



Photometric Test Report



EclipseFresnel JDY

Cold White LED Fresnel Luminaire

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TESTING PROCESS

Prolights has its own optical testing laboratory in order to provide accurate photometric reports for its lighting products. The testing laboratory contains certain variety of precise lighting measurement systems that ensure an optimal reading of all the characteristic parameters of the lighting devices. All measurements are made at a controlled room temperature of 20°C without any external light sources. This photometric report is obtained through the data measured by a high precision measurement system and analyzed by a dedicate software.

Prolights measurement instrument

Prolights measurement instrument is a complete measurement system for any light source. It's equipped with two-axis goniometer, that enables to measure the full 3D distribution field of the light source. This instrument measures the light intensity, the beam angle and the most significative colors parameters, like color temperature, spectral distribution, CRI, CQS, TM-30 with a very high accuracy rate.

Please Note: All measurements are made with light source at operating temperature. Before starting the measurement, the instrument analyzes the process of the light source during the heating phase. The measuring process of all the parameters begins only when the light emission is stable, that is with a variation of less than 0.5% in a 15 minutes time frame.

Prolights measurement software

The software provides user friendly interface for the operator who does the measurements, and it also analyzes and processes all the collected data by the instrument. With this software it is possible to see the measured data in real-time and it is possible to examine all the measured data and graphics afterwards as well. All information is collected in a specific Prolights template, and the software creates also IES and LDT files, which are widely used to transfer the photometric data, and to develop lighting system.

Additionally, the fixtures are rechecked using various hand-held instruments like Sekonic C-700 and Gossen Mavospec Base, this is done to ensure, that the data in the photometric report are as accurate as possible.



Total lumen output:

5911 lm

Total candela output:

6457 cd

Light quality:

CRI: 90,6

Color temperature:

5585 K

PRODUCT NAME:

EclipseFresnel JDY

MEASUREMENT CONDITIONS:

Beam angle:

45°

Target:

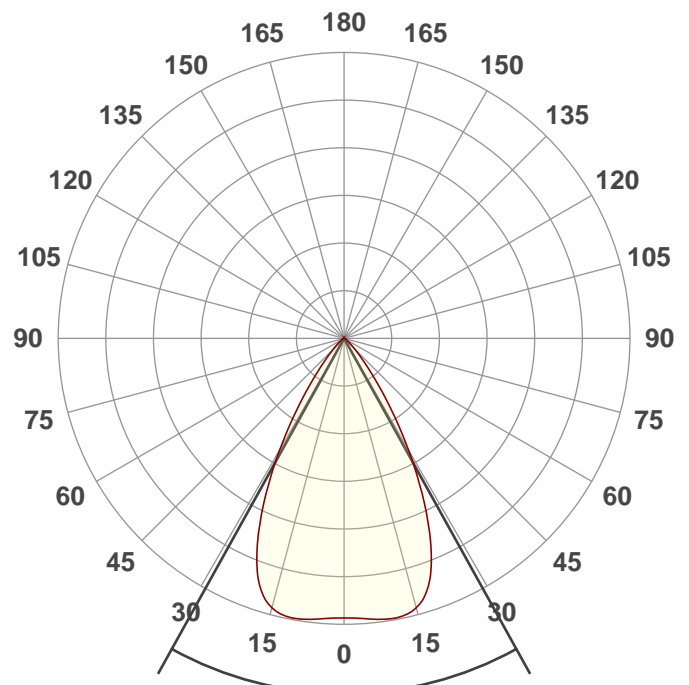
5600K

Operator:

Paolo Carvone

Date and time:

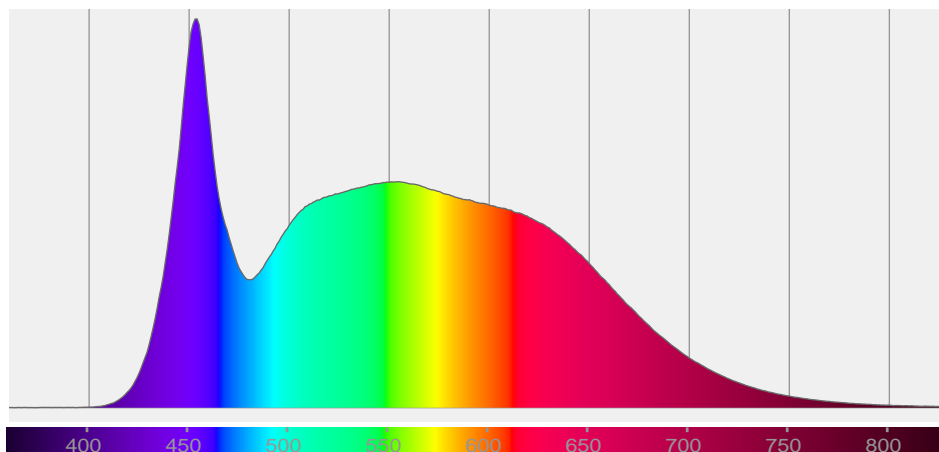
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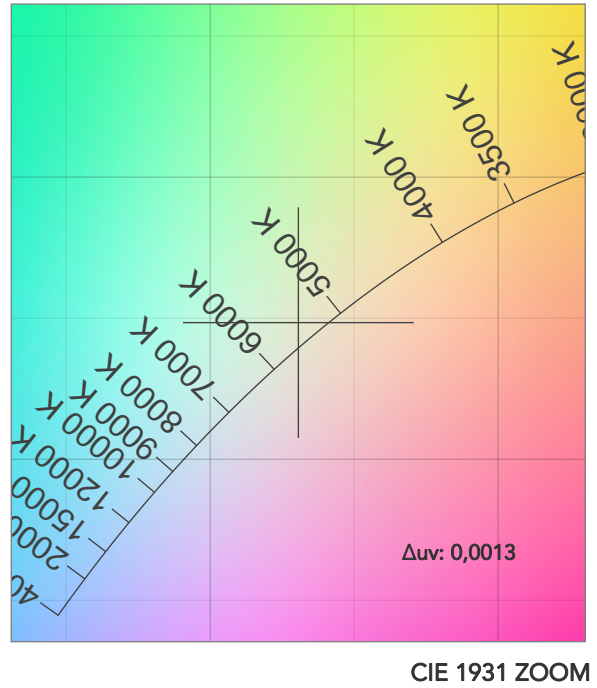
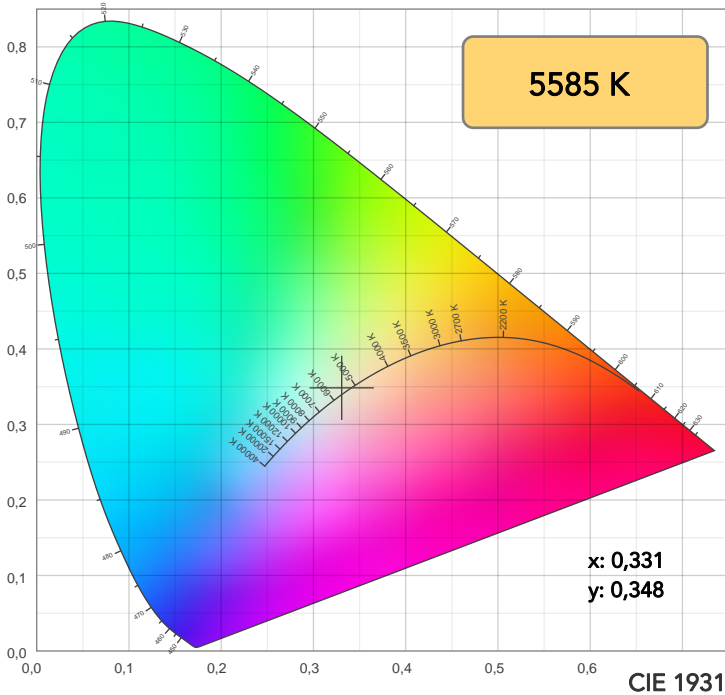


Beam angle

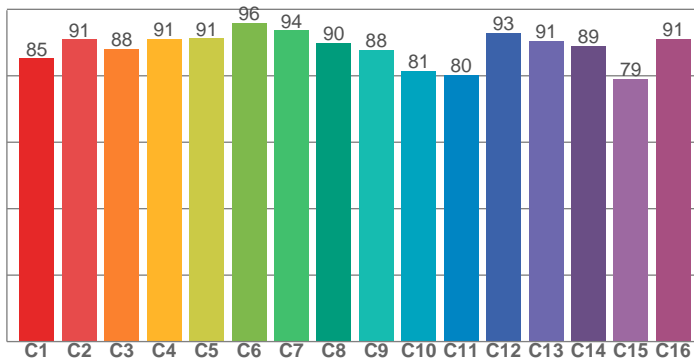
58°

Spectra

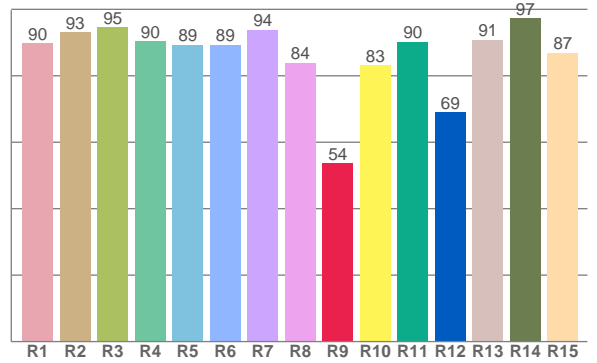




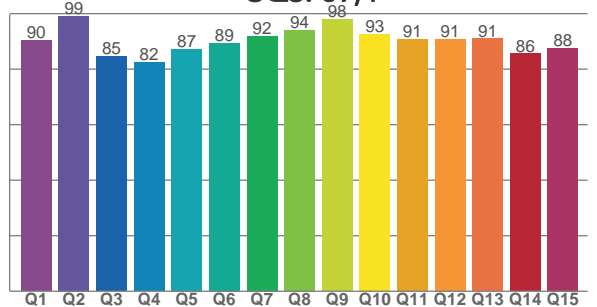
TM30: 88,4



CRI: 90,6 (R1-R8)



CQS: 89,4



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
89,8	93,2	94,7	90,4	89,4	89,4	93,9	83,9	53,6	83,2	90,2	69,0	90,8	97,2	87,0

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
85,2	90,9	88,2	91,1	91,2	95,8	93,7	89,9	87,9	81,4	80,2	92,9	90,6	89,1	79,2	91,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90,4	99,1	84,7	82,5	87,2	89,5	91,9	94,2	98,0	92,7	90,9	90,8	91,1	85,7	87,6

COLOR PARAMETERS

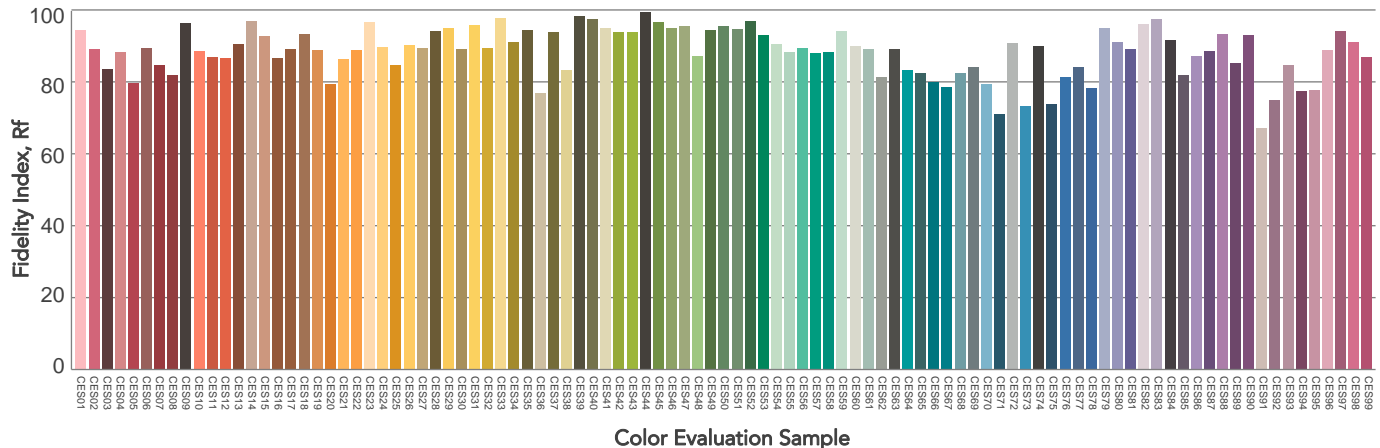
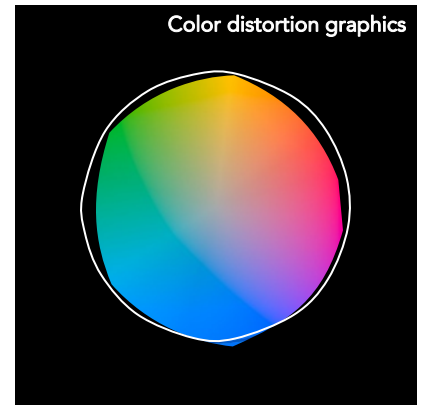
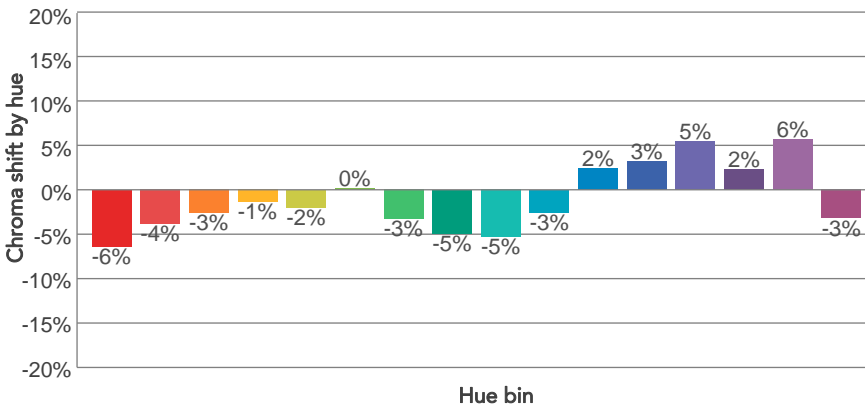
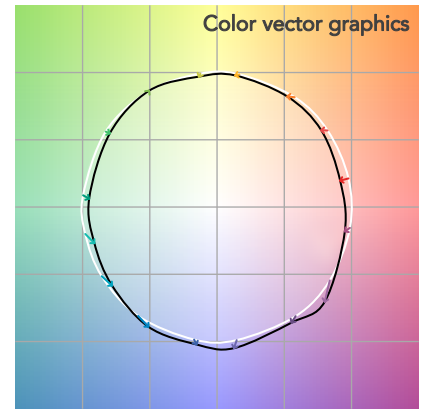
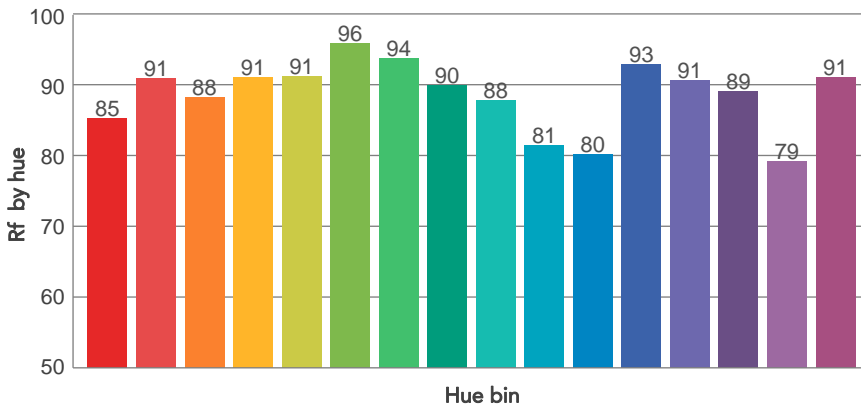
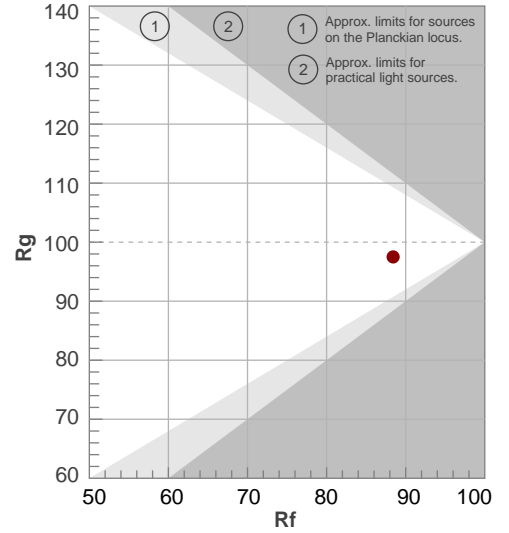
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5585 K	90,6	53,6	88,4	97,5	89,4	92	0,331	0,348	0,0013

TM30 DETAILS

Rf 88,4
Fidelity index Rf

Rg 97,5
Gammut index

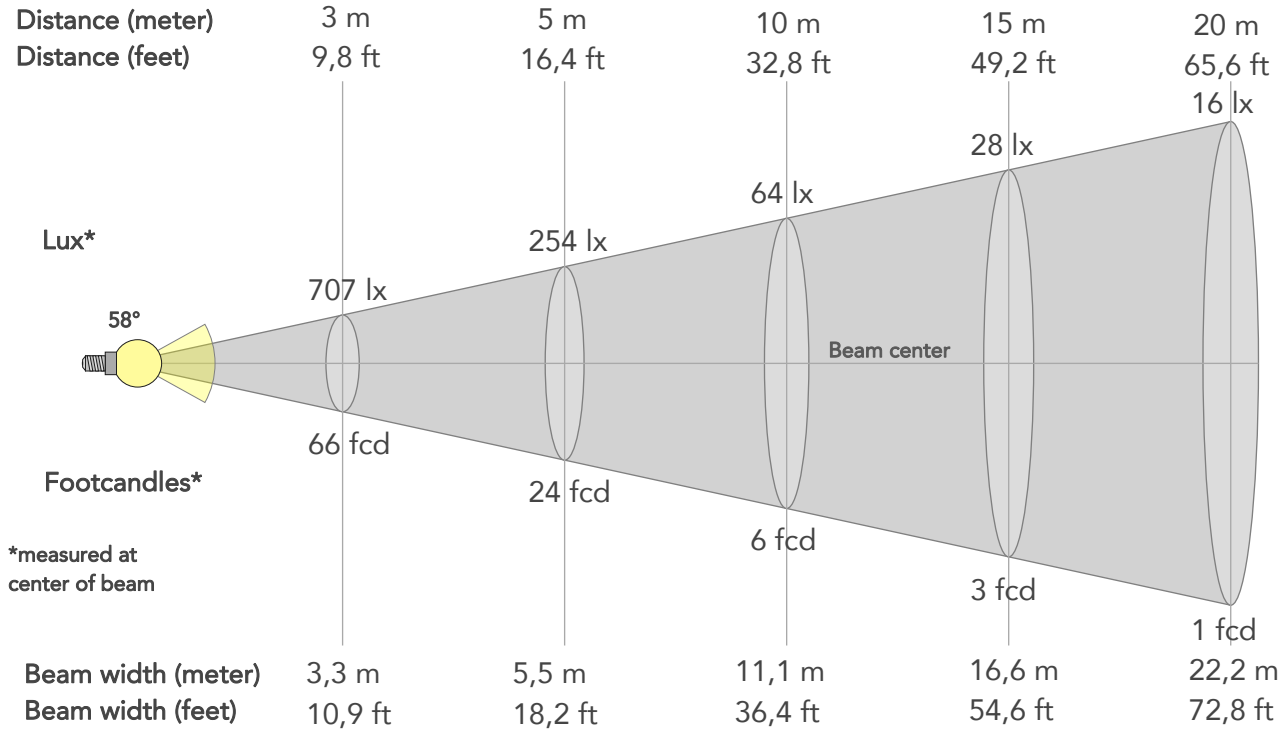
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	85	-6%	0%
2	91	-4%	3%
3	88	-3%	5%
4	91	-1%	3%
5	91	-2%	2%
6	96	0%	0%
7	94	-3%	-1%
8	90	-5%	2%
9	88	-5%	8%
10	81	-3%	10%
11	80	2%	11%
12	93	3%	2%
13	91	5%	-3%
14	89	2%	-5%
15	79	6%	-15%
16	91	-3%	-3%



BEAM DETAILS



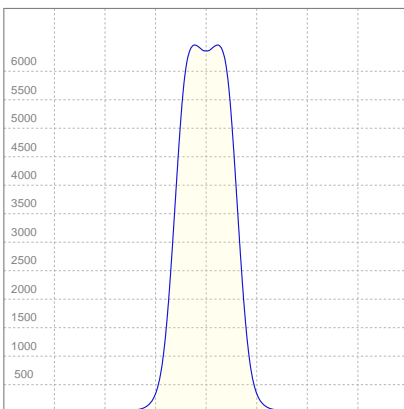
Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
58°	81,9°	101,2°	97,9%	94,7%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	6361lx	1590lx	707lx	398lx	254lx	113lx	64lx	28lx	16lx	10lx	7lx	4lx	3lx
Footcand.	591fcd	148fcd	66fcd	37fcd	24fcd	11fcd	6fcd	3fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	1,1m	2,2m	3,3m	4,4m	5,5m	8,3m	11,1m	16,6m	22,2m	27,7m	33,3m	44,4m	55,5m
Beam wid.	3,7ft	7,3ft	10,9ft	14,5ft	18,2ft	27,3ft	36,4ft	54,6ft	72,8ft	91ft	109,1ft	145,5ft	181,9ft

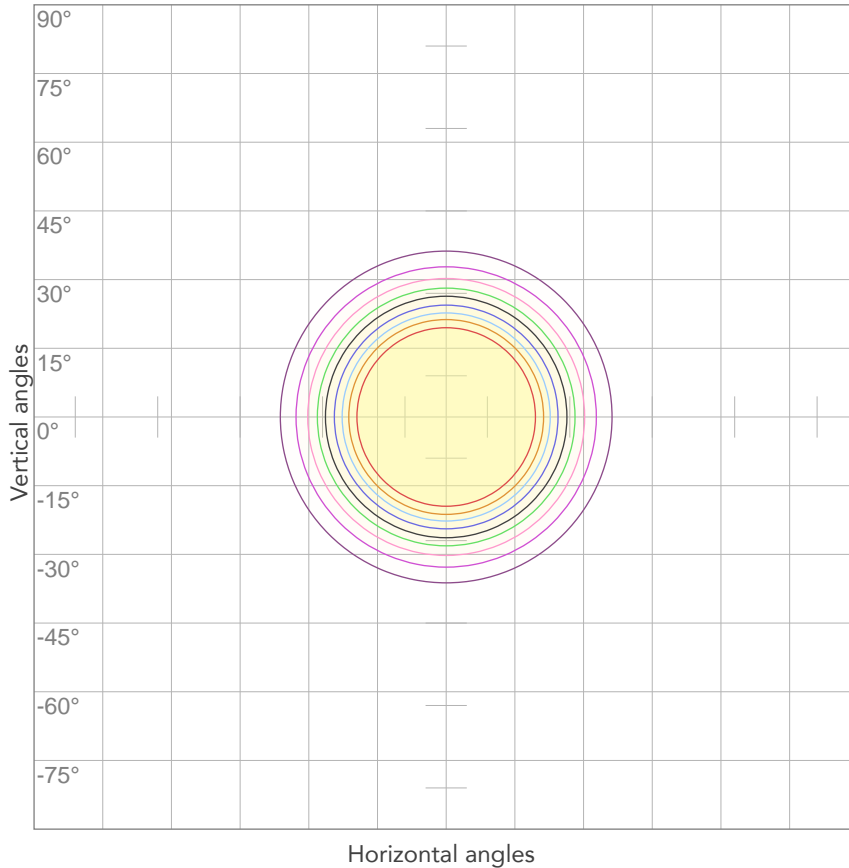
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,433A	92,5W	64lm/W

ISO CANDELA DIAGRAM



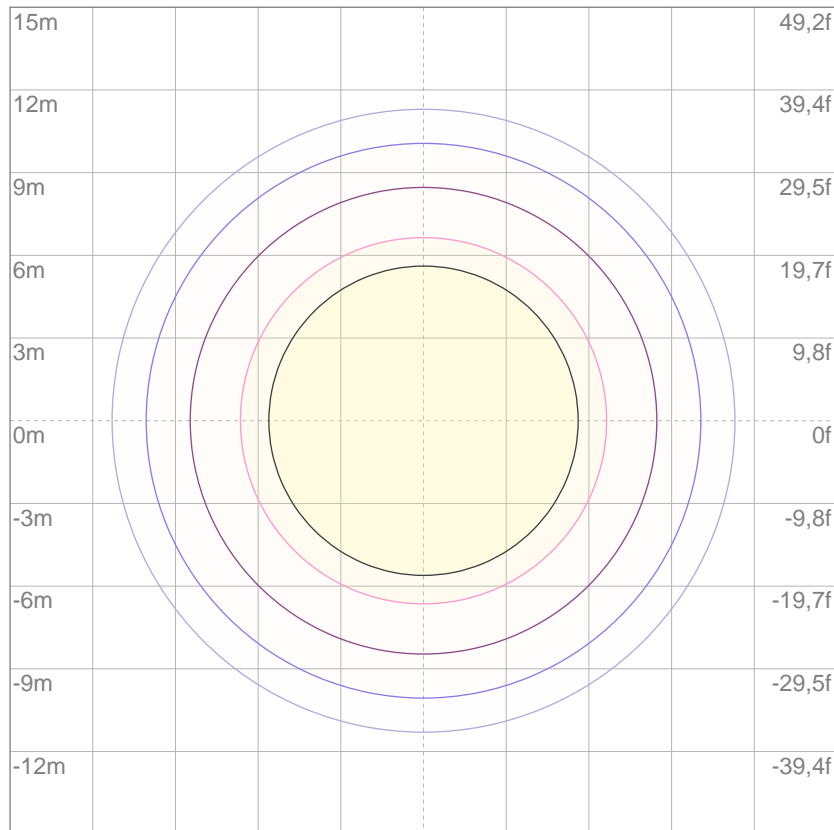
10%	636 cd
20%	1272 cd
30%	1908 cd
40%	2544 cd
50%	3181 cd
60%	3817 cd
70%	4453 cd
80%	5089 cd

Conditions:

Number of c-planes: 2

Candela at center: 6361 cd

ISO LUX DIAGRAM



3%	1,91 lx
5%	3,18 lx
10%	6,36 lx
30%	19,1 lx
50%	31,8 lx

Conditions:

Number of c-planes: 2

Lux at center: 63,6 lx

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

Mounting height: 10 meters (33 feet)



Total lumen output:

5587 lm

Total candela output:

18408 cd

Light quality:

CRI: 90,5

Color temperature:

5619 K

PRODUCT NAME:

EclipseFresnel JDY

MEASUREMENT CONDITIONS:

Beam angle:

30°

Target:

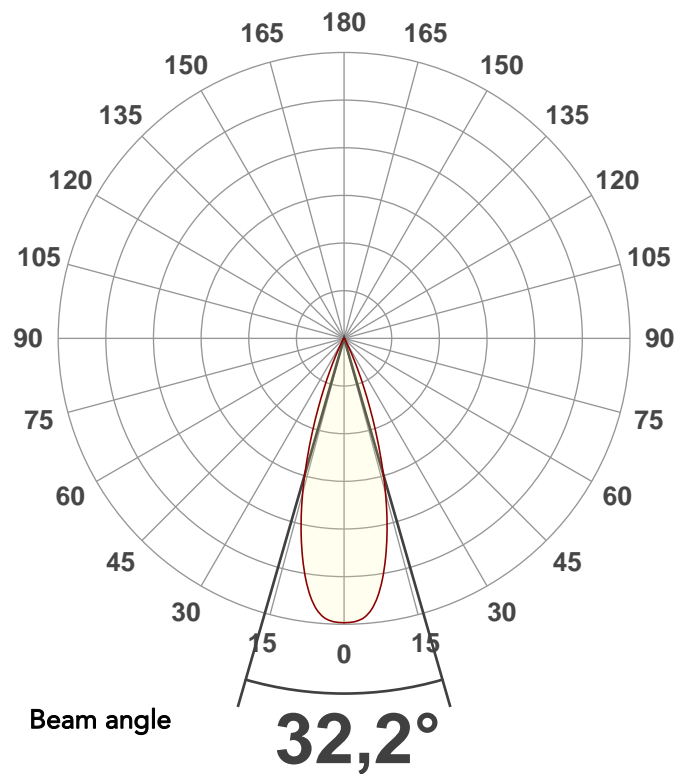
5600K

Operator:

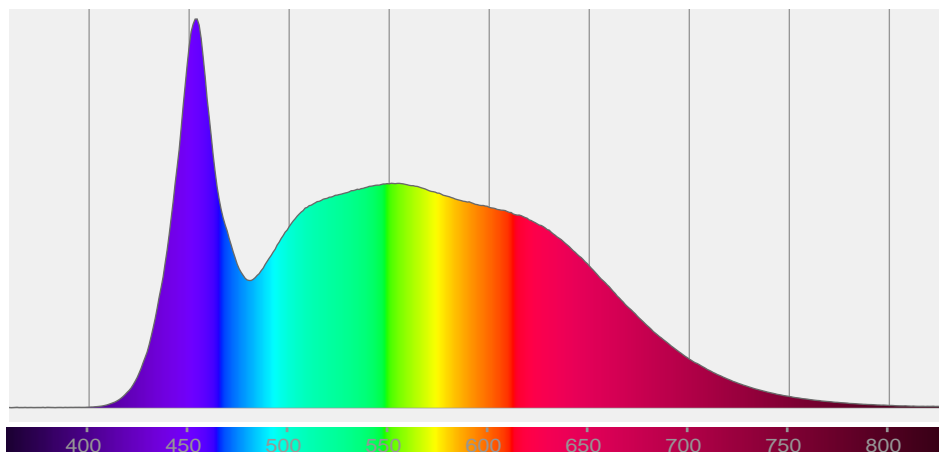
Paolo Carvone

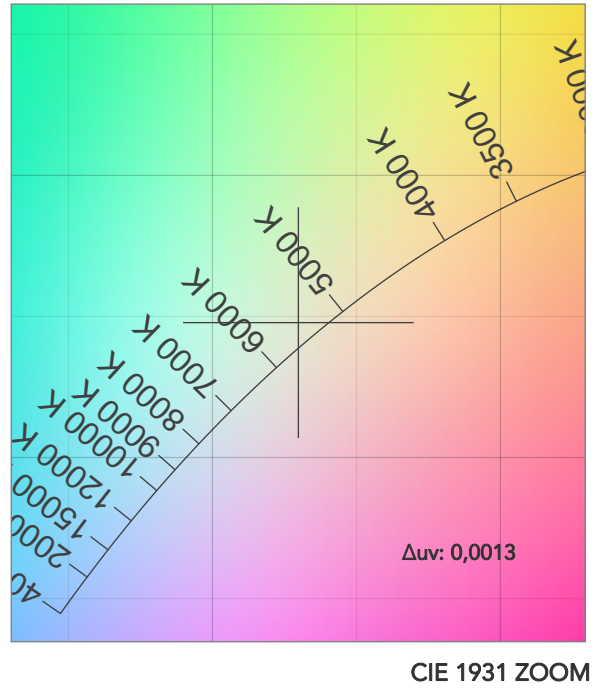
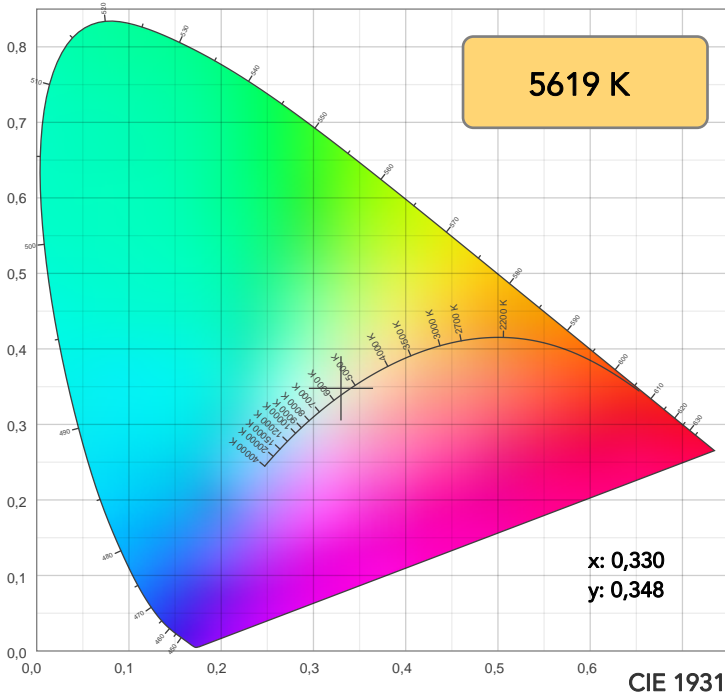
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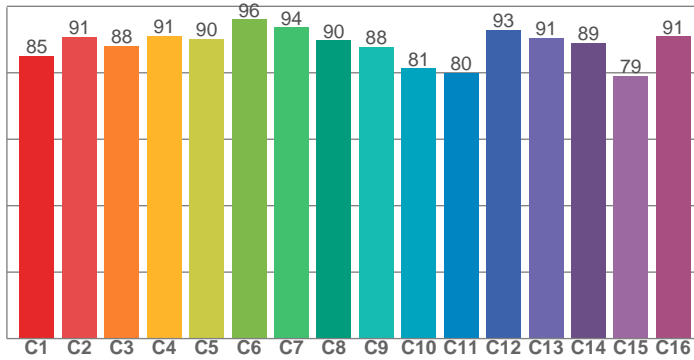


Spectra

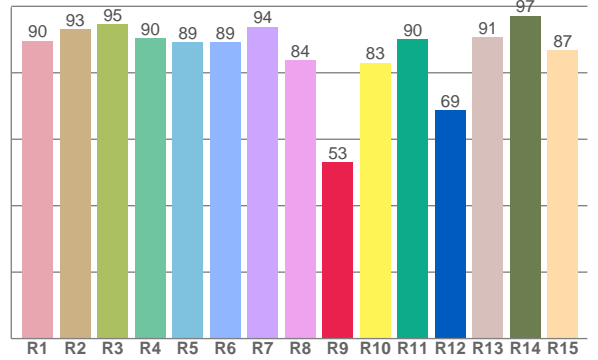




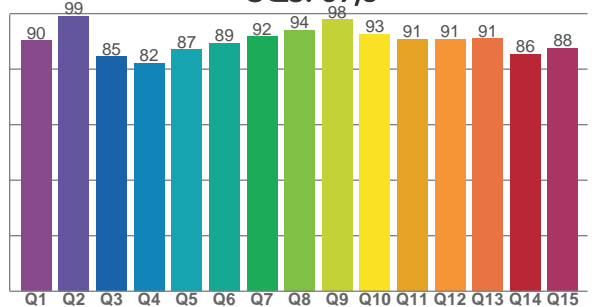
TM30: 88,3



CRI: 90,5 (R1-R8)



CQS: 89,3



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
89,6	93,1	94,6	90,3	89,3	89,3	93,8	83,8	53,1	83,0	90,1	68,7	90,7	97,2	86,8

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
85,1	90,8	88,1	91,0	90,2	96,1	93,6	89,8	87,7	81,3	80,1	92,9	90,5	89,0	79,0	91,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90,3	99,1	84,6	82,3	87,1	89,3	91,8	94,1	97,9	92,6	90,8	90,7	91,0	85,5	87,5

COLOR PARAMETERS

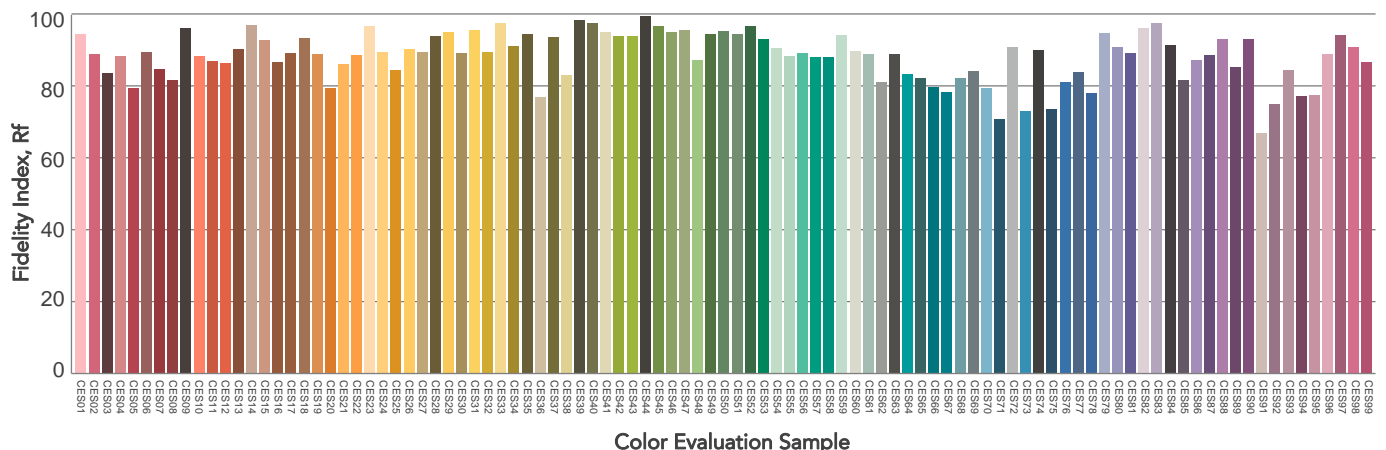
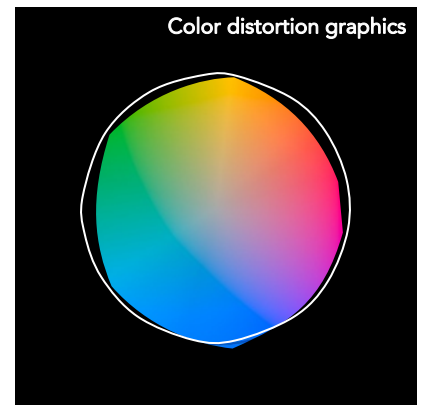
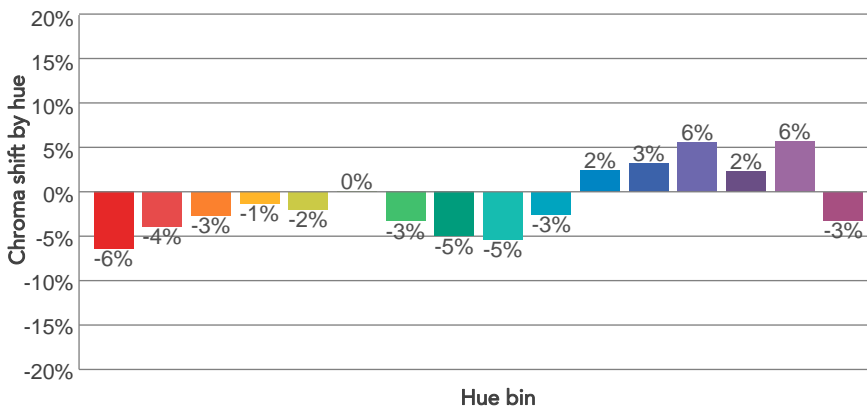
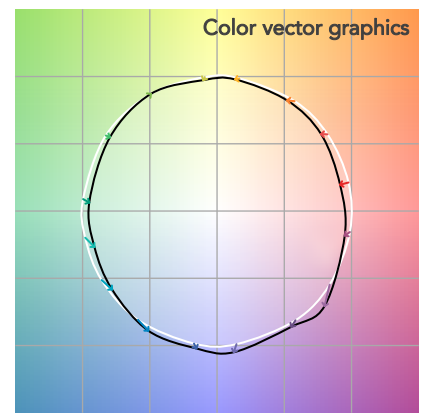
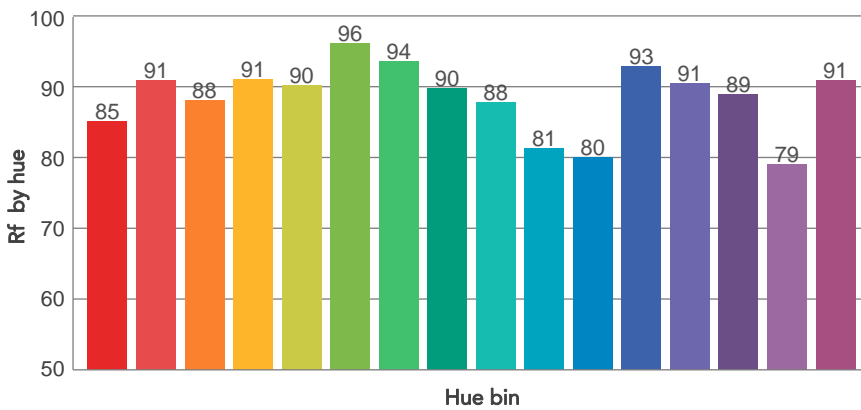
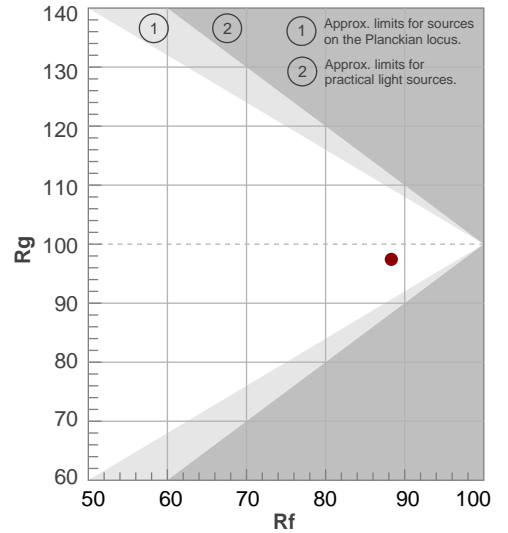
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5619 K	90,5	53,1	88,3	97,4	89,3	92	0,330	0,348	0,0013

TM30 DETAILS

Rf 88,3
Fidelity index Rf

Rg 97,4
Gammut index

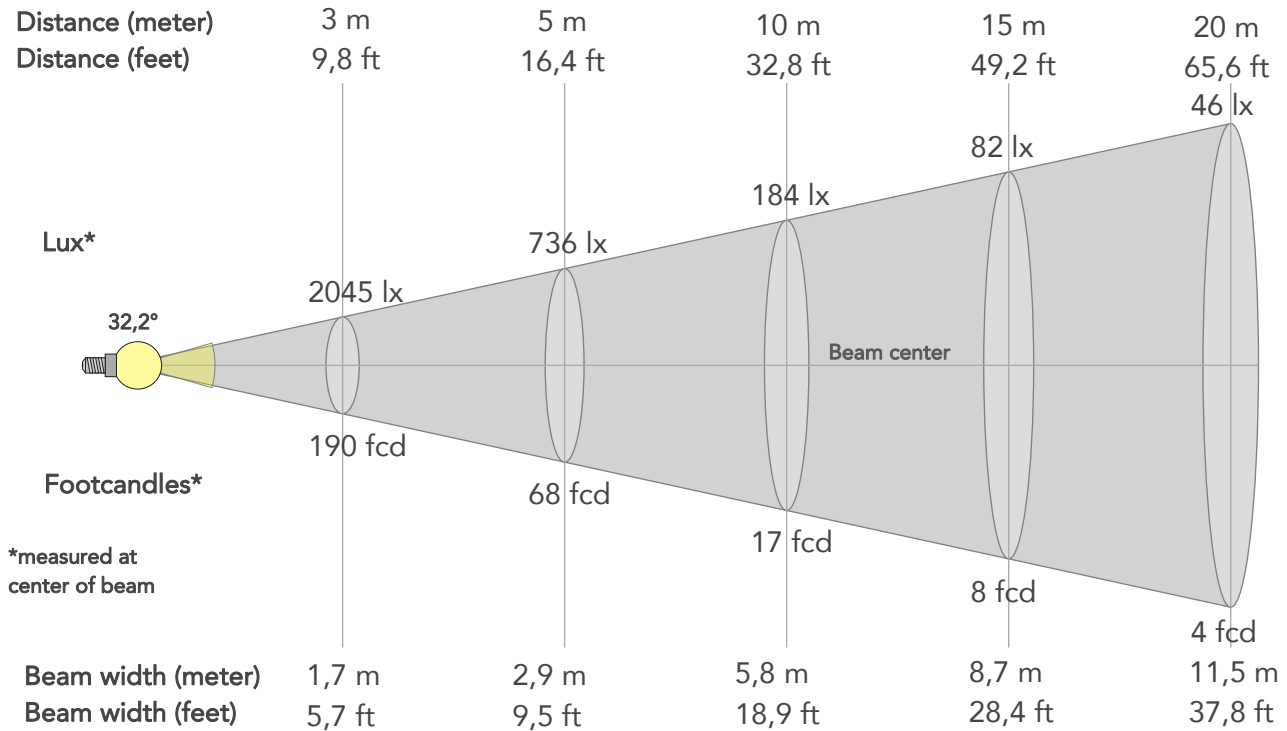
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	85	-6%	0%
2	91	-4%	3%
3	88	-3%	5%
4	91	-1%	3%
5	90	-2%	2%
6	96	0%	0%
7	94	-3%	-1%
8	90	-5%	2%
9	88	-5%	8%
10	81	-3%	10%
11	80	2%	11%
12	93	3%	2%
13	91	6%	-3%
14	89	2%	-5%
15	79	6%	-15%
16	91	-3%	-3%



BEAM DETAILS



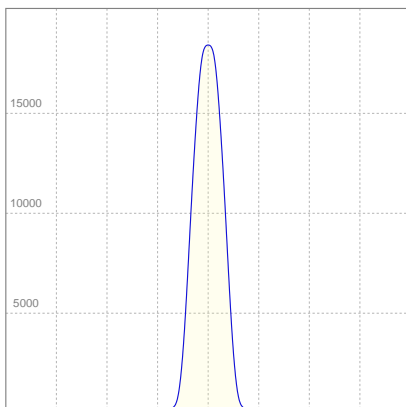
Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
32,2°	48,9°	57,9°	98,1%	96,3%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	18408lx	4602lx	2045lx	1151lx	736lx	327lx	184lx	82lx	46lx	29lx	20lx	12lx	7lx
Footcand.	1710fcd	428fcd	190fcd	107fcd	68fcd	30fcd	17fcd	8fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,6m	1,2m	1,7m	2,3m	2,9m	4,3m	5,8m	8,7m	11,5m	14,4m	17,3m	23,1m	28,8m
Beam wid.	1,9ft	3,8ft	5,7ft	7,6ft	9,5ft	14,2ft	18,9ft	28,4ft	37,8ft	47,3ft	56,7ft	75,7ft	94,6ft

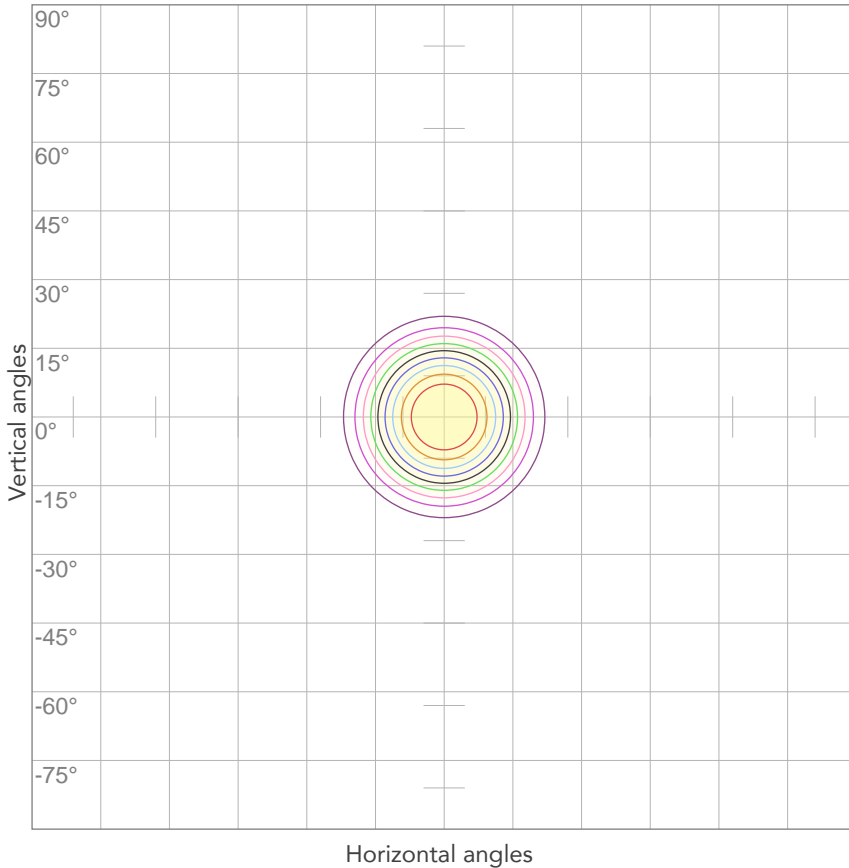
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,432A	92,4W	60lm/W

ISO CANDELA DIAGRAM



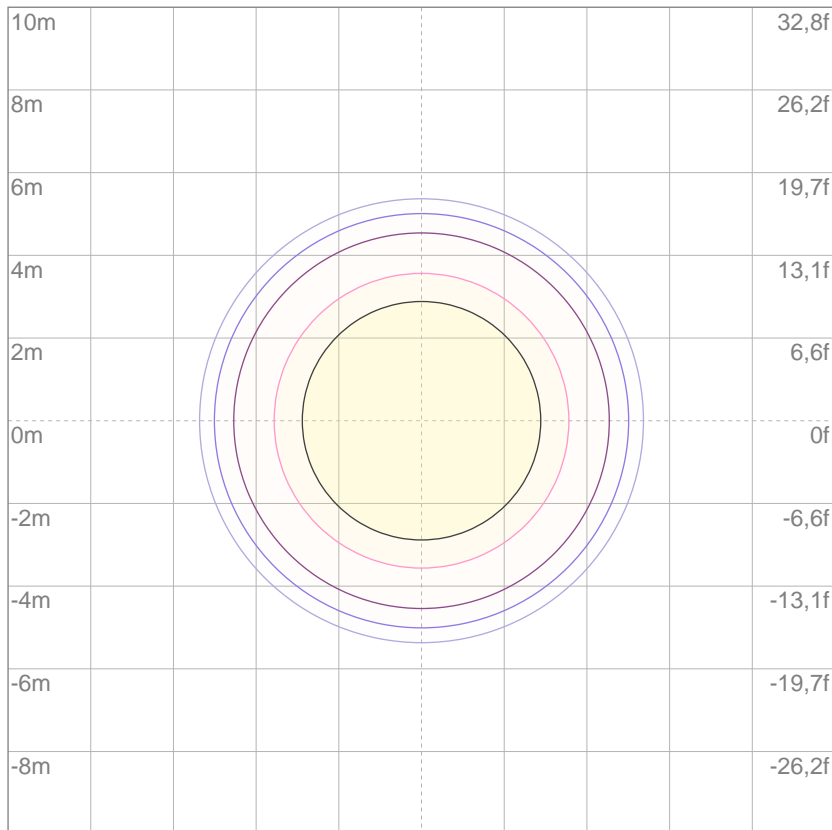
10%	1841 cd
20%	3682 cd
30%	5522 cd
40%	7363 cd
50%	9204 cd
60%	11045 cd
70%	12886 cd
80%	14727 cd

Conditions:

Number of c-planes: 2

Candela at center: 18408 cd

ISO LUX DIAGRAM



3%	5,52 lx
5%	9,20 lx
10%	18,4 lx
30%	55,2 lx
50%	92,0 lx

Conditions:

Number of c-planes: 2

Lux at center: 184 lx

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



Total lumen output:

3656 lm

Total candela output:

40608 cd

Light quality:

CRI: 90,5

Color temperature:

5676 K

PRODUCT NAME:

EclipseFresnel JDY

MEASUREMENT CONDITIONS:

Beam angle:

15°

Target:

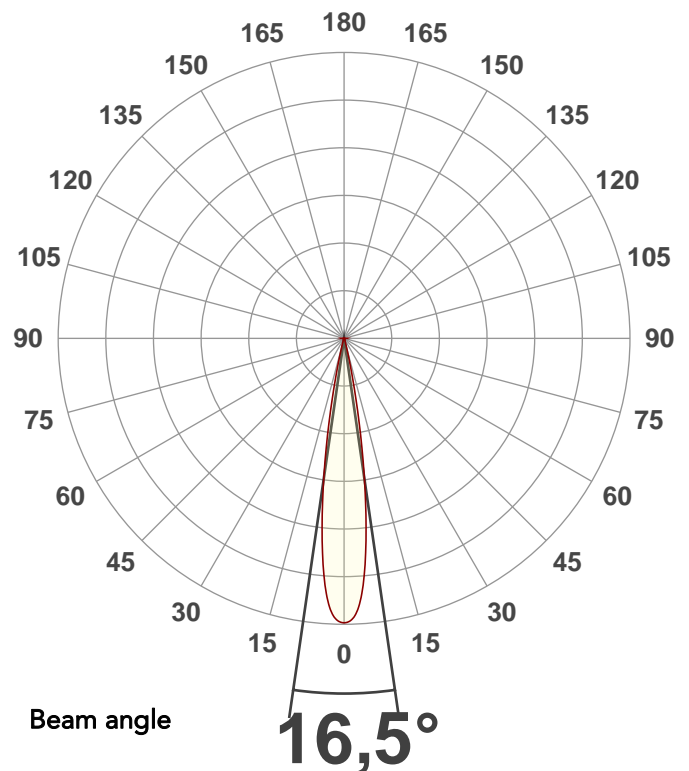
5600K

Operator:

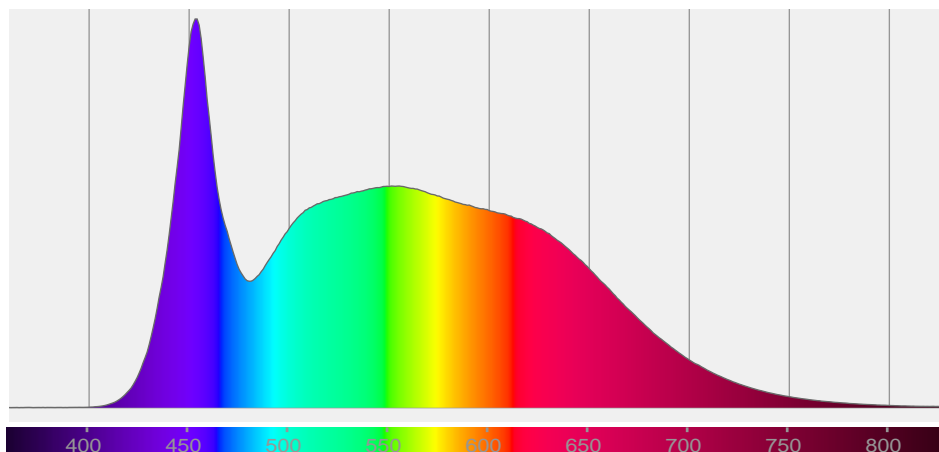
Paolo Carvone

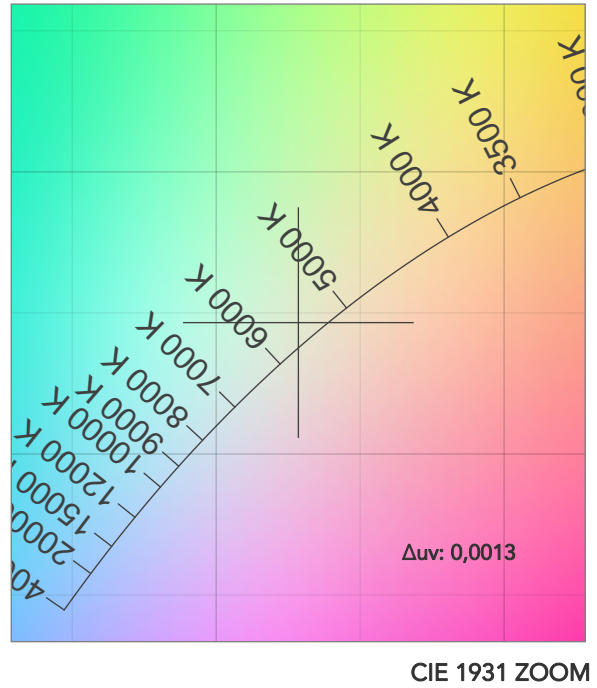
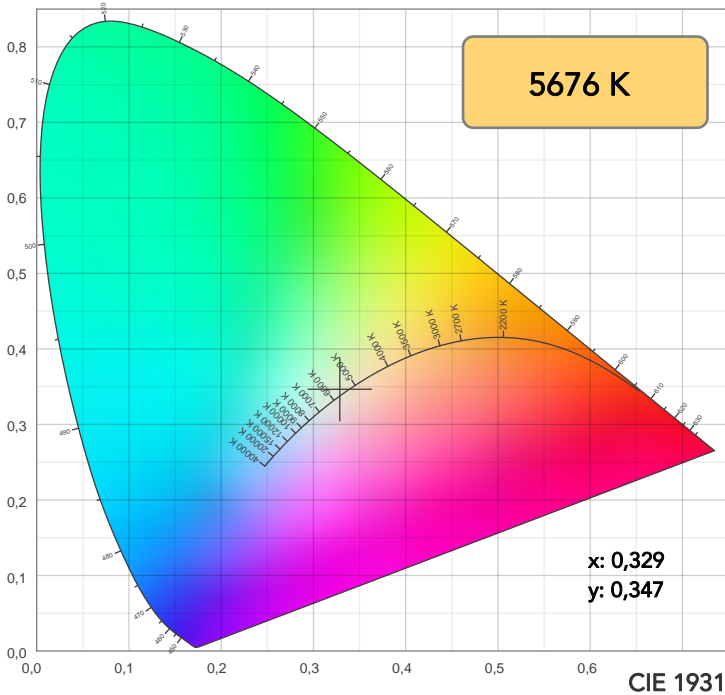
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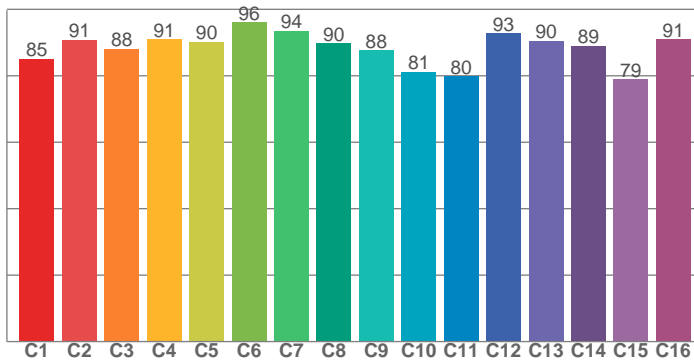


Spectra

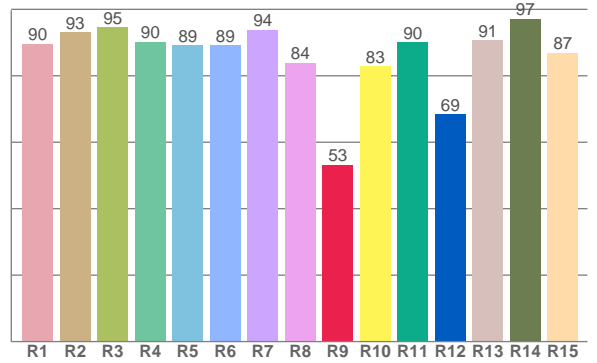




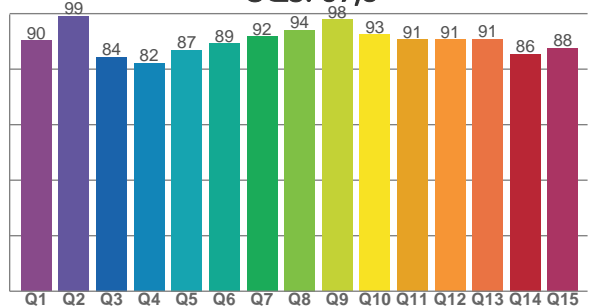
TM30: 88,2



CRI: 90,5 (R1-R8)



CQS: 89,3



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
89,6	93,1	94,5	90,3	89,2	89,2	93,9	83,9	53,3	83,0	90,0	68,5	90,7	97,2	86,9

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
85,1	90,8	88,1	91,0	90,1	96,1	93,5	89,7	87,6	81,1	79,9	92,8	90,5	89,0	78,9	90,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90,3	99,1	84,4	82,1	86,9	89,2	91,8	94,1	97,9	92,5	90,7	90,7	90,9	85,5	87,5

COLOR PARAMETERS

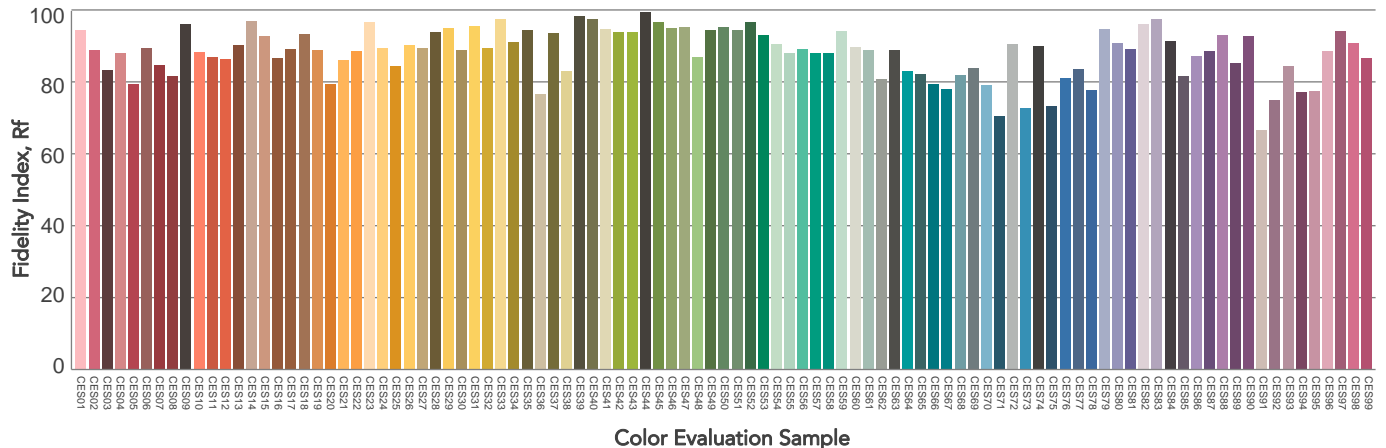
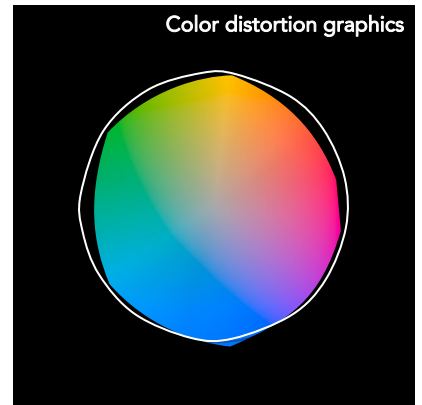
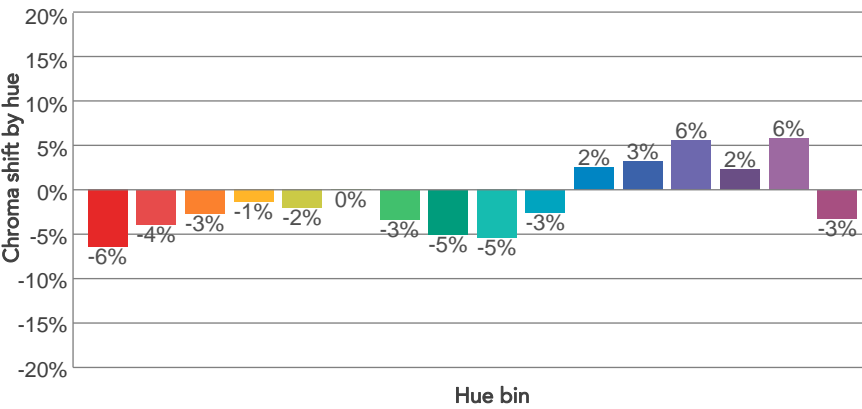
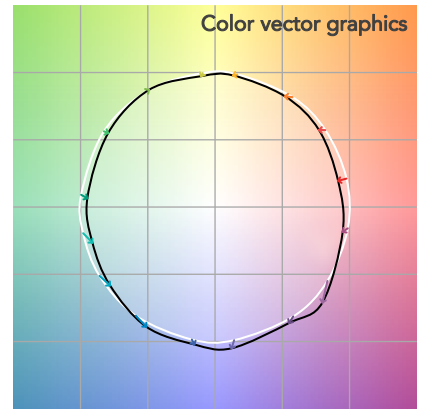
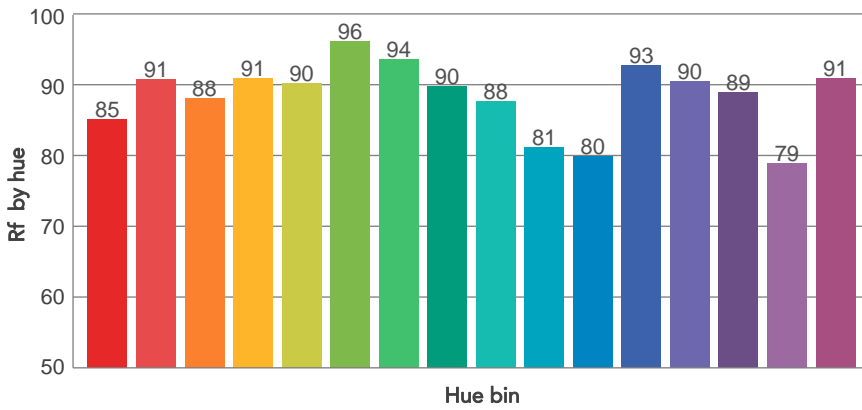
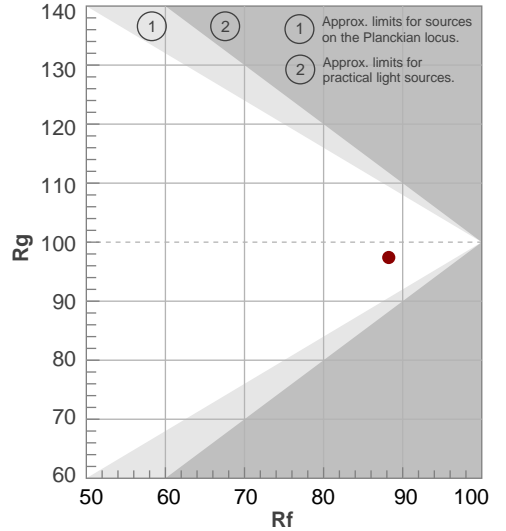
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5676 K	90,5	53,3	88,2	97,4	89,3	92	0,329	0,347	0,0013

TM30 DETAILS

Rf 88,2
Fidelity index Rf

Rg 97,4
Gammut index

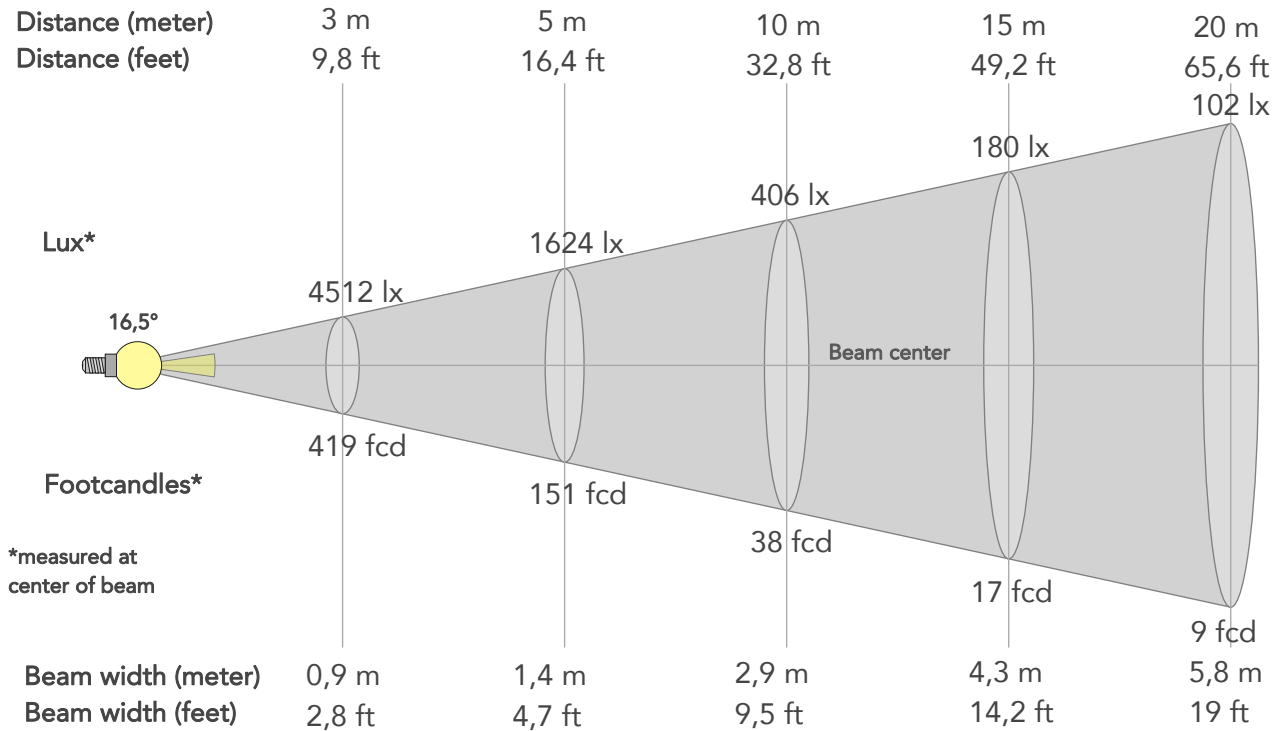
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	85	-6%	0%
2	91	-4%	3%
3	88	-3%	5%
4	91	-1%	3%
5	90	-2%	2%
6	96	0%	0%
7	94	-3%	-1%
8	90	-5%	2%
9	88	-5%	8%
10	81	-3%	10%
11	80	2%	11%
12	93	3%	3%
13	90	6%	-3%
14	89	2%	-5%
15	79	6%	-15%
16	91	-3%	-3%



BEAM DETAILS



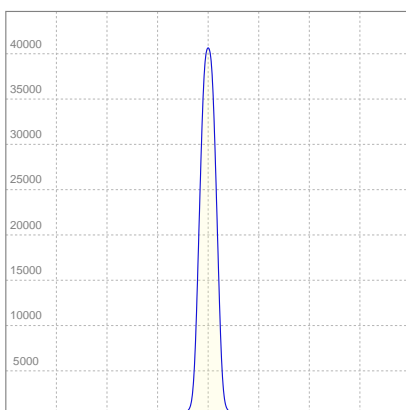
Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16,5°	25,8°	32,2°	97,7%	95,4%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	40608lx	10152lx	4512lx	2538lx	1624lx	722lx	406lx	180lx	102lx	65lx	45lx	25lx	16lx
Footcand.	3773fcd	943fcd	419fcd	236fcd	151fcd	67fcd	38fcd	17fcd	9fcd	6fcd	4fcd	2fcd	2fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,4m	2,2m	2,9m	4,3m	5,8m	7,2m	8,7m	11,6m	14,5m
Beam wid.	1ft	1,9ft	2,8ft	3,8ft	4,7ft	7,1ft	9,5ft	14,2ft	19ft	23,7ft	28,5ft	38ft	47,5ft

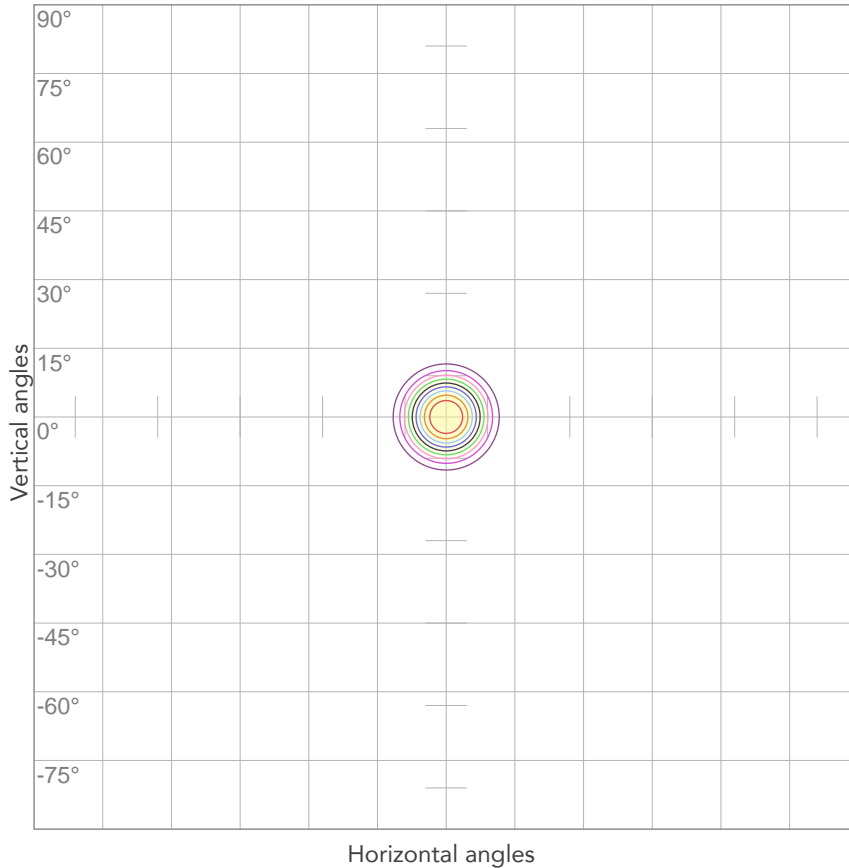
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,431A	92,3W	40lm/W

ISO CANDELA DIAGRAM



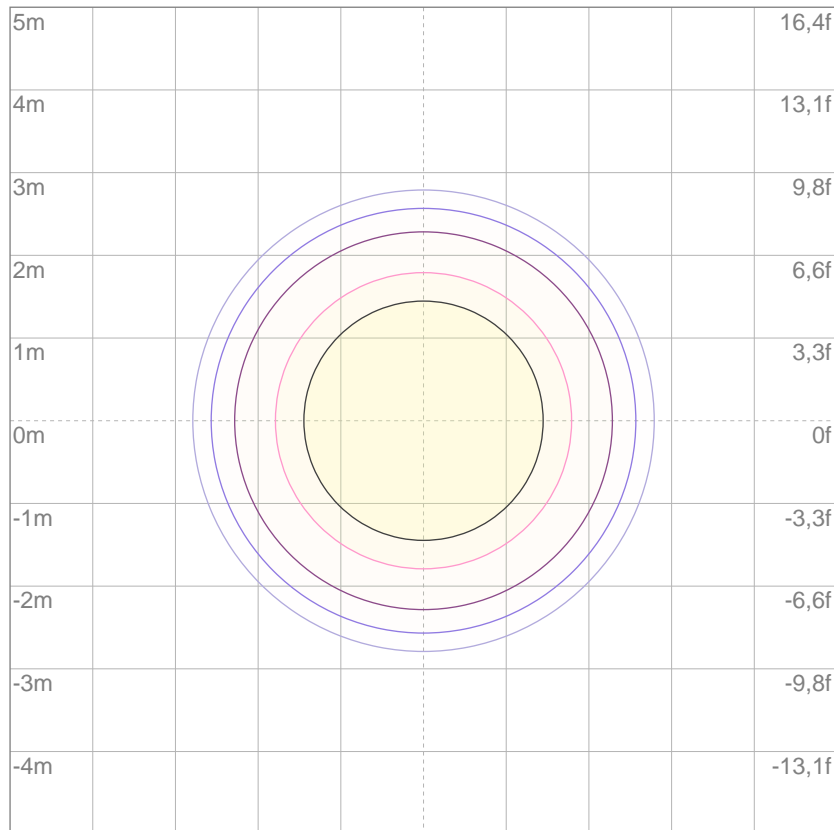
10%	4061 cd
20%	8122 cd
30%	12183 cd
40%	16243 cd
50%	20304 cd
60%	24365 cd
70%	28426 cd
80%	32487 cd

Conditions:

Number of c-planes: 2

Candela at center: 40608 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	12,2 lx
5%	20,3 lx
10%	40,6 lx
30%	122 lx
50%	203 lx

Conditions:

Number of c-planes: 2

Lux at center: 406 lx

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