



PROTEUS RAYZOR BLADE S

Photometric Test Report

©2022 **ELATION PROFESSIONAL** all rights reserved. Information, specifications, diagrams, images, and instructions herein are subject to change without notice. ELATION PROFESSIONAL logo and identifying product names and numbers herein are trademarks of ELATION PROFESSIONAL. Copyright protection claimed includes all forms and matters of copyrightable materials and information now allowed by statutory or judicial law or hereinafter granted. Product names used in this document may be trademarks or registered trademarks of their respective companies and are hereby acknowledged. All non-ELATION brands and product names are trademarks or registered trademarks of their respective companies.

Elation Professional USA | 6122 S. Eastern Ave. | Los Angeles, CA. 90040

323-582-3322 | 323-832-9142 fax | www.elationlighting.com | info@elationlighting.com

Elation Professional B.V. | Junostraat 2 | 6468 EW Kerkrade, The Netherlands

+31 45 546 85 66 | +31 45 546 85 96 fax | www.elationlighting.eu | info@elationlighting.eu

Elation Professional Mexico | AV Santa Ana 30 | Parque Industrial Lerma, Lerma, Mexico 52000

+52 (728) 282-7070

CONTENTS

Testing Process	4
Zoom In	5
Zoom 50%	6
Zoom Out	7
High CRI	8

Testing Process

Total Lumen Measurements

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

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

Test Lab Equipment and Process

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

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

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

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

[Asenstek Lighting Passport](#) | [Konica Minolta T-10](#) | [Sekonic C700T](#)

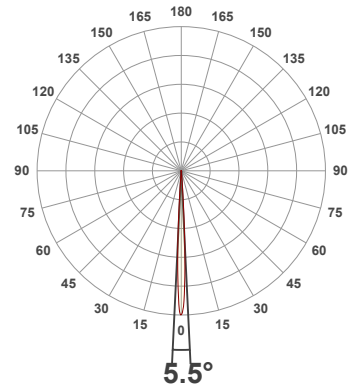
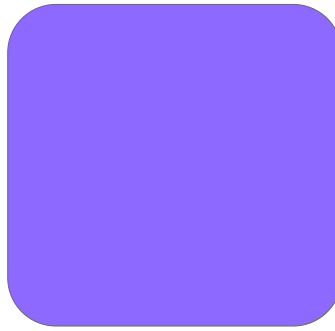
Total Lumen Output: 2621 lm

Voltage: 116 V, Current: 4.21 A

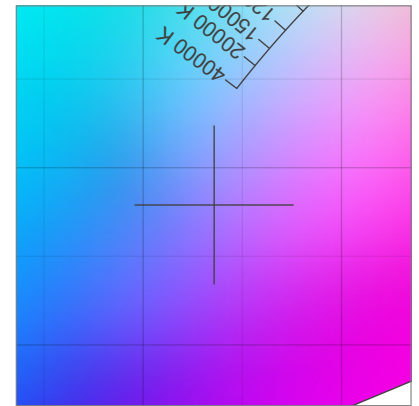
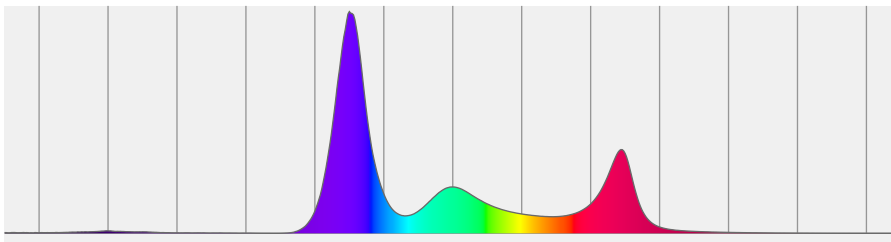
Power: 489 W

Efficacy: 5 Lumen/Watt

Measurement Date: 9/22/2022

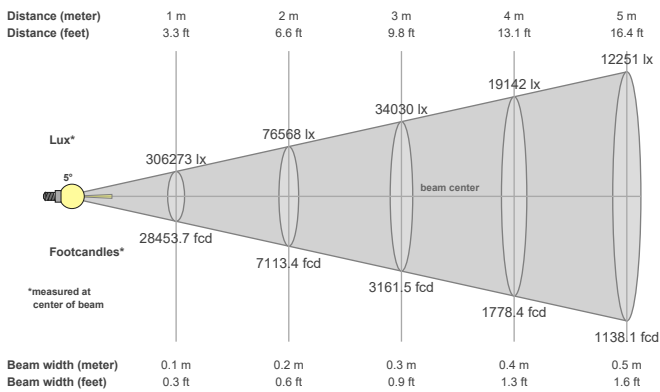


Spectral distribution



Dominant Wavelength	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate
nm	x	y	u	v
452	0.236	0.179	0.202	0.230

Beam details



Beam angles

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%
5.5°	8.7°	9.9°

Beam intensities

Peak intensity	Int. ratio in 120° cone	Int. ratio in 90° cone
308088 cd	100.0%	100.0%

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	306273	76568	34030	19142	12251	8508	6250	4786	3781	3063	2531	2127	1812	1563	1361	1196	1060	945	848	766
FC	28453.7	7113.4	3161.5	1778.4	1138.1	790.4	580.7	444.6	351.3	284.5	235.2	197.6	168.4	145.2	126.5	111.1	98.5	87.8	78.8	71.1

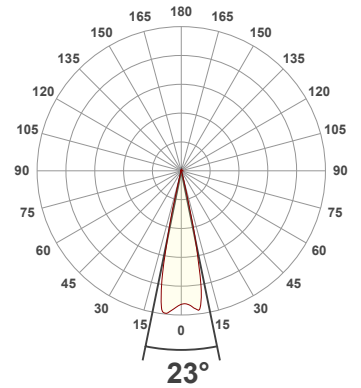
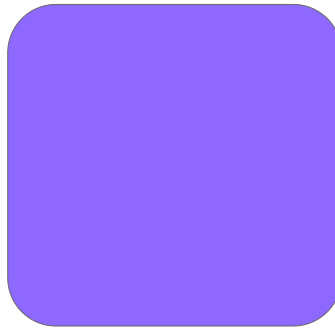
Total Lumen Output: 4034 lm

Voltage: 116 V, Current: 4.21 A

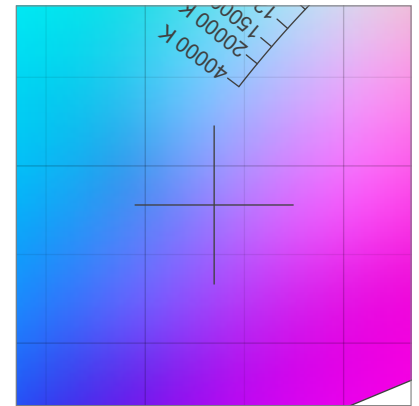
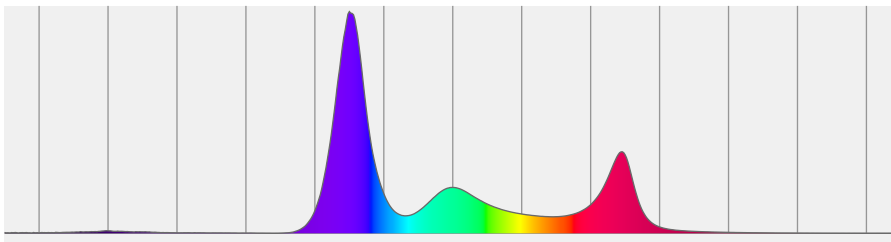
Power: 490 W

Efficacy: 8 Lumen/Watt

Measurement Date: 9/22/2022

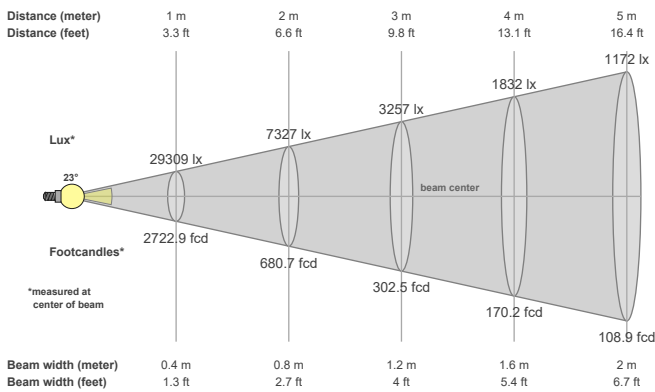


Spectral distribution



Dominant Wavelength	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate
nm	x	y	u	v
453	0.235	0.178	0.201	0.229

Beam details



Beam angles

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%
23°	28.1°	30.9°

Beam intensities

Peak intensity	Int. ratio in 120° cone	Int. ratio in 90° cone
31420 cd	100.0%	99.9%

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	29309	7327	3257	1832	1172	814	598	458	362	293	242	204	173	150	130	114	101	90	81	73
FC	2722.9	680.7	302.5	170.2	108.9	75.6	55.6	42.5	33.6	27.2	22.5	18.9	16.1	13.9	12.1	10.6	9.4	8.4	7.5	6.8

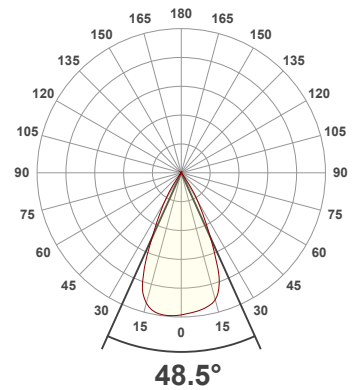
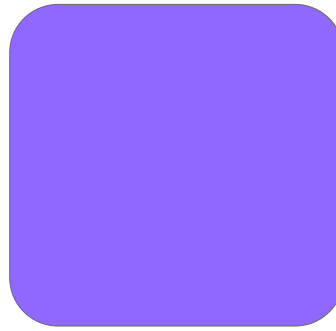
Total Lumen Output: 4856 lm

Voltage: 116 V, Current: 4.17 A

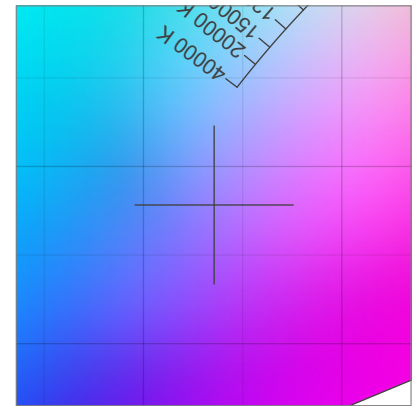
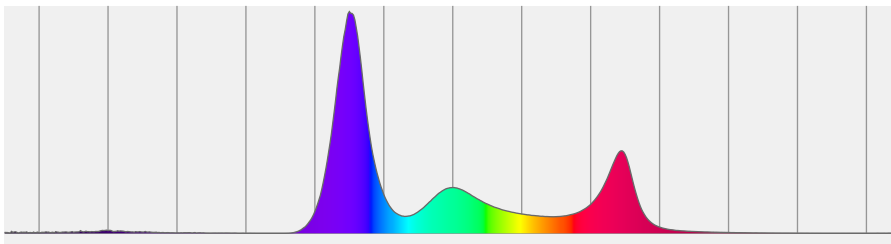
Power: 486 W

Efficacy: 10 Lumen/Watt

Measurement Date: 9/22/2022

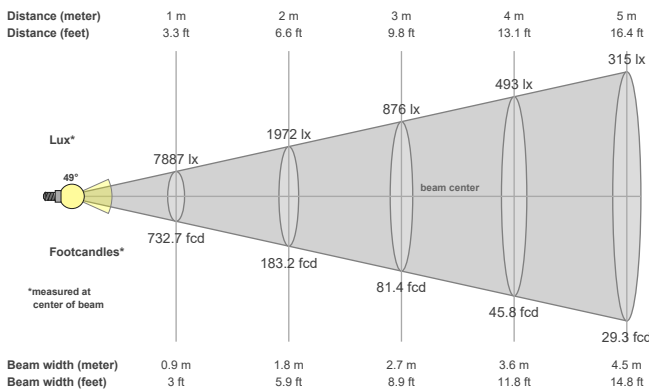


Spectral distribution



Dominant Wavelength	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate
nm	x	y	u	v
452	0.236	0.178	0.202	0.229

Beam details



Beam angles

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%
48.5°	67.8°	73.4°

Beam intensities

Peak intensity	Int. ratio in 120° cone	Int. ratio in 90° cone
7957 cd	99.9%	99.9%

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	7887	1972	876	493	315	219	161	123	97	79	65	55	47	40	35	31	27	24	22	20
FC	732.7	183.2	81.4	45.8	29.3	20.4	15	11.4	9	7.3	6.1	5.1	4.3	3.7	3.3	2.9	2.5	2.3	2	1.8

Photometric Report

Total Lumen Output*

Integrating Sphere CRI Zoom 50

VISO Lab Spion 3345 lm

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2.5%
22.4°	27.4°	30.4°

Color Temperature: 5918 K

CRI: 82.8

TLCI: 82

TM30: 85.3

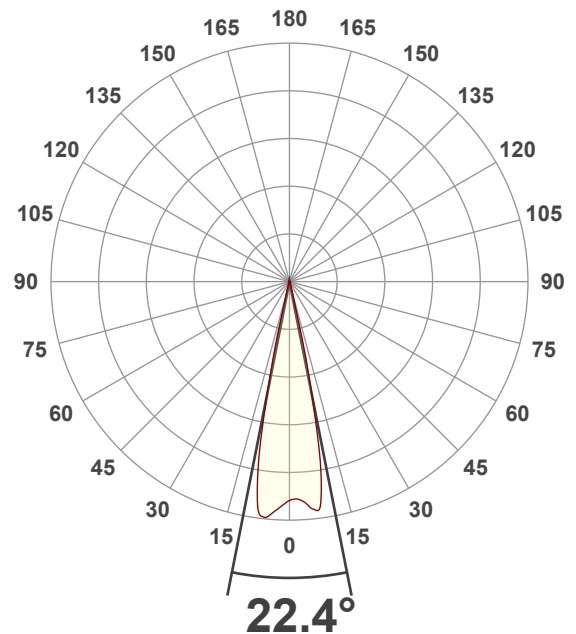
CQS: 89.0

Voltage: 118 V, Current: 2.51 A

Power: 297 W

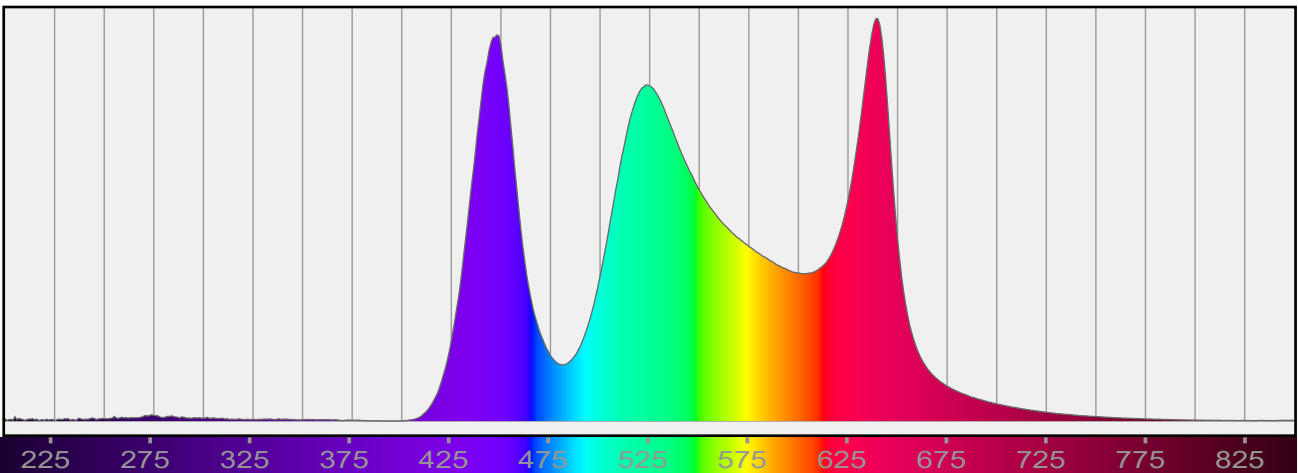
Efficacy: 11 Lumen/Watt

Measurement Date: 9/22/2022



Spectral Distribution

Dominant Wavelength 566 nm

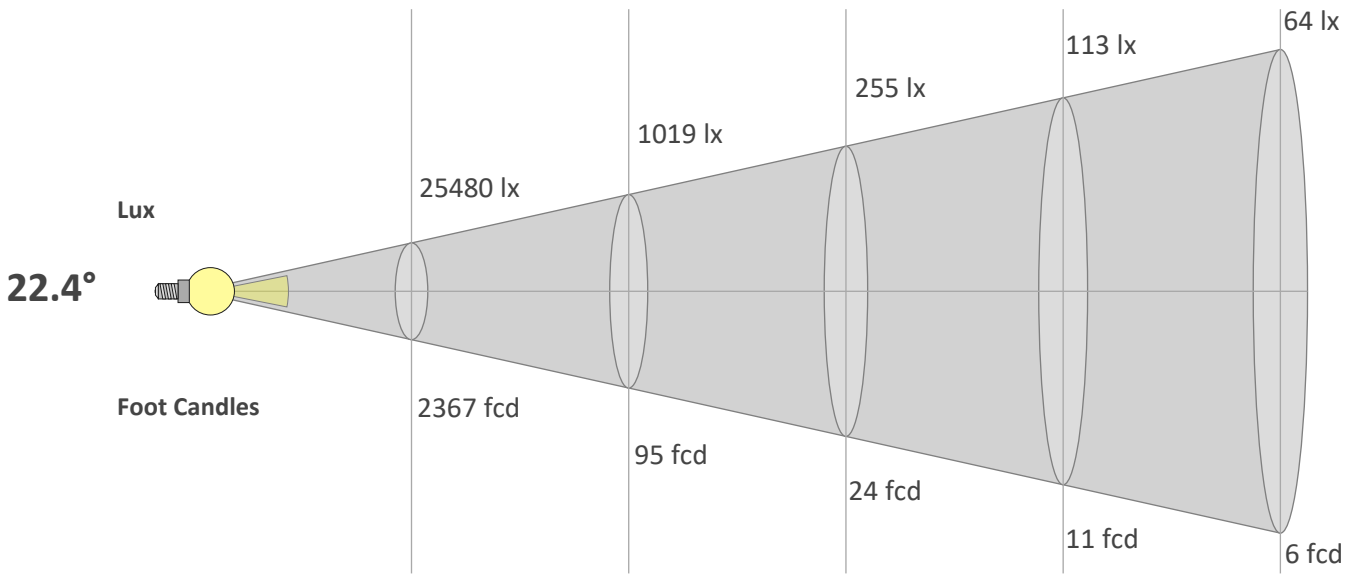


*Total Lumen measurements by calibrated Everfine 2π Integrating Sphere and Viso Systems Lab Spion

Beam Details

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%
22.4°	27.4°	30.4°

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

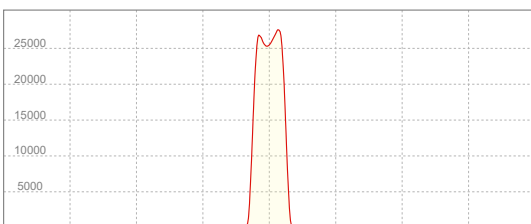


Beam Width (m)	0.4	2	4	5.9	7.9
Beam Width (ft)	1.3	6.5	13	19.5	26

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	25480	6370	2831	1593	1019	708	520	398	315	255	211	177	151	130	113	100	88	79	71	64
FC	2367.2	591.8	263	147.9	94.7	65.8	48.3	37	29.2	23.7	19.6	16.4	14	12.1	10.5	9.2	8.2	7.3	6.6	5.9

Linear Distribution



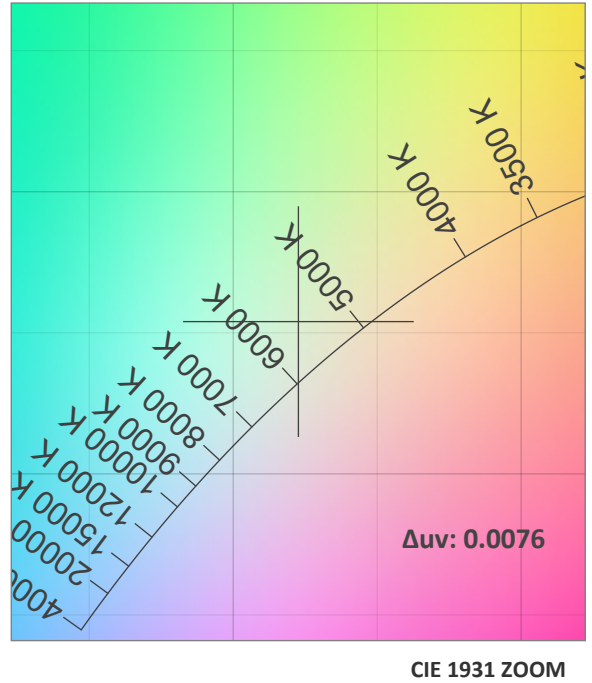
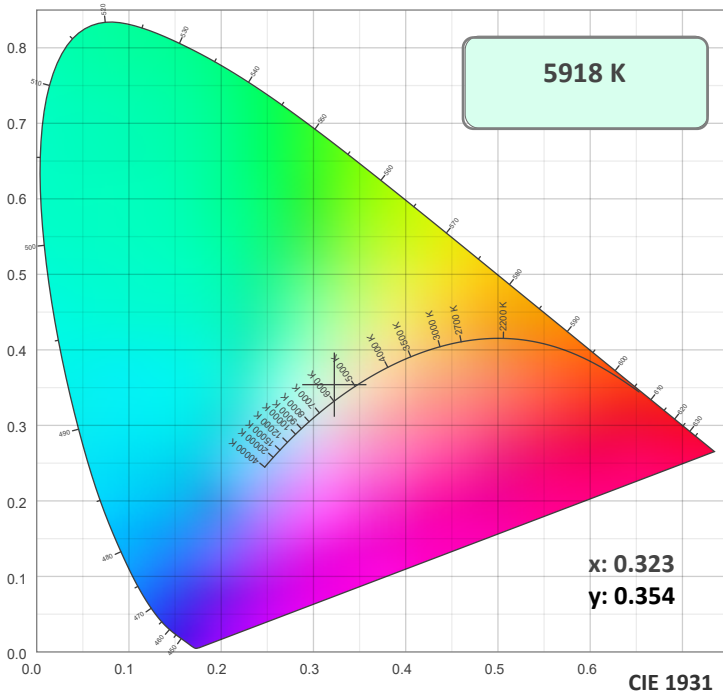
Peak Candela
27582 cd

Calculate Center Beam Intensities

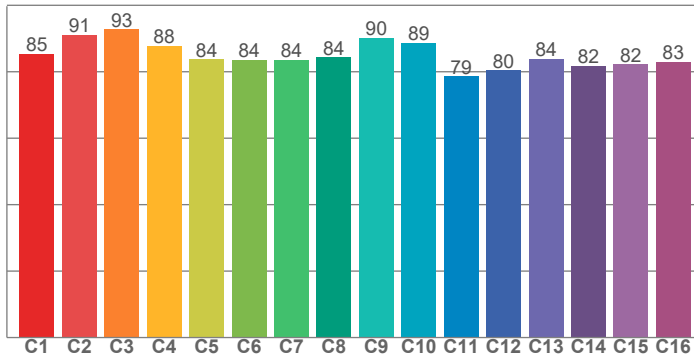
$lux = 27582 / distance(m)^2$

$fc = 27582 / distance(ft)^2$

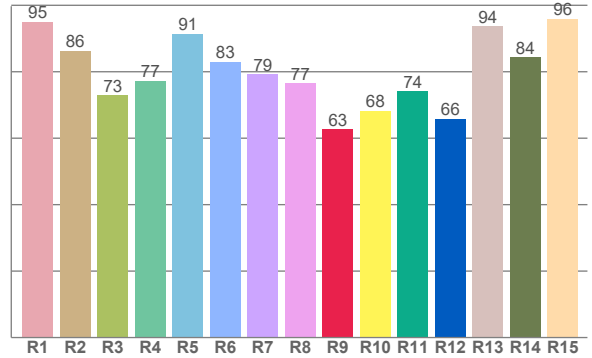
Color Details



TM30: 85.3



CRI: 82.8 (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
95.1	86.3	72.9	77.3	91.5	83.1	79.3	76.6	62.8	68.2	74.2	65.9	93.8	84.4	95.9

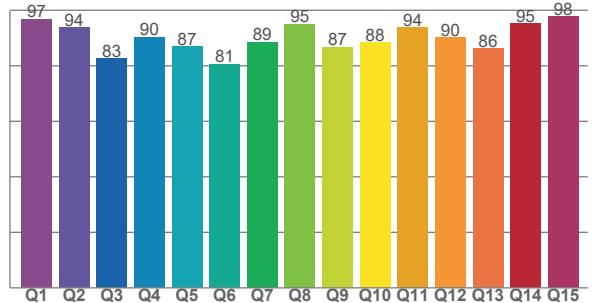
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
85.5	91.2	92.7	87.8	83.7	83.6	83.6	84.4	90.3	88.8	78.6	80.4	83.9	81.8	82.3	83.0

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96.7	93.8	82.6	90.2	86.9	80.7	88.5	94.9	86.8	88.4	93.8	90.1	86.1	95.3	97.7

CQS: 89.0



Color Parameters

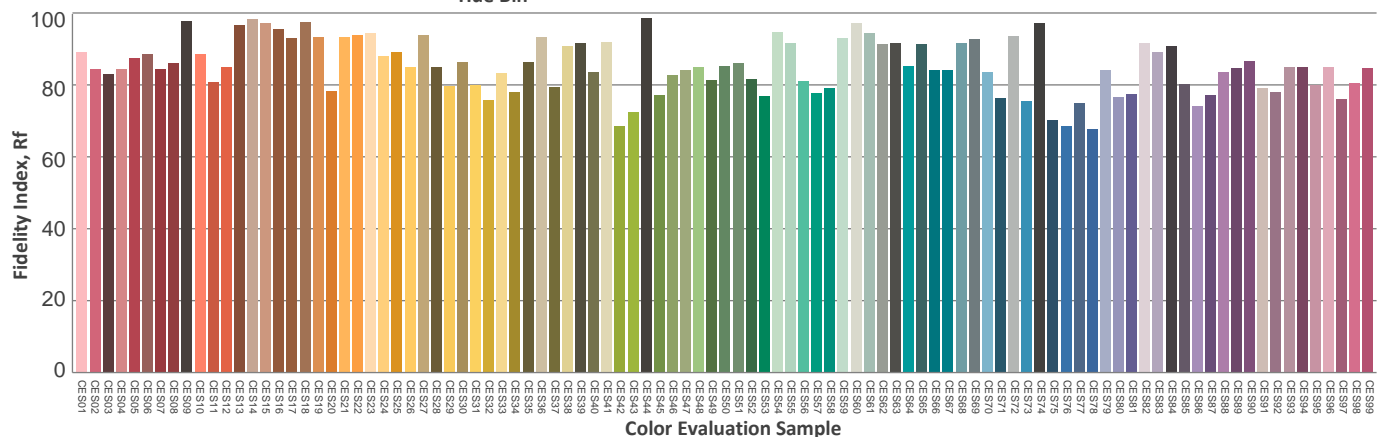
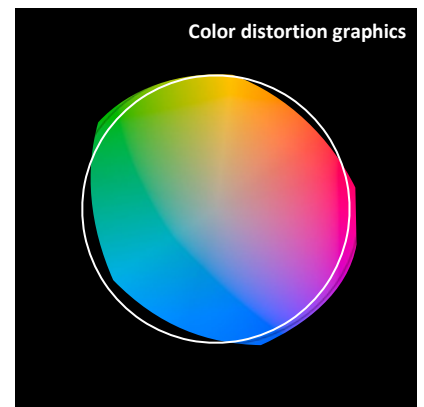
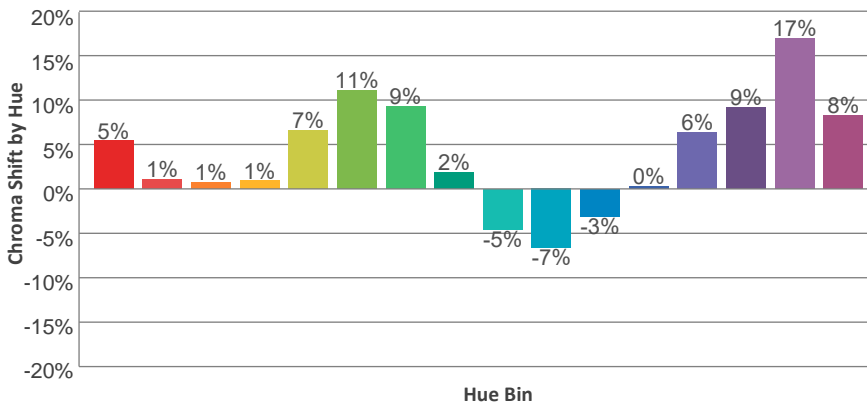
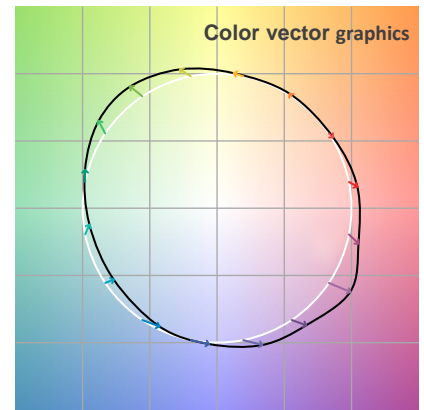
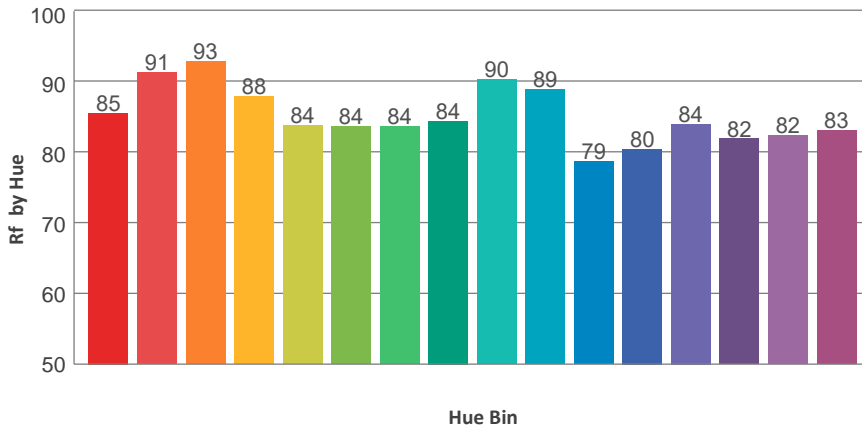
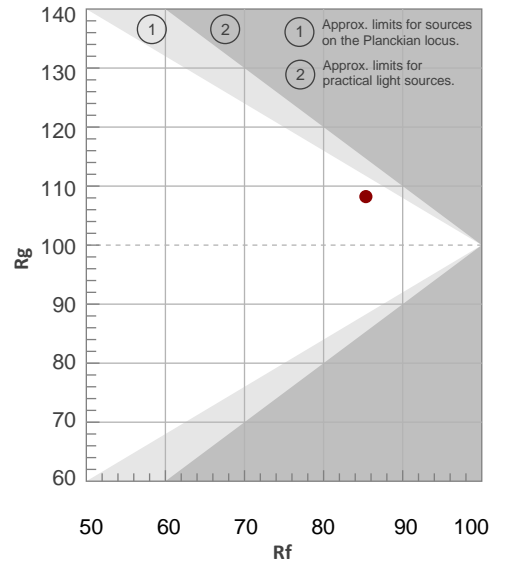
Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Diviation from Black
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
5918 K	82.8	62.8	85.3	108.2	89.0	0.323	0.354	0.195	0.322	0.0076

TM30 Details

Rf 85.3
Fidelity Index Rf

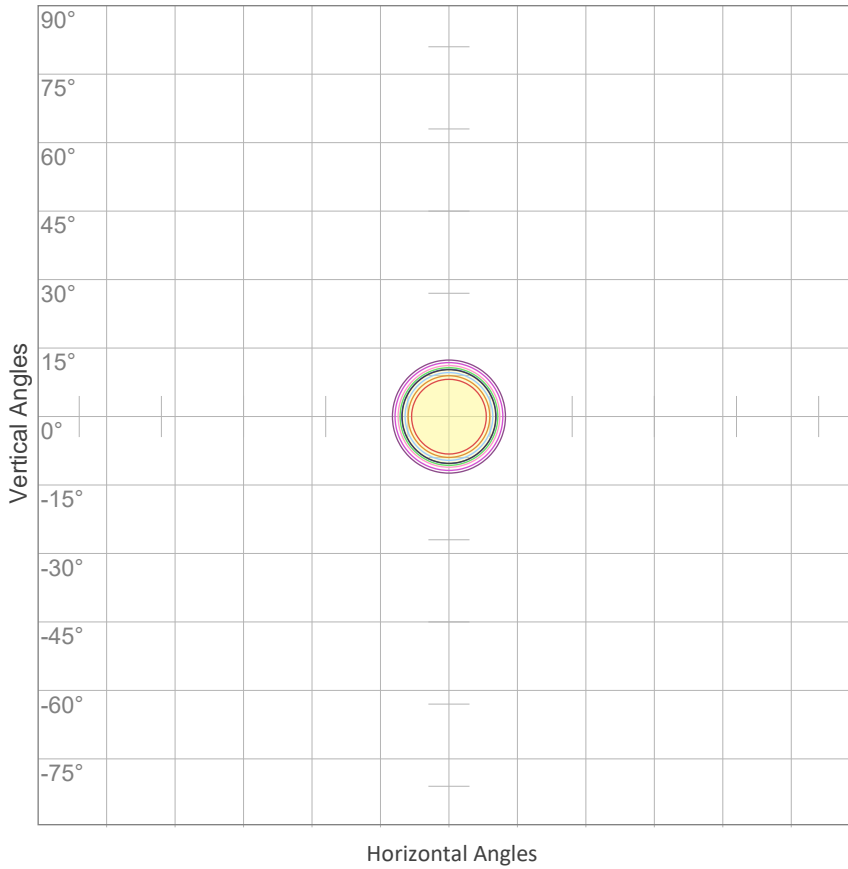
Rg 108.2
Gamut Index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	85	5%	-5%
2	91	1%	-4%
3	93	1%	2%
4	88	1%	7%
5	84	7%	7%
6	84	11%	3%
7	84	9%	-5%
8	84	2%	-9%
9	90	-5%	-6%
10	89	-7%	1%
11	79	-3%	13%
12	80	0%	14%
13	84	6%	13%
14	82	9%	7%
15	82	17%	3%
16	83	8%	-5%



ISO Diagrams

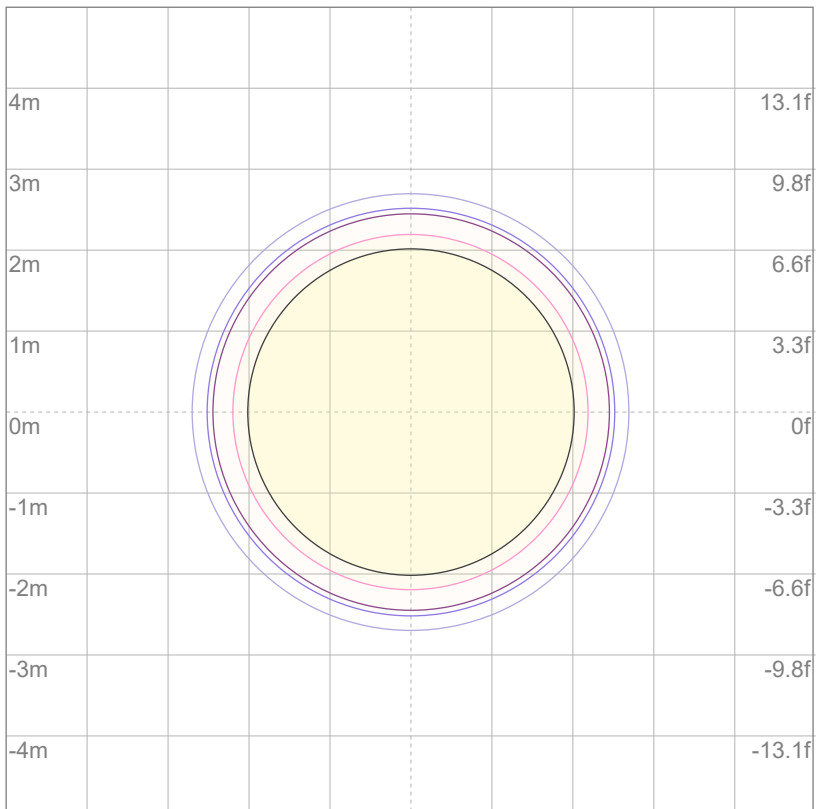
ISO Candela Diagram



10%	2548 cd
20%	5096 cd
30%	7644 cd
40%	10192 cd
50%	12740 cd
60%	15288 cd
70%	17836 cd
80%	20384 cd
90%	22932 cd

Conditions:
 Number of c-planes: 2
 Candela at center: 25480 cd

ISO Lux Diagram



3%	7.64 lx
5%	12.7 lx
10%	25.5 lx
30%	76.4 lx
50%	127 lx

Conditions:
 Number of c-planes: 2
 Lux at center: 255 lx

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

Mounting Height: 10 meters (33 feet)