



## LIMELIGHT PAR L

Photometric &  
Chromaticity Test Reports



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**Elation Professional USA** | 6122 S. Eastern Ave. | Los Angeles, CA. 90040  
 323-582-3322 | 323-832-9142 fax | [www.elationlighting.com](http://www.elationlighting.com) | [info@elationlighting.com](mailto: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](http://www.elationlighting.eu) | [info@elationlighting.eu](mailto: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  $2\pi$  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: 3871 lm  
Peak Intensity: 480249 cd

#### Beam

Beam Angle (50%): 5.3°  
Field Angle (10%): 8.3°  
Cutoff Angle (2.5%): 9.8°

#### Color

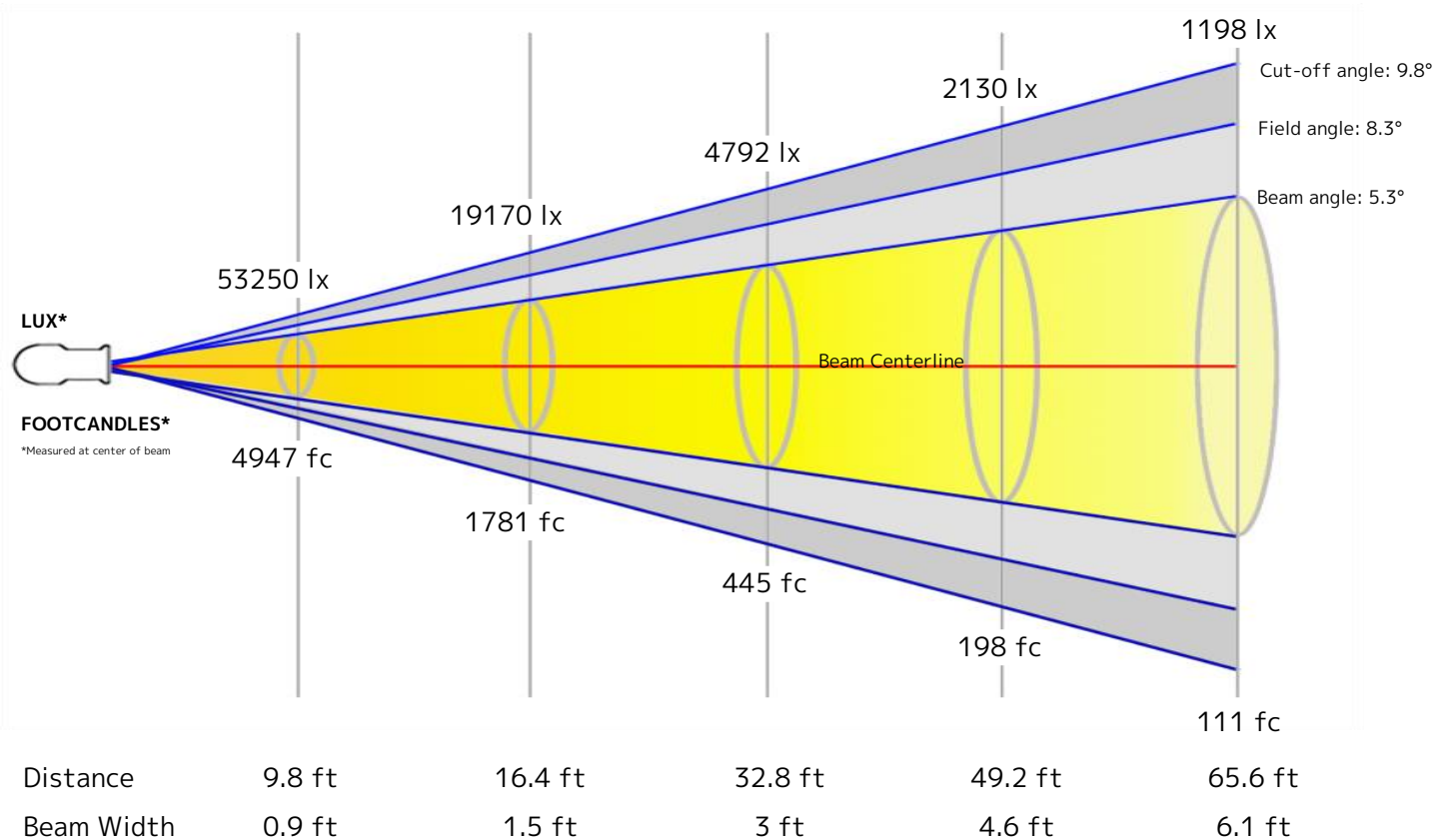
Color Temperature: 0 K  
CRI: 0.0  
TLCI: n/a  
TM30 R<sub>F</sub>: 0.0  
TM30 R<sub>G</sub>: 0.0

#### Power Details

Efficacy: 8.7 Lumen/Watt  
Power: 440 W  
Supply Voltage: 122 V  
Current: 3.606 A

### Beam Details

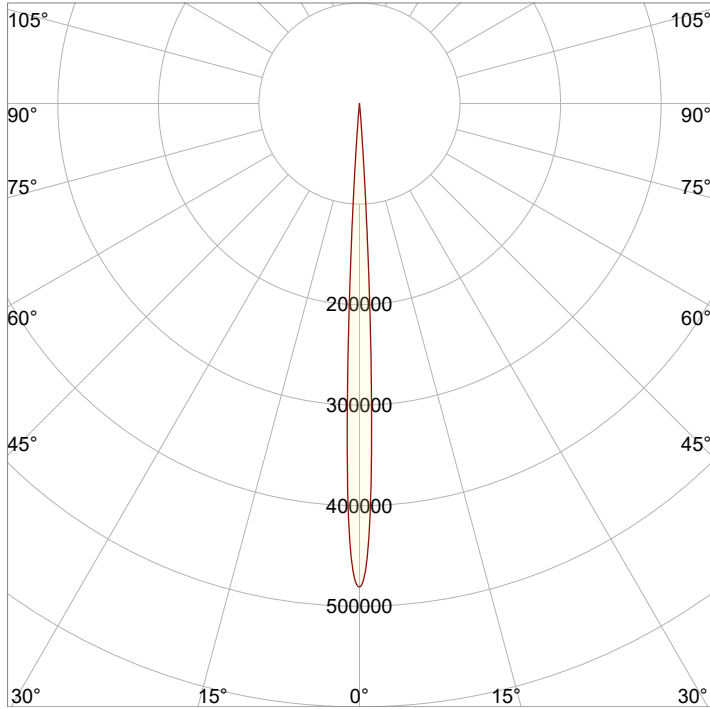
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.3 m	0.5 m	0.9 m	1.4 m	1.9 m



### Beam Intensities from 1-20m

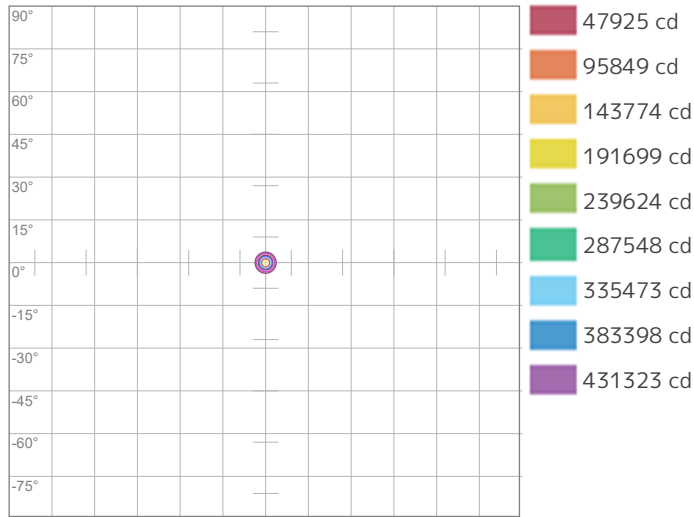
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	479247	119812	53250	29953	19170	13312	9781	7488	5917	4792	3961	3328	2836	2445	2130	1872	1658	1479	1328	1198
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	44523.5	11130.9	4947.1	2782.7	1780.9	1236.8	908.6	695.7	549.7	445.2	368	309.2	263.5	227.2	197.9	173.9	154.1	137.4	123.3	111.3

### Angular Distribution

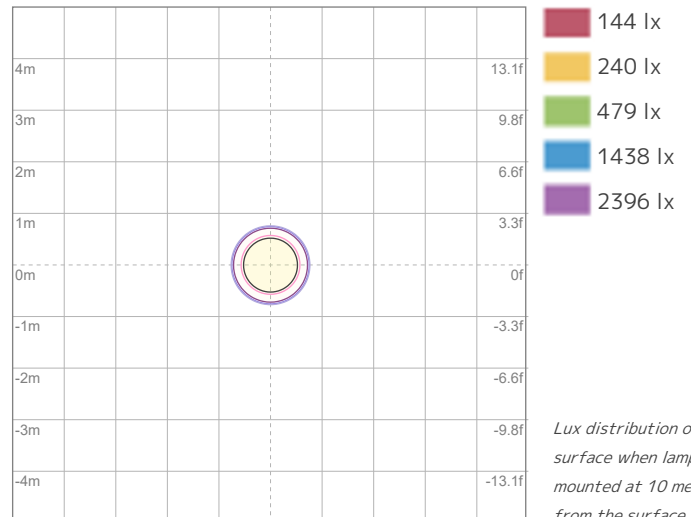


<b>Beam Angle - 50%</b>
<b>5.3°</b>
<b>Field Angle - 10%</b>
<b>8.3°</b>
<b>Cutoff Angle - 2.5%</b>
<b>9.8°</b>

### 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: 479247 cd

Conditions:

Number of c-planes: 2

LUX at center: 4792 lx

### Linear Distribution



**Peak Candela**  
**480249 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 480249 / \text{distance(m)}^2$$

$$\text{fc} = 480249 / \text{distance(ft)}^2$$

## Key Measurements

### Output

Total Lumen Output: 3916 lm  
Peak Intensity: 478179 cd

### Beam

Beam Angle (50%): 5.3°  
Field Angle (10%): 8.5°  
Cutoff Angle (2.5%): 10.1°

### Color

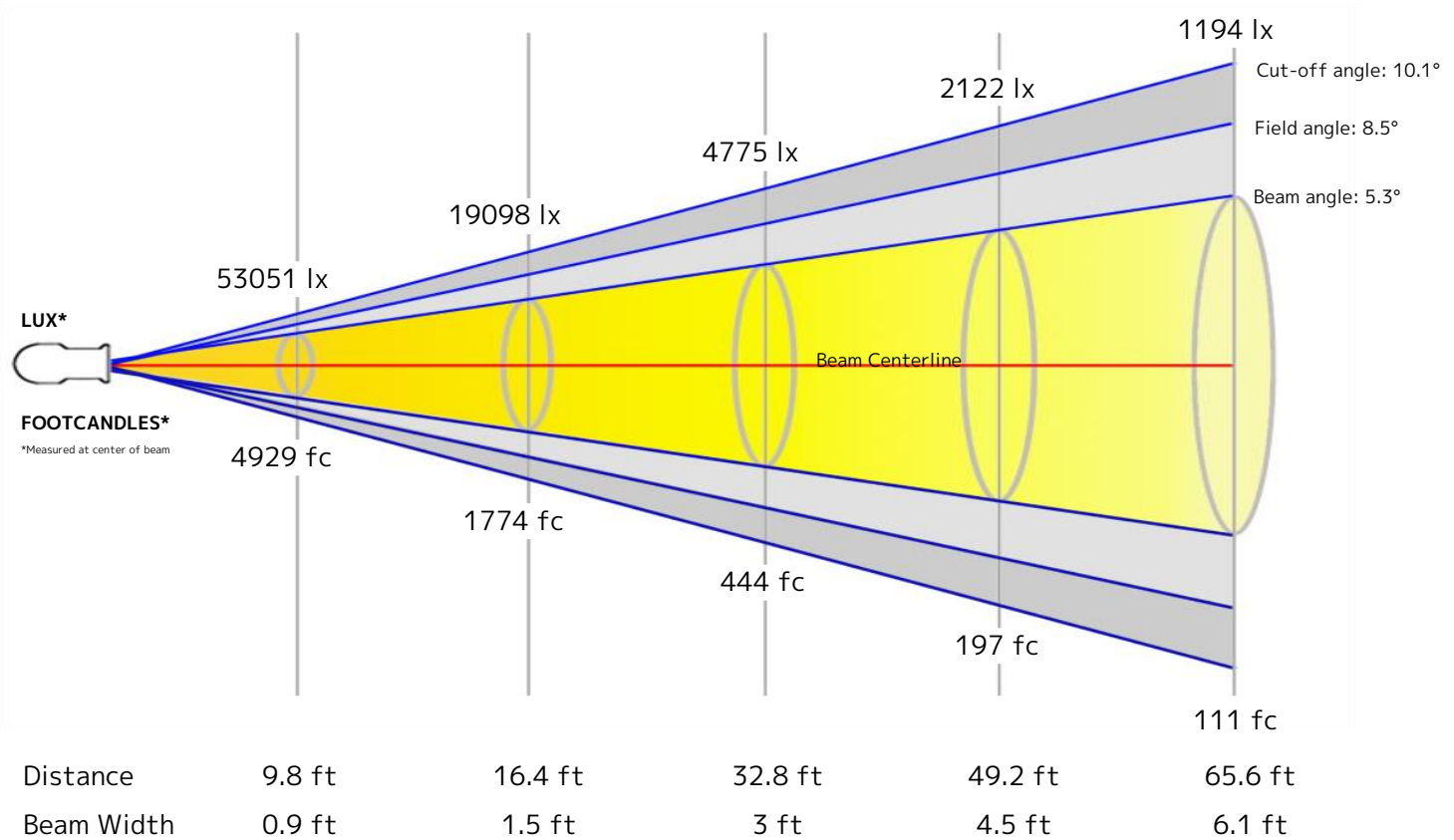
Color Temperature: 2430 K  
CRI: 79.5  
TLCI: 58  
TM30 R<sub>F</sub>: 81.1  
TM30 R<sub>G</sub>: 114.6

### Power Details

Efficacy: 10 Lumen/Watt  
Power: 400 W  
Supply Voltage: 123 V  
Current: - A

## Beam Details

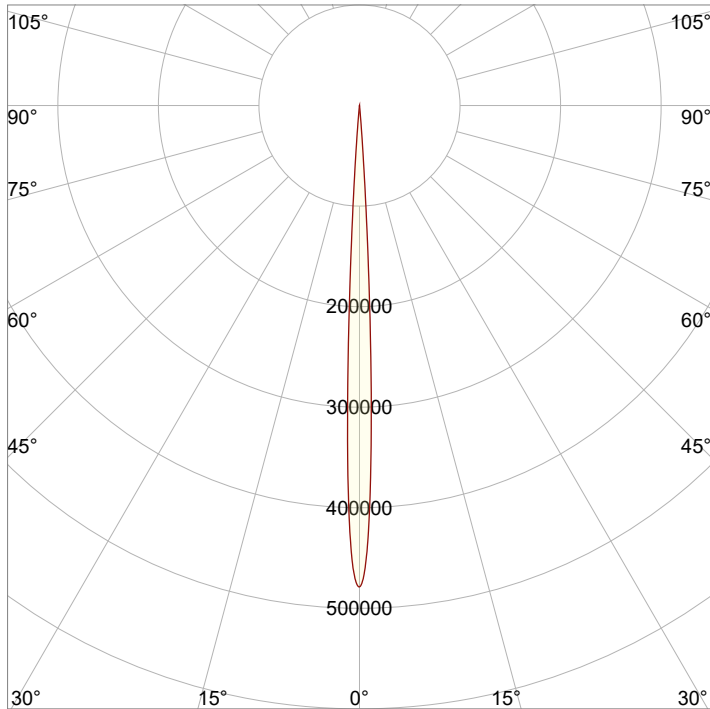
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	0.3 m	0.5 m	0.9 m	1.4 m	1.8 m



## Beam Intensities from 1-20m

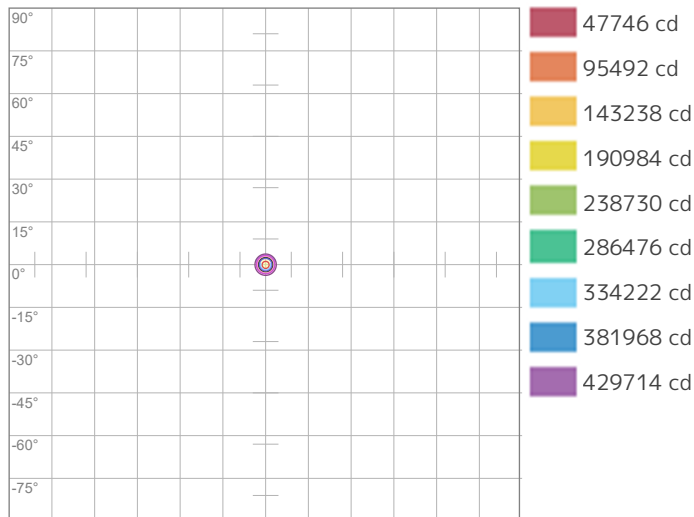
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	477461	119365	53051	29841	19098	13263	9744	7460	5895	4775	3946	3316	2825	2436	2122	1865	1652	1474	1323	1194
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	44357.5	11089.4	4928.6	2772.3	1774.3	1232.2	905.3	693.1	547.6	443.6	366.6	308	262.5	226.3	197.1	173.3	153.5	136.9	122.9	110.9

### Angular Distribution



<b>Beam Angle - 50%</b>
<b>5.3°</b>
<b>Field Angle - 10%</b>
<b>8.5°</b>
<b>Cutoff Angle - 2.5%</b>
<b>10.1°</b>

### ISO Diagrams

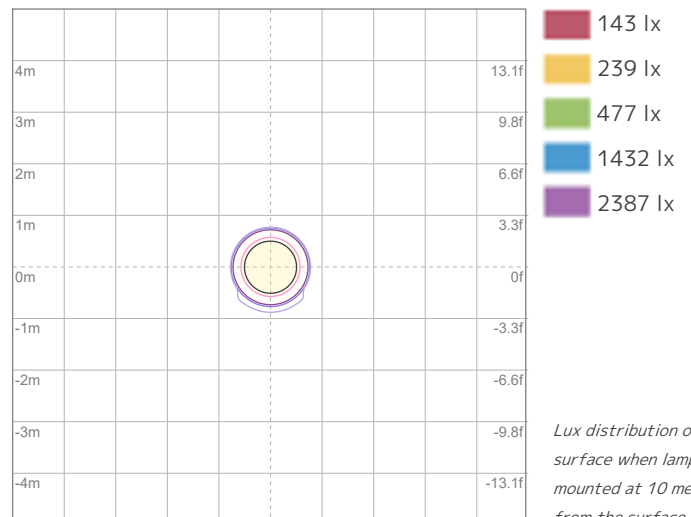


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 477461 cd



ISO LUX Diagram

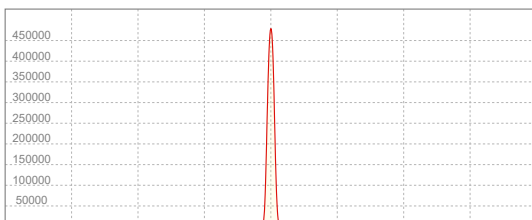
Conditions:

Number of c-planes: 2

LUX at center: 4775 lx

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

### Linear Distribution



**Peak Candela**  
**478179 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 478179 / \text{distance(m)}^2$$

$$\text{fc} = 478179 / \text{distance(ft)}^2$$



## Key Measurements

### Output

Total Lumen Output: 4206 lm  
Peak Intensity: 503634 cd

### Beam

Beam Angle (50%): 5.3°  
Field Angle (10%): 8.6°  
Cutoff Angle (2.5%): 10.4°

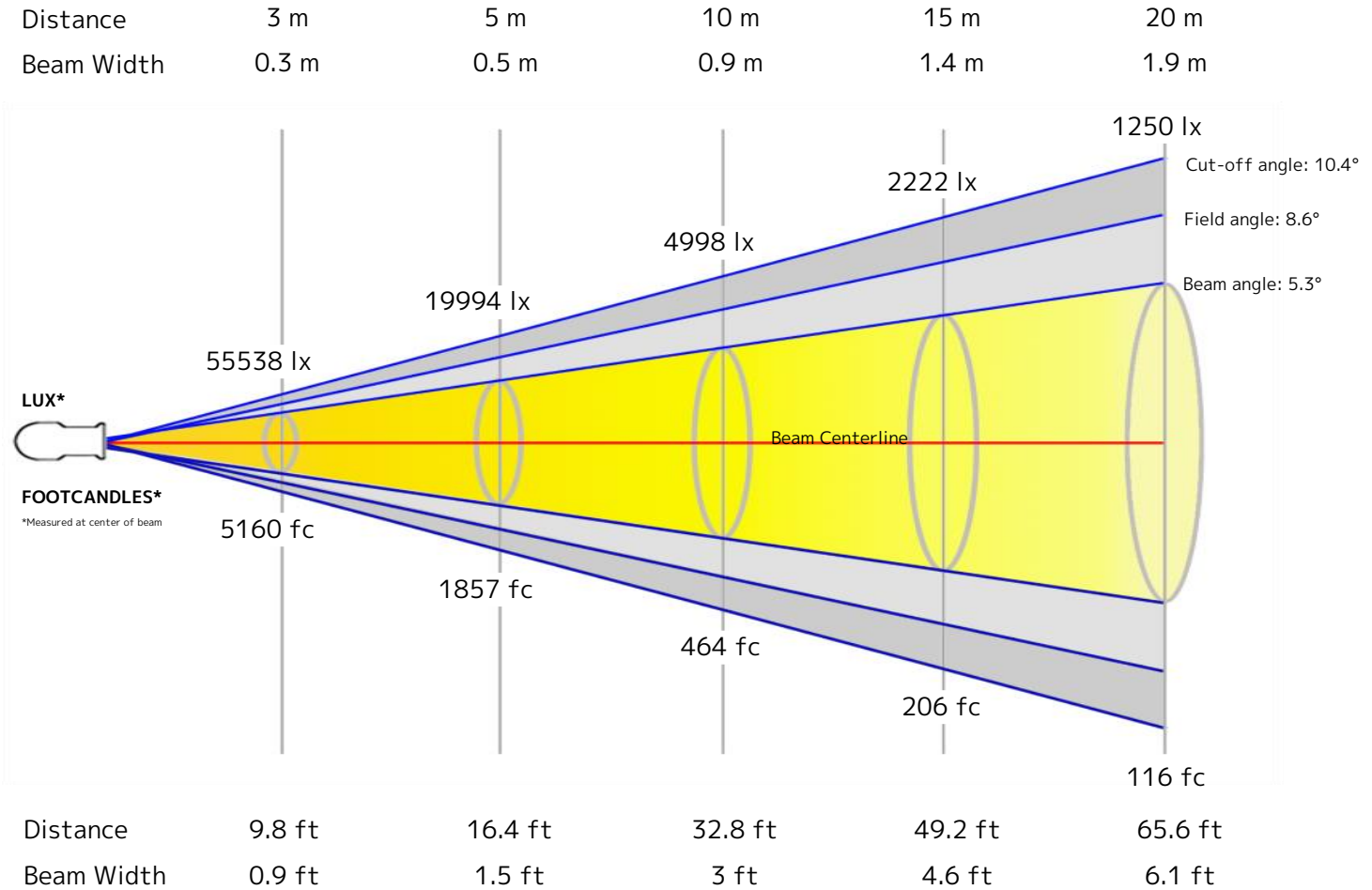
### Color

Color Temperature: 3193 K  
CRI: 83.5  
TLCI: 67  
TM30 R<sub>F</sub>: 82.1  
TM30 R<sub>G</sub>: 107.6

### Power Details

Efficacy: 12 Lumen/Watt  
Power: 348 W  
Supply Voltage: 122 V  
Current: - A

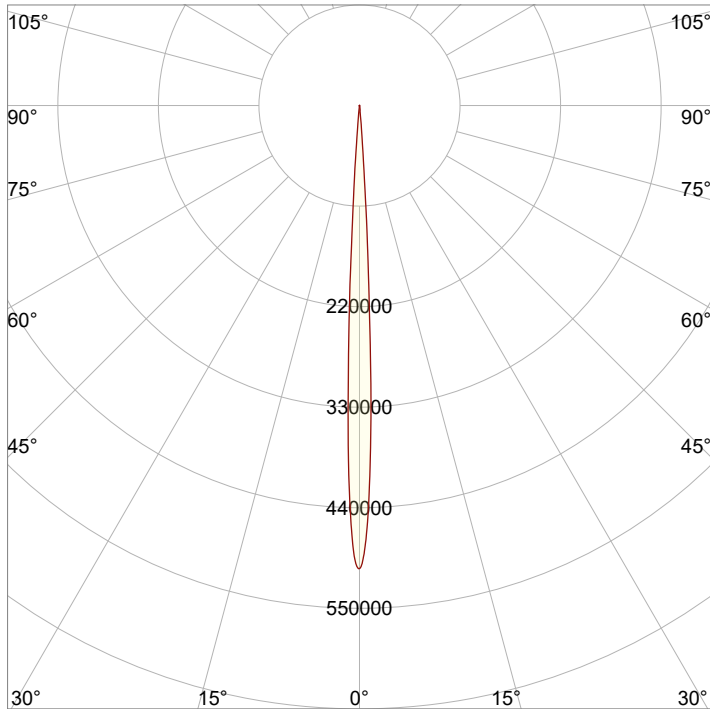
## Beam Details



## Beam Intensities from 1-20m

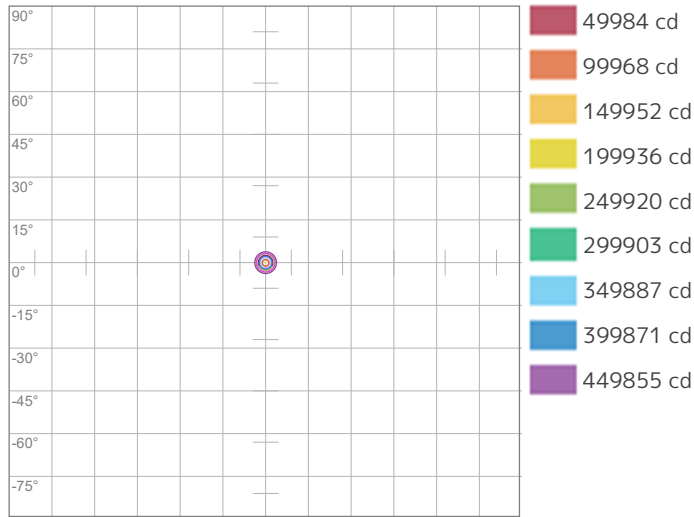
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	499839	124960	55538	31240	19994	13884	10201	7810	6171	4998	4131	3471	2958	2550	2222	1952	1730	1543	1385	1250
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	46436.6	11609.1	5159.6	2902.3	1857.5	1289.9	947.7	725.6	573.3	464.4	383.8	322.5	274.8	236.9	206.4	181.4	160.7	143.3	128.6	116.1

### Angular Distribution



<b>Beam Angle - 50%</b>
<b>5.3°</b>
<b>Field Angle - 10%</b>
<b>8.6°</b>
<b>Cutoff Angle - 2.5%</b>
<b>10.4°</b>

### ISO Diagrams

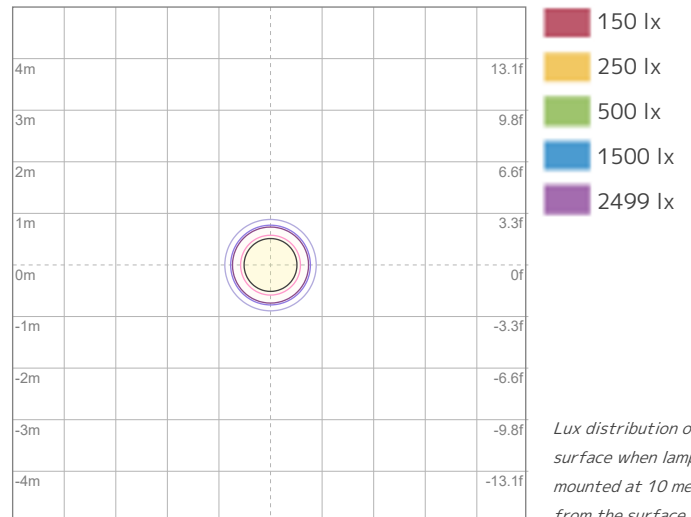


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 499839 cd



ISO LUX Diagram

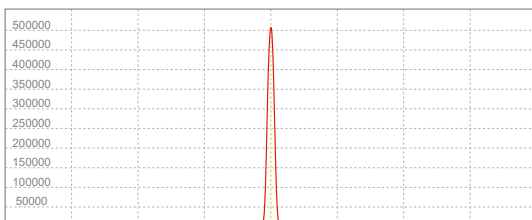
Conditions:

Number of c-planes: 2

LUX at center: 4998 lx

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

### Linear Distribution



**Peak Candela**  
**503634 cd**

Calculate Center Beam Intensities

$$\text{lux} = 503634 / \text{distance(m)}^2$$

$$\text{fc} = 503634 / \text{distance(ft)}^2$$

## Key Measurements

### Output

Total Lumen Output: 3920 lm  
Peak Intensity: 482618 cd

### Beam

Beam Angle (50%): 5.3°  
Field Angle (10%): 8.4°  
Cutoff Angle (2.5%): 10°

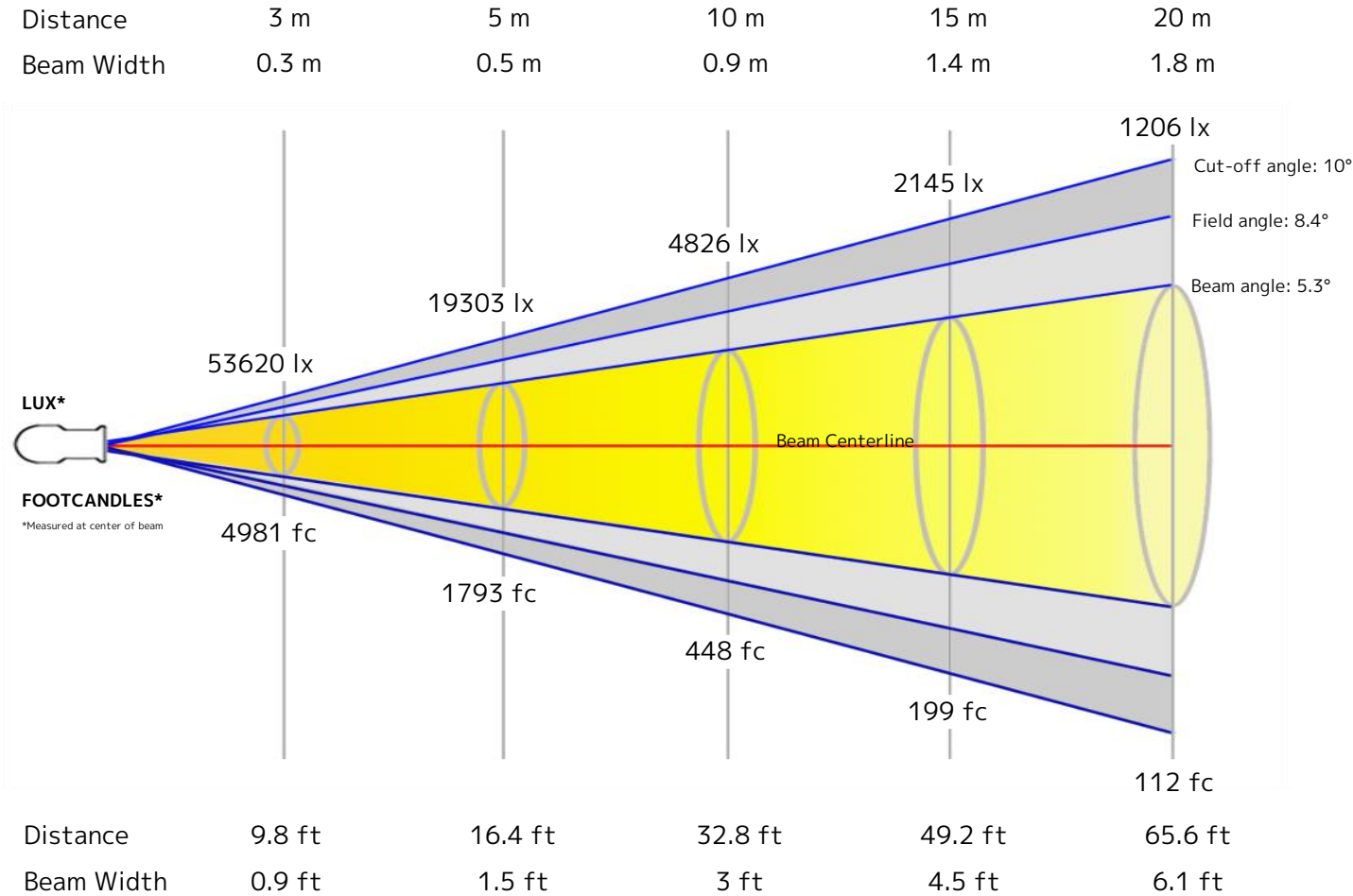
### Color

Color Temperature: 4457 K  
CRI: 71.0  
TLCI: 57  
TM30 R<sub>F</sub>: 74.3  
TM30 R<sub>g</sub>: 96.8

### Power Details

Efficacy: 13 Lumen/Watt  
Power: 295 W  
Supply Voltage: 123 V  
Current: - A

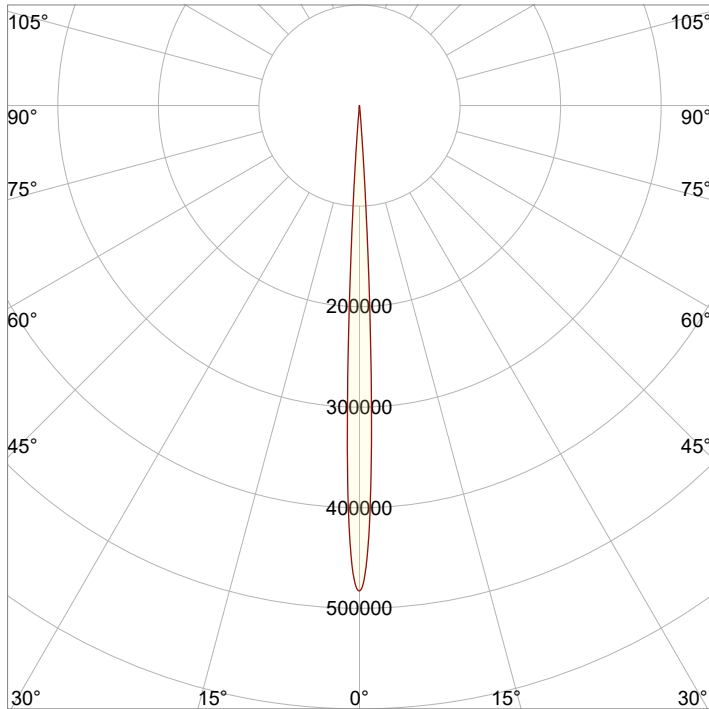
## Beam Details



## Beam Intensities from 1-20m

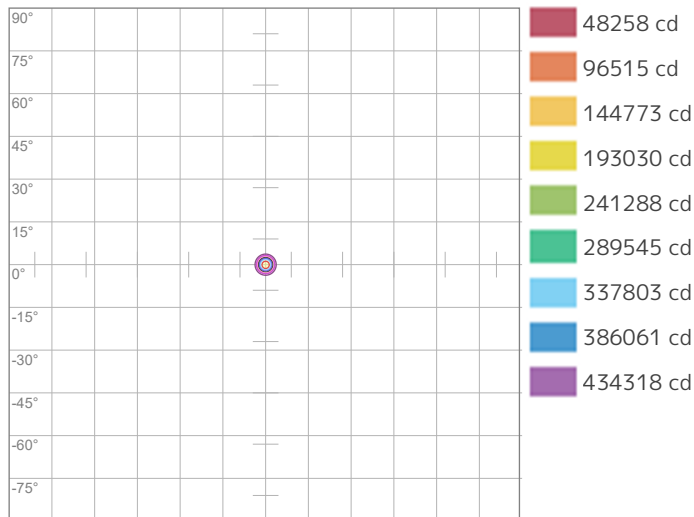
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	482576	120644	53620	30161	19303	13405	9848	7540	5958	4826	3988	3351	2855	2462	2145	1885	1670	1489	1337	1206
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	44832.8	11208.2	4981.4	2802	1793.3	1245.4	915	700.5	553.5	448.3	370.5	311.3	265.3	228.7	199.3	175.1	155.1	138.4	124.2	112.1

### Angular Distribution



<b>Beam Angle - 50%</b>
<b>5.3°</b>
<b>Field Angle - 10%</b>
<b>8.4°</b>
<b>Cutoff Angle - 2.5%</b>
<b>10°</b>

### ISO Diagrams

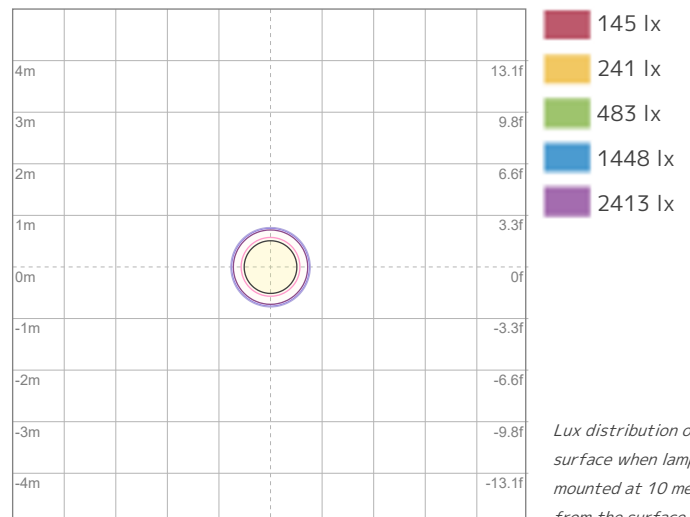


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 482576 cd



ISO LUX Diagram

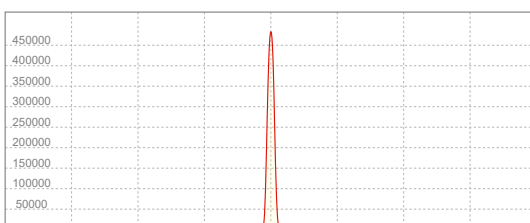
Conditions:

Number of c-planes: 2

LUX at center: 4826 lx

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

### Linear Distribution



**Peak Candela**  
**482618 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 482618 / \text{distance(m)}^2$$

$$\text{fc} = 482618 / \text{distance(ft)}^2$$

## Key Measurements

### Output

Total Lumen Output: 4242 lm  
Peak Intensity: 507164 cd

### Beam

Beam Angle (50%): 5.4°  
Field Angle (10%): 8.6°  
Cutoff Angle (2.5%): 10.4°

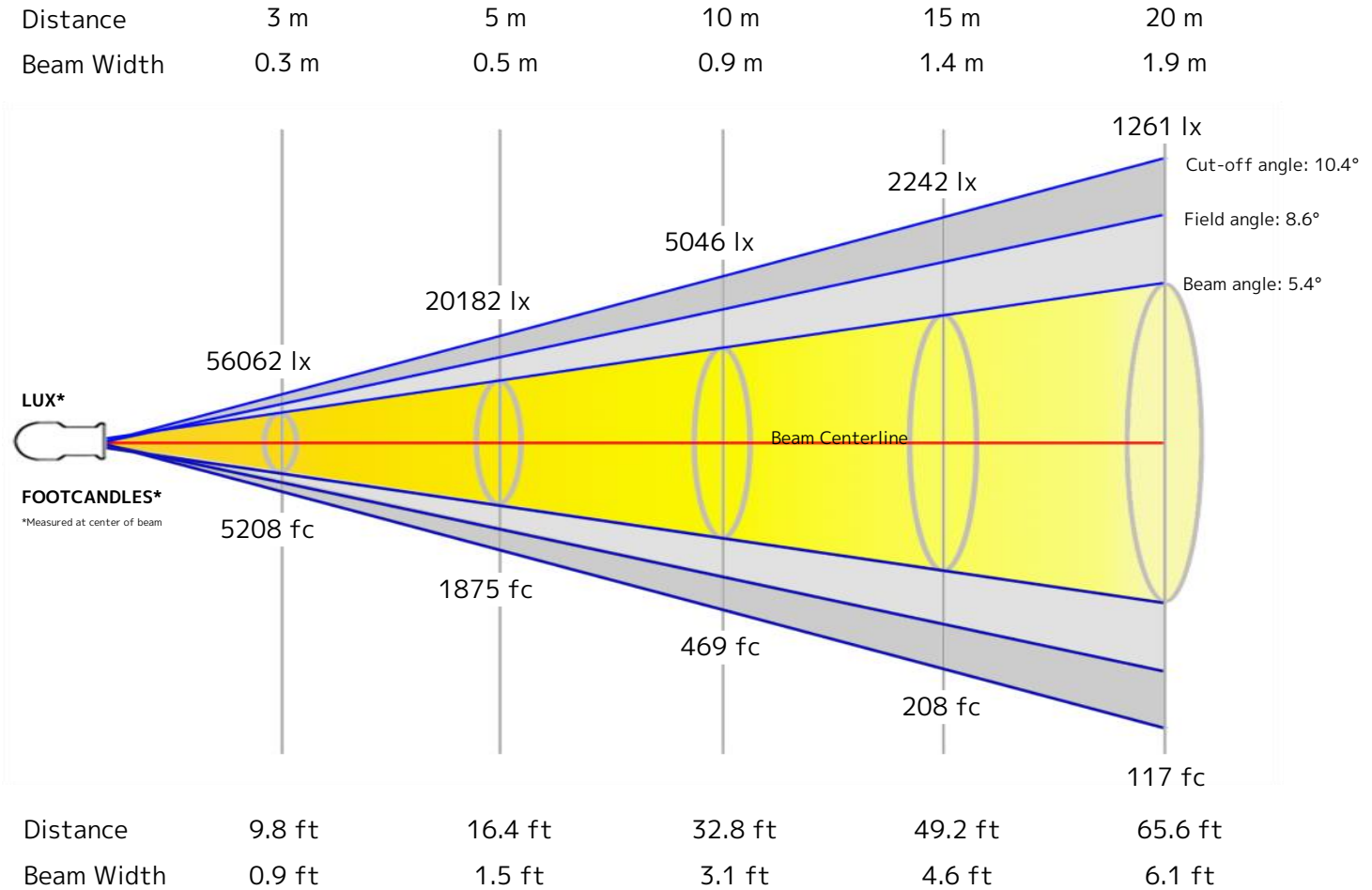
### Color

Color Temperature: 5551 K  
CRI: 72.5  
TLCI: 63  
TM30 R<sub>F</sub>: 74.7  
TM30 R<sub>g</sub>: 97.9

### Power Details

Efficacy: 13 Lumen/Watt  
Power: 330 W  
Supply Voltage: 122 V  
Current: - A

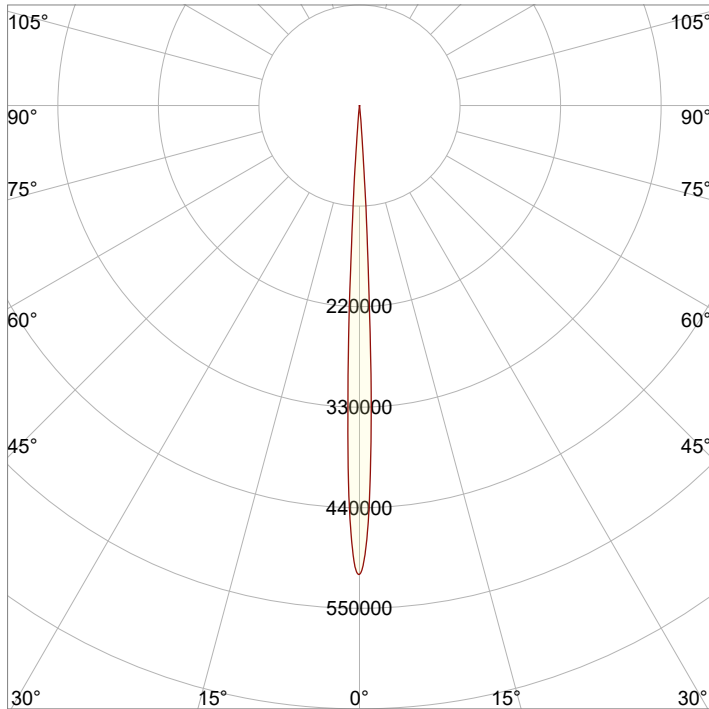
## Beam Details



## Beam Intensities from 1-20m

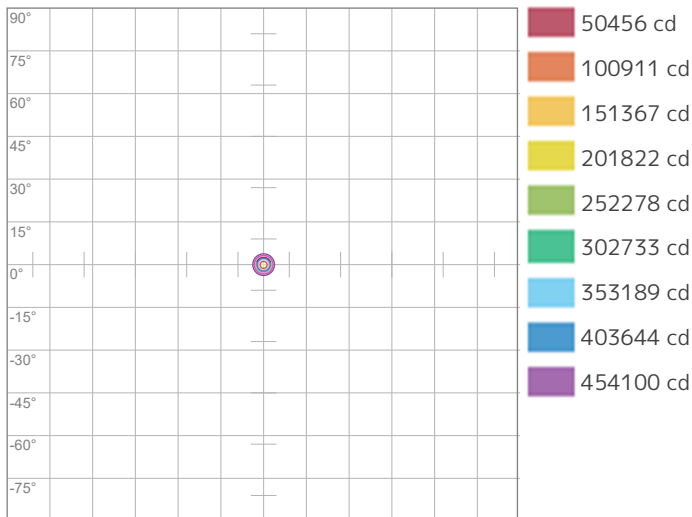
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	504555	126139	56062	31535	20182	14015	10297	7884	6229	5046	4170	3504	2986	2574	2242	1971	1746	1557	1398	1261
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	46874.7	11718.7	5208.3	2929.7	1875	1302.1	956.6	732.4	578.7	468.7	387.4	325.5	277.4	239.2	208.3	183.1	162.2	144.7	129.8	117.2

### Angular Distribution

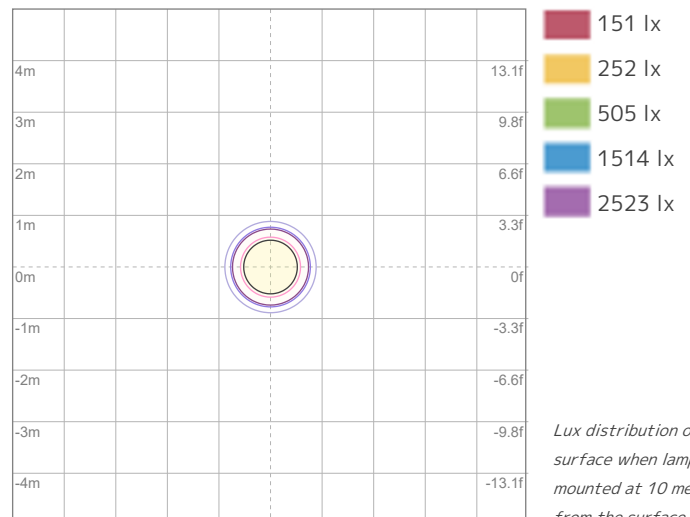


<b>Beam Angle - 50%</b>
<b>5.4°</b>
<b>Field Angle - 10%</b>
<b>8.6°</b>
<b>Cutoff Angle - 2.5%</b>
<b>10.4°</b>

### 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

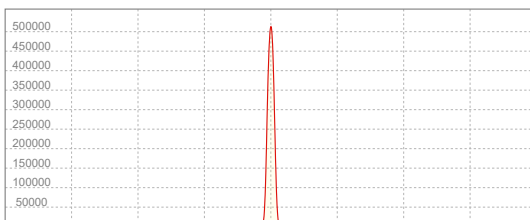
Candela at center: 504555 cd

Conditions:

Number of c-planes: 2

LUX at center: 5046 lx

### Linear Distribution



**Peak Candela**  
**507164 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 507164 / \text{distance(m)}^2$$

$$\text{fc} = 507164 / \text{distance(ft)}^2$$

## Key Measurements

### Output

Total Lumen Output: 4306 lm  
Peak Intensity: 535826 cd

### Beam

Beam Angle (50%): 5.3°  
Field Angle (10%): 8.2°  
Cutoff Angle (2.5%): 9.7°

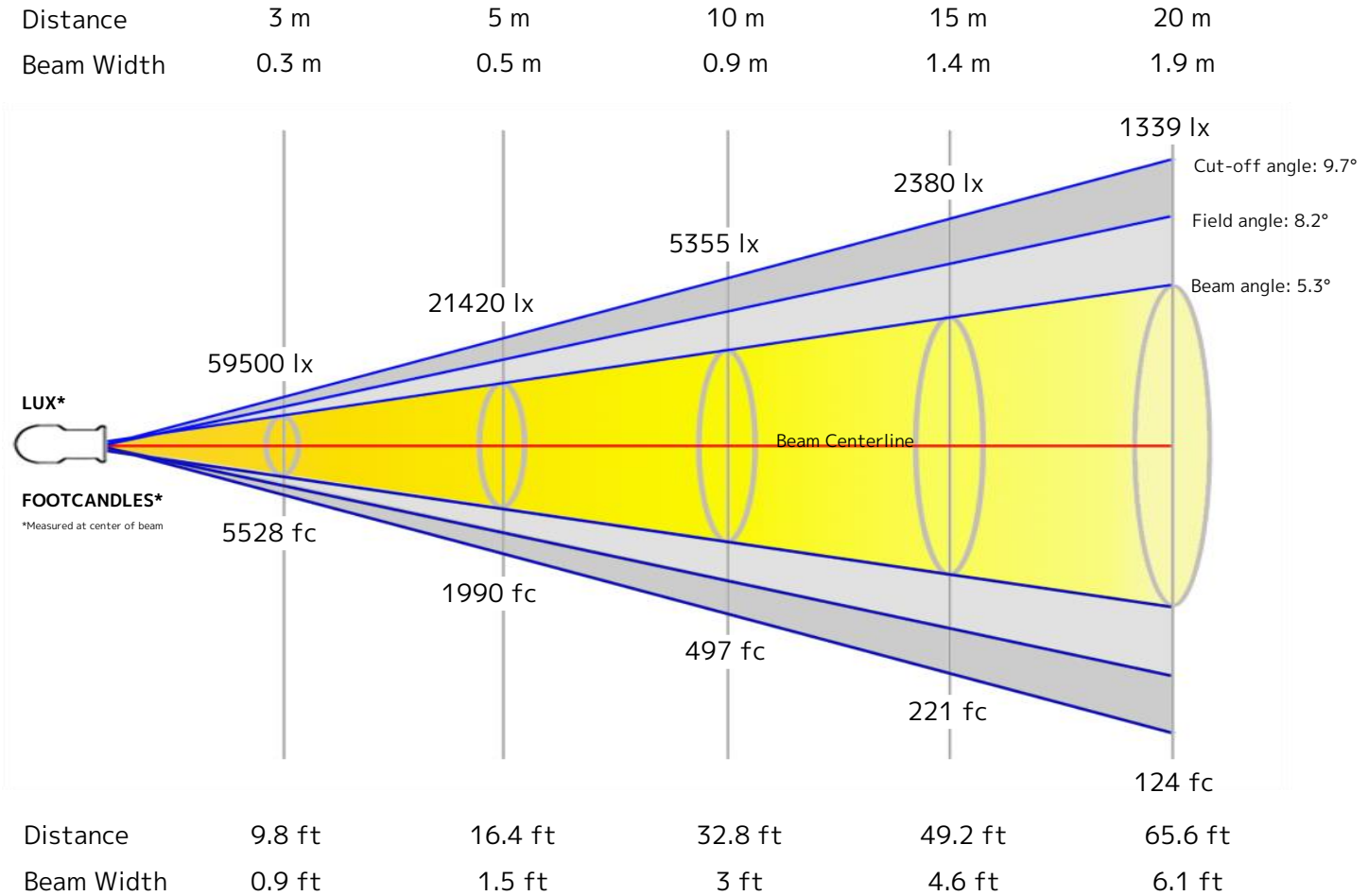
### Color

Color Temperature: 6465 K  
CRI: 73.3  
TLCI: 64  
TM30 R<sub>F</sub>: 74.8  
TM30 R<sub>g</sub>: 98.0

### Power Details

Efficacy: 13 Lumen/Watt  
Power: 330 W  
Supply Voltage: 122 V  
Current: - A

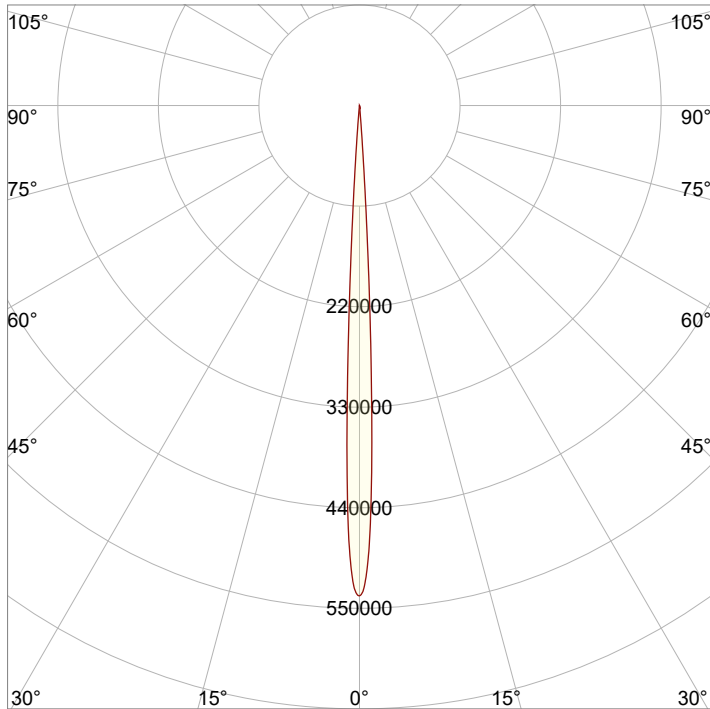
## Beam Details



## Beam Intensities from 1-20m

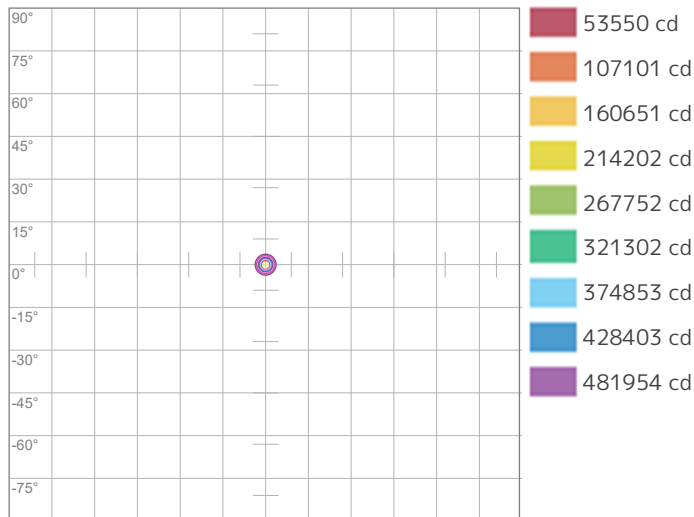
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	535504	133876	59500	33469	21420	14875	10929	8367	6611	5355	4426	3719	3169	2732	2380	2092	1853	1653	1483	1339
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	49749.9	12437.5	5527.8	3109.4	1990	1381.9	1015.3	777.3	614.2	497.5	411.2	345.5	294.4	253.8	221.1	194.3	172.1	153.5	137.8	124.4

### Angular Distribution

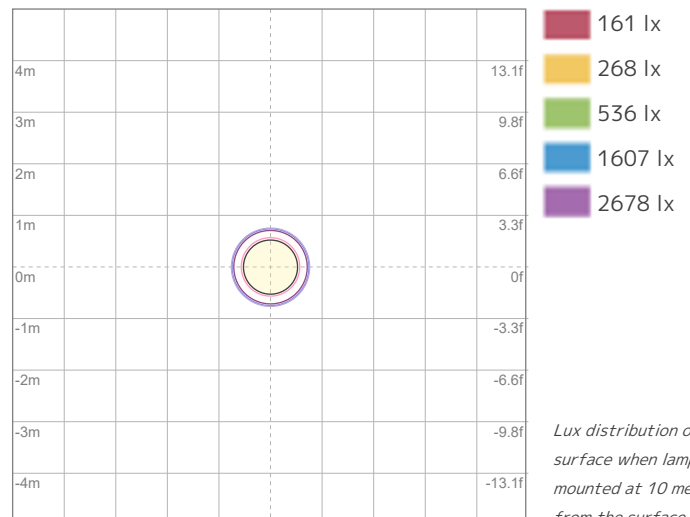


<b>Beam Angle - 50%</b>
<b>5.3°</b>
<b>Field Angle - 10%</b>
<b>8.2°</b>
<b>Cutoff Angle - 2.5%</b>
<b>9.7°</b>

### ISO Diagrams



ISO Candela Diagram



ISO LUX Diagram

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

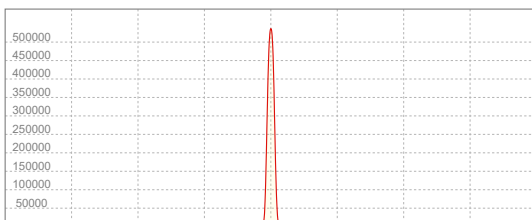
Conditions:

Number of c-planes: 2  
Candela at center: 535504 cd

Conditions:

Number of c-planes: 2  
LUX at center: 5355 lx

### Linear Distribution



**Peak Candela**  
**535826 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 535826 / \text{distance(m)}^2$$

$$\text{fc} = 535826 / \text{distance(ft)}^2$$



## Key Measurements

### Output

Total Lumen Output: 4517 lm  
Peak Intensity: 548818 cd

### Beam

Beam Angle (50%): 5.3°  
Field Angle (10%): 8.5°  
Cutoff Angle (2.5%): 10.1°

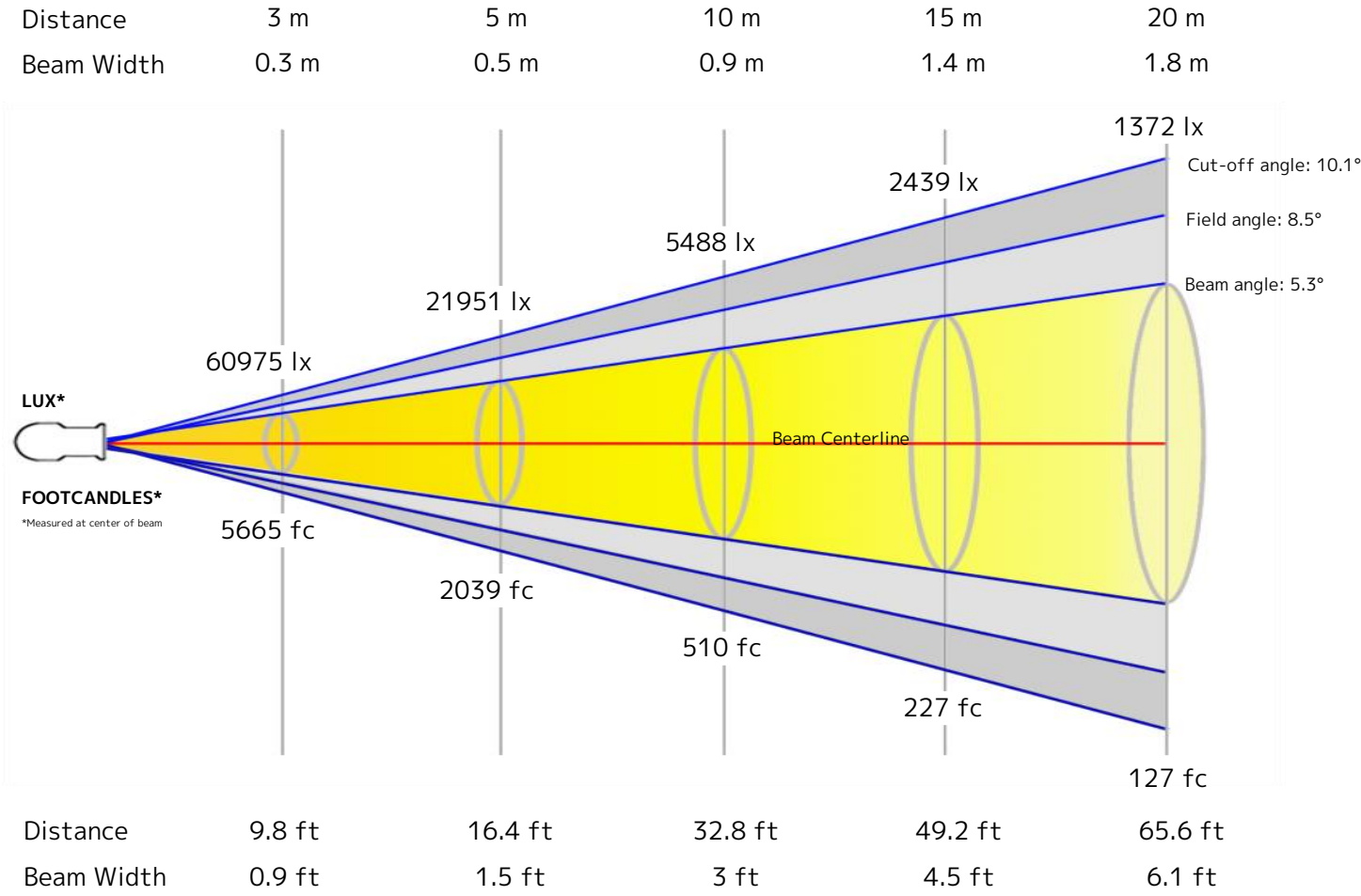
### Color

Color Temperature: 8442 K  
CRI: 74.9  
TLCI: 66  
TM30 R<sub>F</sub>: 75.3  
TM30 R<sub>g</sub>: 97.8

### Power Details

Efficacy: 12 Lumen/Watt  
Power: 388 W  
Supply Voltage: 120 V  
Current: - A

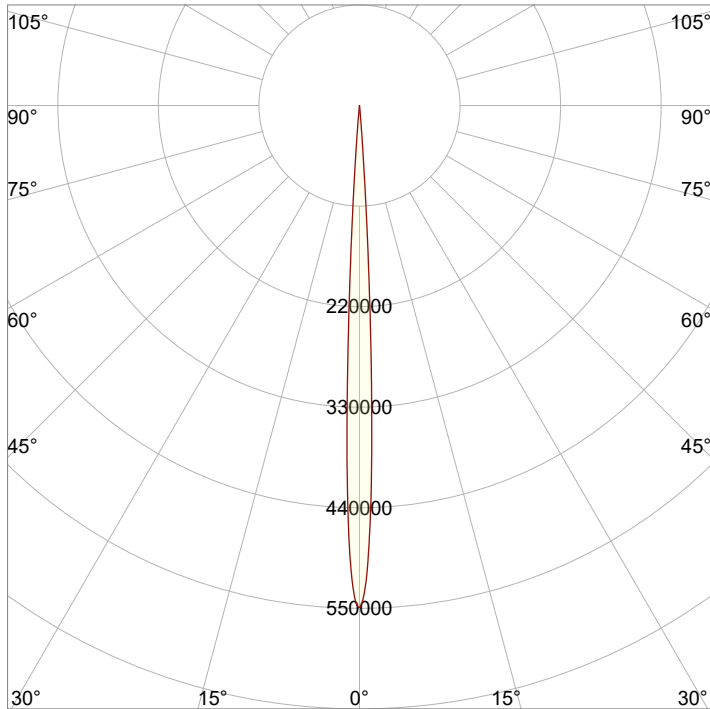
## Beam Details



## Beam Intensities from 1-20m

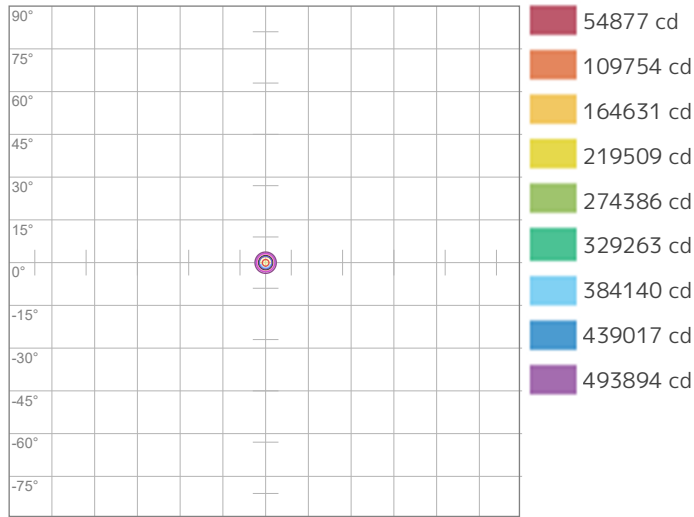
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	548772	137193	60975	34298	21951	15244	11199	8575	6775	5488	4535	3811	3247	2800	2439	2144	1899	1694	1520	1372
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	50982.5	12745.6	5664.7	3186.4	2039.3	1416.2	1040.5	796.6	629.4	509.8	421.3	354	301.7	260.1	226.6	199.2	176.4	157.4	141.2	127.5

### Angular Distribution



<b>Beam Angle - 50%</b>
<b>5.3°</b>
<b>Field Angle - 10%</b>
<b>8.5°</b>
<b>Cutoff Angle - 2.5%</b>
<b>10.1°</b>

### ISO Diagrams

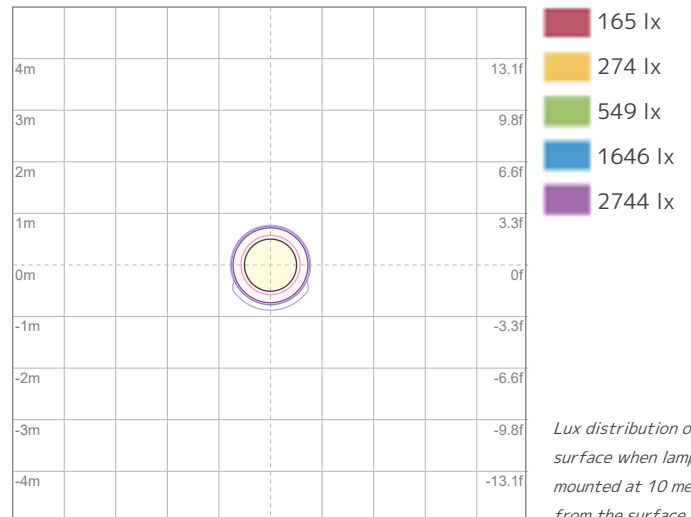


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 548772 cd



ISO LUX Diagram

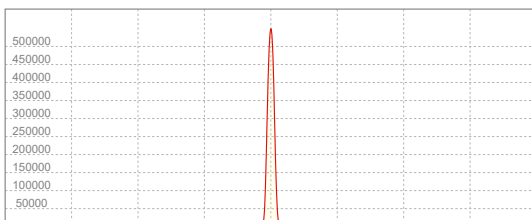
Conditions:

Number of c-planes: 2

LUX at center: 5488 lx

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

### Linear Distribution



**Peak Candela**  
**548818 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 548818 / \text{distance(m)}^2$$

$$\text{fc} = 548818 / \text{distance(ft)}^2$$

## Key Measurements

### Output

Total Lumen Output: 5571 lm  
Peak Intensity: 53679 cd

### Beam

Beam Angle (50%): 20°  
Field Angle (10%): 27.1°  
Cutoff Angle (2.5%): 31°

### Color

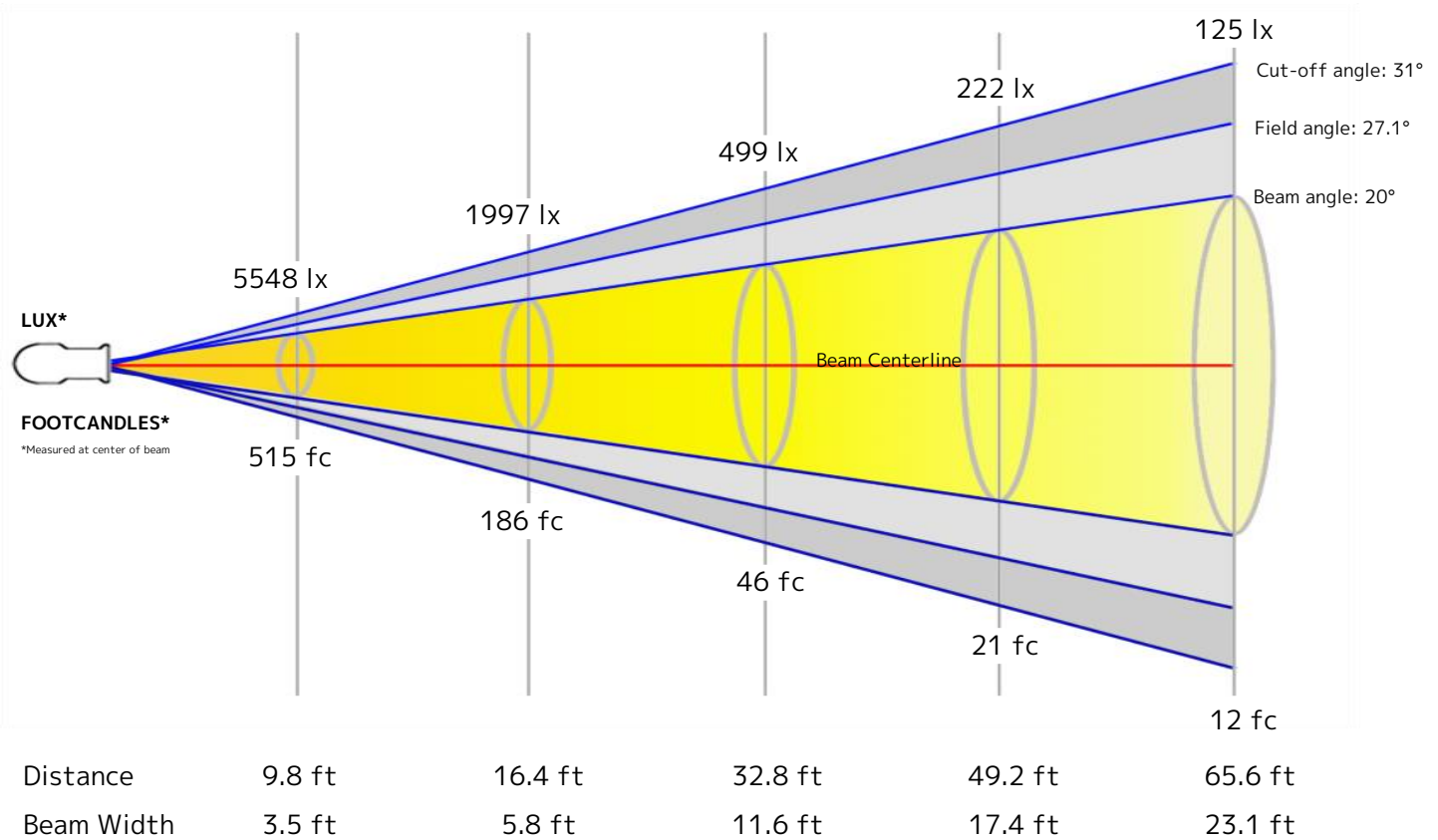
Color Temperature: 0 K  
CRI: 0.0  
TLCI: n/a  
TM30 R<sub>F</sub>: 0.0  
TM30 R<sub>G</sub>: 0.0

### Power Details

Efficacy: 13 Lumen/Watt  
Power: 440 W  
Supply Voltage: 121 V  
Current: - A

## Beam Details

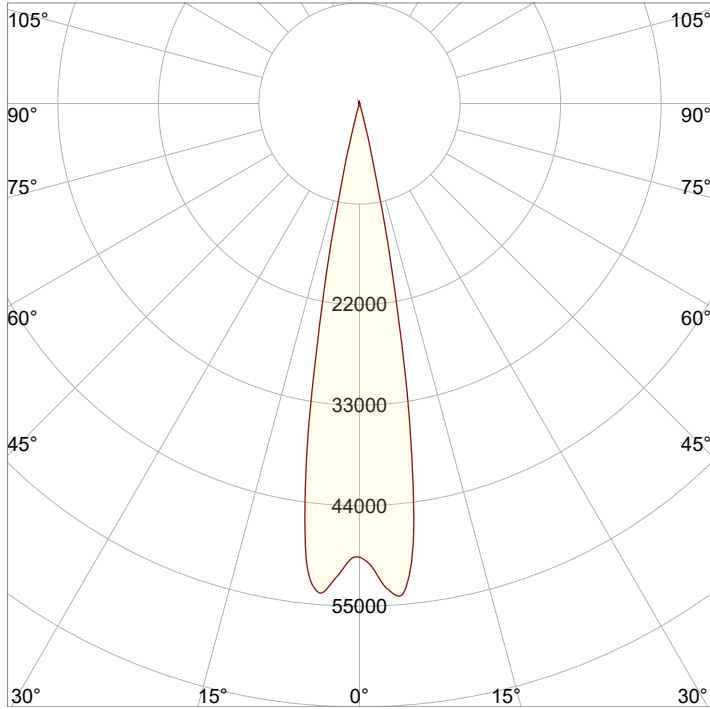
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.1 m	1.8 m	3.5 m	5.3 m	7.1 m



## Beam Intensities from 1-20m

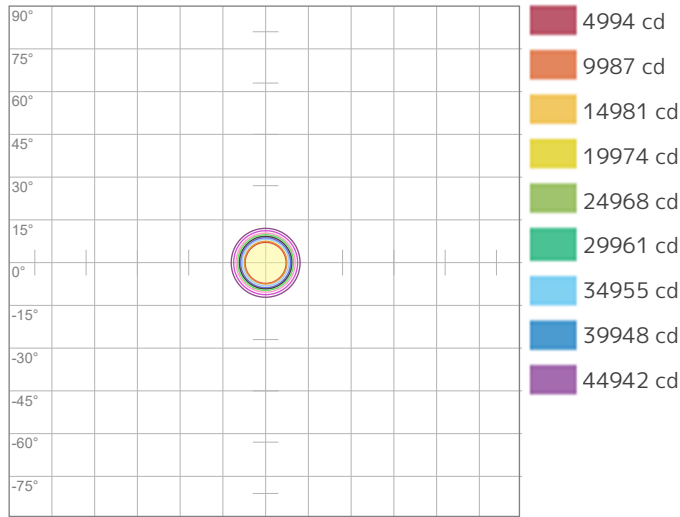
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	49935	12484	5548	3121	1997	1387	1019	780	616	499	413	347	295	255	222	195	173	154	138	125
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	4639.1	1159.8	515.5	289.9	185.6	128.9	94.7	72.5	57.3	46.4	38.3	32.2	27.5	23.7	20.6	18.1	16.1	14.3	12.9	11.6

**Angular Distribution**

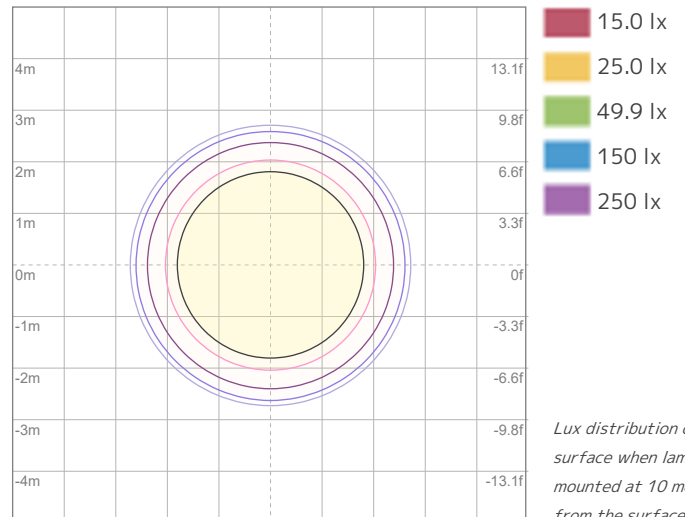


<b>Beam Angle - 50%</b>
<b>20°</b>
<b>Field Angle - 10%</b>
<b>27.1°</b>
<b>Cutoff Angle - 2.5%</b>
<b>31°</b>

**ISO Diagrams**



**ISO Candela Diagram**



**ISO LUX Diagram**

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

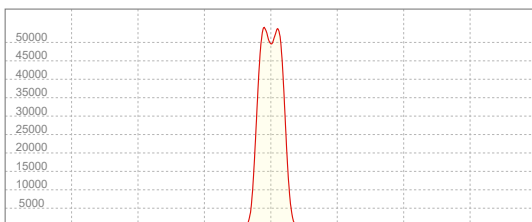
Conditions:

Number of c-planes: 2  
Candela at center: 49935 cd

Conditions:

Number of c-planes: 2  
LUX at center: 499 lx

**Linear Distribution**



**Peak Candela**  
**53679 cd**

**Calculate Center Beam Intensities**  
 $lux = 53679 / distance(m)^2$   
 $fc = 53679 / distance(ft)^2$

### Key Measurements

#### Output

Total Lumen Output: 5635 lm  
Peak Intensity: 52019 cd

#### Beam

Beam Angle (50%): 20.4°  
Field Angle (10%): 27.8°  
Cutoff Angle (2.5%): 31.8°

#### Color

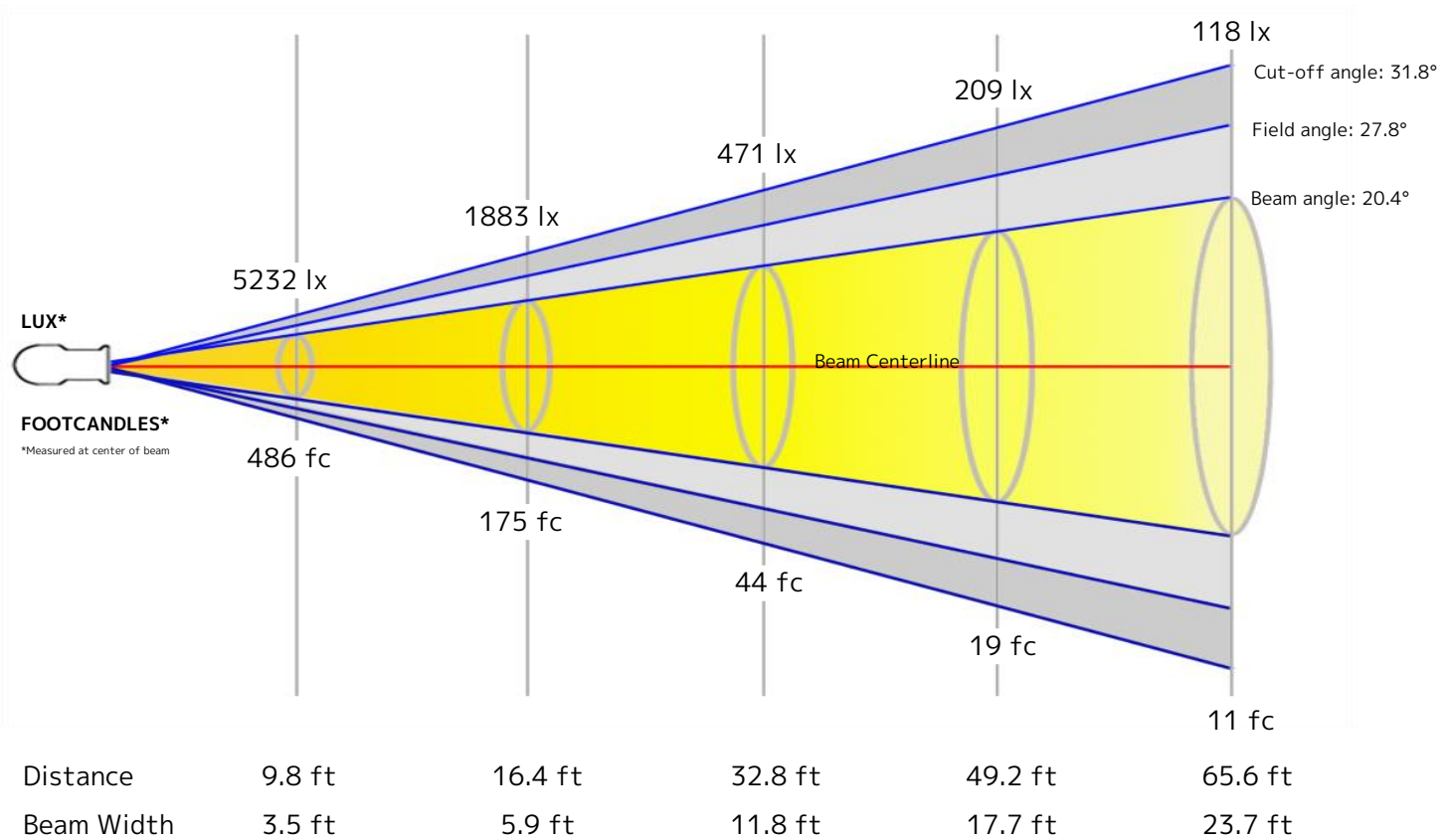
Color Temperature: 2436 K  
CRI: 79.6  
TLCI: 59  
TM30 R<sub>F</sub>: 81.2  
TM30 R<sub>g</sub>: 114.4

#### Power Details

Efficacy: 14 Lumen/Watt  
Power: 400 W  
Supply Voltage: 122 V  
Current: - A

### Beam Details

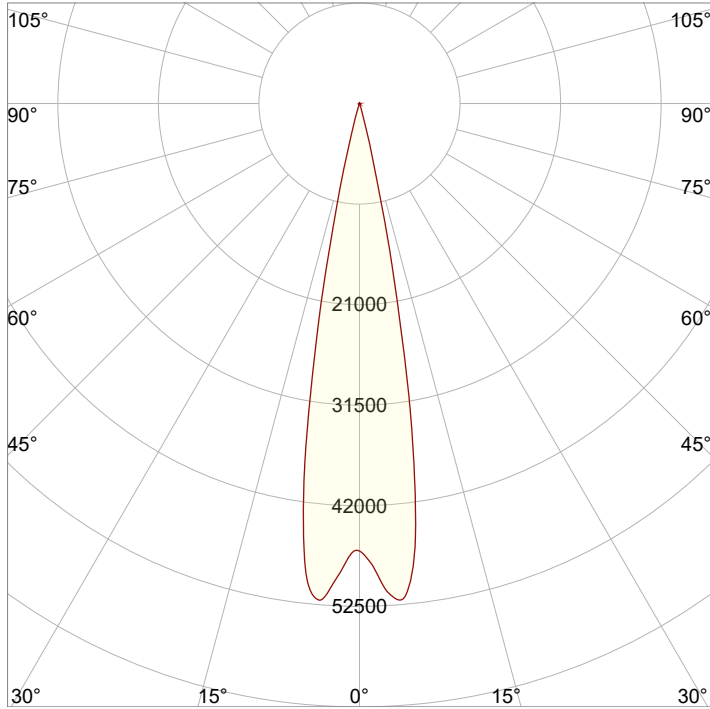
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.1 m	1.8 m	3.6 m	5.4 m	7.2 m



### Beam Intensities from 1-20m

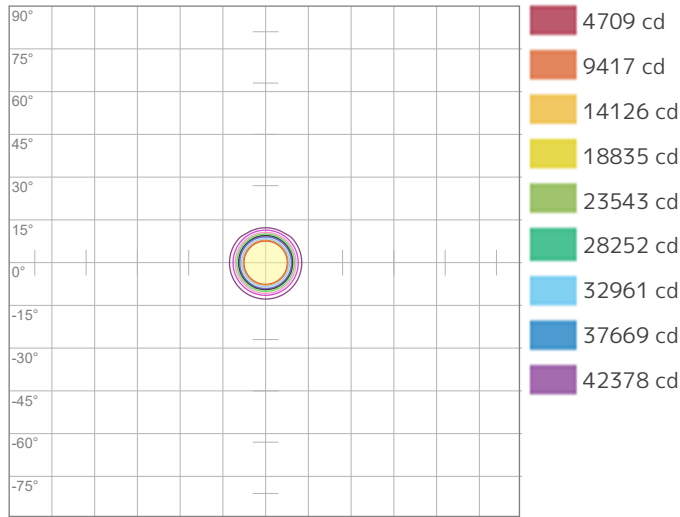
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	47087	11772	5232	2943	1883	1308	961	736	581	471	389	327	279	240	209	184	163	145	130	118
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	4374.5	1093.6	486.1	273.4	175	121.5	89.3	68.4	54	43.7	36.2	30.4	25.9	22.3	19.4	17.1	15.1	13.5	12.1	10.9

### Angular Distribution



<b>Beam Angle - 50%</b>
<b>20.4°</b>
<b>Field Angle - 10%</b>
<b>27.8°</b>
<b>Cutoff Angle - 2.5%</b>
<b>31.8°</b>

### ISO Diagrams

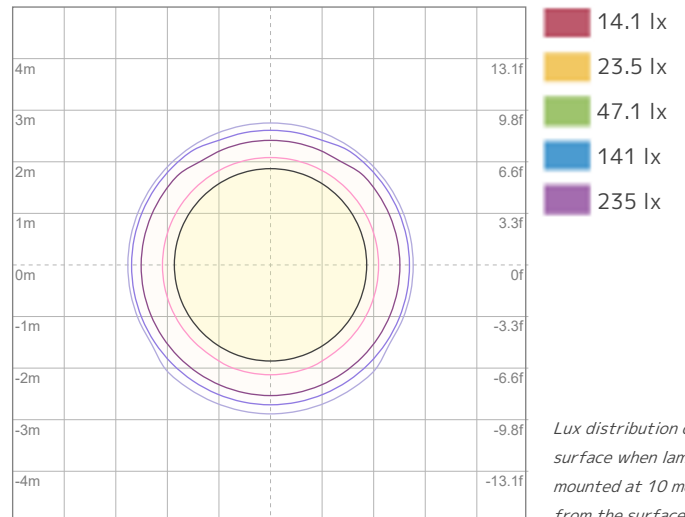


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 47087 cd



ISO LUX Diagram

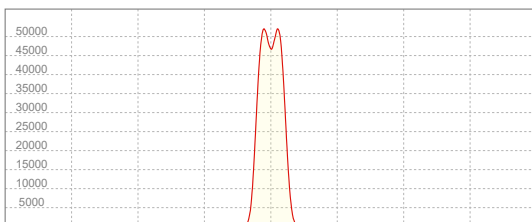
Conditions:

Number of c-planes: 2

LUX at center: 471 lx

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

### Linear Distribution



**Peak Candela**  
**52019 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 52019 / \text{distance(m)}^2$$

$$\text{fc} = 52019 / \text{distance(ft)}^2$$

### Key Measurements

#### Output

Total Lumen Output: 6046 lm  
Peak Intensity: 54487 cd

#### Beam

Beam Angle (50%): 20.6°  
Field Angle (10%): 28.1°  
Cutoff Angle (2.5%): 32.4°

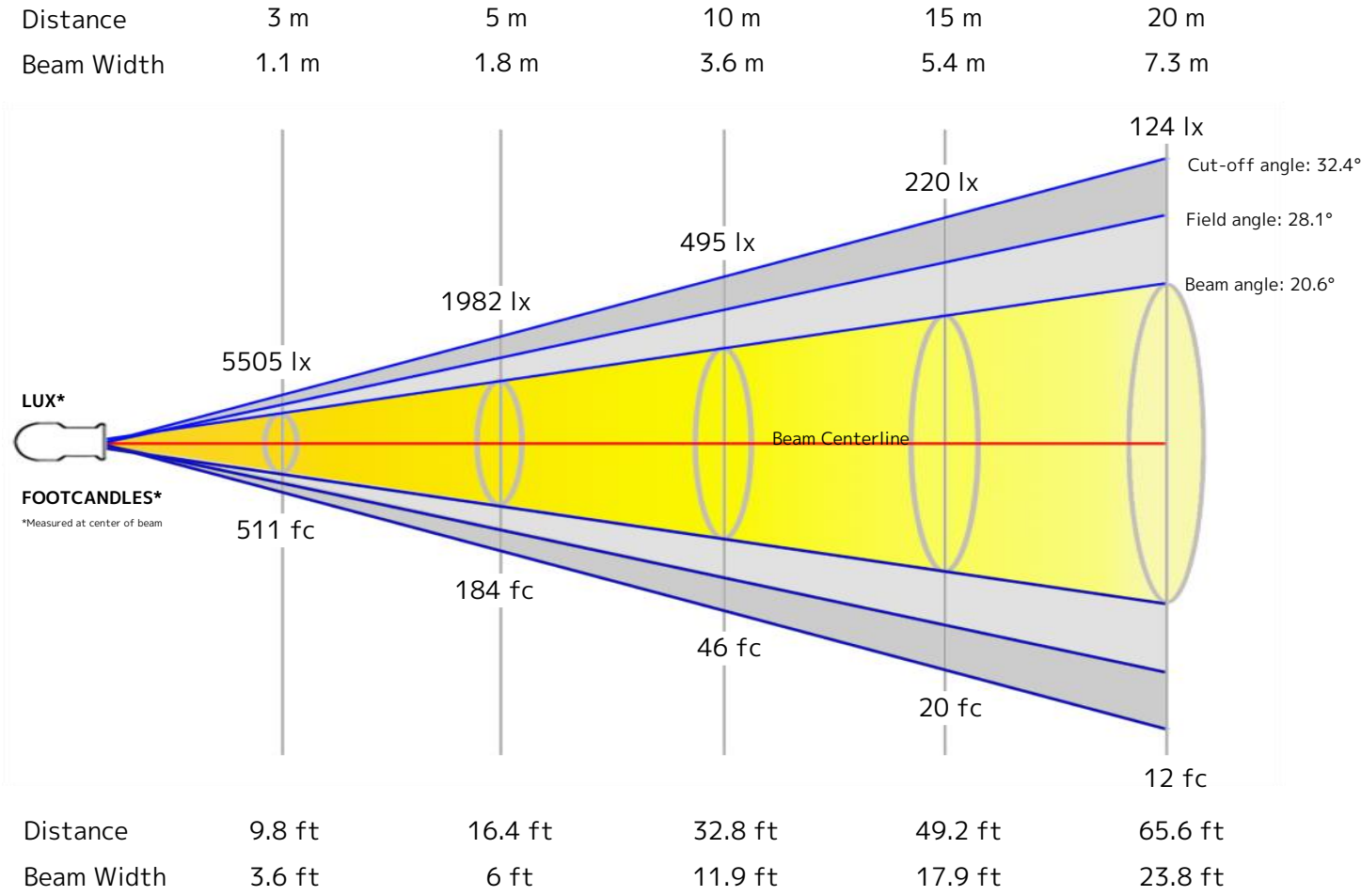
#### Color

Color Temperature: 3210 K  
CRI: 83.4  
TLCI: 67  
TM30 R<sub>F</sub>: 82.0  
TM30 R<sub>g</sub>: 107.6

#### Power Details

Efficacy: 17 Lumen/Watt  
Power: 349 W  
Supply Voltage: 122 V  
Current: - A

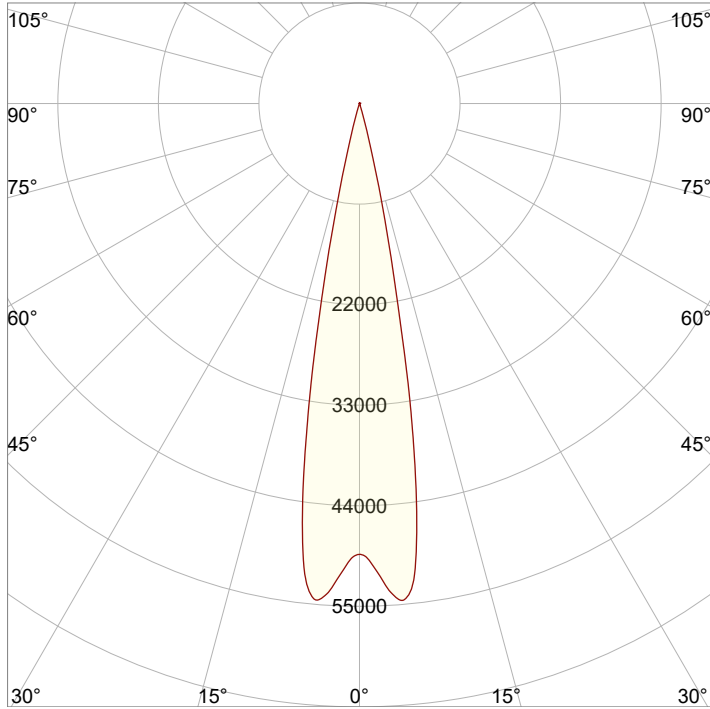
### Beam Details



### Beam Intensities from 1-20m

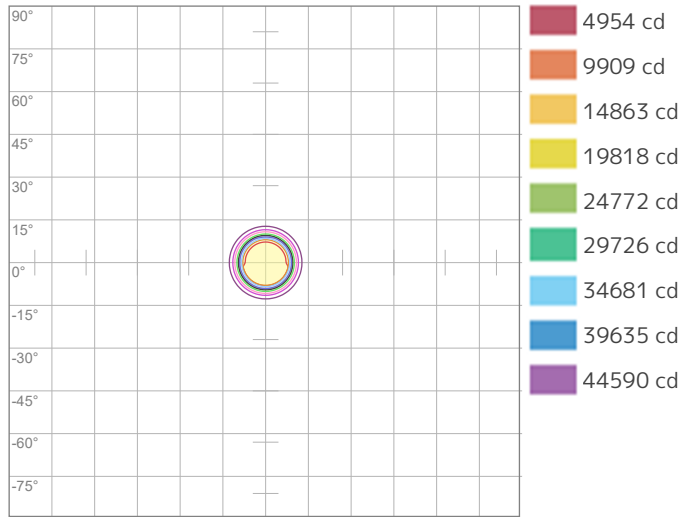
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	49544	12386	5505	3097	1982	1376	1011	774	612	495	409	344	293	253	220	194	171	153	137	124
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	4602.8	1150.7	511.4	287.7	184.1	127.9	93.9	71.9	56.8	46	38	32	27.2	23.5	20.5	18	15.9	14.2	12.8	11.5

### Angular Distribution



<b>Beam Angle - 50%</b>
<b>20.6°</b>
<b>Field Angle - 10%</b>
<b>28.1°</b>
<b>Cutoff Angle - 2.5%</b>
<b>32.4°</b>

### ISO Diagrams

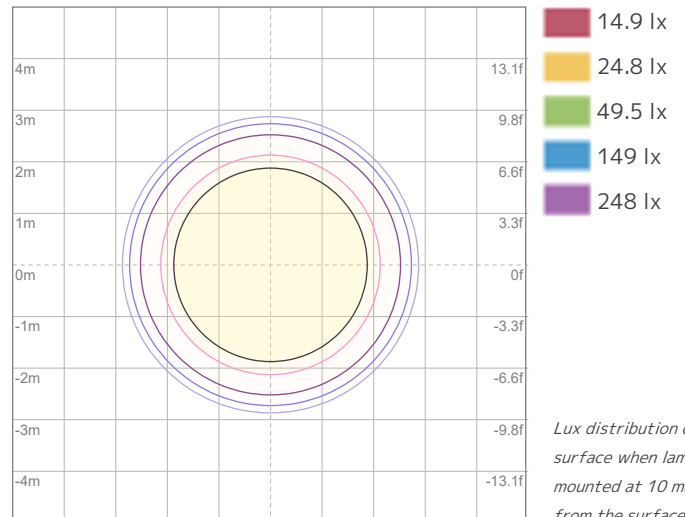


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 49544 cd



ISO LUX Diagram

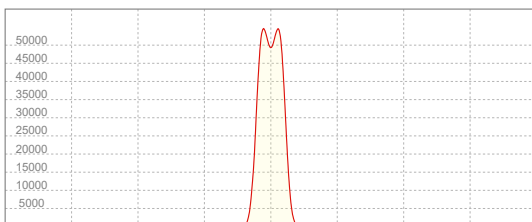
Conditions:

Number of c-planes: 2

LUX at center: 495 lx

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

### Linear Distribution



**Peak Candela**  
**54487 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 54487 / \text{distance(m)}^2$$

$$\text{fc} = 54487 / \text{distance(ft)}^2$$



### Key Measurements

#### Output

Total Lumen Output: 5755 lm  
Peak Intensity: 53491 cd

#### Beam

Beam Angle (50%): 20.2°  
Field Angle (10%): 27.5°  
Cutoff Angle (2.5%): 31.9°

#### Color

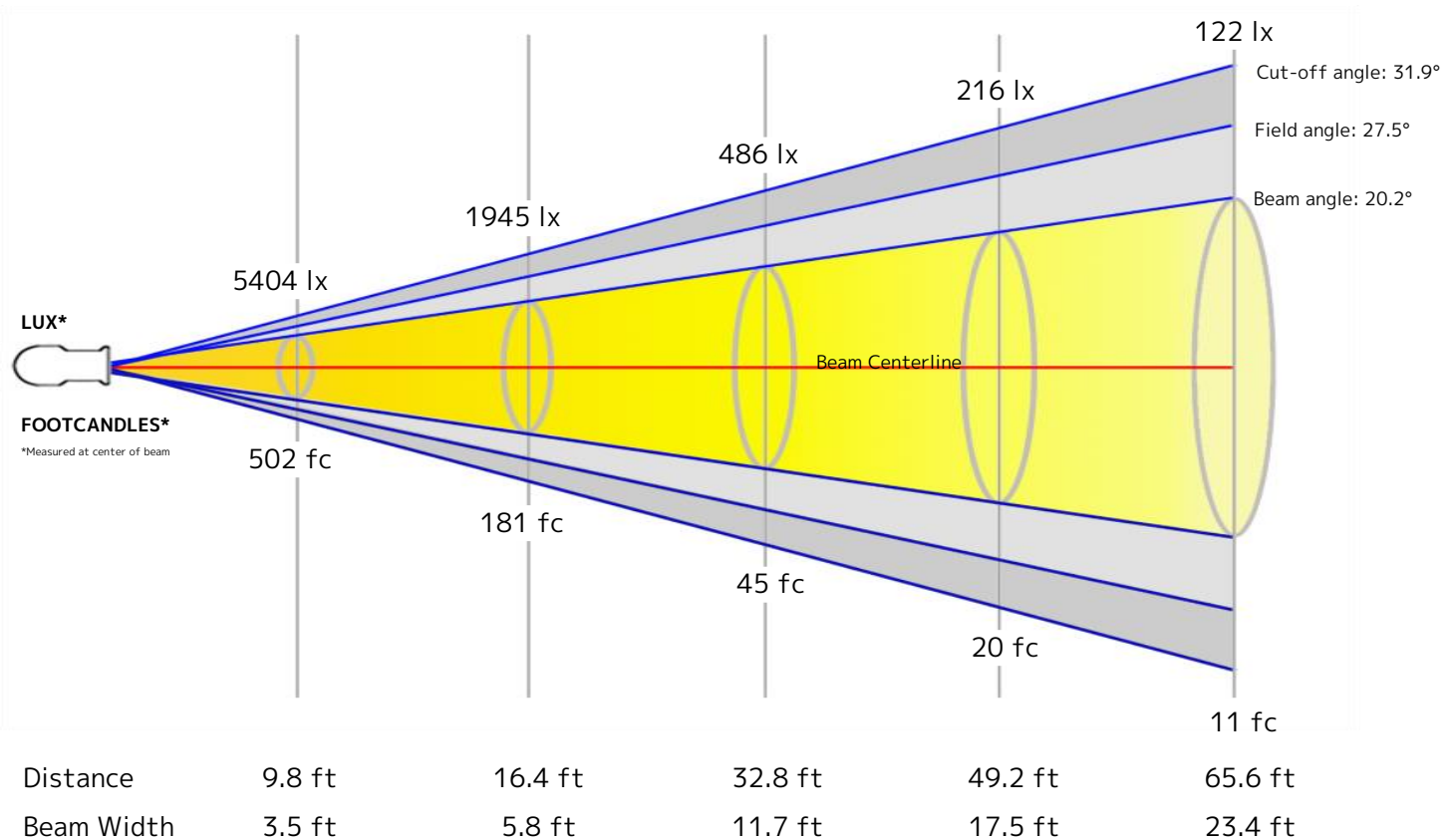
Color Temperature: 4442 K  
CRI: 71.0  
TLCI: 56  
TM30 R<sub>F</sub>: 74.3  
TM30 R<sub>g</sub>: 96.7

#### Power Details

Efficacy: 20 Lumen/Watt  
Power: 295 W  
Supply Voltage: 121 V  
Current: - A

### Beam Details

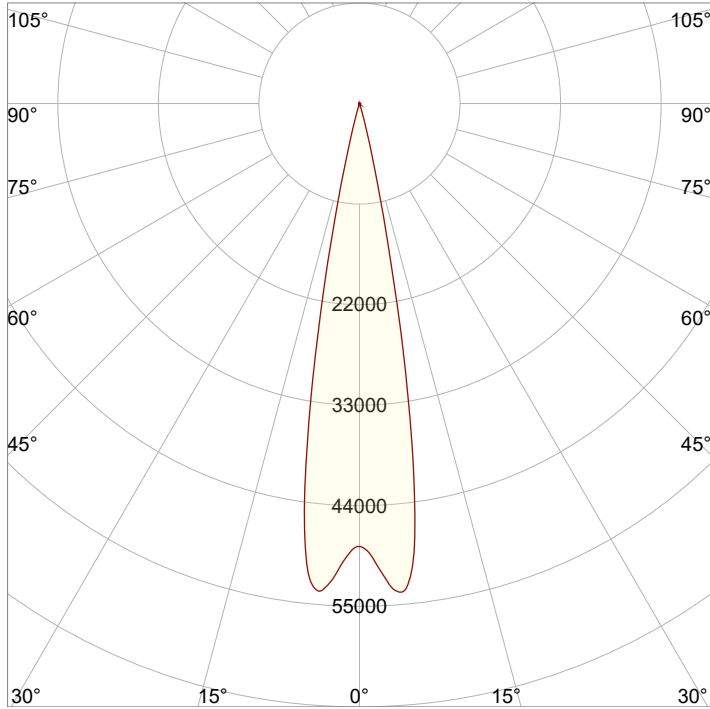
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.1 m	1.8 m	3.6 m	5.3 m	7.1 m



### Beam Intensities from 1-20m

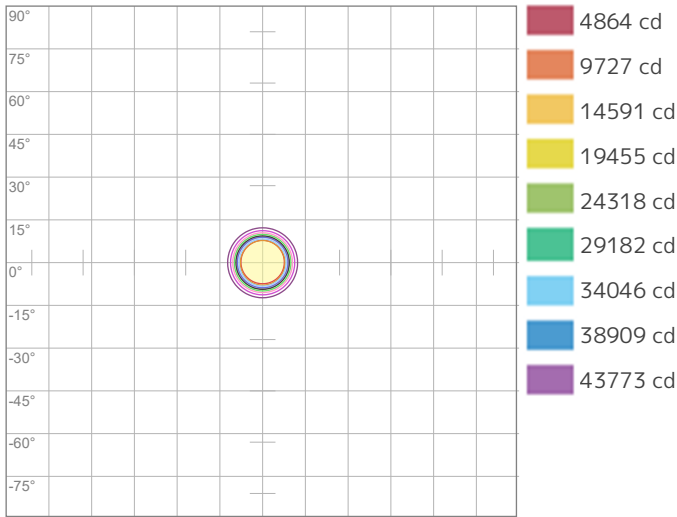
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	48636	12159	5404	3040	1945	1351	993	760	600	486	402	338	288	248	216	190	168	150	135	122
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	4518.5	1129.6	502.1	282.4	180.7	125.5	92.2	70.6	55.8	45.2	37.3	31.4	26.7	23.1	20.1	17.7	15.6	13.9	12.5	11.3

### Angular Distribution



<b>Beam Angle - 50%</b>
<b>20.2°</b>
<b>Field Angle - 10%</b>
<b>27.5°</b>
<b>Cutoff Angle - 2.5%</b>
<b>31.9°</b>

### ISO Diagrams

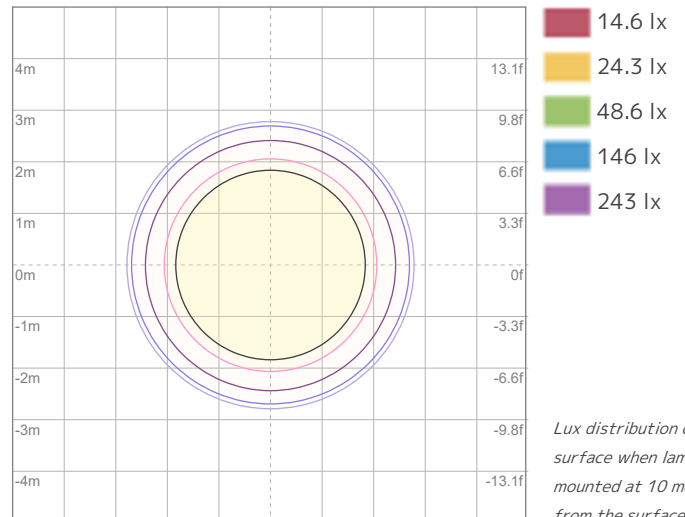


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 48636 cd



ISO LUX Diagram

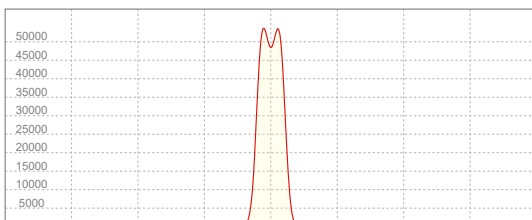
Conditions:

Number of c-planes: 2

LUX at center: 486 lx

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

### Linear Distribution



**Peak Candela**

**53491 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 53491 / \text{distance(m)}^2$$

$$\text{fc} = 53491 / \text{distance(ft)}^2$$

### Key Measurements

#### Output

Total Lumen Output: 6148 lm  
Peak Intensity: 56118 cd

#### Beam

Beam Angle (50%): 20.3°  
Field Angle (10%): 27.8°  
Cutoff Angle (2.5%): 32.1°

#### Color

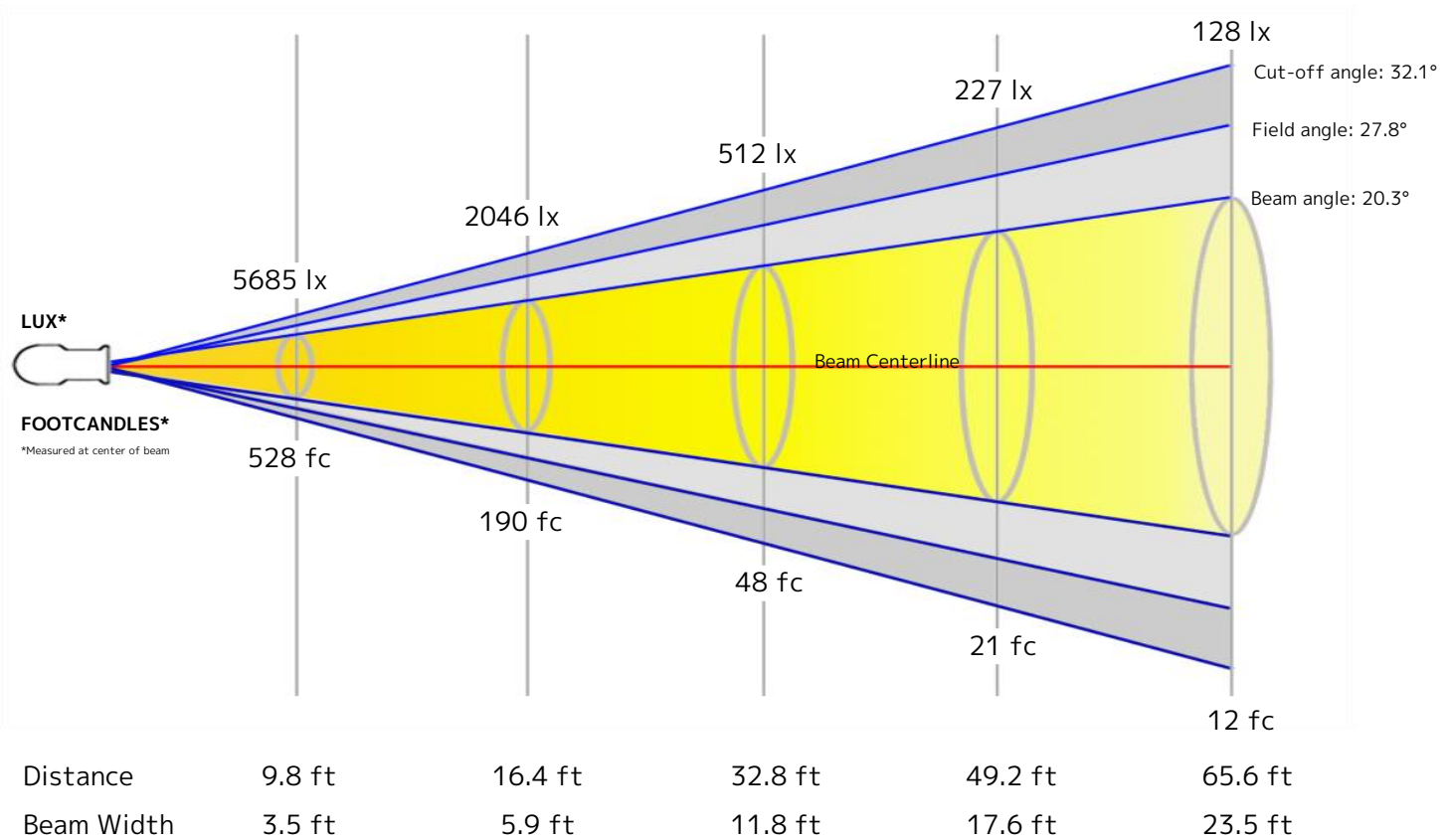
Color Temperature: 5650 K  
CRI: 72.8  
TLCI: 63  
TM30 R<sub>F</sub>: 74.8  
TM30 R<sub>g</sub>: 98.1

#### Power Details

Efficacy: 19 Lumen/Watt  
Power: 330 W  
Supply Voltage: 120 V  
Current: - A

### Beam Details

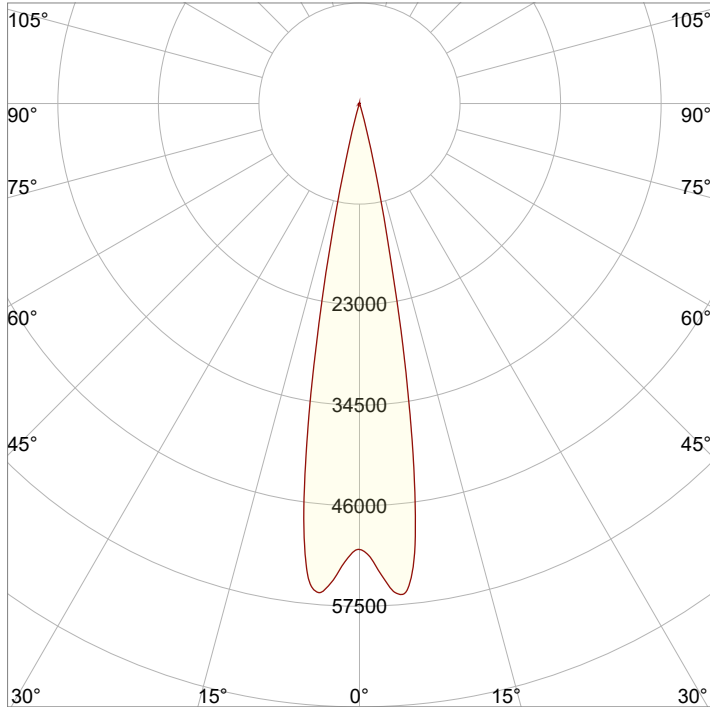
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.1 m	1.8 m	3.6 m	5.4 m	7.2 m



### Beam Intensities from 1-20m

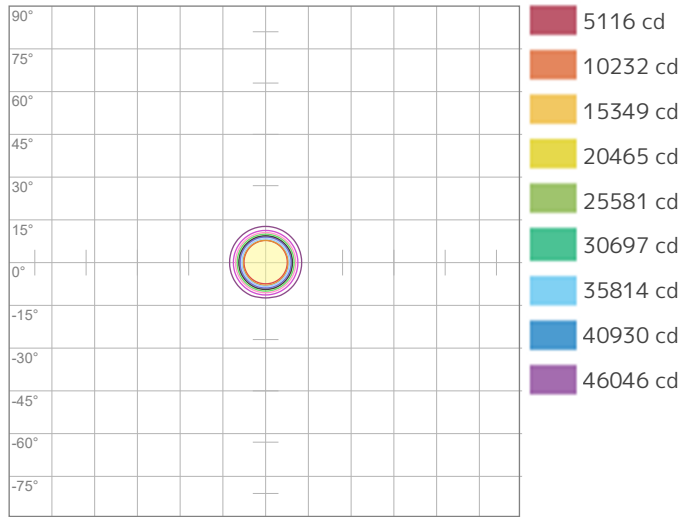
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	51162	12791	5685	3198	2046	1421	1044	799	632	512	423	355	303	261	227	200	177	158	142	128
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	4753.1	1188.3	528.1	297.1	190.1	132	97	74.3	58.7	47.5	39.3	33	28.1	24.3	21.1	18.6	16.4	14.7	13.2	11.9

### Angular Distribution



<b>Beam Angle - 50%</b>
<b>20.3°</b>
<b>Field Angle - 10%</b>
<b>27.8°</b>
<b>Cutoff Angle - 2.5%</b>
<b>32.1°</b>

### ISO Diagrams

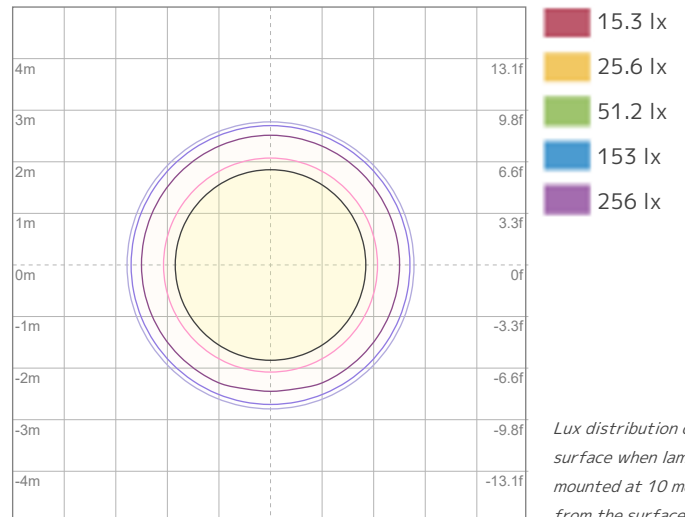


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 51162 cd



ISO LUX Diagram

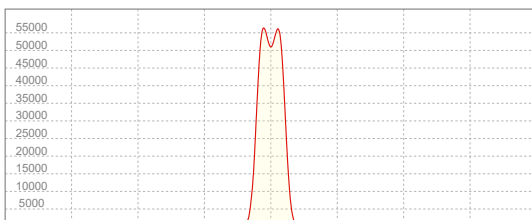
Conditions:

Number of c-planes: 2

LUX at center: 512 lx

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

### Linear Distribution



**Peak Candela**  
**56118 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 56118 / \text{distance(m)}^2$$

$$\text{fc} = 56118 / \text{distance(ft)}^2$$

### Key Measurements

#### Output

Total Lumen Output: 6313 lm  
Peak Intensity: 57559 cd

#### Beam

Beam Angle (50%): 20.3°  
Field Angle (10%): 27.8°  
Cutoff Angle (2.5%): 32°

#### Color

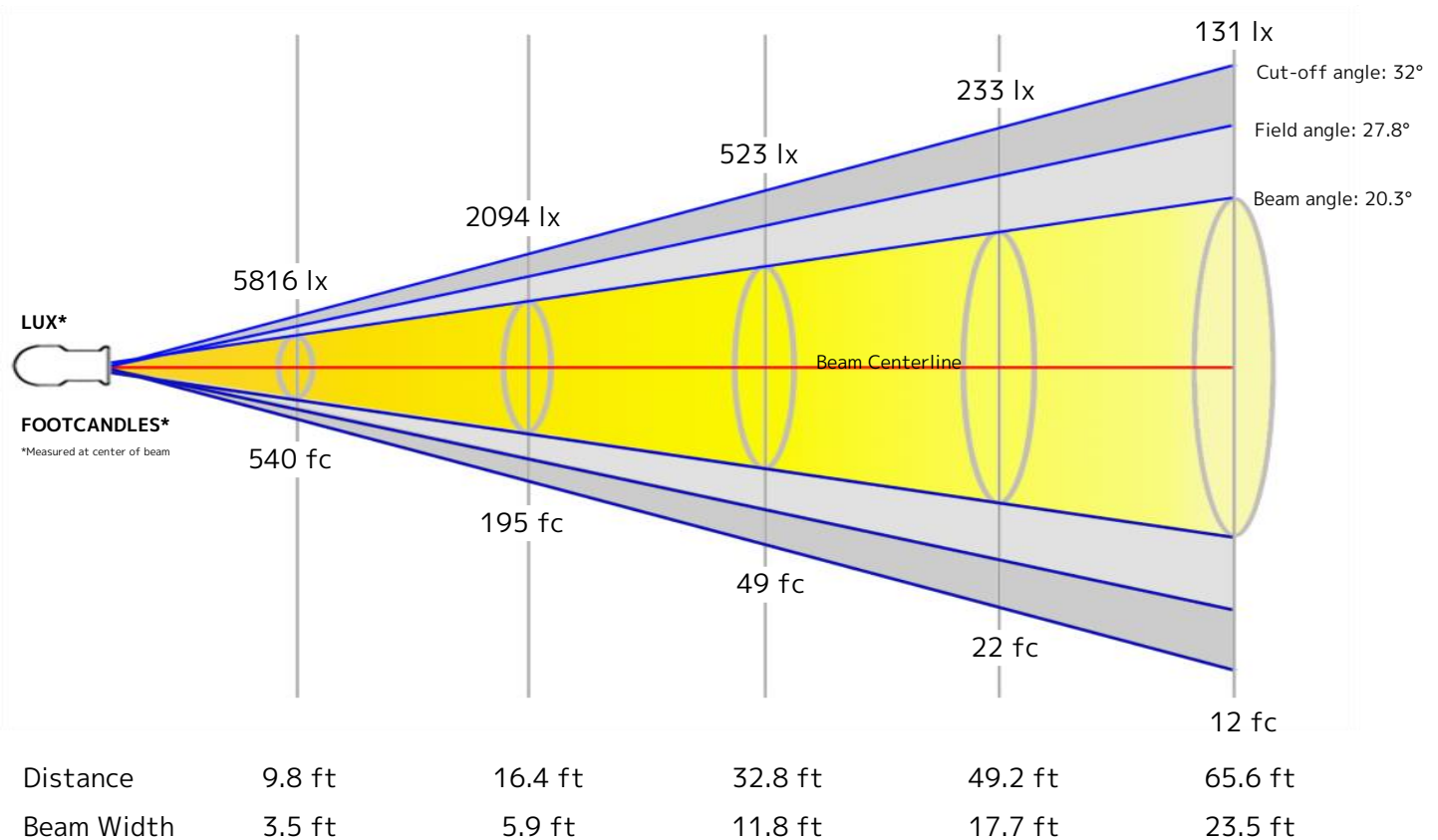
Color Temperature: 6512 K  
CRI: 73.7  
TLCI: 65  
TM30 R<sub>F</sub>: 75.1  
TM30 R<sub>g</sub>: 97.9

#### Power Details

Efficacy: 18 Lumen/Watt  
Power: 353 W  
Supply Voltage: 120 V  
Current: - A

### Beam Details

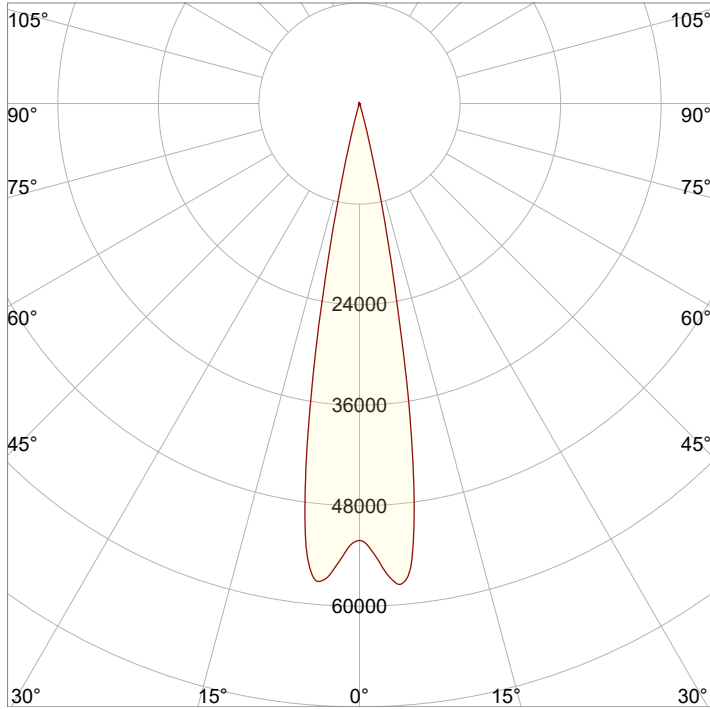
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.1 m	1.8 m	3.6 m	5.4 m	7.2 m



### Beam Intensities from 1-20m

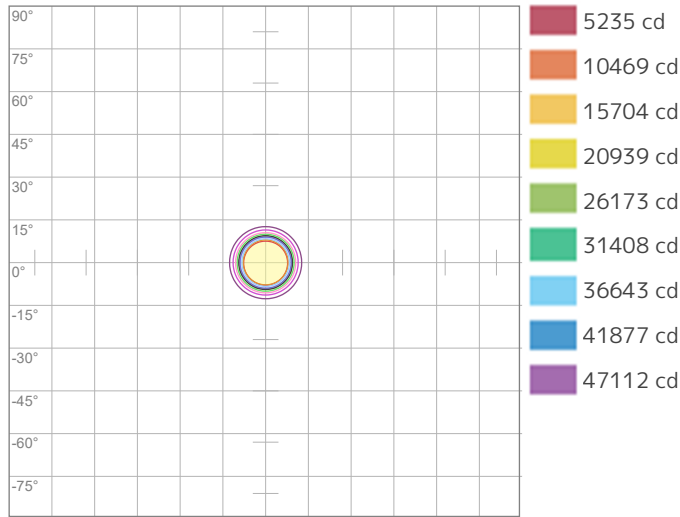
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	52347	13087	5816	3272	2094	1454	1068	818	646	523	433	364	310	267	233	204	181	162	145	131
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	4863.2	1215.8	540.4	303.9	194.5	135.1	99.2	76	60	48.6	40.2	33.8	28.8	24.8	21.6	19	16.8	15	13.5	12.2

### Angular Distribution



<b>Beam Angle - 50%</b>
<b>20.3°</b>
<b>Field Angle - 10%</b>
<b>27.8°</b>
<b>Cutoff Angle - 2.5%</b>
<b>32°</b>

### ISO Diagrams

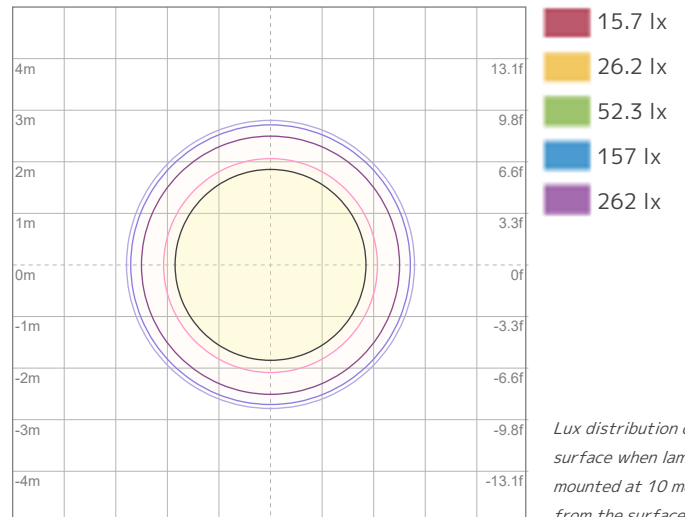


**ISO Candela Diagram**

Conditions:

Number of c-planes: 2

Candela at center: 52347 cd



**ISO LUX Diagram**

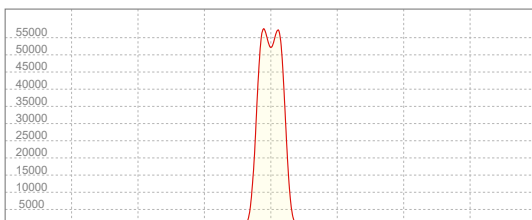
Conditions:

Number of c-planes: 2

LUX at center: 523 lx

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

### Linear Distribution



**Peak Candela**  
**57559 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 57559 / \text{distance(m)}^2$$

$$\text{fc} = 57559 / \text{distance(ft)}^2$$

## Key Measurements

### Output

Total Lumen Output: 6630 lm  
Peak Intensity: 59974 cd

### Beam

Beam Angle (50%): 20.4°  
Field Angle (10%): 27.9°  
Cutoff Angle (2.5%): 32.1°

### Color

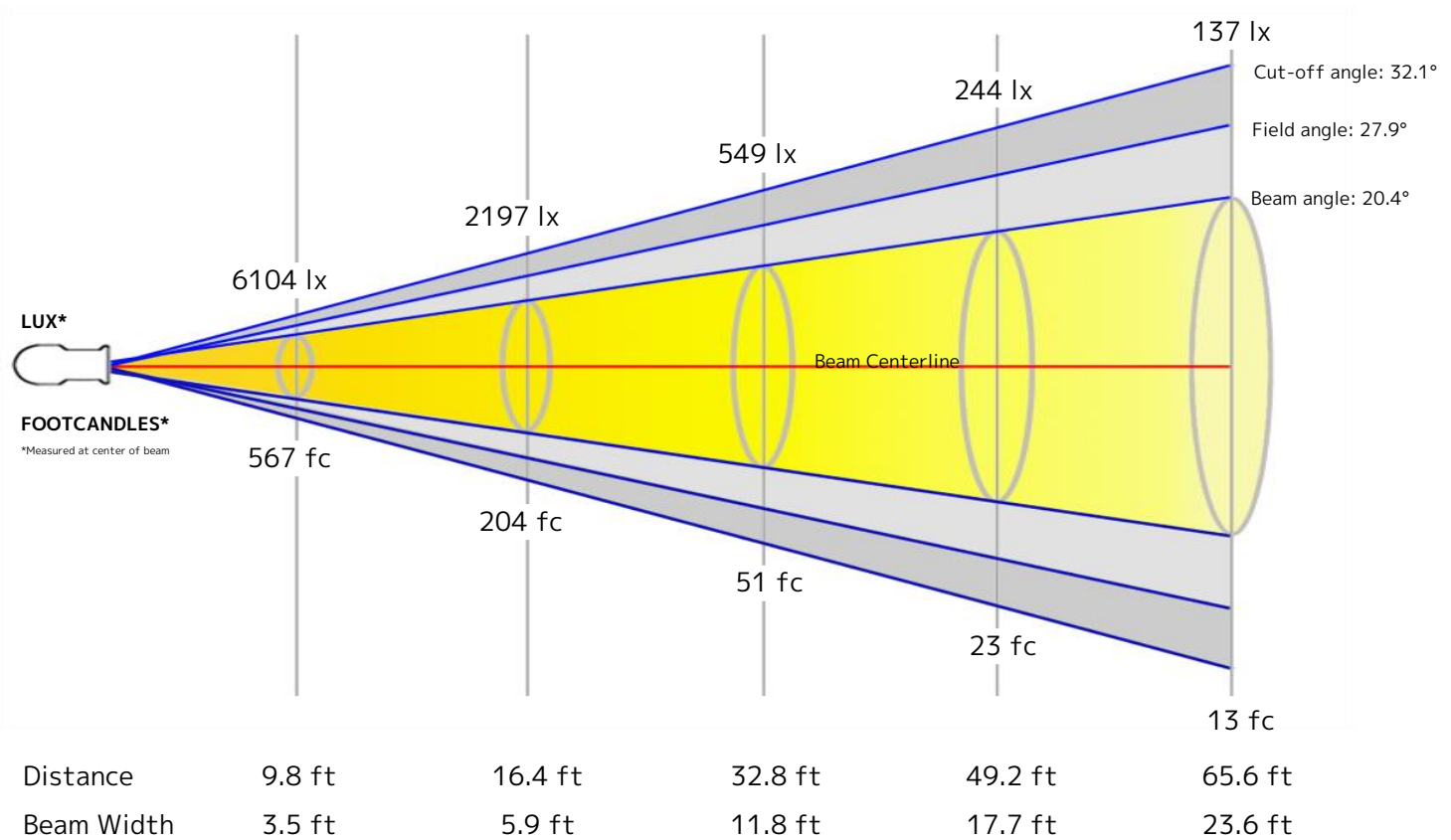
Color Temperature: 8249 K  
CRI: 74.5  
TLCI: 65  
TM30 R<sub>F</sub>: 75.2  
TM30 R<sub>g</sub>: 97.5

### Power Details

Efficacy: 17 Lumen/Watt  
Power: 388 W  
Supply Voltage: 120 V  
Current: - A

## Beam Details

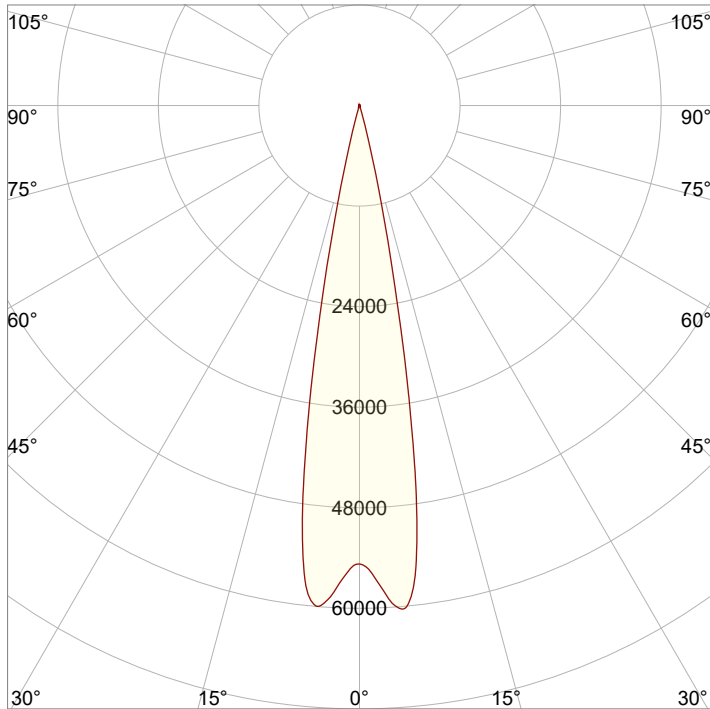
Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.1 m	1.8 m	3.6 m	5.4 m	7.2 m



## Beam Intensities from 1-20m

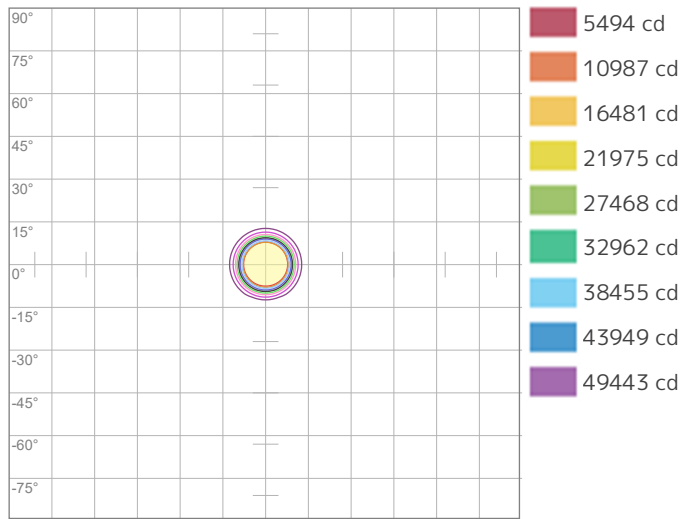
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	54936	13734	6104	3434	2197	1526	1121	858	678	549	454	382	325	280	244	215	190	170	152	137
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	5103.8	1275.9	567.1	319	204.2	141.8	104.2	79.7	63	51	42.2	35.4	30.2	26	22.7	19.9	17.7	15.8	14.1	12.8

### Angular Distribution



<b>Beam Angle - 50%</b>
<b>20.4°</b>
<b>Field Angle - 10%</b>
<b>27.9°</b>
<b>Cutoff Angle - 2.5%</b>
<b>32.1°</b>

### ISO Diagrams

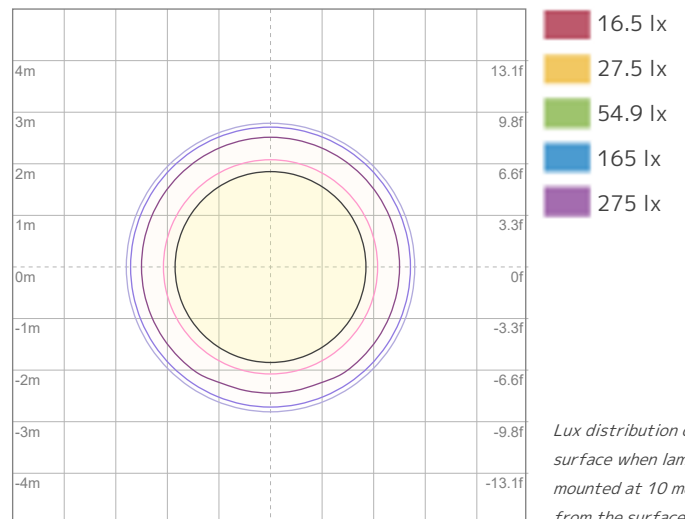


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 54936 cd



ISO LUX Diagram

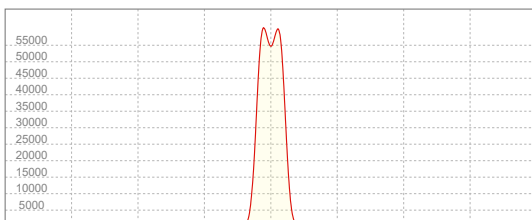
Conditions:

Number of c-planes: 2

LUX at center: 549 lx

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

### Linear Distribution



**Peak Candela**

**59974 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 59974 / \text{distance(m)}^2$$

$$\text{fc} = 59974 / \text{distance(ft)}^2$$



## Key Measurements

### Output

Total Lumen Output: 6823 lm  
Peak Intensity: 17559 cd

### Beam

Beam Angle (50%): 36.7°  
Field Angle (10%): 56.4°  
Cutoff Angle (2.5%): 66.9°

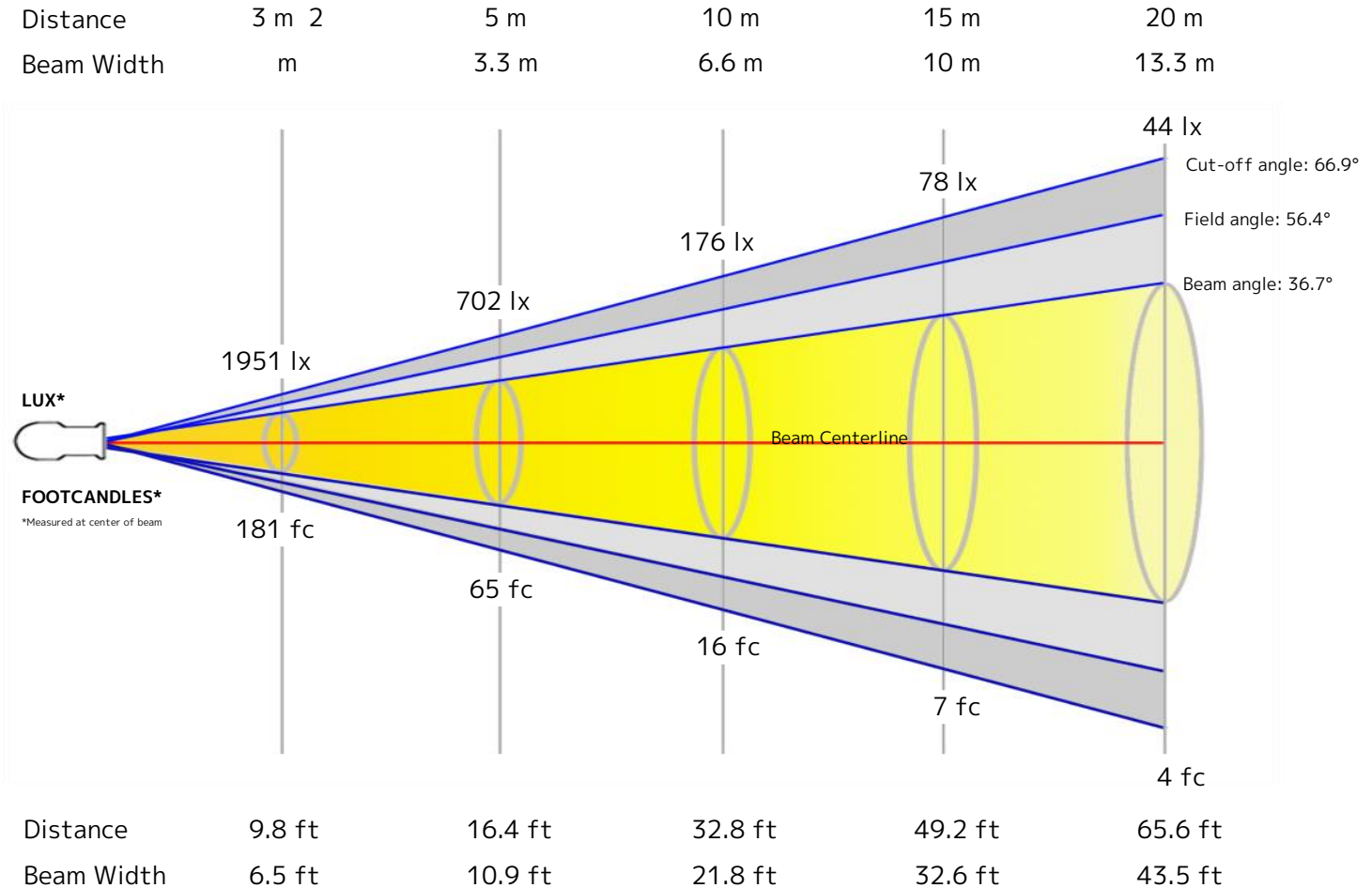
### Color

Color Temperature: 0 K  
CRI: 0.0  
TLCI: n/a  
TM30 R<sub>F</sub>: 0.0  
TM30 R<sub>G</sub>: 0.0

### Power Details

Efficacy: 16 Lumen/Watt  
Power: 440 W  
Supply Voltage: 123 V  
Current: - A

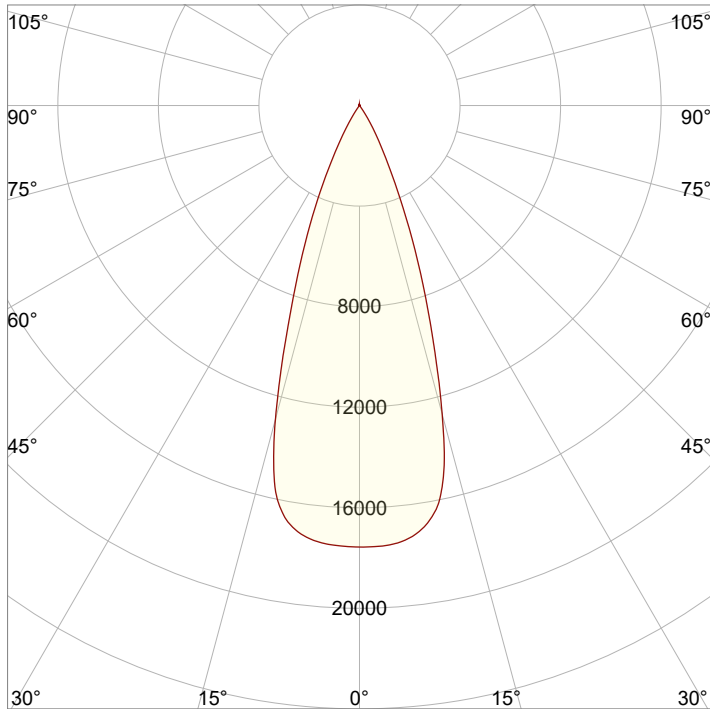
## Beam Details



## Beam Intensities from 1-20m

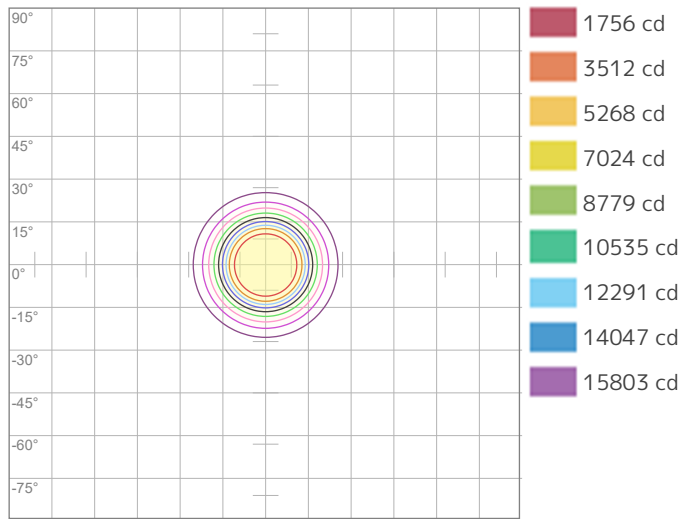
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	17559	4390	1951	1097	702	488	358	274	217	176	145	122	104	90	78	69	61	54	49	44
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	1631.3	407.8	181.3	102	65.3	45.3	33.3	25.5	20.1	16.3	13.5	11.3	9.7	8.3	7.3	6.4	5.6	5	4.5	4.1

## Angular Distribution

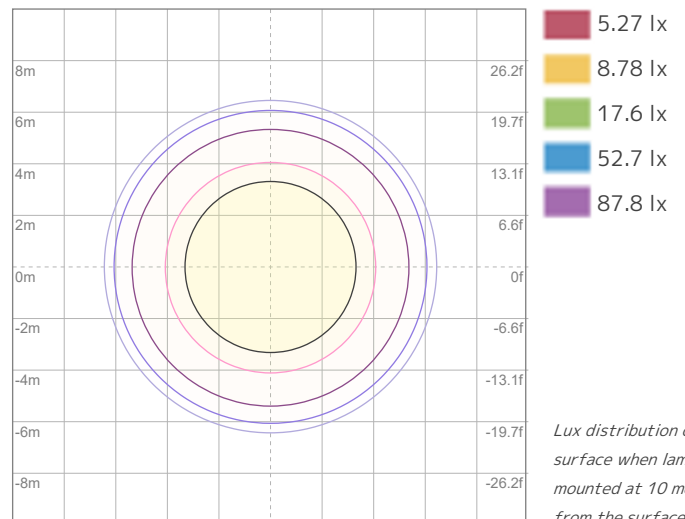


<b>Beam Angle - 50%</b>
<b>36.7°</b>
<b>Field Angle - 10%</b>
<b>56.4°</b>
<b>Cutoff Angle - 2.5%</b>
<b>66.9°</b>

## 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

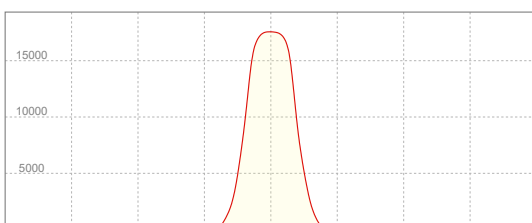
Candela at center: 17559 cd

Conditions:

Number of c-planes: 2

LUX at center: 176 lx

## Linear Distribution



**Peak Candela**  
**17559 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 17559 / \text{distance(m)}^2$$

$$\text{fc} = 17559 / \text{distance(ft)}^2$$

### Key Measurements

#### Output

Total Lumen Output: 6996 lm  
Peak Intensity: 17397 cd

#### Beam

Beam Angle (50%): 37.4°  
Field Angle (10%): 57.4°  
Cutoff Angle (2.5%): 67.8°

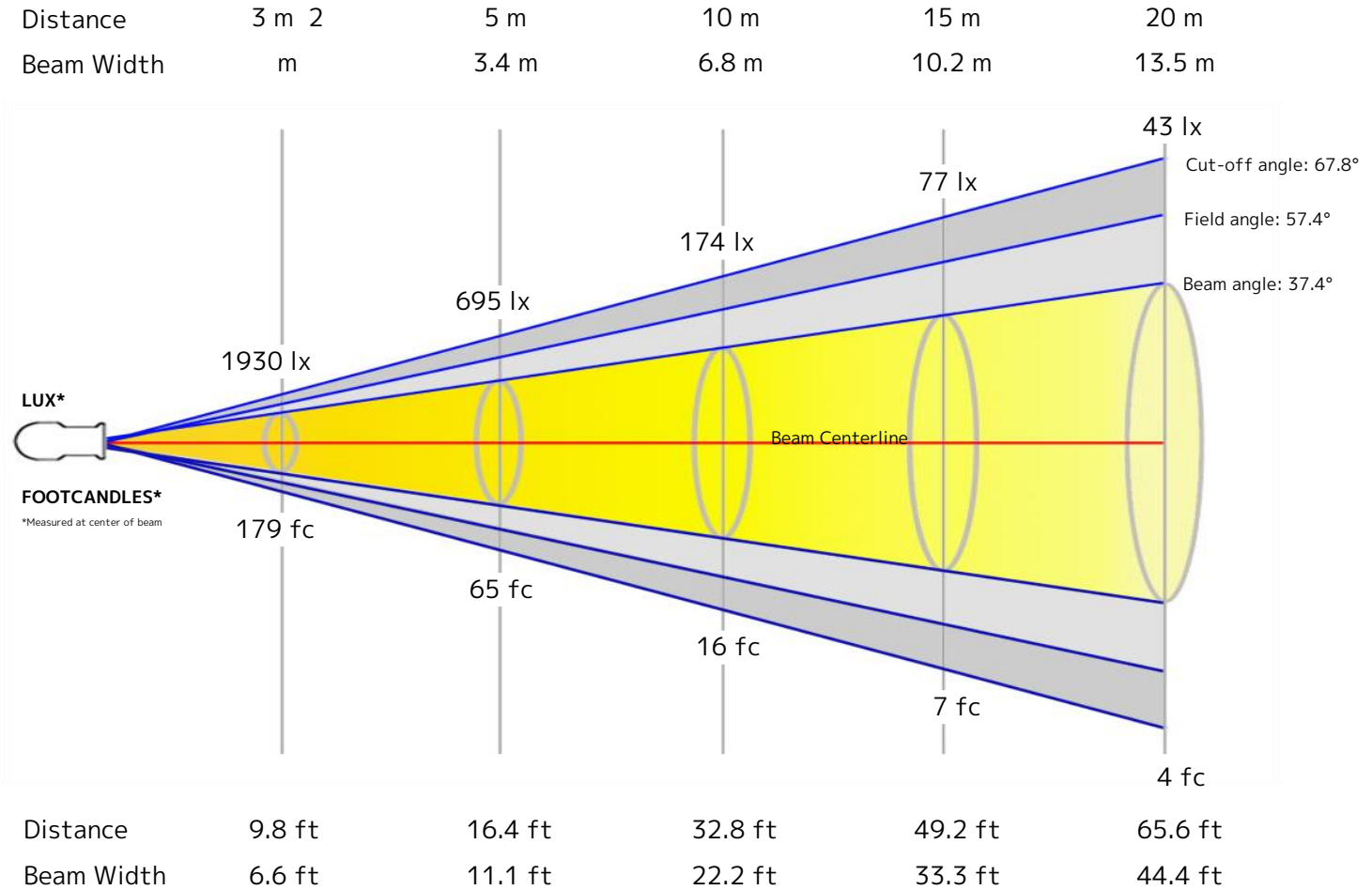
#### Color

Color Temperature: 2439 K  
CRI: 79.9  
TLCI: 60  
TM30 R<sub>F</sub>: 81.8  
TM30 R<sub>G</sub>: 113.3

#### Power Details

Efficacy: 17 Lumen/Watt  
Power: 400 W  
Supply Voltage: 122 V  
Current: - A

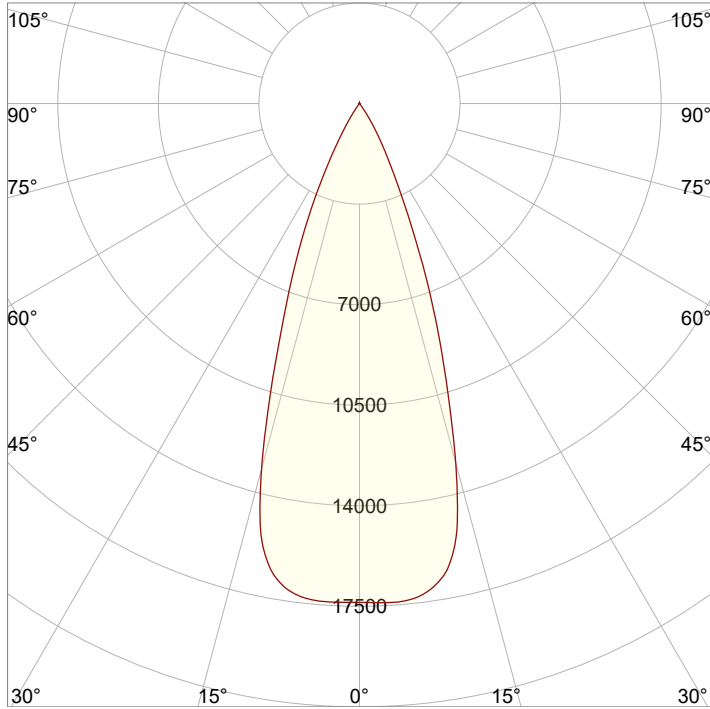
### Beam Details



### Beam Intensities from 1-20m

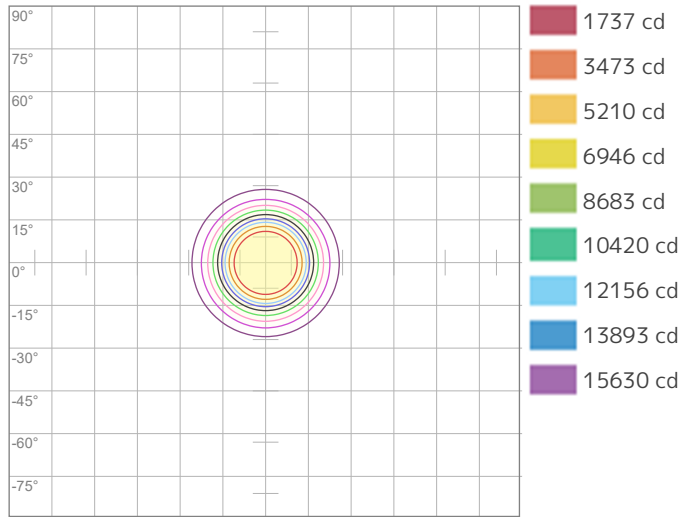
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	17366	4342	1930	1085	695	482	354	271	214	174	144	121	103	89	77	68	60	54	48	43
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	1613.4	403.3	179.3	100.8	64.5	44.8	32.9	25.2	19.9	16.1	13.3	11.2	9.5	8.2	7.2	6.3	5.6	5	4.5	4

### Angular Distribution



<b>Beam Angle - 50%</b>
<b>37.4°</b>
<b>Field Angle - 10%</b>
<b>57.4°</b>
<b>Cutoff Angle - 2.5%</b>
<b>67.8°</b>

### ISO Diagrams

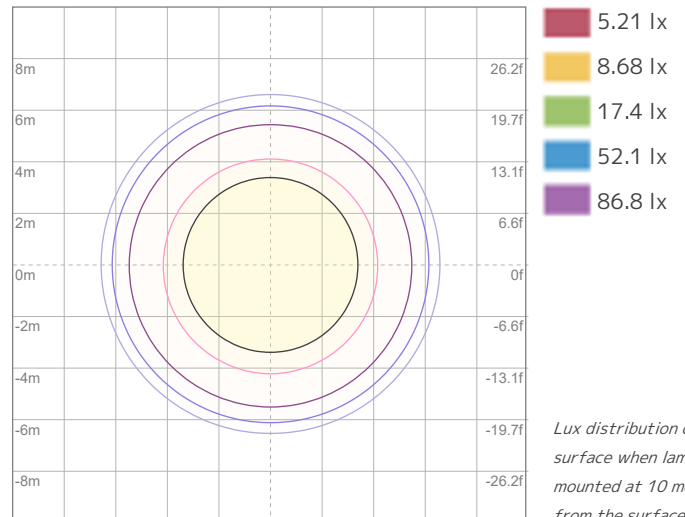


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 17366 cd



ISO LUX Diagram

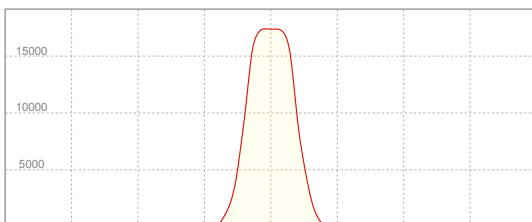
Conditions:

Number of c-planes: 2

LUX at center: 174 lx

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

### Linear Distribution



**Peak Candela**  
**17397 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 17397 / \text{distance(m)}^2$$

$$\text{fc} = 17397 / \text{distance(ft)}^2$$

### Key Measurements

#### Output

Total Lumen Output: 7299 lm  
Peak Intensity: 18010 cd

#### Beam

Beam Angle (50%): 37.5°  
Field Angle (10%): 57.6°  
Cutoff Angle (2.5%): 68.1°

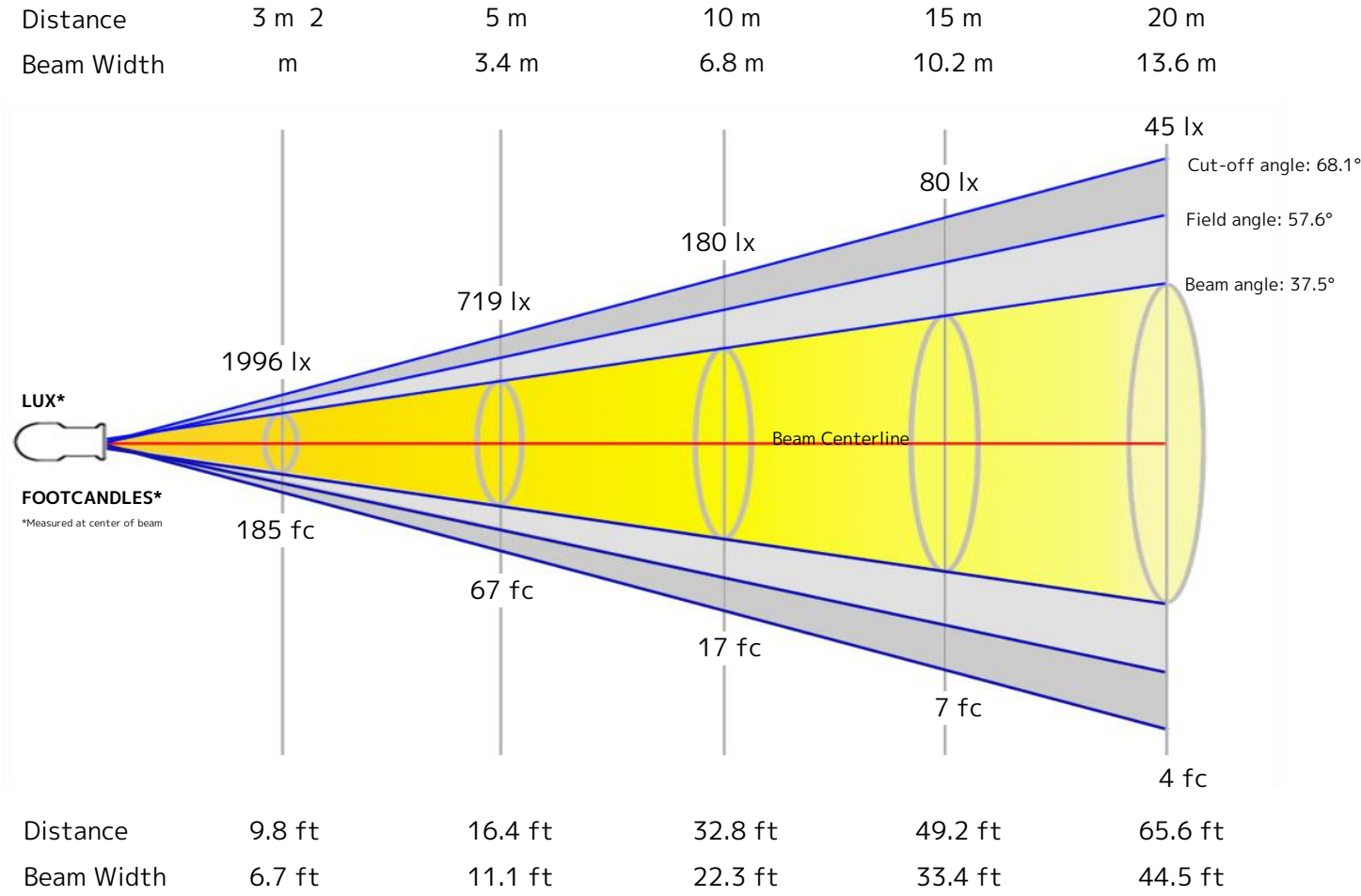
#### Color

Color Temperature: 3197 K  
CRI: 83.3  
TLCI: 67  
TM30 R<sub>F</sub>: 82.1  
TM30 R<sub>g</sub>: 107.5

#### Power Details

Efficacy: 21 Lumen/Watt  
Power: 347 W  
Supply Voltage: 122 V  
Current: - A

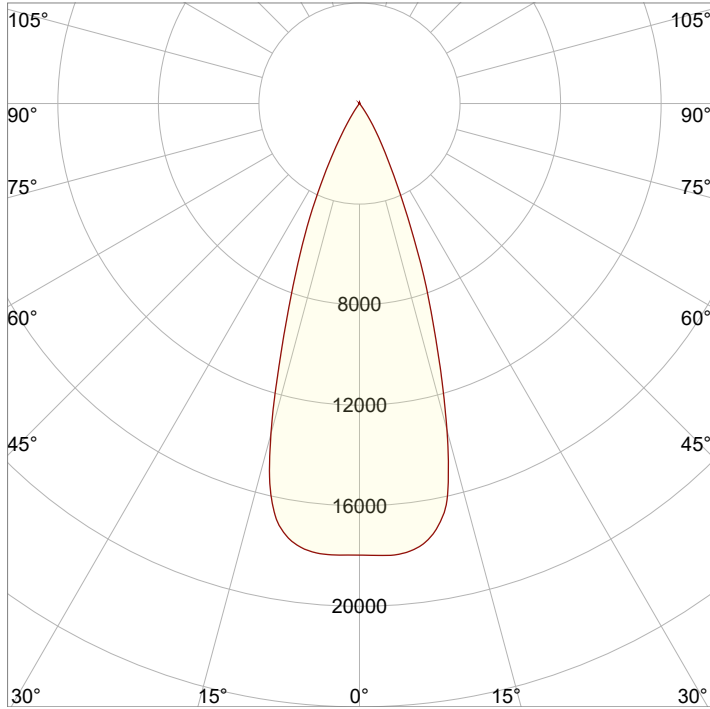
### Beam Details



### Beam Intensities from 1-20m

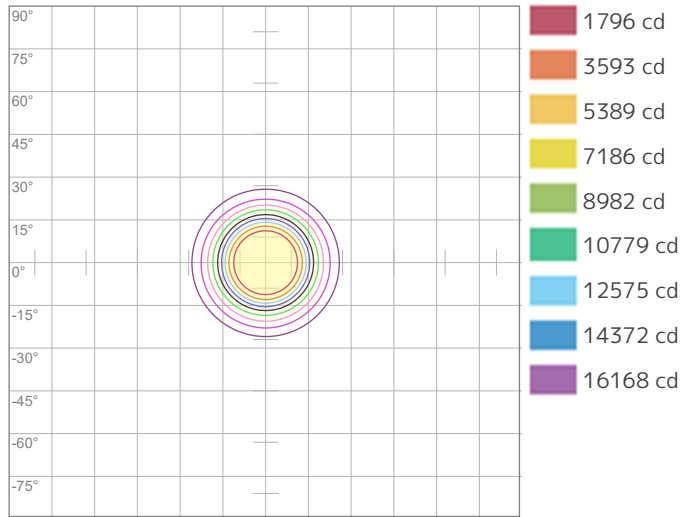
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	17964	4491	1996	1123	719	499	367	281	222	180	148	125	106	92	80	70	62	55	50	45
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	1669	417.2	185.4	104.3	66.8	46.4	34.1	26.1	20.6	16.7	13.8	11.6	9.9	8.5	7.4	6.5	5.8	5.2	4.6	4.2

### Angular Distribution

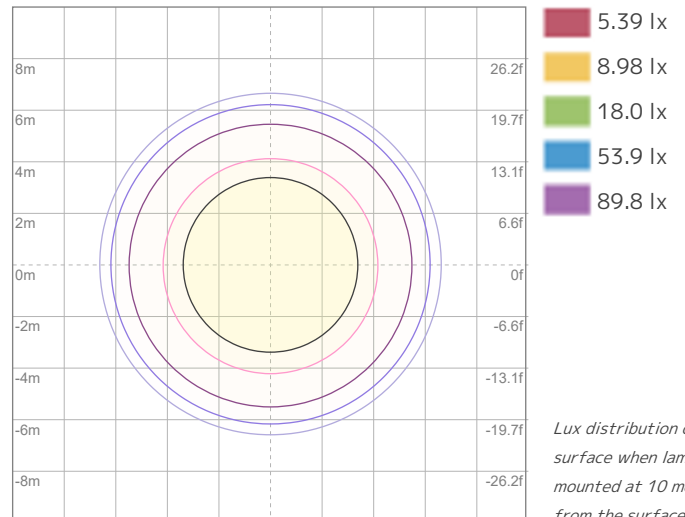


<b>Beam Angle - 50%</b>
<b>37.5°</b>
<b>Field Angle - 10%</b>
<b>57.6°</b>
<b>Cutoff Angle - 2.5%</b>
<b>68.1°</b>

### ISO Diagrams



**ISO Candela Diagram**



**ISO LUX Diagram**

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

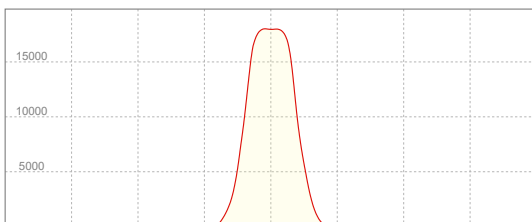
Conditions:

Number of c-planes: 2  
Candela at center: 17964 cd

Conditions:

Number of c-planes: 2  
LUX at center: 180 lx

### Linear Distribution



**Peak Candela**  
**18010 cd**

**Calculate Center Beam Intensities**  
 $lux = 18010 / distance(m)^2$   
 $fc = 18010 / distance(ft)^2$

## Key Measurements

### Output

Total Lumen Output: 3964 lm  
Peak Intensity: 483162 cd

### Beam

Beam Angle (50%): 5.3°  
Field Angle (10%): 8.5°  
Cutoff Angle (2.5%): 10.1°

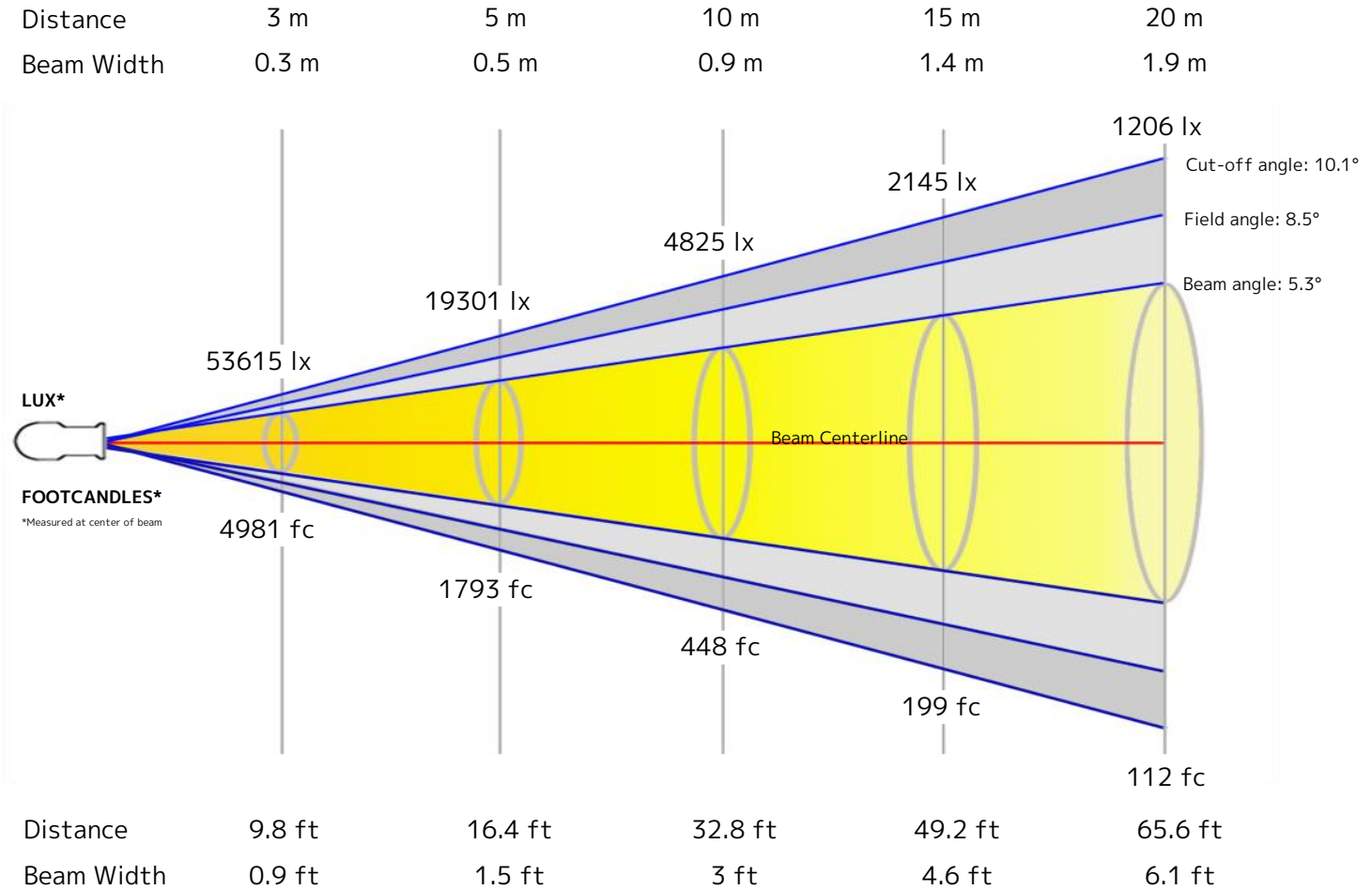
### Color

Color Temperature: 4553 K  
CRI: 71.2  
TLCI: 57  
TM30 R<sub>F</sub>: 74.1  
TM30 R<sub>g</sub>: 97.0

### Power Details

Efficacy: 13 Lumen/Watt  
Power: 295 W  
Supply Voltage: 122 V  
Current: - A

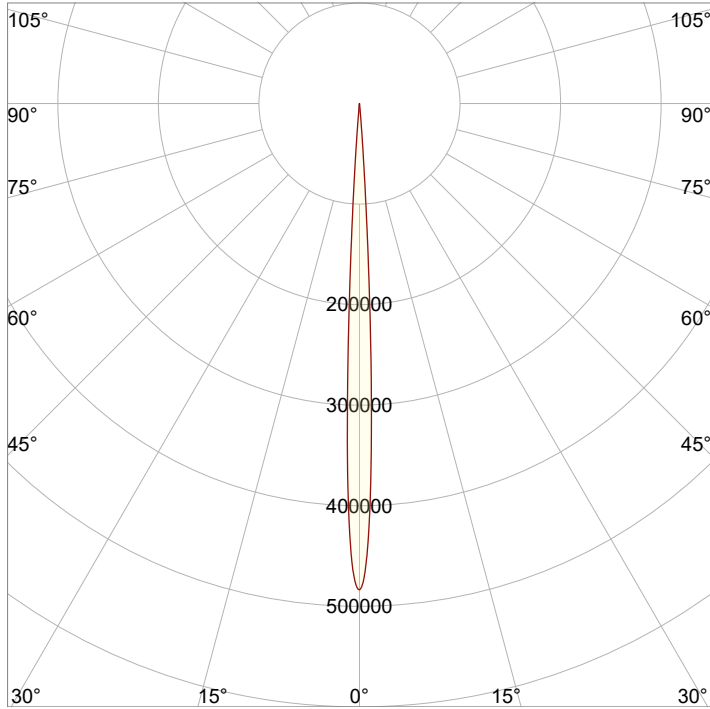
## Beam Details



## Beam Intensities from 1-20m

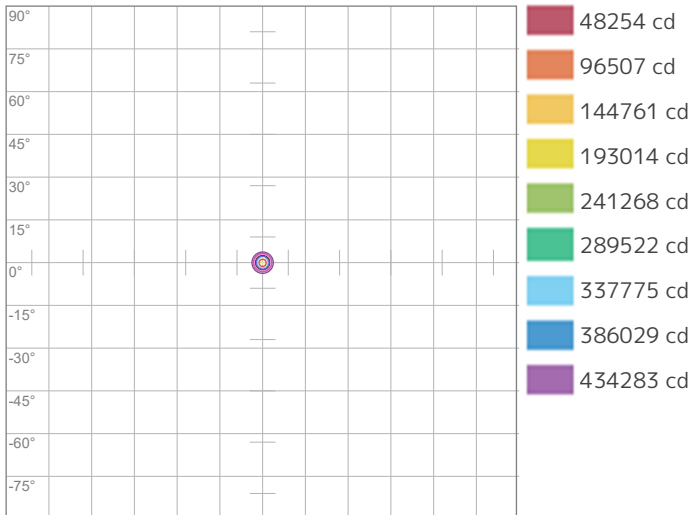
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	482536	120634	53615	30159	19301	13404	9848	7540	5957	4825	3988	3351	2855	2462	2145	1885	1670	1489	1337	1206
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	44829.1	11207.3	4981	2801.8	1793.2	1245.3	914.9	700.5	553.4	448.3	370.5	311.3	265.3	228.7	199.2	175.1	155.1	138.4	124.2	112.1

### Angular Distribution



<b>Beam Angle - 50%</b>
<b>5.3°</b>
<b>Field Angle - 10%</b>
<b>8.5°</b>
<b>Cutoff Angle - 2.5%</b>
<b>10.1°</b>

### ISO Diagrams

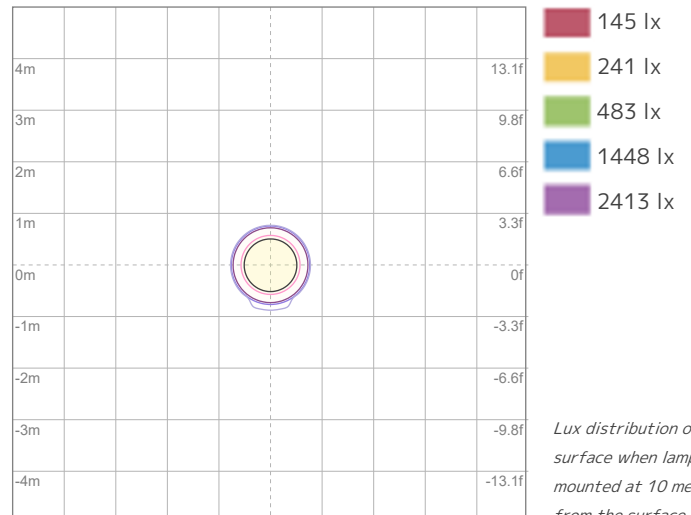


ISO Candela Diagram

Conditions:

Number of c-planes: 2

Candela at center: 482536 cd



ISO LUX Diagram

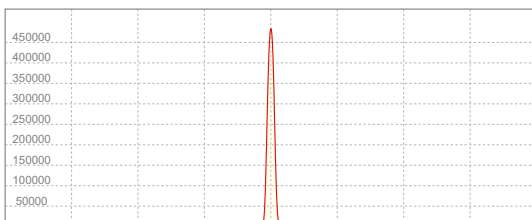
Conditions:

Number of c-planes: 2

LUX at center: 4825 lx

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

### Linear Distribution



**Peak Candela**  
**483162 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 483162 / \text{distance(m)}^2$$

$$\text{fc} = 483162 / \text{distance(ft)}^2$$



### Key Measurements

#### Output

Total Lumen Output: 7384 lm  
Peak Intensity: 18308 cd

#### Beam

Beam Angle (50%): 37.4°  
Field Angle (10%): 57.6°  
Cutoff Angle (2.5%): 68.1°

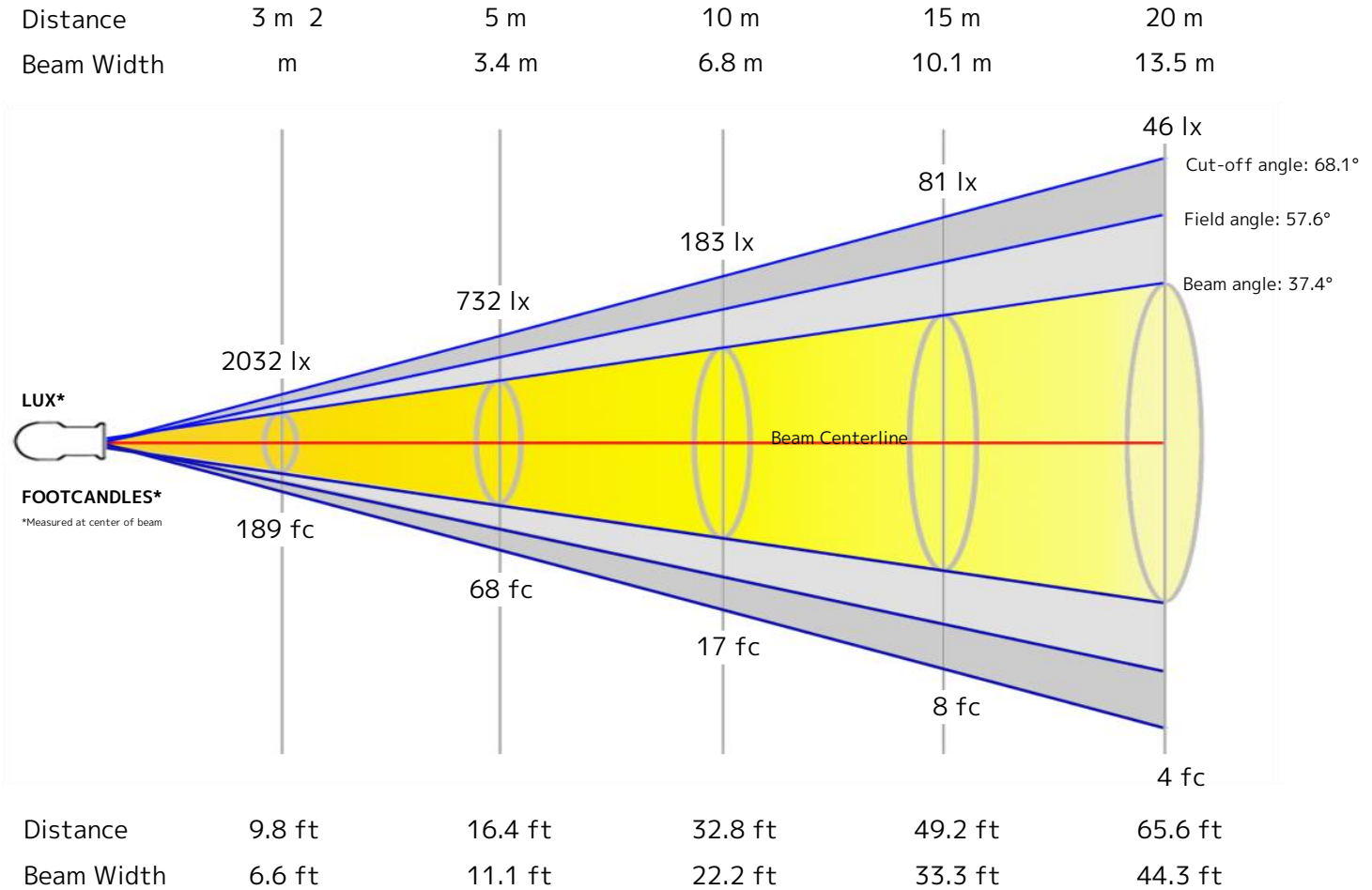
#### Color

Color Temperature: 5597 K  
CRI: 72.4  
TLCI: 63  
TM30 R<sub>F</sub>: 74.7  
TM30 R<sub>g</sub>: 97.8

#### Power Details

Efficacy: 22 Lumen/Watt  
Power: 330 W  
Supply Voltage: 122 V  
Current: - A

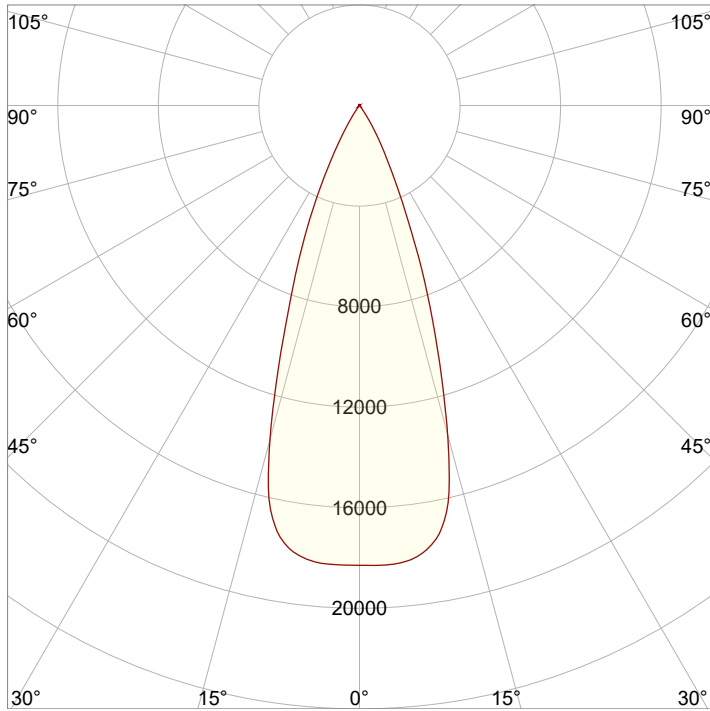
### Beam Details



### Beam Intensities from 1-20m

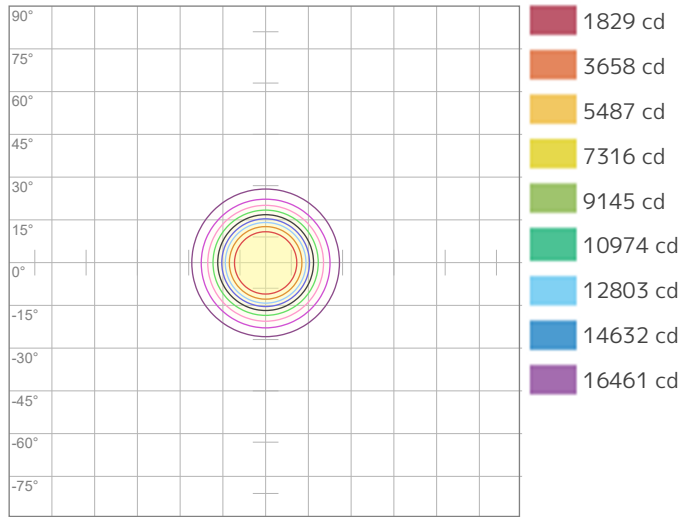
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	18290	4573	2032	1143	732	508	373	286	226	183	151	127	108	93	81	71	63	56	51	46
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	1699.2	424.8	188.8	106.2	68	47.2	34.7	26.6	21	17	14	11.8	10.1	8.7	7.6	6.6	5.9	5.2	4.7	4.2

### Angular Distribution

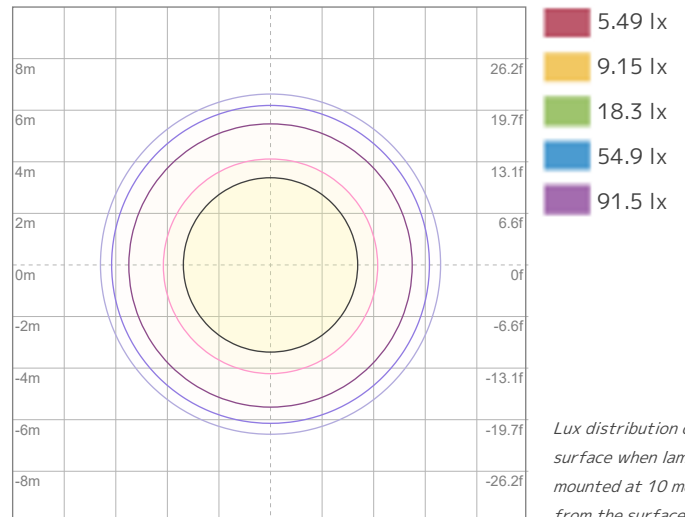


<b>Beam Angle - 50%</b>
<b>37.4°</b>
<b>Field Angle - 10%</b>
<b>57.6°</b>
<b>Cutoff Angle - 2.5%</b>
<b>68.1°</b>

### ISO Diagrams



ISO Candela Diagram



ISO LUX Diagram

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

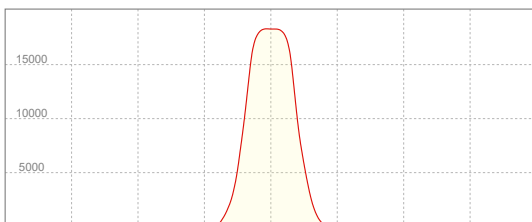
Conditions:

Number of c-planes: 2  
Candela at center: 18290 cd

Conditions:

Number of c-planes: 2  
LUX at center: 183 lx

### Linear Distribution



**Peak Candela**  
**18308 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 18308 / \text{distance(m)}^2$$

$$\text{fc} = 18308 / \text{distance(ft)}^2$$

### Key Measurements

#### Output

Total Lumen Output: 7672 lm  
Peak Intensity: 18998 cd

#### Beam

Beam Angle (50%): 37.3°  
Field Angle (10%): 57.5°  
Cutoff Angle (2.5%): 68.3°

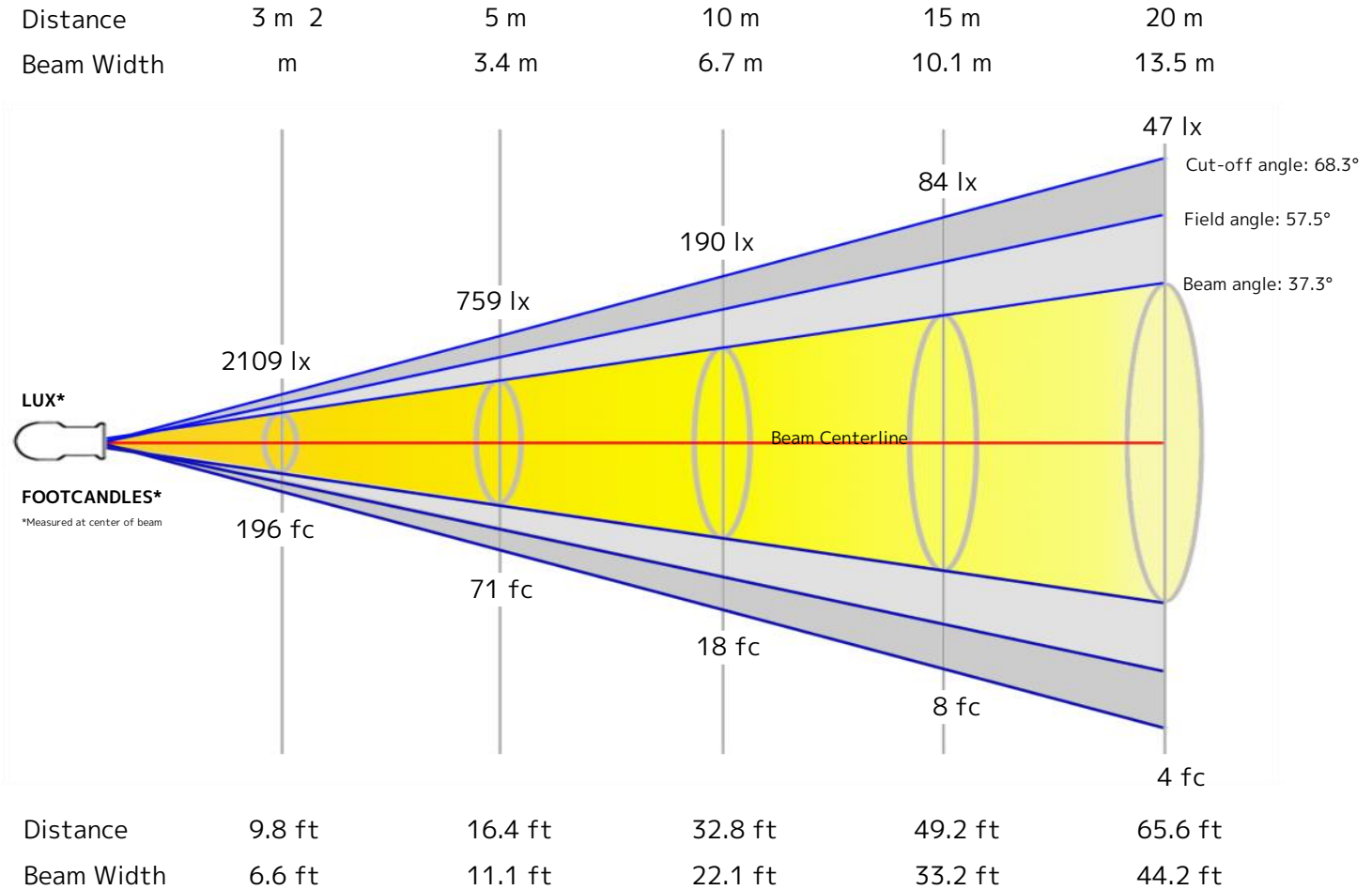
#### Color

Color Temperature: 6528 K  
CRI: 73.2  
TLCI: 64  
TM30 R<sub>F</sub>: 74.8  
TM30 R<sub>g</sub>: 97.6

#### Power Details

Efficacy: 23 Lumen/Watt  
Power: 330 W  
Supply Voltage: 122 V  
Current: - A

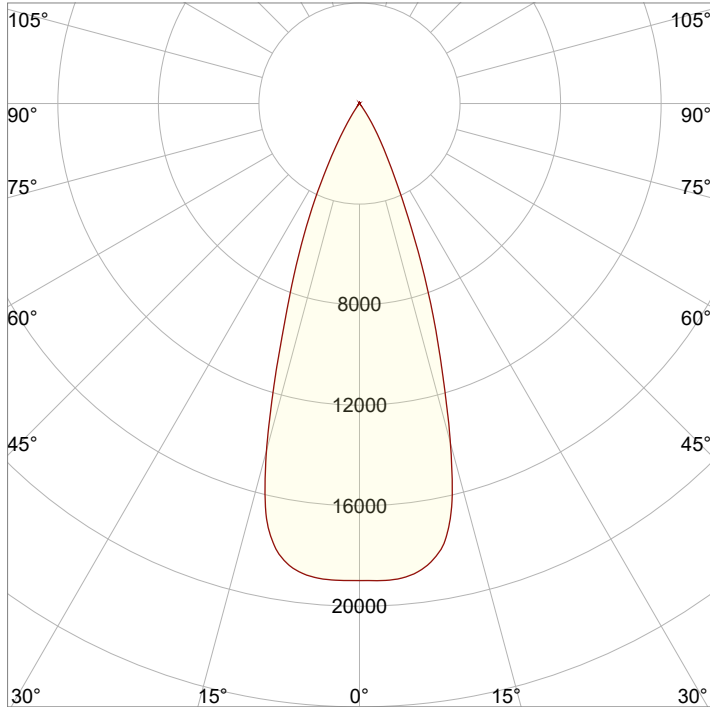
### Beam Details



### Beam Intensities from 1-20m

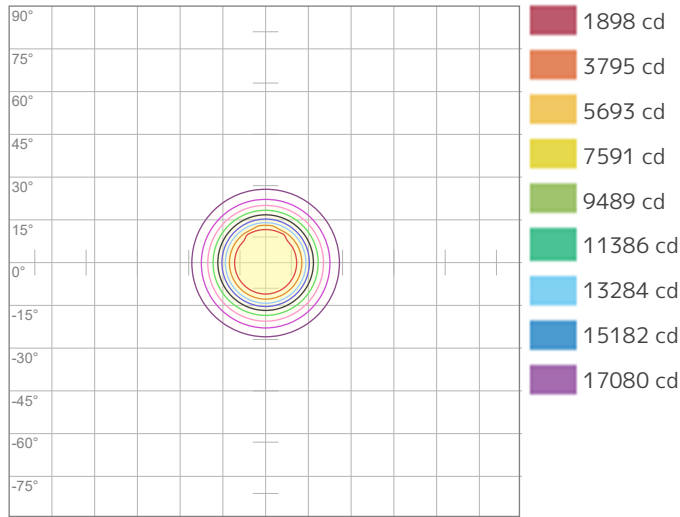
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	18977	4744	2109	1186	759	527	387	297	234	190	157	132	112	97	84	74	66	59	53	47
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	1763.1	440.8	195.9	110.2	70.5	49	36	27.5	21.8	17.6	14.6	12.2	10.4	9	7.8	6.9	6.1	5.4	4.9	4.4

### Angular Distribution

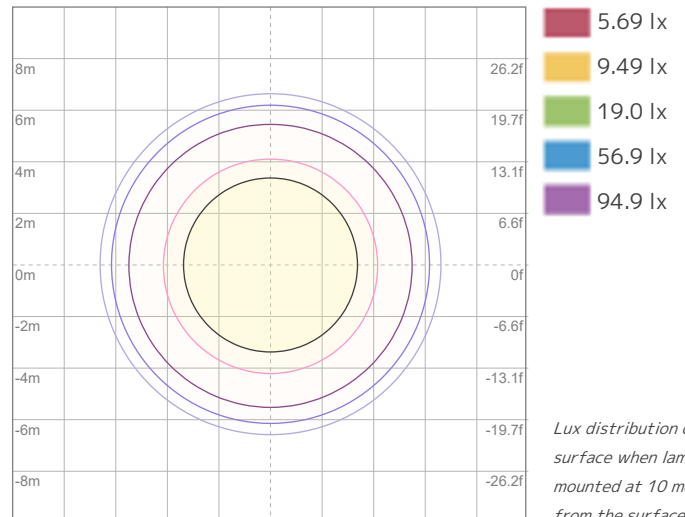


<b>Beam Angle - 50%</b>
<b>37.3°</b>
<b>Field Angle - 10%</b>
<b>57.5°</b>
<b>Cutoff Angle - 2.5%</b>
<b>68.3°</b>

### 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

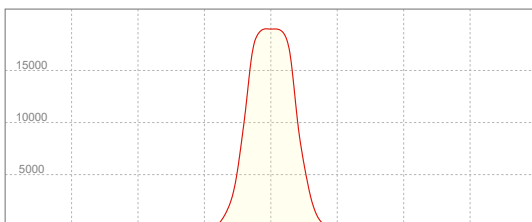
Candela at center: 18977 cd

Conditions:

Number of c-planes: 2

LUX at center: 190 lx

### Linear Distribution



**Peak Candela**  
**18998 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 18998 / \text{distance(m)}^2$$

$$\text{fc} = 18998 / \text{distance(ft)}^2$$

### Key Measurements

#### Output

Total Lumen Output: 7922 lm  
Peak Intensity: 19684 cd

#### Beam

Beam Angle (50%): 37.3°  
Field Angle (10%): 57.5°  
Cutoff Angle (2.5%): 68°

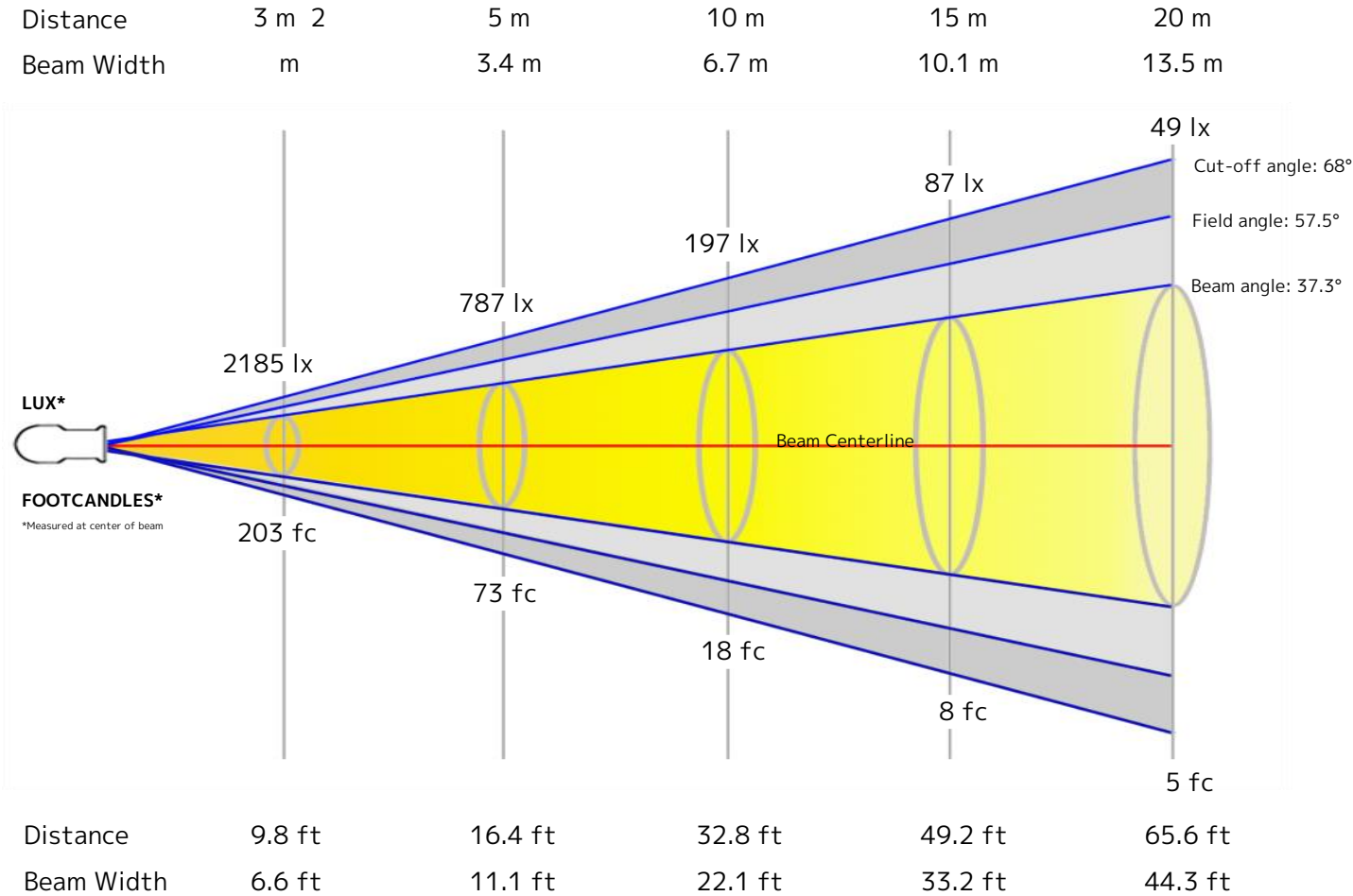
#### Color

Color Temperature: 8182 K  
CRI: 74.6  
TLCI: 65  
TM30 R<sub>F</sub>: 75.1  
TM30 R<sub>g</sub>: 97.5

#### Power Details

Efficacy: 20 Lumen/Watt  
Power: 388 W  
Supply Voltage: 121 V  
Current: - A

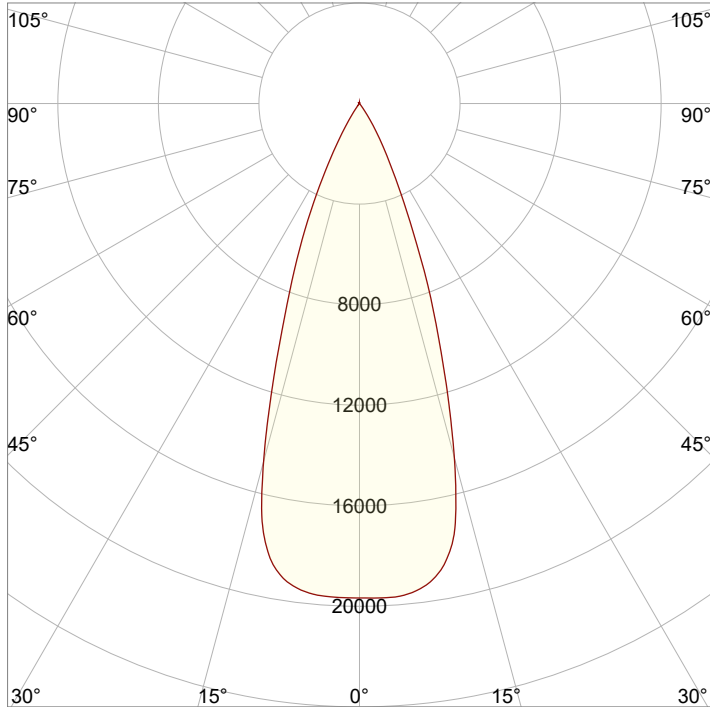
### Beam Details



### Beam Intensities from 1-20m

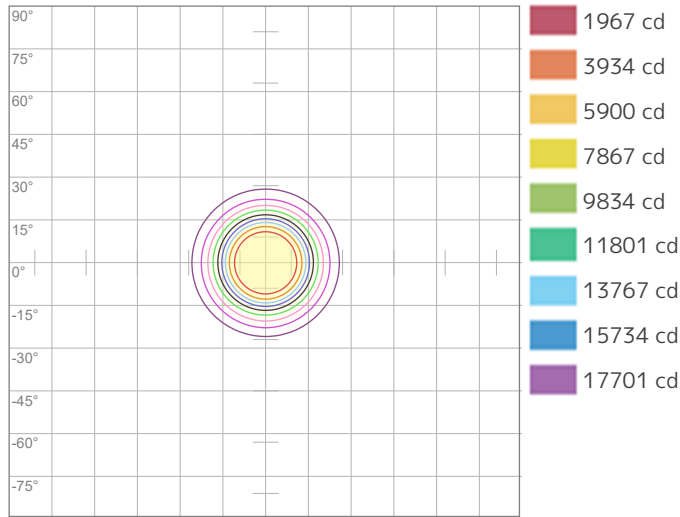
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>LX</b>	19668	4917	2185	1229	787	546	401	307	243	197	163	137	116	100	87	77	68	61	54	49
<b>FT</b>	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
<b>FC</b>	1827.2	456.8	203	114.2	73.1	50.8	37.3	28.5	22.6	18.3	15.1	12.7	10.8	9.3	8.1	7.1	6.3	5.6	5.1	4.6

### Angular Distribution

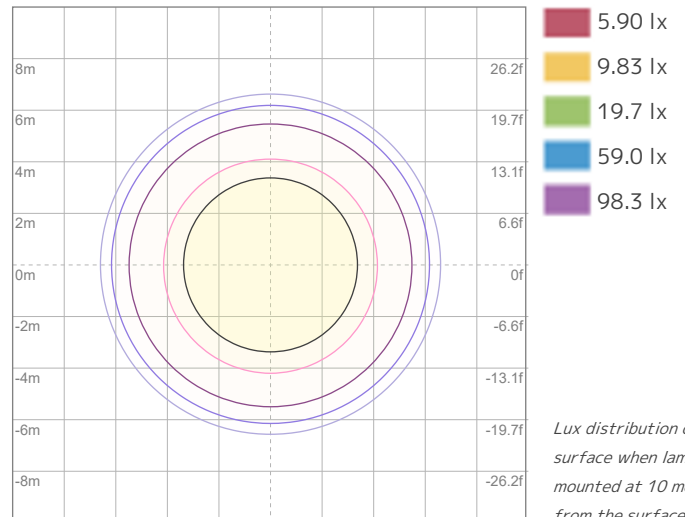


<b>Beam Angle - 50%</b>
<b>37.3°</b>
<b>Field Angle - 10%</b>
<b>57.5°</b>
<b>Cutoff Angle - 2.5%</b>
<b>68°</b>

### 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

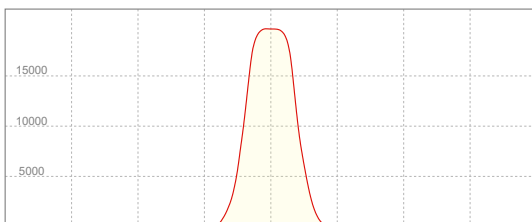
Candela at center: 19668 cd

Conditions:

Number of c-planes: 2

LUX at center: 197 lx

### Linear Distribution



**Peak Candela**  
**19684 cd**

**Calculate Center Beam Intensities**

$$\text{lux} = 19684 / \text{distance(m)}^2$$

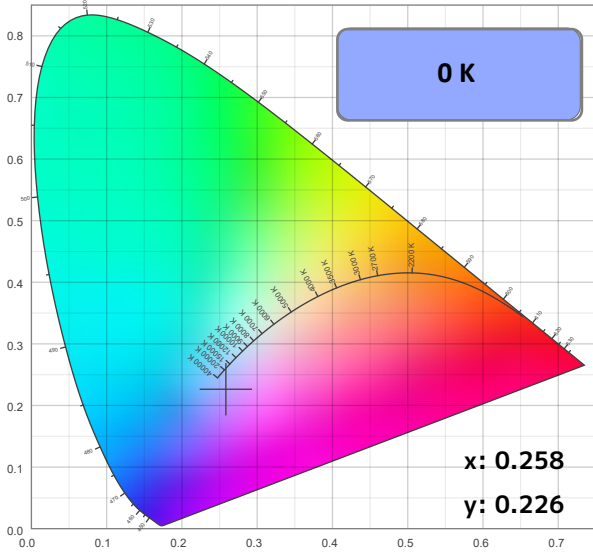
$$\text{fc} = 19684 / \text{distance(ft)}^2$$

### Color Temperature: 0K

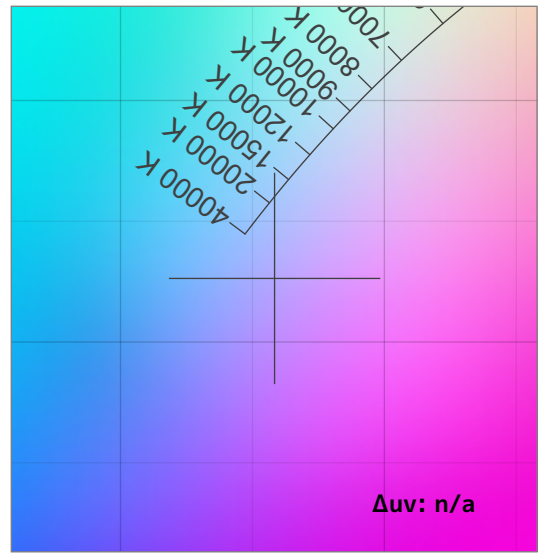
#### Accuracy Metric Overview

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 <sub>f</sub>	TM30 R <sub>g</sub>	TLCI	CQS	x	Y	Δuv	SSIt	SSId
0.0	0.0	0.0	0.0	n/a	0.0	0.258	0.226	n/a	-29	30

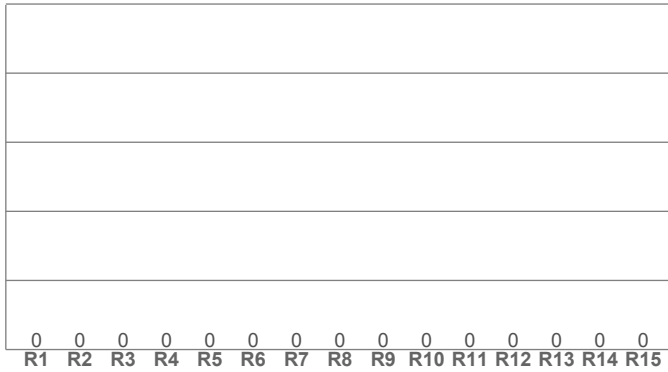
#### CIE 1931



#### CIE 1931 ZOOMED

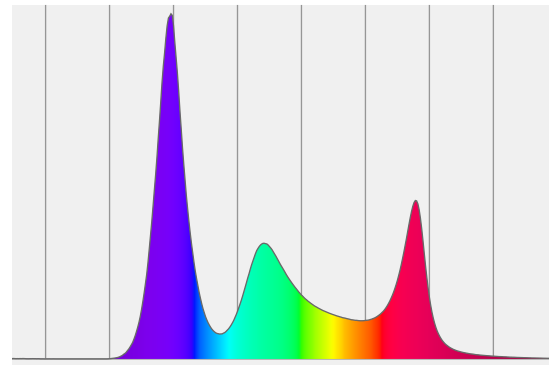


#### CRI: 0.0 (R1-R8)



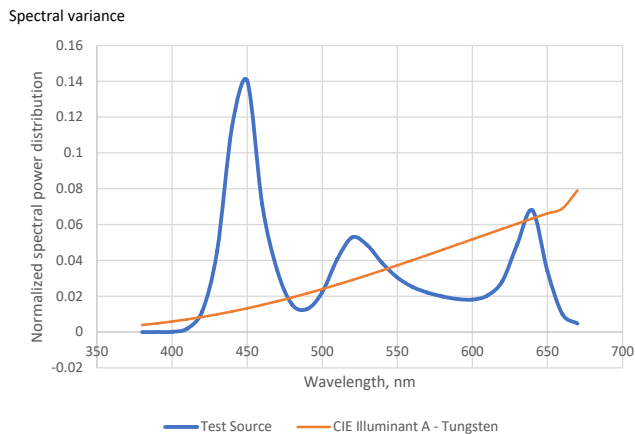
#### Spectral Power Distribution (SPD)

Dominant Wavelength 455 nm



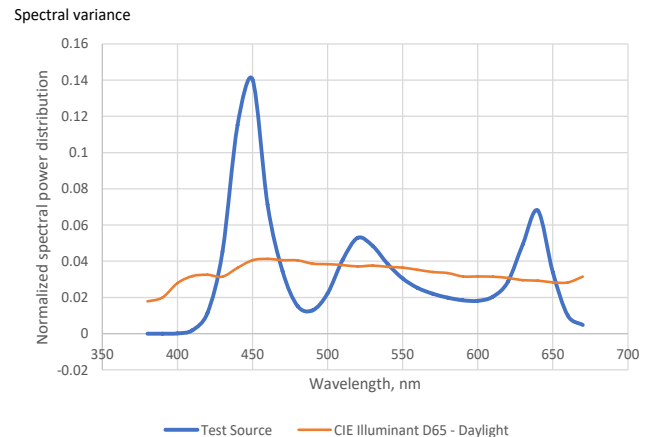
#### SSI Spectral Variance Graph- Tungsten

SSI [CIE A] -29



#### SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 30





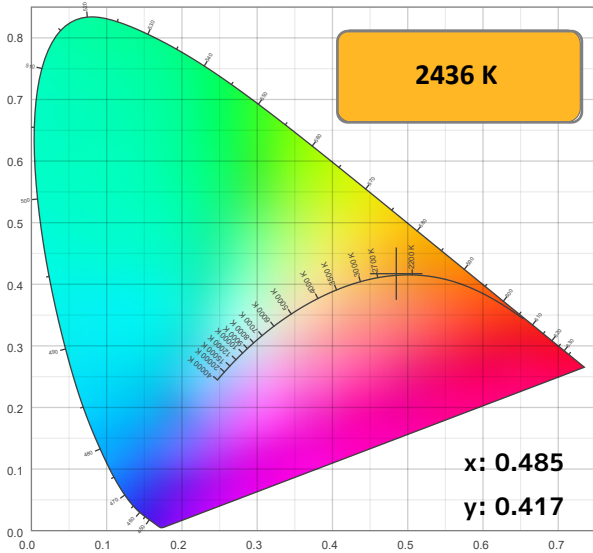


### Color Temperature: 2436K

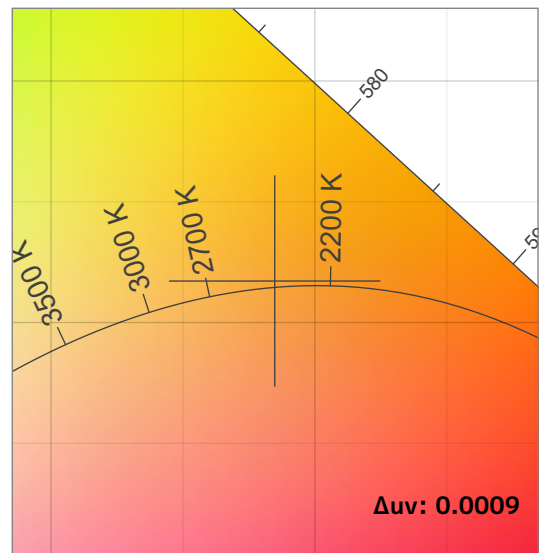
#### Accuracy Metric Overview

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 <sub>f</sub>	TM30 R <sub>g</sub>	TLCI	CQS	x	Y	Δuv	SSIt	SSId
79.6	30.1	81.2	114.4	59	81.5	0.485	0.417	0.0009	50	-8

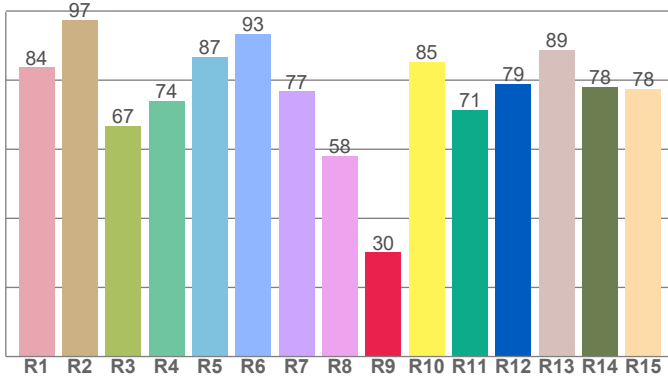
#### CIE 1931



#### CIE 1931 ZOOMED

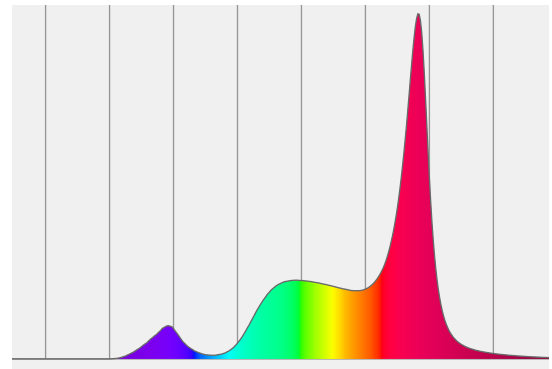


#### CRI: 79.6 (R1-R8)



#### Spectral Power Distribution (SPD)

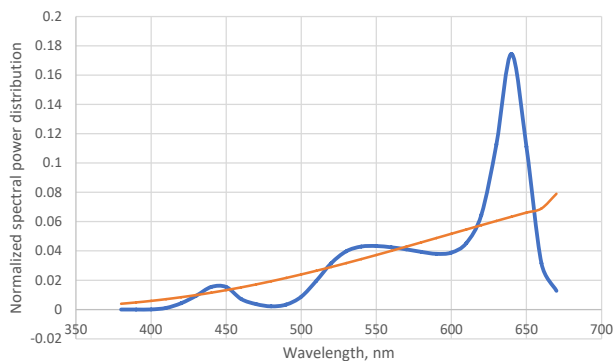
Dominant Wavelength 586 nm



#### SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 50

Spectral variance

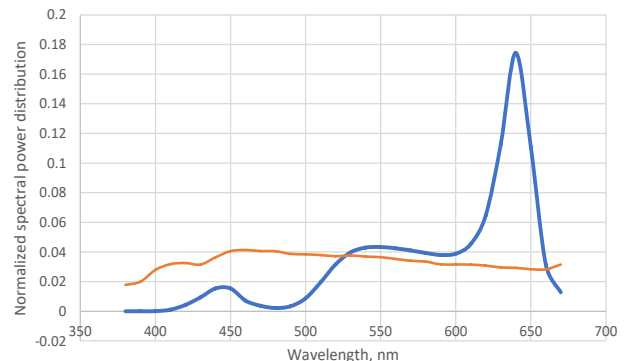


— Test Source — CIE Illuminant A - Tungsten

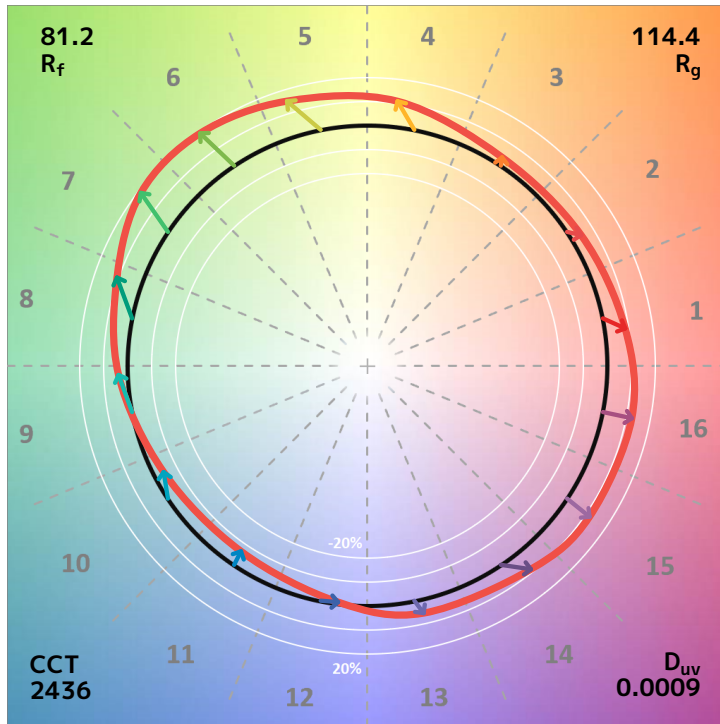
#### SSI Spectral Variance Graph- Daylight

SSI [CIE D65] -8

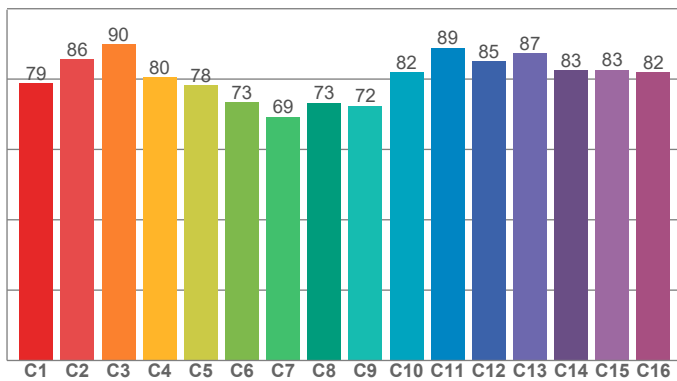
Spectral variance



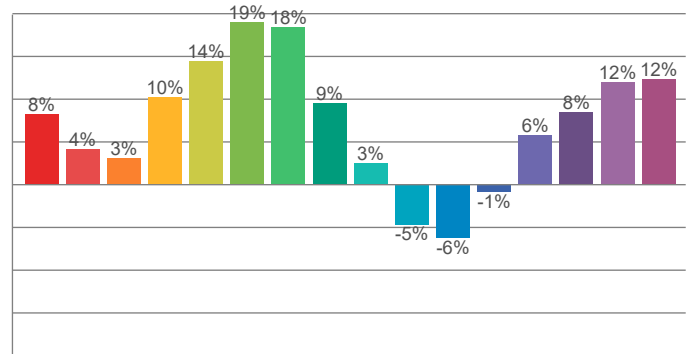
— Test Source — CIE Illuminant D65 - Daylight



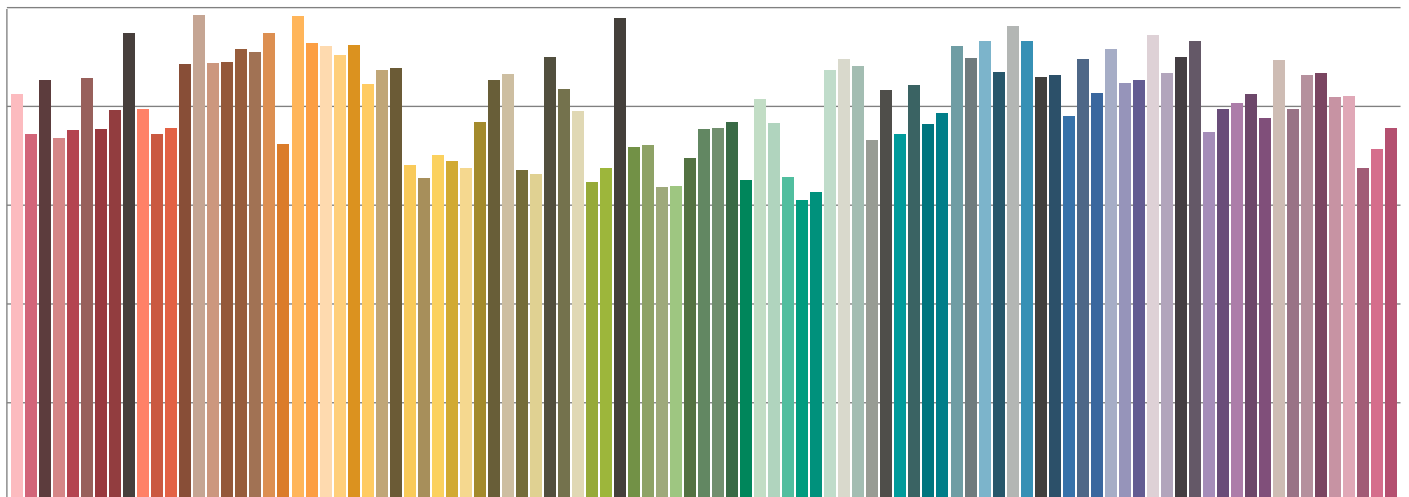
TM30-18  $R_f$  Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18  $R_f$  Values per Reference Color (CES)

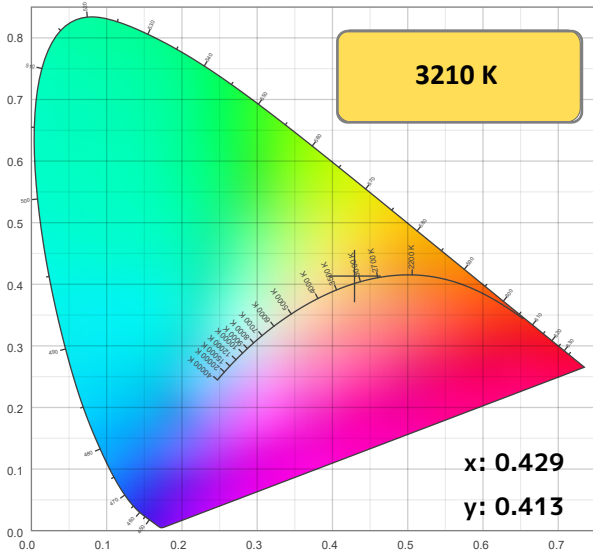


### Color Temperature: 3210K

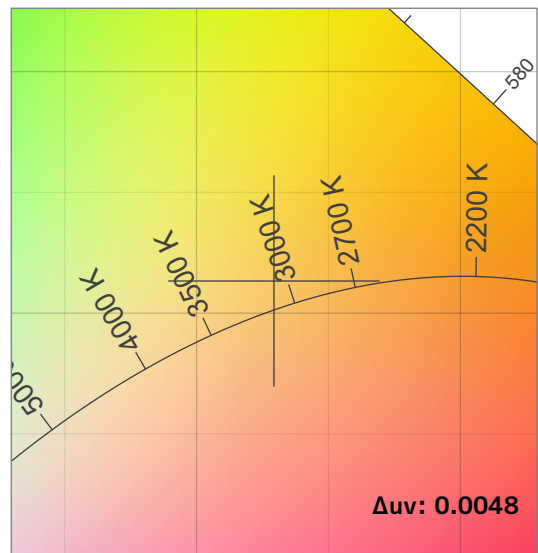
#### Accuracy Metric Overview

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 <sub>f</sub>	TM30 R <sub>g</sub>	TLCI	CQS	x	Y	Δuv	SSIt	SSId
83.4	88.9	82.0	107.6	67	84.0	0.429	0.413	0.0048	60	25

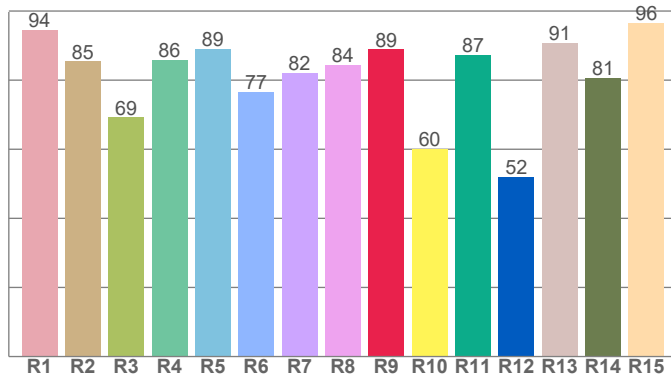
#### CIE 1931



#### CIE 1931 ZOOMED

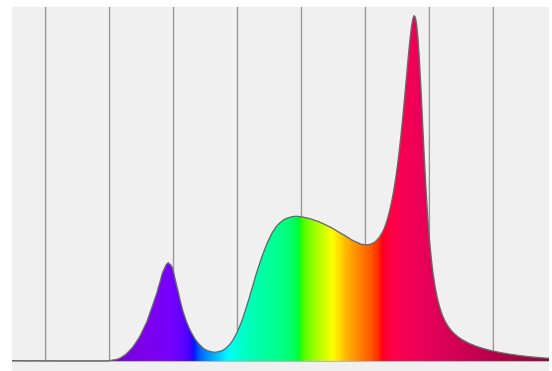


#### CRI: 83.4 (R1-R8)



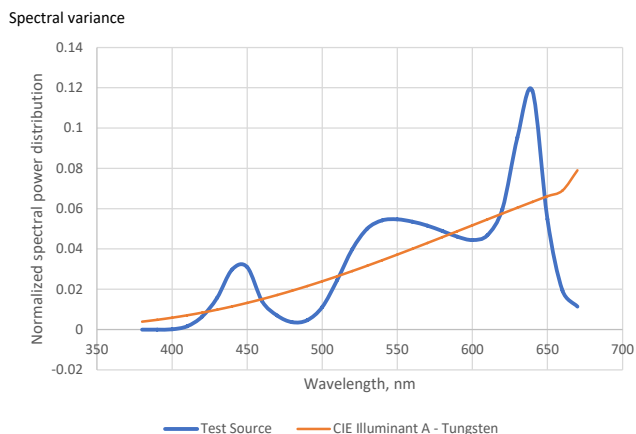
#### Spectral Power Distribution (SPD)

Dominant Wavelength 581 nm



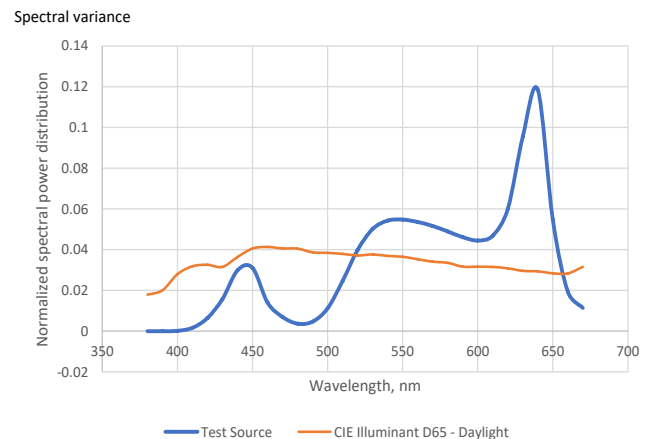
#### SSI Spectral Variance Graph- Tungsten

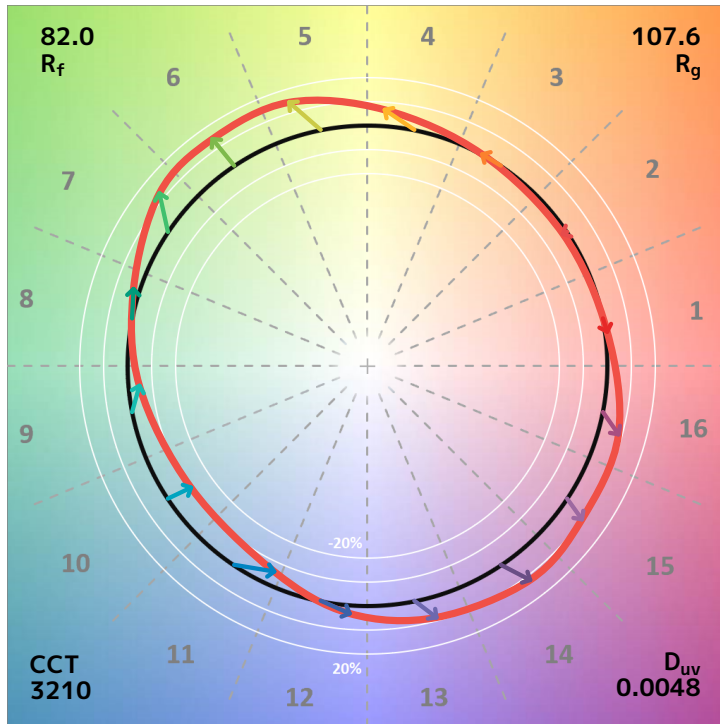
SSI [CIE A] 60



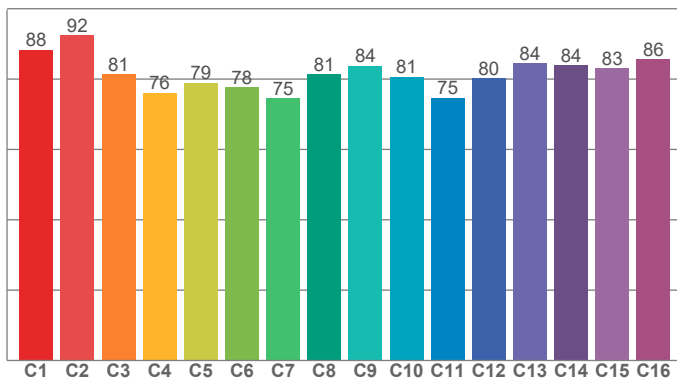
#### SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 25

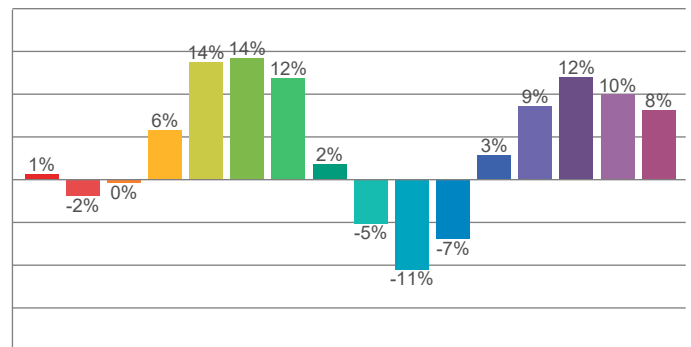




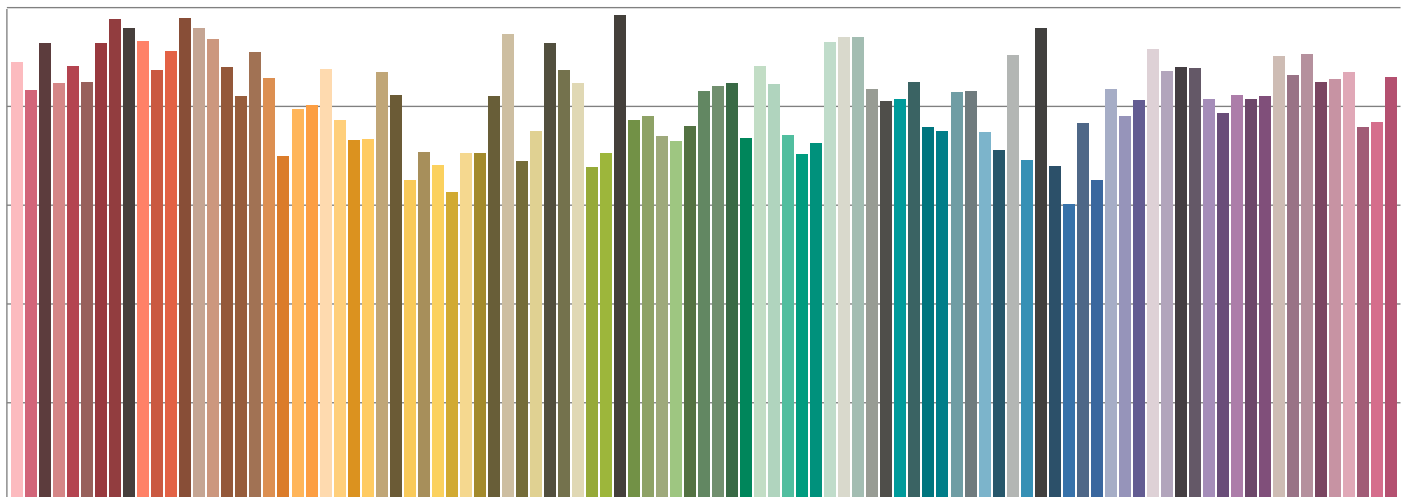
TM30-18  $R_f$  Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18  $R_f$  Values per Reference Color (CES)

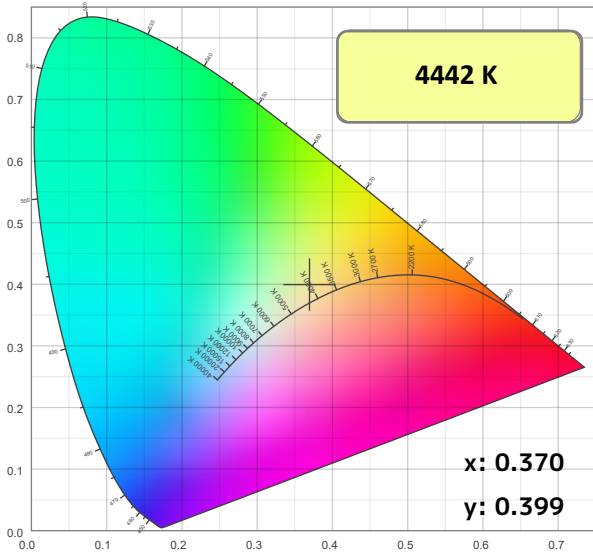


### Color Temperature: 4442K

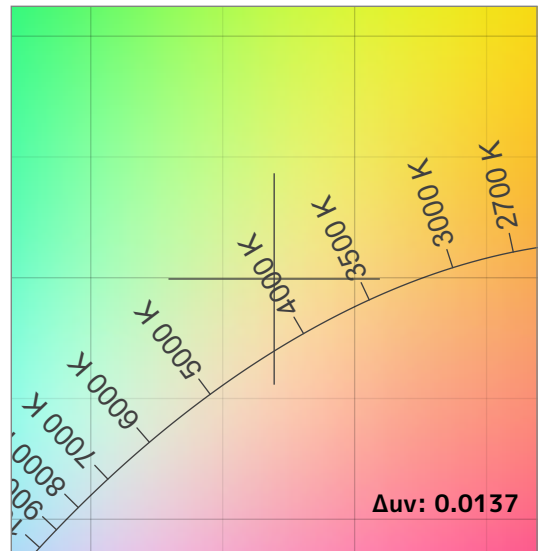
#### Accuracy Metric Overview

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 <sub>f</sub>	TM30 R <sub>g</sub>	TLCI	CQS	x	Y	Δuv	SSIt	SSId
71.0	4.0	74.3	96.7	56	75.8	0.370	0.399	0.0137	44	47

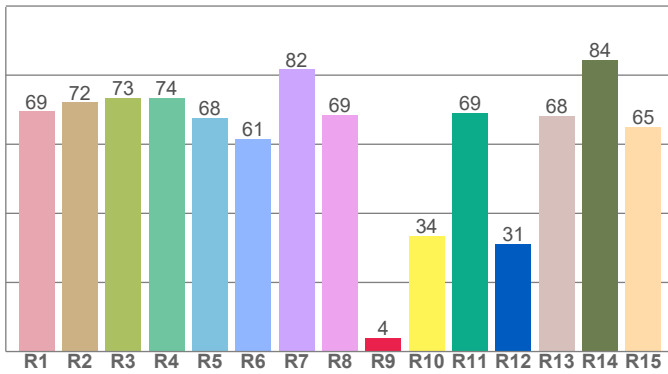
CIE 1931



CIE 1931 ZOOMED

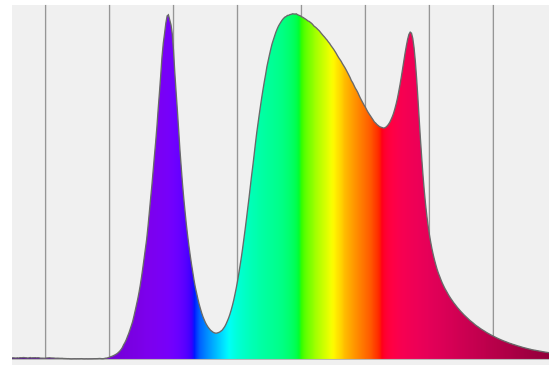


#### CRI: 71.0 (R1-R8)



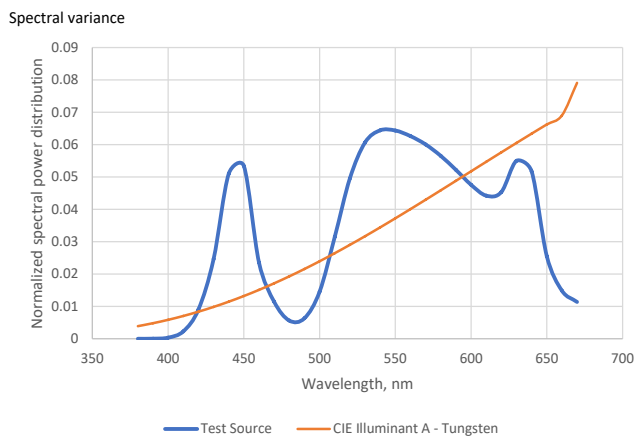
#### Spectral Power Distribution (SPD)

Dominant Wavelength 574 nm



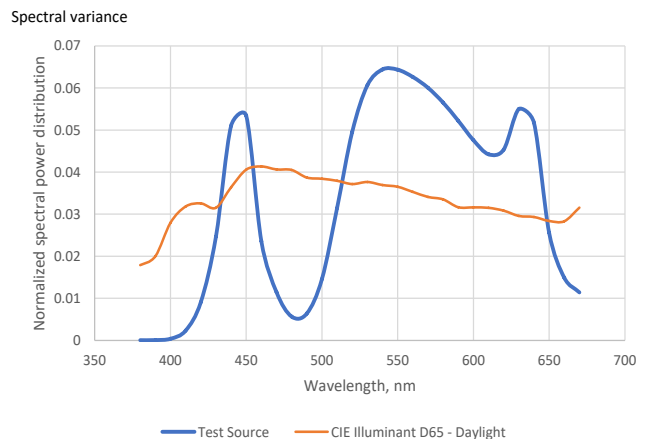
#### SSI Spectral Variance Graph- Tungsten

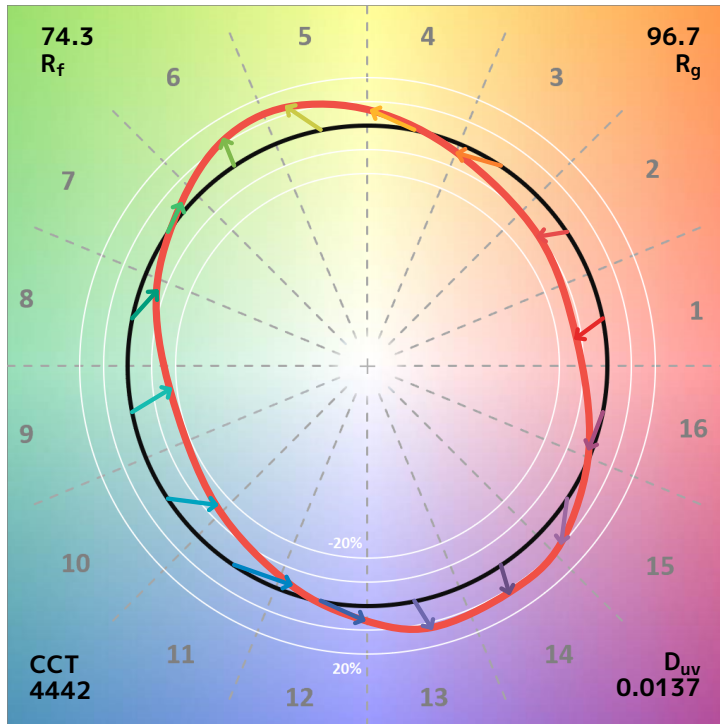
SSI [CIE A] 44



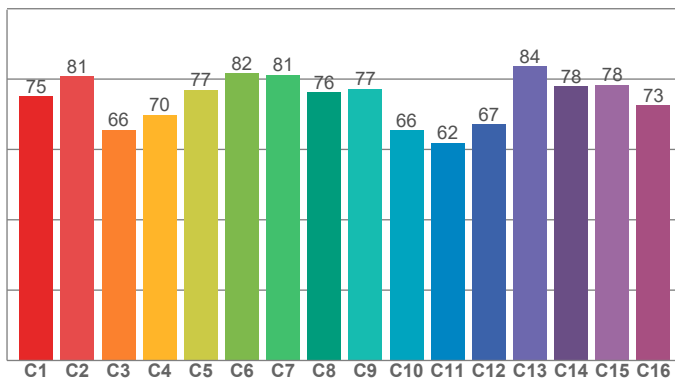
#### SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 47

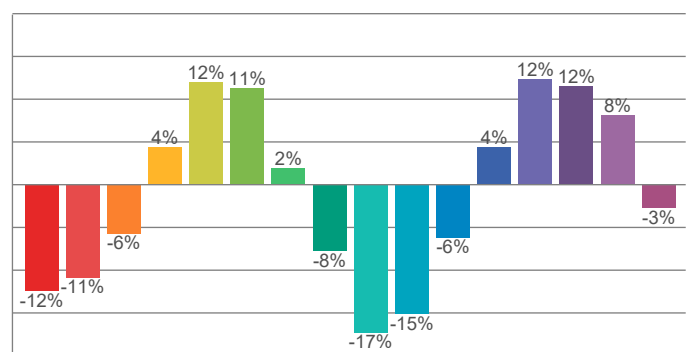




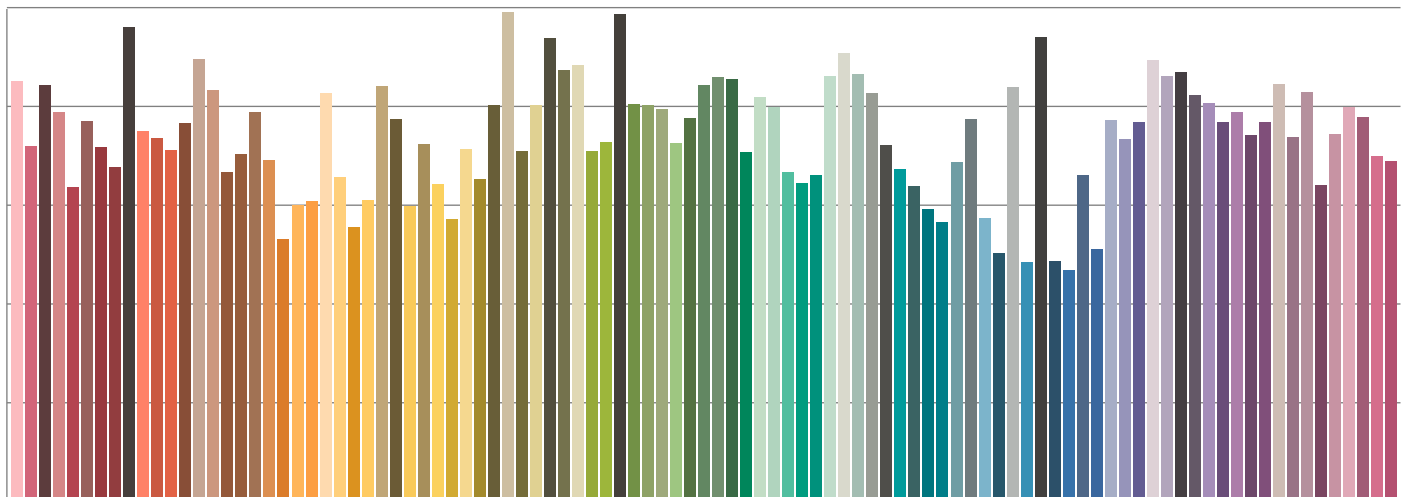
TM30-18 R<sub>f</sub> Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R<sub>f</sub> Values per Reference Color (CES)

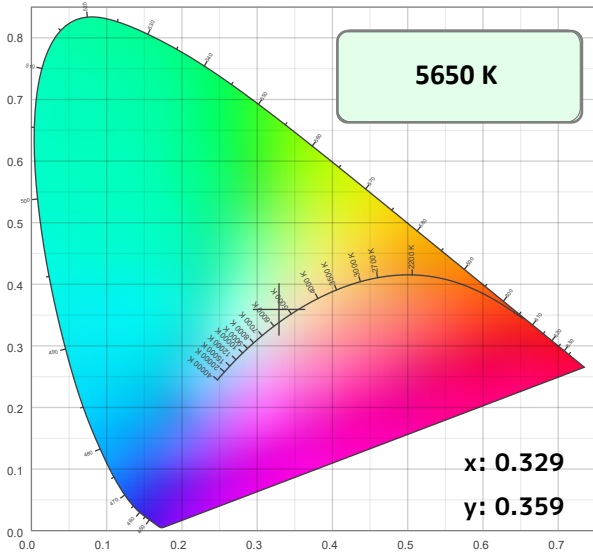


### Color Temperature: 5650K

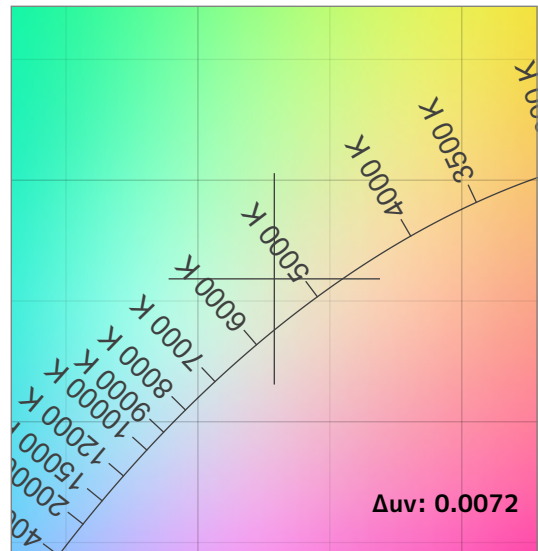
#### Accuracy Metric Overview

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 <sub>f</sub>	TM30 R <sub>g</sub>	TLCI	CQS	x	Y	Δuv	SSIt	SSId
72.8	6.6	74.8	98.1	63	76.0	0.329	0.359	0.0072	25	52

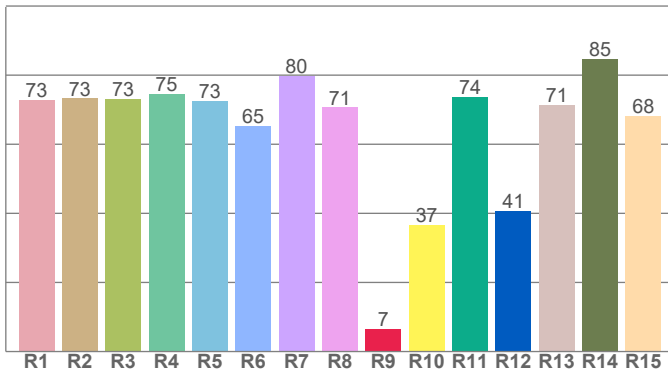
#### CIE 1931



#### CIE 1931 ZOOMED

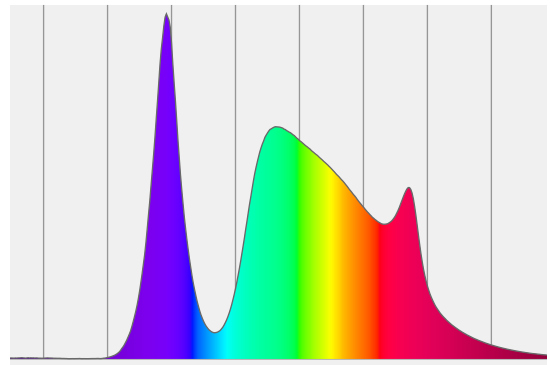


#### CRI: 72.8 (R1-R8)



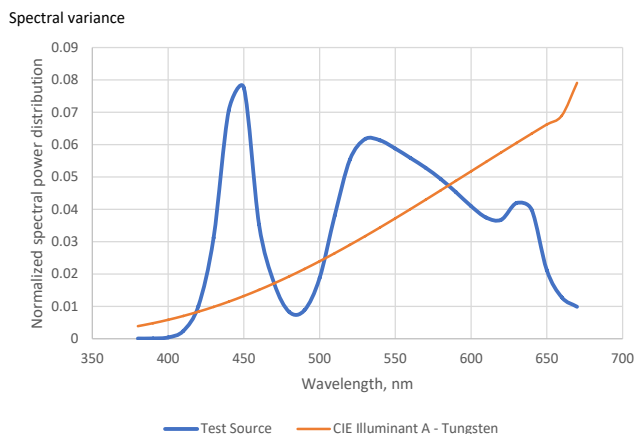
#### Spectral Power Distribution (SPD)

Dominant Wavelength 569 nm



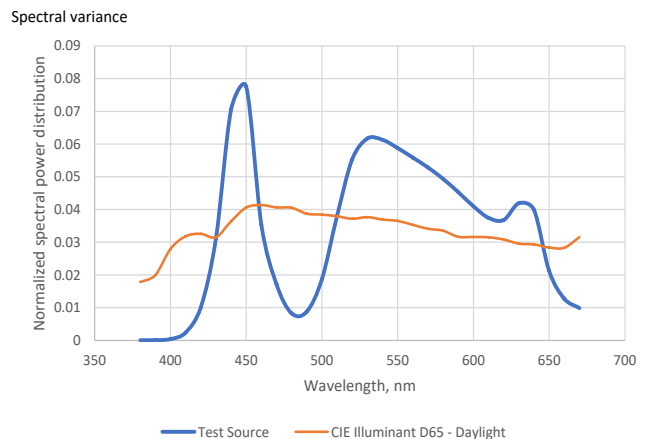
#### SSI Spectral Variance Graph- Tungsten

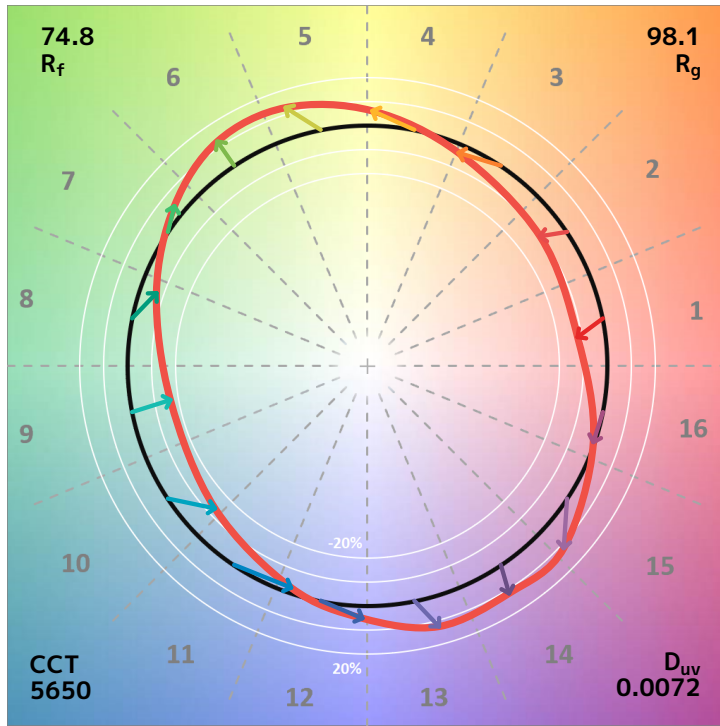
SSI [CIE A] 25



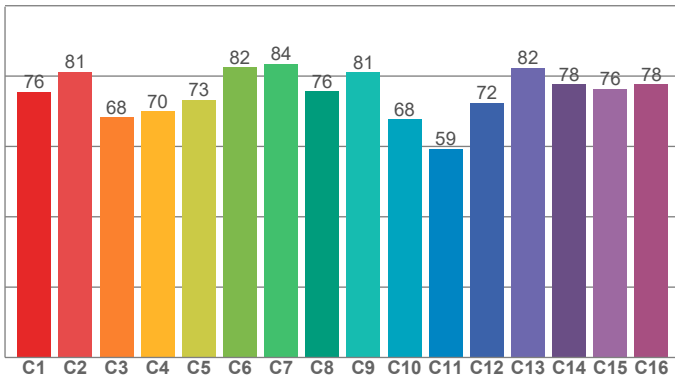
#### SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 52

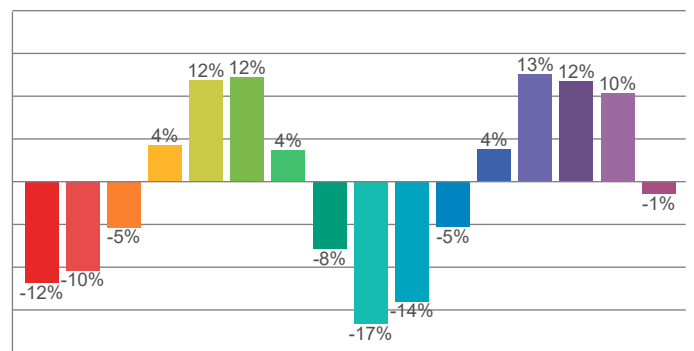




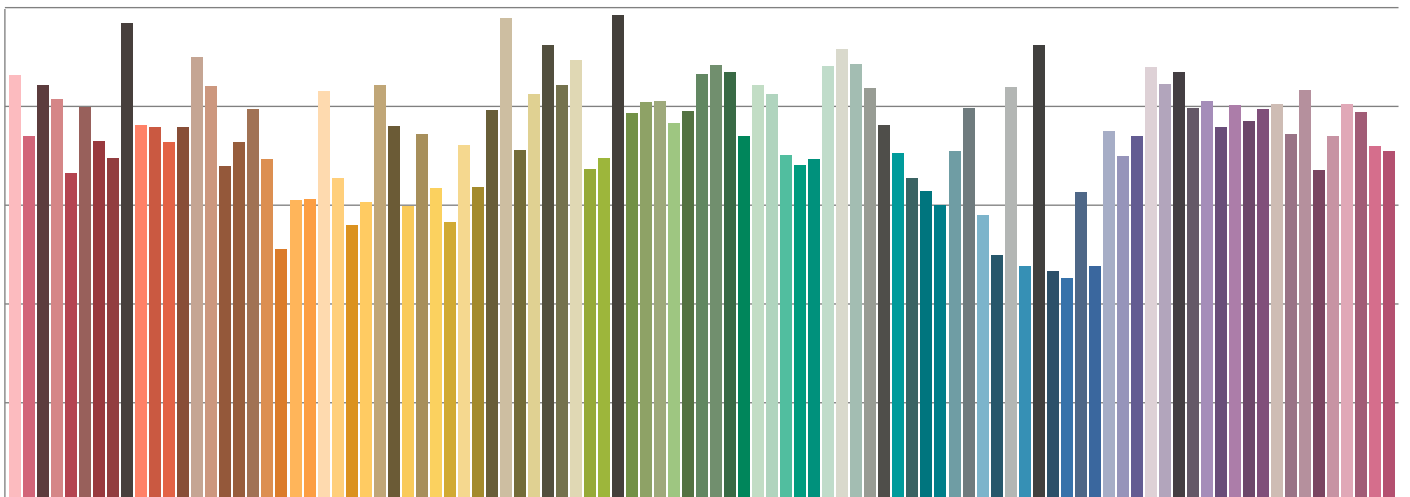
TM30-18  $R_f$  Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18  $R_f$  Values per Reference Color (CES)



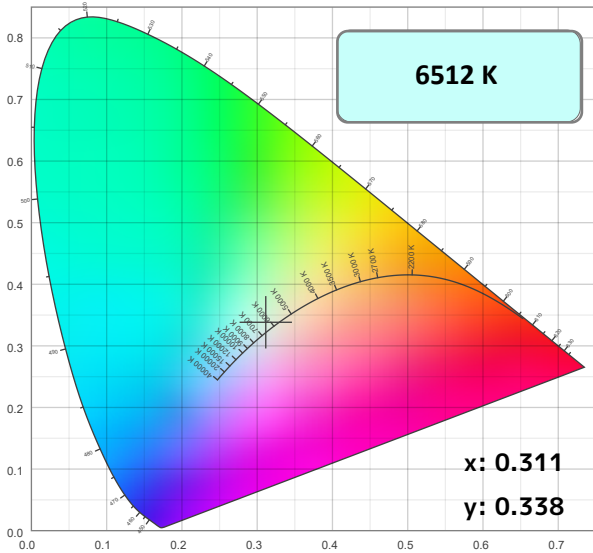


### Color Temperature: 6512K

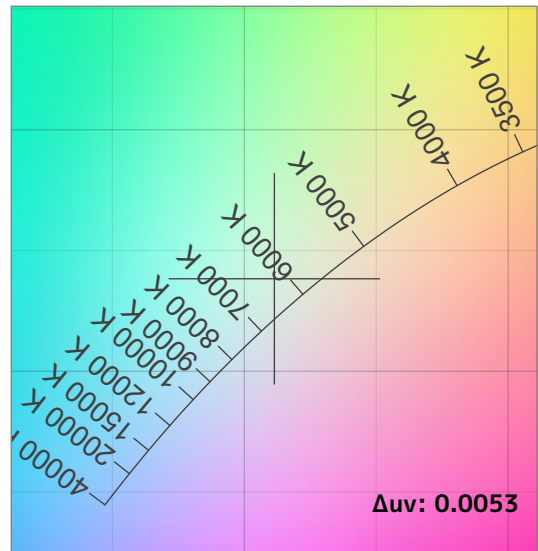
#### Accuracy Metric Overview

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 <sub>f</sub>	TM30 R <sub>g</sub>	TLCI	CQS	x	Y	Δuv	SSIt	SSId
73.7	10.7	75.1	97.9	65	76.5	0.311	0.338	0.0053	14	51

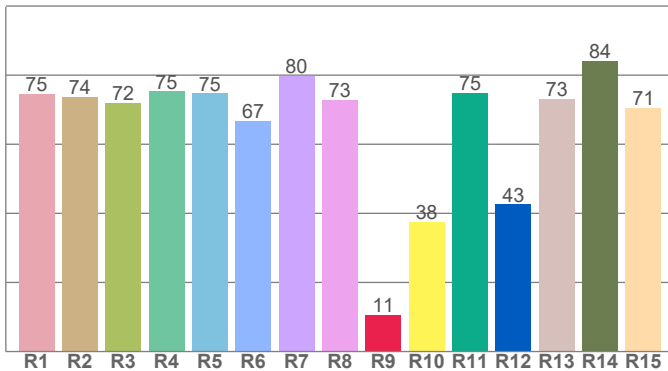
#### CIE 1931



#### CIE 1931 ZOOMED

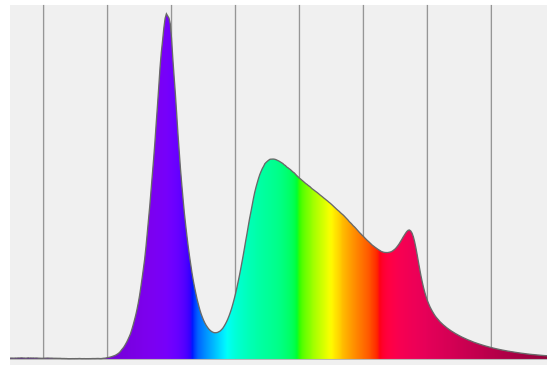


#### CRI: 73.7 (R1-R8)



#### Spectral Power Distribution (SPD)

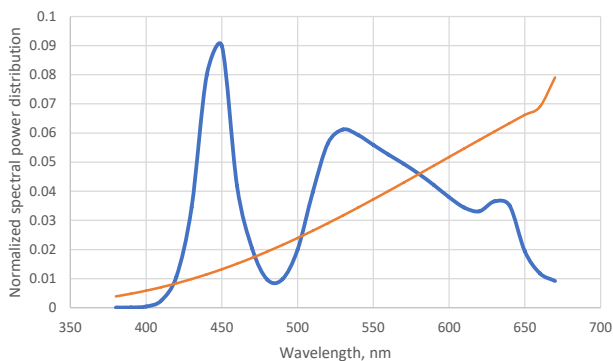
Dominant Wavelength 544 nm



#### SSI Spectral Variance Graph- Tungsten

SSI [CIE A] 14

Spectral variance

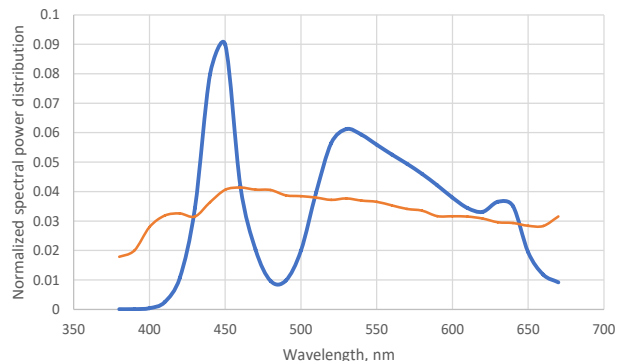


— Test Source — CIE Illuminant A - Tungsten

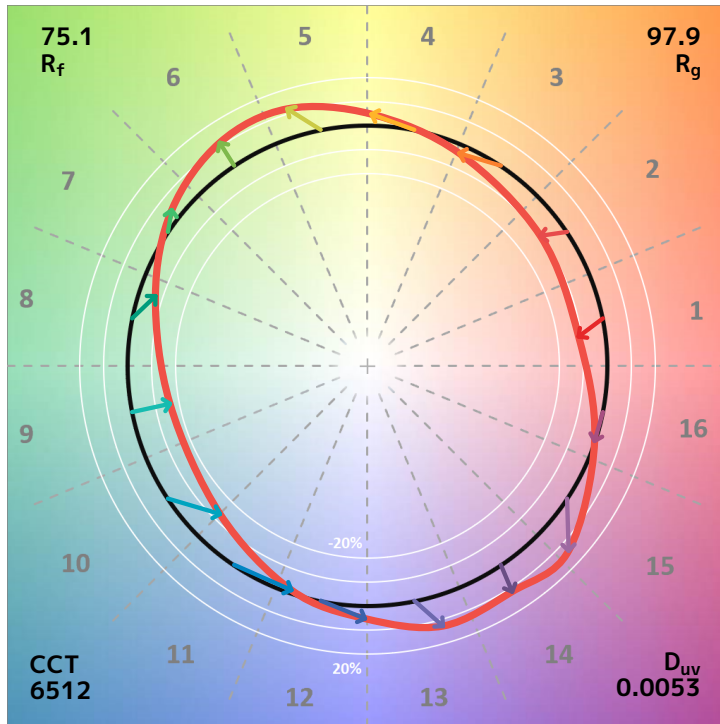
#### SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 51

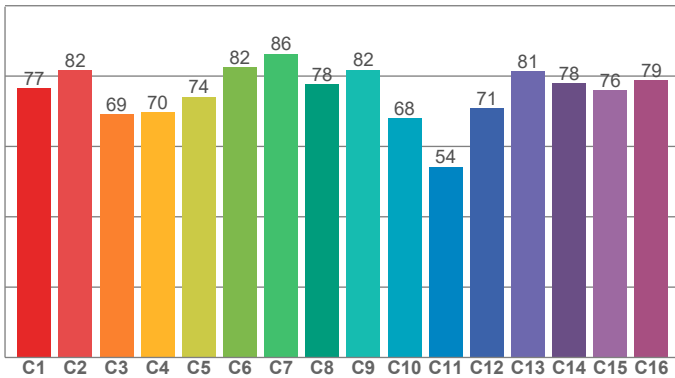
Spectral variance



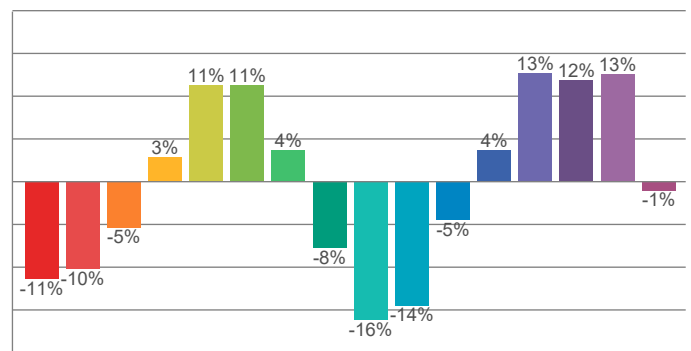
— Test Source — CIE Illuminant D65 - Daylight



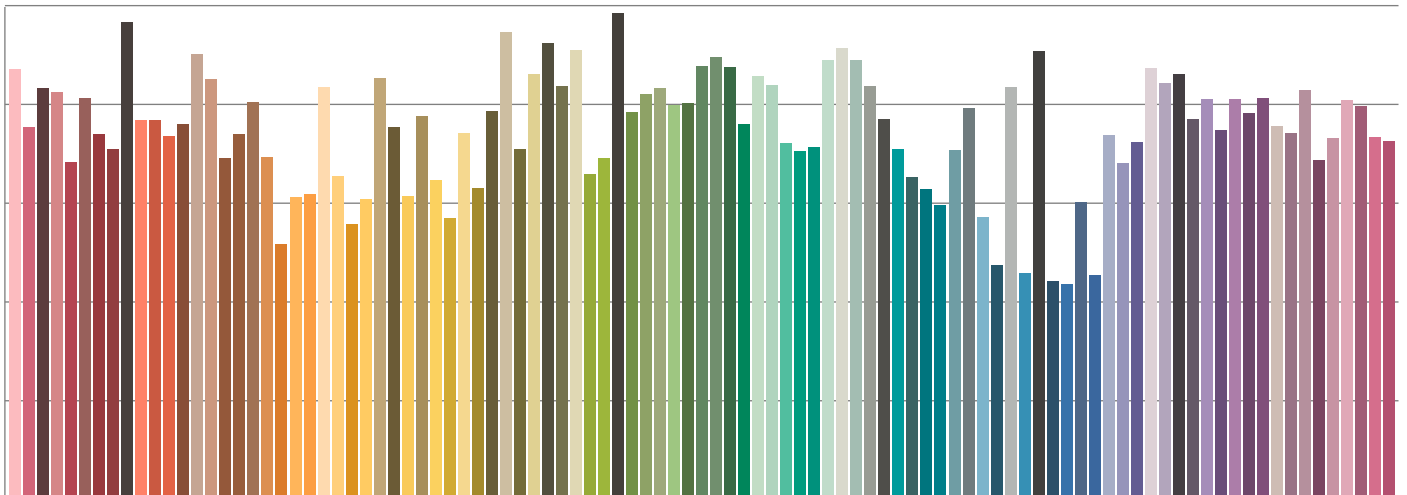
TM30-18 R<sub>f</sub> Values per Hue Bin



TM30 Chroma Shift per Hue Bin



TM30-18 R<sub>f</sub> Values per Reference Color (CES)

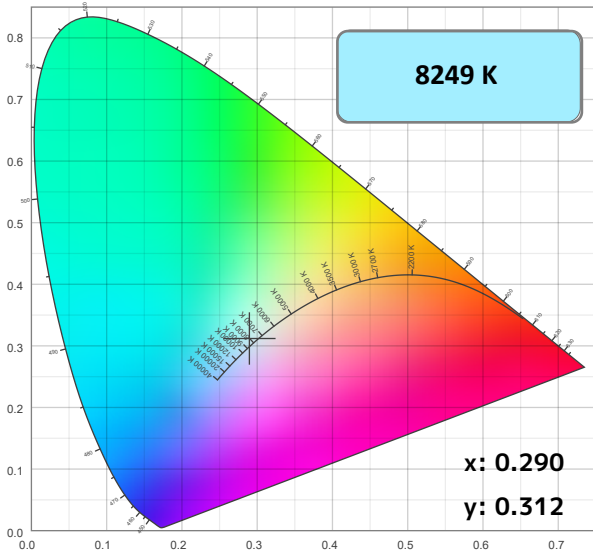


### Color Temperature: 8249K

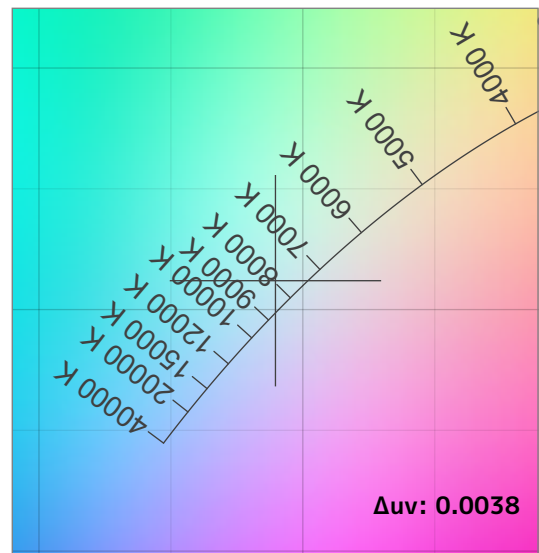
#### Accuracy Metric Overview

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 <sub>f</sub>	TM30 R <sub>g</sub>	TLCI	CQS	x	Y	Δuv	SSIt	SSId
74.5	14.2	75.2	97.5	65	77.0	0.290	0.312	0.0038	0	47

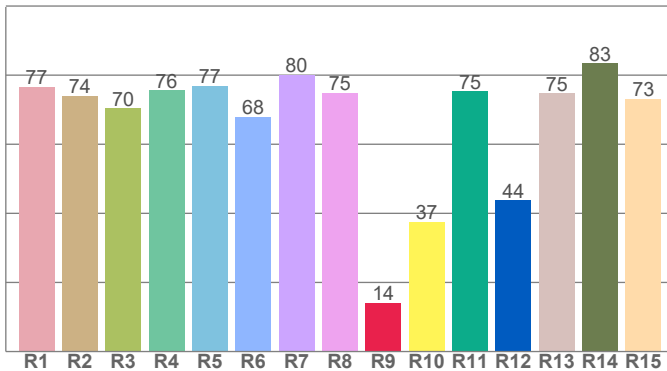
#### CIE 1931



#### CIE 1931 ZOOMED

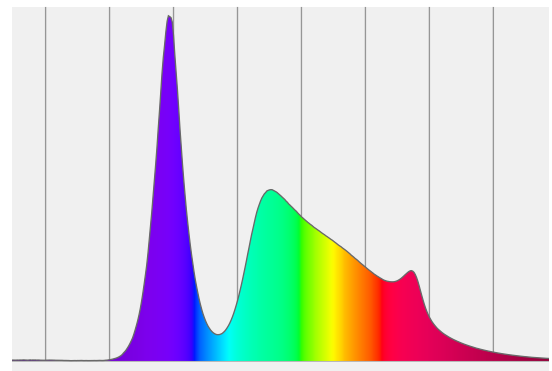


#### CRI: 74.5 (R1-R8)



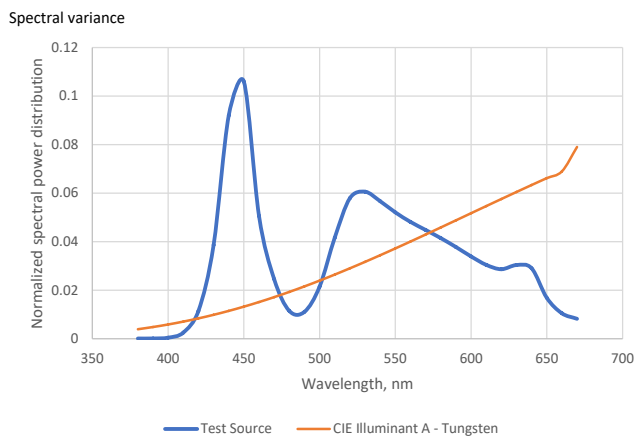
#### Spectral Power Distribution (SPD)

Dominant Wavelength 482 nm



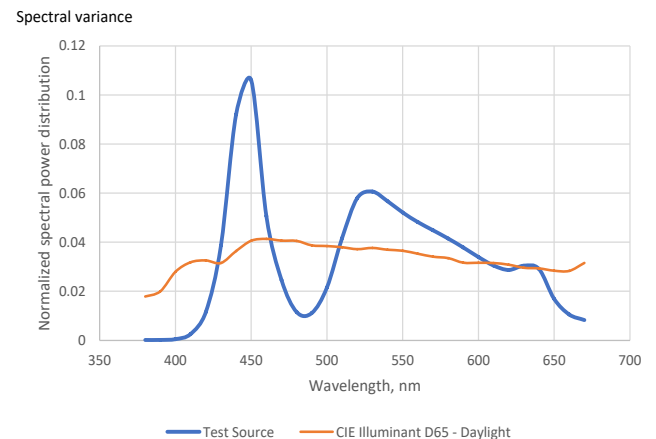
#### SSI Spectral Variance Graph- Tungsten

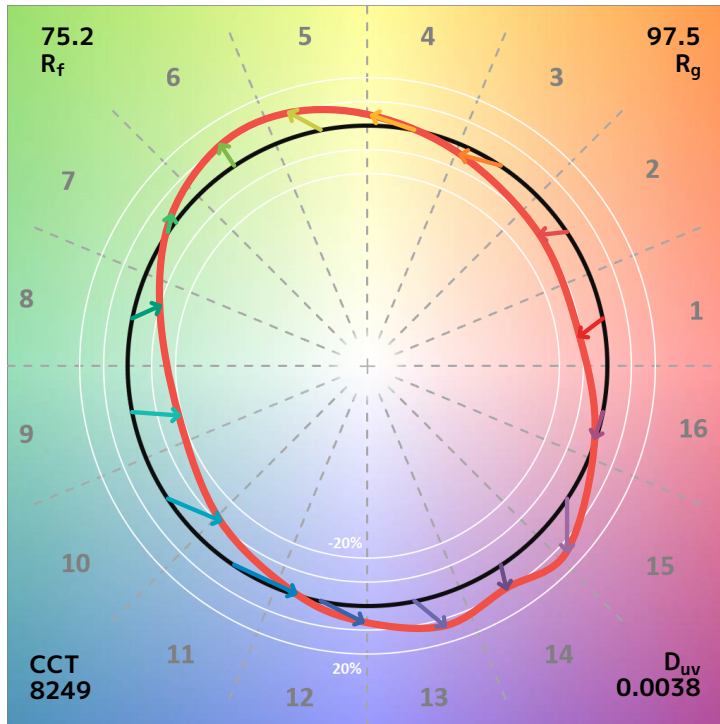
SSI [CIE A] 0



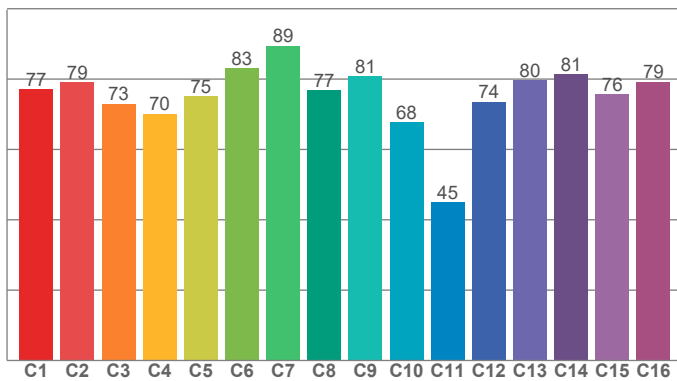
#### SSI Spectral Variance Graph- Daylight

SSI [CIE D65] 47

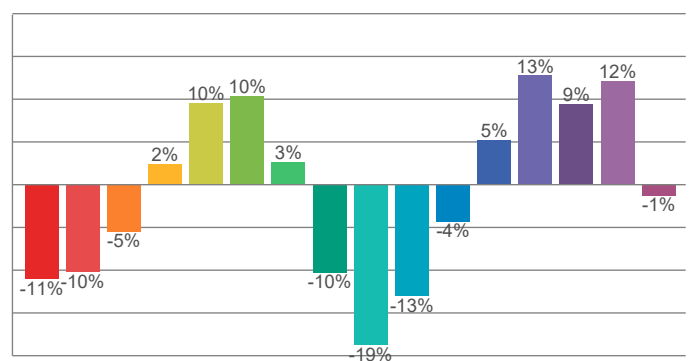




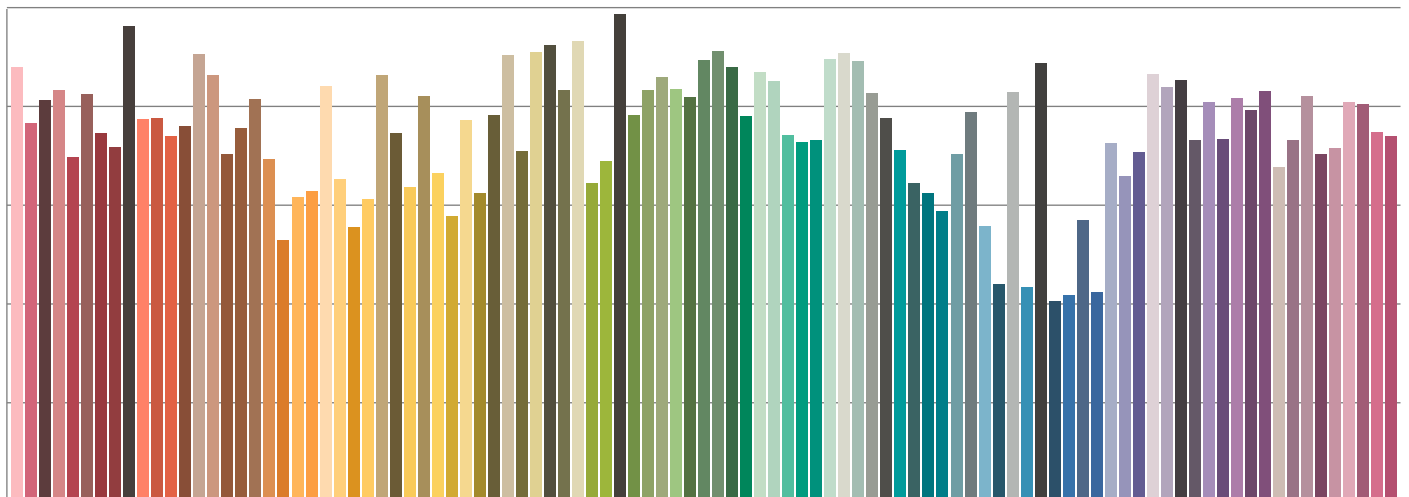
TM30-18 R<sub>f</sub> Values per Hue Bin



TM30 Chroma Shift per Hue Bin

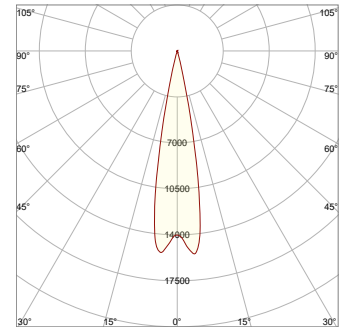
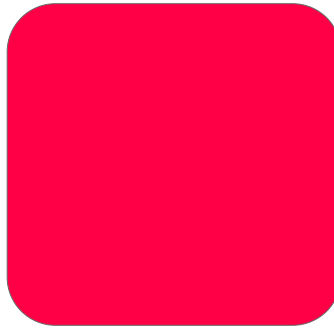


TM30-18 R<sub>f</sub> Values per Reference Color (CES)

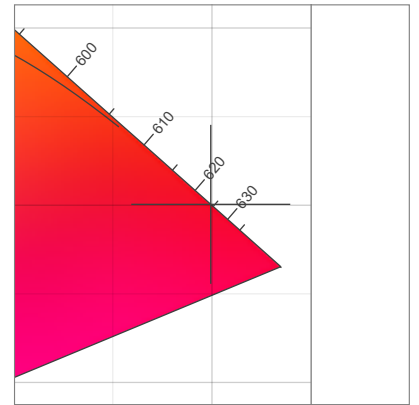
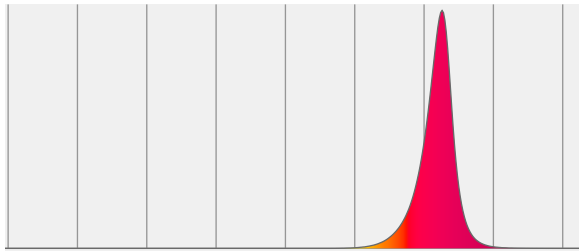


### Measurements

Total Lumen Output: 1658 lm  
 Peak Intensity: 15396 cd  
 Efficacy: 8 Lumen/Watt  
 Power: 199 W  
 Voltage: 121 V, Current: - A

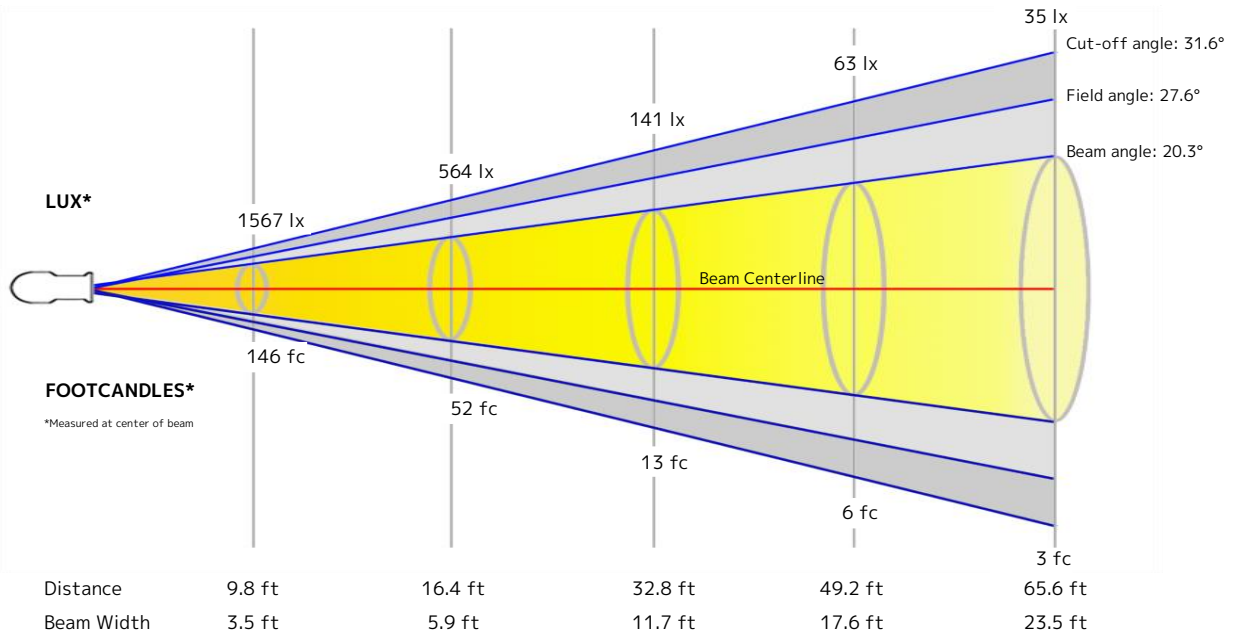


### Spectral Power Distribution Dominant Wavelength 624 nm



Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
624	0.699	0.300	0.537	0.346

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.1 m	1.8 m	3.6 m	5.4 m	7.2 m

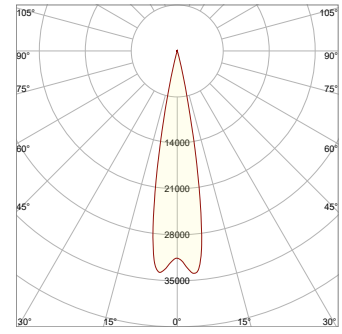
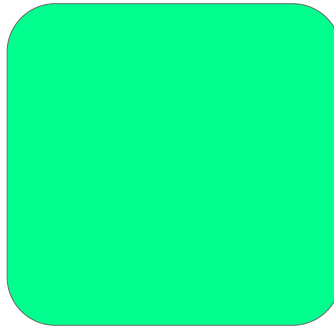


### Beam Intensities from 1-20m

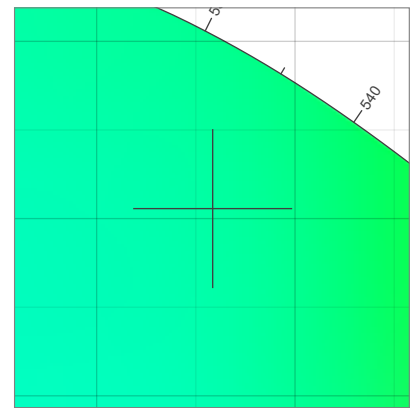
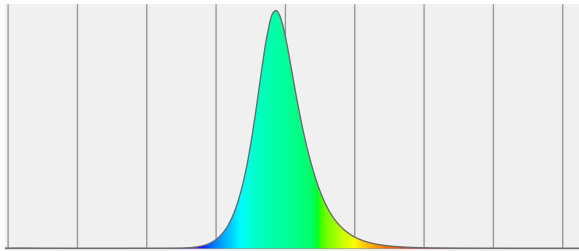
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
LX	14104	3526	1567	881	564	392	288	220	174	141	117	98	83	72	63	55	49	44	39	35
FC	1310.3	327.6	145.6	81.9	52.4	36.4	26.7	20.5	16.2	13.1	10.8	9.1	7.8	6.7	5.8	5.1	4.5	4	3.6	3.3

### Measurements

Total Lumen Output: 3494 lm  
 Peak Intensity: 33837 cd  
 Efficacy: 17 Lumen/Watt  
 Power: 211 W  
 Voltage: 122 V, Current: - A

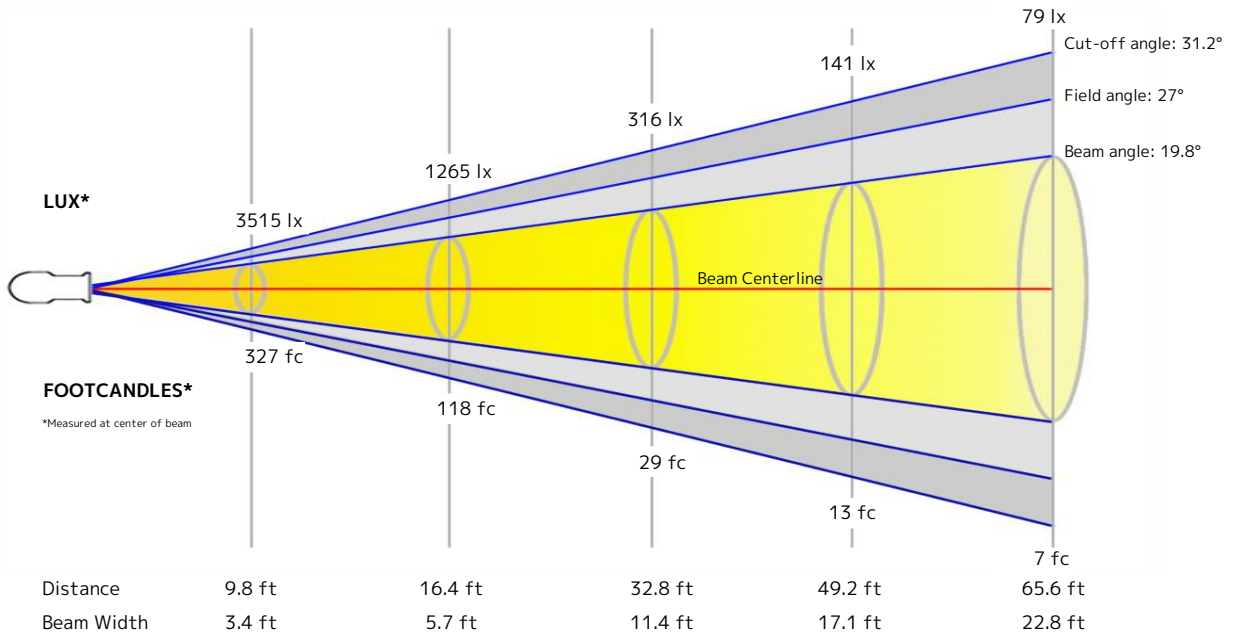


### Spectral Power Distribution Dominant Wavelength 524 nm



Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
524	0.158	0.706	0.057	0.380

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

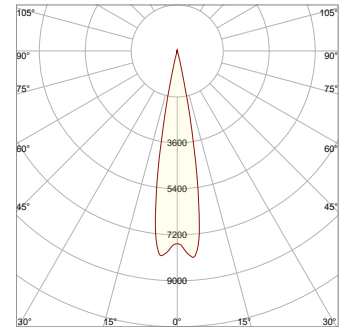
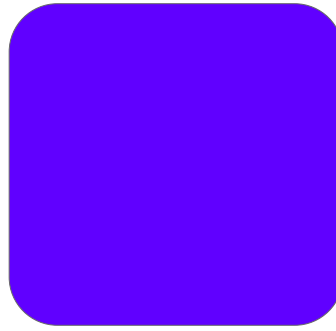


### Beam Intensities from 1-20m

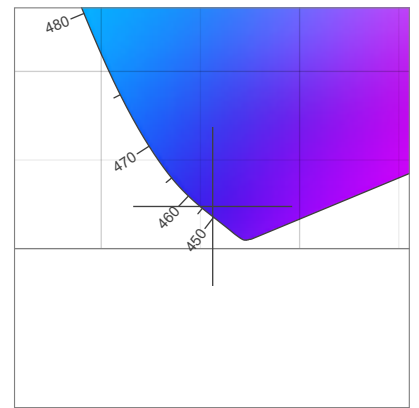
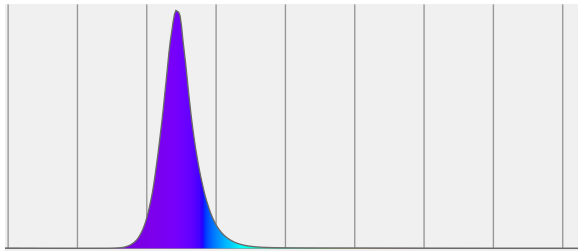
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
LX	31635	7909	3515	1977	1265	879	646	494	391	316	261	220	187	161	141	124	109	98	88	79
FC	2939	734.7	326.6	183.7	117.6	81.6	60	45.9	36.3	29.4	24.3	20.4	17.4	15	13.1	11.5	10.2	9.1	8.1	7.3

### Measurements

Total Lumen Output: 790 lm  
 Peak Intensity: 8033 cd  
 Efficacy: 4 Lumen/Watt  
 Power: 225 W  
 Voltage: 122 V, Current: - A

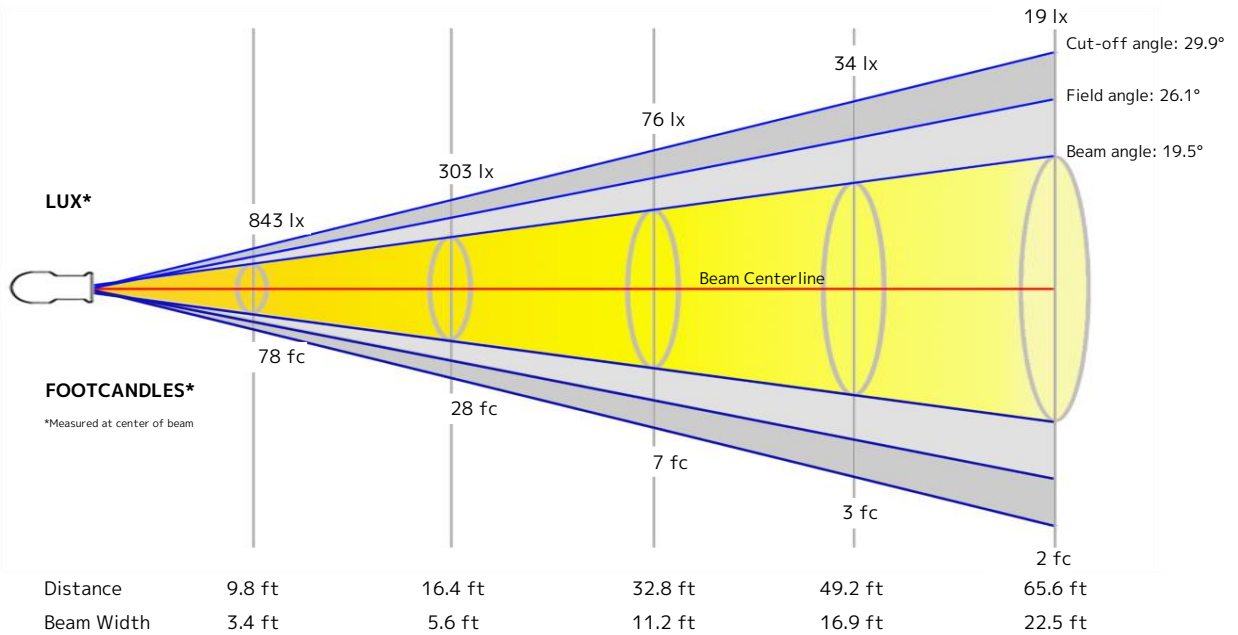


### Spectral Power Distribution Dominant Wavelength 452 nm



Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
452	0.156	0.024	0.210	0.048

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1 m	1.7 m	3.4 m	5.1 m	6.9 m

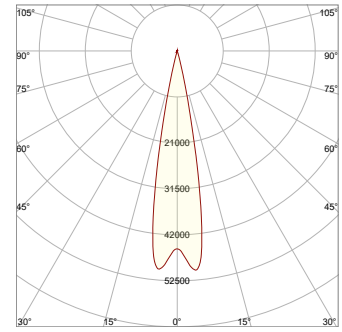
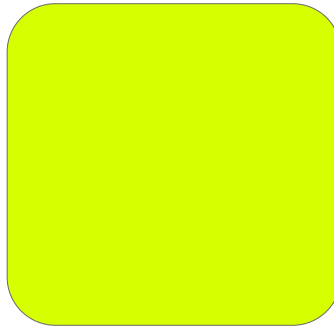


### Beam Intensities from 1-20m

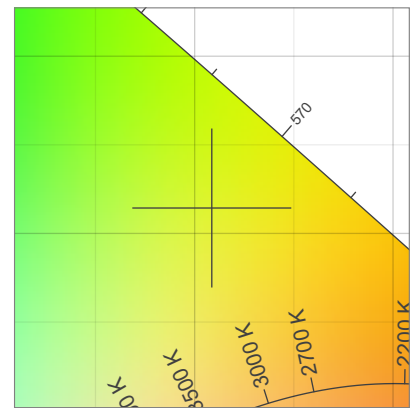
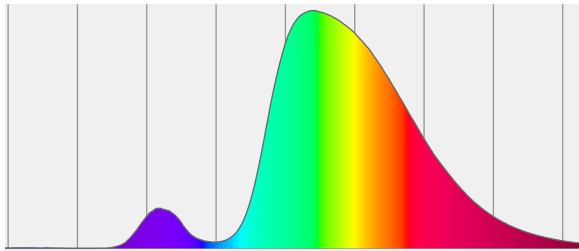
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FT	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
LX	7587	1897	843	474	303	211	155	119	94	76	63	53	45	39	34	30	26	23	21	19
FC	704.8	176.2	78.3	44.1	28.2	19.6	14.4	11	8.7	7	5.8	4.9	4.2	3.6	3.1	2.8	2.4	2.2	2	1.8

### Measurements

Total Lumen Output: 5342 lm  
 Peak Intensity: 49954 cd  
 Efficacy: 23 Lumen/Watt  
 Power: 230 W  
 Voltage: 122 V, Current: - A

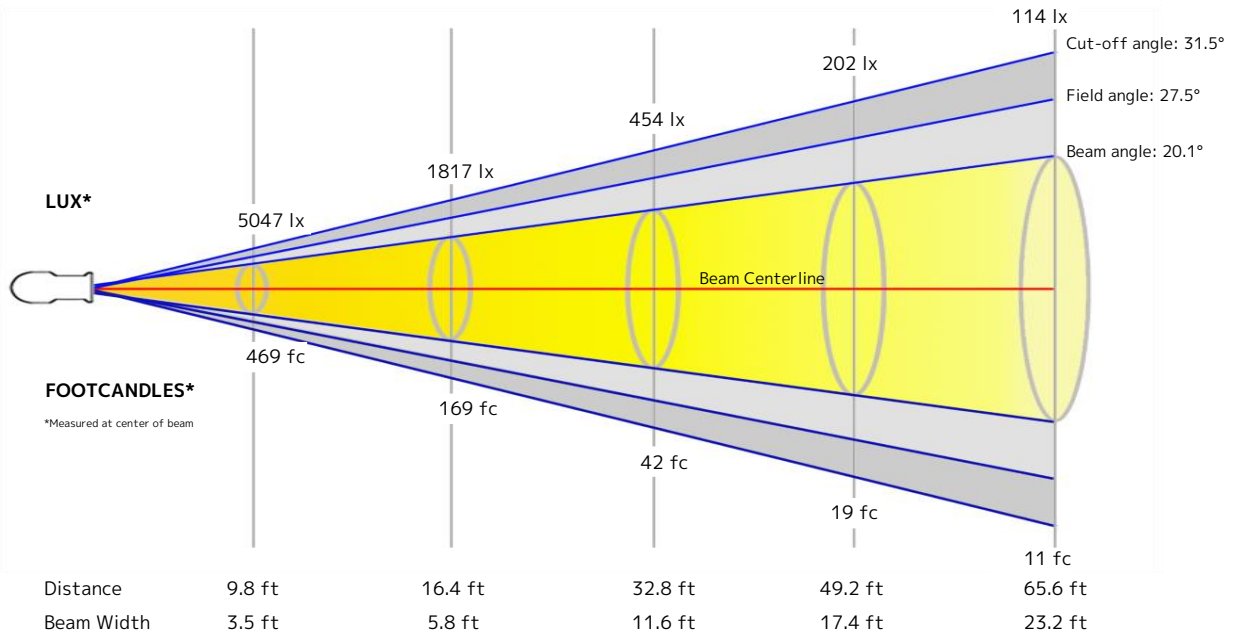


### Spectral Power Distribution Dominant Wavelength 569 nm



Dominant Wavelength	Color Coordinate CIE 1931	Color Coordinate CIE1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964
nm	x	y	u	v
569	0.409	0.514	0.196	0.369

Distance	3 m	5 m	10 m	15 m	20 m
Beam Width	1.1 m	1.8 m	3.5 m	5.3 m	7.1 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	45420	11355	5047	2839	1817	1262	927	710	561	454	375	315	269	232	202	177	157	140	126	114
FC	4219.7	1054.9	468.9	263.7	168.8	117.2	86.1	65.9	52.1	42.2	34.9	29.3	25	21.5	18.8	16.5	14.6	13	11.7	10.5