



# RAYZOR 760™

## Photometric Test Report

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CRI	25

# TESTING PROCESS

## Total Lumen Measurements

Lumens are measured using a Viso Systems Lab Spion and a  $2\pi$  Integrating Sphere. As a goniophotometer, the Viso calculates the field lumens of the fixture by taking multiple measurements across the light beam. The measured lumens of the  $2\pi$  Integrating Sphere tends to be higher than the Viso goniophotometer due to a variety of differences in measurement principles. Therefore, both values are provided in the report.

Many lumens figures provided for entertainment lighting fixtures are only the  $2\pi$  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.

Fixtures are also analyzed using an  $2\pi$  Integrating Sphere. This technique takes the output of the fixture and measures the amount of light inside a sealed perfect sphere. Due to the size of most fixtures they shine into an opening on the side of the sphere. A sensor is mounted behind a glare shield to avoid direct light input and a very short measurement is taken to gather the total lumens within the sphere. Due to different measurement principles, distortion and measurement uncertainties there is a difference in these results.

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 C700](#)

# Photometric Report

## Total Lumen Output\*

Integrating Sphere      4705 lm

VISO Lab Spion          3407 lm

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2.5%
5.4°	7.4°	8.4°

Color Temperature: 0 K

CRI: 0.0

TLCI: n/a

TM30: 0.0

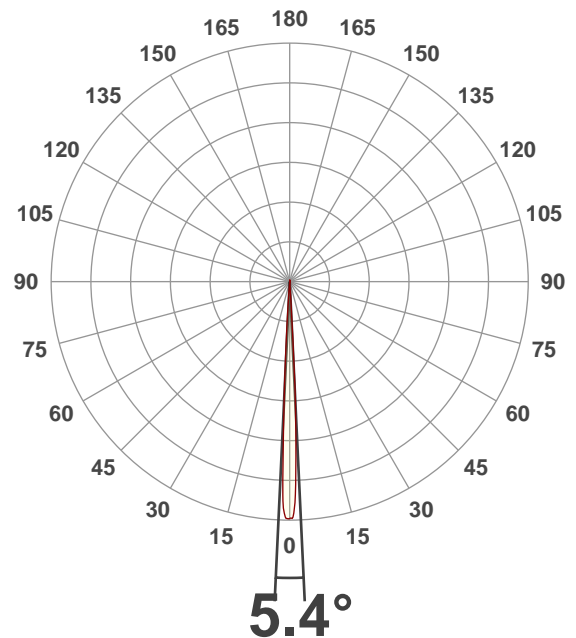
CQS: 0.0

Voltage: 116 V, Current: 5.72 A

Power: 664.9 W

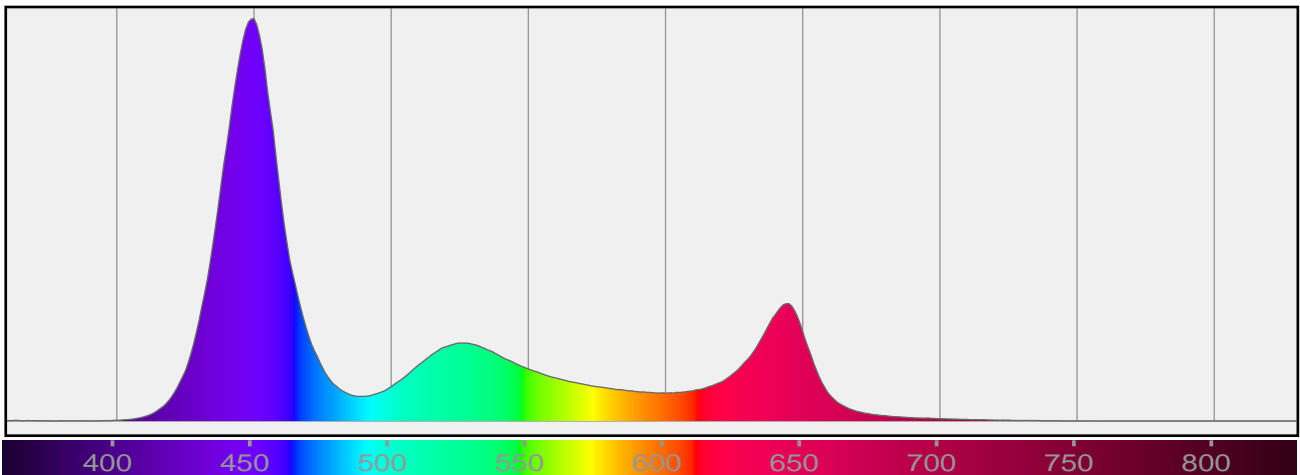
Efficacy: 5 Lumen/Watt

Measurement Date: 8/12/2019



## Spectral Distribution

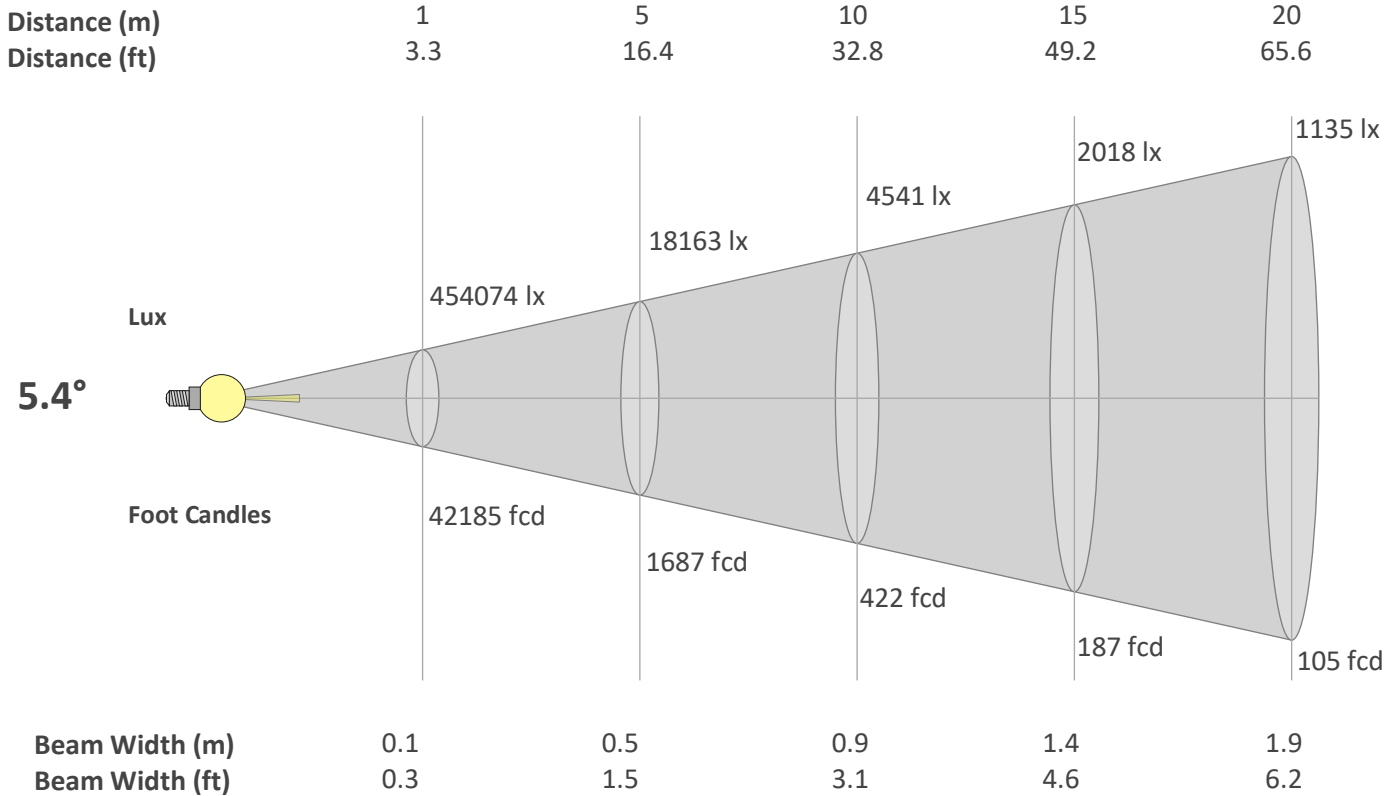
Dominant Wavelength 454 nm



\*Total Lumen measurements by calibrated Everfine 2π Integrating Sphere and Viso Systems Lab Spion

Beam Details

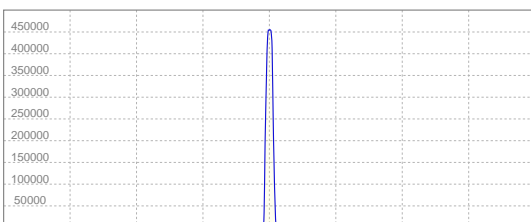
Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%
5.4°	7.4°	8.4°



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	454074	113518	50453	28380	18163	12613	9267	7095	5606	4541	3753	3153	2687	2317	2018	1774	1571	1401	1258	1135
FC	42184.9	10546.2	4687.2	2636.6	1687.4	1171.8	860.9	659.1	520.8	421.8	348.6	293	249.6	215.2	187.5	164.8	146	130.2	116.9	105.5

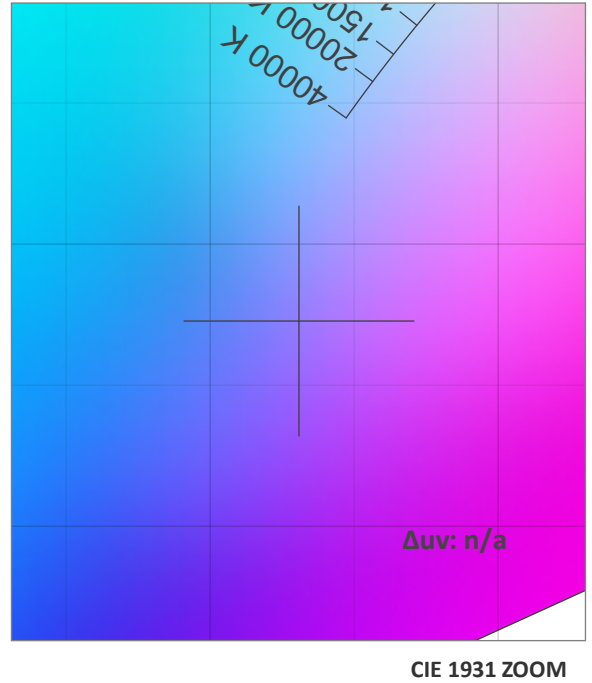
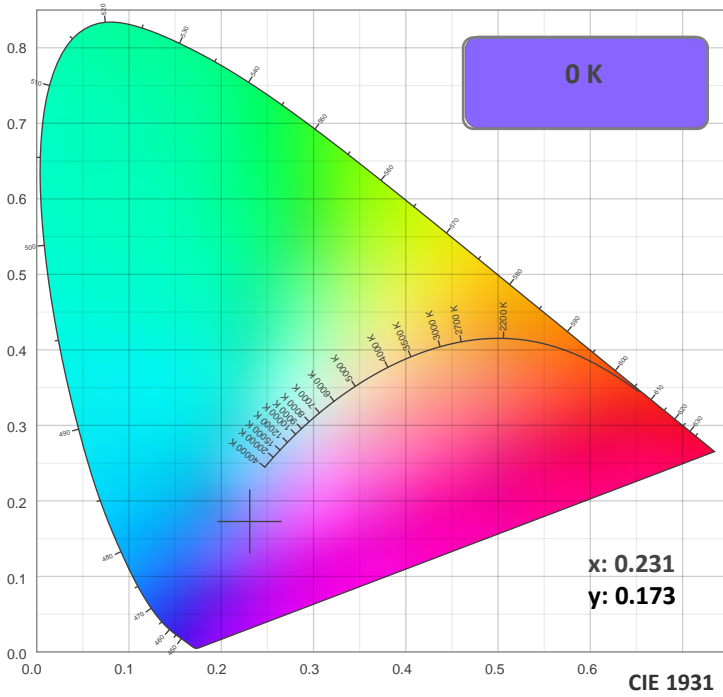
Linear Distribution



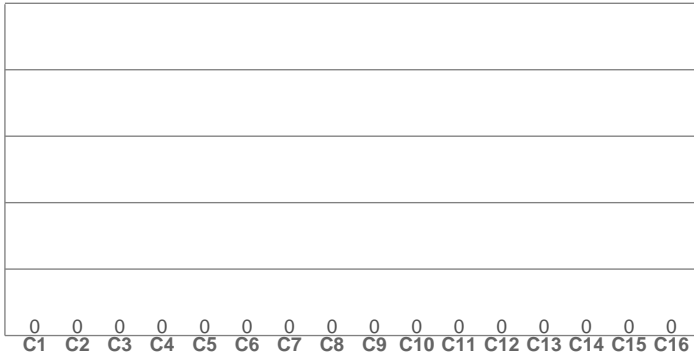
**Peak Candela**  
**454879 cd**

**Calculate Center Beam Intensities**  
 $lux = 454879 / distance(m)^2$   
 $fc = 454879 / distance(ft)^2$

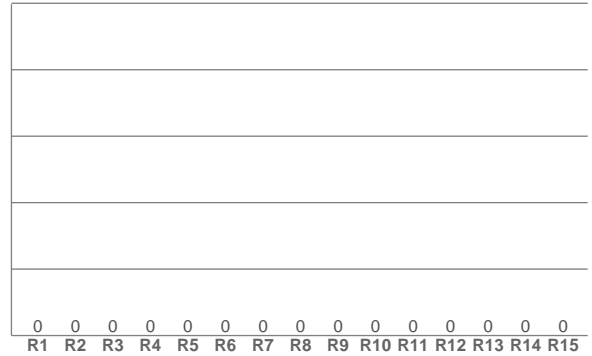
### Color Details



TM30: 0.0



CRI: 0.0 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

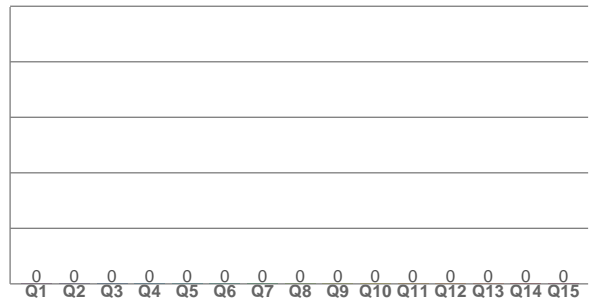
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CQS: 0.0



### Color Parameters

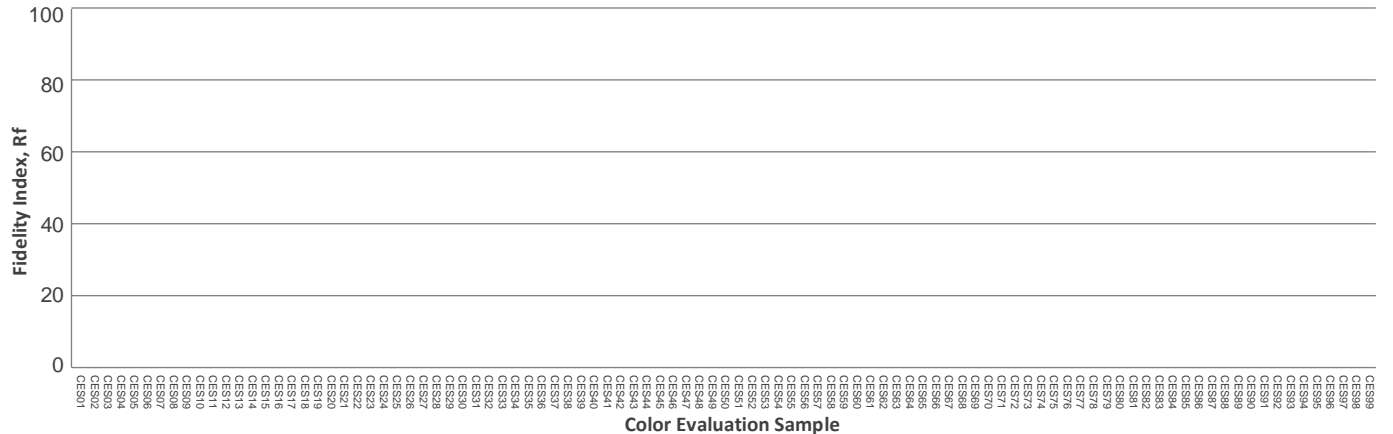
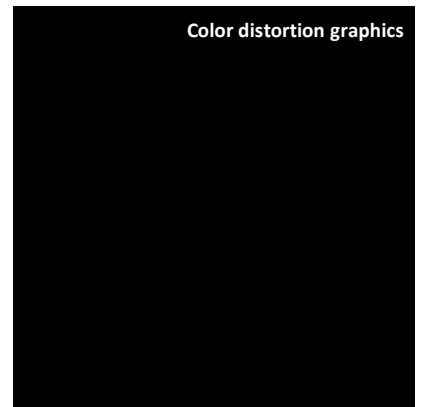
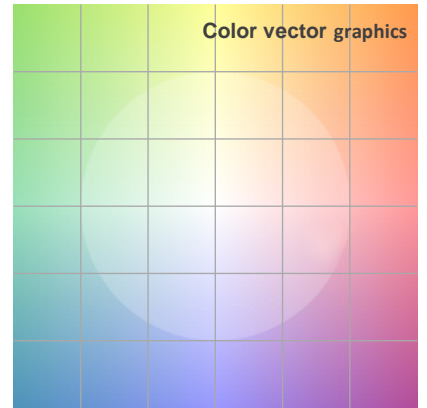
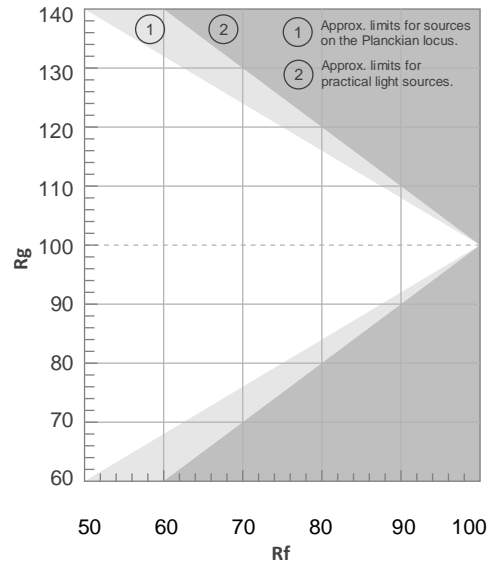
Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Diviation from Black
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
0 K	0.0	0.0	0.0	0.0	0.0	0.231	0.173	0.200	0.225	n/a

## TM30 Details

**Rf 0.0**  
Fidelity Index Rf

**Rg 0.0**  
Gamut Index Rg

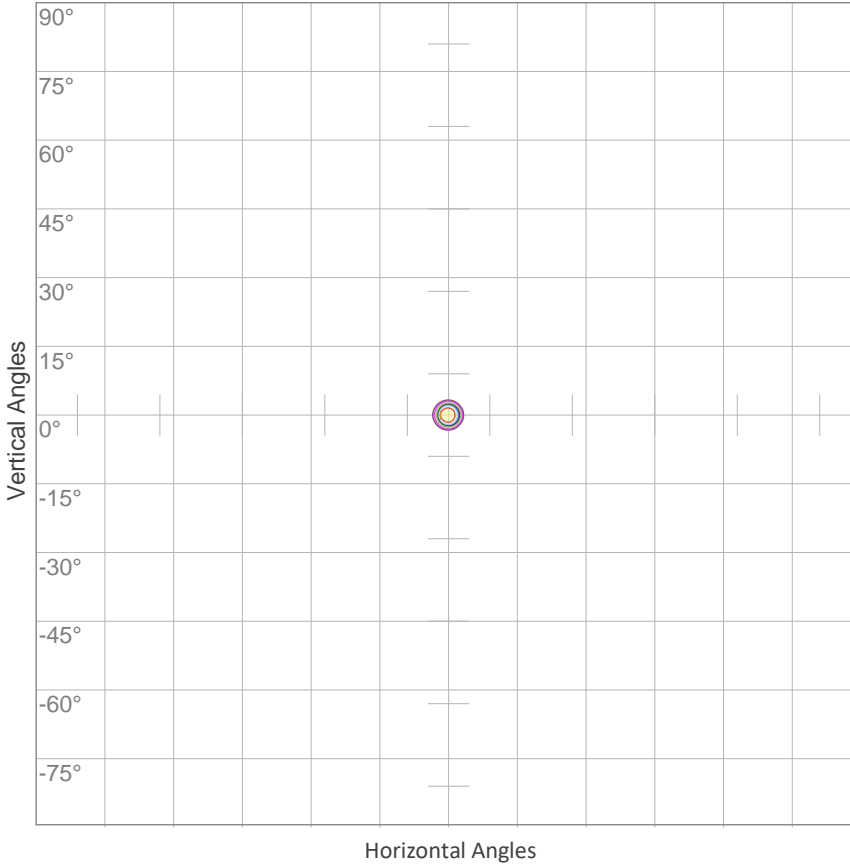
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	0	0%	0%
2	0	0%	0%
3	0	0%	0%
4	0	0%	0%
5	0	0%	0%
6	0	0%	0%
7	0	0%	0%
8	0	0%	0%
9	0	0%	0%
10	0	0%	0%
11	0	0%	0%
12	0	0%	0%
13	0	0%	0%
14	0	0%	0%
15	0	0%	0%
16	0	0%	0%





### ISO Diagrams

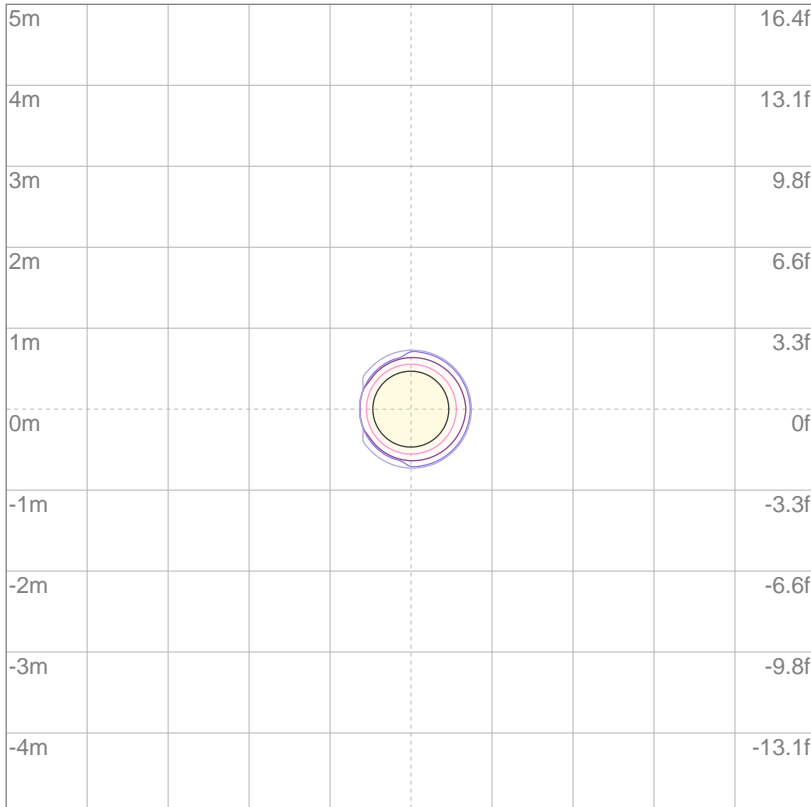
ISO Candela Diagram



10%	45407 cd
20%	90815 cd
30%	136222 cd
40%	181630 cd
50%	227037 cd
60%	272444 cd
70%	317852 cd
80%	363259 cd
90%	408667 cd

**Conditions:**  
 Number of c-planes: 2  
 Candela at center: 454074 cd

ISO Lux Diagram



3%	136 lx
5%	227 lx
10%	454 lx
30%	1362 lx
50%	2270 lx

**Conditions:**  
 Number of c-planes: 2  
 Lux at center: 4541 lx

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

Mounting Height: 10 meters (33 feet)

# Photometric Report

## Total Lumen Output\*

Integrating Sphere      8395 lm

VISO Lab Spion          5920 lm

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2.5%
27.4°	32.1°	34.6°

Color Temperature: 0 K

CRI: 0.0

TLCI: n/a

TM30: 0.0

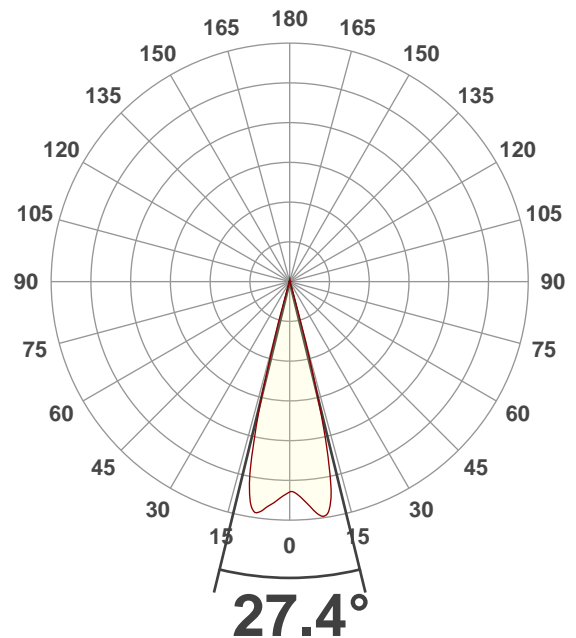
CQS: 0.0

Voltage: 116 V, Current: 5.74 A

Power: 666 W

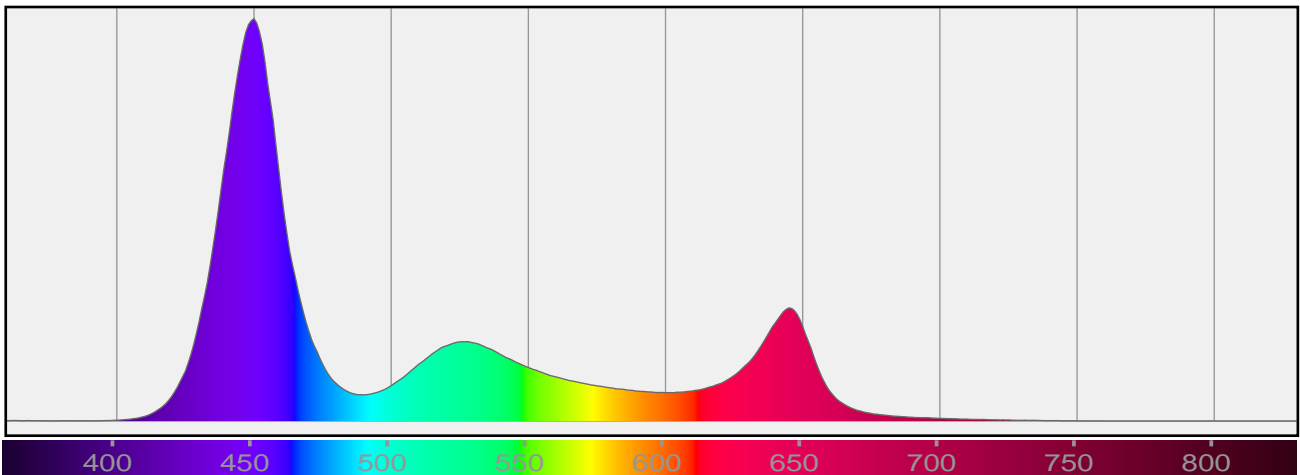
Efficacy: 9 Lumen/Watt

Measurement Date: 8/12/2019



## Spectral Distribution

Dominant Wavelength 457 nm



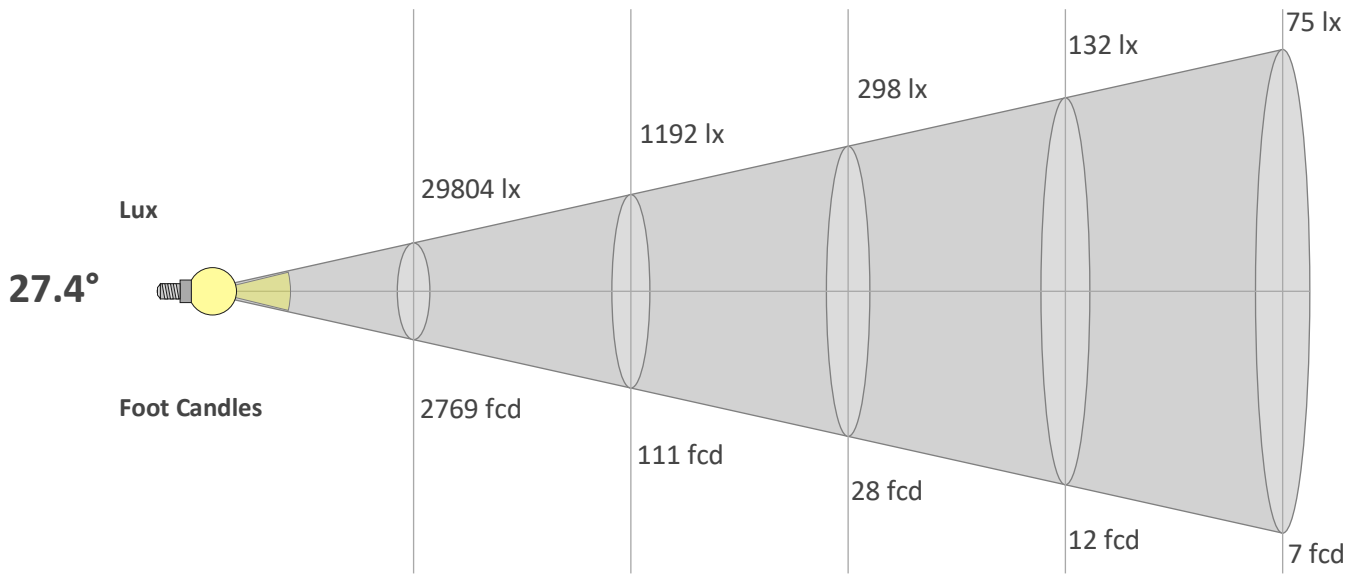
\*Total Lumen measurements by calibrated Everfine 2π Integrating Sphere and Viso Systems Lab Spion

### Beam Details

<b>Beam Angle 50%</b>	<b>Field Angle 10%</b>	<b>Cutoff Angle 2,5%</b>
<b>27.4°</b>	<b>32.1°</b>	<b>34.6°</b>

Distance (m)  
Distance (ft)

1	5	10	15	20
3.3	16.4	32.8	49.2	65.6

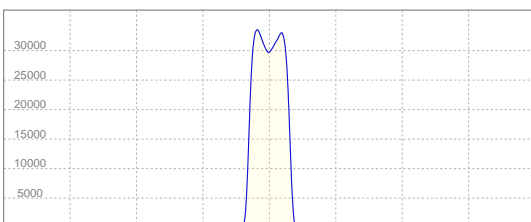


<b>Beam Width (m)</b>	0.5	2.4	4.9	7.3	9.7
<b>Beam Width (ft)</b>	1.6	8	16	24	32

#### Beam Intensities from 1-20m

<b>M</b>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<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>LX</b>	29804	7451	3312	1863	1192	828	608	466	368	298	246	207	176	152	132	116	103	92	83	75
<b>FC</b>	2768.9	692.2	307.7	173.1	110.8	76.9	56.5	43.3	34.2	27.7	22.9	19.2	16.4	14.1	12.3	10.8	9.6	8.5	7.7	6.9

#### Linear Distribution



**Peak Candela**  
**33510 cd**

**Calculate Center Beam Intensities**

$lux = 33510 / distance(m)^2$

$fc = 33510 / distance(ft)^2$

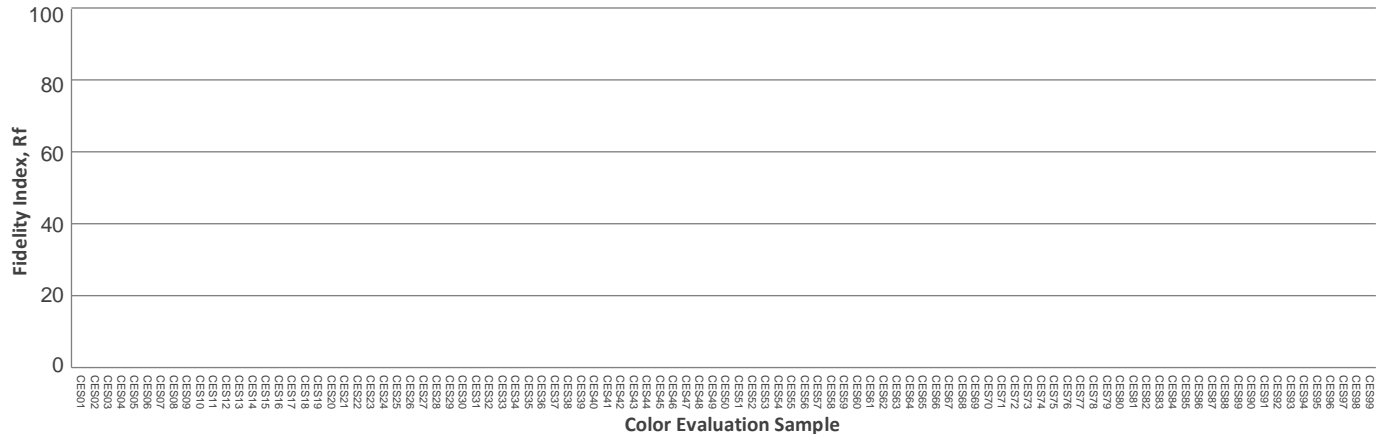
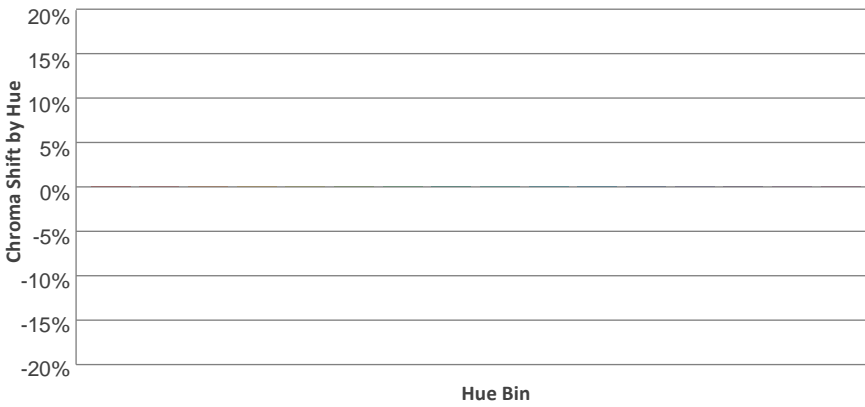
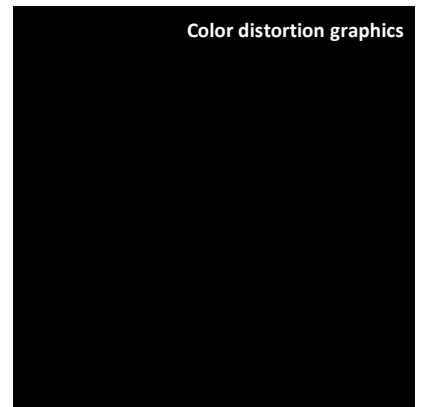
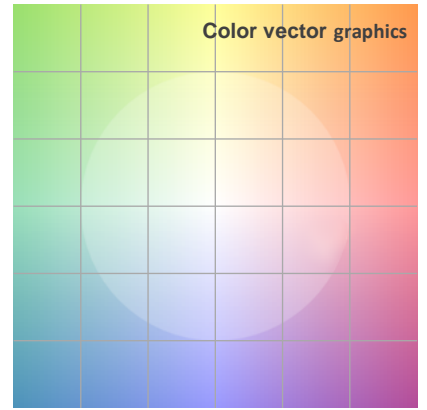
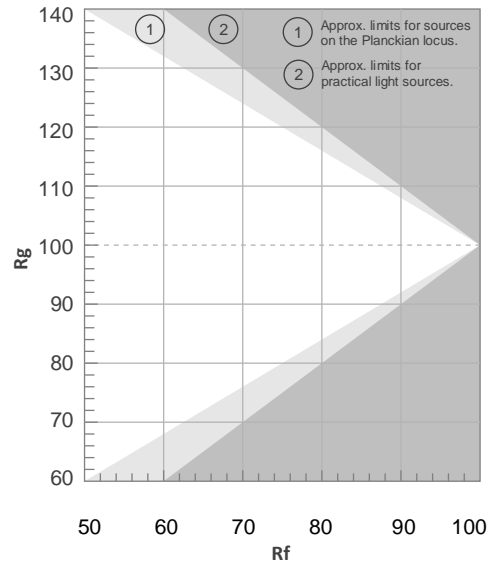


### TM30 Details

**Rf 0.0**  
Fidelity Index Rf

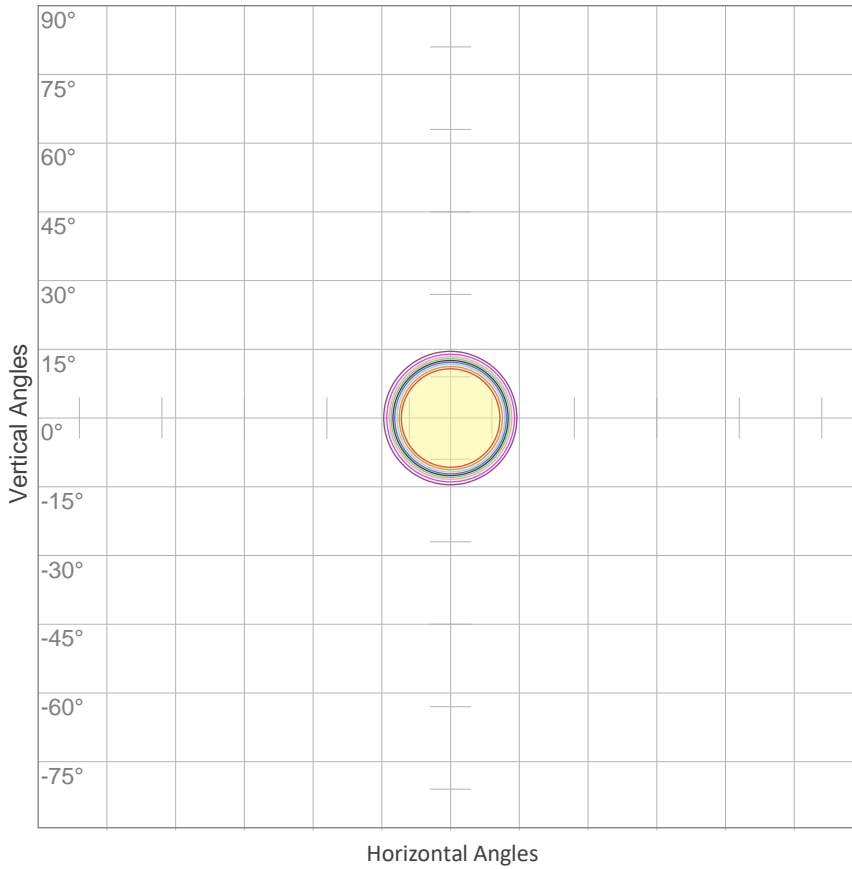
**Rg 0.0**  
Gamut Index Rg

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	0	0%	0%
2	0	0%	0%
3	0	0%	0%
4	0	0%	0%
5	0	0%	0%
6	0	0%	0%
7	0	0%	0%
8	0	0%	0%
9	0	0%	0%
10	0	0%	0%
11	0	0%	0%
12	0	0%	0%
13	0	0%	0%
14	0	0%	0%
15	0	0%	0%
16	0	0%	0%



### ISO Diagrams

ISO Candela Diagram



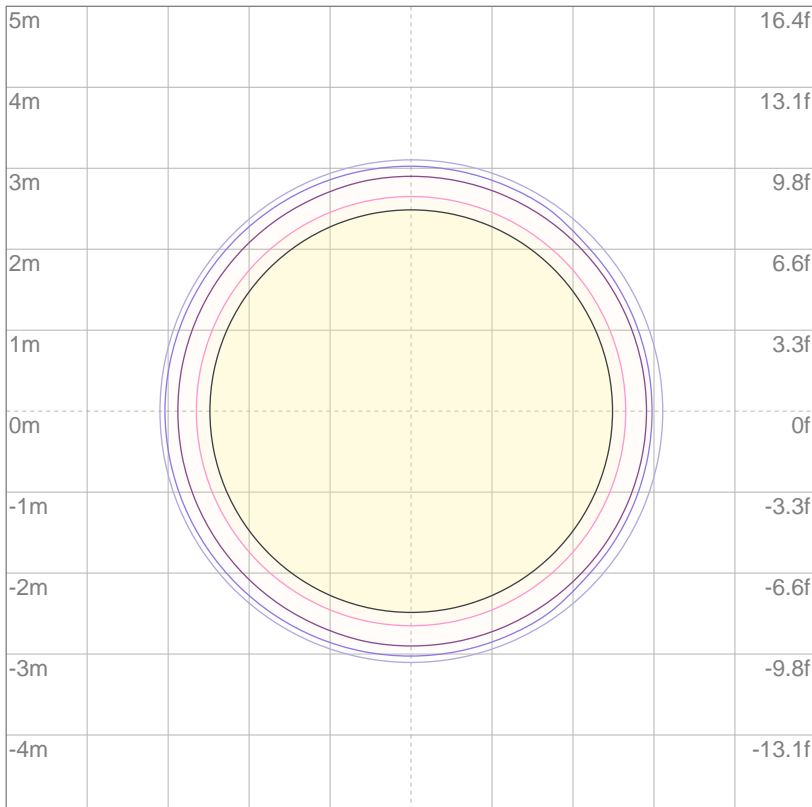
10%	2980 cd
20%	5961 cd
30%	8941 cd
40%	11922 cd
50%	14902 cd
60%	17882 cd
70%	20863 cd
80%	23843 cd
90%	26824 cd

Conditions:

Number of c-planes: 2

Candela at center: 29804 cd

ISO Lux Diagram



3%	8.94 lx
5%	14.9 lx
10%	29.8 lx
30%	89.4 lx
50%	149 lx

Conditions:

Number of c-planes: 2

Lux at center: 298 lx

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

Mounting Height: 10 meters (33 feet)

# Photometric Report

## Total Lumen Output\*

Integrating Sphere      8360 lm

VISO Lab Spion          7254 lm

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2.5%
57.3°	73.3°	79.2°

Color Temperature: 0 K

CRI: 0.0

TLCI: n/a

TM30: 0.0

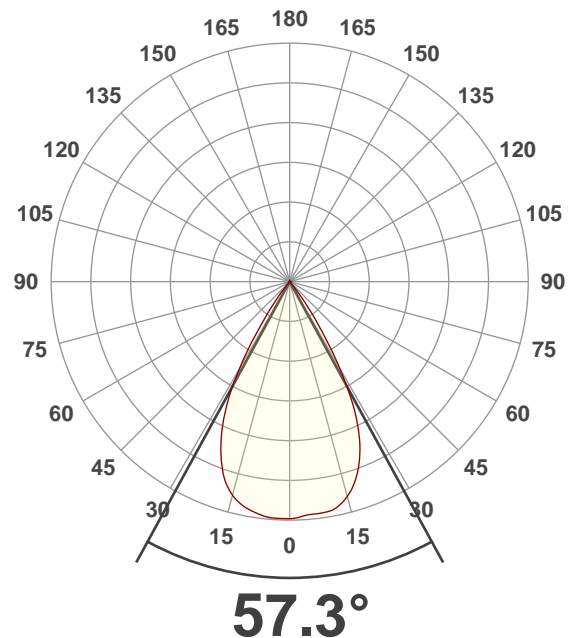
CQS: 0.0

Voltage: 116 V, Current: 5.76 A

Power: 668 W

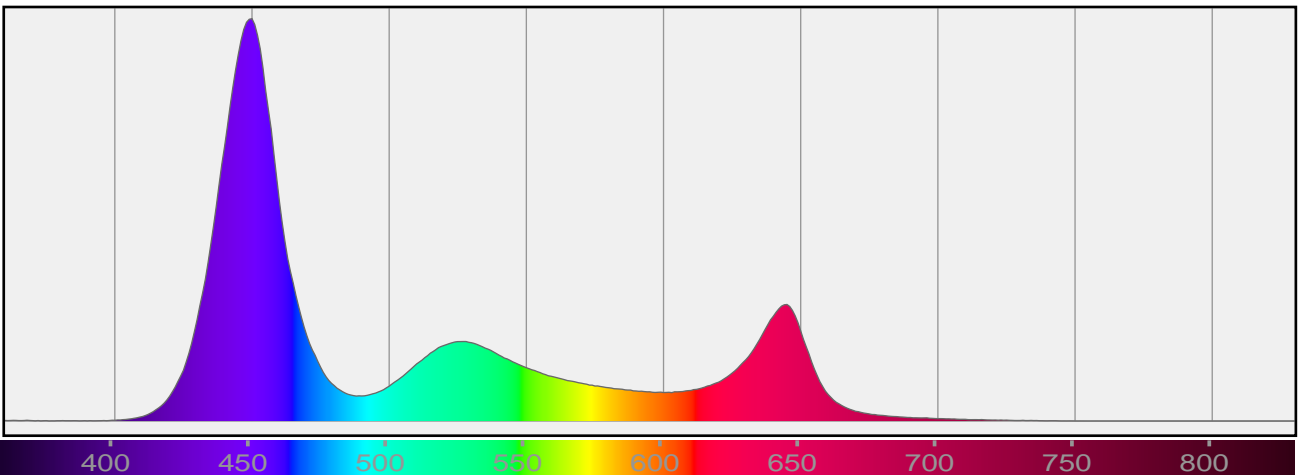
Efficacy: 11 Lumen/Watt

Measurement Date: 8/12/2019



## Spectral Distribution

Dominant Wavelength 455 nm

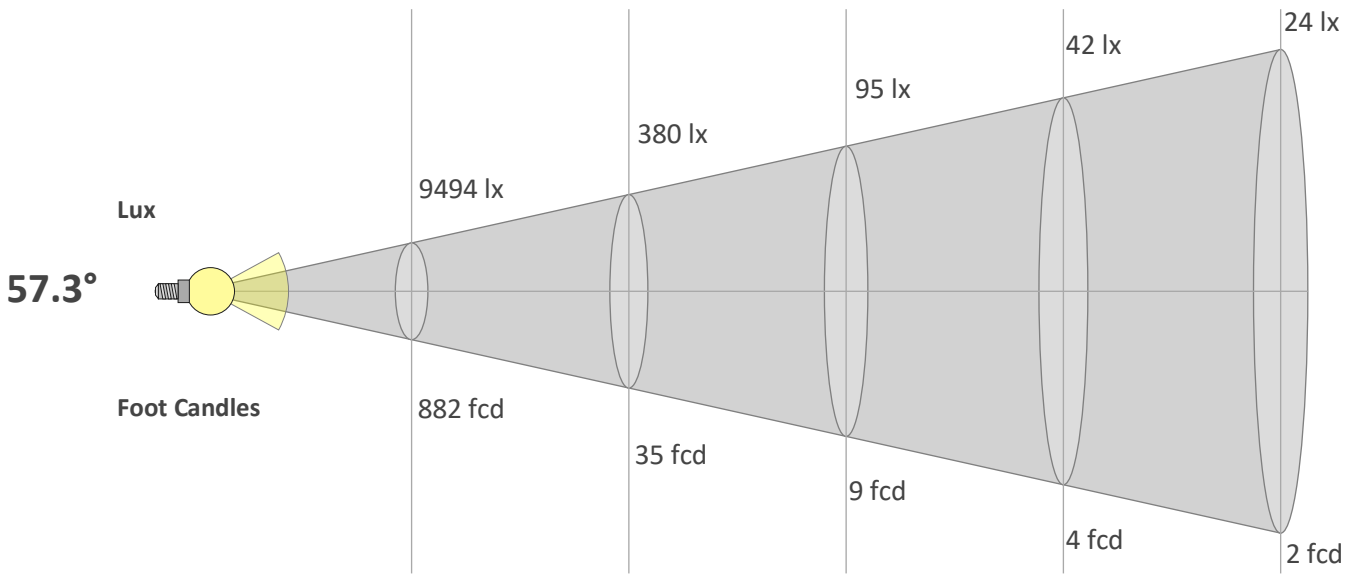


\*Total Lumen measurements by calibrated Everfine 2π Integrating Sphere and Viso Systems Lab Spion

Beam Details

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%
57.3°	73.3°	79.2°

Distance (m)	1	5	10	15	20
Distance (ft)	3.3	16.4	32.8	49.2	65.6

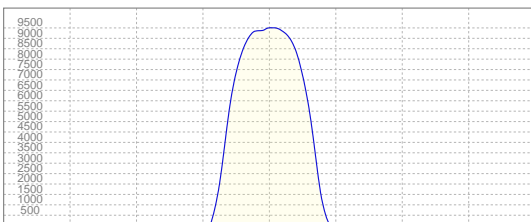


Beam Width (m)	1.1	5.5	10.9	16.4	21.9
Beam Width (ft)	3.6	17.9	35.8	53.8	71.7

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	9494	2374	1055	593	380	264	194	148	117	95	78	66	56	48	42	37	33	29	26	24
FC	882	220.5	98	55.1	35.3	24.5	18	13.8	10.9	8.8	7.3	6.1	5.2	4.5	3.9	3.4	3.1	2.7	2.4	2.2

Linear Distribution



**Peak Candela**

**9502 cd**

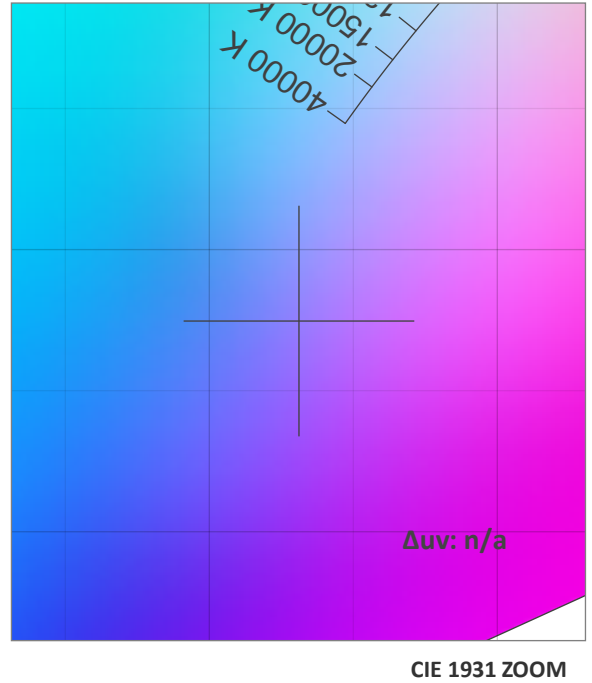
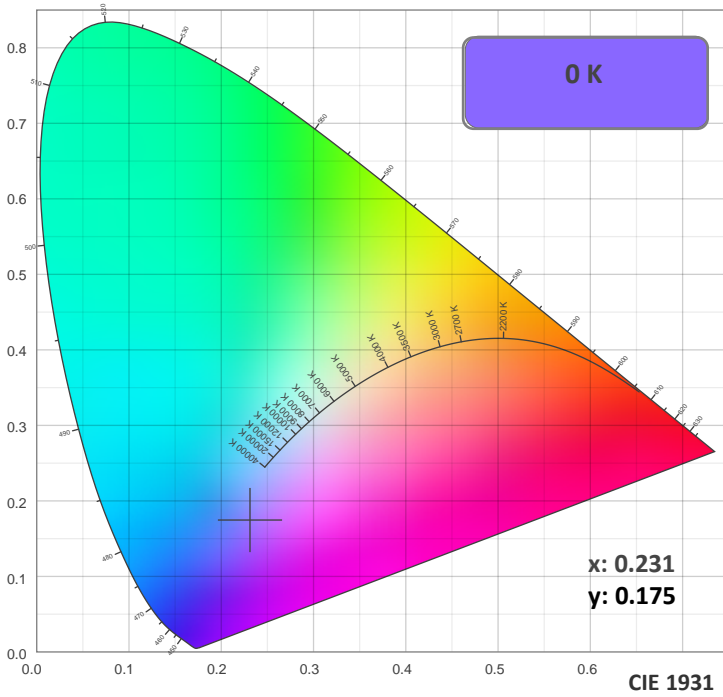
**Calculate Center Beam Intensities**

$lux = 9502 / distance(m)^2$

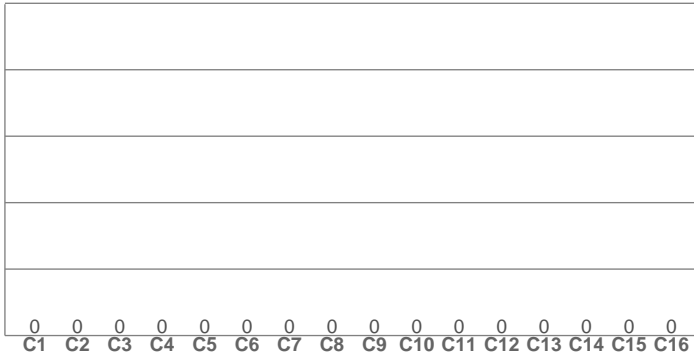
$fc = 9502 / distance(ft)^2$



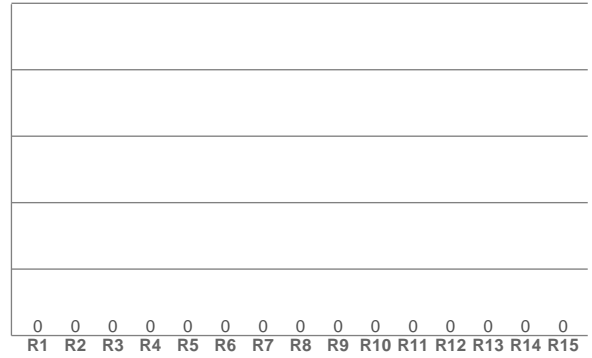
### Color Details



TM30: 0.0



CRI: 0.0 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

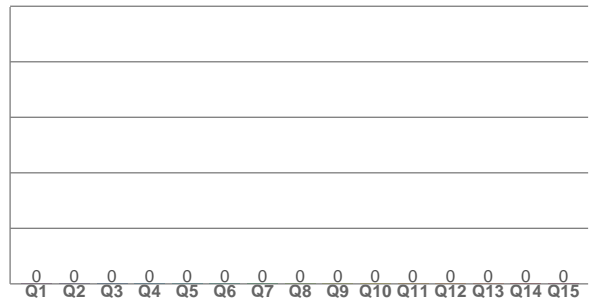
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CQS: 0.0



### Color Parameters

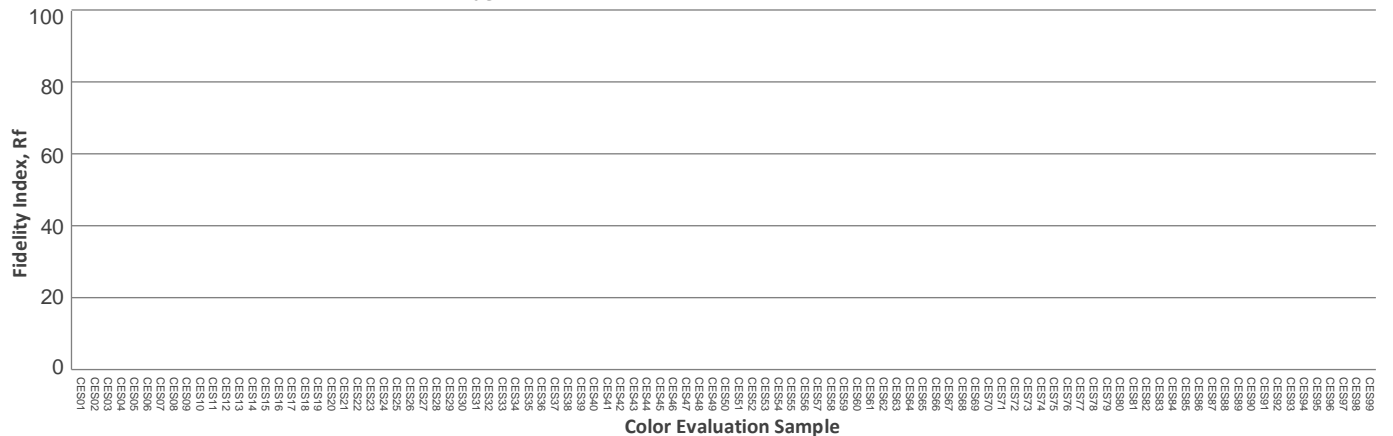
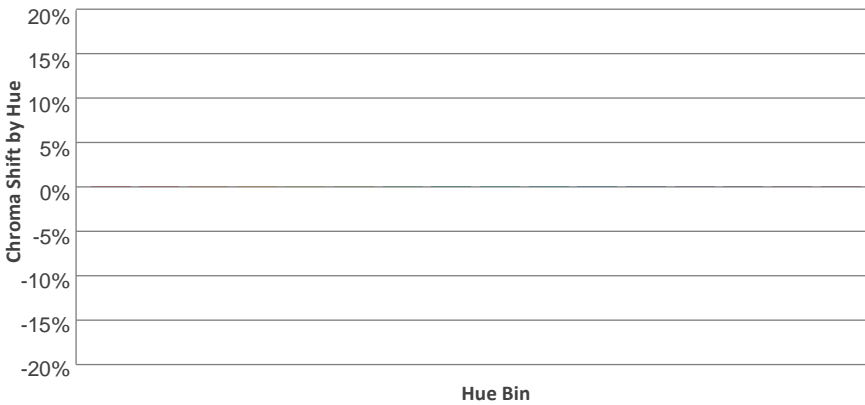
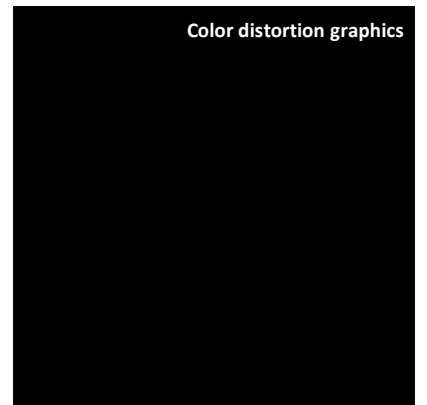
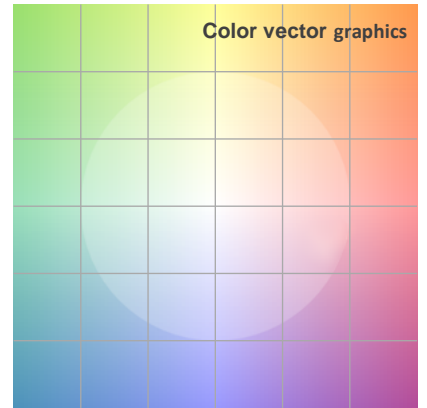
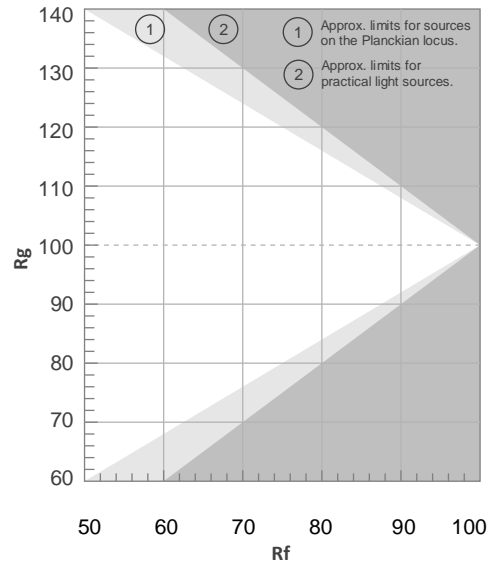
Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Diviation from Black
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
0 K	0.0	0.0	0.0	0.0	0.0	0.231	0.175	0.200	0.226	n/a

## TM30 Details

**Rf 0.0**  
Fidelity Index Rf

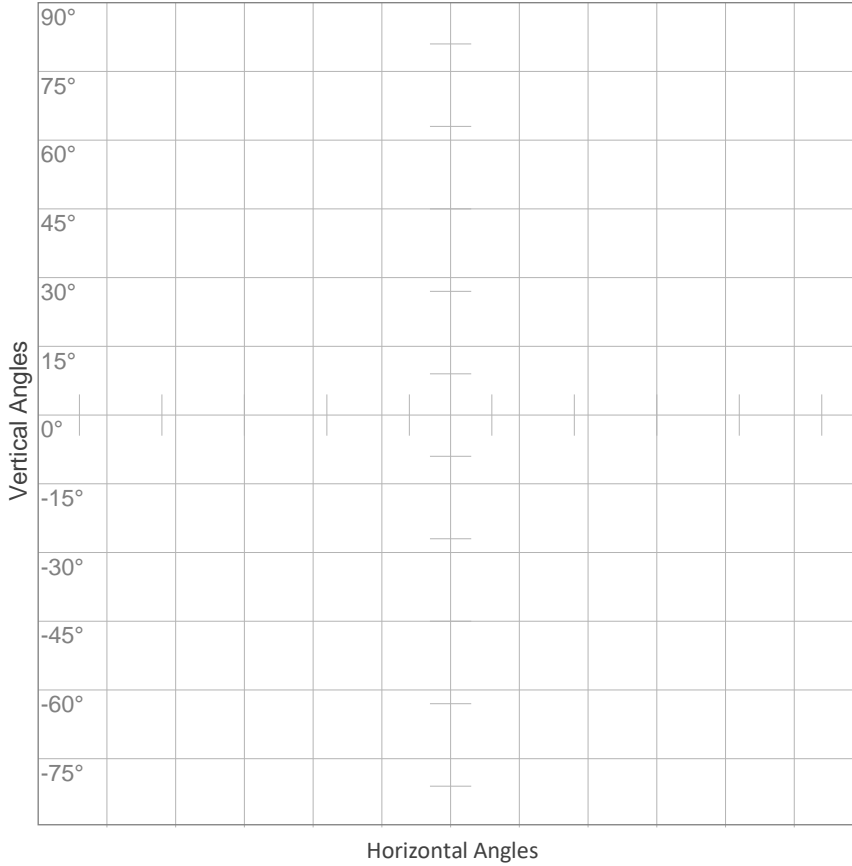
**Rg 0.0**  
Gamut Index Rg

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	0	0%	0%
2	0	0%	0%
3	0	0%	0%
4	0	0%	0%
5	0	0%	0%
6	0	0%	0%
7	0	0%	0%
8	0	0%	0%
9	0	0%	0%
10	0	0%	0%
11	0	0%	0%
12	0	0%	0%
13	0	0%	0%
14	0	0%	0%
15	0	0%	0%
16	0	0%	0%



### ISO Diagrams

ISO Candela Diagram



10%	949 cd
20%	1899 cd
30%	2848 cd
40%	3798 cd
50%	4747 cd
60%	5696 cd
70%	6646 cd
80%	7595 cd
90%	8545 cd

**Conditions:**  
 Number of c-planes: 2  
 Candela at center: 9494 cd

ISO Lux Diagram



3%	2.85 lx
5%	4.75 lx
10%	9.49 lx
30%	28.5 lx
50%	47.5 lx

**Conditions:**  
 Number of c-planes: 2  
 Lux at center: 94.9 lx

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

Mounting Height: 10 meters (33 feet)

# Photometric Report

## Total Lumen Output\*

Integrating Sphere      N/A  
 VISO Lab Spion            4051 lm

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2.5%
27.4°	32.2°	34.6°

Color Temperature: 3067 K

CRI: 73.6

TLCI: 54

TM30: 66.7

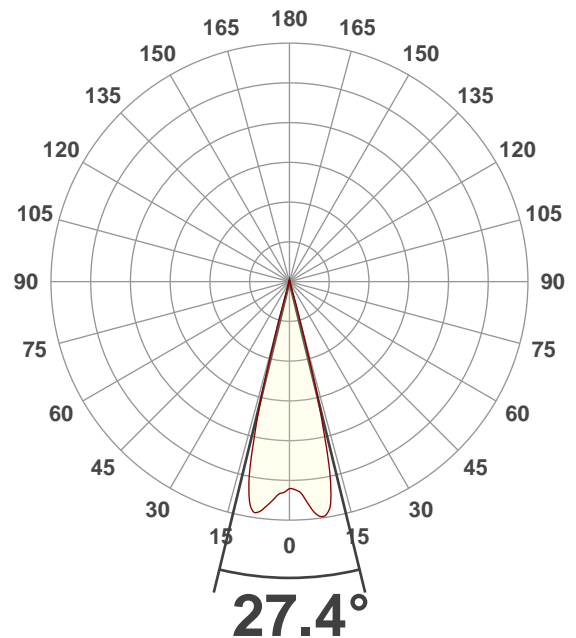
CQS: 78.1

Voltage: 116 V, Current: 2.59 A

Power: 300 W

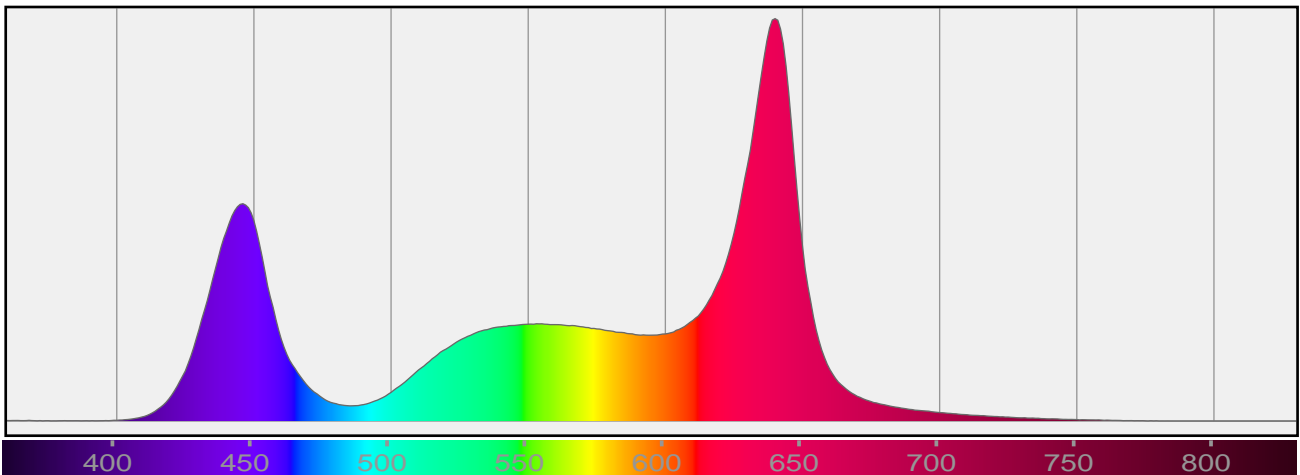
Efficacy: 14 Lumen/Watt

Measurement Date: 8/5/2019



## Spectral Distribution

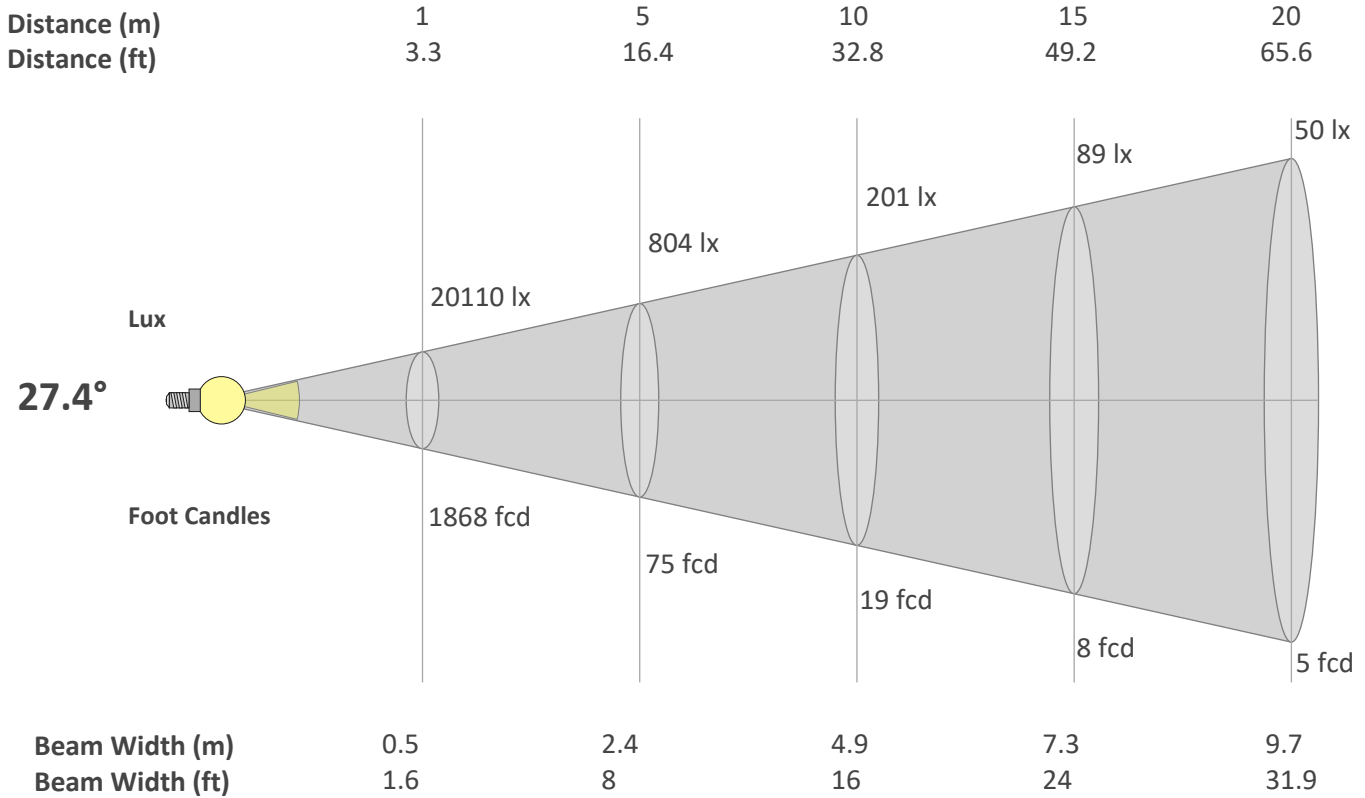
Dominant Wavelength 829 nm



\*Total Lumen measurements by calibrated Everfine 2π Integrating Sphere and Viso Systems Lab Spion

Beam Details

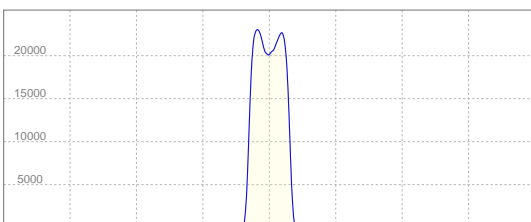
Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%
27.4°	32.2°	34.6°



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	20110	5028	2234	1257	804	559	410	314	248	201	166	140	119	103	89	79	70	62	56	50
FC	1868.3	467.1	207.6	116.8	74.7	51.9	38.1	29.2	23.1	18.7	15.4	13	11.1	9.5	8.3	7.3	6.5	5.8	5.2	4.7

Linear Distribution



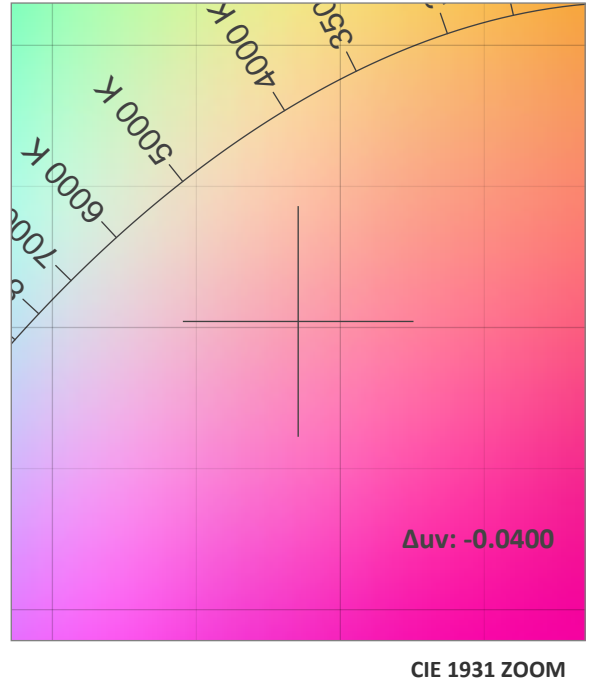
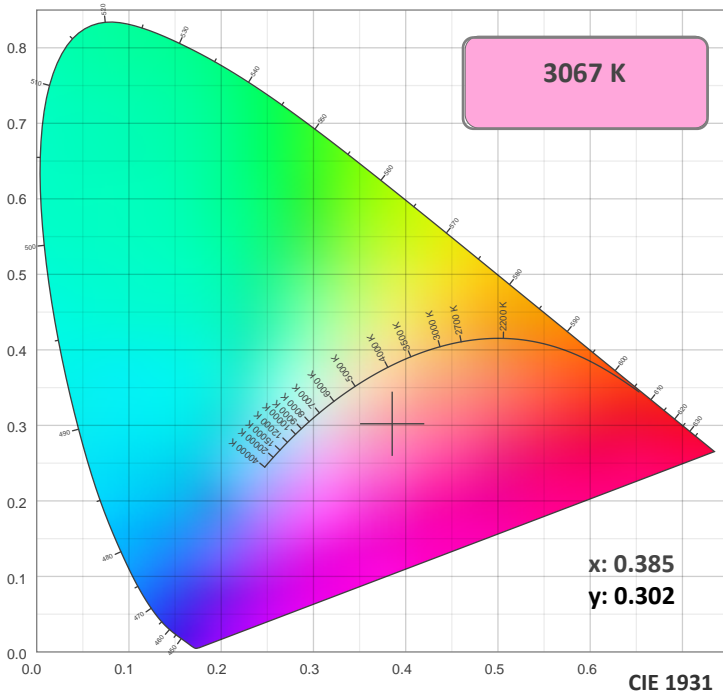
**Peak Candela**  
**23003 cd**

**Calculate Center Beam Intensities**

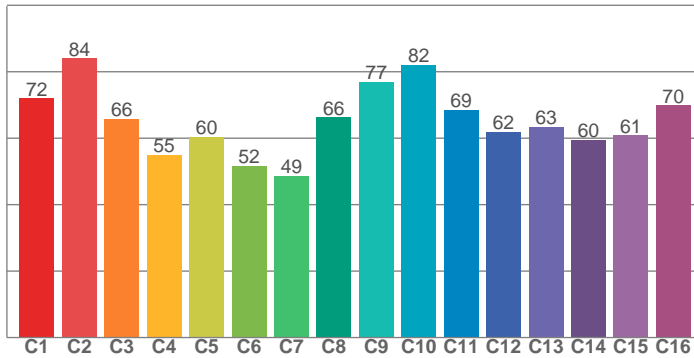
$lux = 23003 / distance(m)^2$

$fc = 23003 / distance(ft)^2$

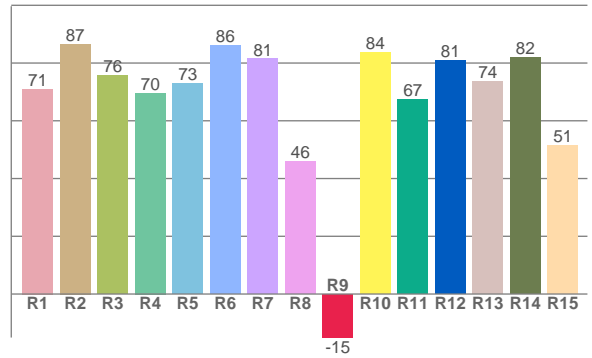
Color Details



TM30: 66.7



CRI: 73.6 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
71.0	86.6	75.6	69.6	72.9	86.0	81.4	46.0	-15.1	83.6	67.3	80.8	73.7	82.0	51.4

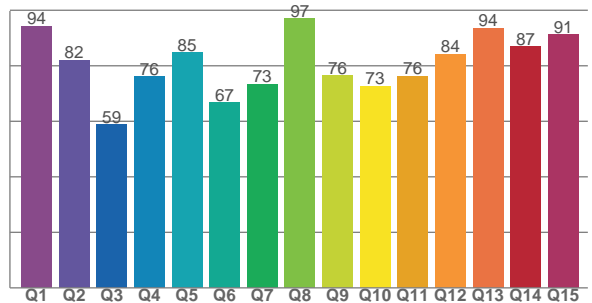
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
72.0	84.1	65.8	54.9	60.4	51.8	48.6	66.3	76.9	82.1	68.6	61.9	63.4	59.5	60.9	69.8

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94.3	82.1	58.8	76.1	84.8	66.6	73.4	97.0	76.4	72.6	76.3	84.3	93.7	86.9	91.2

CQS: 78.1



Color Parameters

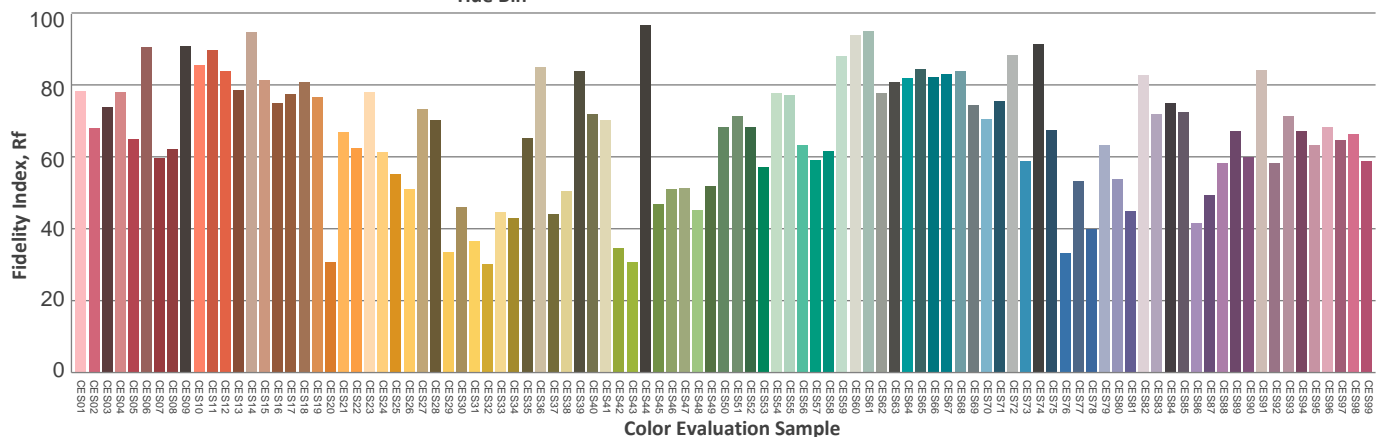
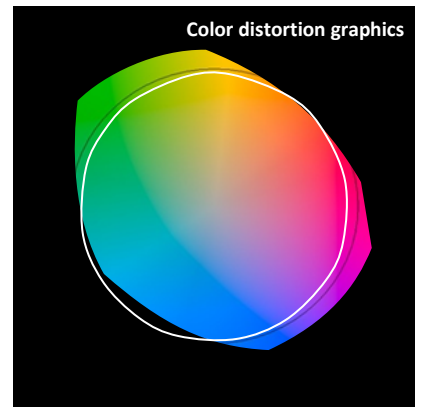
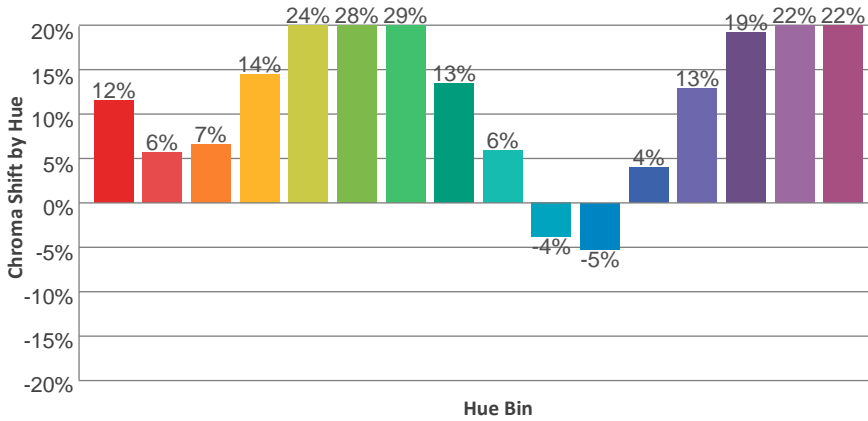
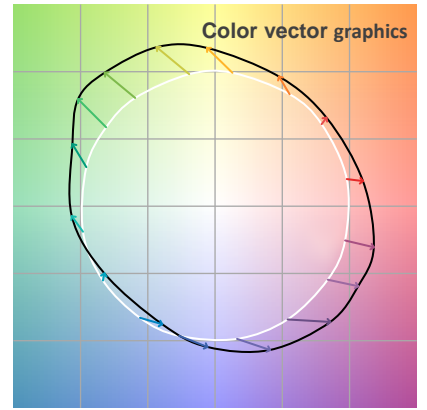
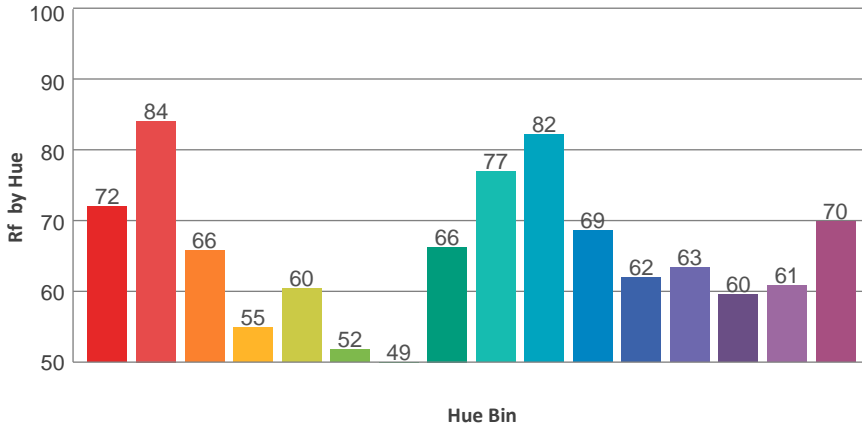
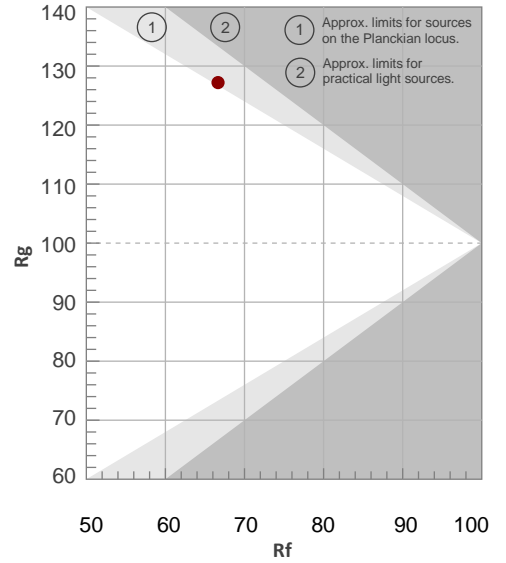
Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Diviation from Black
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3067 K	73.6	-15.1	66.7	127.2	78.1	0.385	0.302	0.263	0.310	-0.0400

## TM30 Details

**Rf 66.7**  
Fidelity Index Rf

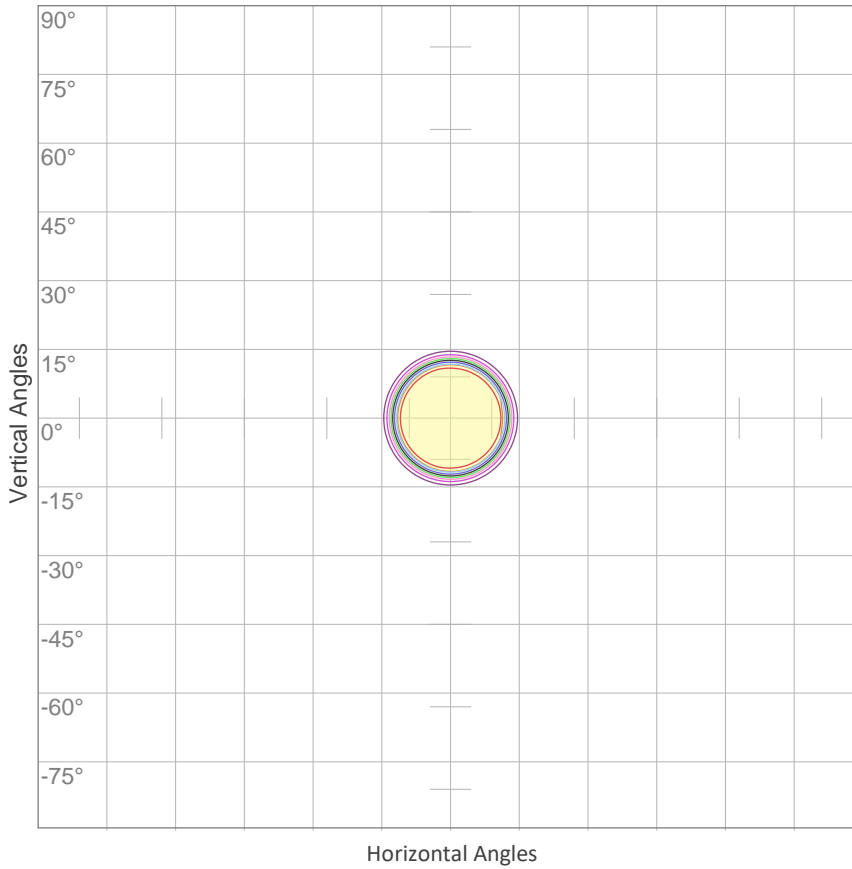
**Rg 127.2**  
Gamut Index Rg

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	72	12%	-4%
2	84	6%	2%
3	66	7%	14%
4	55	14%	22%
5	60	24%	20%
6	52	28%	8%
7	49	29%	-6%
8	66	13%	-15%
9	77	6%	-13%
10	82	-4%	-4%
11	69	-5%	16%
12	62	4%	22%
13	63	13%	22%
14	60	19%	25%
15	61	22%	9%
16	70	22%	-1%



### ISO Diagrams

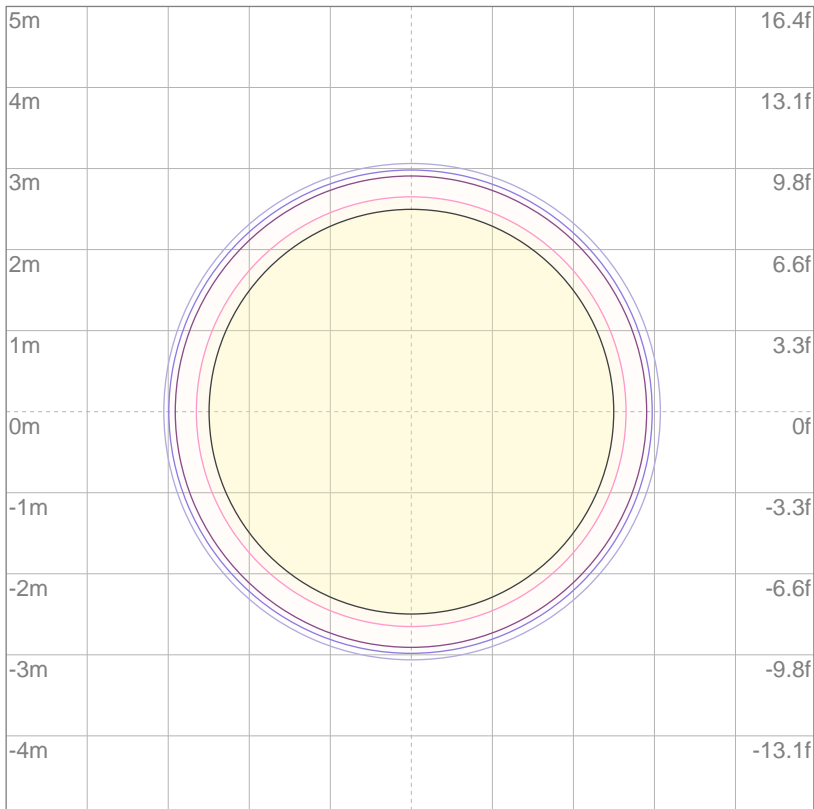
ISO Candela Diagram



10%	2011 cd
20%	4022 cd
30%	6033 cd
40%	8044 cd
50%	10055 cd
60%	12066 cd
70%	14077 cd
80%	16088 cd
90%	18099 cd

Conditions:  
 Number of c-planes: 2  
 Candela at center: 20110 cd

ISO Lux Diagram



3%	6.03 lx
5%	10.1 lx
10%	20.1 lx
30%	60.3 lx
50%	101 lx

Conditions:  
 Number of c-planes: 2  
 Lux at center: 201 lx

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

Mounting Height: 10 meters (33 feet)



# Photometric Report

## Total Lumen Output\*

Integrating Sphere      n/a  
 VISO Lab Spion            5383 lm

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2.5%
27.4°	32.5°	34.6°

Color Temperature: 5805 K

CRI: 80.9

TLCI: 80

TM30: 82.4

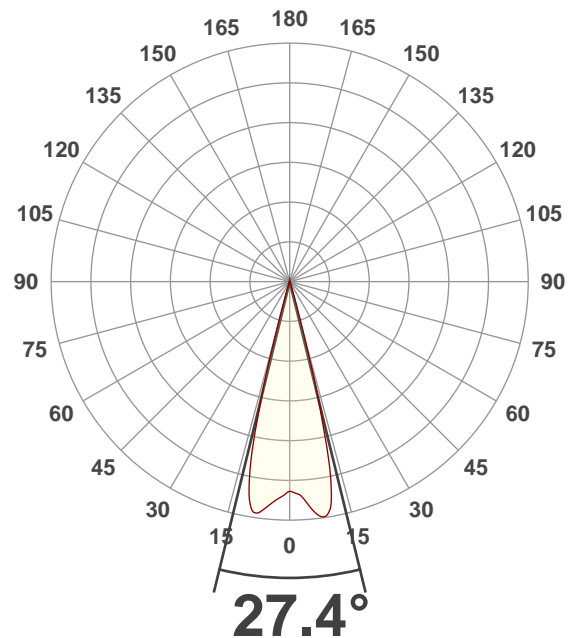
CQS: 87.9

Voltage: 116 V, Current: 3.52 A

Power: 408 W

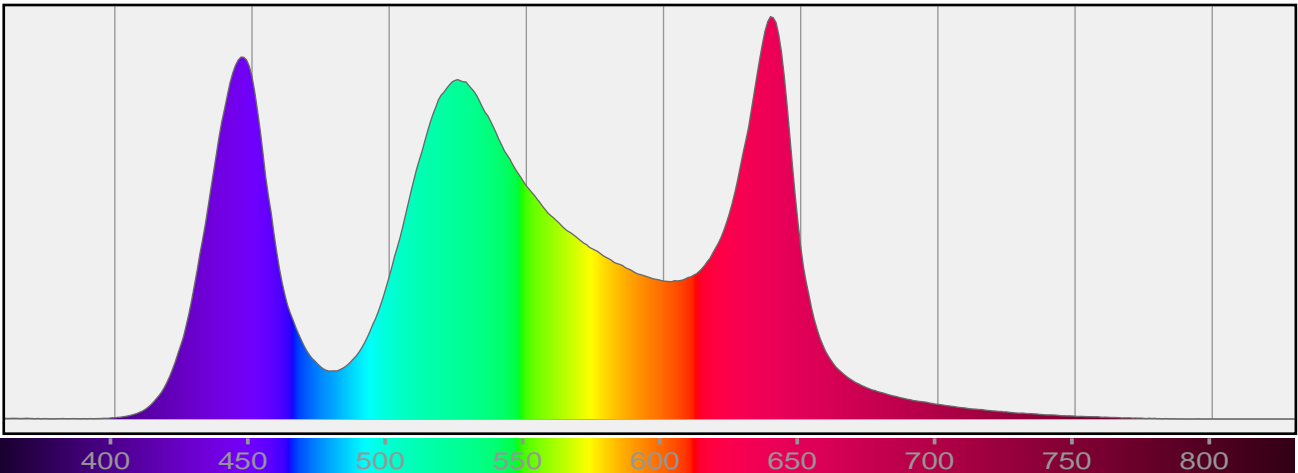
Efficacy: 13 Lumen/Watt

Measurement Date: 8/12/2019



## Spectral Distribution

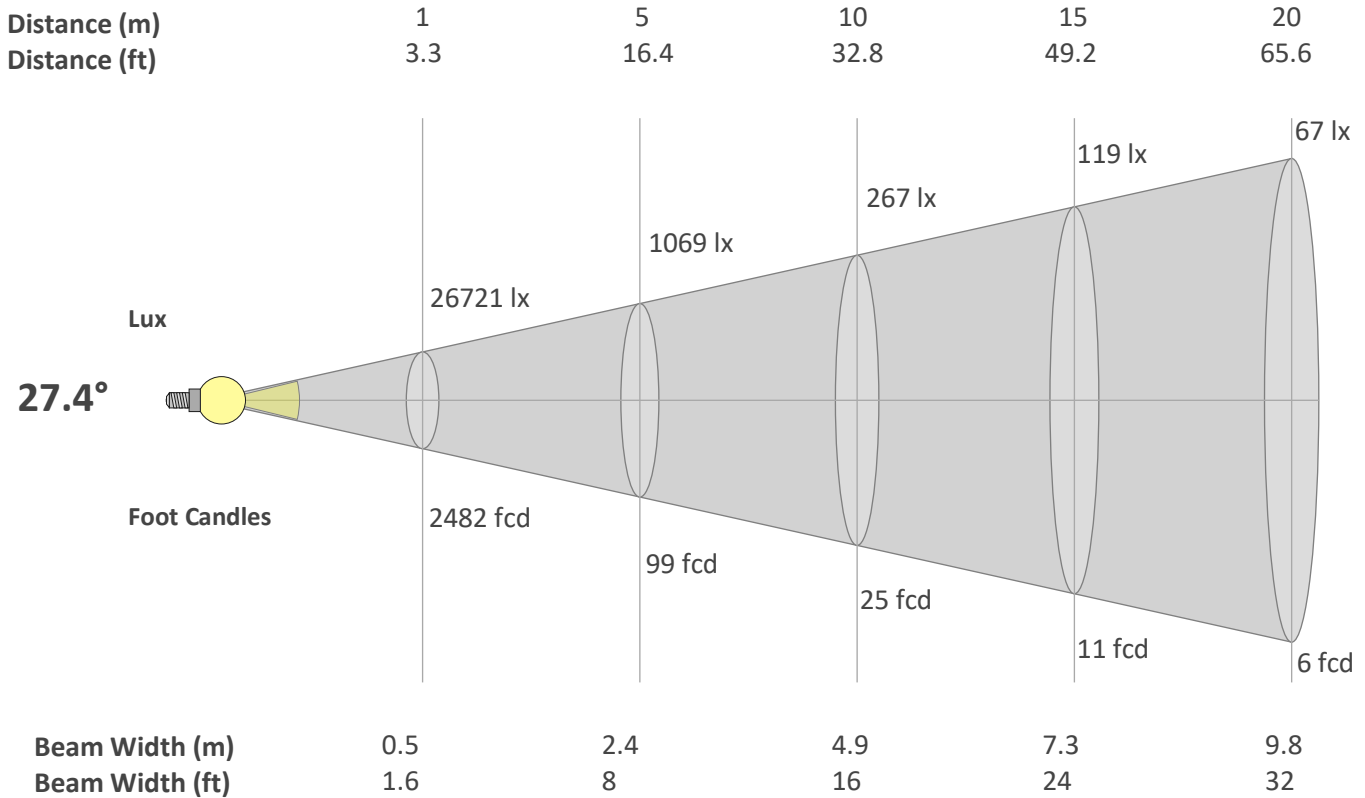
Dominant Wavelength 564 nm



\*Total Lumen measurements by calibrated Everfine 2π Integrating Sphere and Viso Systems Lab Spion

### Beam Details

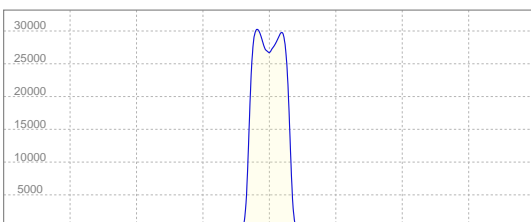
<b>Beam Angle 50%</b>	<b>Field Angle 10%</b>	<b>Cutoff Angle 2,5%</b>
<b>27.4°</b>	<b>32.5°</b>	<b>34.6°</b>



#### Beam Intensities from 1-20m

<b>M</b>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<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>LX</b>	26721	6680	2969	1670	1069	742	545	418	330	267	221	186	158	136	119	104	92	82	74	67
<b>FC</b>	2482.5	620.6	275.8	155.2	99.3	69	50.7	38.8	30.6	24.8	20.5	17.2	14.7	12.7	11	9.7	8.6	7.7	6.9	6.2

#### Linear Distribution



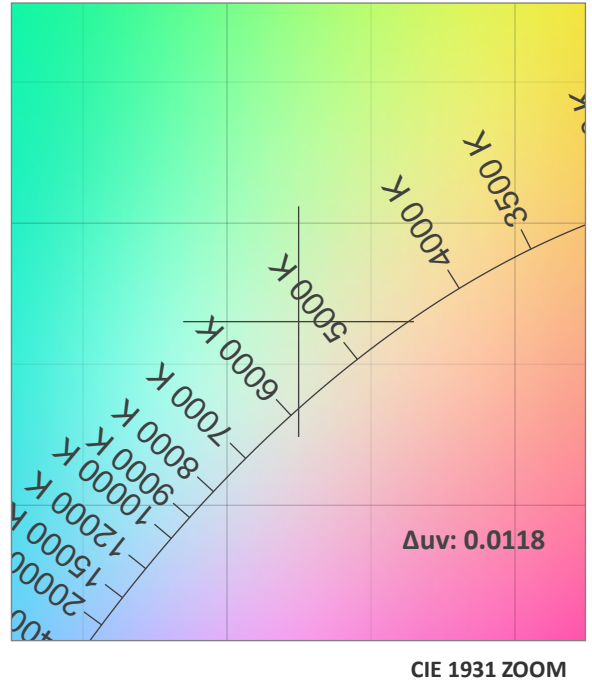
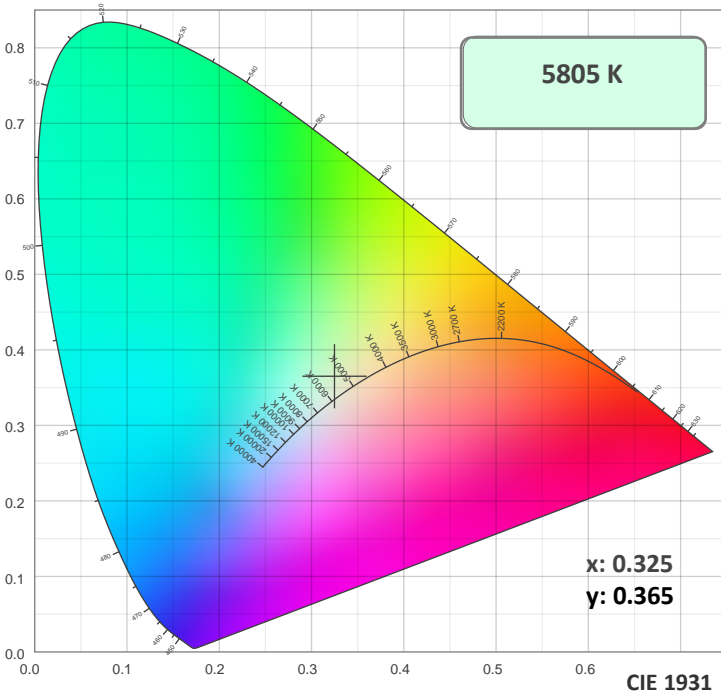
**Peak Candela**  
**30173 cd**

#### Calculate Center Beam Intensities

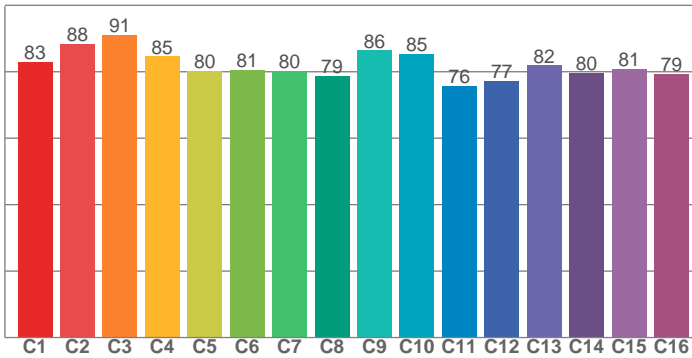
$$\text{lux} = 30173 / \text{distance(m)}^2$$

$$\text{fc} = 30173 / \text{distance(ft)}^2$$

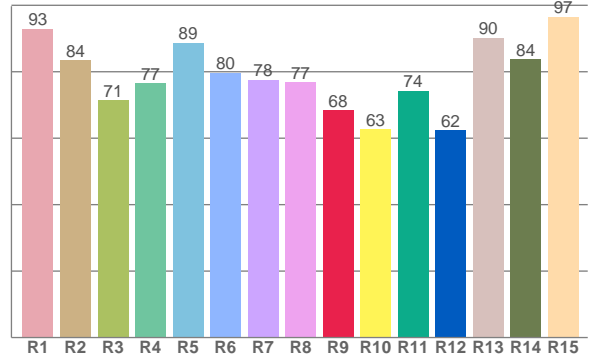
### Color Details



TM30: 82.4



CRI: 80.9 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92.9	83.5	71.4	76.6	88.8	79.7	77.6	76.8	68.4	62.6	74.3	62.3	90.2	83.7	96.5

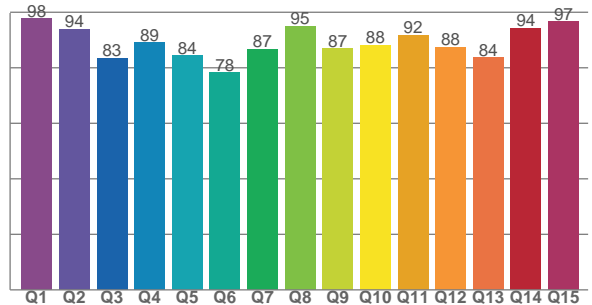
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
82.9	88.5	91.1	84.6	80.3	80.6	80.2	78.7	86.5	85.4	75.7	77.3	82.0	79.7	81.0	79.4

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97.7	93.9	83.4	89.0	84.5	78.3	86.8	95.1	86.9	88.2	91.7	87.5	83.7	94.3	96.6

CQS: 87.9



### Color Parameters

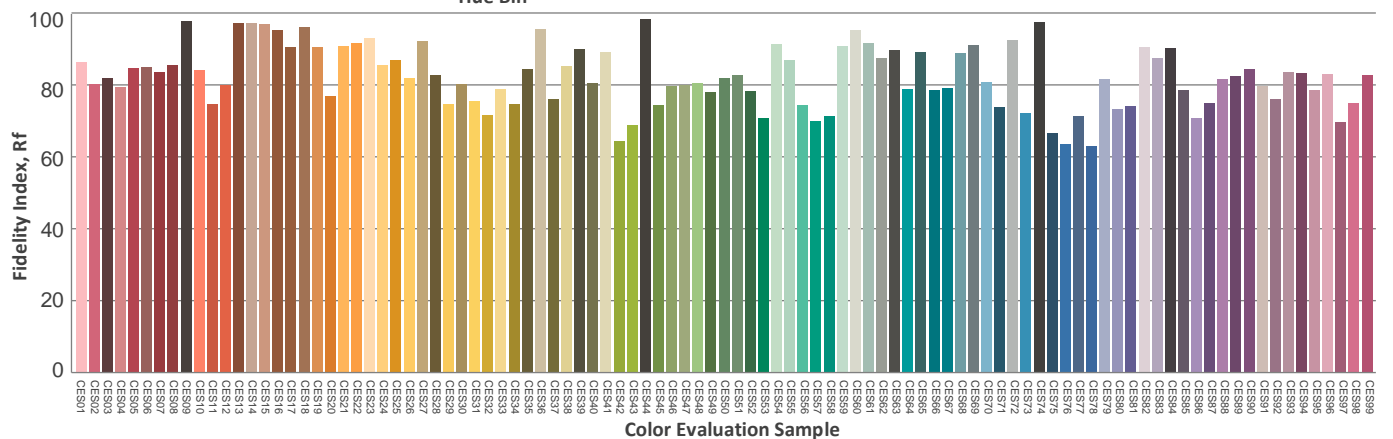
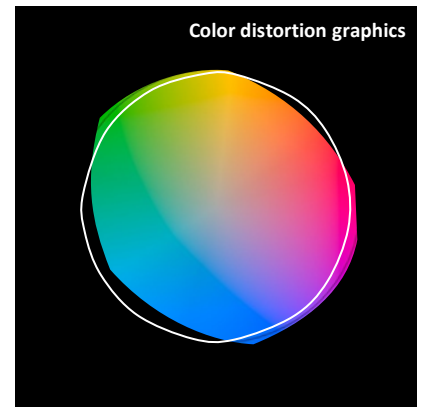
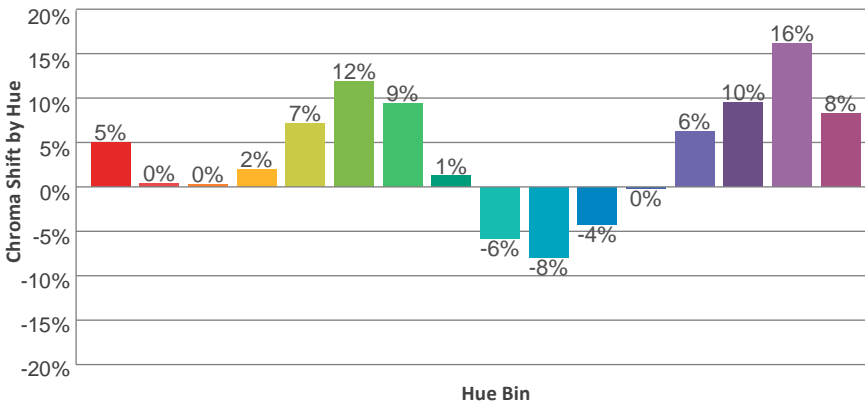
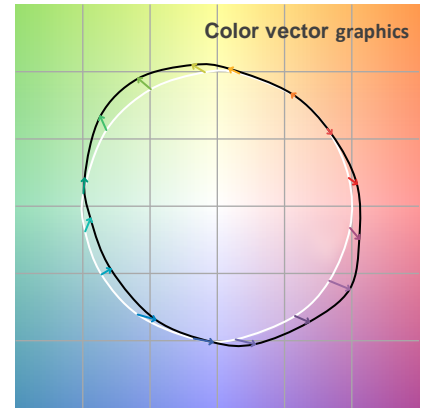
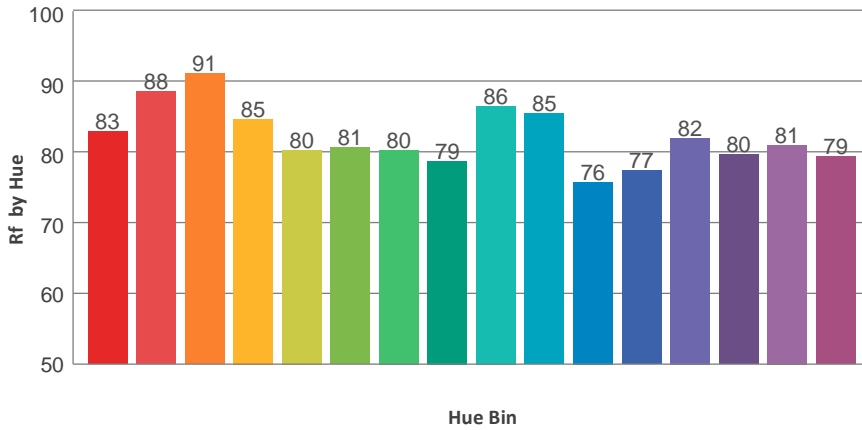
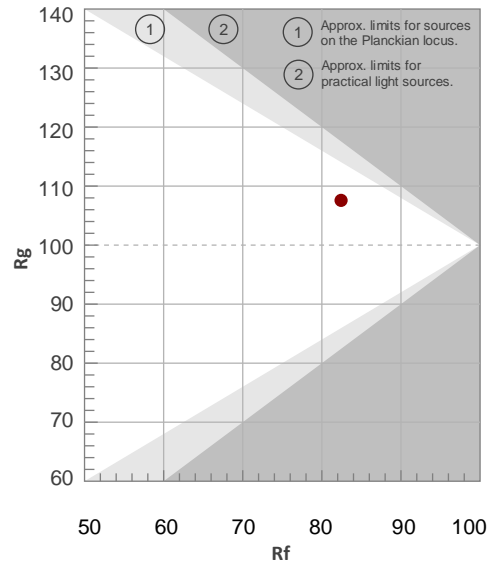
Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Diviation from Black
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
5805 K	80.9	68.4	82.4	107.6	87.9	0.325	0.365	0.193	0.325	0.0118

TM30 Details

**Rf 82.4**  
Fidelity Index Rf

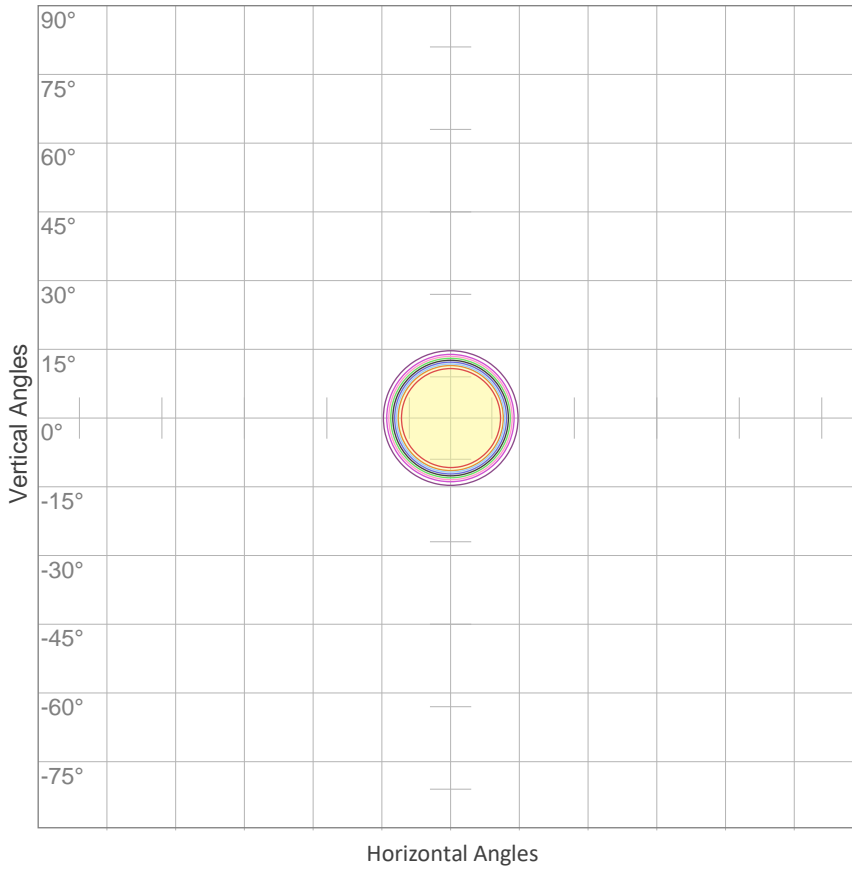
**Rg 107.6**  
Gamut Index Rg

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	83	5%	-5%
2	88	0%	-5%
3	91	0%	3%
4	85	2%	8%
5	80	7%	8%
6	81	12%	3%
7	80	9%	-6%
8	79	1%	-11%
9	86	-6%	-9%
10	85	-8%	0%
11	76	-4%	13%
12	77	0%	14%
13	82	6%	13%
14	80	10%	6%
15	81	16%	3%
16	79	8%	-7%



### ISO Diagrams

ISO Candela Diagram



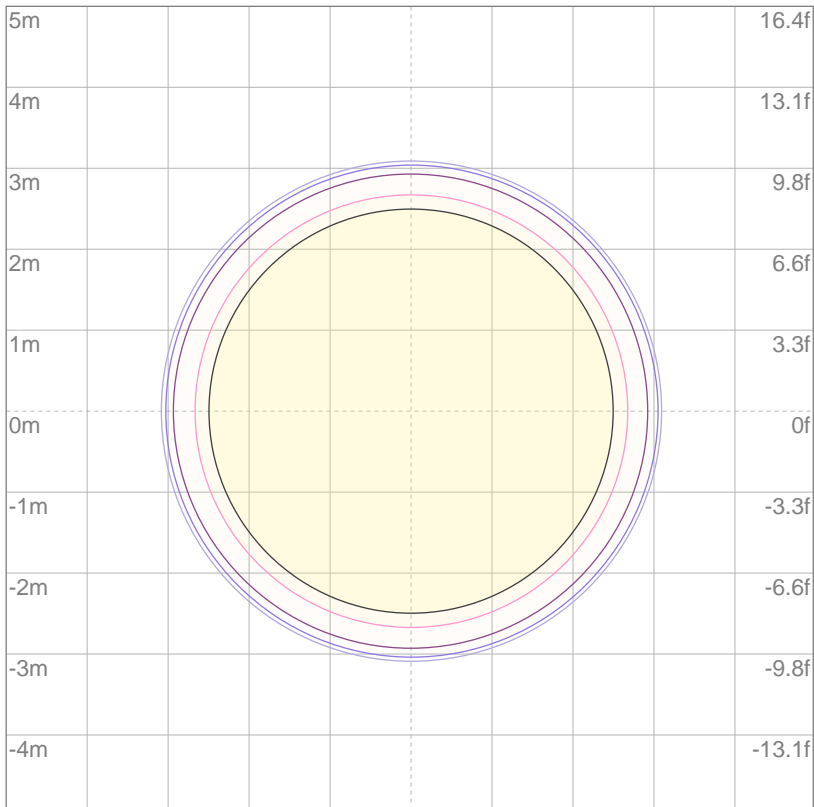
10%	2672 cd
20%	5344 cd
30%	8016 cd
40%	10688 cd
50%	13360 cd
60%	16033 cd
70%	18705 cd
80%	21377 cd
90%	24049 cd

Conditions:

Number of c-planes: 2

Candela at center: 26721 cd

ISO Lux Diagram



3%	8.02 lx
5%	13.4 lx
10%	26.7 lx
30%	80.2 lx
50%	134 lx

Conditions:

Number of c-planes: 2

Lux at center: 267 lx

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

Mounting Height: 10 meters (33 feet)