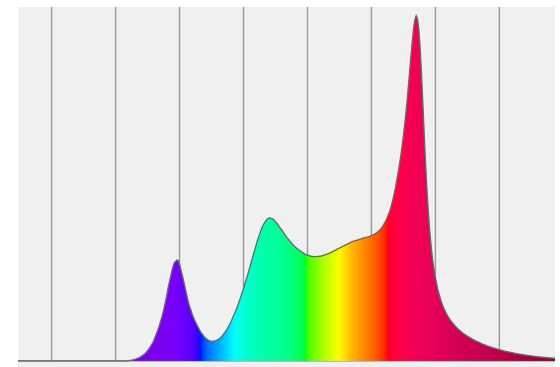


CRI: 89.1 (R1-R8)



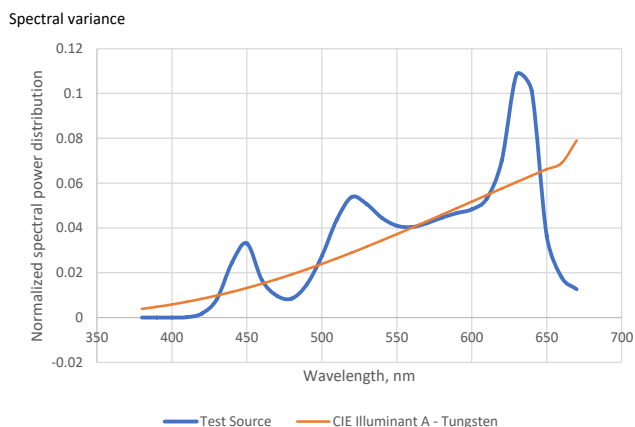
Spectral Power Distribution (SPD)

Dominant Wavelength 581 nm



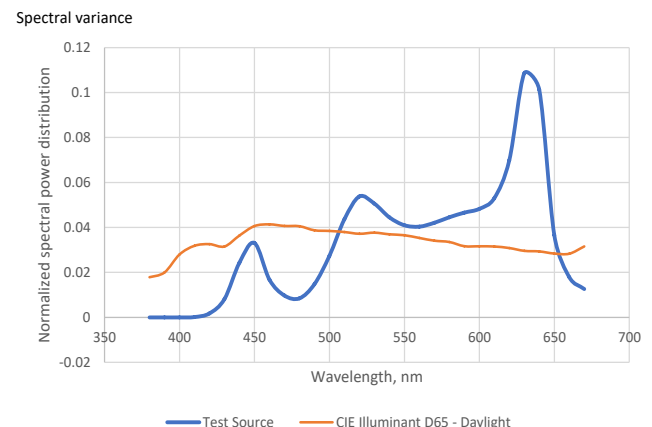
SSI Spectral Variance Graph- Tungsten

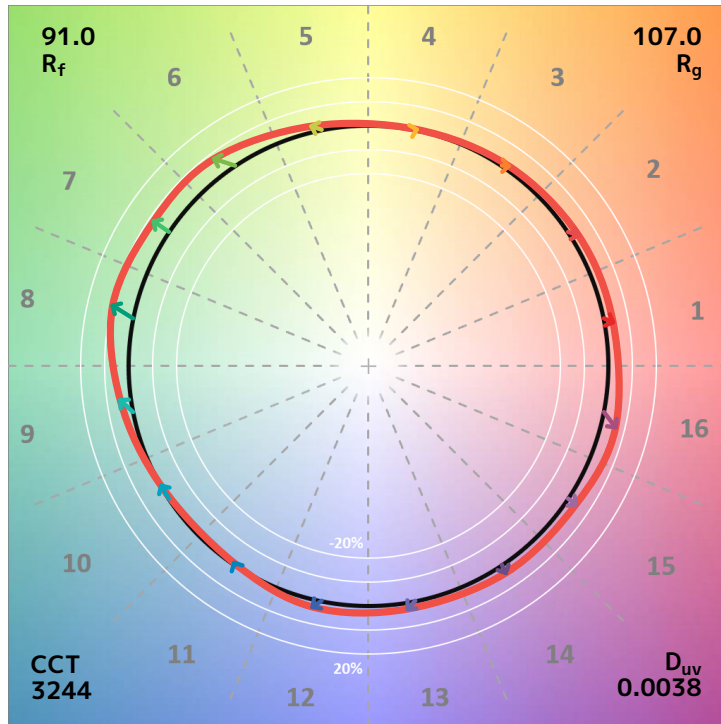
SSI [CIE A] 62



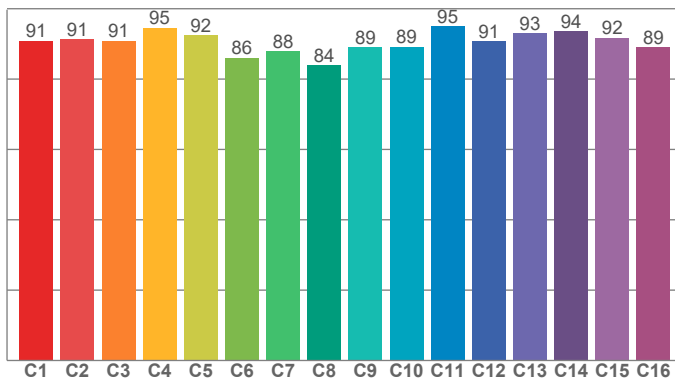
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 28

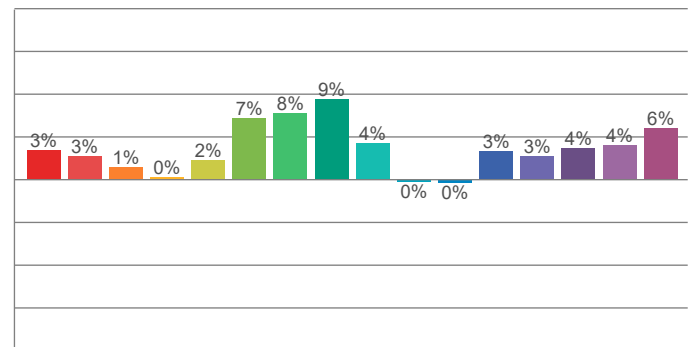




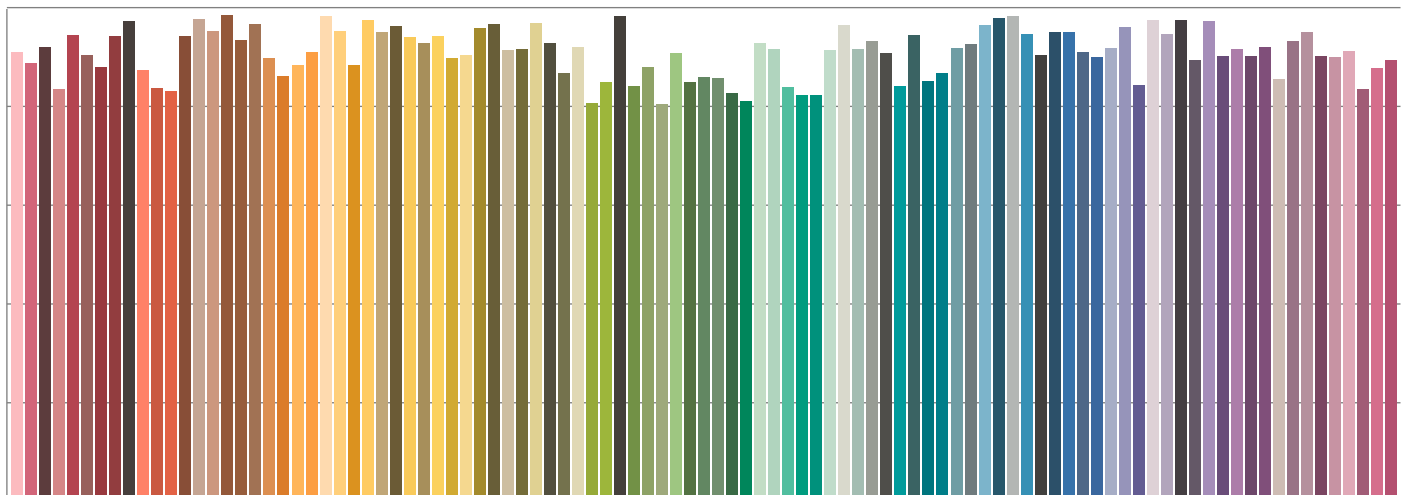
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)

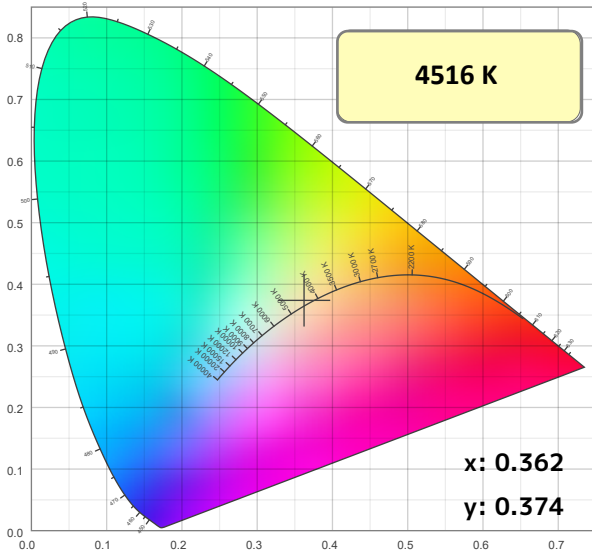


Color Temperature: 4516K

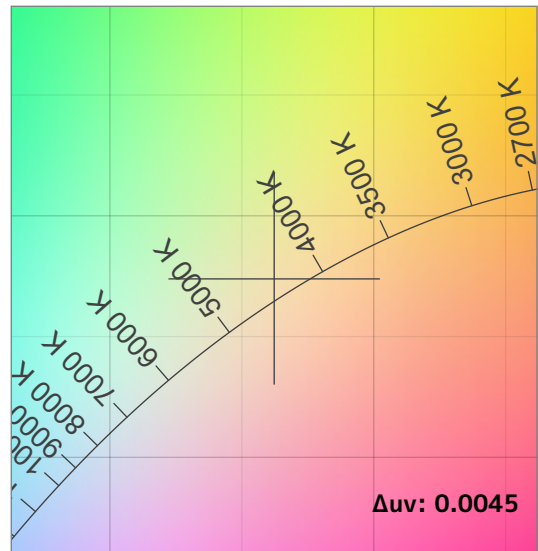
Accuracy Metric Overview

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	85.1	90.7	107.4	81	92.5	0.362	0.374	0.0045	46	49

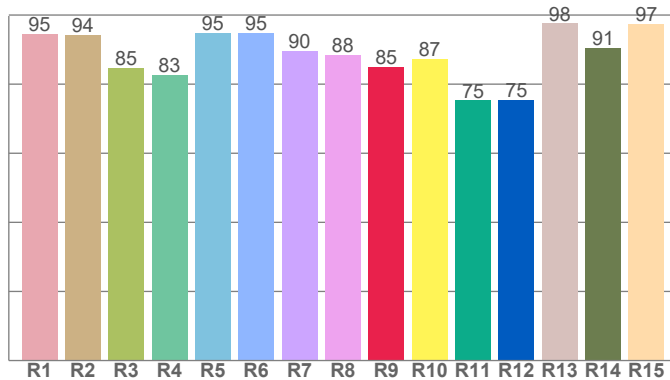
CIE 1931



CIE 1931 ZOOMED

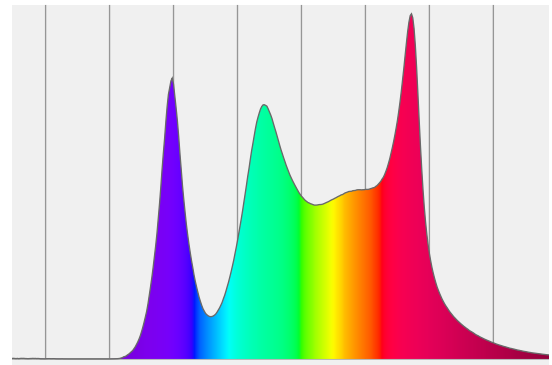


CRI: 90.4 (R1-R8)



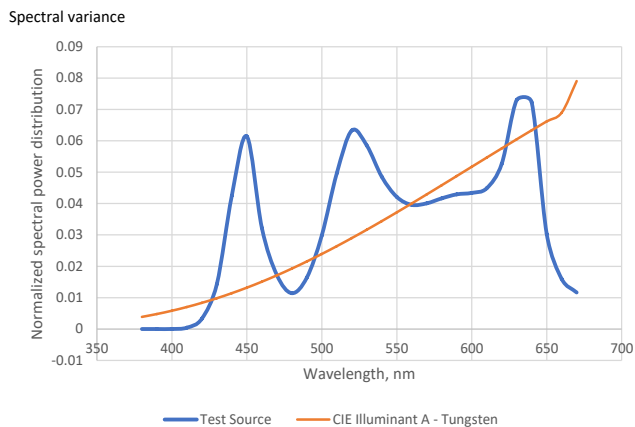
Spectral Power Distribution (SPD)

Dominant Wavelength 578 nm



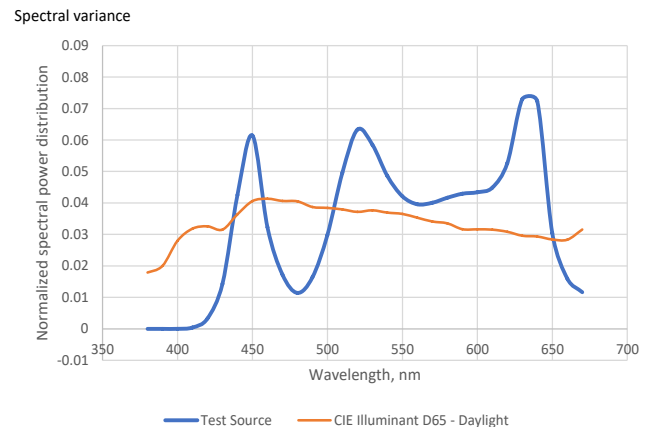
SSI Spectral Variance Graph- Tungsten

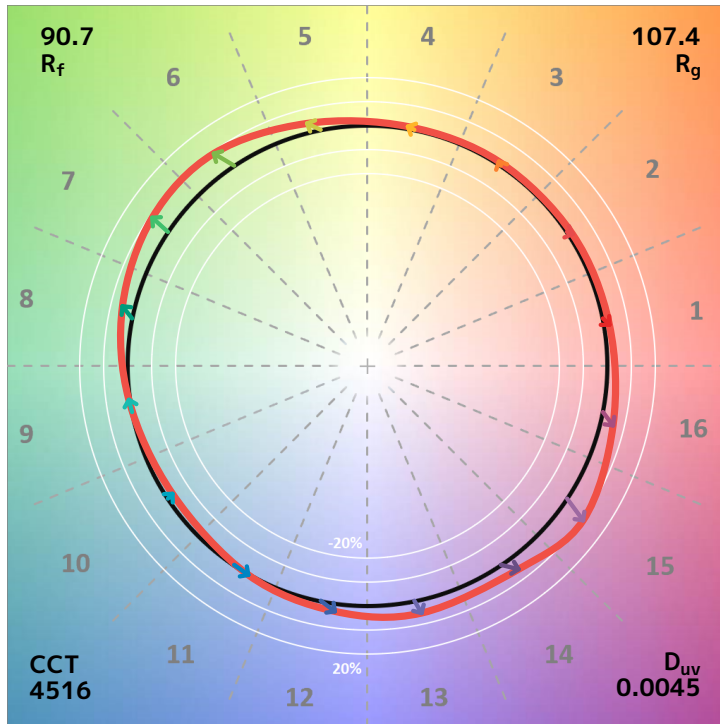
SSI [CIE A] 46



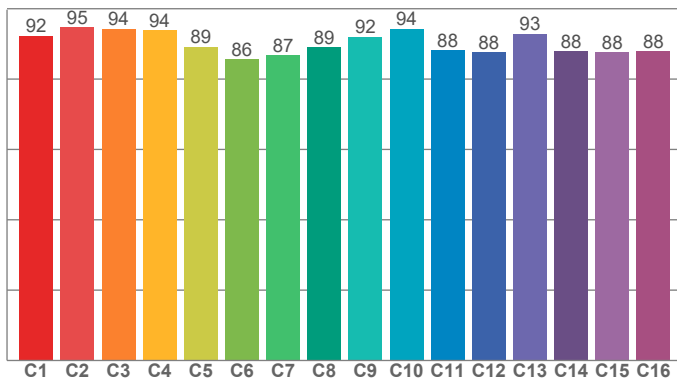
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 49

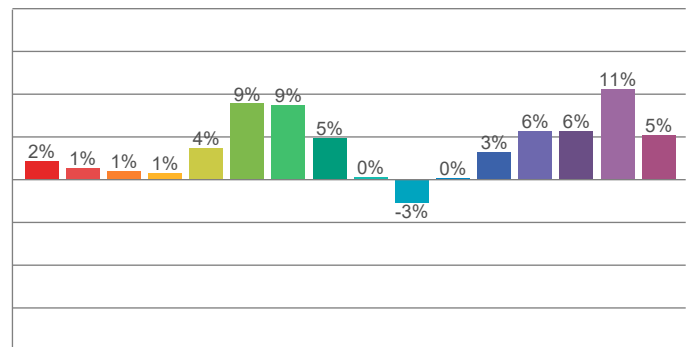




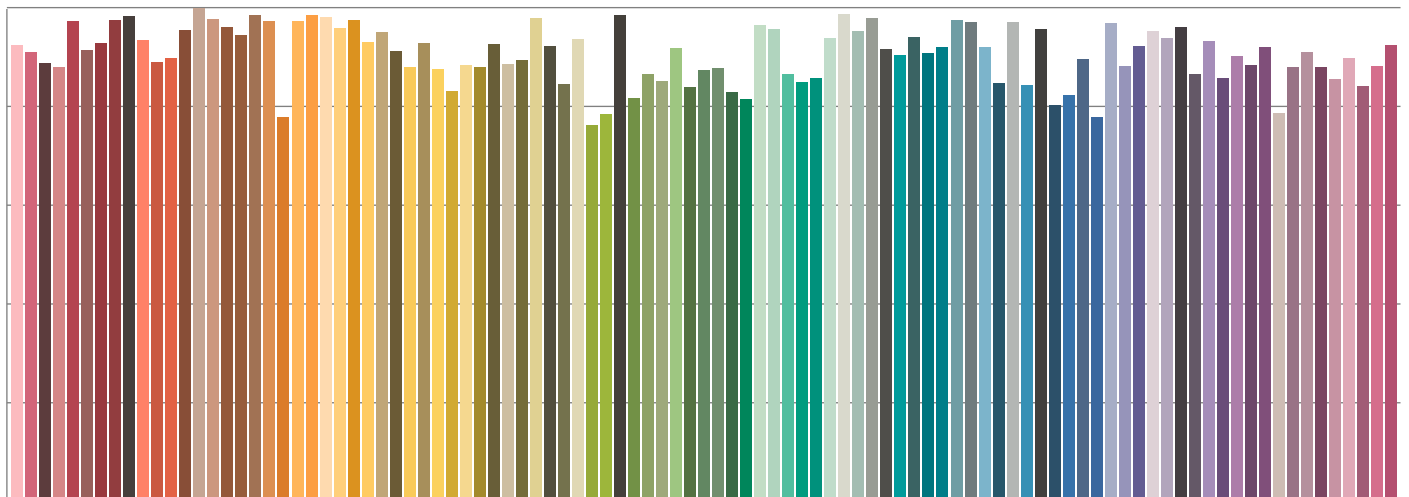
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)

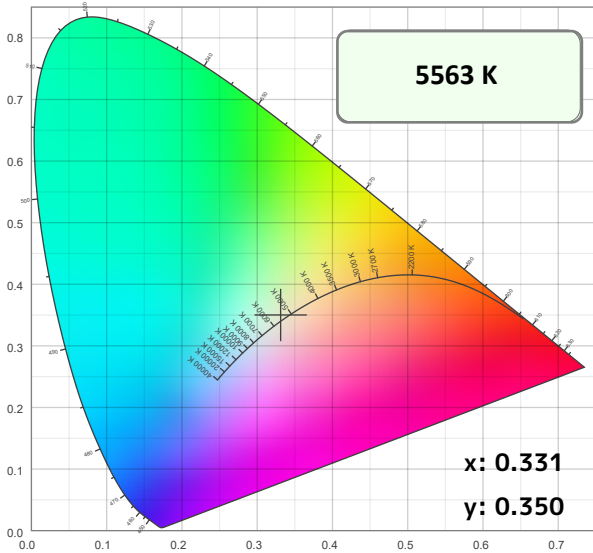


Color Temperature: 5563K

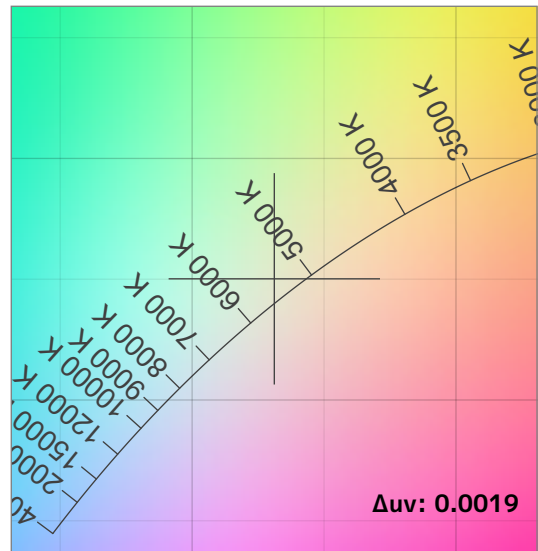
Accuracy Metric Overview

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
89.3	88.8	89.5	107.3	84	92.0	0.331	0.350	0.0019	33	54

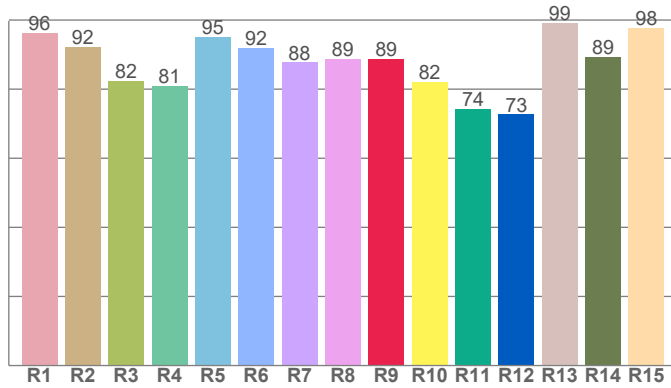
CIE 1931



CIE 1931 ZOOMED

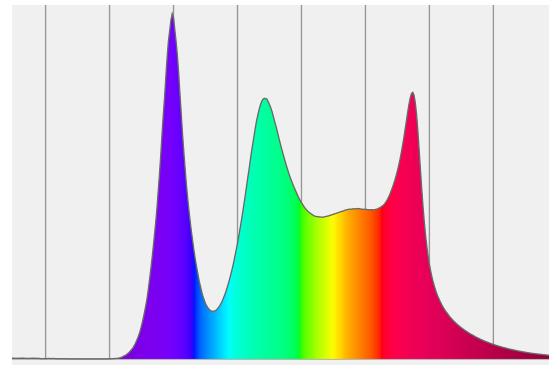


CRI: 89.3 (R1-R8)



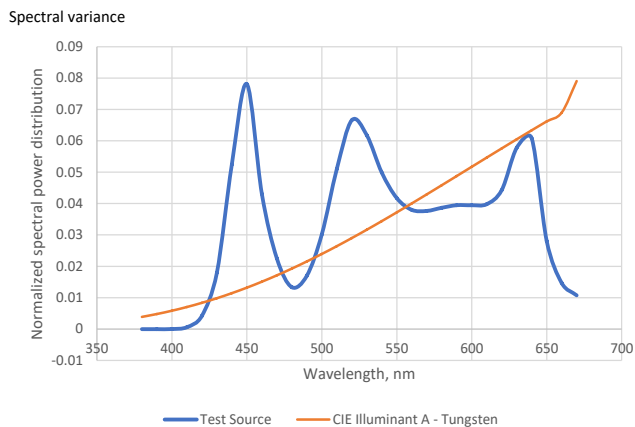
Spectral Power Distribution (SPD)

Dominant Wavelength 575 nm



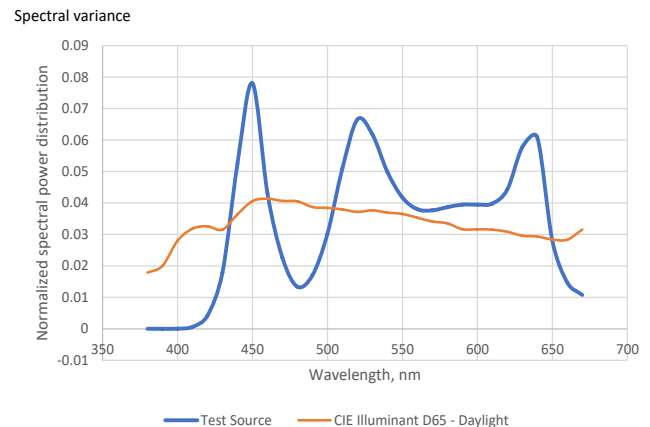
SSI Spectral Variance Graph- Tungsten

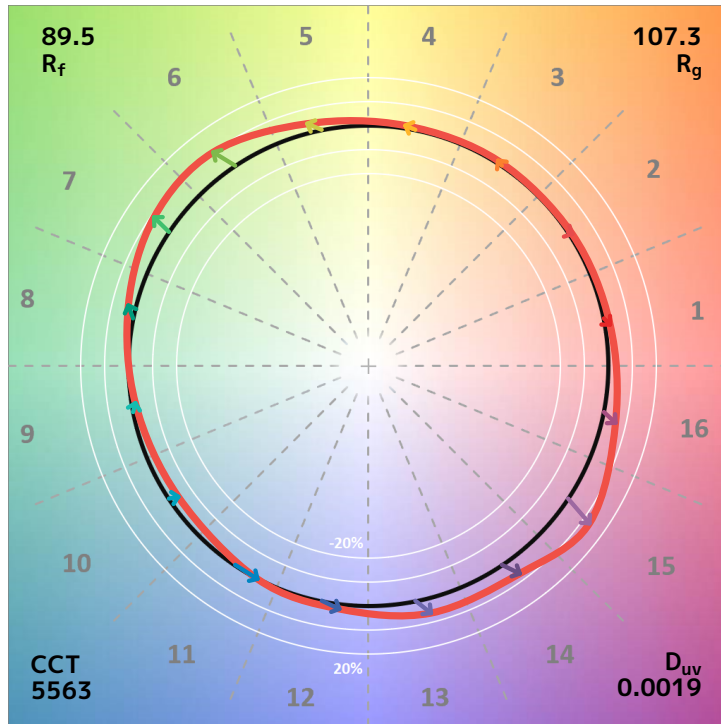
SSI [CIE A] 33



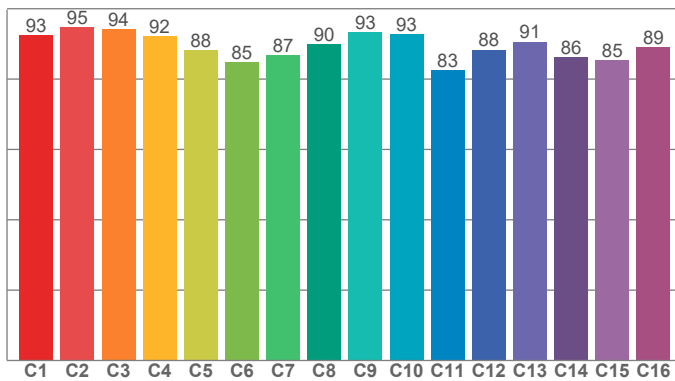
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 54

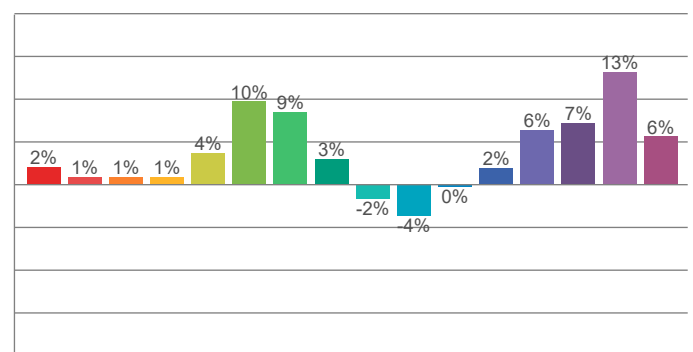




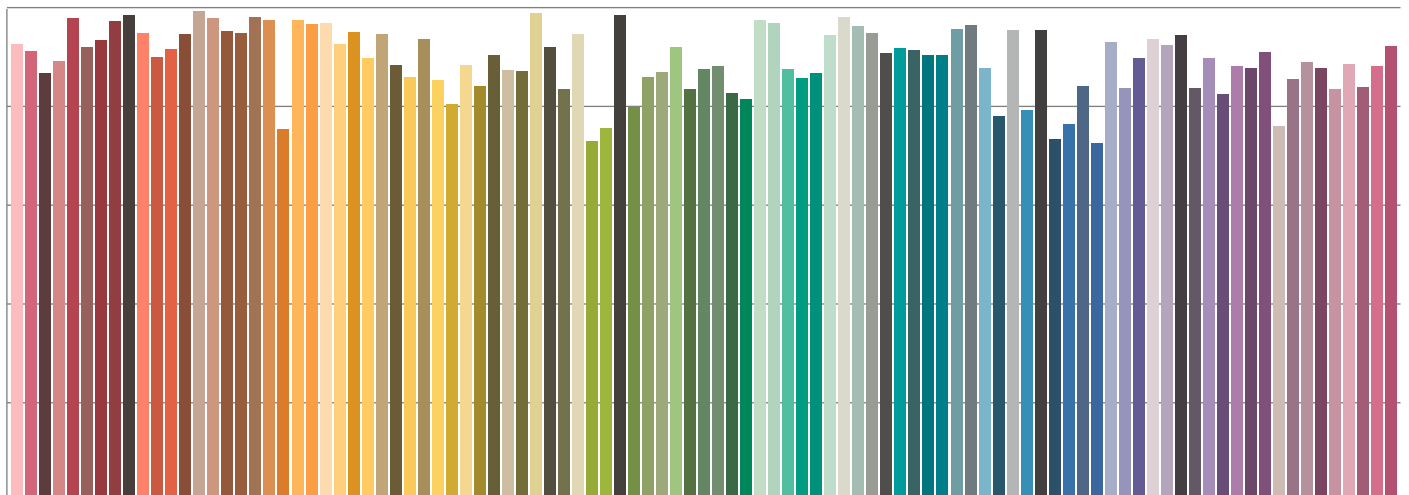
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)

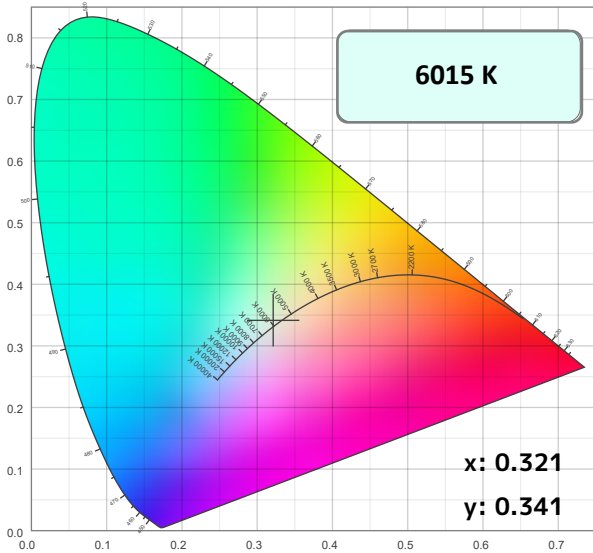


Color Temperature: 6015K

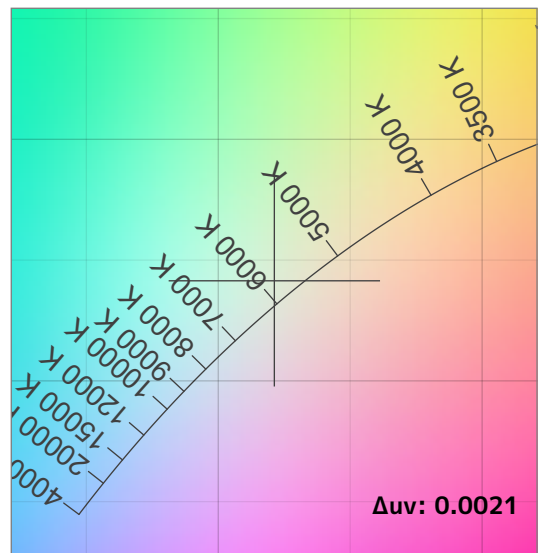
Accuracy Metric Overview

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
88.9	86.5	89.2	107.4	85	91.8	0.321	0.341	0.0021	27	54

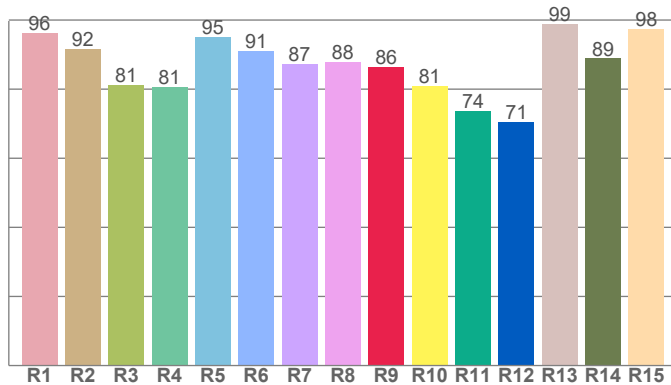
CIE 1931



CIE 1931 ZOOMED

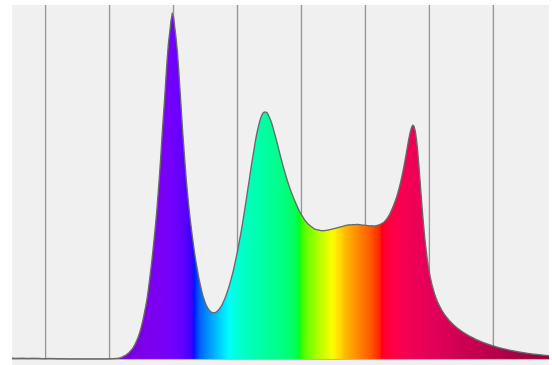


CRI: 88.9 (R1-R8)



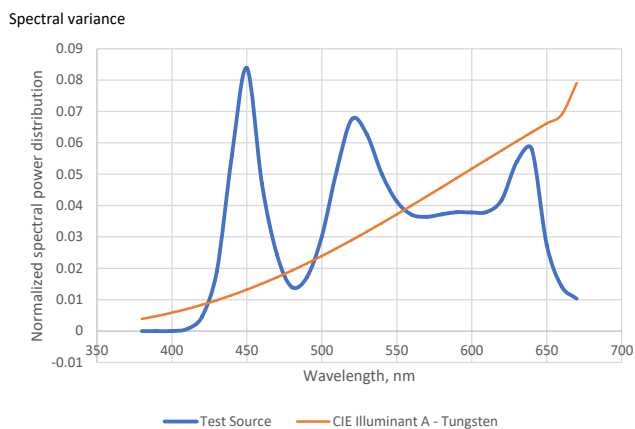
Spectral Power Distribution (SPD)

Dominant Wavelength 572 nm



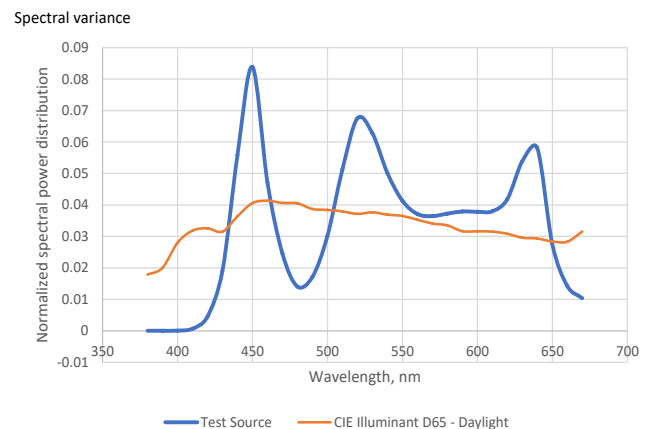
SSI Spectral Variance Graph- Tungsten

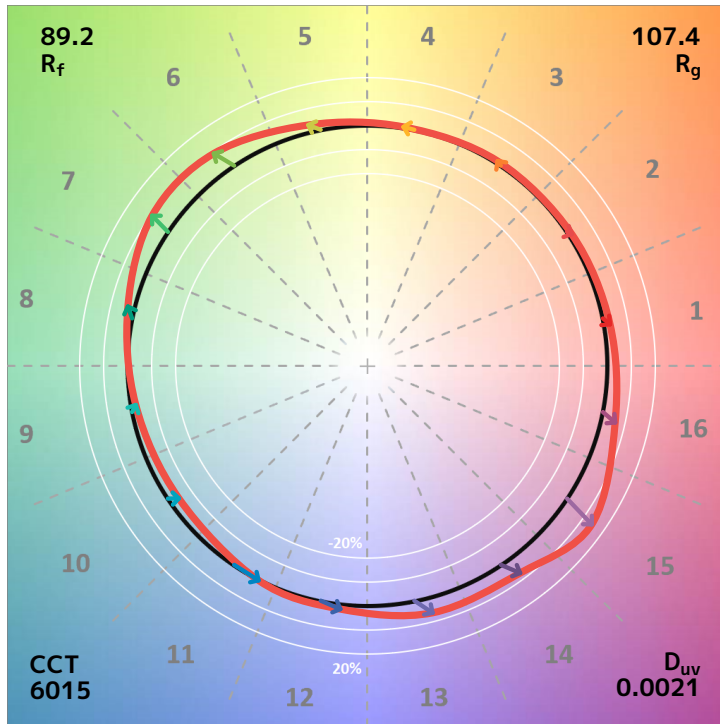
SSI [CIE A] 27



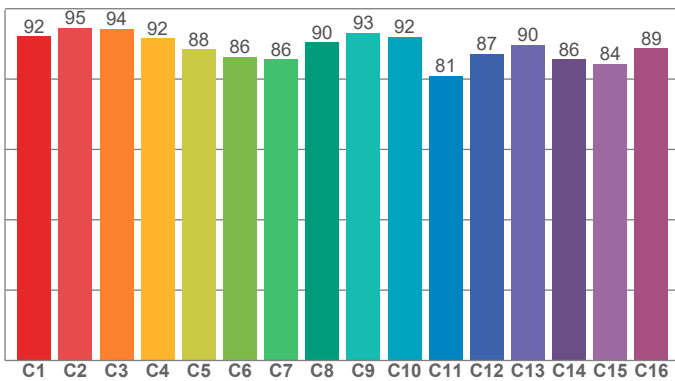
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 54

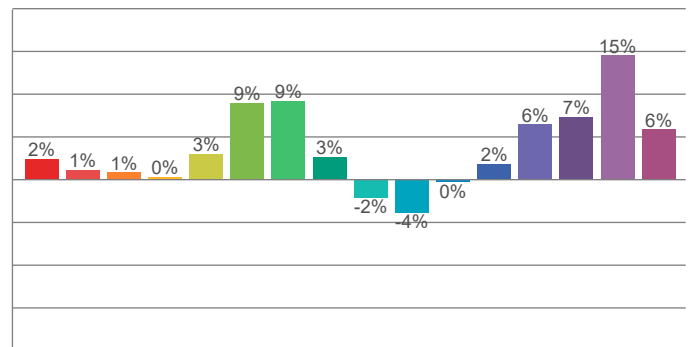




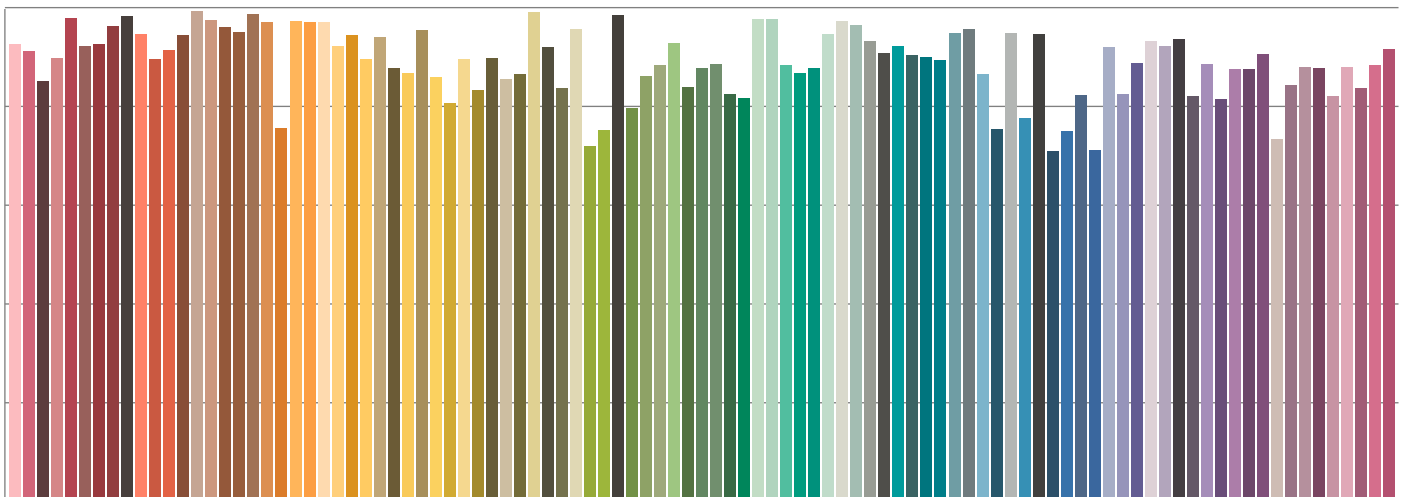
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)

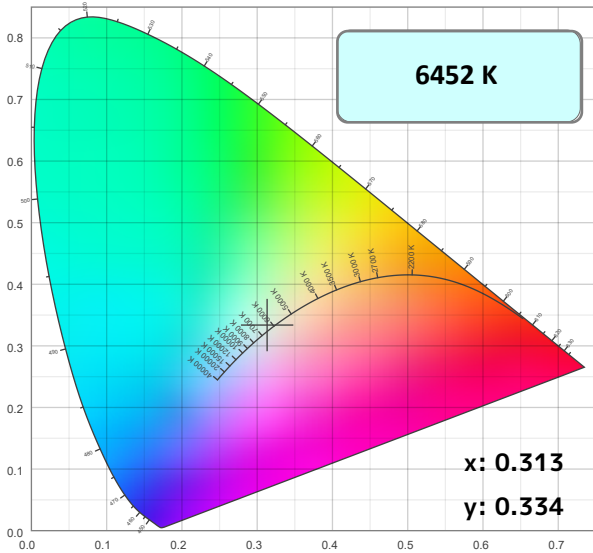


Color Temperature: 6452K

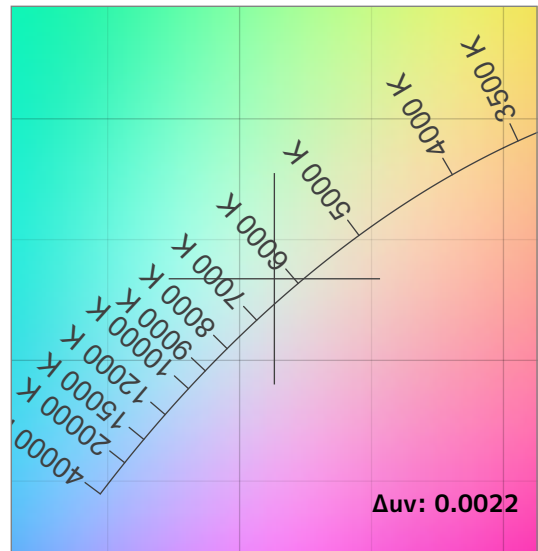
Accuracy Metric Overview

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	91.9	88.9	106.7	86	91.7	0.313	0.334	0.0022	22	54

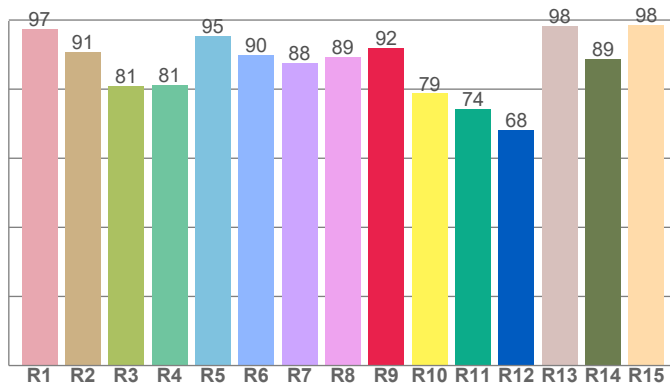
CIE 1931



CIE 1931 ZOOMED

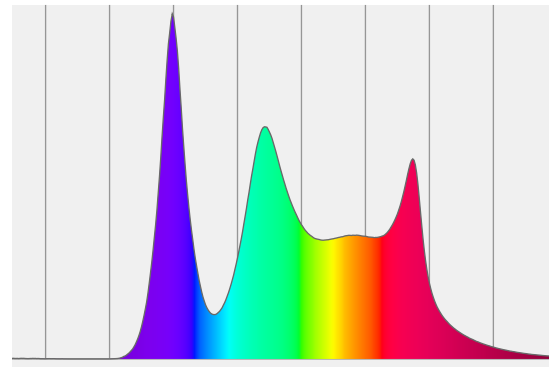


CRI: 89.1 (R1-R8)



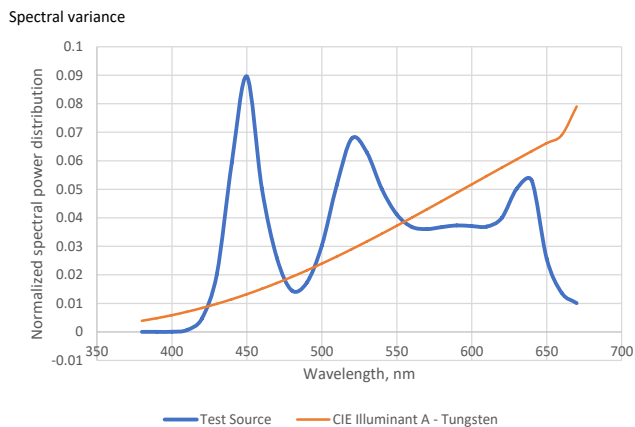
Spectral Power Distribution (SPD)

Dominant Wavelength 556 nm



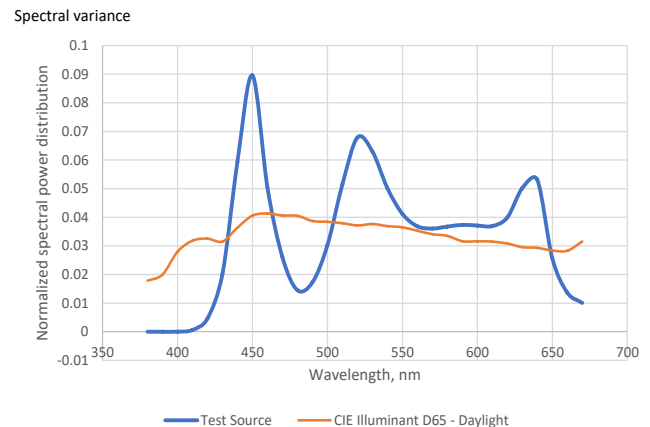
SSI Spectral Variance Graph- Tungsten

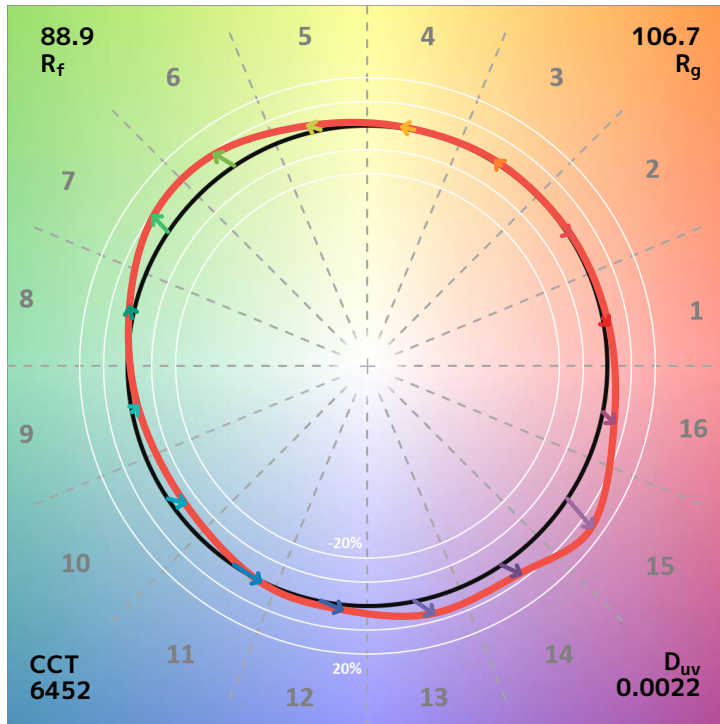
SSI [CIE A] 22



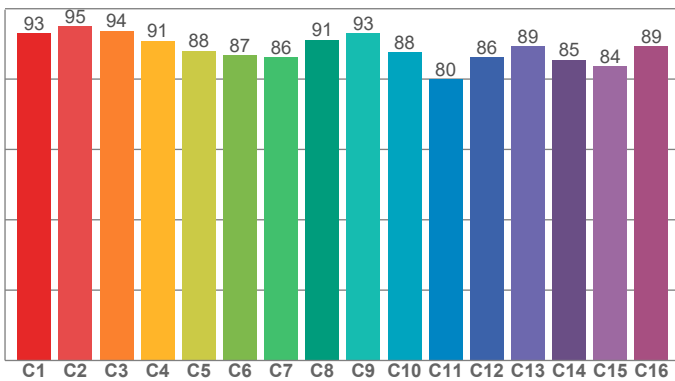
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 54

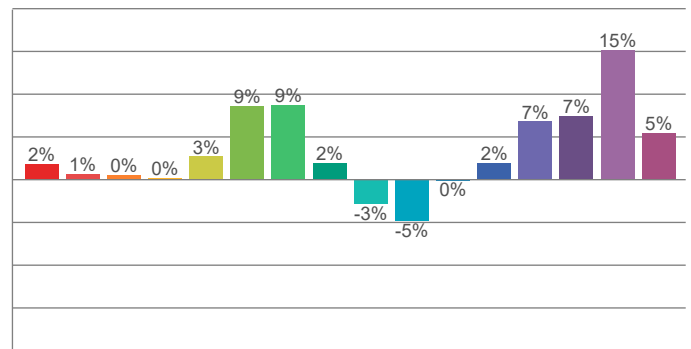




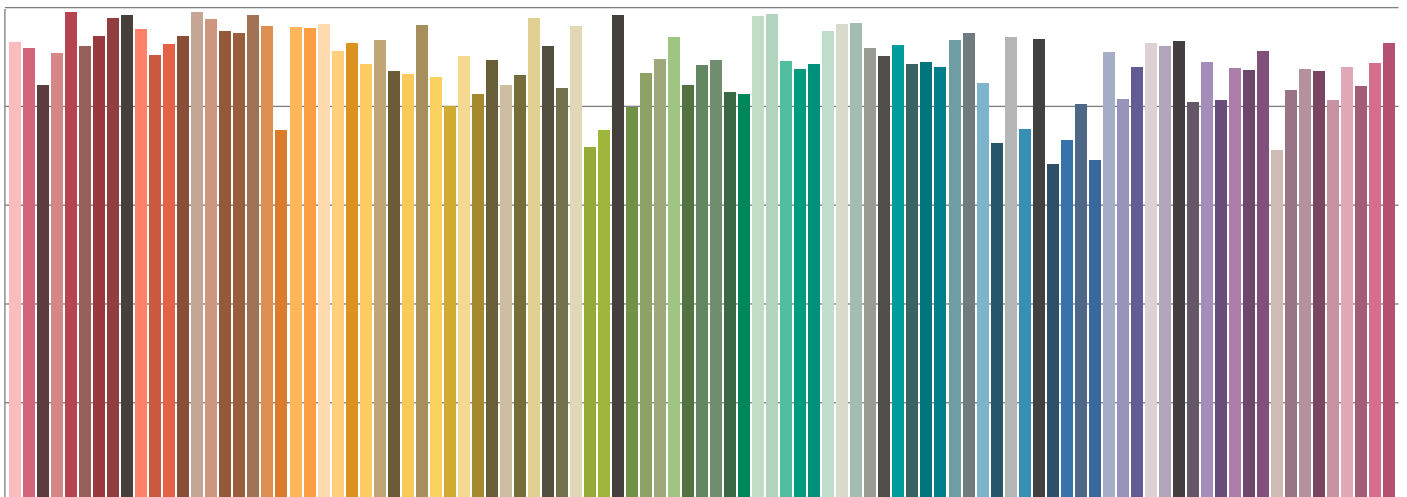
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R_f Values per Reference Color (CES)

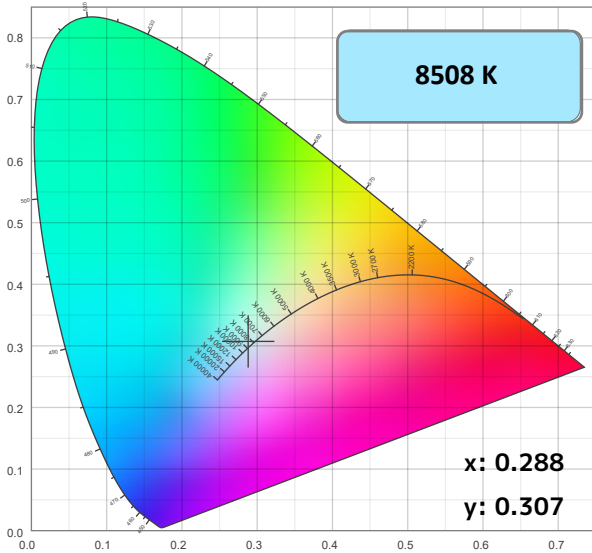


Color Temperature: 8508K

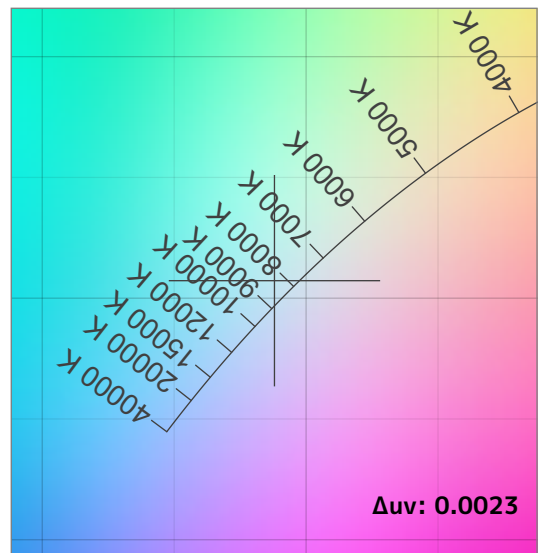
Accuracy Metric Overview

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
88.4	95.3	87.6	105.0	88	90.9	0.288	0.307	0.0023	6	50

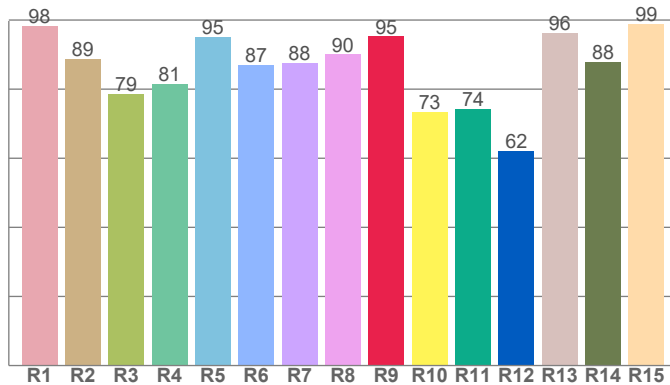
CIE 1931



CIE 1931 ZOOMED

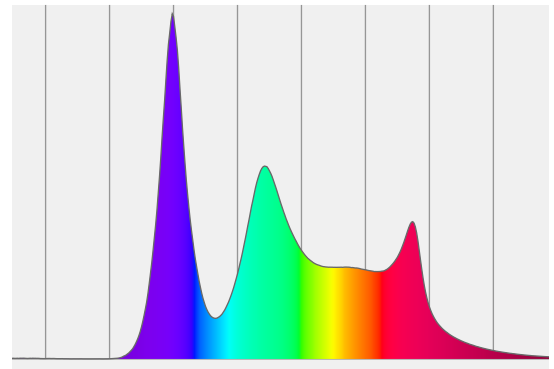


CRI: 88.4 (R1-R8)



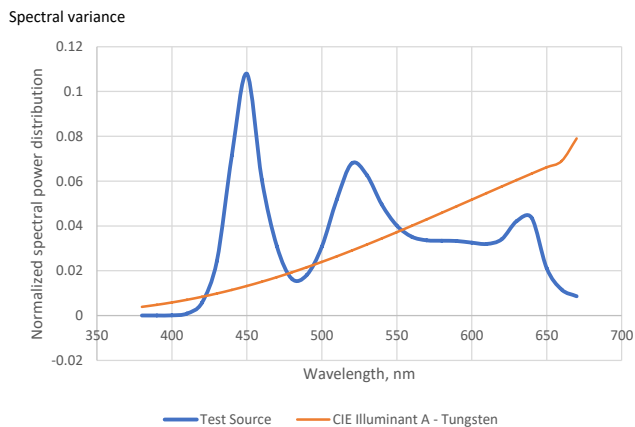
Spectral Power Distribution (SPD)

Dominant Wavelength 480 nm



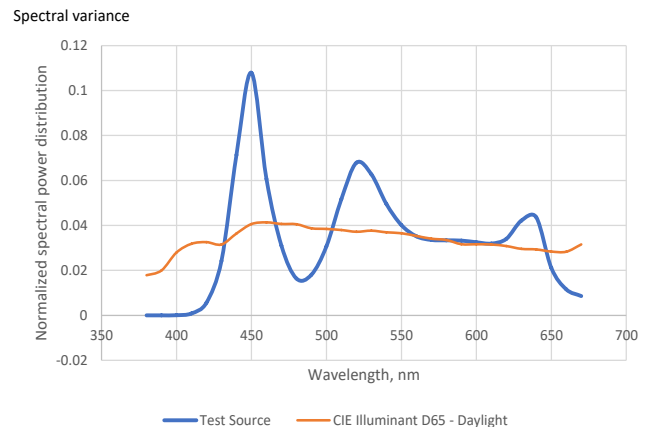
SSI Spectral Variance Graph- Tungsten

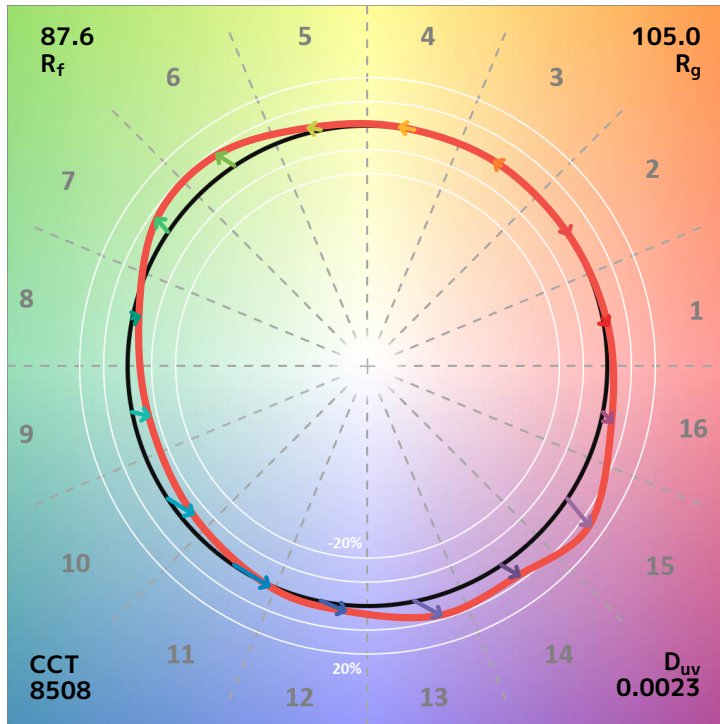
SSI [CIE A] 6



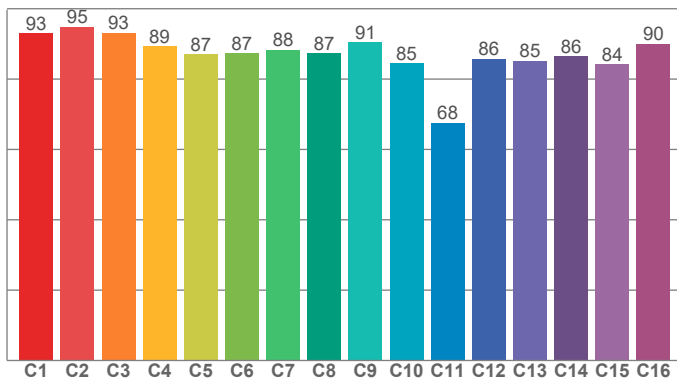
SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 50

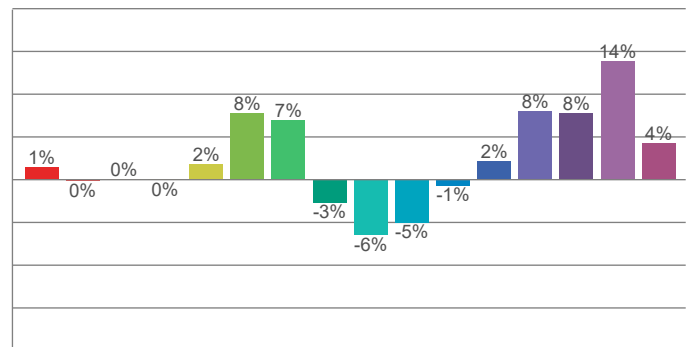




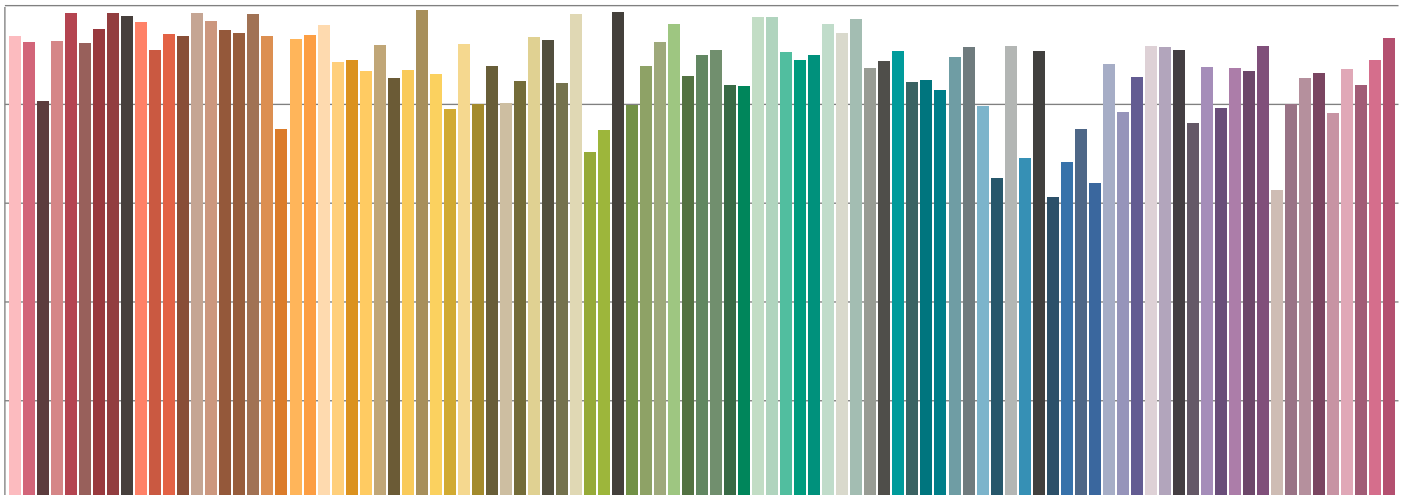
TM30-18 R_f Values per Hue Bin



TM30 Chroma Shift per Hue Bin

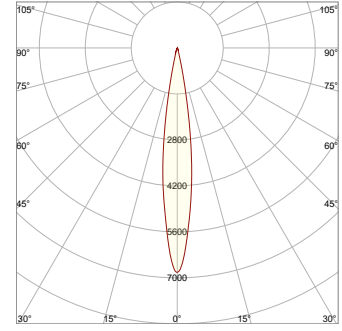
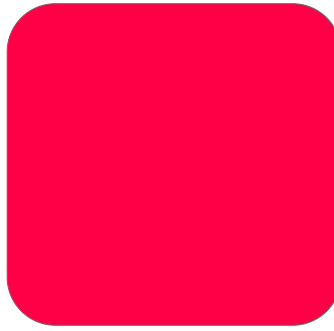


TM30-18 R_f Values per Reference Color (CES)

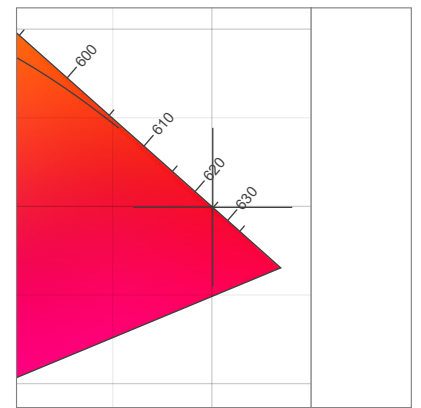
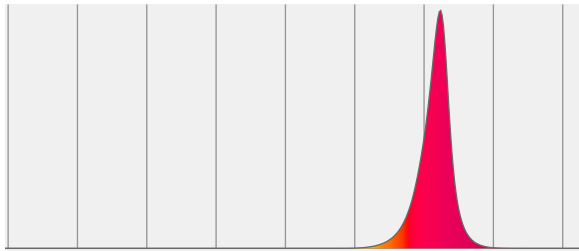


Measurements

Total Lumen Output: 497 lm
 Peak Intensity: 6793 cd
 Efficacy: 26 Lumen/Watt
 Power: 19.0 W
 Voltage: 120 V, Current: 0.180 A

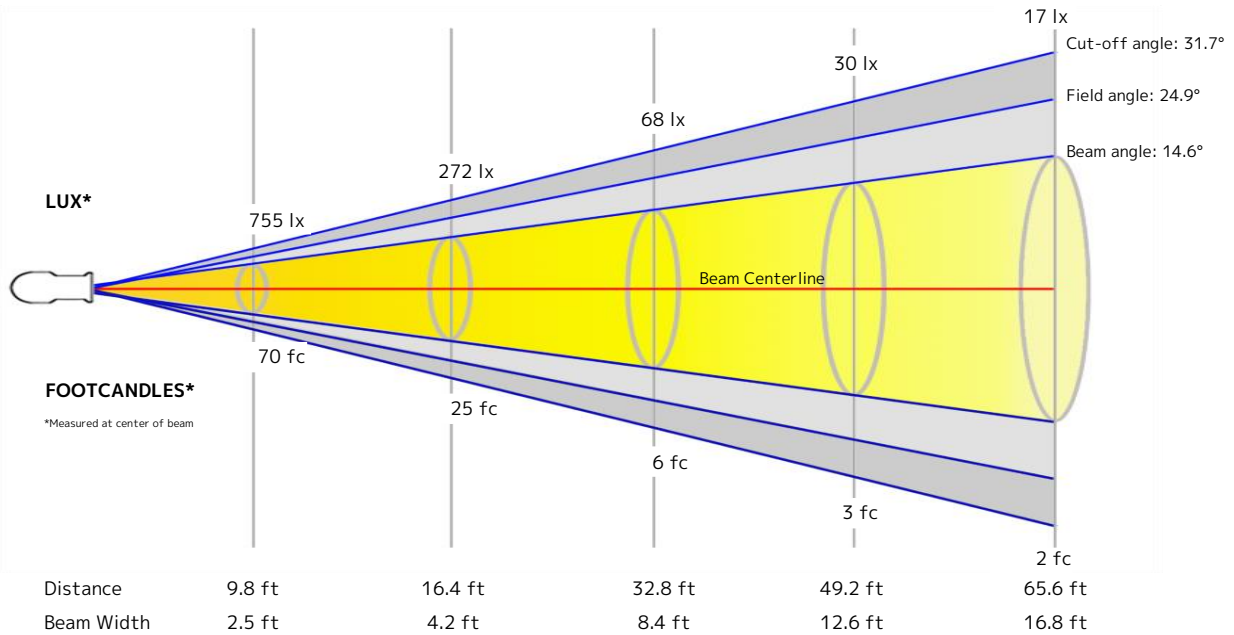


Spectral Power Distribution Dominant Wavelength 625 nm



Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
625	0.700	0.299	0.540	0.346

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.8 m	1.3 m	2.6 m	3.8 m	5.1 m

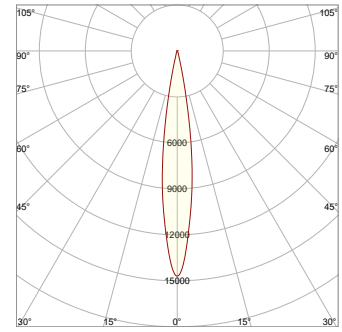
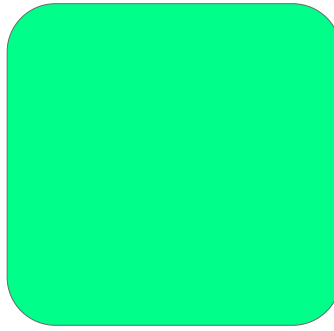


Beam Intensities from 1-20m

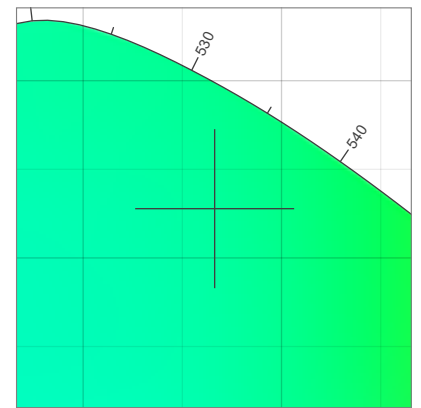
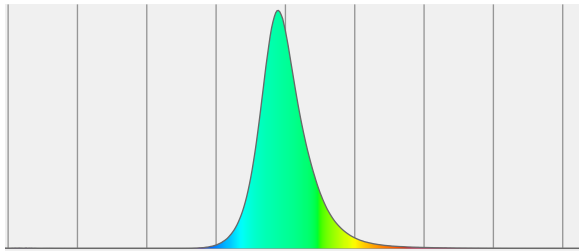
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
LX	6793	1698	755	425	272	189	139	106	84	68	56	47	40	35	30	27	24	21	19	17
FC	631.1	157.8	70.1	39.4	25.2	17.5	12.9	9.9	7.8	6.3	5.2	4.4	3.7	3.2	2.8	2.5	2.2	1.9	1.7	1.6

Measurements

Total Lumen Output: 1126 lm
 Peak Intensity: 14615 cd
 Efficacy: 53 Lumen/Watt
 Power: 21.3 W
 Voltage: 120 V, Current: 0.196 A

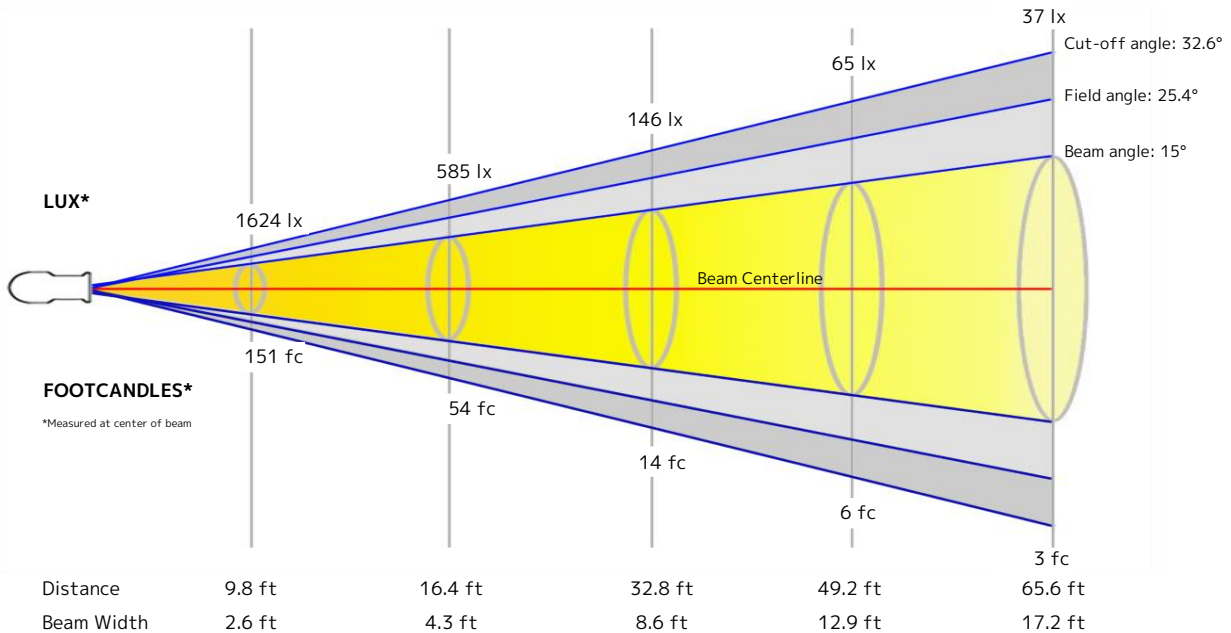


Spectral Power Distribution Dominant Wavelength 527 nm



Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
527	0.166	0.728	0.058	0.383

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.8 m	1.3 m	2.6 m	3.9 m	5.3 m

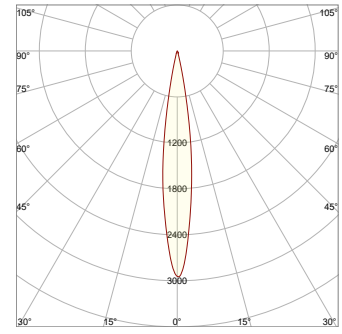
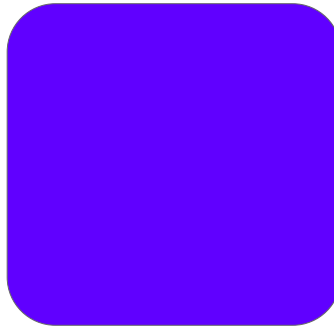


Beam Intensities from 1-20m

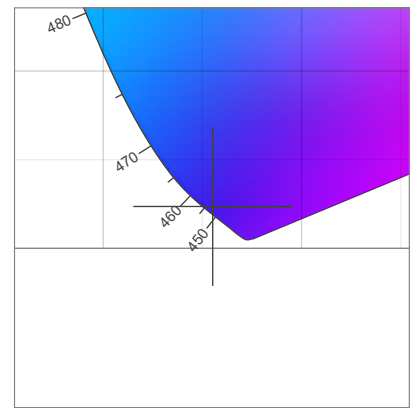
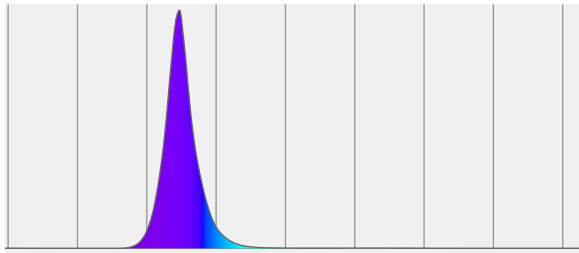
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
LX	14615	3654	1624	913	585	406	298	228	180	146	121	101	86	75	65	57	51	45	40	37
FC	1357.8	339.5	150.9	84.9	54.3	37.7	27.7	21.2	16.8	13.6	11.2	9.4	8	6.9	6	5.3	4.7	4.2	3.8	3.4

Measurements

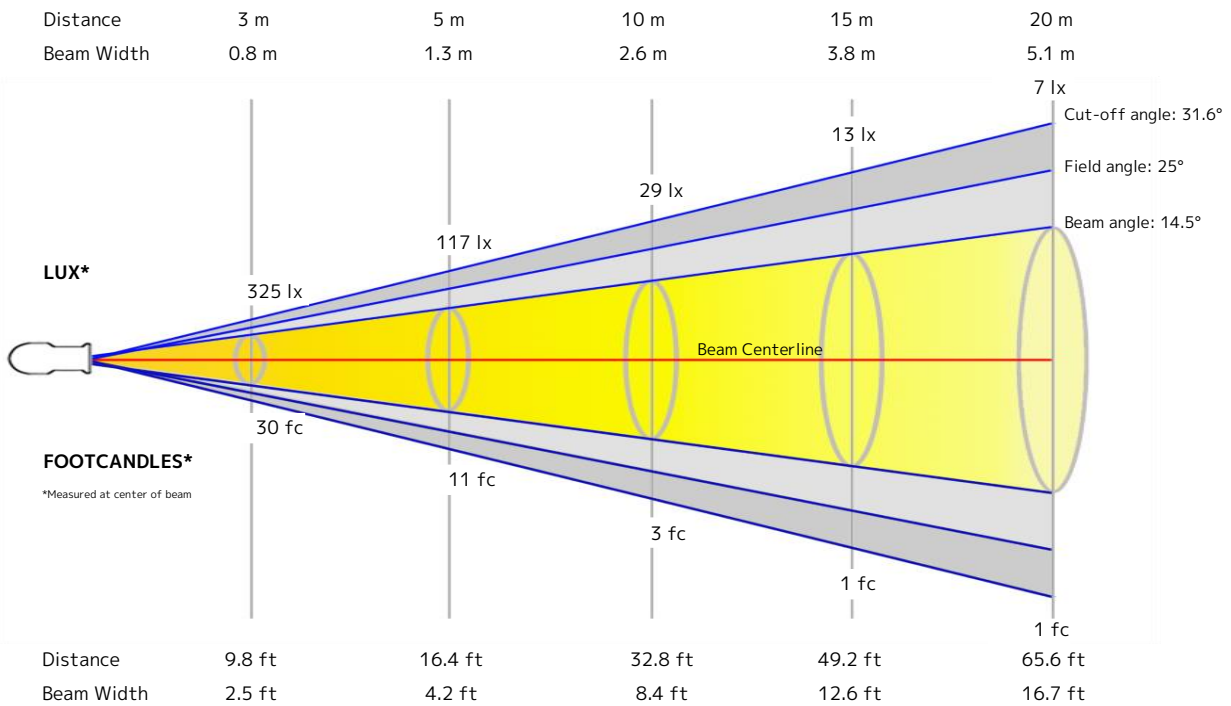
Total Lumen Output: 213 lm
 Peak Intensity: 2935 cd
 Efficacy: 10 Lumen/Watt
 Power: 22.4 W
 Voltage: 121 V, Current: 0.205 A



Spectral Power Distribution Dominant Wavelength 453 nm



Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
453	0.155	0.024	0.209	0.048

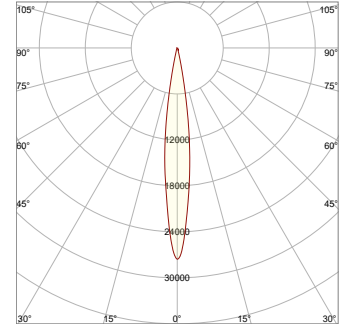
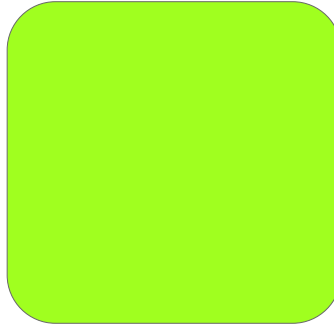


Beam Intensities from 1-20m

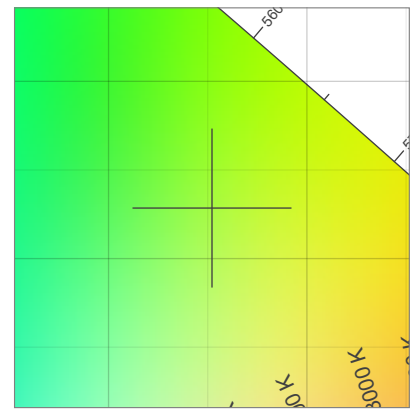
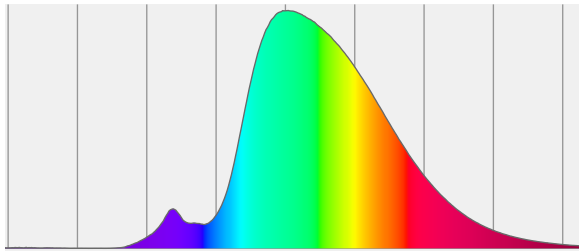
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
LX	2928	732	325	183	117	81	60	46	36	29	24	20	17	15	13	11	10	9	8	7
FC	272	68	30.2	17	10.9	7.6	5.6	4.3	3.4	2.7	2.2	1.9	1.6	1.4	1.2	1.1	0.9	0.8	0.8	0.7

Measurements

Total Lumen Output: 1842 lm
 Peak Intensity: 27543 cd
 Efficacy: 82 Lumen/Watt
 Power: 22.6 W
 Voltage: 121 V, Current: 0.207 A

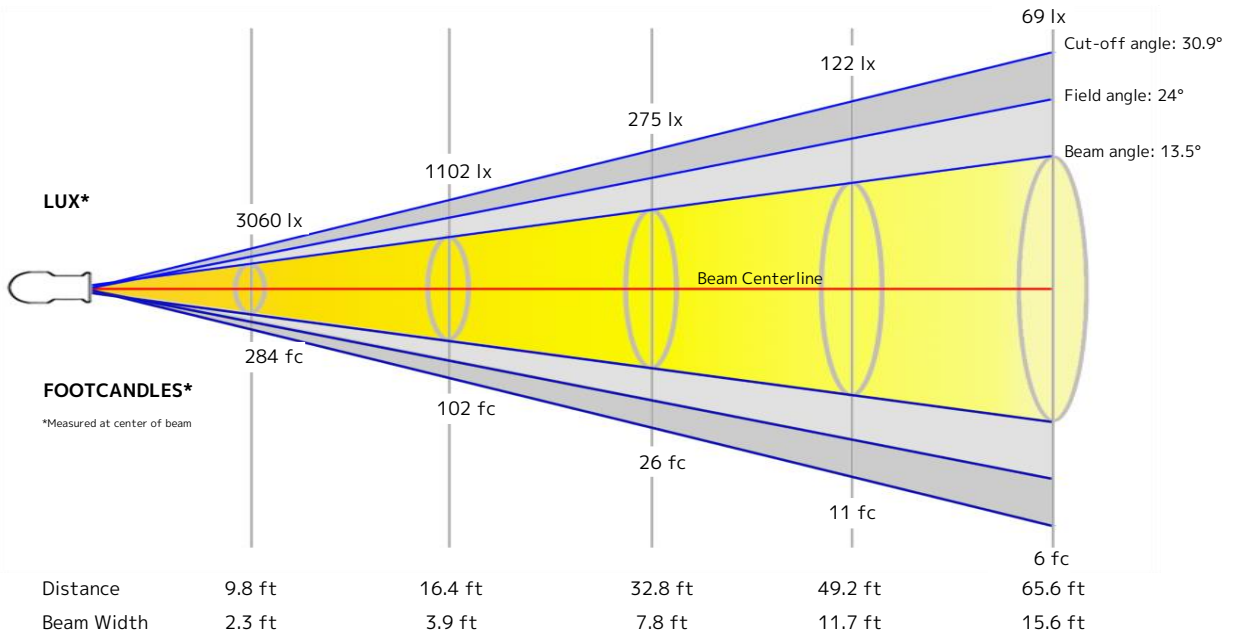


Spectral Power Distribution Dominant Wavelength 560 nm



Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
560	0.352	0.529	0.163	0.367

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.7 m	1.2 m	2.4 m	3.6 m	4.7 m

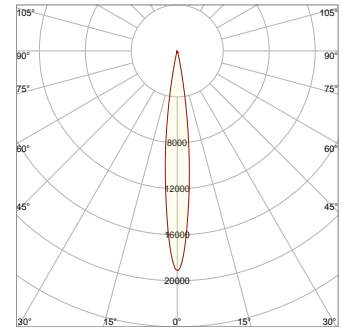
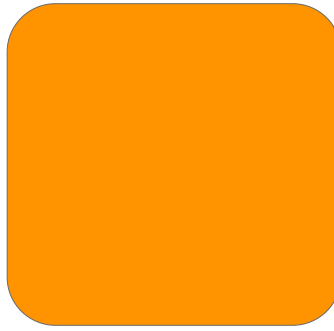


Beam Intensities from 1-20m

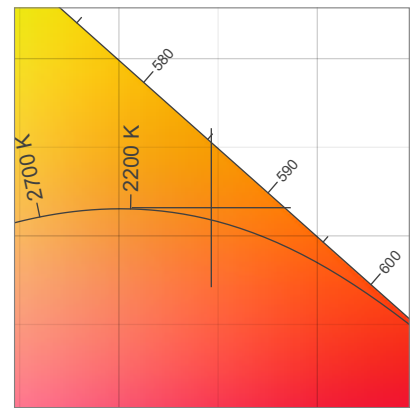
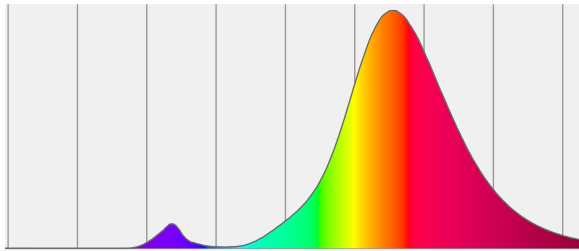
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
LX	27543	6886	3060	1721	1102	765	562	430	340	275	228	191	163	141	122	108	95	85	76	69
FC	2558.8	639.7	284.3	159.9	102.4	71.1	52.2	40	31.6	25.6	21.1	17.8	15.1	13.1	11.4	10	8.9	7.9	7.1	6.4

Measurements

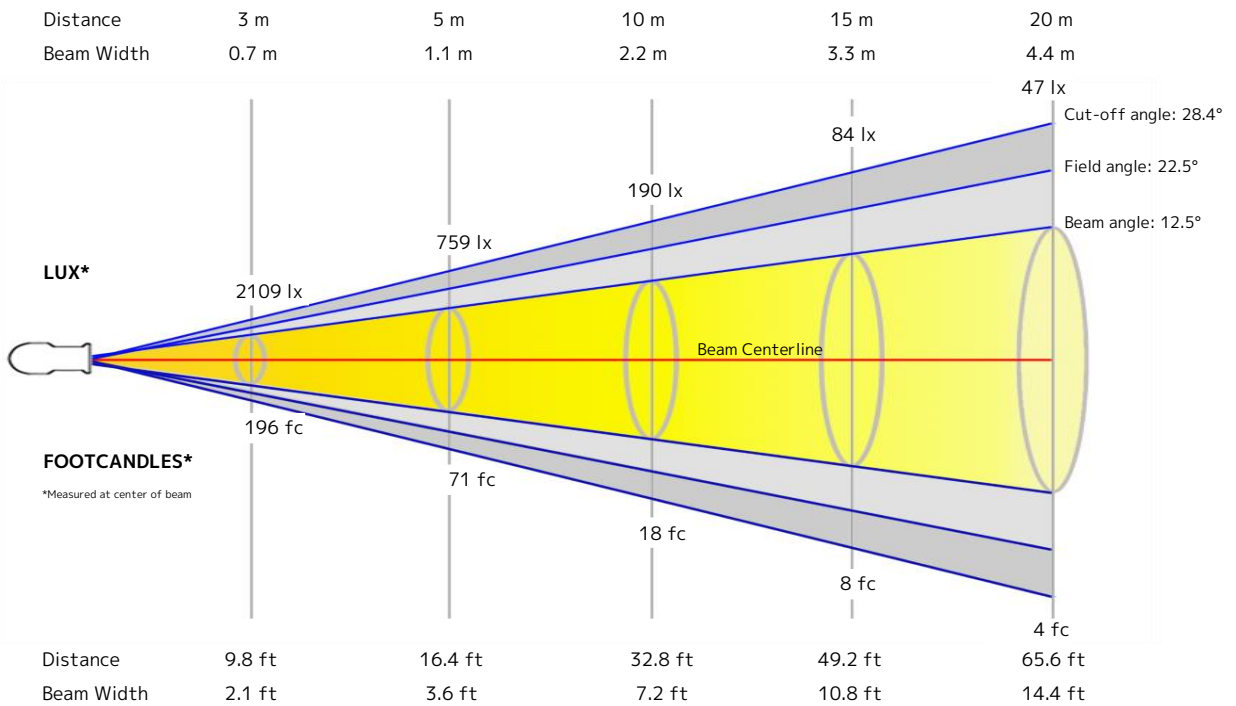
Total Lumen Output: 1099 lm
 Peak Intensity: 18979 cd
 Efficacy: 48 Lumen/Watt
 Power: 22.8 W
 Voltage: 120 V, Current: 0.209 A



Spectral Power Distribution Dominant Wavelength 590 nm



Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
590	0.547	0.416	0.317	0.362

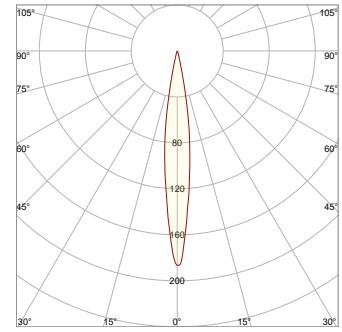
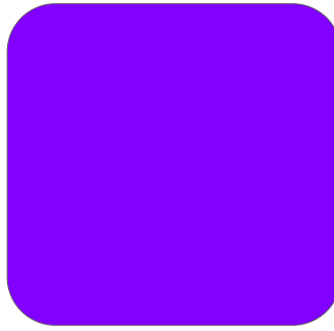


Beam Intensities from 1-20m

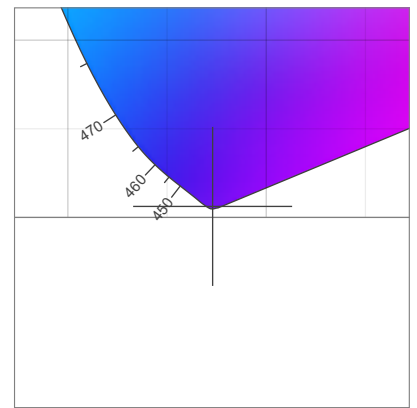
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
LX	18979	4745	2109	1186	759	527	387	297	234	190	157	132	112	97	84	74	66	59	53	47
FC	1763.2	440.8	195.9	110.2	70.5	49	36	27.5	21.8	17.6	14.6	12.2	10.4	9	7.8	6.9	6.1	5.4	4.9	4.4

Measurements

Total Lumen Output: 12.7 lm
 Peak Intensity: 186 cd
 Efficacy: 1 Lumen/Watt
 Power: 17.1 W
 Voltage: 121 V, Current: 0.165 A

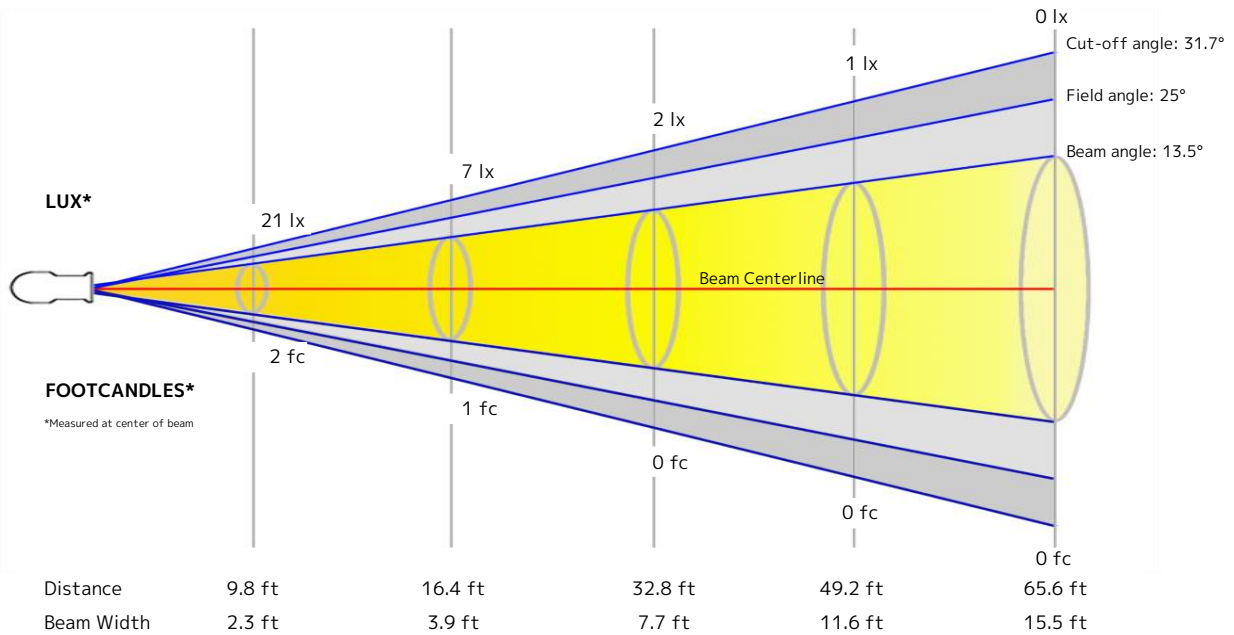


Spectral Power Distribution Dominant Wavelength 412 nm



Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
412	0.173	0.006	0.254	0.014

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.7 m	1.2 m	2.4 m	3.5 m	4.7 m



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	186	47	21	12	7	5	4	3	2	2	2	1	1	1	1	1	1	1	1	0
FC	17.3	4.3	1.9	1.1	0.7	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0