ELATION PROFESSIONAL

ARTISTE™ MONET

Photometric Test Report

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C O N T E N T S

TESTING PROCESS

Total Lumen Measurements

Lumens are measured using a Viso Systems Lab Spion and a 2π 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 2π 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 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.

Fixtures are also analyzed using an 2π 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

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Photometric Report

Total Lumen Output*

Integrating Sphere	**23545 lm**
VISO Lab Spion	**21095 lm**

Color Temperature: 6924 K

CRI: 72.8

TLCI: 47

TM30: 68.2

CQS: 68.2

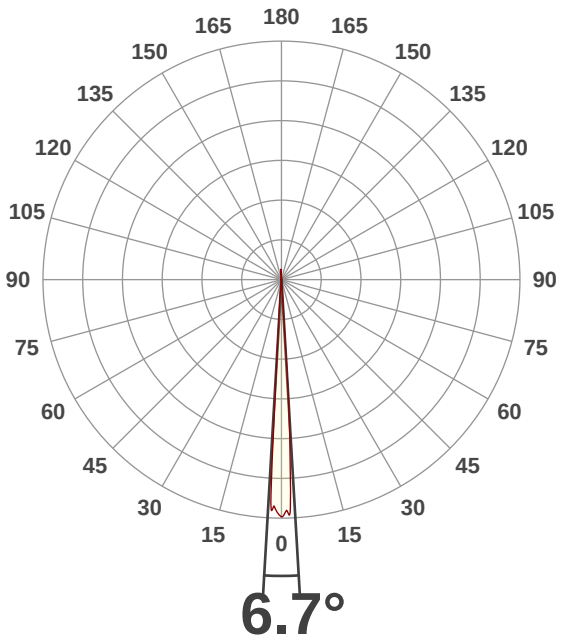
Voltage: 115 V, Current: 11.4 A

Power: 1307 W

Efficacy: 16 Lumen/Watt

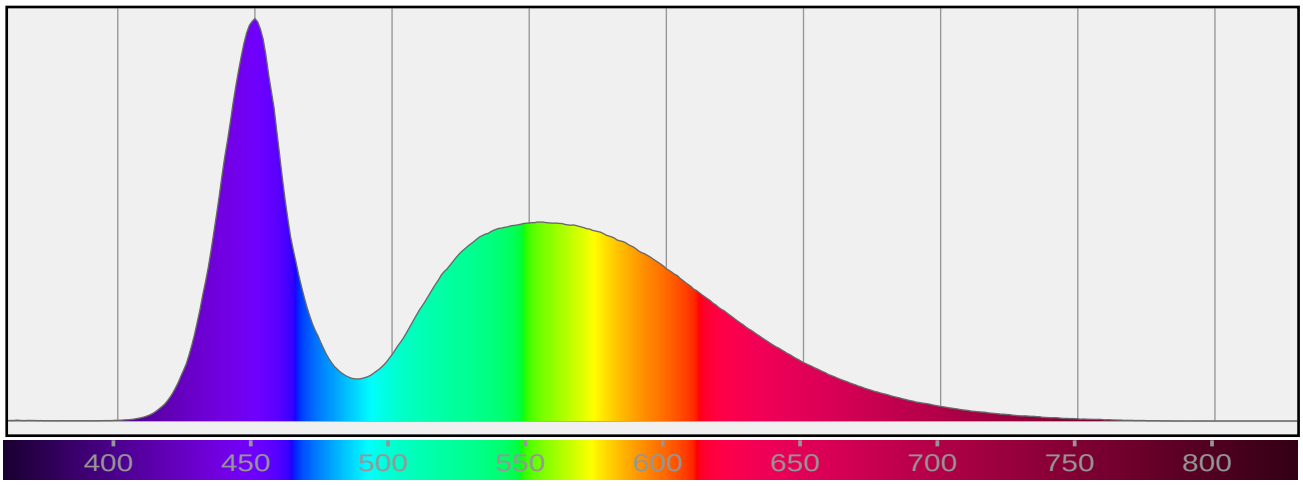
Measurement Date: 9/6/2019

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2.5%
6.7°	8.2°	8.9°



Spectral Distribution

Dominant Wavelength 360 nm



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

Artiste Monet (Zoom In)

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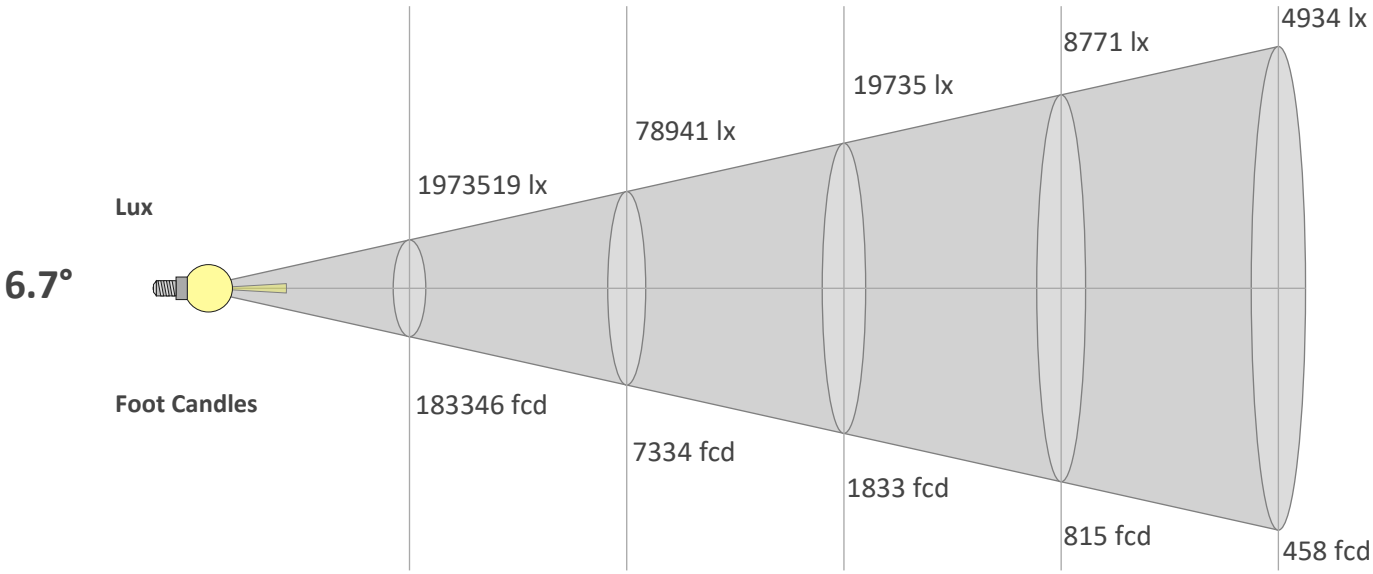
Beam Details

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%
6.7°	8.2°	8.9°

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

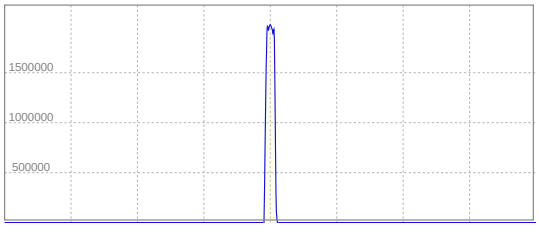


Beam Width (m)	0.1	0.6	1.2	1.8	2.3
Beam Width (ft)	0.4	1.9	3.8	5.7	7.7

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	1973519	493380	219280	123345	78941	54820	40276	30836	24364	19735	16310	13705	11678	10069	8771	7709	6829	6091	5467	4934
FC	183345.9	45836.5	20371.8	11459.1	7333.8	5092.9	3741.8	2864.8	2263.5	1833.5	1515.3	1273.2	1084.9	935.4	814.9	716.2	634.4	565.9	507.9	458.4

Linear Distribution



Peak Candela

1978966 cd

Calculate Center Beam Intensities

lux = 1978966 / distance(m)²

fc = 1978966 / distance(ft)²

Artiste Monet (Zoom In)

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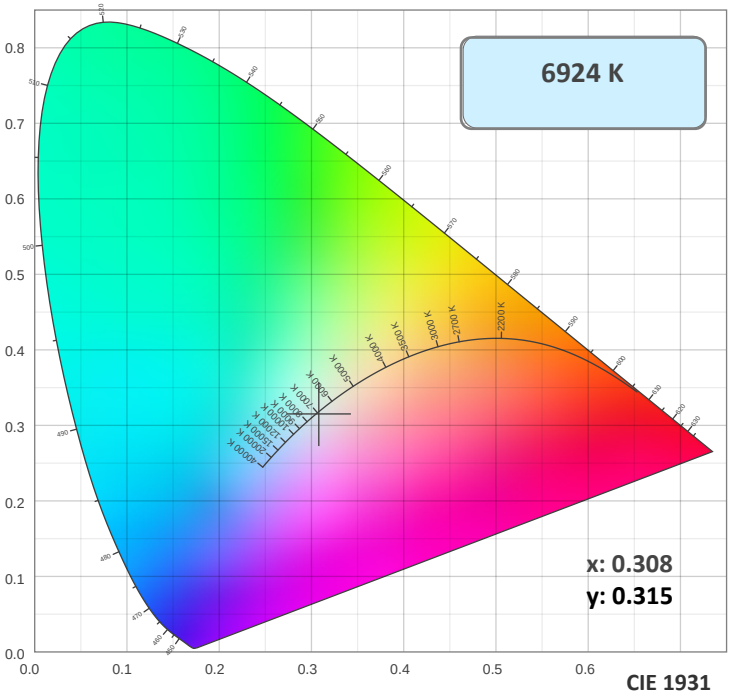
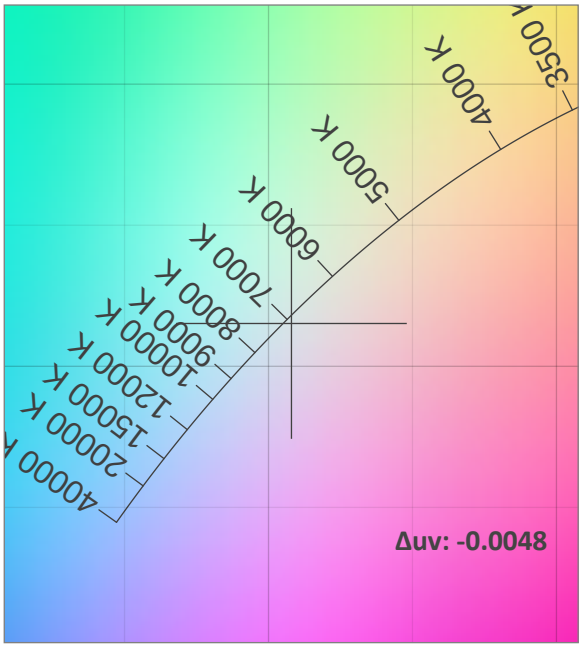
Color Details

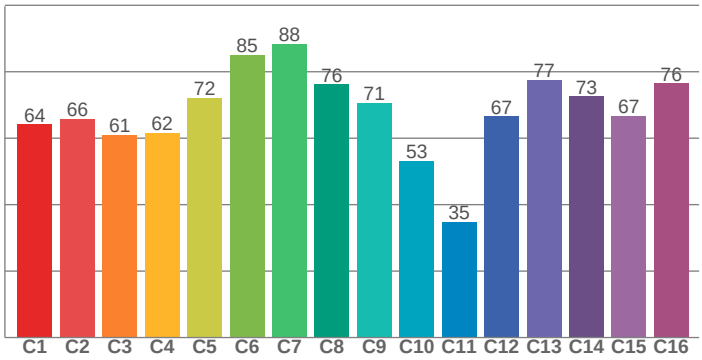


CIE 1931

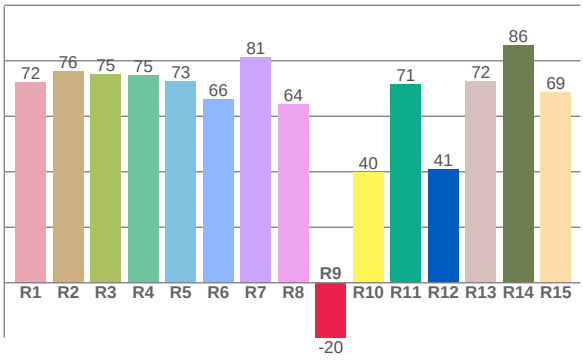


CIE 1931 ZOOM

TM30: 68.2



CRI: 72.8 (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
72.2	76.2	75.1	74.9	72.5	66.0	81.4	64.2	-19.7	39.7	71.4	40.8	72.5	85.7	68.7

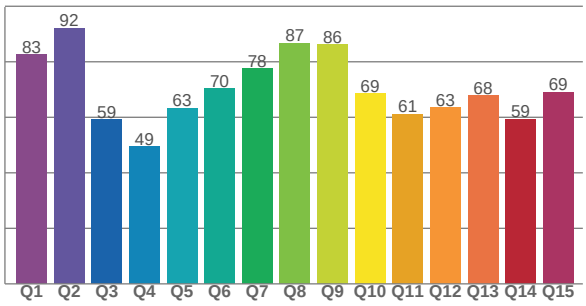
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
64.1	65.8	61.1	61.6	72.1	85.0	88.5	76.2	70.6	53.2	34.8	66.5	77.5	72.6	66.8	76.5

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82.5	92.1	59.1	49.5	63.3	70.3	77.6	86.6	86.3	68.6	61.2	63.4	67.8	59.3	69.2

CQS: 68.2



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 Deviation from Black
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
6924 K	72.8	-19.7	68.2	93.7	68.2	0.308	0.315	0.200	0.307	-0.0048

Artiste Monet (Zoom In)

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TM30 Details

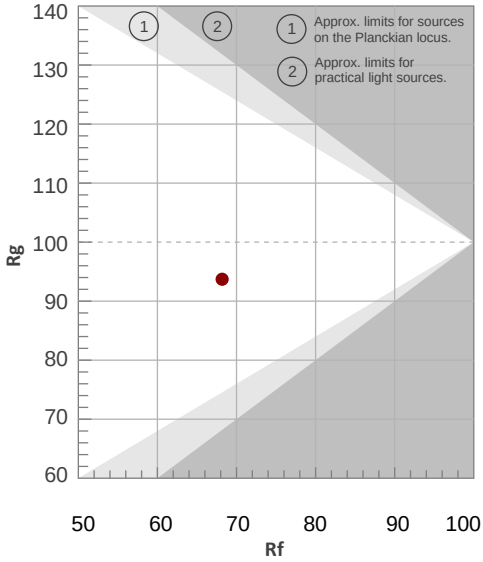
Rf 68.2

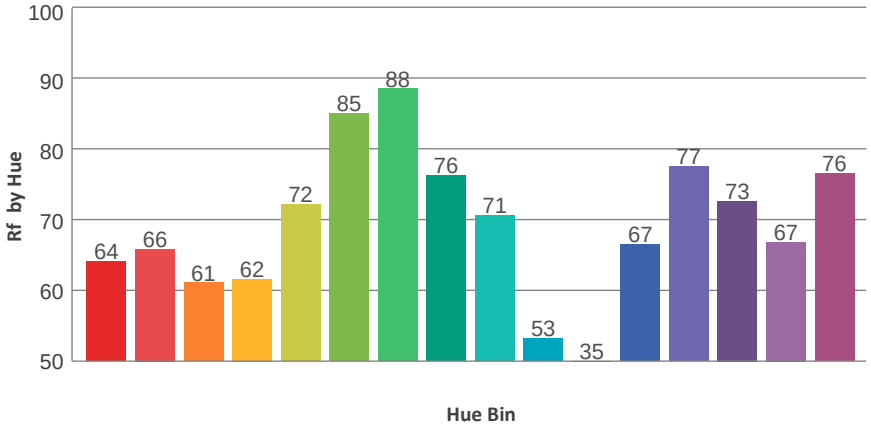
Fidelity Index Rf

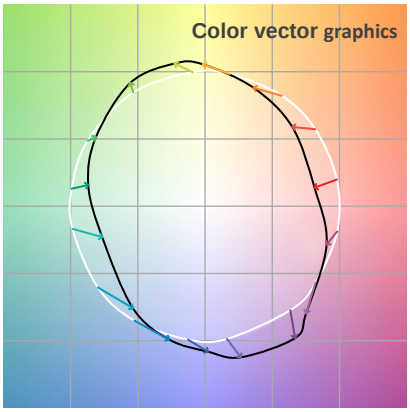
Rg 93.7

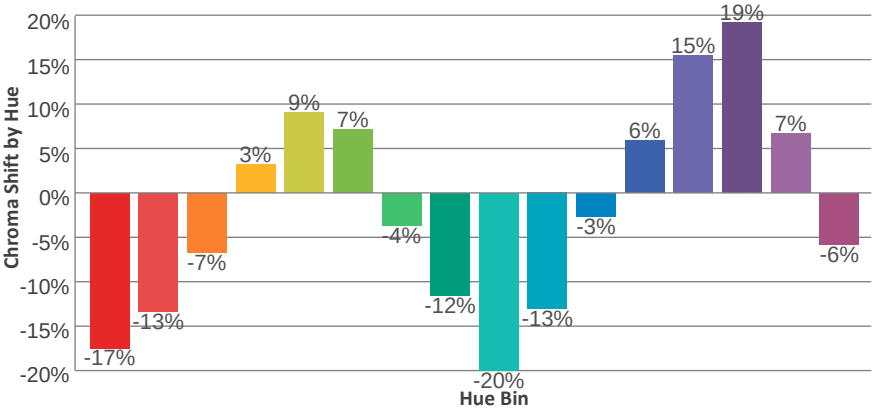
Gamut Index Rg

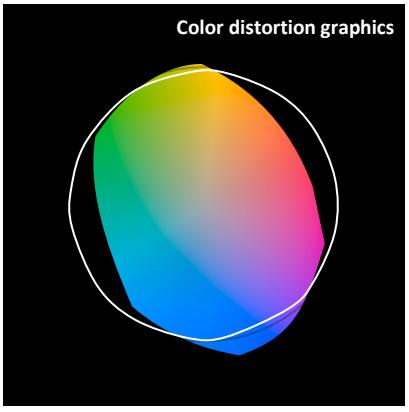
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	64	-17%	-3%
2	66	-13%	11%
3	61	-7%	21%
4	62	3%	21%
5	72	9%	12%
6	85	7%	-2%
7	88	-4%	-6%
8	76	-12%	-5%
9	71	-20%	10%
10	53	-13%	27%
11	35	-3%	29%
12	67	6%	16%
13	77	15%	7%
14	73	19%	-9%
15	67	7%	-22%
16	76	-6%	-11%

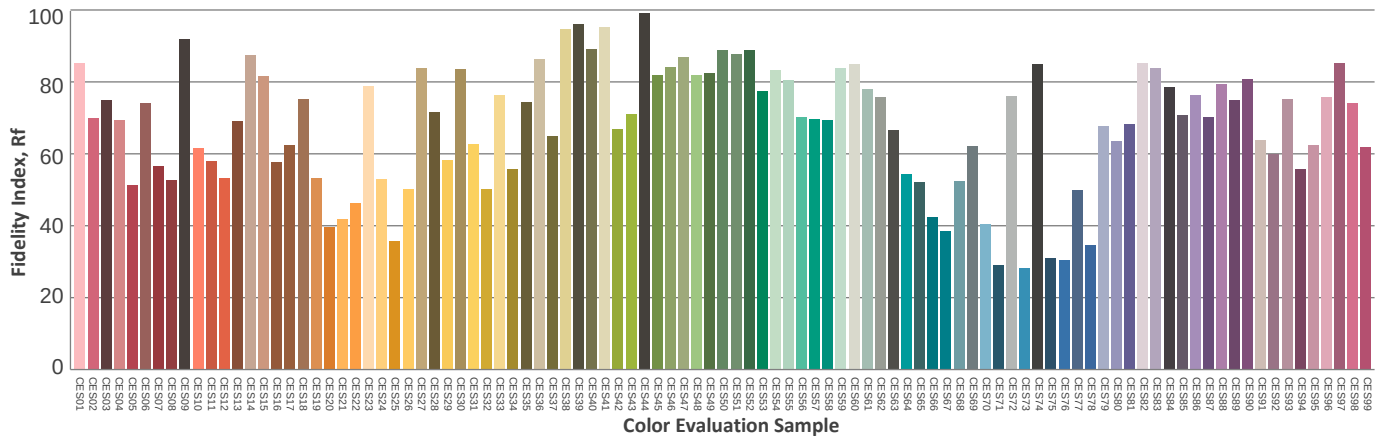












Artiste Monet (Zoom In)

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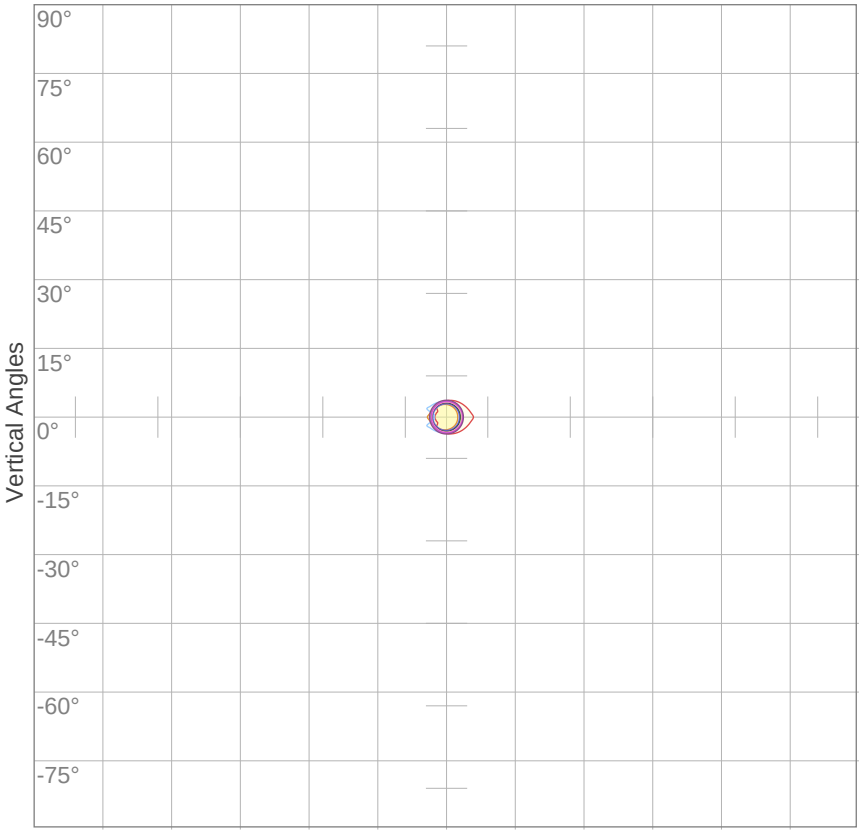
ISO Diagrams

ISO Candela Diagram



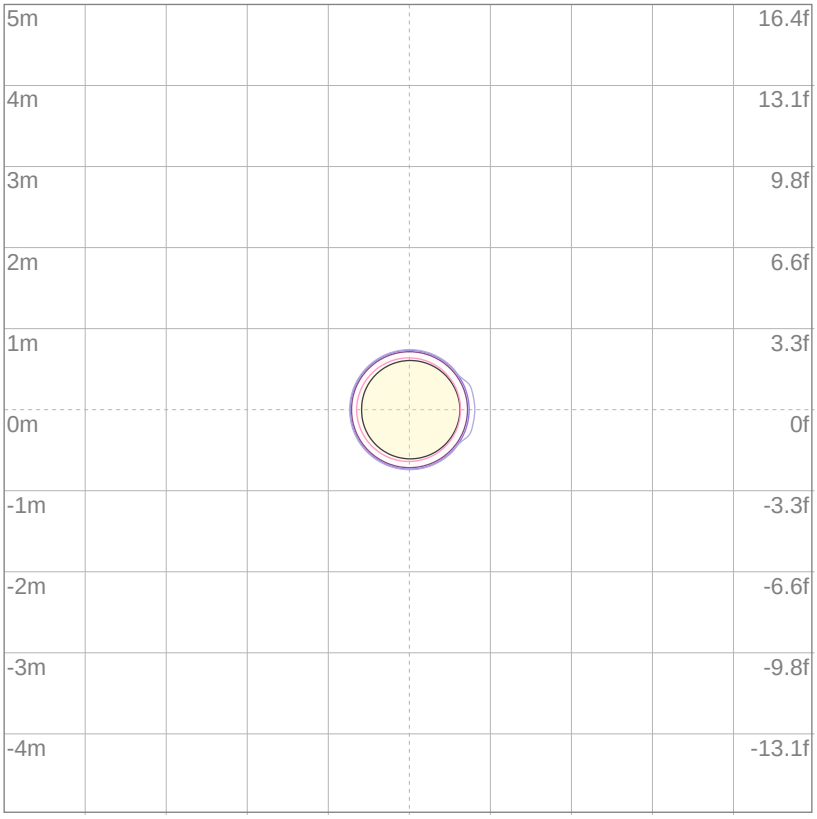
10%	197352 cd
20%	394704 cd
30%	592056 cd
40%	789407 cd
50%	986759 cd
60%	1184111 cd
70%	1381463 cd
80%	1578815 cd
90%	1776167 cd

Conditions:

Number of c-planes: 2

Candela at center: 1973519 cd

ISO Lux Diagram



Mounting Height: 10 meters (33 feet)

3%	592 lx
5%	987 lx
10%	1974 lx
30%	5921 lx
50%	9868 lx

Conditions:

Number of c-planes: 2

Lux at center: 19.7K lx

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

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Photometric Report

Total Lumen Output*

Integrating Sphere	**49915 lm**
VISO Lab Spion	**37733 lm**

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2.5%
19.3°	23°	23.6°

Color Temperature: 6979 K

CRI: 72.2

TLCI: 46

TM30: 67.8

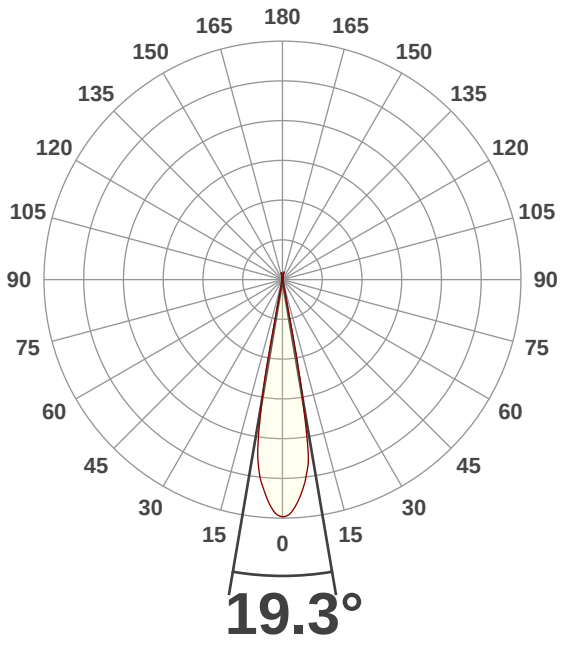
CQS: 67.9

Voltage: 115 V, Current: 11.3 A

Power: 1307.1 W

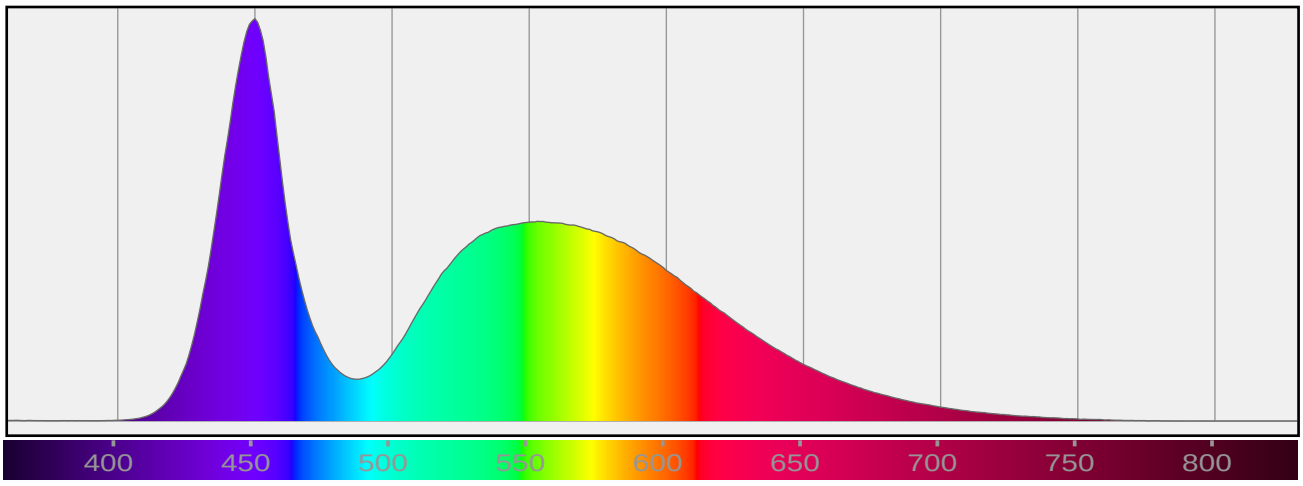
Efficacy: 29 Lumen/Watt

Measurement Date: 9/6/2019



Spectral Distribution

Dominant Wavelength 412 nm



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

Artiste Monet (Zoom 50)

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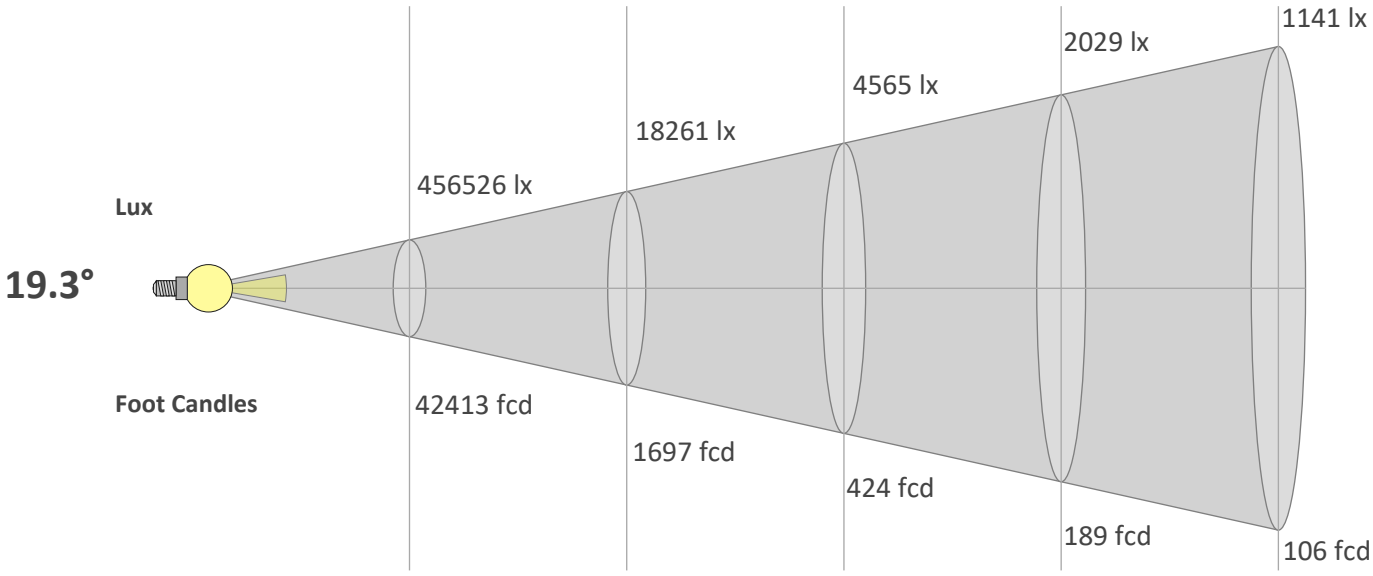
Beam Details

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%
19.3°	**23°**	**23.6°**

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

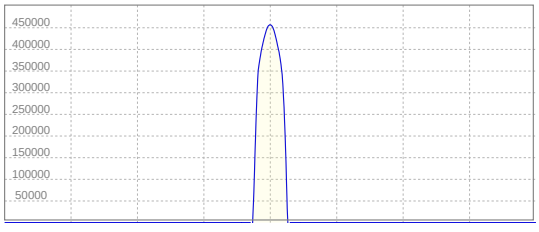


Beam Width (m)	0.3	1.7	3.4	5.1	6.8
Beam Width (ft)	1.1	5.6	11.1	16.7	22.3

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	456526	114131	50725	28533	18261	12681	9317	7133	5636	4565	3773	3170	2701	2329	2029	1783	1580	1409	1265	1141
FC	42412.6	10603.2	4712.5	2650.8	1696.5	1178.1	865.6	662.7	523.6	424.1	350.5	294.5	251	216.4	188.5	165.7	146.8	130.9	117.5	106

Linear Distribution



Peak Candela

456685 cd

Calculate Center Beam Intensities

lux = 456685 / distance(m)^2

fc = 456685 / distance(ft)^2

Artiste Monet (Zoom 50)

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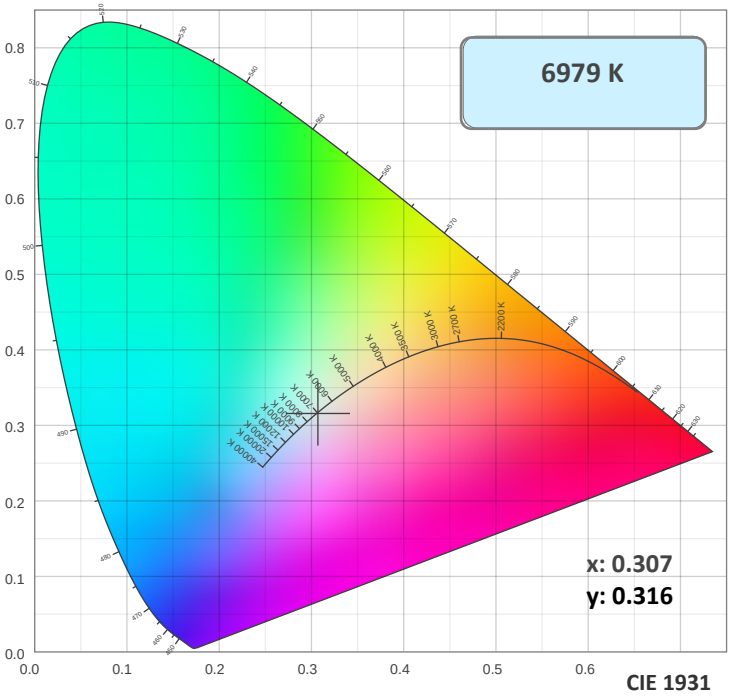
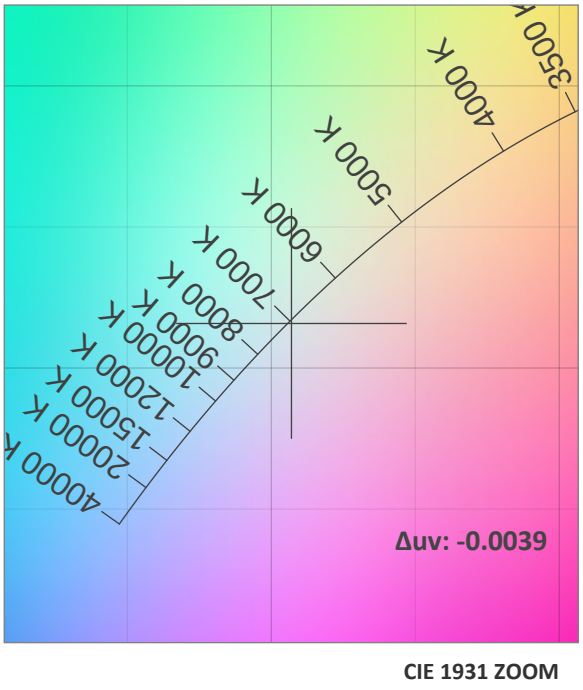
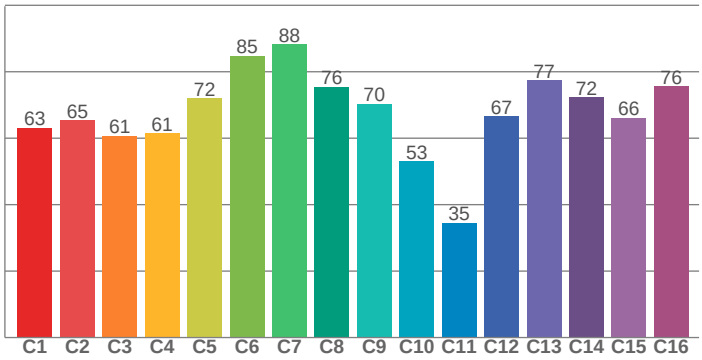
Color Details

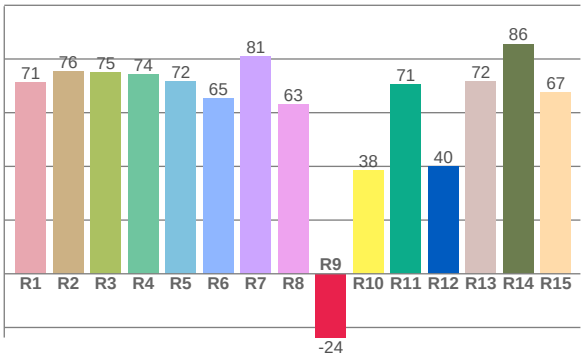




TM30: 67.8



CRI: 72.2 (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
71.2	75.6	74.9	74.1	71.8	65.4	81.1	63.2	-23.7	38.4	70.6	40.0	71.6	85.6	67.4

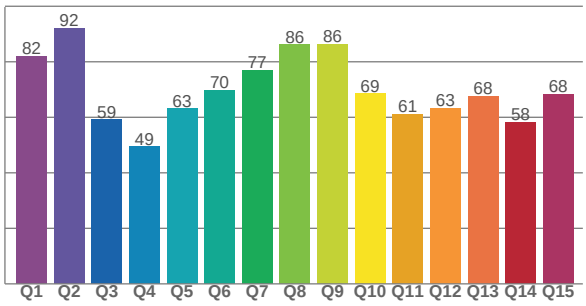
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
63.2	65.3	60.7	61.5	72.0	84.9	88.2	75.5	70.3	53.0	34.5	66.5	77.4	72.2	66.0	75.6

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82.1	92.2	59.2	49.5	63.1	69.8	77.1	86.3	86.5	68.5	61.1	63.3	67.5	58.2	68.3

CQS: 67.9



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 Deviation from Black
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
6979 K	72.2	-23.7	67.8	93.3	67.9	0.307	0.316	0.199	0.307	-0.0039

Artiste Monet (Zoom 50)

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TM30 Details

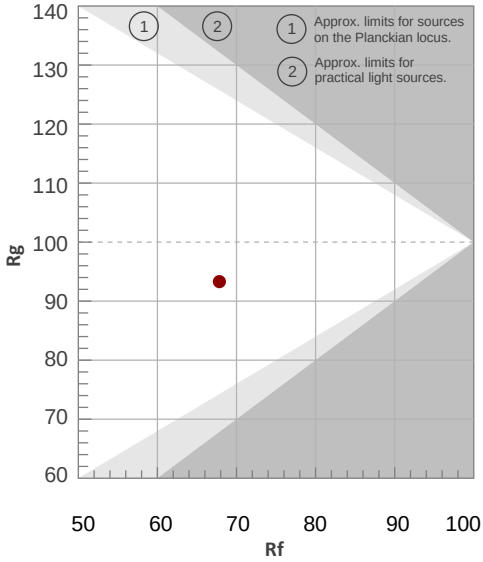
Rf 67.8

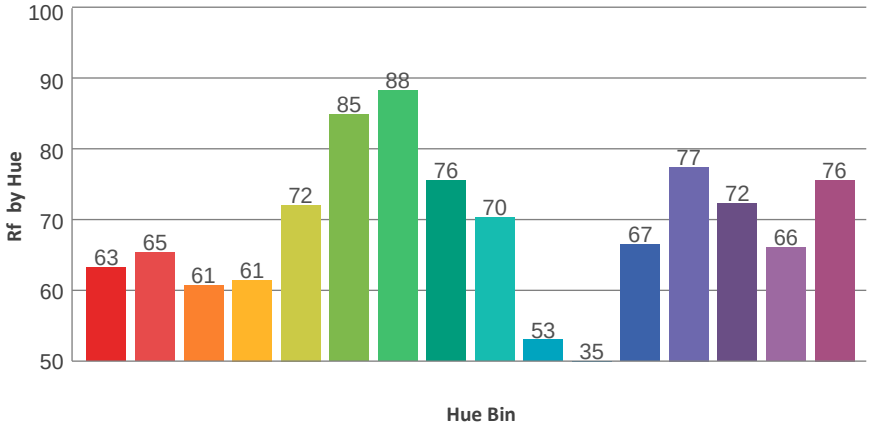
Fidelity Index Rf

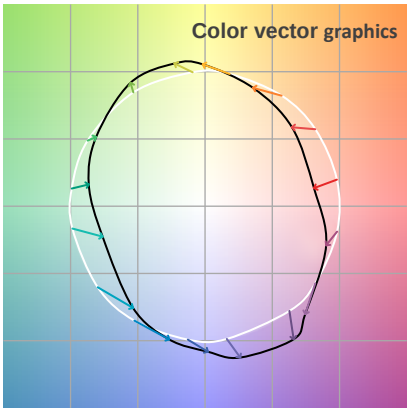
Rg 93.3

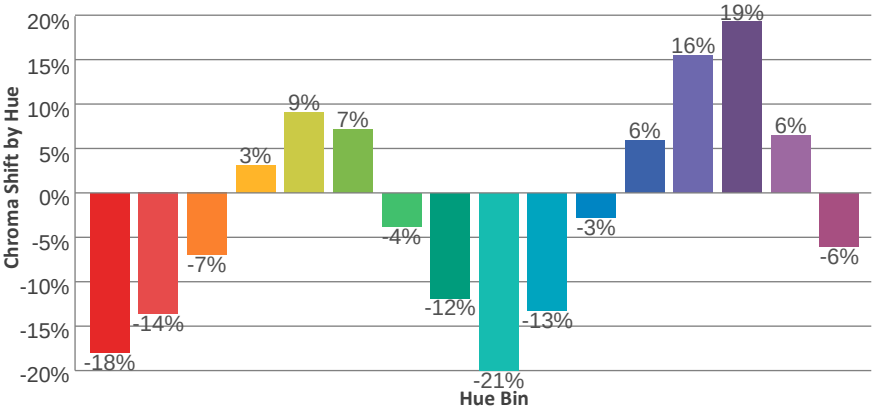
Gamut Index Rg

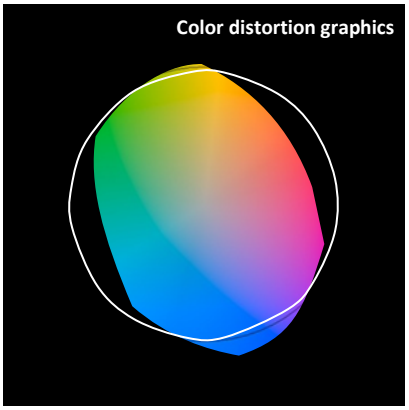
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	63	-18%	-3%
2	65	-14%	11%
3	61	-7%	21%
4	61	3%	21%
5	72	9%	12%
6	85	7%	-2%
7	88	-4%	-6%
8	76	-12%	-5%
9	70	-21%	10%
10	53	-13%	27%
11	35	-3%	29%
12	67	6%	16%
13	77	16%	7%
14	72	19%	-9%
15	66	6%	-23%
16	76	-6%	-12%

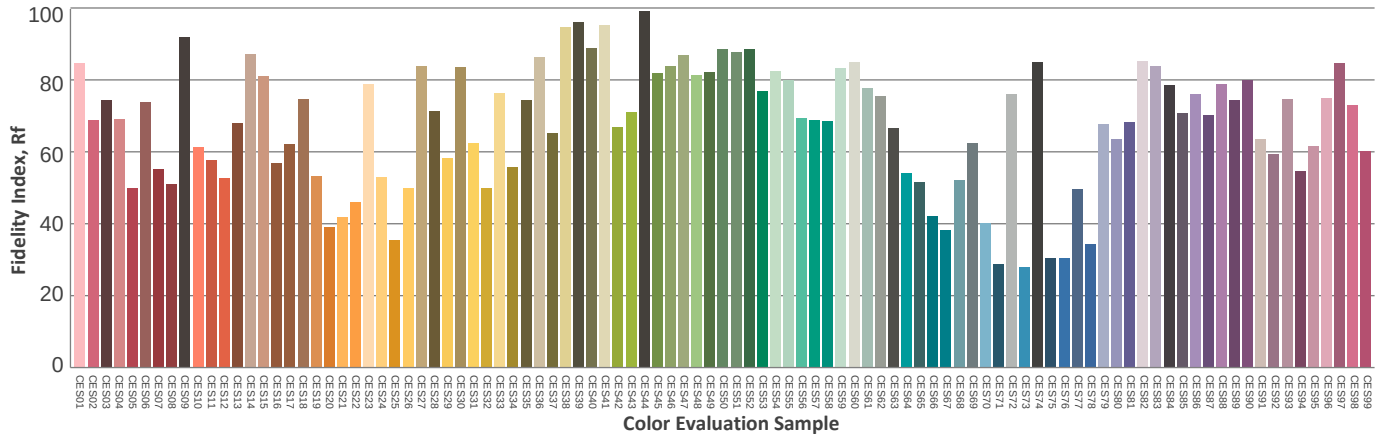










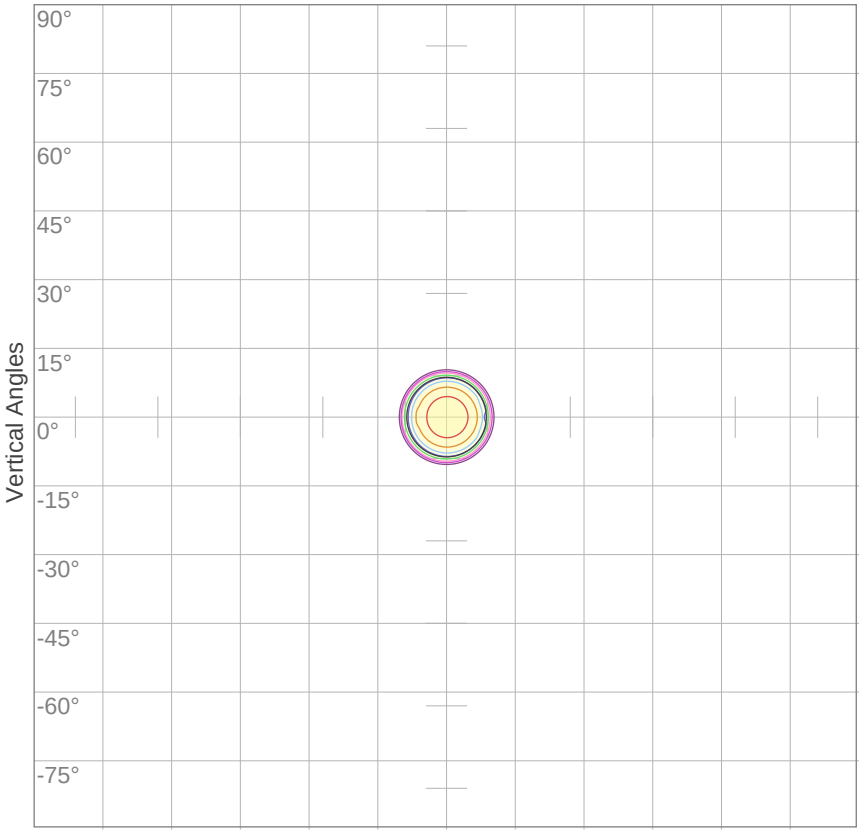


Artiste Monet (Zoom 50)

Prepared For ELATION PROFESSIONAL

ISO Diagrams

ISO Candela Diagram



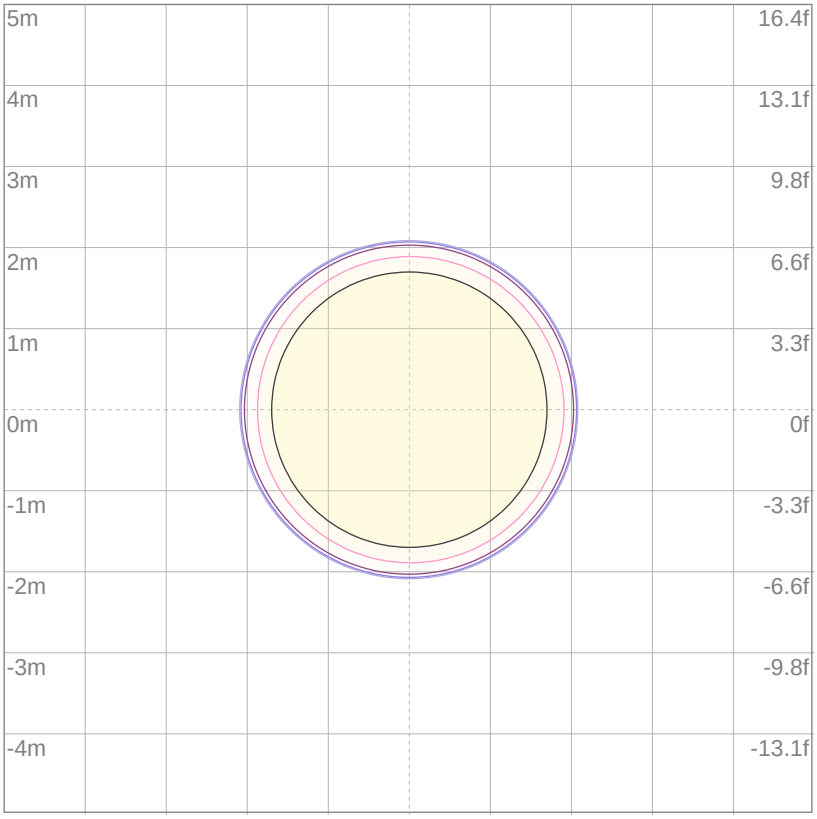
10%	45653 cd
20%	91305 cd
30%	136958 cd
40%	182610 cd
50%	228263 cd
60%	273916 cd
70%	319568 cd
80%	365221 cd
90%	410873 cd

Conditions:

Number of c-planes: 2

Candela at center: 456526 cd

ISO Lux Diagram



Mounting Height: 10 meters (33 feet)

3%	137 lx
5%	228 lx
10%	457 lx
30%	1370 lx
50%	2283 lx

Conditions:

Number of c-planes: 2

Lux at center: 4565 lx

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

Prepared For ELATION PROFESSIONAL

Photometric Report

Total Lumen Output*

Integrating Sphere	**37827 lm**
VISO Lab Spion	**37466 lm**

Color Temperature: 7028 K

CRI: 72.1

TLCI: 46

TM30: 67.7

CQS: 67.8

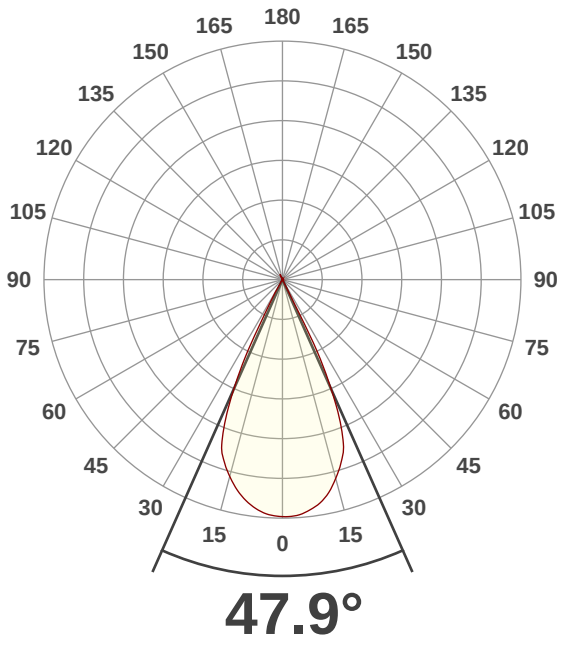
Voltage: 116 V, Current: 11.3 A

Power: 1307 W

Efficacy: 29 Lumen/Watt

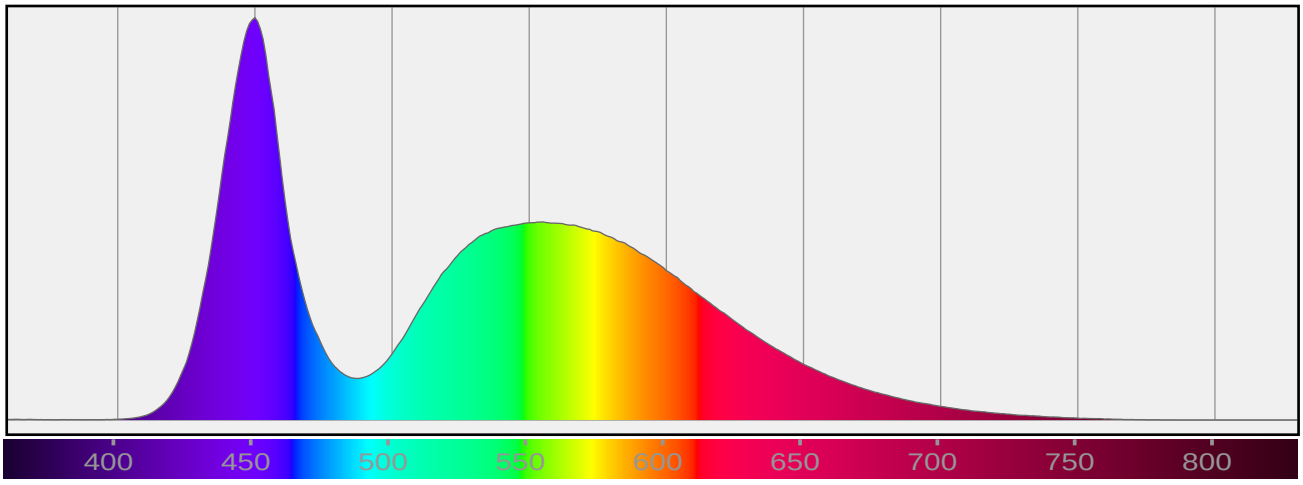
Measurement Date: 9/6/2019

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2.5%
47.9°	56°	58.7°



Spectral Distribution

Dominant Wavelength 425 nm



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

Artiste Monet (Zoom Out)

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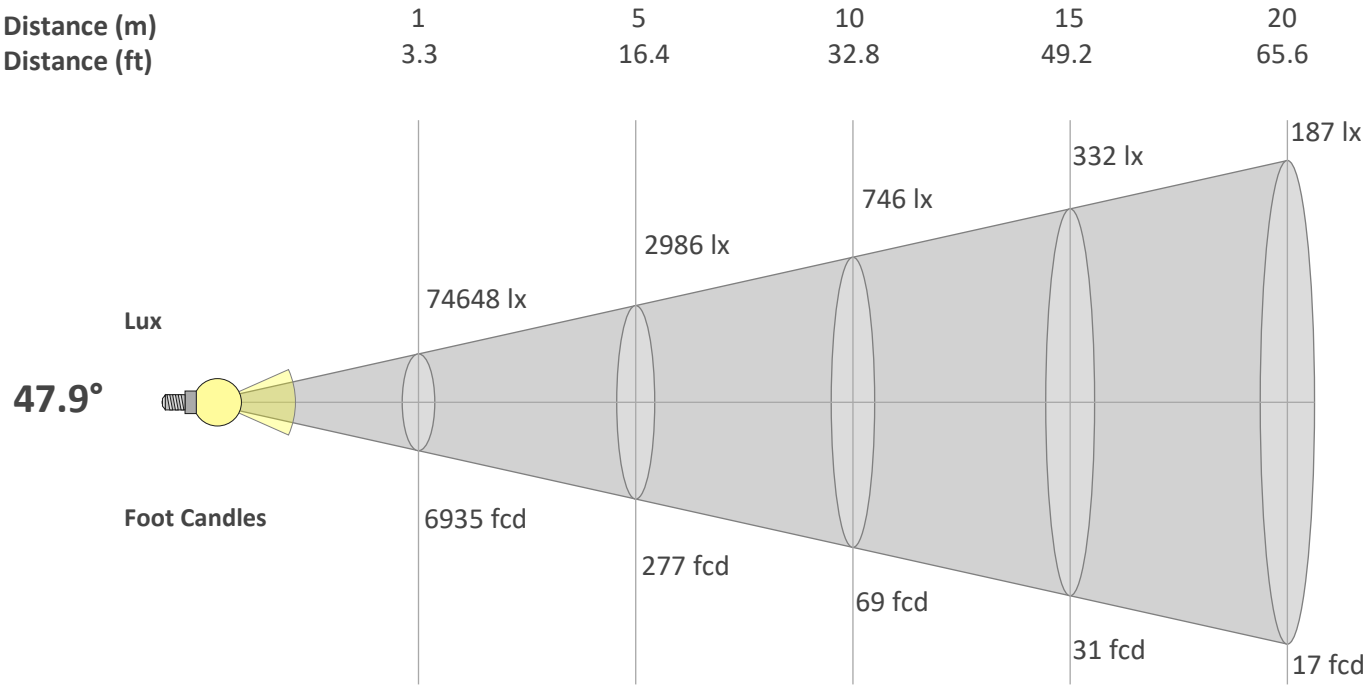
Beam Details

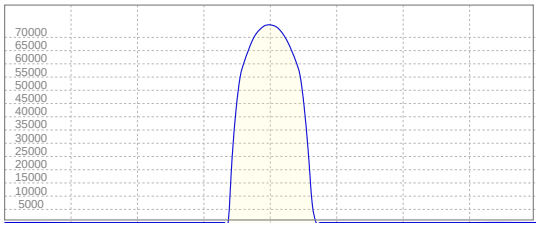
Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%
47.9°	**56°**	**58.7°**



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	74648	18662	8294	4665	2986	2074	1523	1166	922	746	617	518	442	381	332	292	258	230	207	187
FC	6935	1733.8	770.6	433.4	277.4	192.6	141.5	108.4	85.6	69.4	57.3	48.2	41	35.4	30.8	27.1	24	21.4	19.2	17.3

Linear Distribution



Peak Candela

74720 cd

Calculate Center Beam Intensities

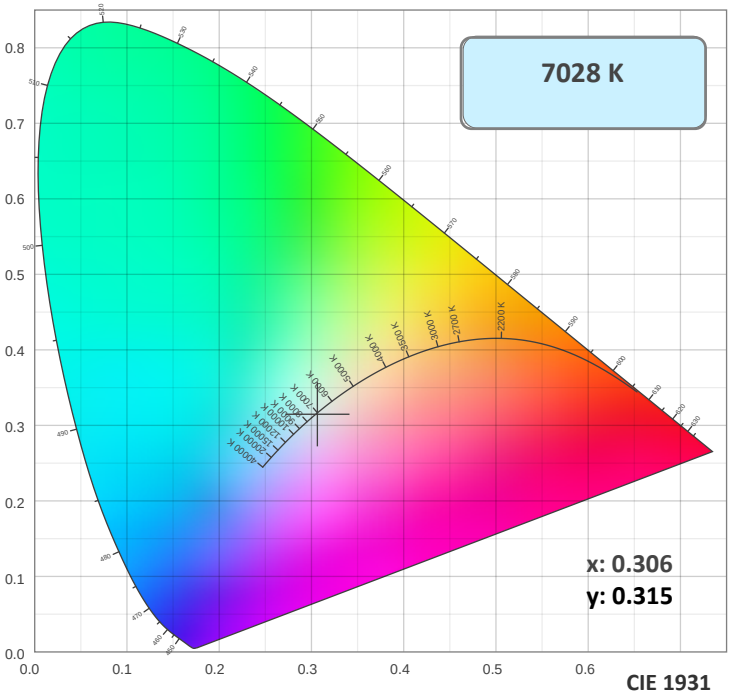
lux = 74720 / distance(m)^2

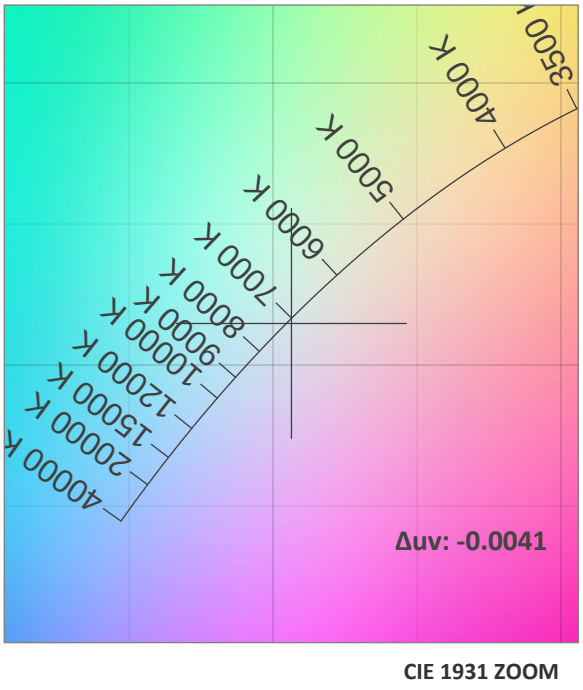
fc = 74720 / distance(ft)^2

Artiste Monet (Zoom Out)

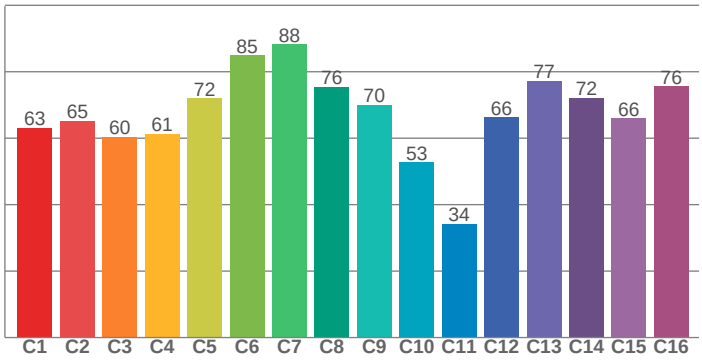
Prepared For ELATION PROFESSIONAL

Color Details

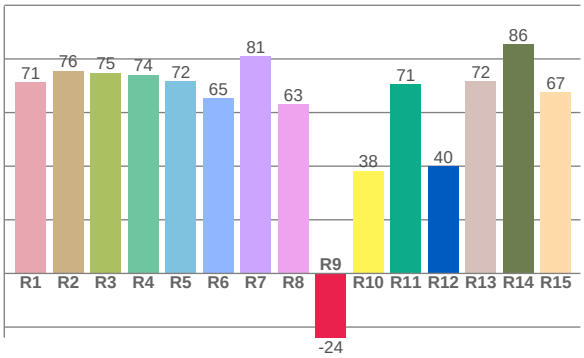




TM30: 67.7



CRI: 72.1 (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
71.3	75.5	74.8	74.2	71.8	65.4	81.1	63.2	-23.9	38.3	70.7	40.0	71.6	85.6	67.5

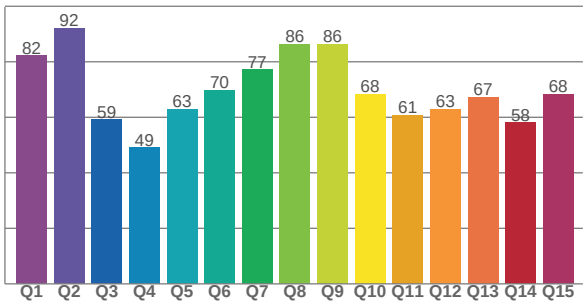
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
63.1	65.1	60.5	61.3	72.0	84.9	88.2	75.5	70.1	52.7	34.2	66.3	77.3	72.2	66.0	75.6

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82.1	92.1	59.1	49.2	62.9	69.7	77.1	86.3	86.4	68.3	60.8	63.0	67.3	58.0	68.3

CQS: 67.8



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 Deviation from Black
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
7028 K	72.1	-23.9	67.7	93.3	67.8	0.306	0.315	0.199	0.306	-0.0041

Artiste Monet (Zoom Out)

Prepared For ELATION PROFESSIONAL

TM30 Details

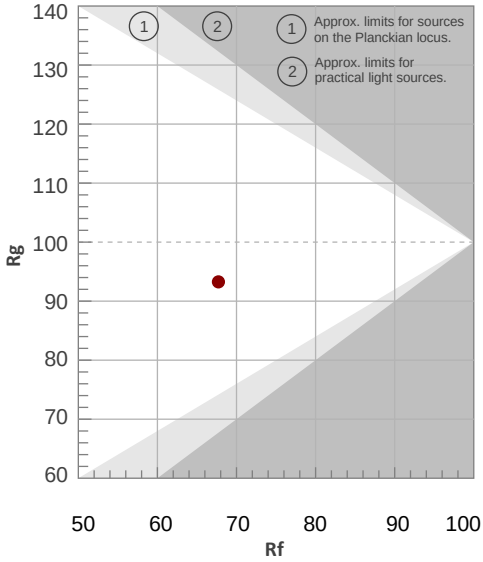
Rf 67.7

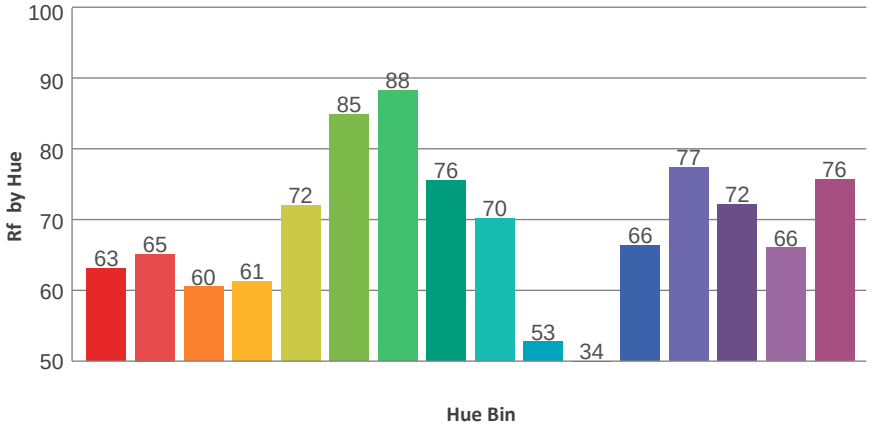
Fidelity Index Rf

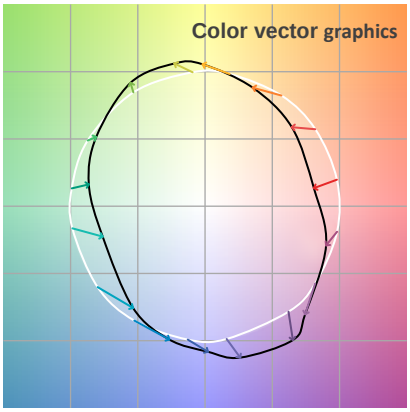
Rg 93.3

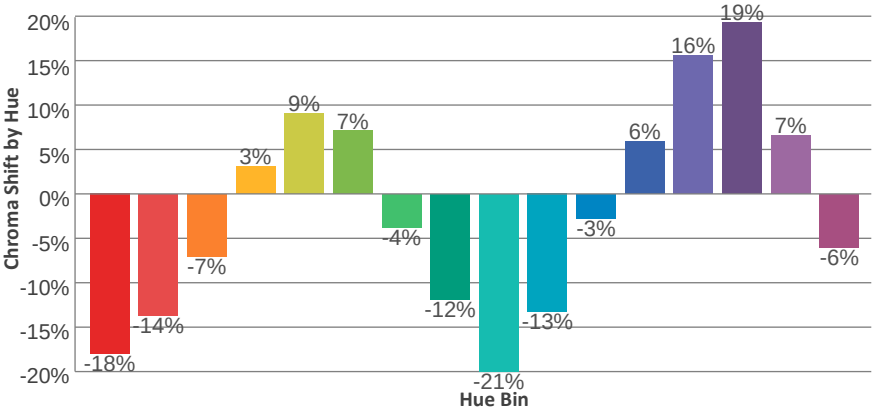
Gamut Index Rg

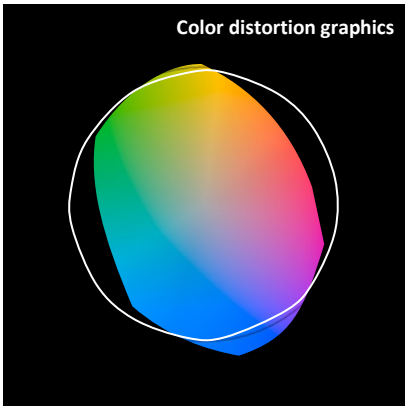
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	63	-18%	-3%
2	65	-14%	11%
3	60	-7%	21%
4	61	3%	21%
5	72	9%	12%
6	85	7%	-2%
7	88	-4%	-6%
8	76	-12%	-5%
9	70	-21%	10%
10	53	-13%	27%
11	34	-3%	29%
12	66	6%	16%
13	77	16%	7%
14	72	19%	-9%
15	66	7%	-23%
16	76	-6%	-12%

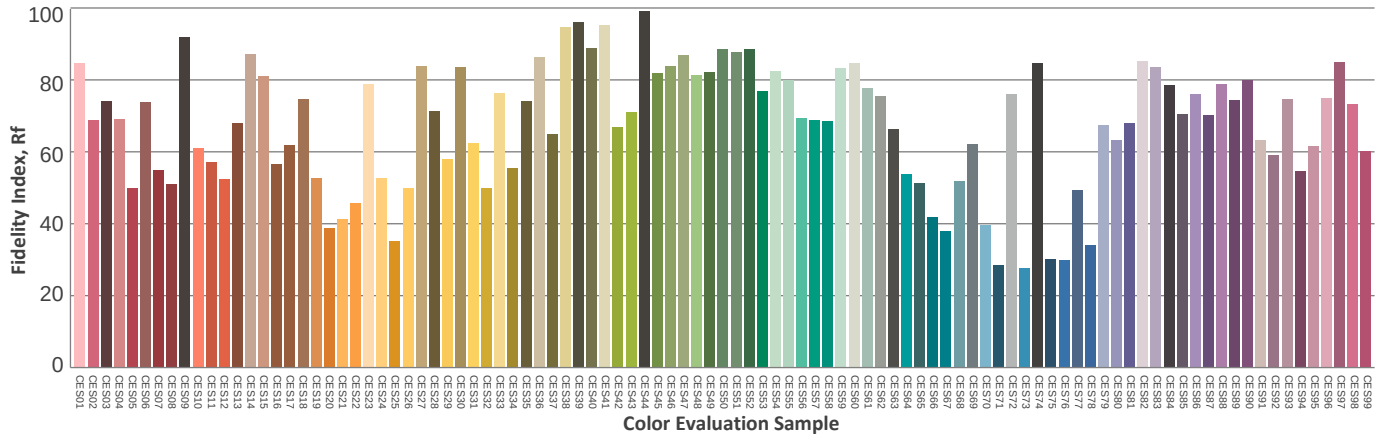










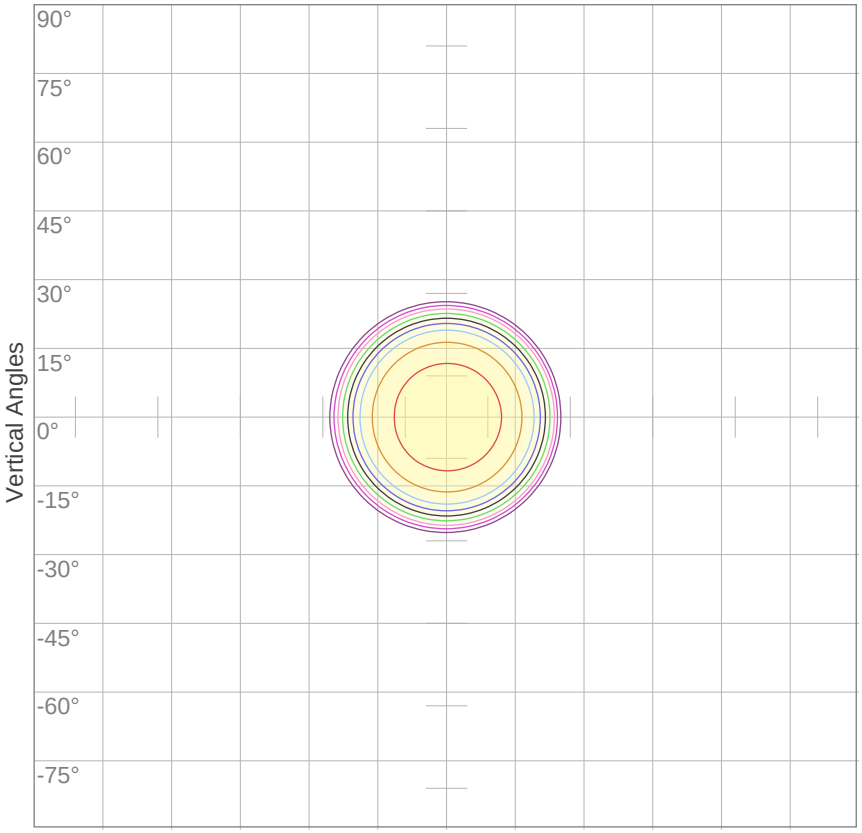


Artiste Monet (Zoom Out)

Prepared For ELATION PROFESSIONAL

ISO Diagrams

ISO Candela Diagram



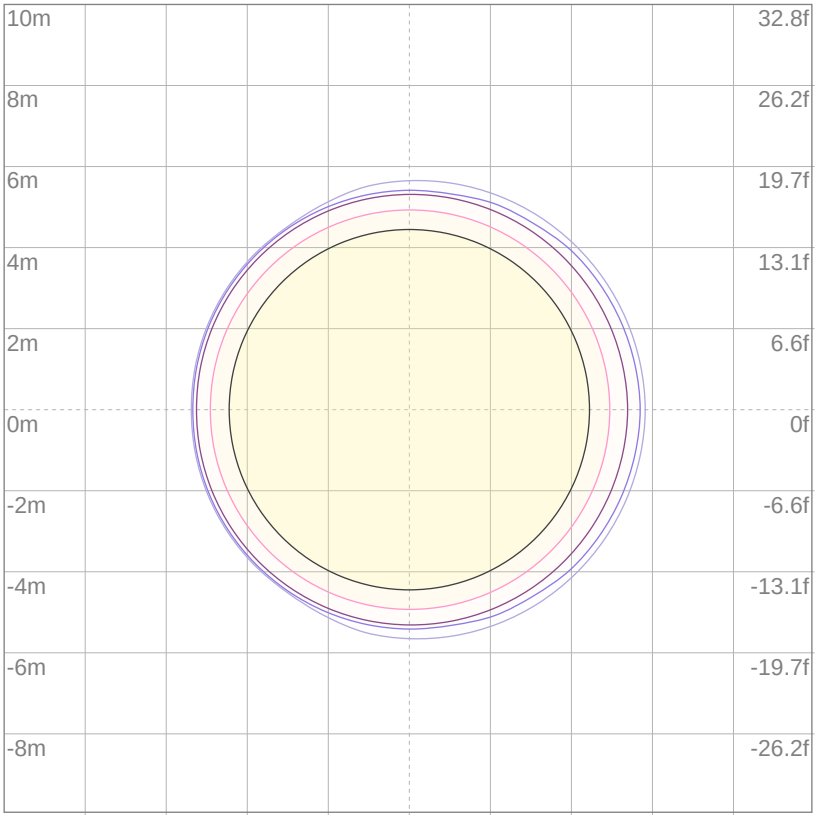
10%	7465 cd
20%	14930 cd
30%	22394 cd
40%	29859 cd
50%	37324 cd
60%	44789 cd
70%	52254 cd
80%	59718 cd
90%	67183 cd

Conditions:

Number of c-planes: 2

Candela at center: 74648 cd

ISO Lux Diagram



Mounting Height: 10 meters (33 feet)

3%	22.4 lx
5%	37.3 lx
10%	74.6 lx
30%	224 lx
50%	373 lx

Conditions:

Number of c-planes: 2

Lux at center: 746 lx

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

Artiste Monet (CTO)

Prepared For ELATION PROFESSIONAL

Photometric Report

Total Lumen Output*

Integrating Sphere	**N/A**
VISO Lab Spion	**10263 lm**

Color Temperature: 2704 K

CRI: 64.8

TLCI: 32

TM30: 61.6

CQS: 63.7

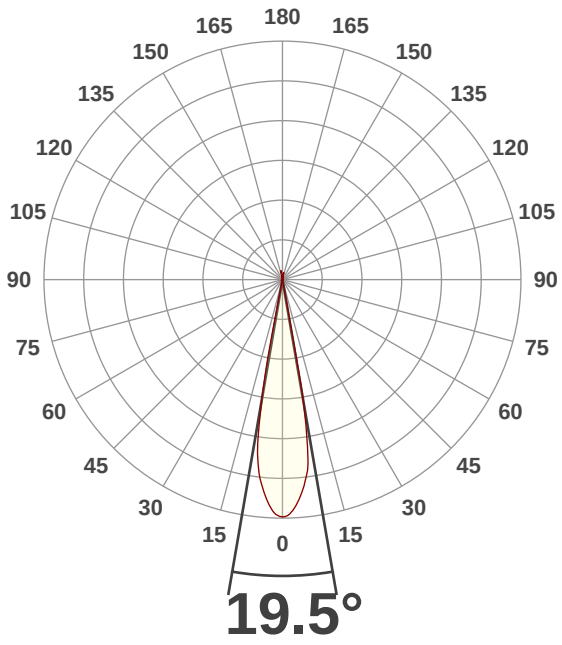
Voltage: 116 V, Current: 11.2 A

Power: 1296 W

Efficacy: 8 Lumen/Watt

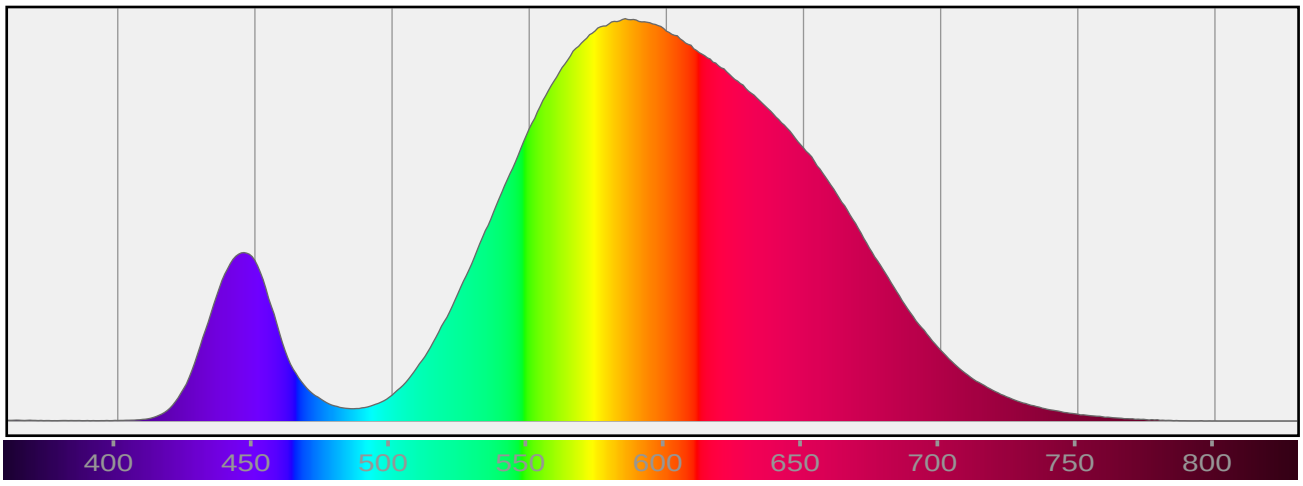
Measurement Date: 9/6/2019

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2.5%
19.5°	22.8°	23.4°



Spectral Distribution

Dominant Wavelength 584 nm



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

Artiste Monet (CTO)

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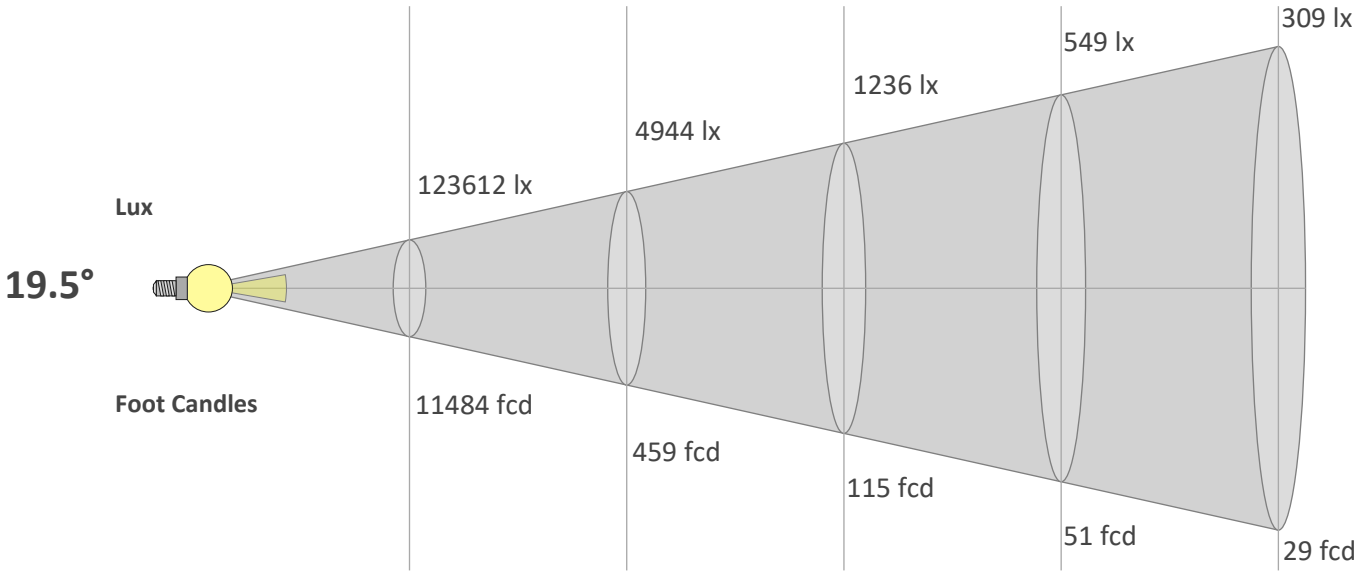
Beam Details

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%
19.5°	**22.8°**	**23.4°**

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

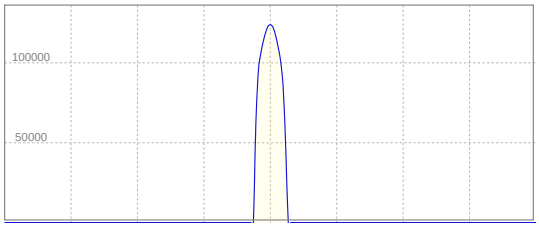


Beam Width (m)	0.3	1.7	3.4	5.2	6.9
Beam Width (ft)	1.1	5.6	11.3	16.9	22.6

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	123612	30903	13735	7726	4944	3434	2523	1931	1526	1236	1022	858	731	631	549	483	428	382	342	309
FC	11483.9	2871	1276	717.7	459.4	319	234.4	179.4	141.8	114.8	94.9	79.7	68	58.6	51	44.9	39.7	35.4	31.8	28.7

Linear Distribution



Peak Candela

123747 cd

Calculate Center Beam Intensities

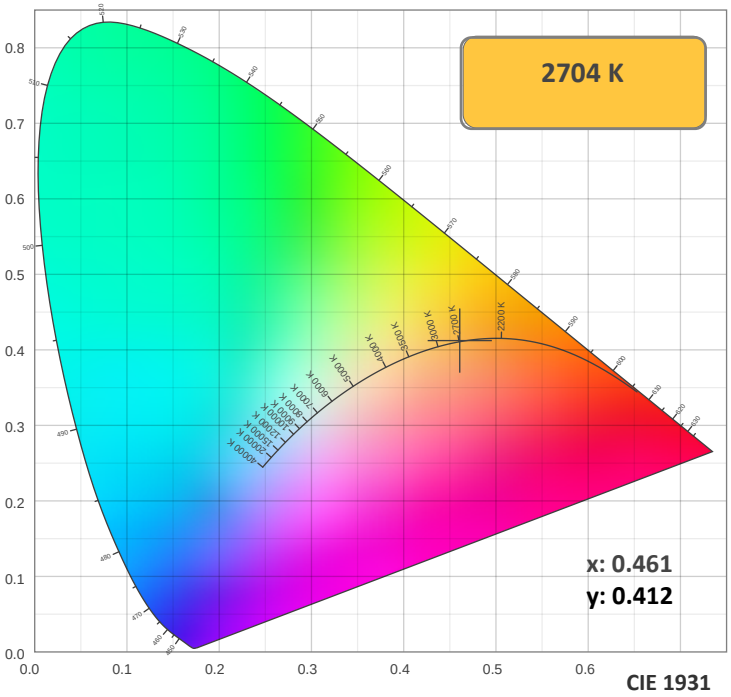
lux = 123747 / distance(m)^2

fc = 123747 / distance(ft)^2

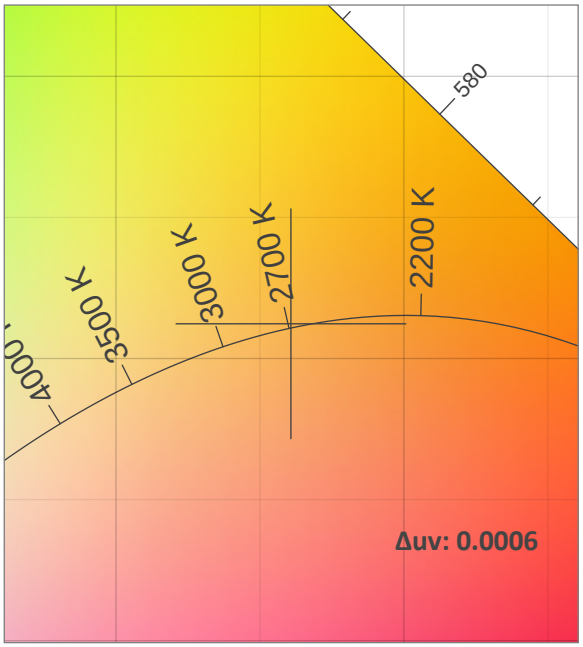
Artiste Monet (CTO)

Prepared For ELATION PROFESSIONAL

Color Details

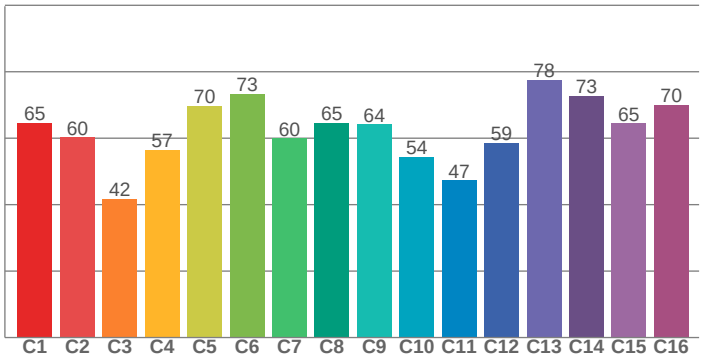


CIE 1931

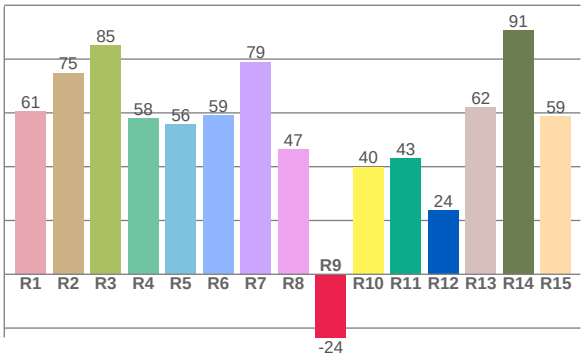


CIE 1931 ZOOM

TM30: 61.6



CRI: 64.8 (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
60.7	74.9	85.0	57.8	55.7	59.1	79.0	46.5	-23.5	40.0	43.1	23.7	62.0	90.7	58.7

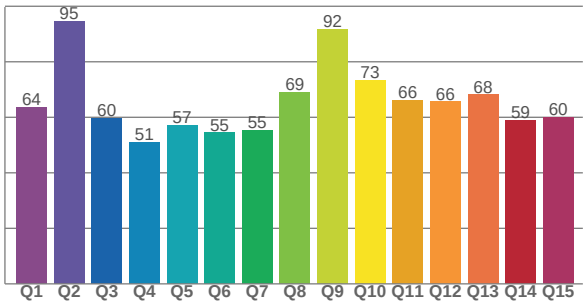
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
64.6	60.3	41.7	56.6	69.8	73.4	60.0	64.6	64.2	54.4	47.4	58.6	77.6	72.7	64.5	70.0

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
63.7	94.7	59.8	51.1	57.2	54.5	55.4	69.2	91.8	73.3	66.1	65.7	68.1	59.0	60.1

CQS: 63.7



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 Deviation from Black
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
2704 K	64.8	-23.5	61.6	94.5	63.7	0.461	0.412	0.262	0.352	0.0006

Artiste Monet (CTO)

Prepared For ELATION PROFESSIONAL

TM30 Details

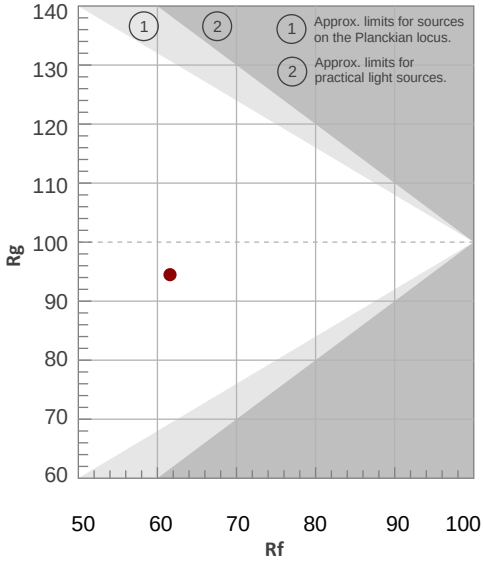
Rf 61.6

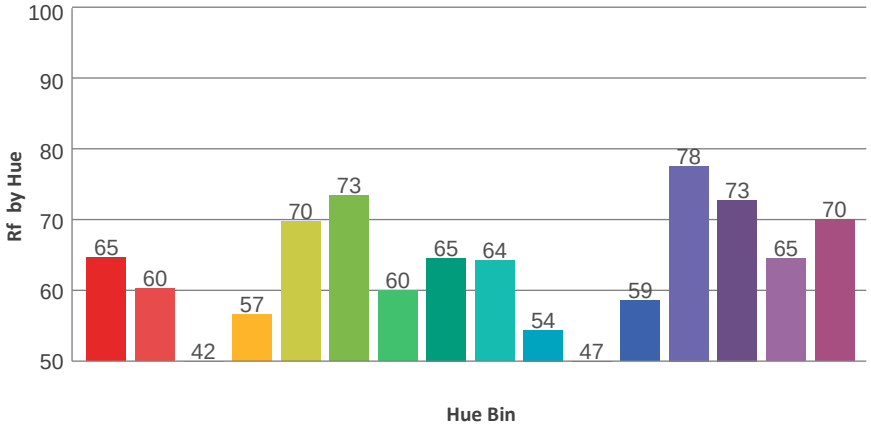
Fidelity Index Rf

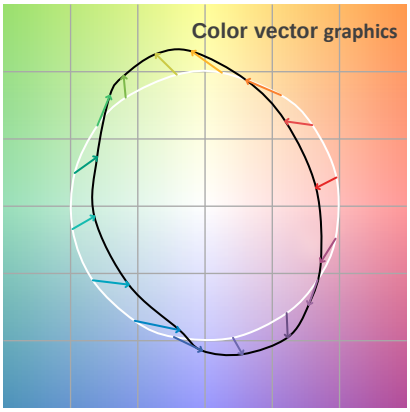
Rg 94.5

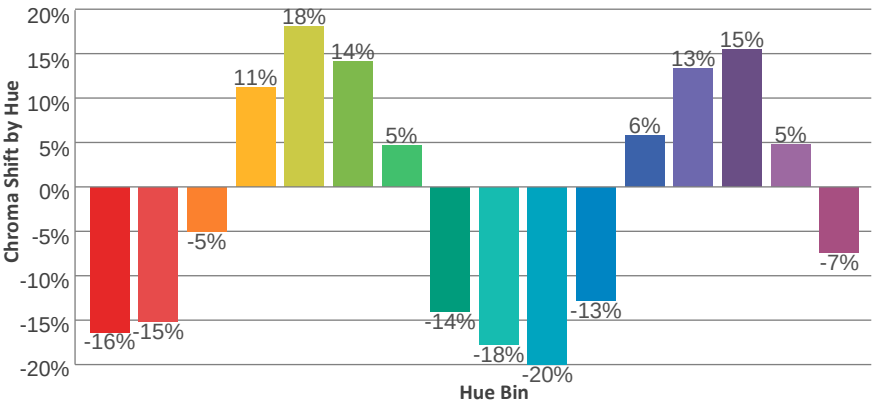
Gamut Index Rg

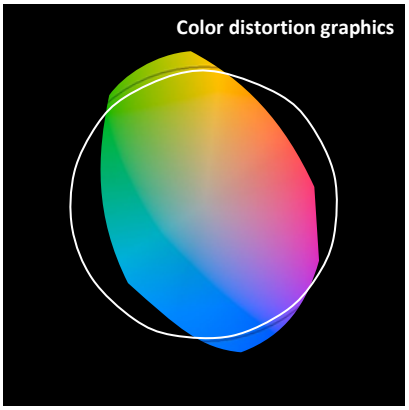
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	65	-16%	-5%
2	60	-15%	13%
3	42	-5%	27%
4	57	11%	25%
5	70	18%	12%
6	73	14%	-8%
7	60	5%	-24%
8	65	-14%	-15%
9	64	-18%	-6%
10	54	-20%	17%
11	47	-13%	32%
12	59	6%	22%
13	78	13%	4%
14	73	15%	-9%
15	65	5%	-19%
16	70	-7%	-19%

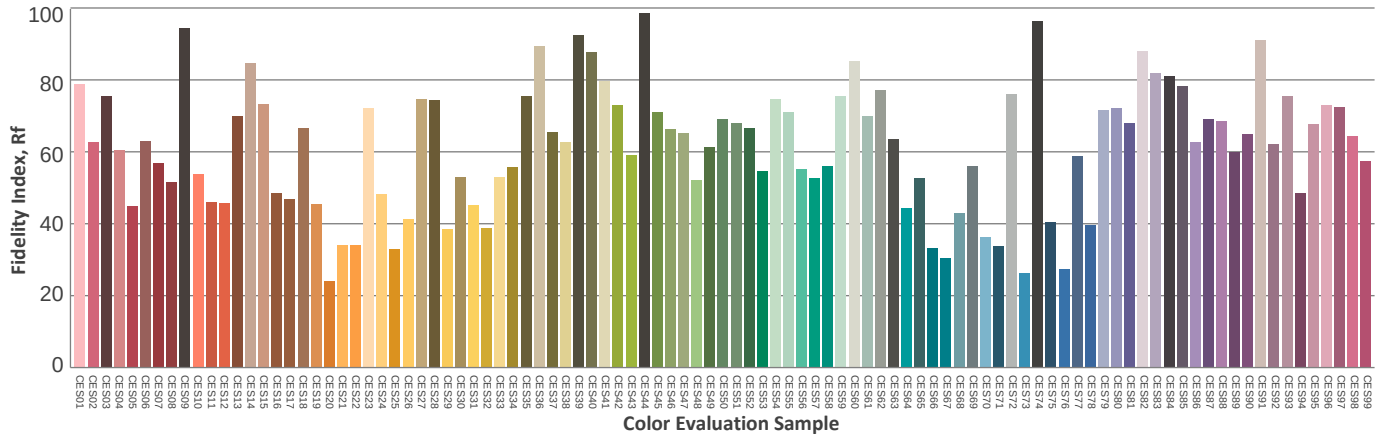










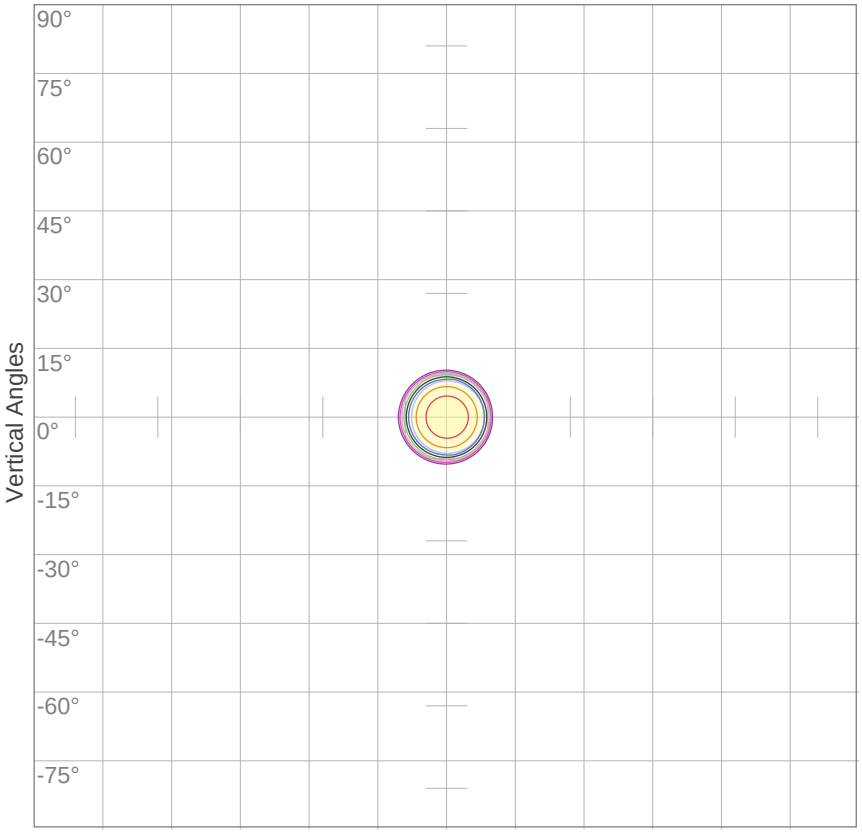


Artiste Monet (CTO)

Prepared For ELATION PROFESSIONAL

ISO Diagrams

ISO Candela Diagram



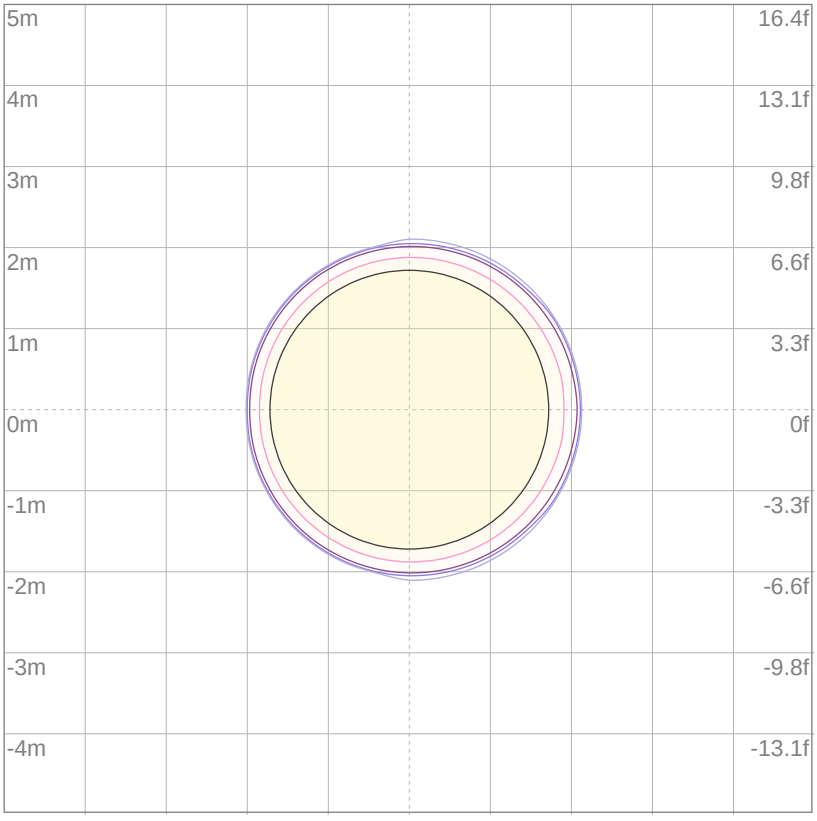
10%	12361 cd
20%	24722 cd
30%	37084 cd
40%	49445 cd
50%	61806 cd
60%	74167 cd
70%	86528 cd
80%	98889 cd
90%	111251 cd

Conditions:

Number of c-planes: 2

Candela at center: 123612 cd

ISO Lux Diagram



Mounting Height: 10 meters (33 feet)

3%	37.1 lx
5%	61.8 lx
10%	124 lx
30%	371 lx
50%	618 lx

Conditions:

Number of c-planes: 2

Lux at center: 1236 lx

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

Prepared For ELATION PROFESSIONAL

Photometric Report

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2.5%
19.3°	22.9°	23.5°

Total Lumen Output*

Integrating Sphere N/A

VISO Lab Spion 29045 lm

Color Temperature: 6573 K

CRI: 84.0

TLCI: 57

TM30: 74.5

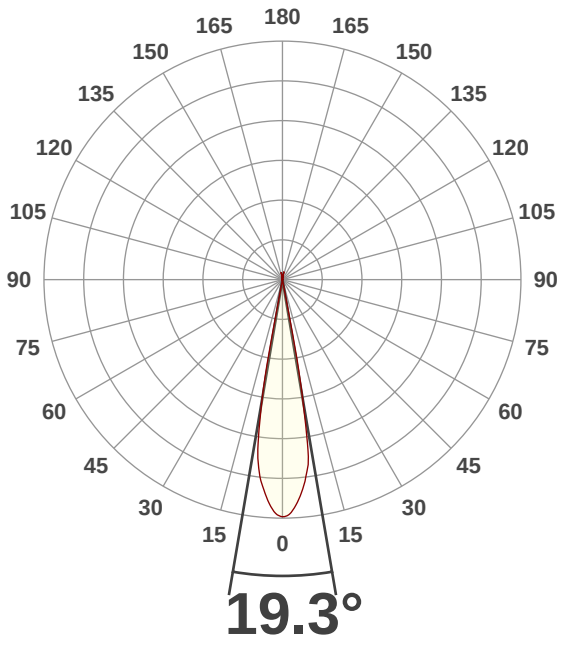
CQS: 73.1

Voltage: 117 V, Current: 11.2 A

Power: 1304 W

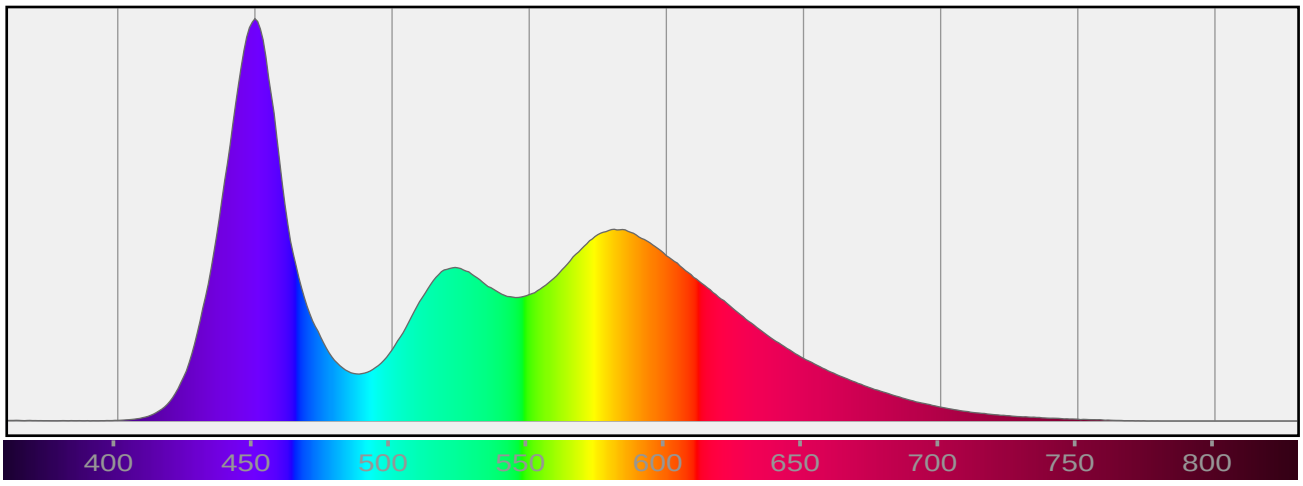
Efficacy: 22 Lumen/Watt

Measurement Date: 9/6/2019



Spectral Distribution

Dominant Wavelength 360 nm



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

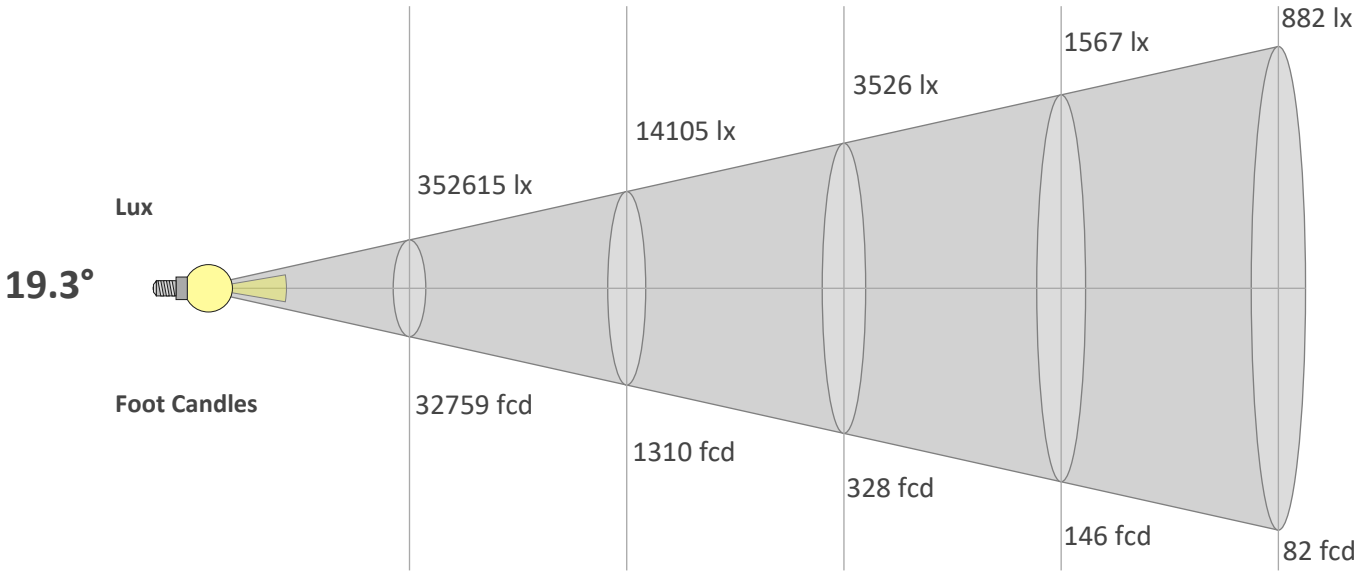
Artiste Monet (High CRI)

Prepared For ELATION PROFESSIONAL

Beam Details

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%
19.3°	**22.9°**	**23.5°**

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

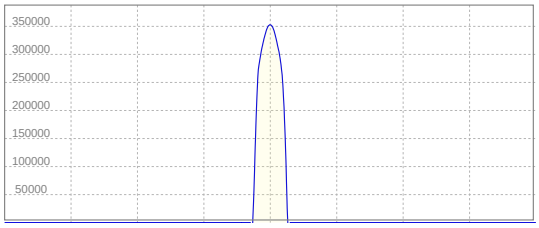


Beam Width (m)	0.3	1.7	3.4	5.1	6.8
Beam Width (ft)	1.1	5.6	11.1	16.7	22.3

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	352615	88154	39179	22038	14105	9795	7196	5510	4353	3526	2914	2449	2086	1799	1567	1377	1220	1088	977	882
FC	32759	8189.7	3639.9	2047.4	1310.4	910	668.6	511.9	404.4	327.6	270.7	227.5	193.8	167.1	145.6	128	113.4	101.1	90.7	81.9

Linear Distribution



Peak Candela

352685 cd

Calculate Center Beam Intensities

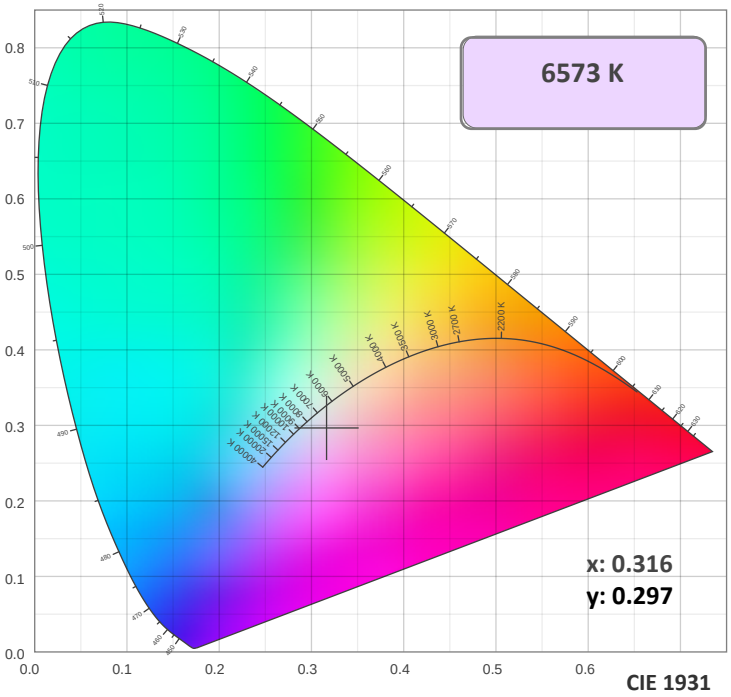
lux = 352685 / distance(m)^2

fc = 352685 / distance(ft)^2

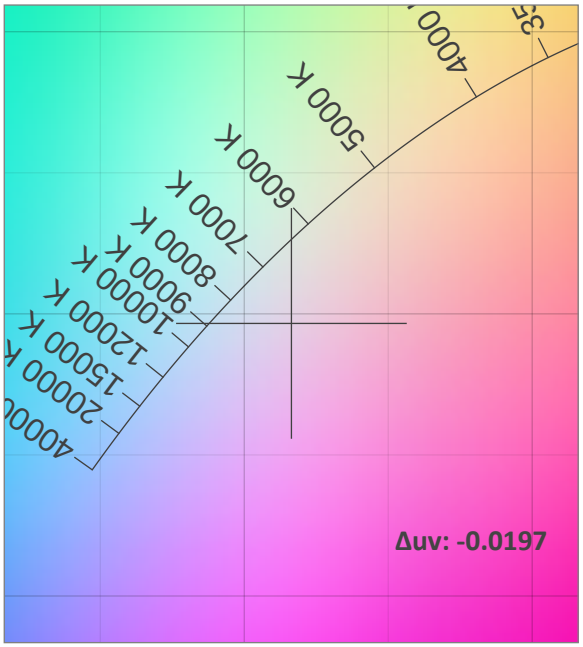
Artiste Monet (High CRI)

Prepared For ELATION PROFESSIONAL

Color Details

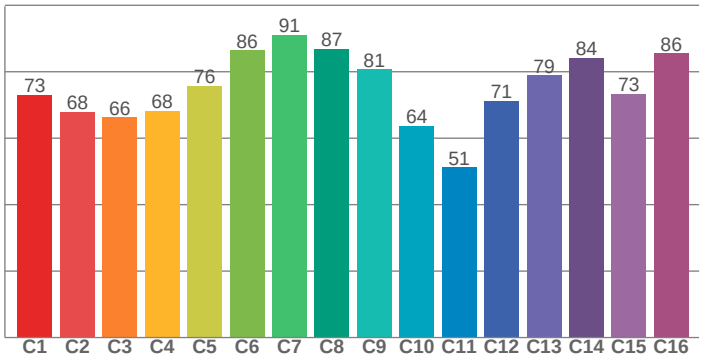


CIE 1931

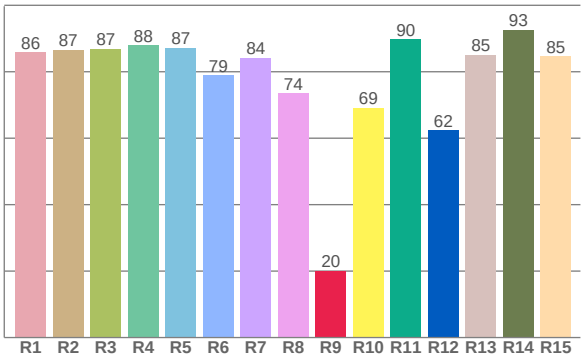


CIE 1931 ZOOM

TM30: 74.5



CRI: 84.0 (R1-R8)



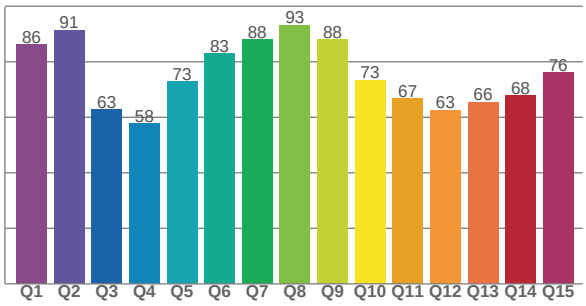
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
85.9	86.7	87.0	88.0	87.2	79.0	84.2	73.6	20.1	69.2	89.7	62.4	85.1	92.7	84.6

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
73.1	68.0	66.3	68.2	75.7	86.4	91.2	87.0	80.8	63.8	51.2	71.2	78.9	84.2	73.4	85.6

CQS: 73.1



CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
86.2	91.4	62.7	57.7	72.8	83.0	88.0	93.2	88.0	73.4	66.7	62.7	65.5	67.7	76.1

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 Deviation from Black
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
6573 K	84.0	20.1	74.5	99.6	73.1	0.316	0.297	0.214	0.300	-0.0197

Artiste Monet (High CRI)

Prepared For ELATION PROFESSIONAL

TM30 Details

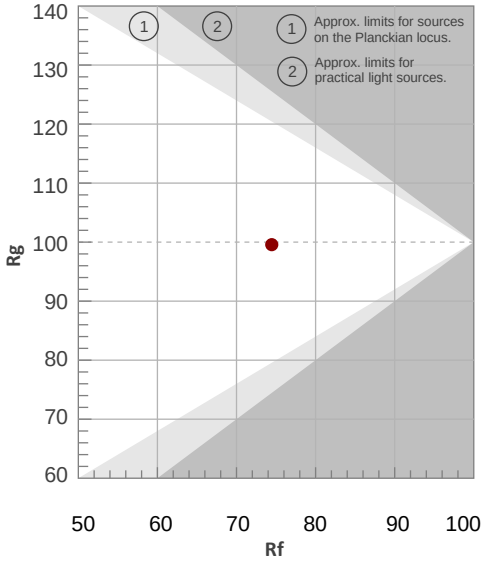
Rf 74.5

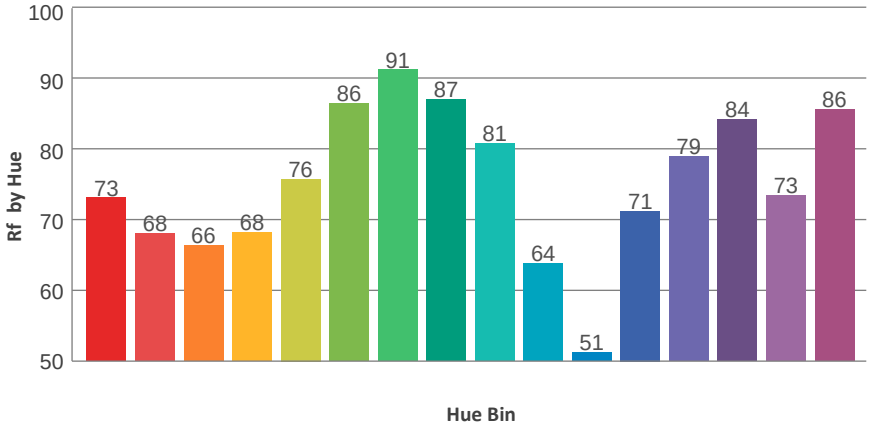
Fidelity Index Rf

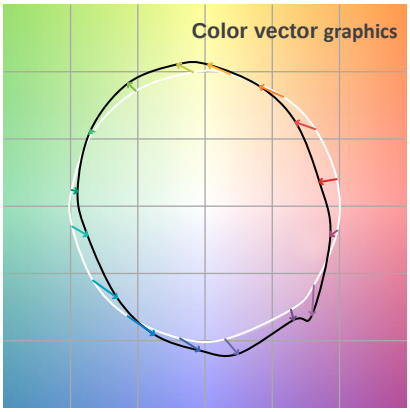
Rg 99.6

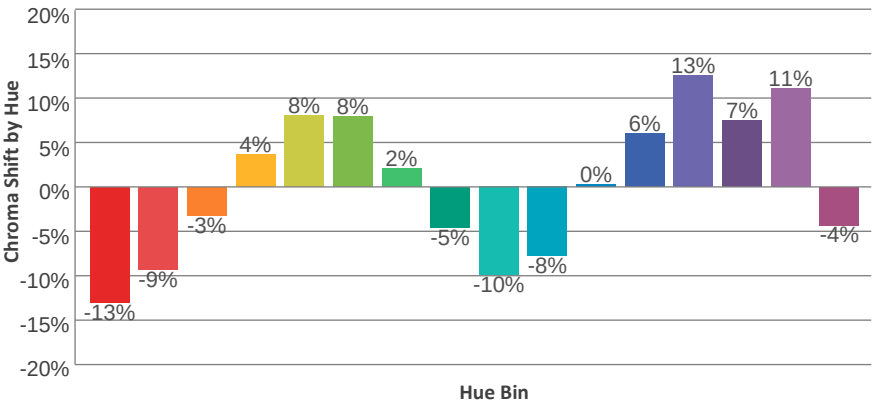
Gamut Index Rg

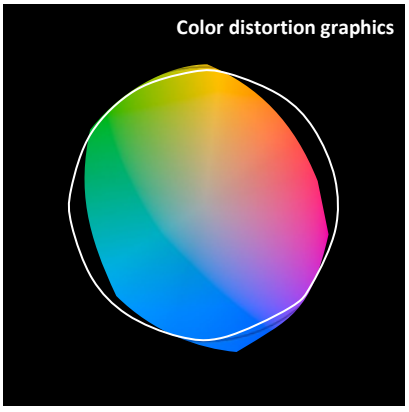
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	73	-13%	0%
2	68	-9%	12%
3	66	-3%	19%
4	68	4%	17%
5	76	8%	10%
6	86	8%	2%
7	91	2%	-1%
8	87	-5%	0%
9	81	-10%	9%
10	64	-8%	21%
11	51	0%	24%
12	71	6%	16%
13	79	13%	7%
14	84	7%	-3%
15	73	11%	-19%
16	86	-4%	-5%

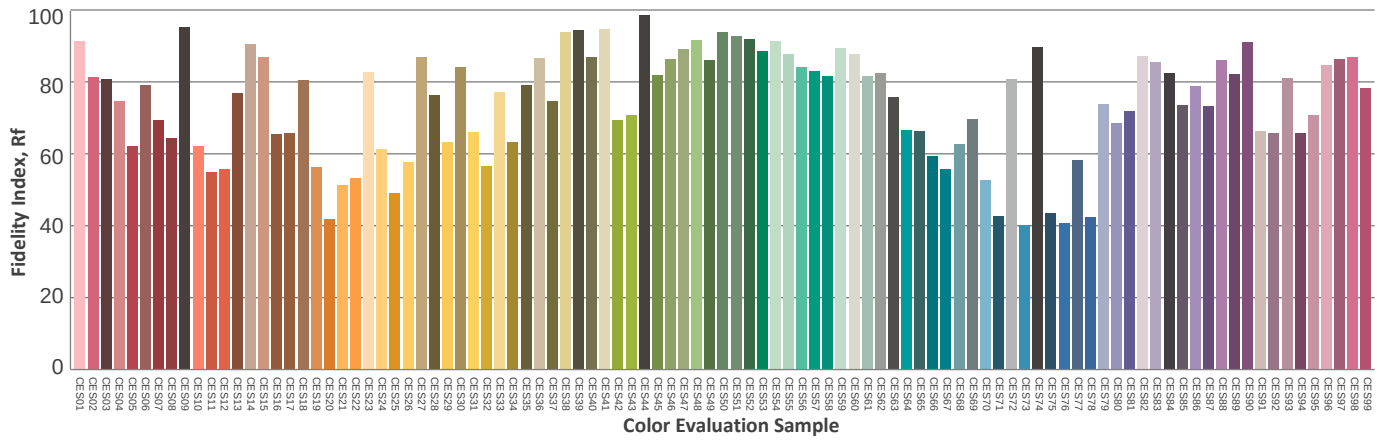










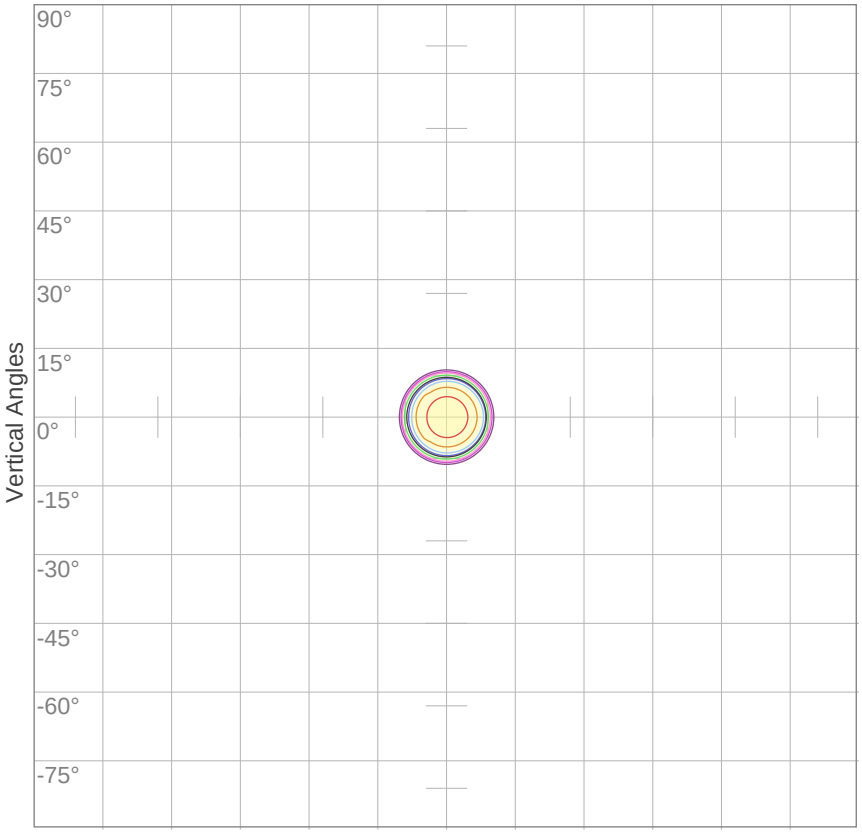


Artiste Monet (High CRI)

Prepared For ELATION PROFESSIONAL

ISO Diagrams

ISO Candela Diagram



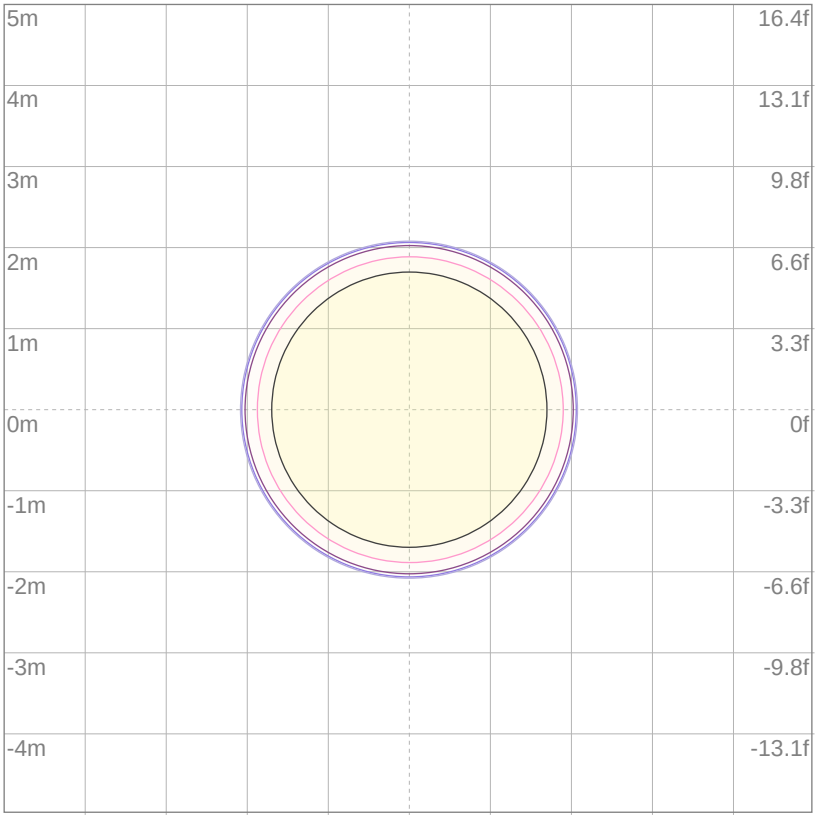
10%	35261 cd
20%	70523 cd
30%	105784 cd
40%	141046 cd
50%	176307 cd
60%	211569 cd
70%	246830 cd
80%	282092 cd
90%	317353 cd

Conditions:

Number of c-planes: 2

Candela at center: 352615 cd

ISO Lux Diagram



Mounting Height: 10 meters (33 feet)

3%	106 lx
5%	176 lx
10%	353 lx
30%	1058 lx
50%	1763 lx

Conditions:

Number of c-planes: 2

Lux at center: 3526 lx

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

Prepared For ELATION PROFESSIONAL

Photometric Report

Total Lumen Output*

Integrating Sphere	**N/A**
VISO Lab Spion	**37.1 lm**

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2.5%
19.6°	22.7°	23.9°

Color Temperature: 0 K

CRI: 0.0

TLCI: n/a

TM30: 0.0

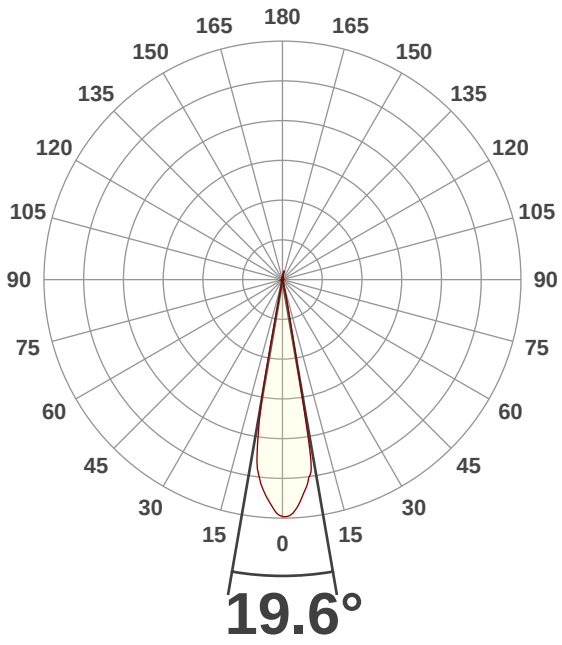
CQS: 0.0

Voltage: 116 V, Current: 10.9 A

Power: 1260 W

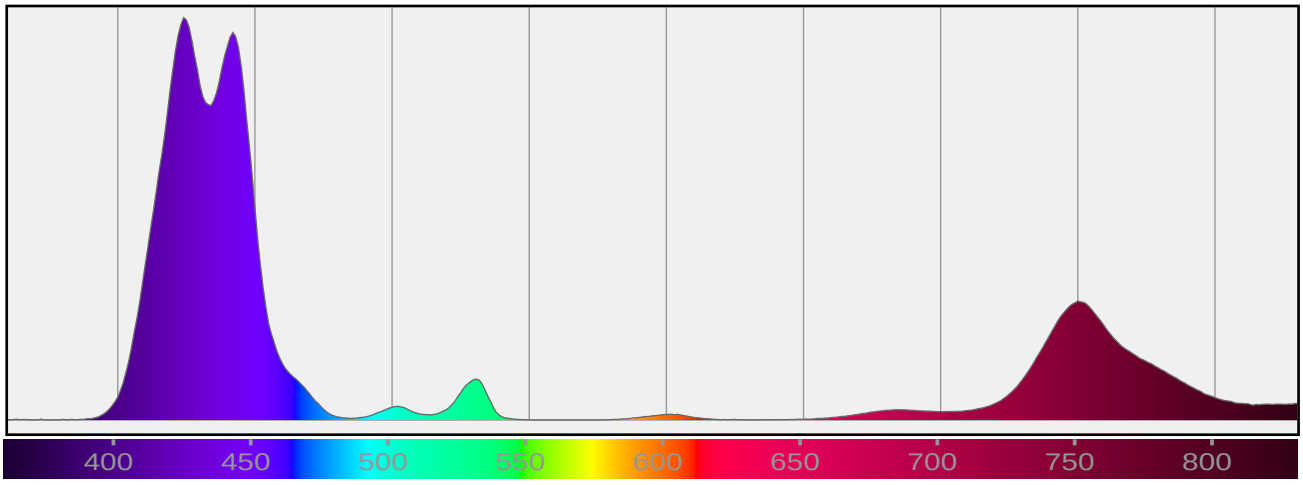
Efficacy: 0 Lumen/Watt

Measurement Date: 9/6/2019



Spectral Distribution

Dominant Wavelength 450 nm



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

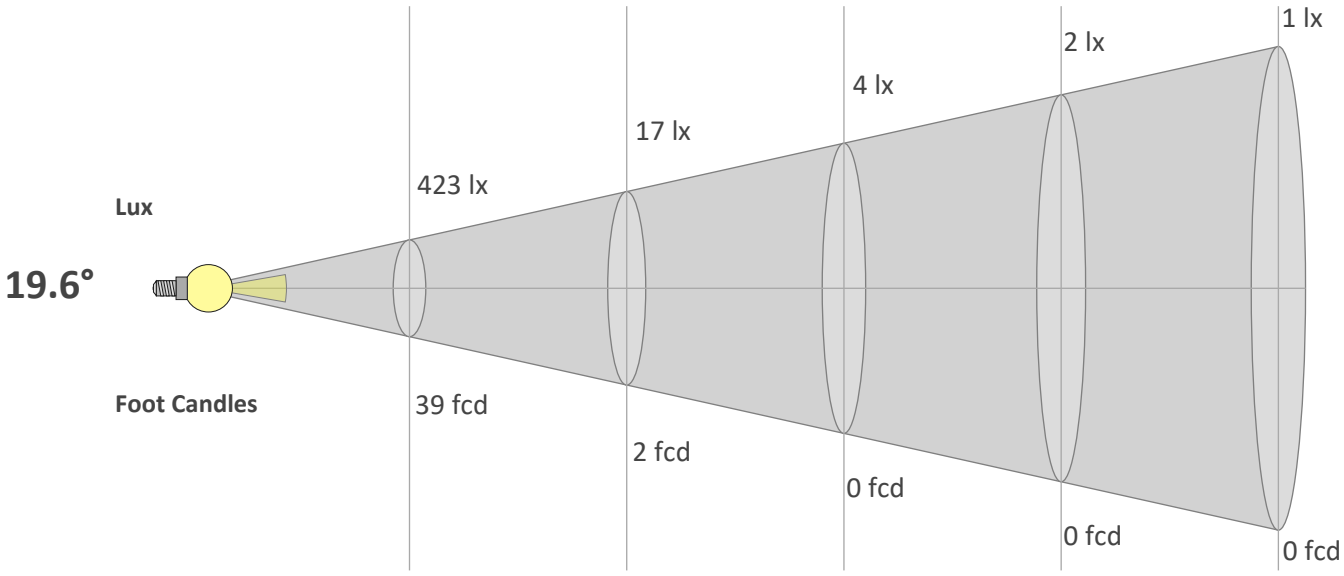
Artiste Monet (UV)

Prepared For ELATION PROFESSIONAL

Beam Details

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%
19.6°	**22.7°**	**23.9°**

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

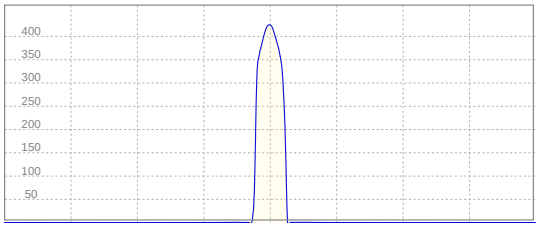


Beam Width (m)	0.3	1.7	3.5	5.2	6.9
Beam Width (ft)	1.1	5.7	11.3	17	22.7

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	423	106	47	26	17	12	9	7	5	4	3	3	3	2	2	2	1	1	1	1
FC	39.3	9.8	4.4	2.5	1.6	1.1	0.8	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1

Linear Distribution



Peak Candela

425 cd

Calculate Center Beam Intensities

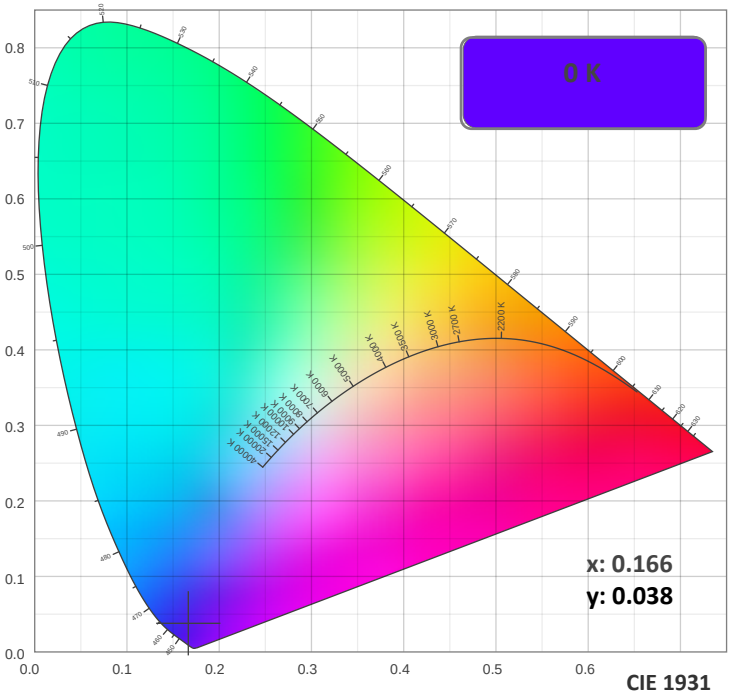
lux = 425 / distance(m)²

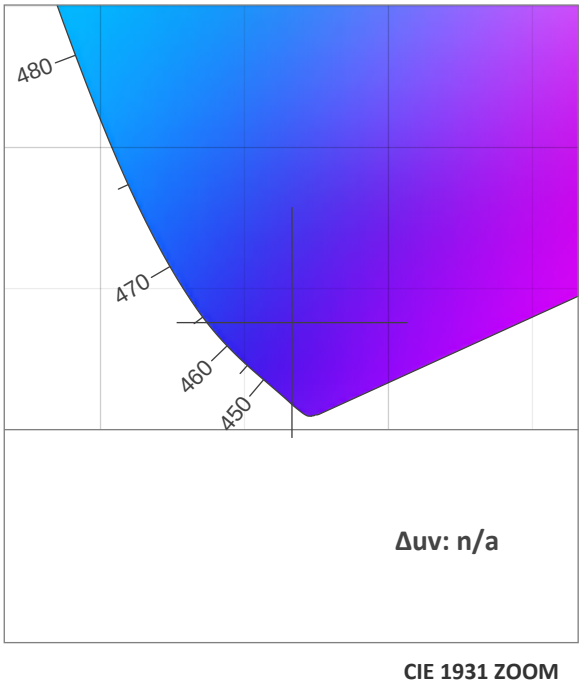
fc = 425 / distance(ft)²

Artiste Monet (UV)

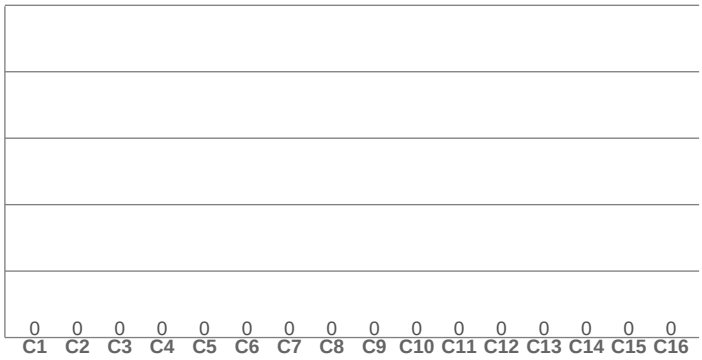
Prepared For ELATION PROFESSIONAL

Color Details

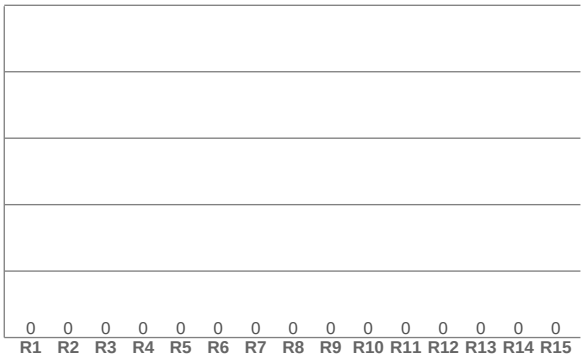




TM30: 0.0



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

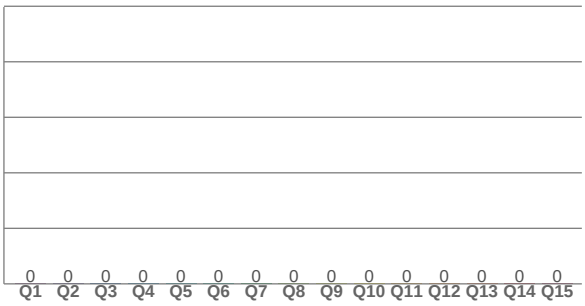
TM30 C Values, 16 binned values out of total of 99 C values

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 Deviation 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	0.166	0.038	0.213	0.073	n/a

Artiste Monet (UV)

Prepared For ELATION PROFESSIONAL

TM30 Details

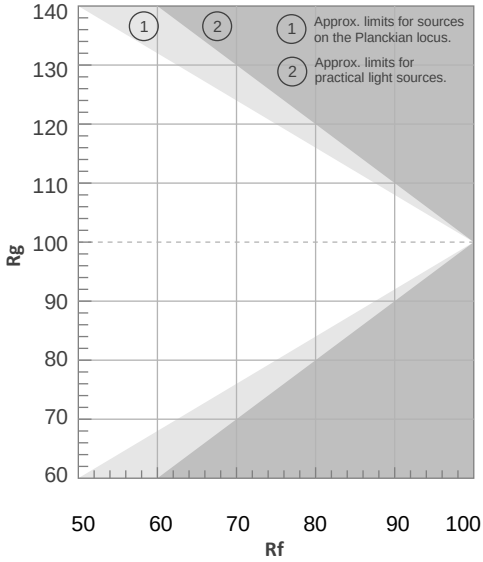
Rf 0.0

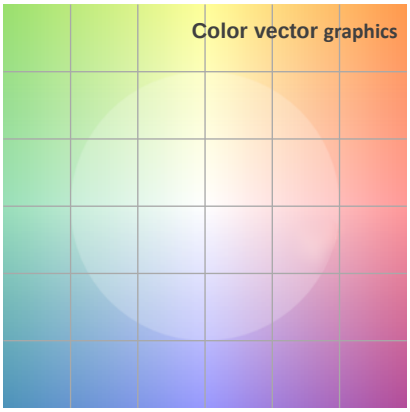
Fidelity Index Rf

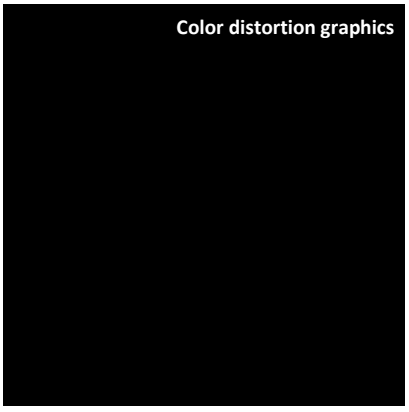
Rg 0.0

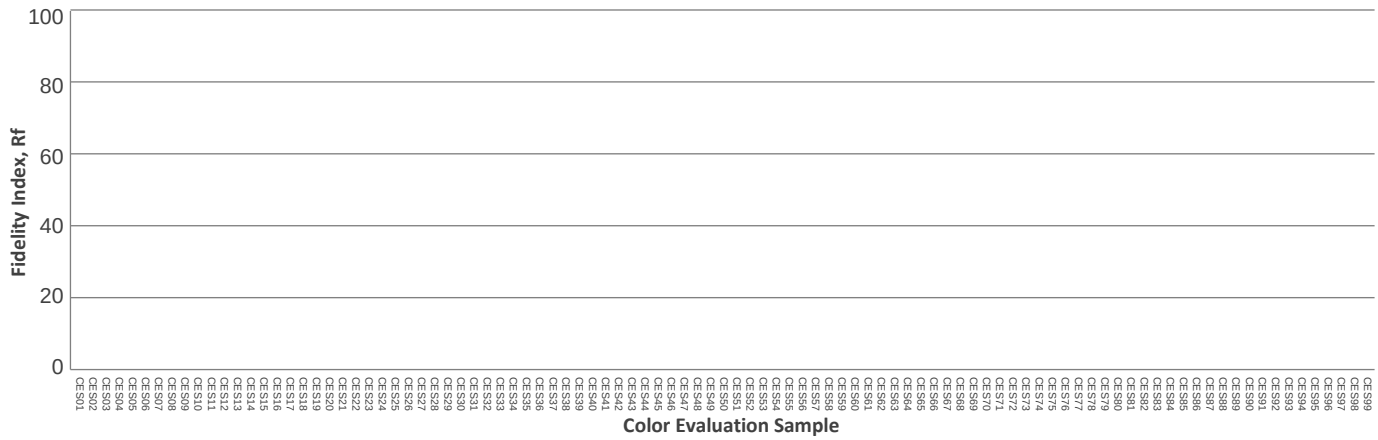
Gamut Index Rg

		Graphic shifts (%)	
Hue Bin	R_f	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%







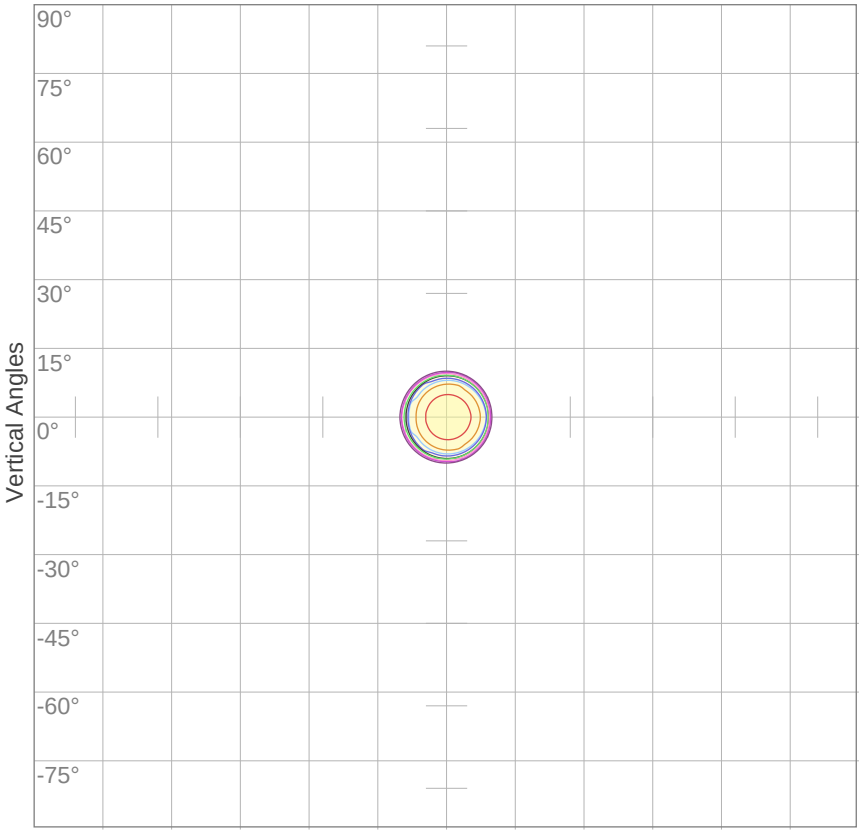


Artiste Monet (UV)

Prepared For ELATION PROFESSIONAL

ISO Diagrams

ISO Candela Diagram



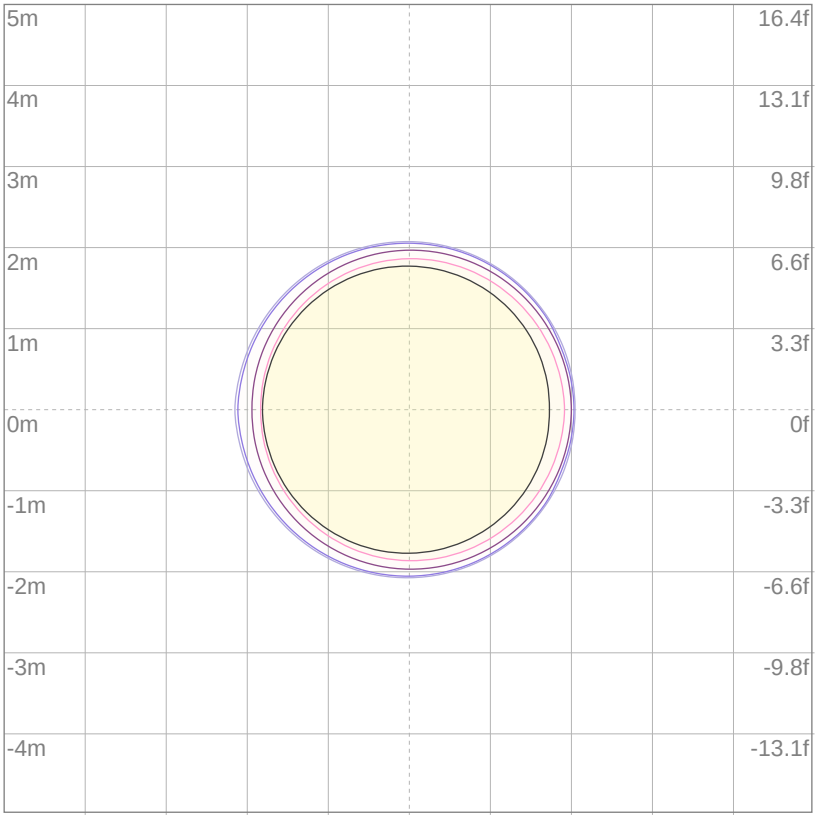
10%	42 cd
20%	85 cd
30%	127 cd
40%	169 cd
50%	212 cd
60%	254 cd
70%	296 cd
80%	339 cd
90%	381 cd

Conditions:

Number of c-planes: 2

Candela at center: 423 cd

ISO Lux Diagram



Mounting Height: 10 meters (33 feet)

3%	0.127 lx
5%	0.212 lx
10%	0.423 lx
30%	1.27 lx
50%	2.12 lx

Conditions:

Number of c-planes: 2

Lux at center: 4.23 lx

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