

Photometric Test Report



ECLCTPLUS IP PRL36

Waterproofed high quality six colours LED ellipsoidal, Tunable White and colour mixing

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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:

6814 lm

Peak candela output:

20447 cd

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL36

Target:

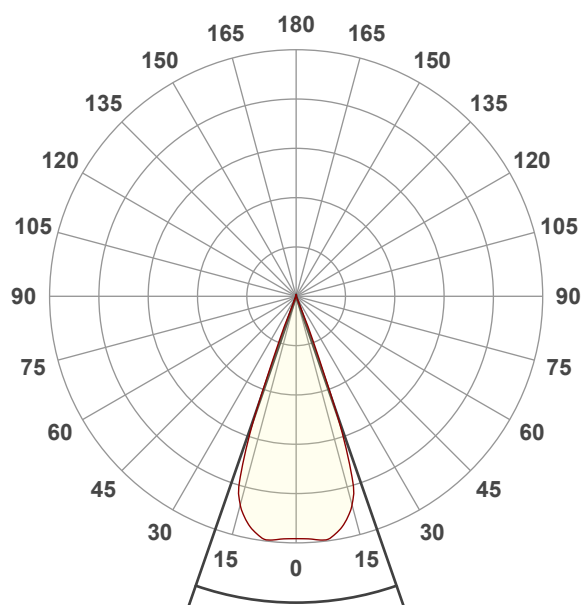
Full On HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 15:37:09

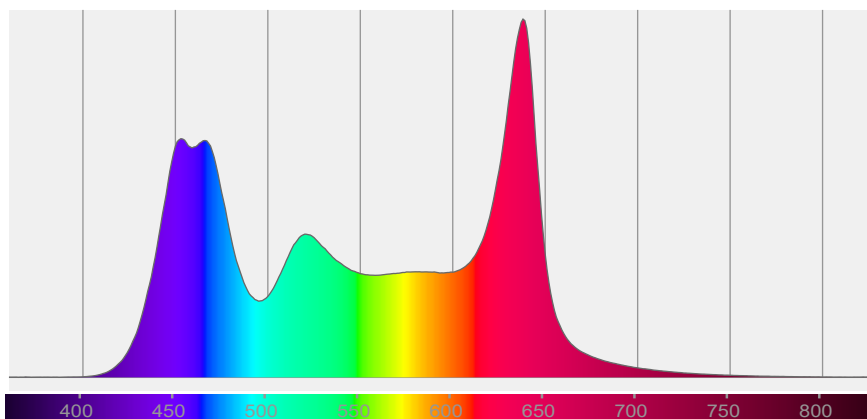


Beam angle 50%: 38,3°

Field angle 10%: 43,5°

Cut off angle 2.5%: 45,1°

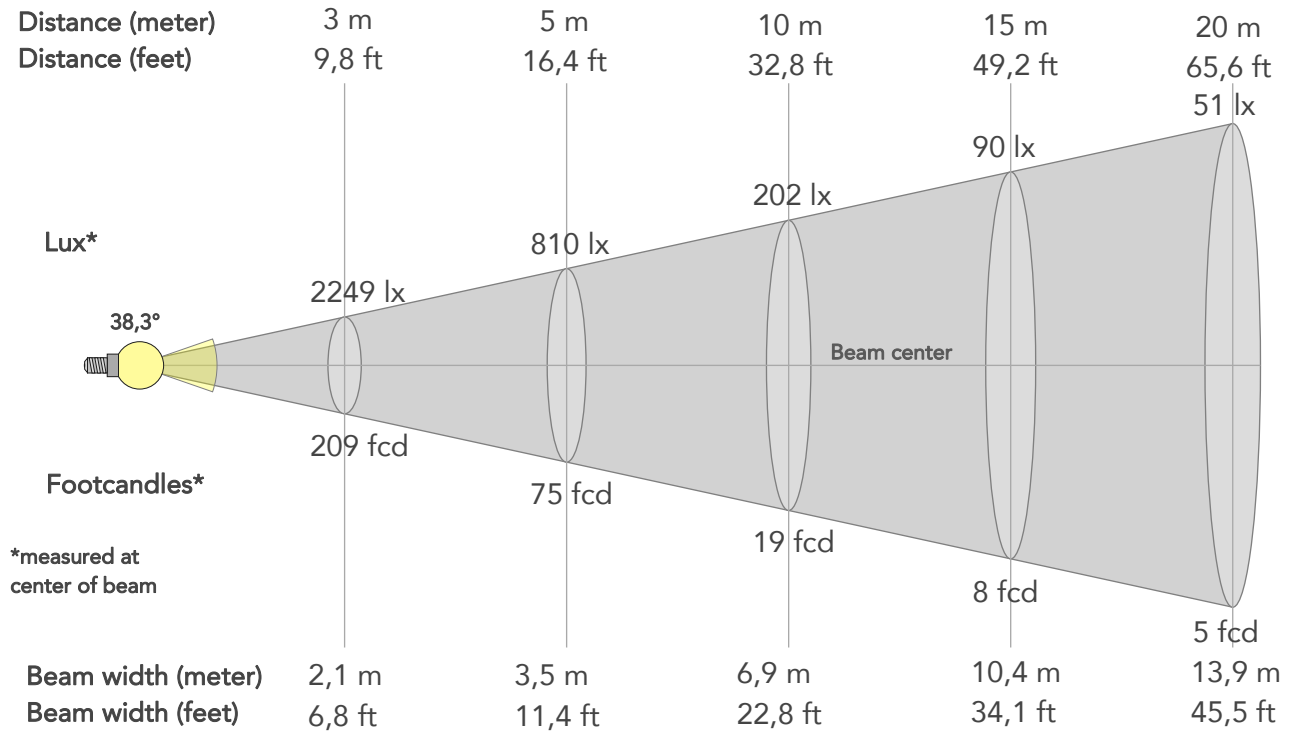
Spectra



BEAM DETAILS



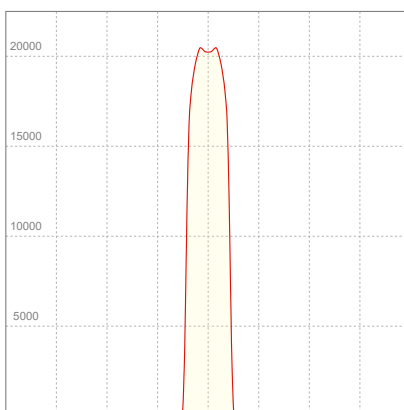
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
38,3°	43,5°	45,1°	99,8%	99,8%



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	20239lx	5060lx	2249lx	1265lx	810lx	360lx	202lx	90lx	51lx	32lx	22lx	13lx	8lx
Footcand.	1880fcd	470fcd	209fcd	118fcd	75fcd	33fcd	19fcd	8fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,7m	1,4m	2,1m	2,8m	3,5m	5,2m	6,9m	10,4m	13,9m	17,3m	20,8m	27,8m	34,7m
Beam wid.	2,3ft	4,6ft	6,8ft	9,1ft	11,4ft	17,1ft	22,8ft	34,1ft	45,5ft	56,9ft	68,3ft	91ft	113,8ft

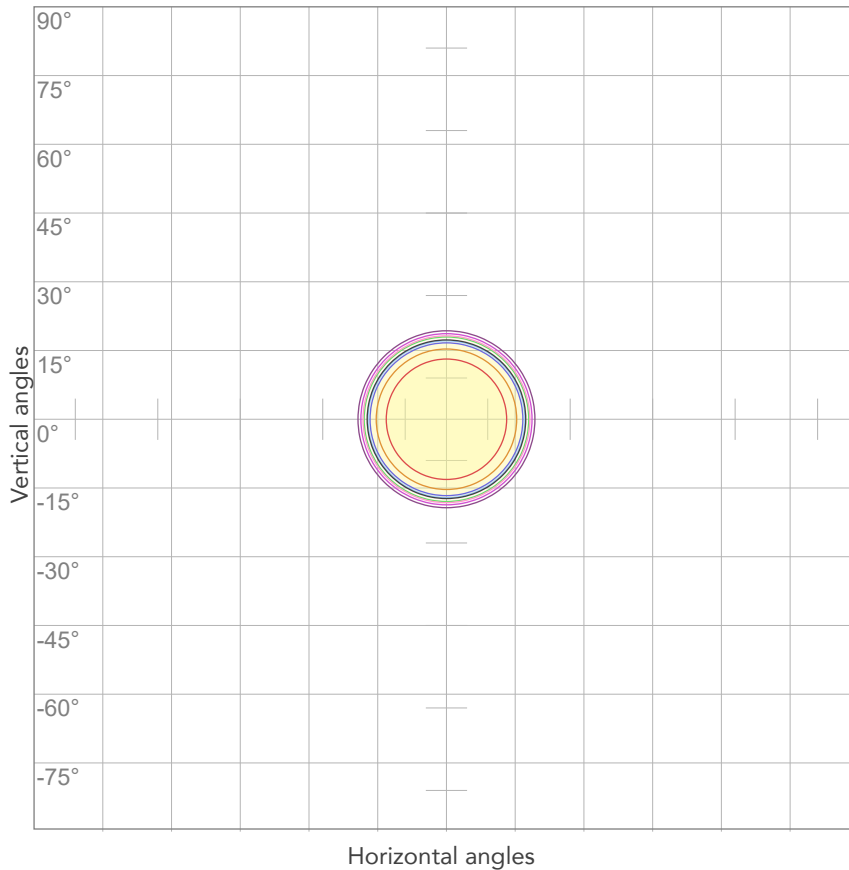
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	1,22A	264,3W	26lm/W
Power FC			
0,96			

ISO CANDELA DIAGRAM



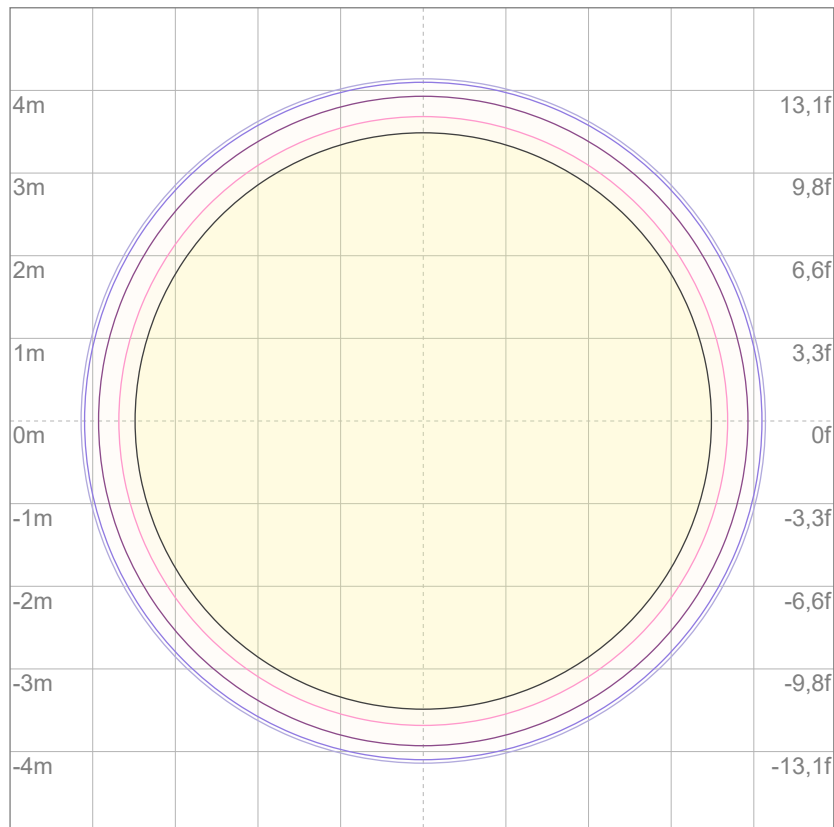
10%	2024 cd
20%	4048 cd
30%	6072 cd
40%	8096 cd
50%	10120 cd
60%	12144 cd
70%	14167 cd
80%	16191 cd

Conditions:

Number of c-planes: 2

Candela at center: 20239 cd

ISO LUX DIAGRAM



3%	6,07 lx
5%	10,1 lx
10%	20,2 lx
30%	60,7 lx
50%	101 lx

Conditions:

Number of c-planes: 2

Lux at center: 202 lx

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



Total lumen output:

1040 lm

Peak candela output:

3656 cd

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL36

Target:

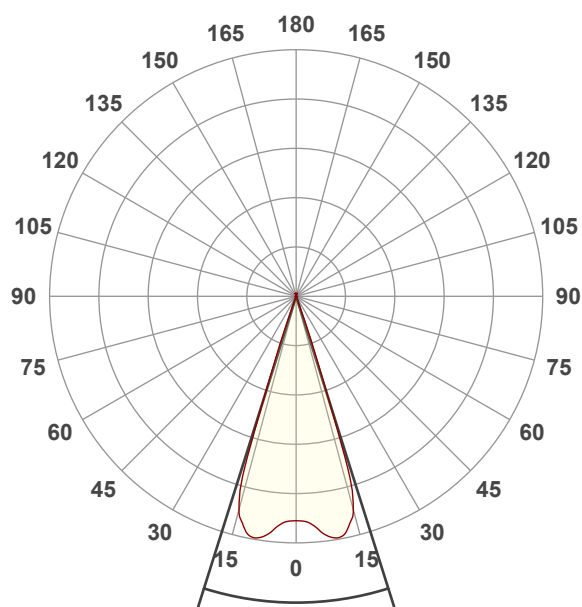
Red HQ

Operator:

Paolo Carvone

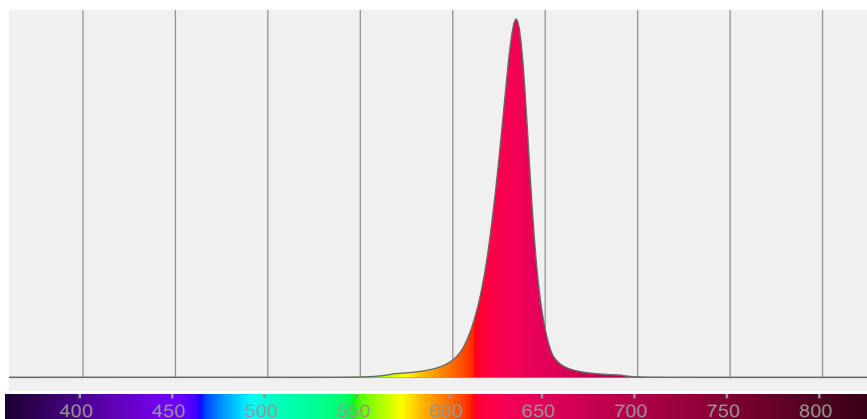
Date and time:

15/07/2020 16:15:04



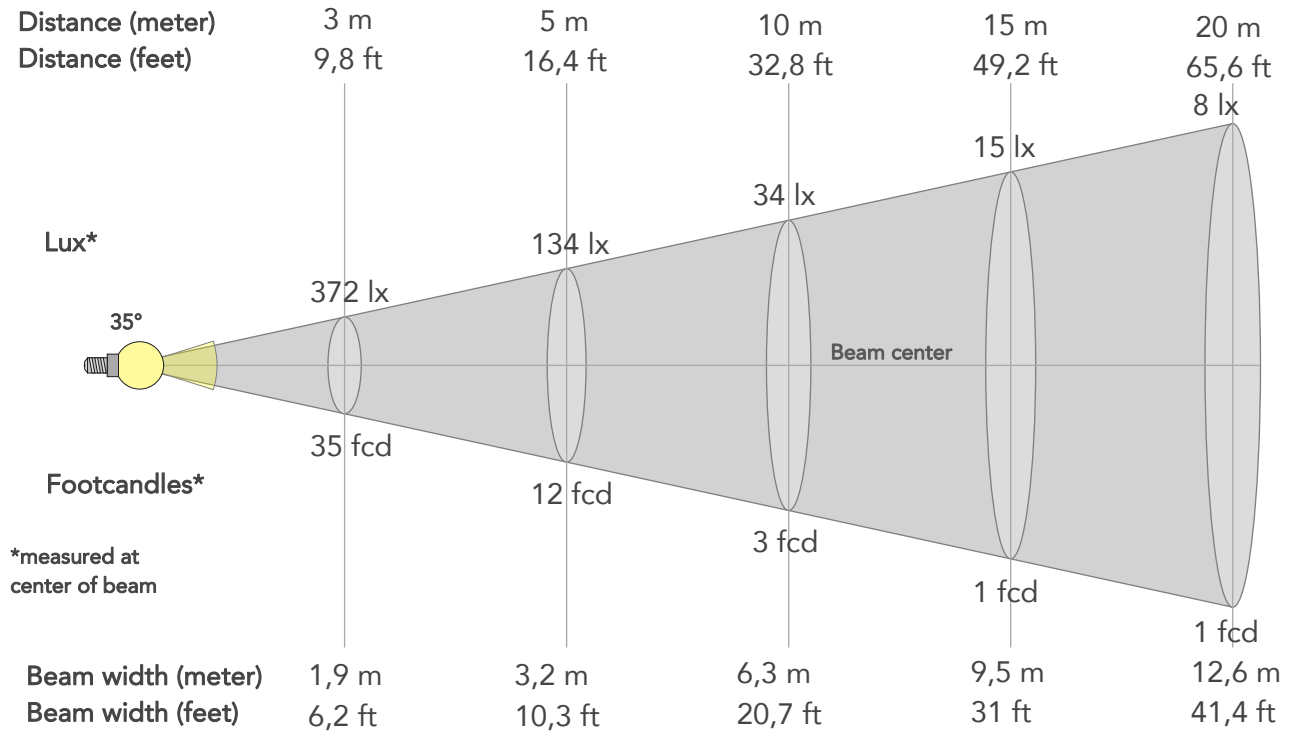
Beam angle 50%: 35°
Field angle 10%: 38,9°
Cut off angle 2.5%: 40°

Spectra



BEAM DETAILS

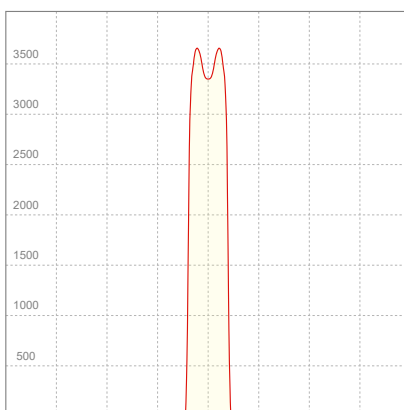
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
35°	38,9°	40°	99,9%	99,8%



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	3352lx	838lx	372lx	210lx	134lx	60lx	34lx	15lx	8lx	5lx	4lx	2lx	1lx
Footcand.	311fcd	78fcd	35fcd	19fcd	12fcd	6fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,3m	1,9m	2,5m	3,2m	4,7m	6,3m	9,5m	12,6m	15,8m	18,9m	25,2m	31,6m
Beam wid.	2,1ft	4,2ft	6,2ft	8,3ft	10,3ft	15,5ft	20,7ft	31ft	41,4ft	51,7ft	62,1ft	82,8ft	103,5ft

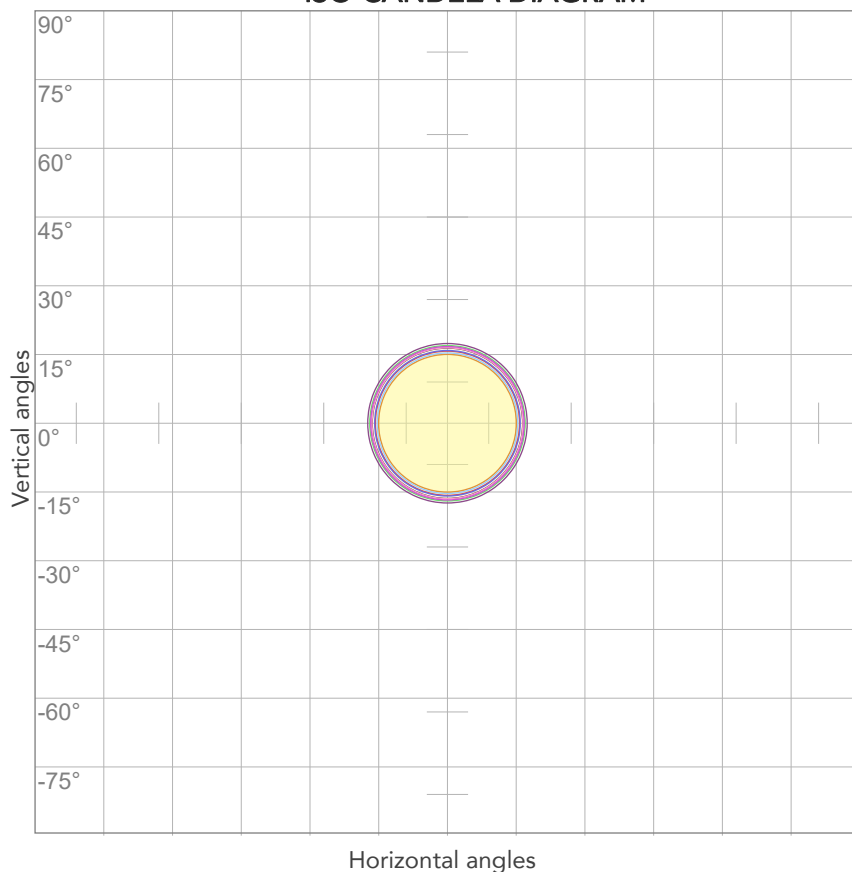
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,309A	49,8W	21lm/W
Power FC			
0,72			

ISO CANDELA DIAGRAM



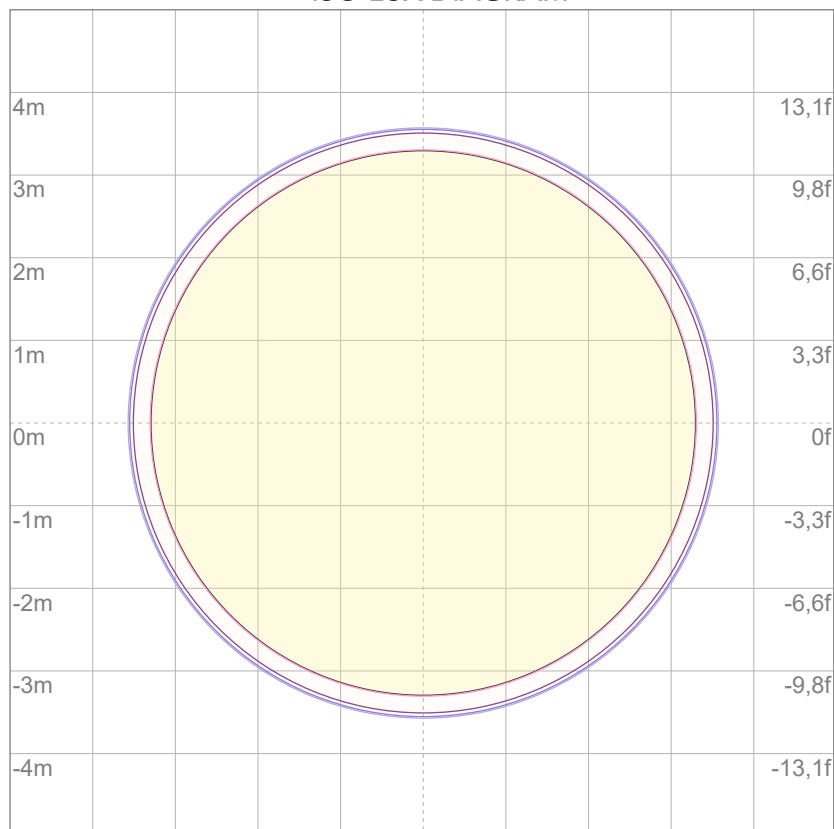
10%	335 cd
20%	670 cd
30%	1006 cd
40%	1341 cd
50%	1676 cd
60%	2011 cd
70%	2347 cd
80%	2682 cd

Conditions:

Number of c-planes: 2

Candela at center: 3352 cd

ISO LUX DIAGRAM



3%	1,01 lx
5%	1,68 lx
10%	3,35 lx
30%	10,1 lx
50%	16,8 lx

Conditions:

Number of c-planes: 2

Lux at center: 33,5 lx

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



Total lumen output:

1090 lm

Peak candela output:

4179 cd

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL36

Target:

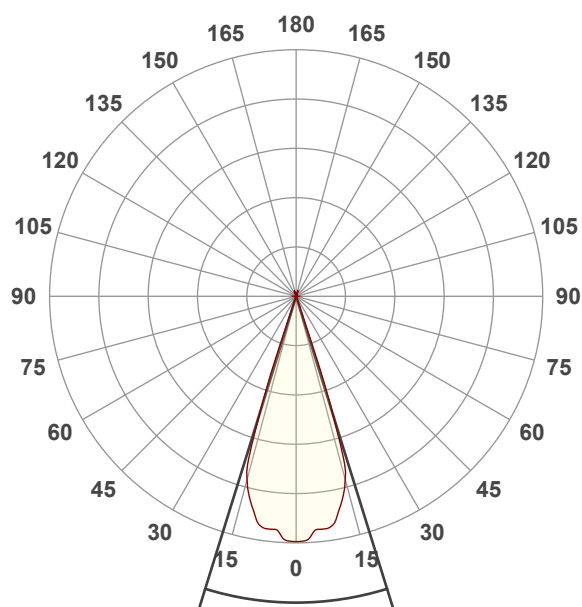
Green HQ

Operator:

Paolo Carvone

Date and time:

15/07/2020 16:13:33

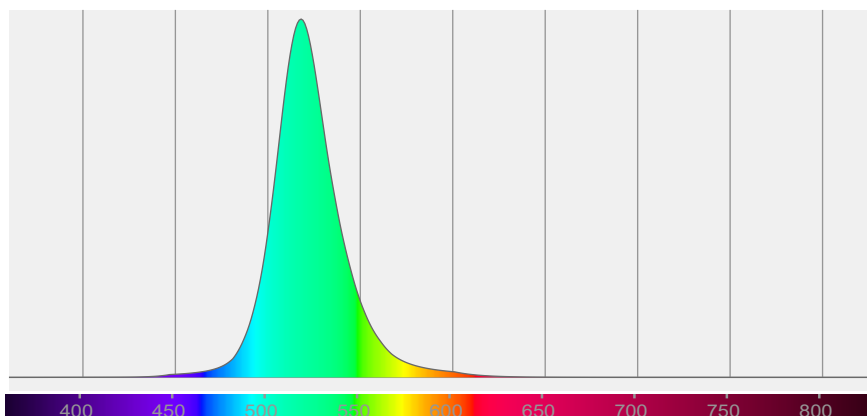


Beam angle 50%: 34,5°

Field angle 10%: 38,4°

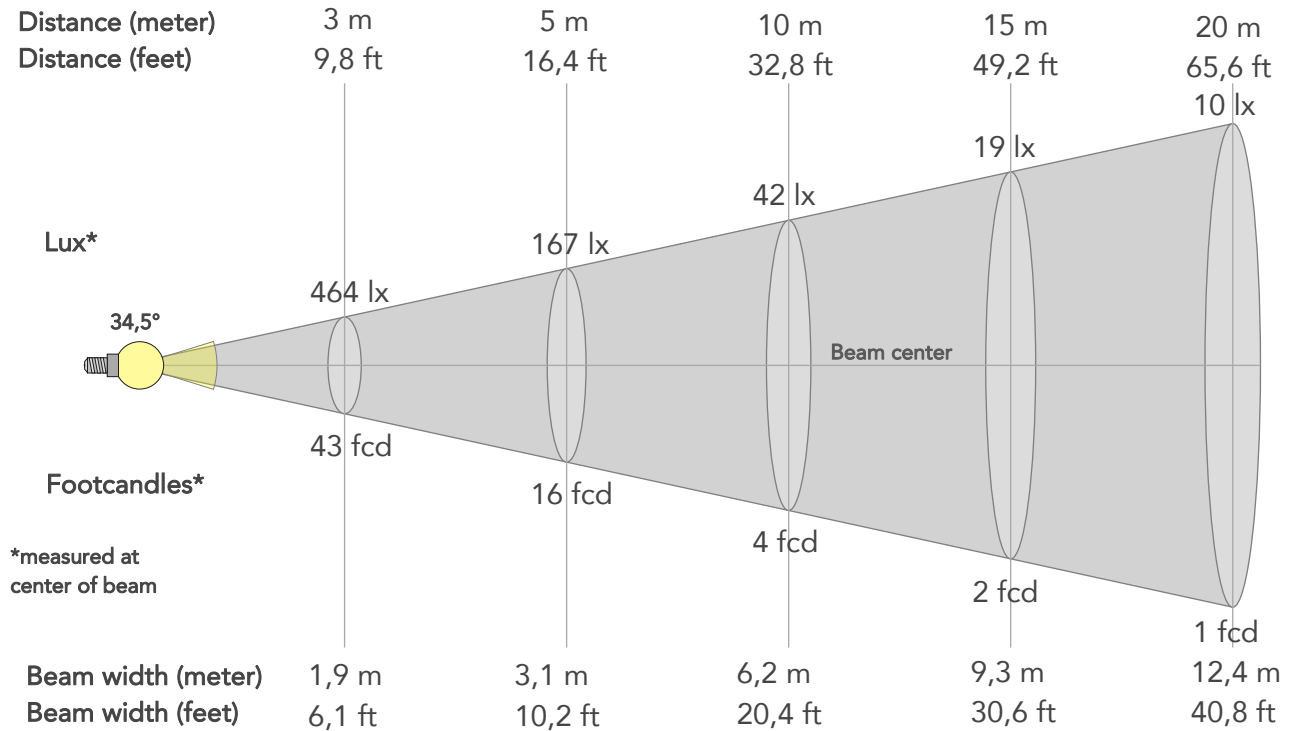
Cut off angle 2.5%: 39,1°

Spectra



BEAM DETAILS

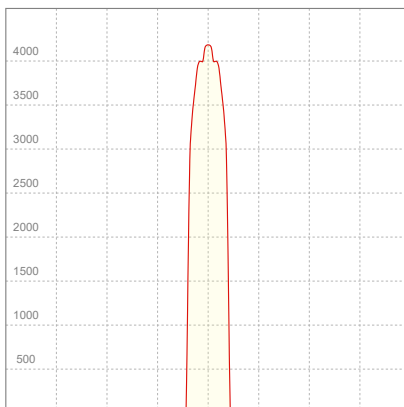
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,5°	38,4°	39,1°	99,8%	99,8%



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	4179lx	1045lx	464lx	261lx	167lx	74lx	42lx	19lx	10lx	7lx	5lx	3lx	2lx
Footcand.	388fcd	97fcd	43fcd	24fcd	16fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,9m	2,5m	3,1m	4,7m	6,2m	9,3m	12,4m	15,5m	18,7m	24,9m	31,1m
Beam wid.	2,1ft	4,1ft	6,1ft	8,1ft	10,2ft	15,3ft	20,4ft	30,6ft	40,8ft	51ft	61,2ft	81,6ft	102ft

LINEAR DISTRIBUTION DIAGRAM

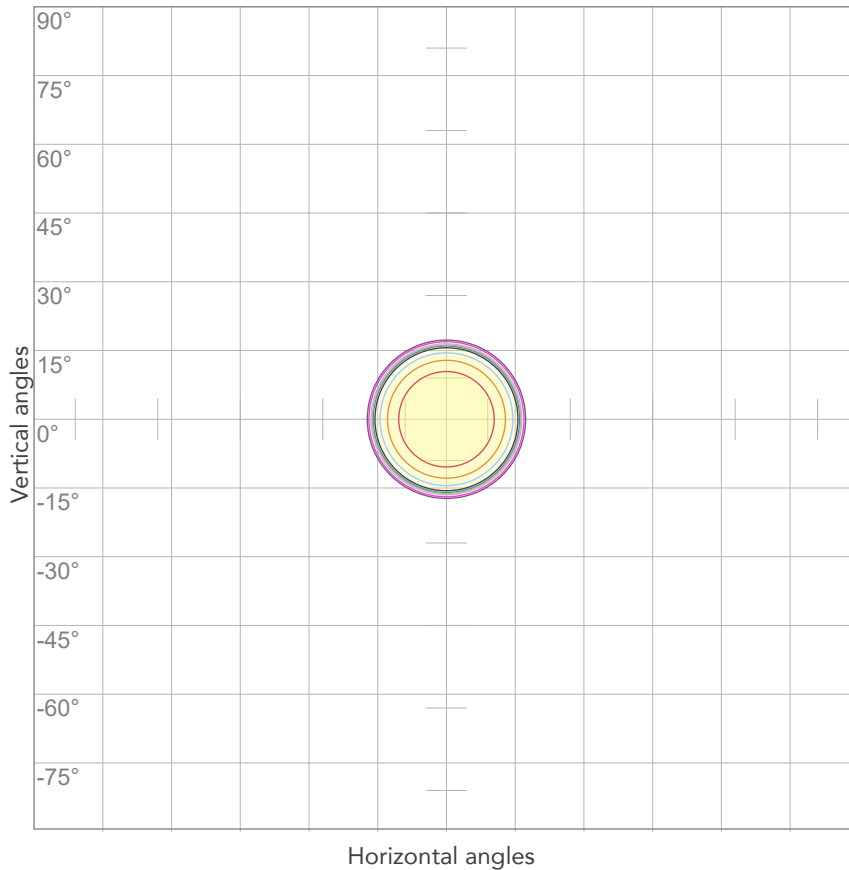


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,301A	47,7W	23lm/W

Power FC
0,71

ISO CANDELA DIAGRAM



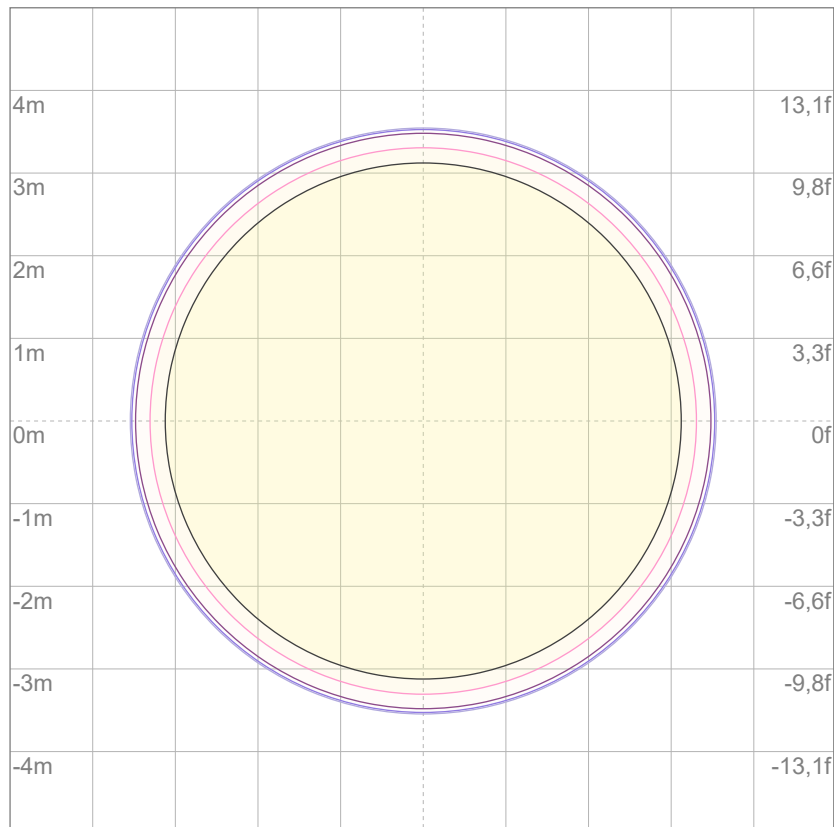
10%	418 cd
20%	836 cd
30%	1254 cd
40%	1672 cd
50%	2090 cd
60%	2508 cd
70%	2925 cd
80%	3343 cd

Conditions:

Number of c-planes: 2

Candela at center: 4179 cd

ISO LUX DIAGRAM



3%	1,25 lx
5%	2,09 lx
10%	4,18 lx
30%	12,5 lx
50%	20,9 lx

Conditions:

Number of c-planes: 2

Lux at center: 41,8 lx

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



Total lumen output:

132 lm

Peak candela output:

394 cd

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL36

Target:

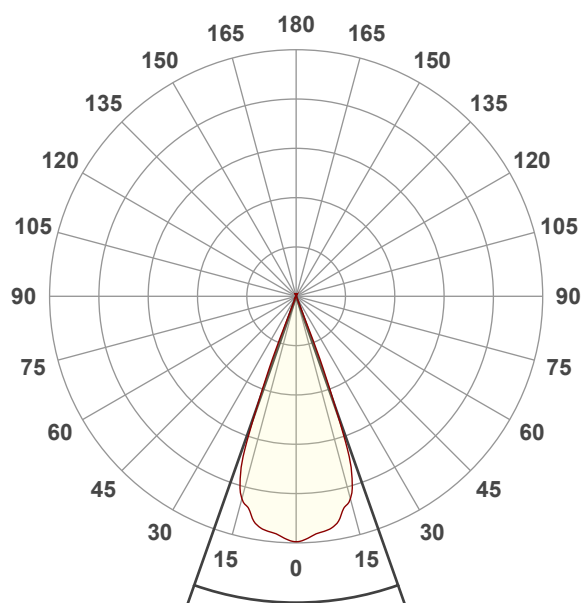
Blue HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 15:42:17

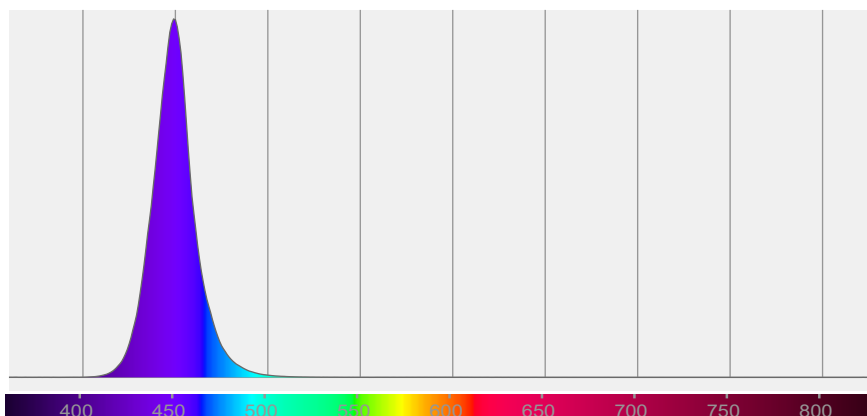


Beam angle 50%: 38,9°

Field angle 10%: 43,8°

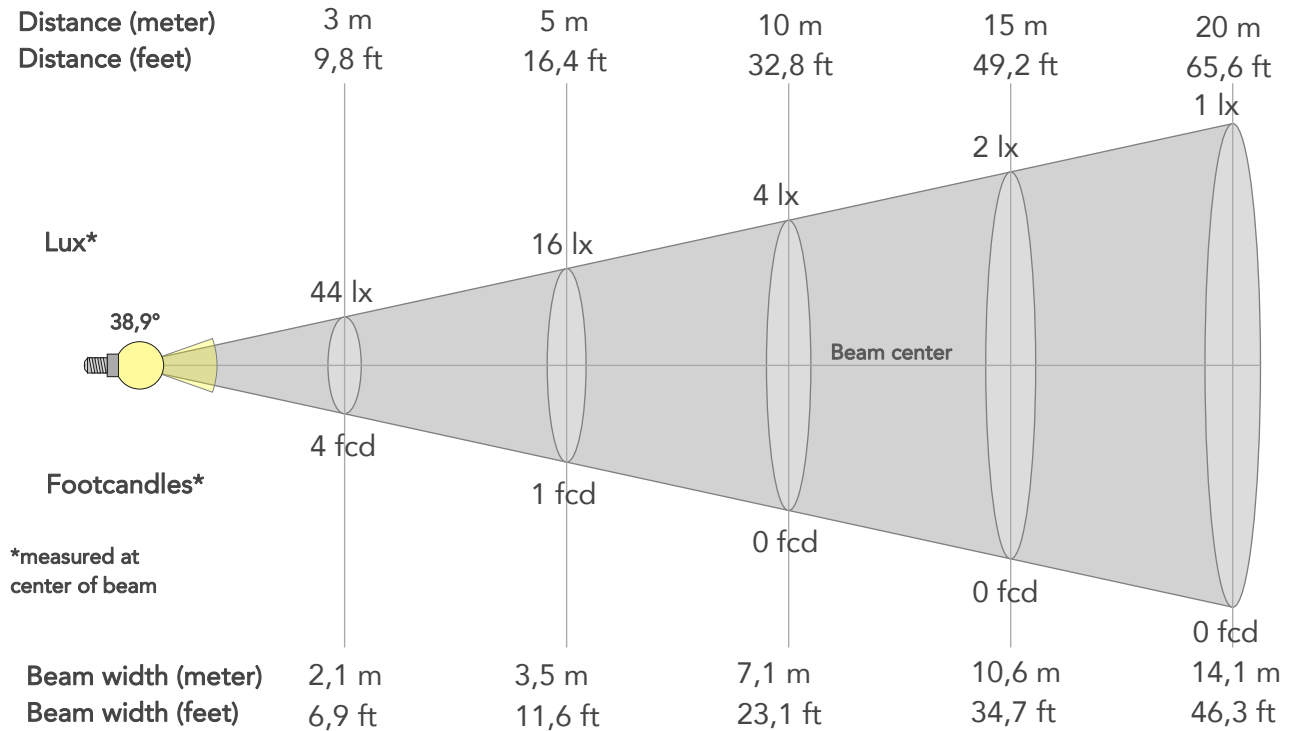
Cut off angle 2.5%: 44,8°

Spectra



BEAM DETAILS

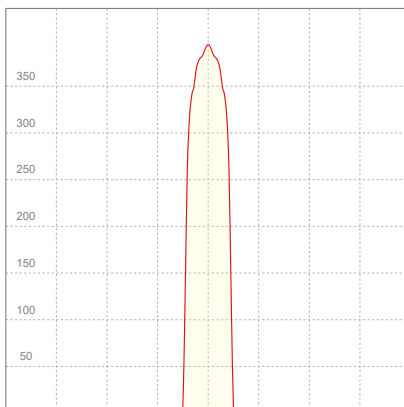
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
38,9°	43,8°	44,8°	99,6%	99,5%



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	394lx	98lx	44lx	25lx	16lx	7lx	4lx	2lx	1lx	1lx	0lx	0lx	0lx
Footcand.	37fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,7m	1,4m	2,1m	2,8m	3,5m	5,3m	7,1m	10,6m	14,1m	17,6m	21,2m	28,2m	35,3m
Beam wid.	2,3ft	4,7ft	6,9ft	9,2ft	11,6ft	17,4ft	23,1ft	34,7ft	46,3ft	57,9ft	69,4ft	92,6ft	115,7ft

LINEAR DISTRIBUTION DIAGRAM

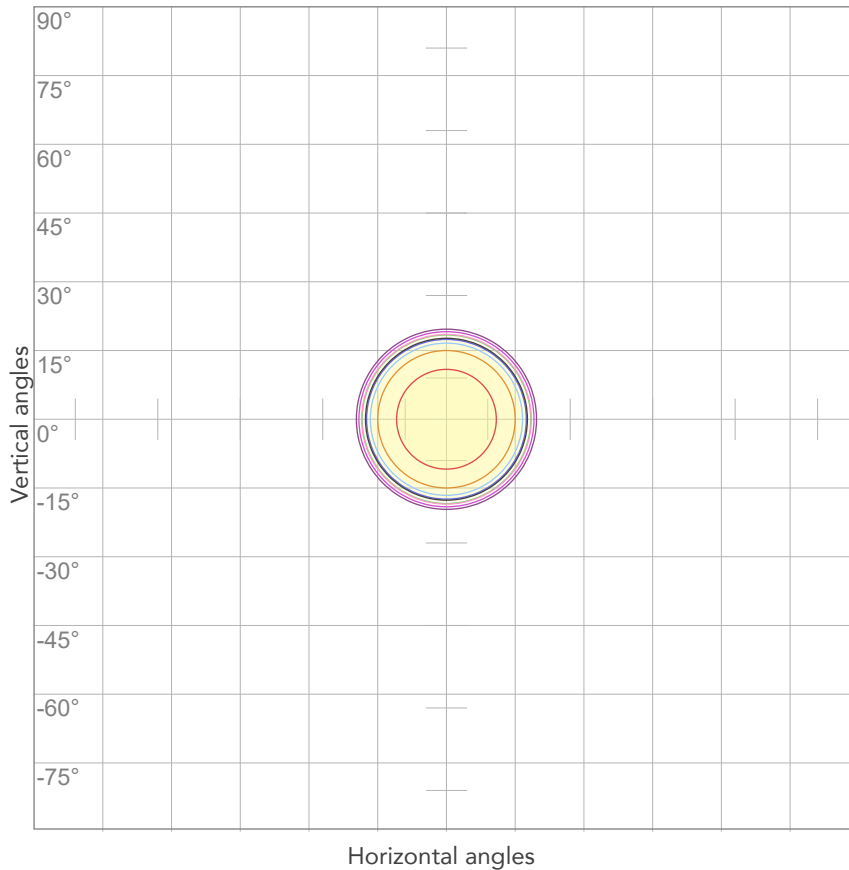


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,235A	31,8W	4lm/W

Power FC
0,6

ISO CANDELA DIAGRAM



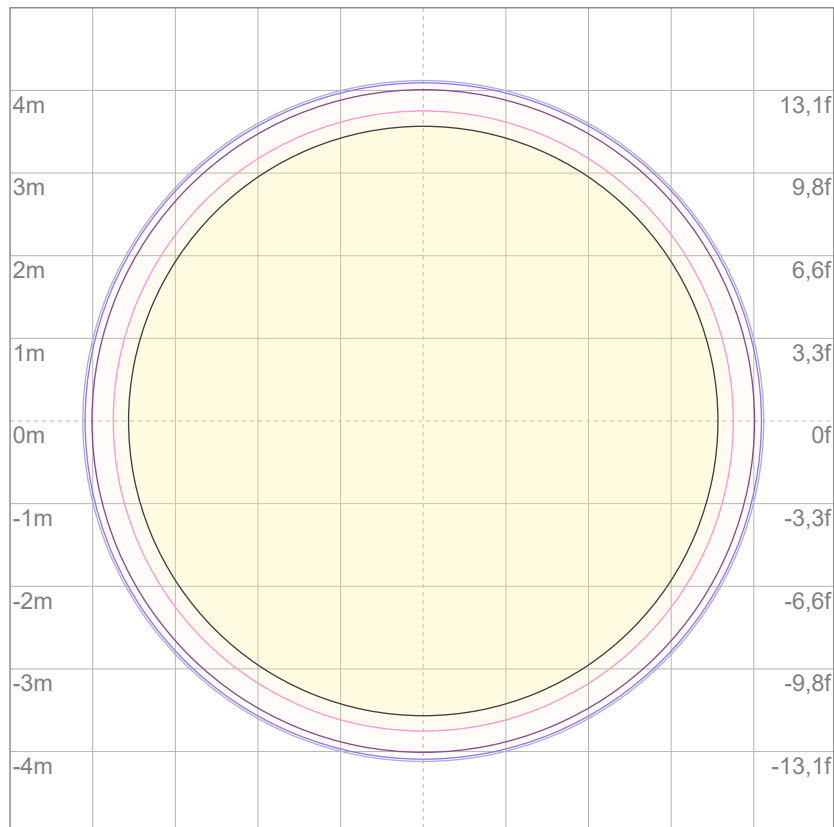
10%	39 cd
20%	79 cd
30%	118 cd
40%	158 cd
50%	197 cd
60%	236 cd
70%	276 cd
80%	315 cd

Conditions:

Number of c-planes: 2

Candela at center: 394 cd

ISO LUX DIAGRAM



3%	0,118 lx
5%	0,197 lx
10%	0,394 lx
30%	1,18 lx
50%	1,97 lx

Conditions:

Number of c-planes: 2

Lux at center: 3,94 lx

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



Total lumen output:

5482 lm

Peak candela output:

16614 cd

Light quality:

CRI: 92,5

Color temperature:

2810 K

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL36

Target:

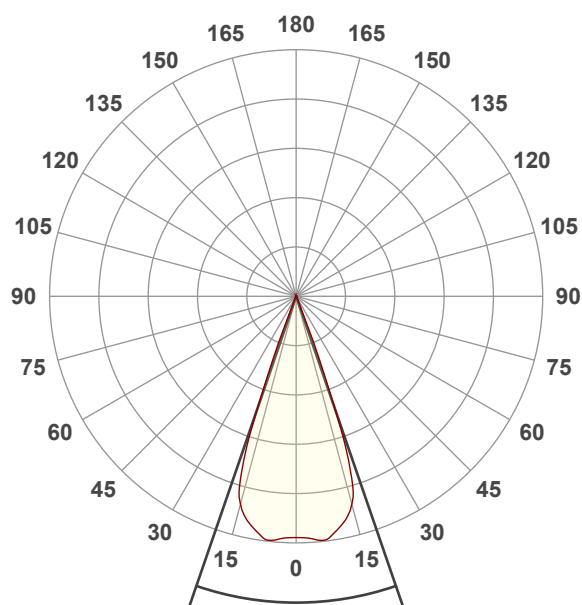
2800K HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 15:47:05

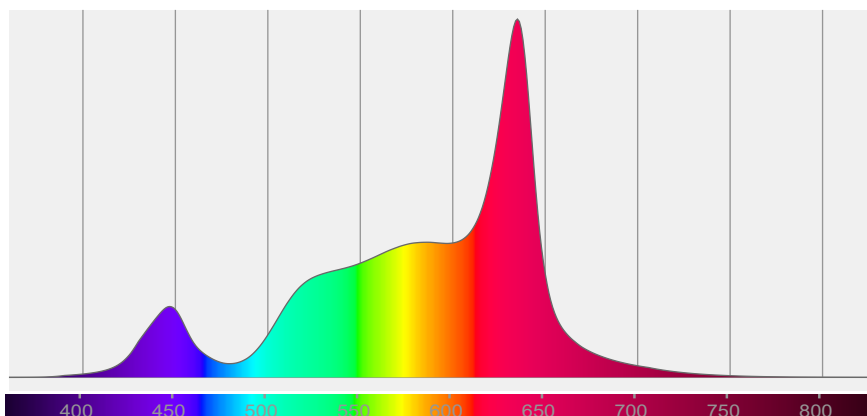


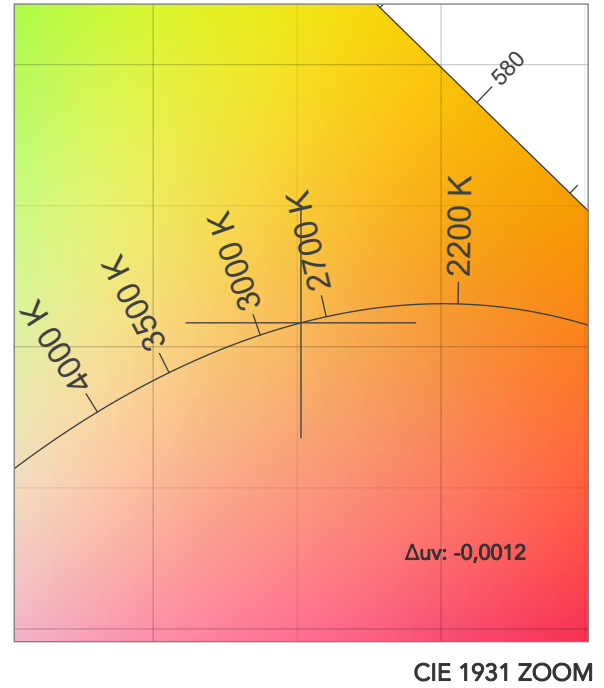
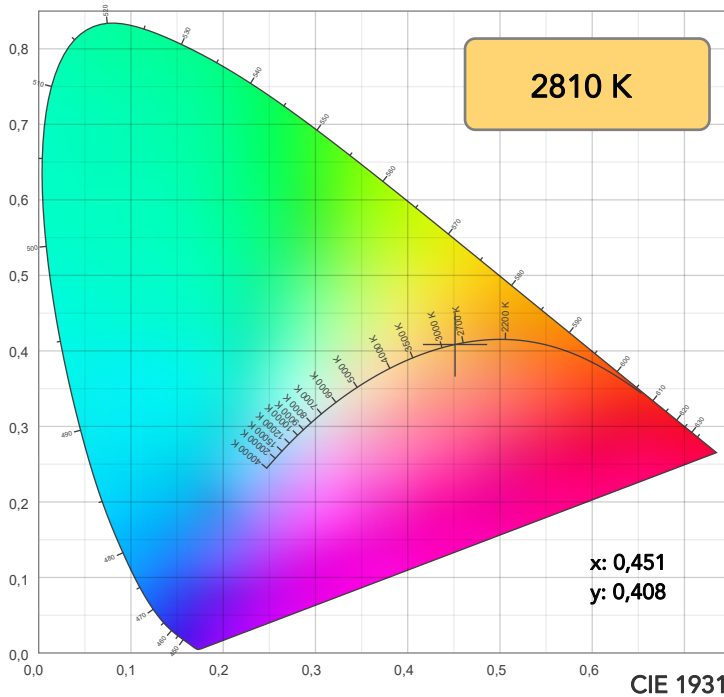
Beam angle 50%: 38°

Field angle 10%: 43,3°

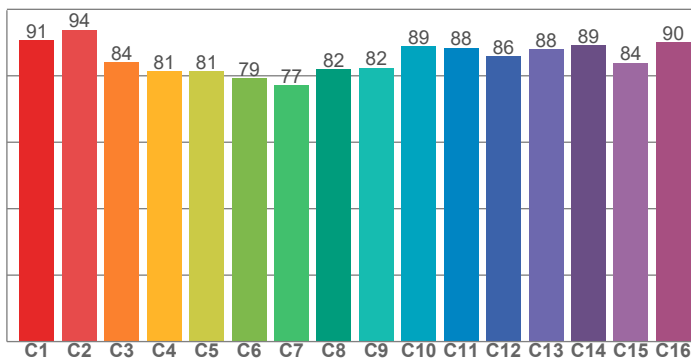
Cut off angle 2.5%: 45,8°

Spectra

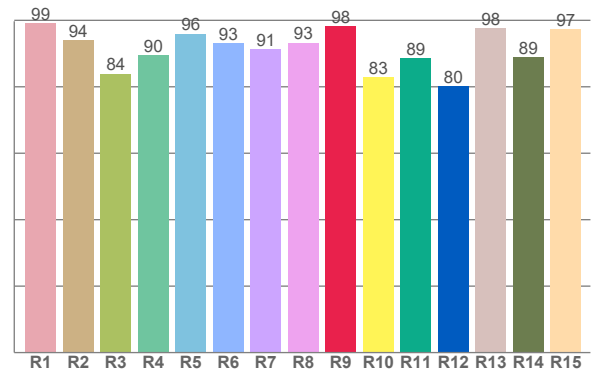




TM30: 85,9



CRI: 92,5 (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
99,0	94,0	83,9	89,5	96,0	93,1	91,3	93,2	98,3	82,8	88,6	80,1	97,6	88,9	97,2

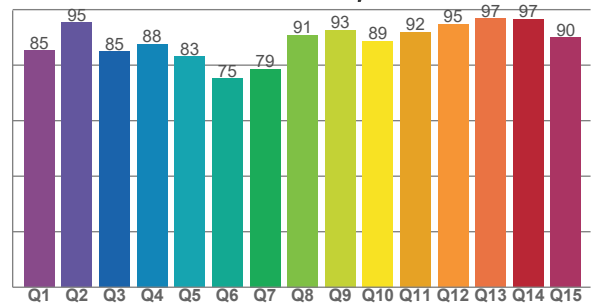
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90,7	93,8	84,1	81,3	81,3	79,3	77,1	82,0	82,4	88,8	88,4	85,9	88,0	89,2	83,9	90,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85,3	95,3	84,9	87,7	83,1	75,2	78,7	90,9	92,6	88,6	92,0	94,8	96,7	96,5	89,9

CQS: 86,8



COLOR PARAMETERS

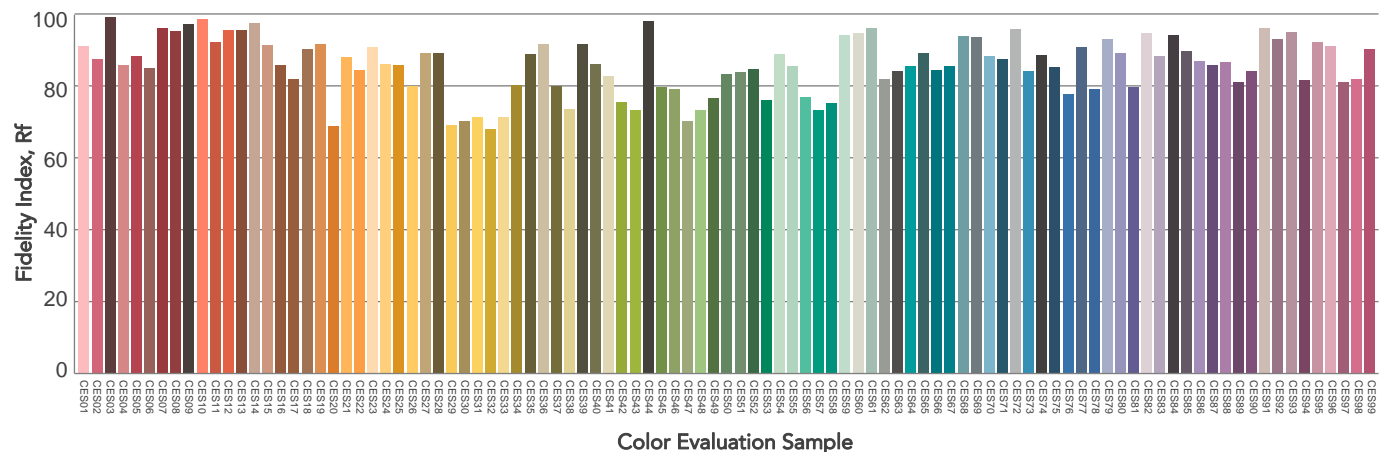
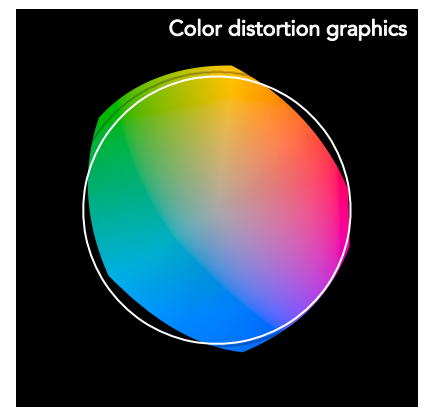
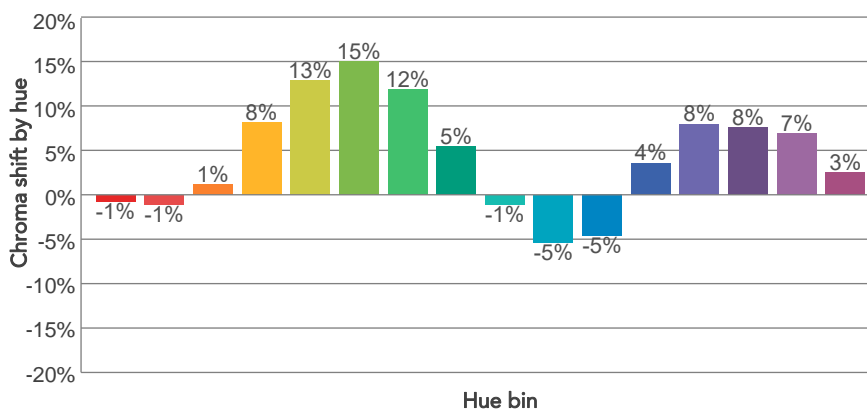
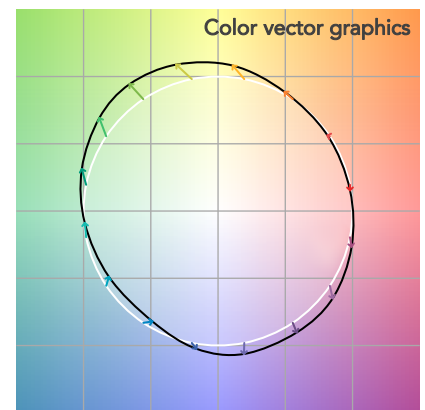
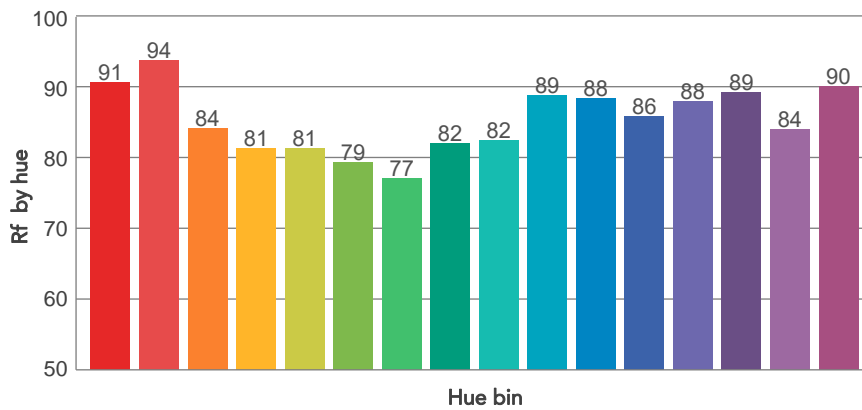
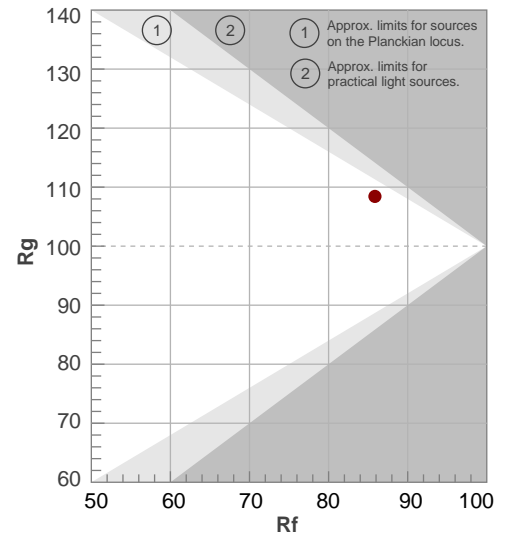
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2810 K	92,5	98,3	85,9	108,4	86,8	71	0,451	0,408	-0,0012

TM30 DETAILS

Rf 85,9
Fidelity index Rf

Rg 108,4
Gammut index

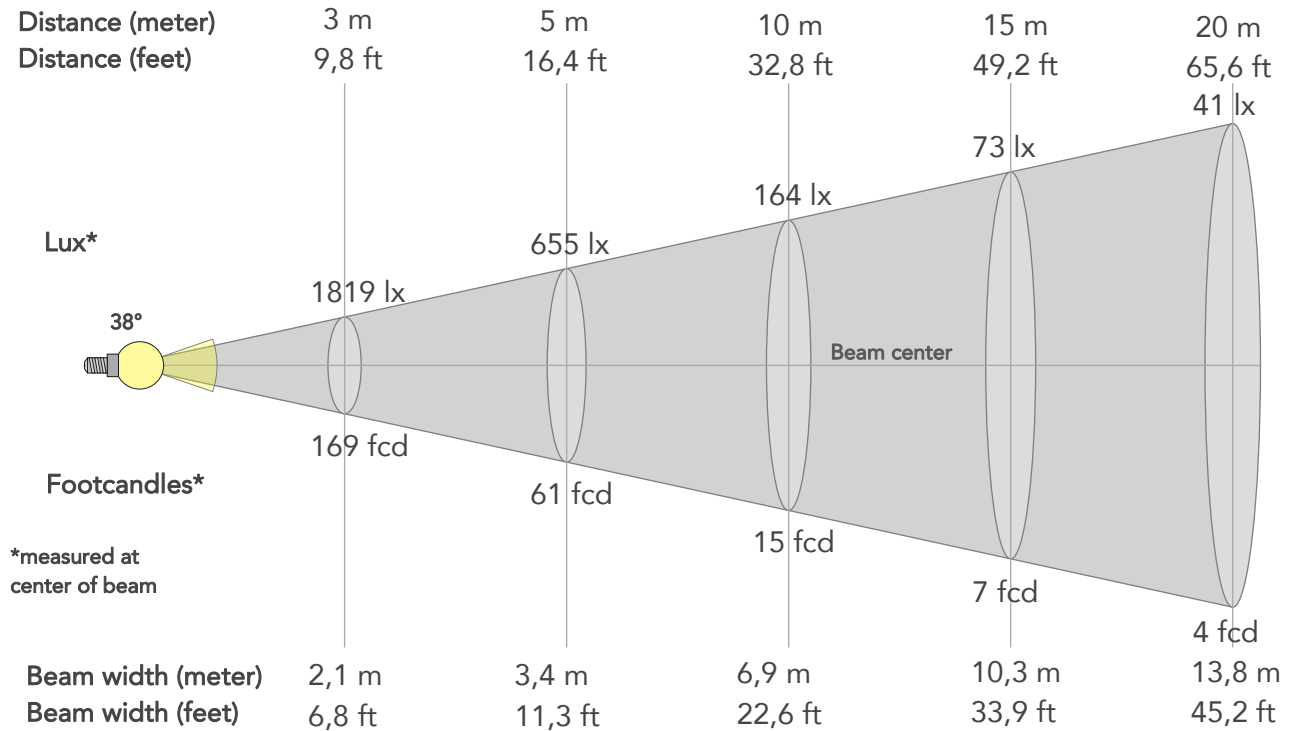
		Graphic shifts (%)	
Hue Bin	R _f	Chroma	Hue
1	91	-1%	-4%
2	94	-1%	2%
3	84	1%	8%
4	81	8%	10%
5	81	13%	9%
6	79	15%	2%
7	77	12%	-8%
8	82	5%	-11%
9	82	-1%	-11%
10	89	-5%	-4%
11	88	-5%	5%
12	86	4%	4%
13	88	8%	-2%
14	89	8%	-2%
15	84	7%	-7%
16	90	3%	-7%



BEAM DETAILS



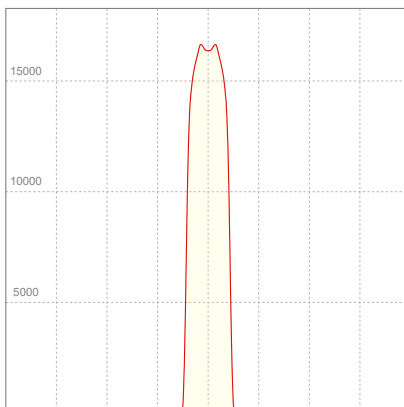
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
38°	43,3°	45,8°	99,8%	99,8%



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	16373lx	4093lx	1819lx	1023lx	655lx	291lx	164lx	73lx	41lx	26lx	18lx	10lx	7lx
Footcand.	1521fcd	380fcd	169fcd	95fcd	61fcd	27fcd	15fcd	7fcd	4fcd	2fcd	2fcd	1fcd	1fcd
Beam wid.	0,7m	1,4m	2,1m	2,8m	3,4m	5,2m	6,9m	10,3m	13,8m	17,2m	20,7m	27,6m	34,4m
Beam wid.	2,3ft	4,5ft	6,8ft	9ft	11,3ft	16,9ft	22,6ft	33,9ft	45,2ft	56,5ft	67,8ft	90,4ft	113ft

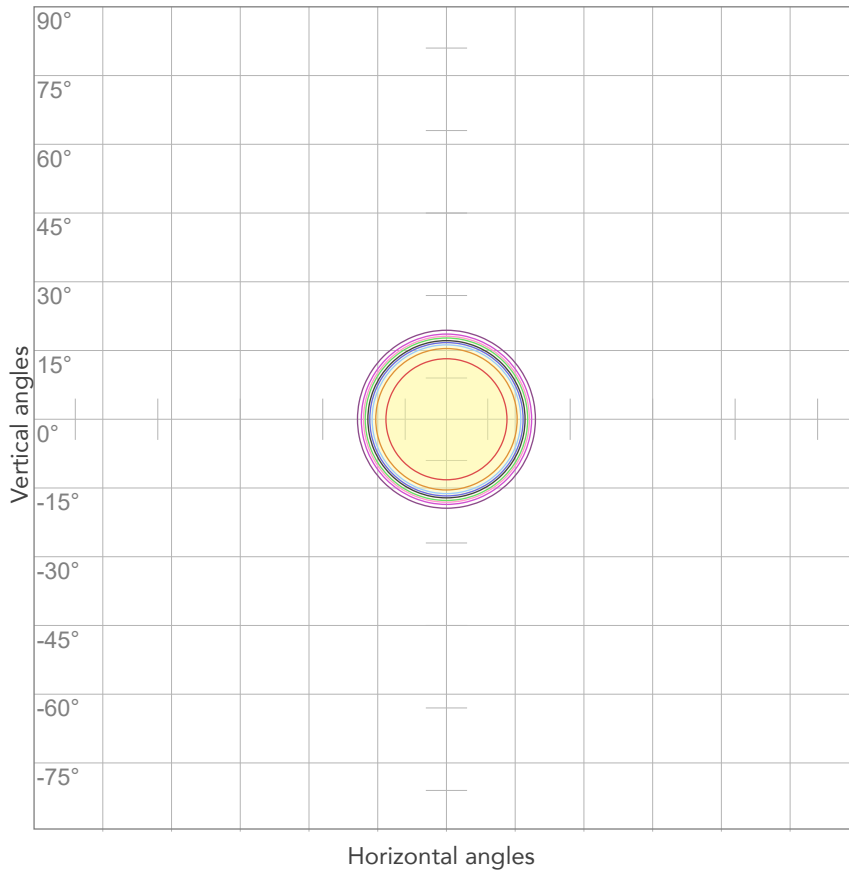
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,810A	169W	32lm/W

ISO CANDELA DIAGRAM



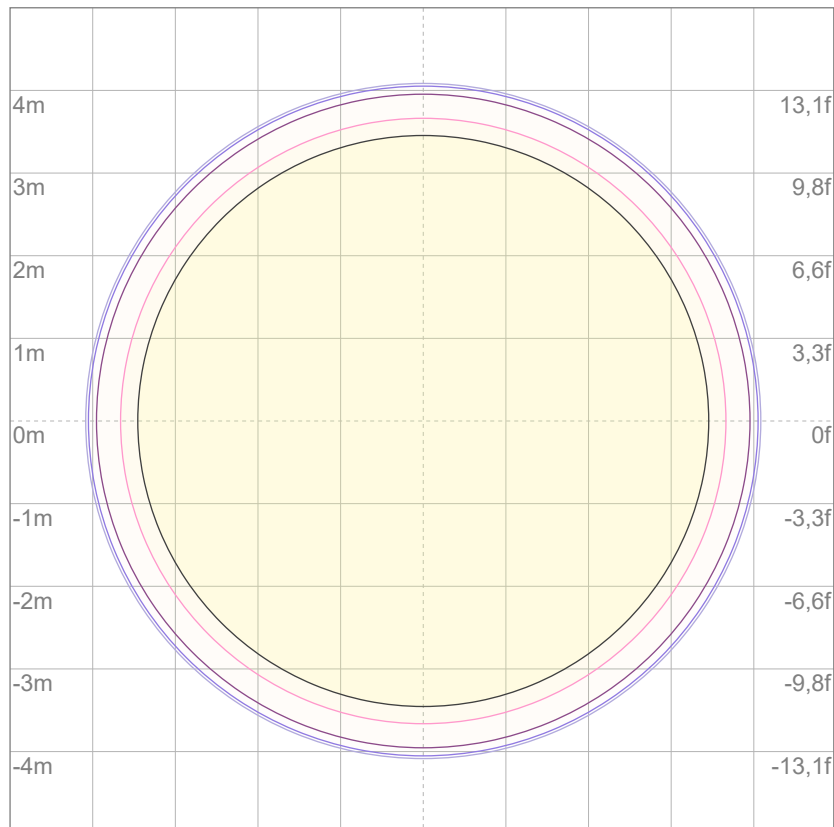
10%	1637 cd
20%	3275 cd
30%	4912 cd
40%	6549 cd
50%	8186 cd
60%	9824 cd
70%	11461 cd
80%	13098 cd

Conditions:

Number of c-planes: 2

Candela at center: 16373 cd

ISO LUX DIAGRAM



3%	4,91 lx
5%	8,19 lx
10%	16,4 lx
30%	49,1 lx
50%	81,9 lx

Conditions:

Number of c-planes: 2

Lux at center: 164 lx

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



Total lumen output:

5701 lm

Peak candela output:

17304 cd

Light quality:

CRI: 93,6

Color temperature:

3208 K

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL36

Target:

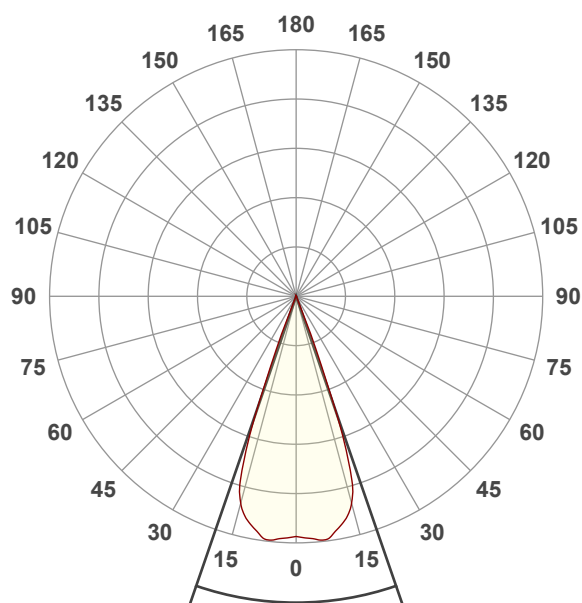
3200K HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 15:48:40

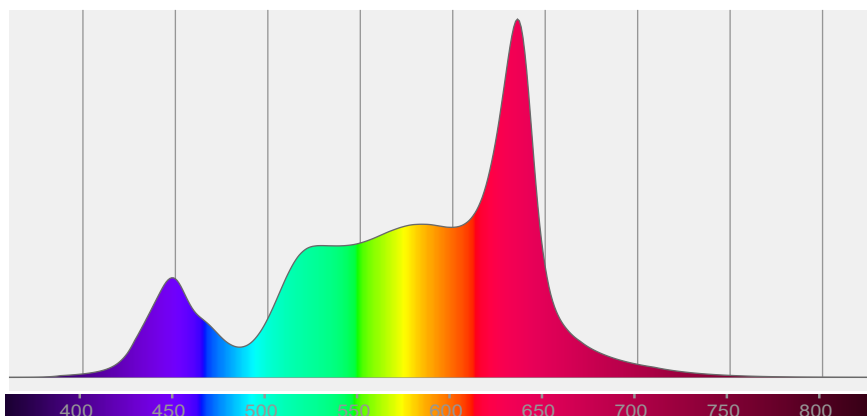


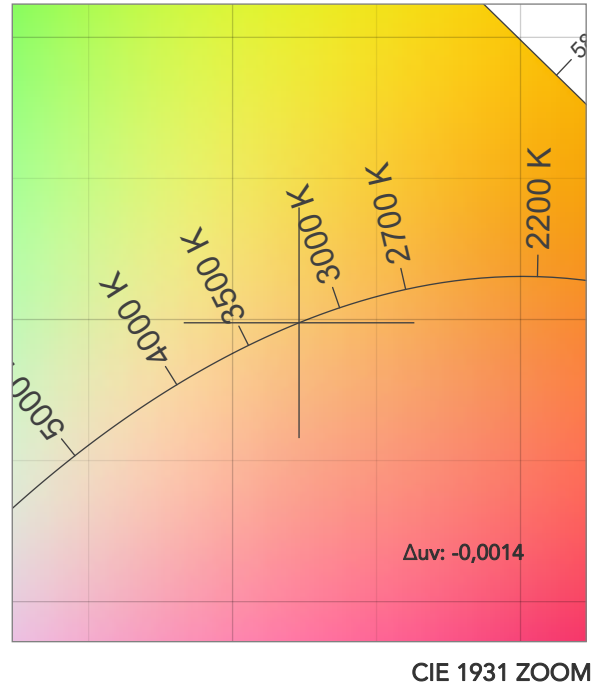
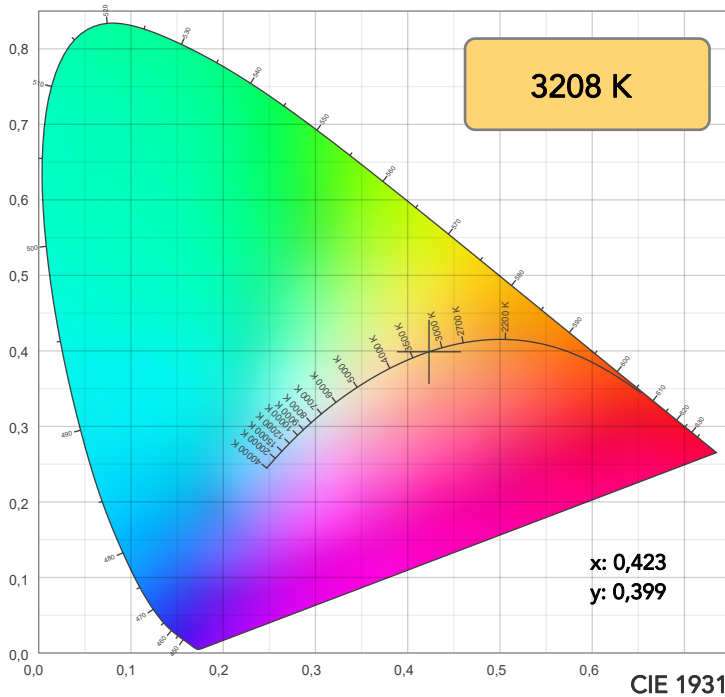
Beam angle 50%: 38,1°

Field angle 10%: 43,4°

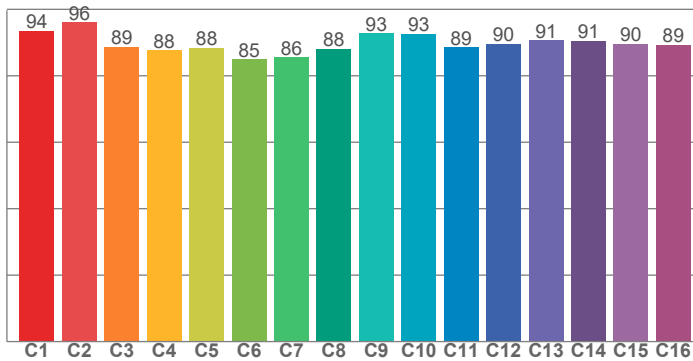
Cut off angle 2.5%: 45,2°

Spectra

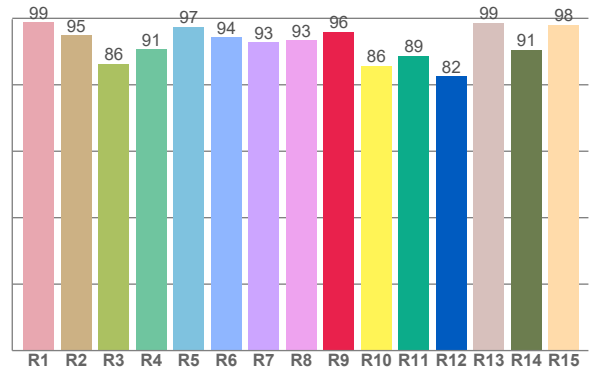




TM30: 90,1



CRI: 93,6 (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
98,9	95,0	86,3	90,7	97,4	94,3	92,7	93,5	96,0	85,8	88,7	82,5	98,7	90,6	98,0

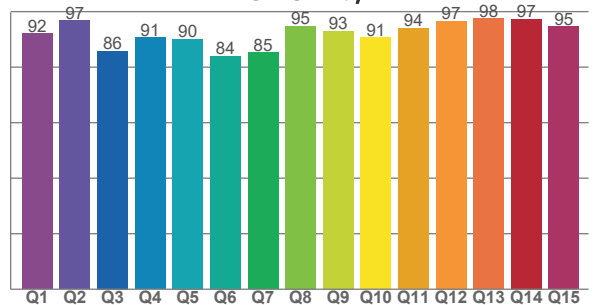
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,5	96,1	88,6	87,6	88,5	84,9	85,6	88,1	92,8	92,6	88,5	89,6	90,6	90,6	89,6	89,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,1	96,8	85,8	90,7	90,2	83,9	85,3	94,8	93,0	90,6	94,0	96,6	97,5	97,4	94,6

CQS: 90,9



COLOR PARAMETERS

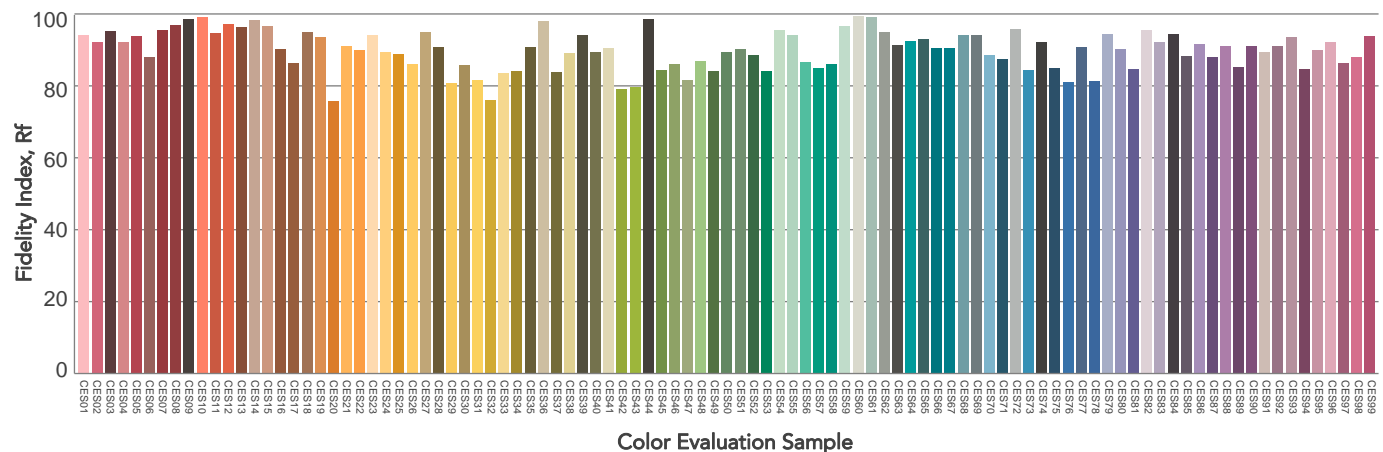
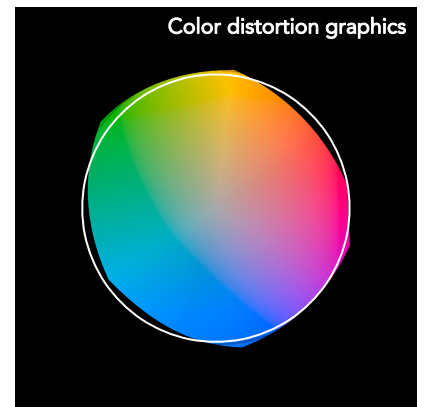
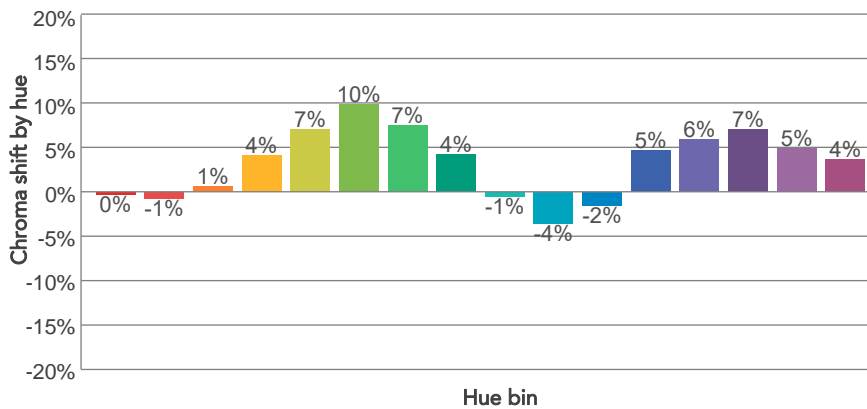
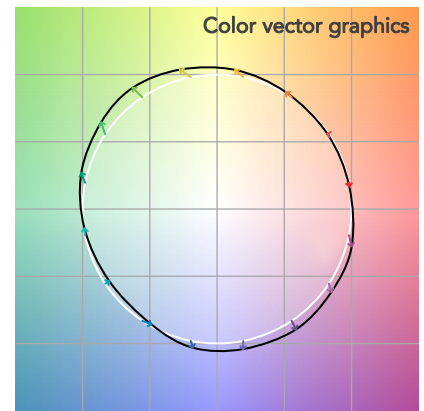
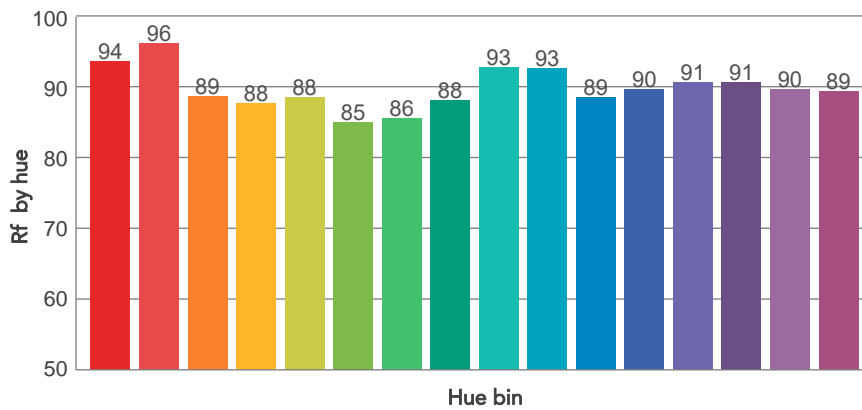
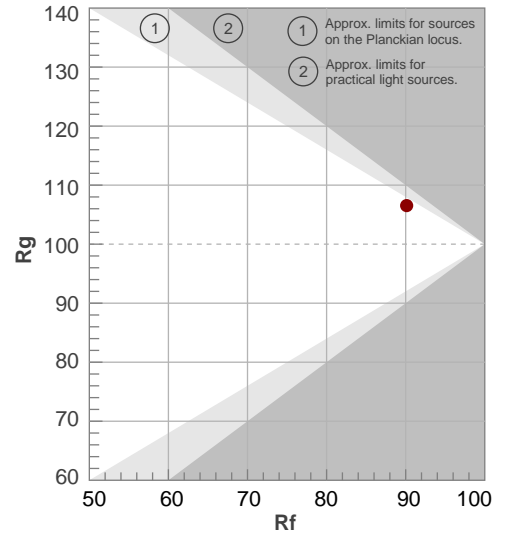
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3208 K	93,6	96,0	90,1	106,5	90,9	84	0,423	0,399	-0,0014

TM30 DETAILS

Rf 90,1
Fidelity index Rf

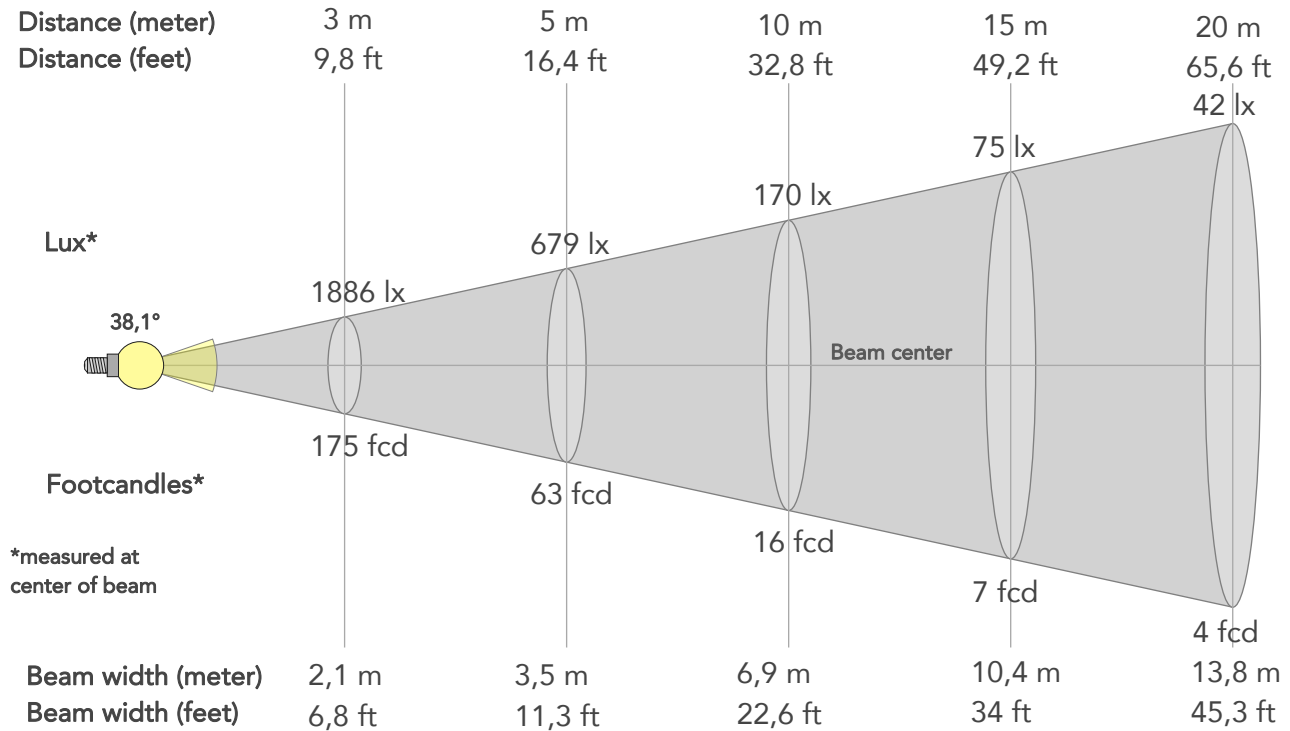
Rg 106,5
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	0%	-3%
2	96	-1%	1%
3	89	1%	6%
4	88	4%	7%
5	88	7%	7%
6	85	10%	2%
7	86	7%	-6%
8	88	4%	-7%
9	93	-1%	-5%
10	93	-4%	0%
11	89	-2%	7%
12	90	5%	2%
13	91	6%	-1%
14	91	7%	-1%
15	90	5%	-4%
16	89	4%	-8%



BEAM DETAILS

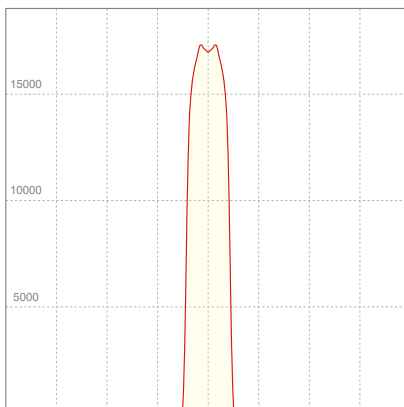
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
38,1°	43,4°	45,2°	99,9%	99,8%



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	16973lx	4243lx	1886lx	1061lx	679lx	302lx	170lx	75lx	42lx	27lx	19lx	11lx	7lx
Footcand.	1577fcd	394fcd	175fcd	99fcd	63fcd	28fcd	16fcd	7fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,7m	1,4m	2,1m	2,8m	3,5m	5,2m	6,9m	10,4m	13,8m	17,3m	20,7m	27,6m	34,5m
Beam wid.	2,3ft	4,6ft	6,8ft	9ft	11,3ft	17ft	22,6ft	34ft	45,3ft	56,6ft	67,9ft	90,6ft	113,2ft

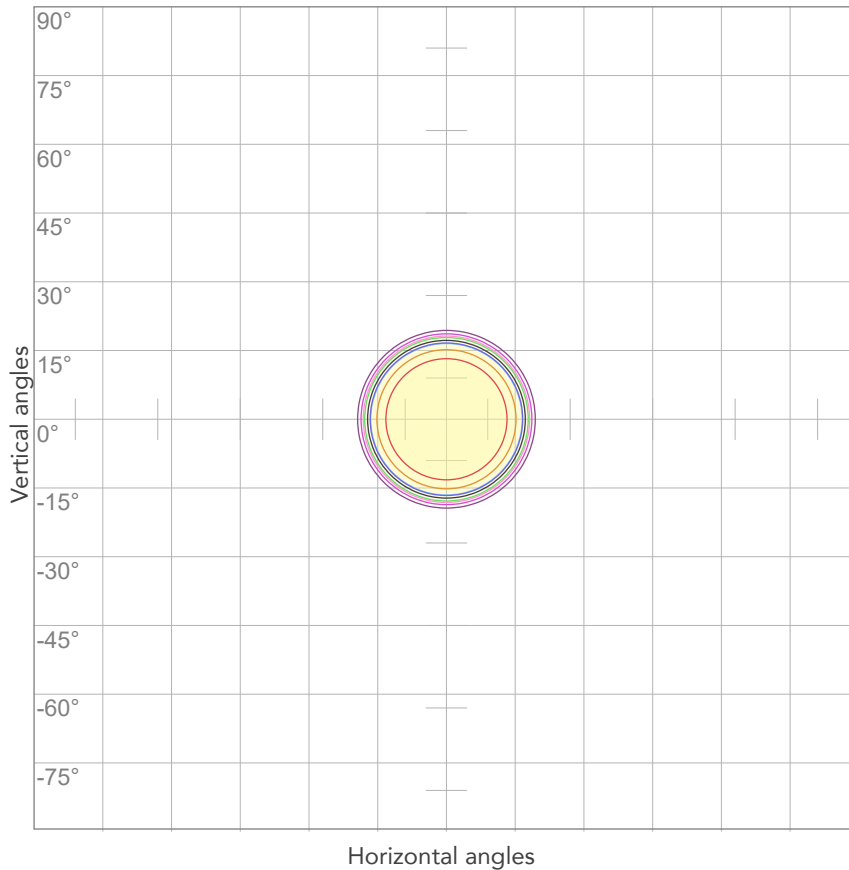
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,855A	179,6W	32lm/W

ISO CANDELA DIAGRAM



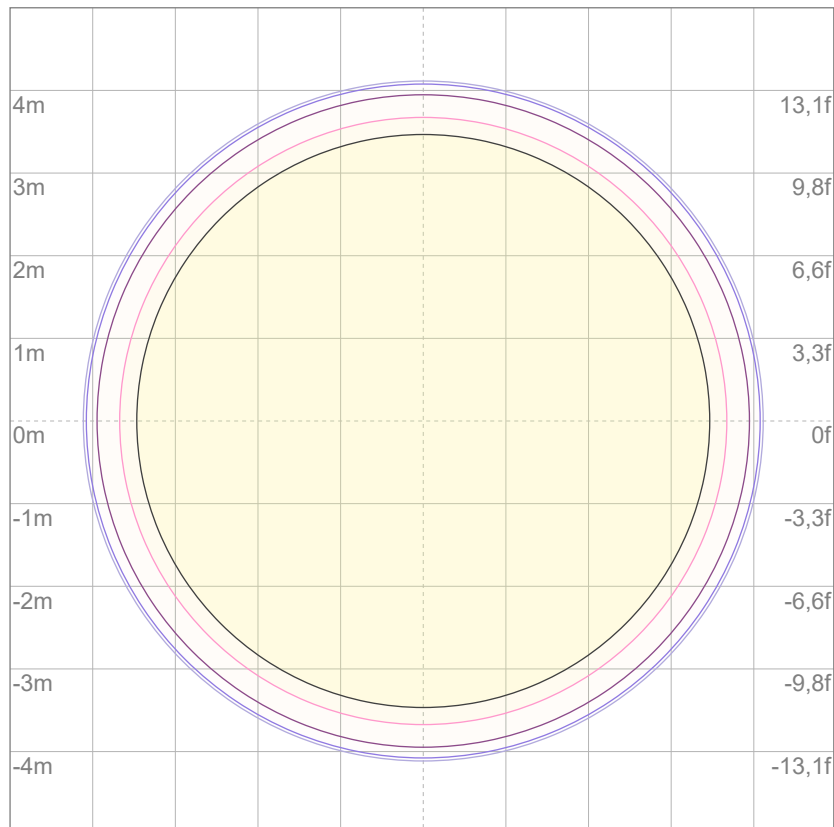
10%	1697 cd
20%	3395 cd
30%	5092 cd
40%	6789 cd
50%	8487 cd
60%	10184 cd
70%	11881 cd
80%	13578 cd

Conditions:

Number of c-planes: 2

Candela at center: 16973 cd

ISO LUX DIAGRAM



3%	5,09 lx
5%	8,49 lx
10%	17,0 lx
30%	50,9 lx
50%	84,9 lx

Conditions:

Number of c-planes: 2

Lux at center: 170 lx

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



Total lumen output:

6088 lm

Peak candela output:

18404 cd

Light quality:

CRI: 95,4

Color temperature:

4015 K

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL36

Target:

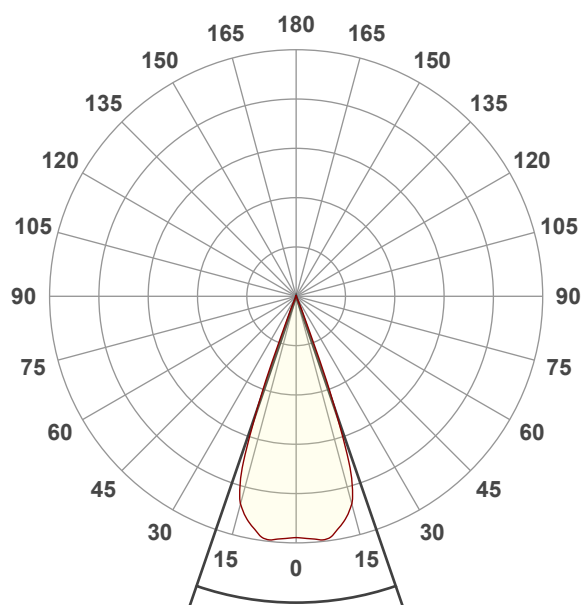
4000K HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 16:06:18

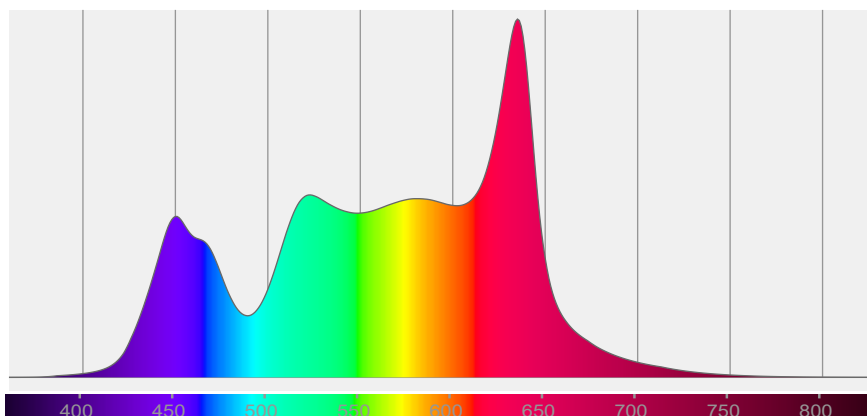


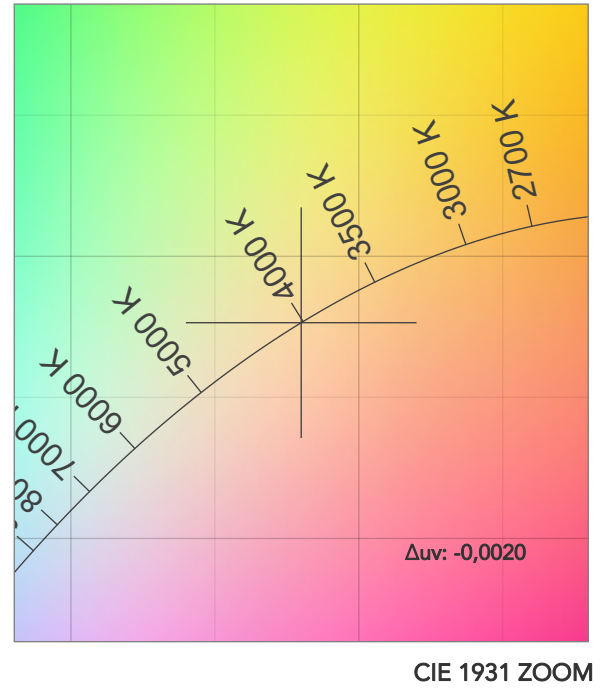
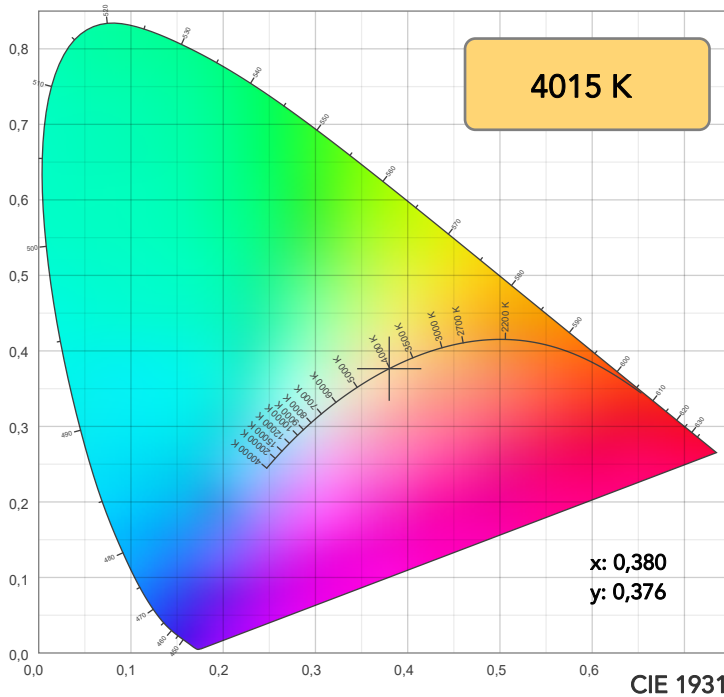
Beam angle 50%: 37,9°

Field angle 10%: 42,9°

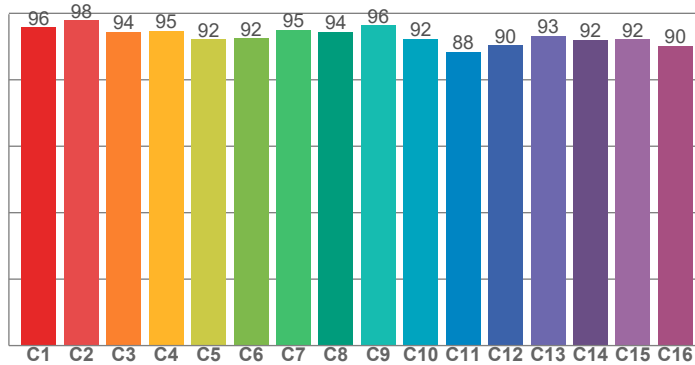
Cut off angle 2.5%: 46°

Spectra

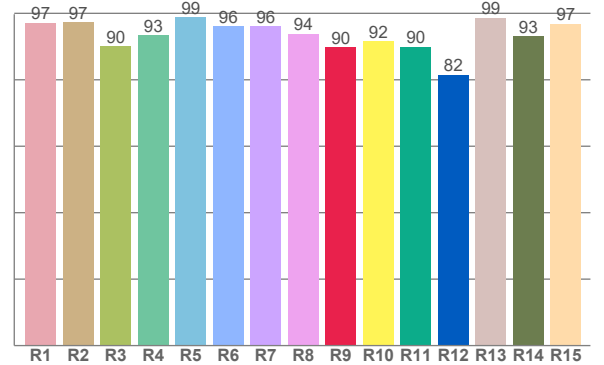




TM30: 93,3



CRI: 95,4 (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
97,1	97,4	90,2	93,5	98,8	96,0	96,2	93,8	89,8	91,7	89,9	81,5	98,7	93,0	96,9

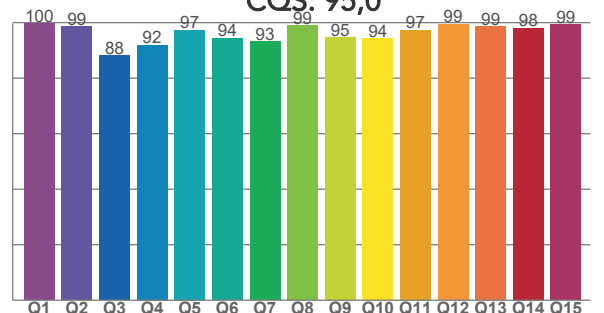
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,8	97,9	94,5	94,7	92,2	92,4	95,0	94,4	96,3	92,4	88,4	90,4	93,2	92,1	92,1	90,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,7	98,6	88,1	91,9	97,4	94,3	93,1	98,9	94,6	94,3	97,3	99,4	98,6	98,1	99,2

CQS: 95,0



COLOR PARAMETERS

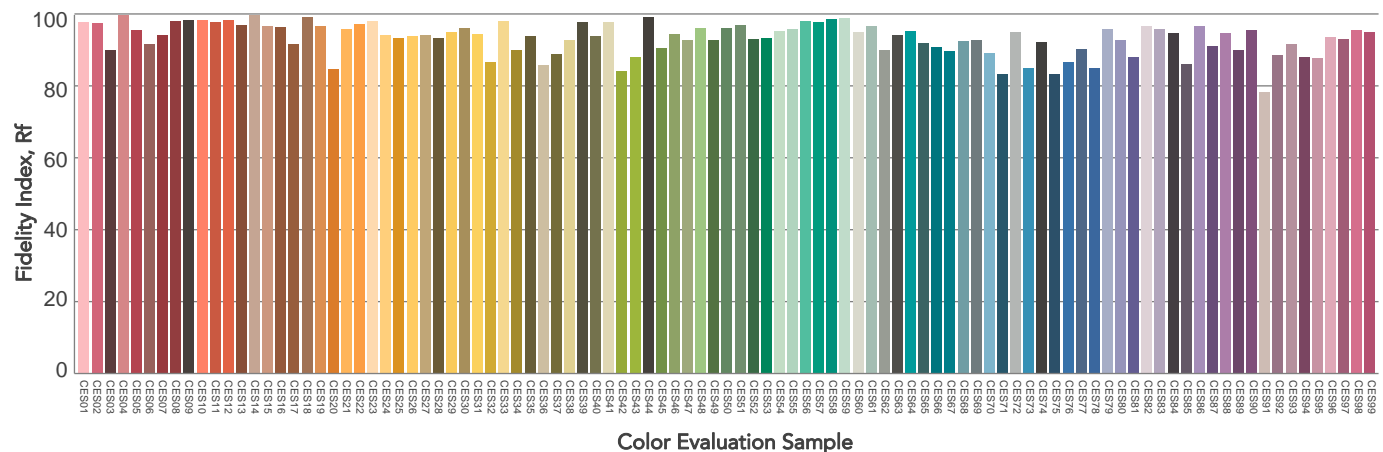
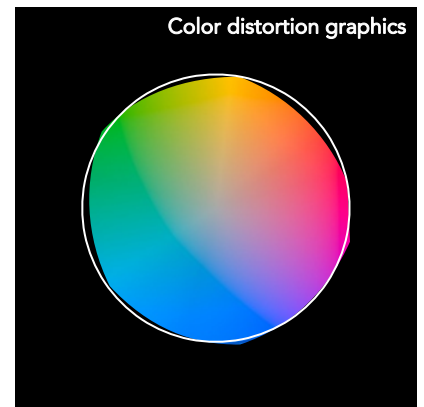
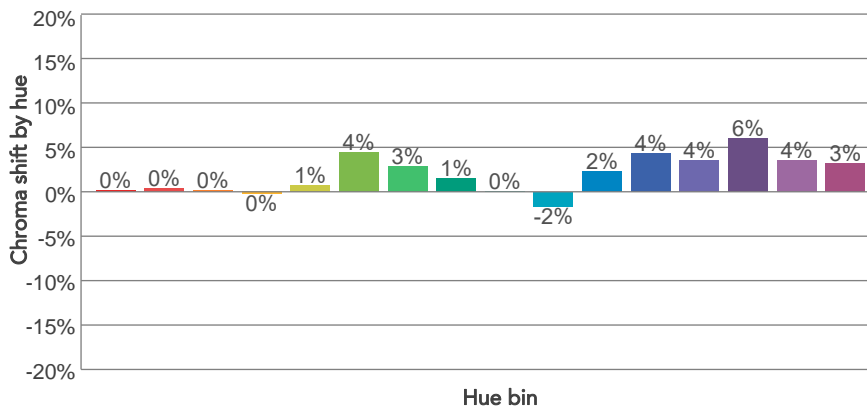
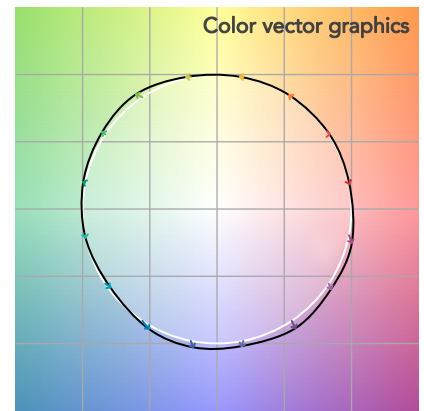
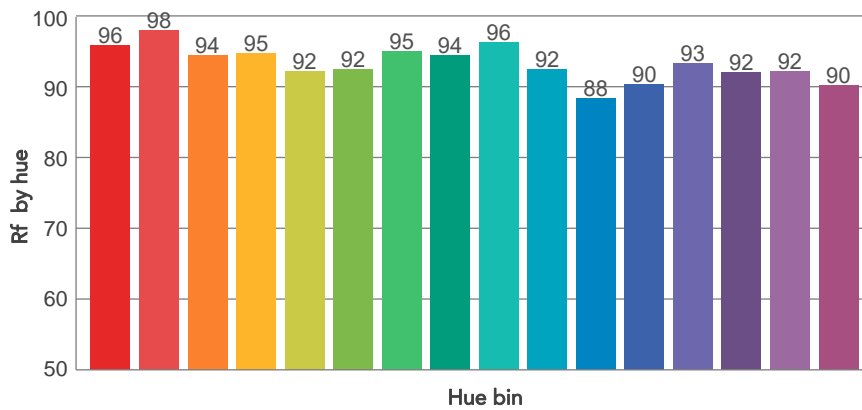
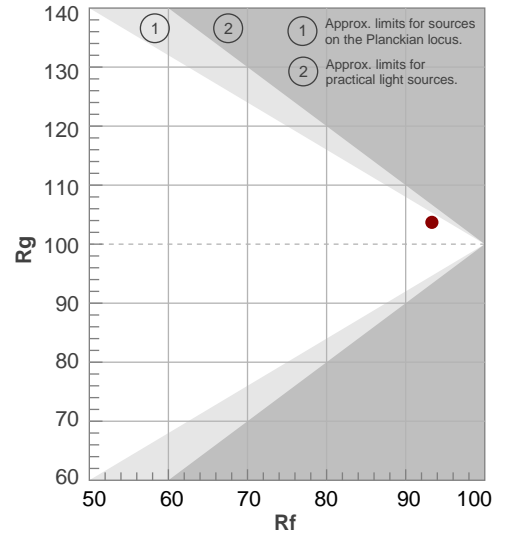
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4015 K	95,4	89,8	93,3	103,7	95,0	92	0,380	0,376	-0,0020

TM30 DETAILS

Rf 93,3
Fidelity index Rf

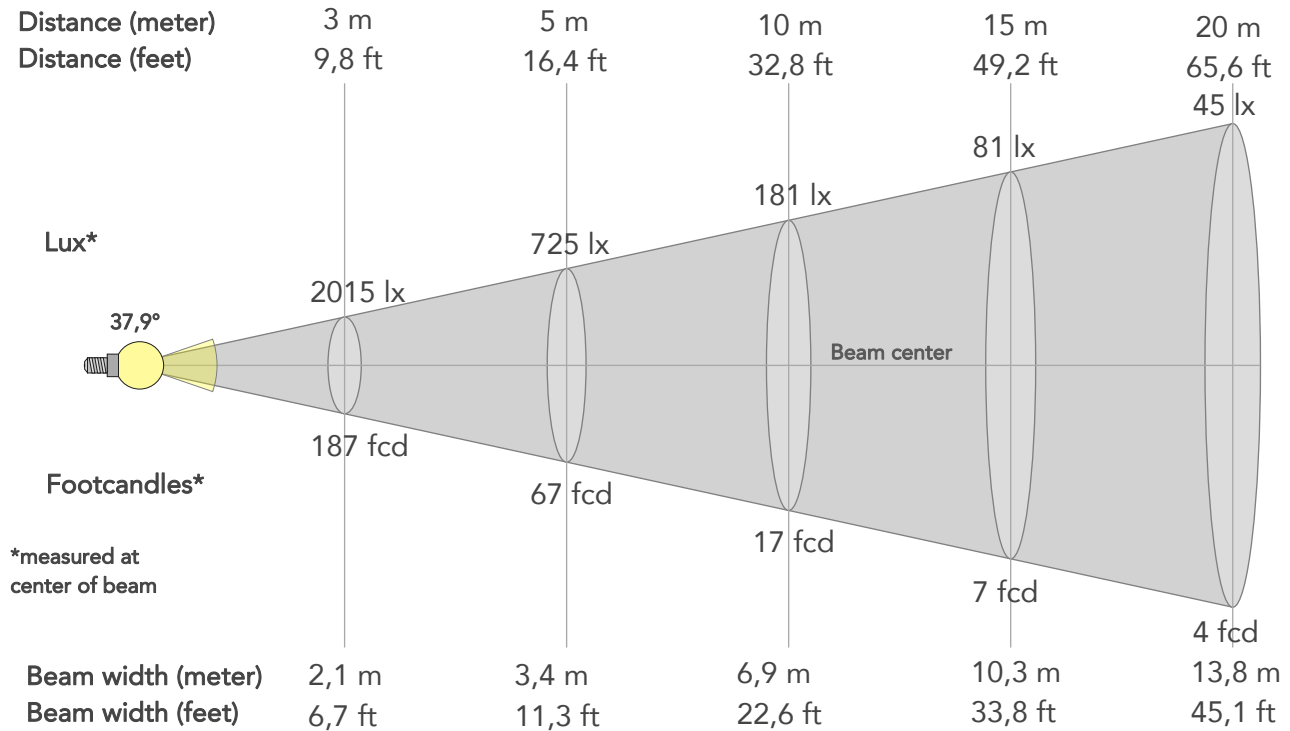
Rg 103,7
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	0%	-1%
2	98	0%	0%
3	94	0%	2%
4	95	0%	2%
5	92	1%	3%
6	92	4%	3%
7	95	3%	0%
8	94	1%	0%
9	96	0%	2%
10	92	-2%	4%
11	88	2%	7%
12	90	4%	3%
13	93	4%	-2%
14	92	6%	-1%
15	92	4%	-2%
16	90	3%	-5%



BEAM DETAILS

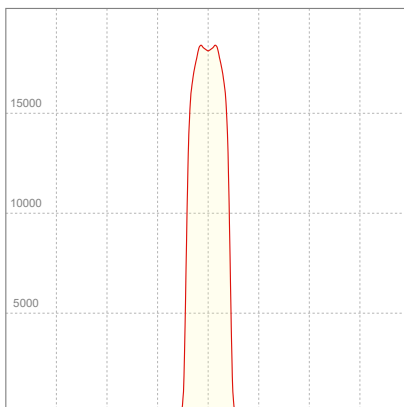
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37,9°	42,9°	46°	99,7%	99,6%



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	18132lx	4533lx	2015lx	1133lx	725lx	322lx	181lx	81lx	45lx	29lx	20lx	11lx	7lx
Footcand.	1684fcd	421fcd	187fcd	105fcd	67fcd	30fcd	17fcd	7fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,7m	1,4m	2,1m	2,8m	3,4m	5,2m	6,9m	10,3m	13,8m	17,2m	20,6m	27,5m	34,4m
Beam wid.	2,3ft	4,5ft	6,7ft	9ft	11,3ft	16,9ft	22,6ft	33,8ft	45,1ft	56,4ft	67,7ft	90,2ft	112,8ft

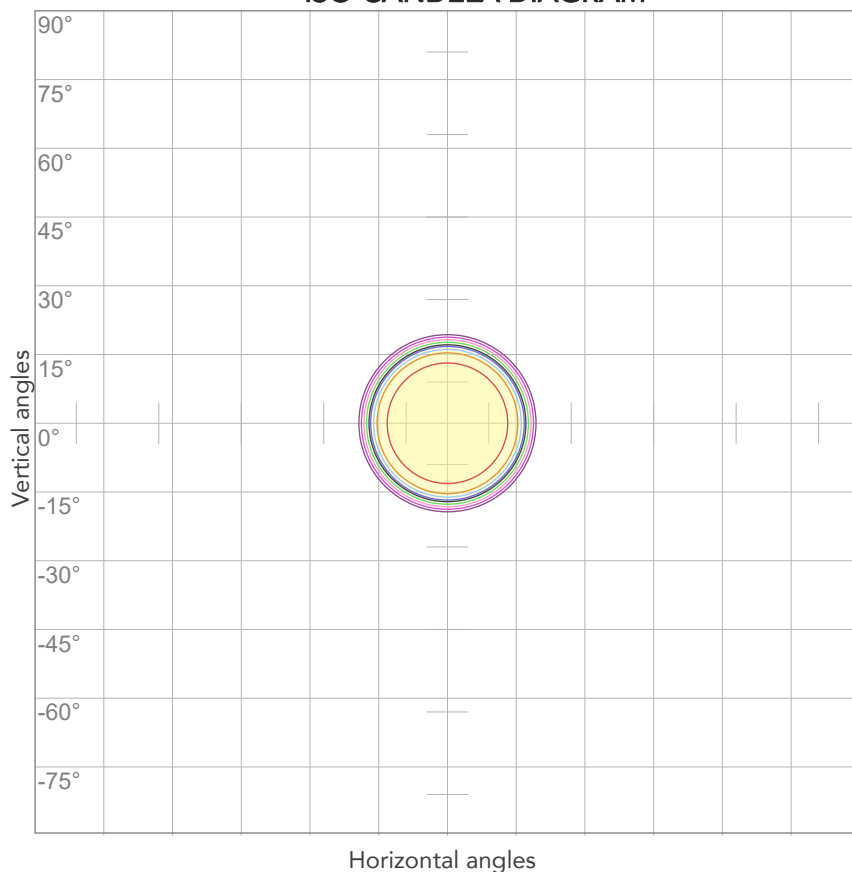
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,948A	199,9W	30lm/W

ISO CANDELA DIAGRAM



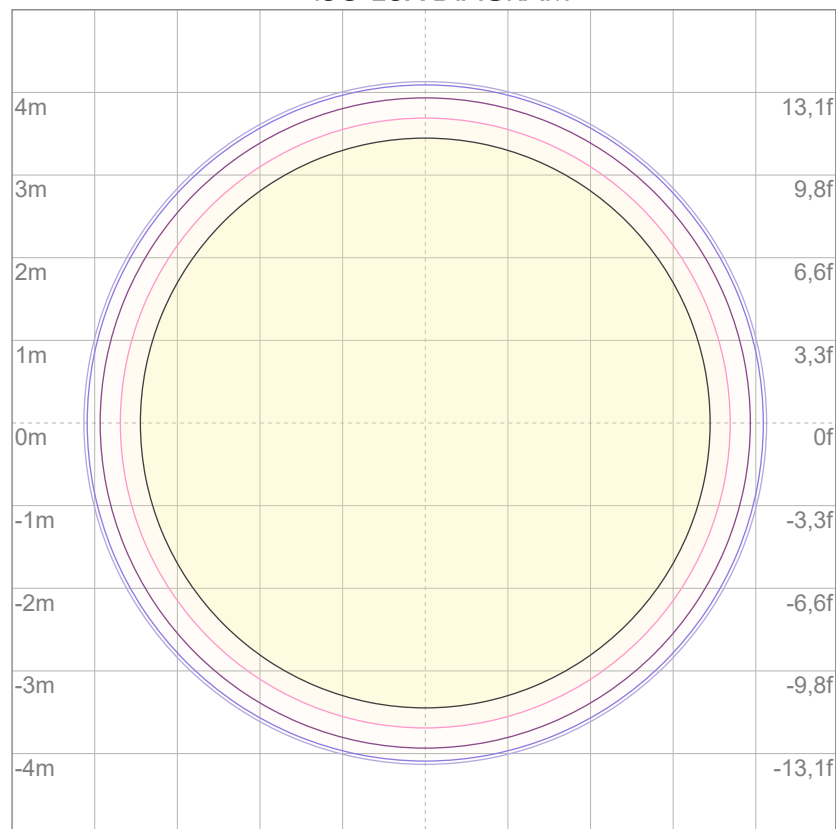
10%	1813 cd
20%	3626 cd
30%	5439 cd
40%	7253 cd
50%	9066 cd
60%	10879 cd
70%	12692 cd
80%	14505 cd

Conditions:

Number of c-planes: 2

Candela at center: 18132 cd

ISO LUX DIAGRAM



3%	5,44 lx
5%	9,07 lx
10%	18,1 lx
30%	54,4 lx
50%	90,7 lx

Conditions:

Number of c-planes: 2

Lux at center: 181 lx

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



Total lumen output:

6485 lm

Peak candela output:

19596 cd

Light quality:

CRI: 96,8

Color temperature:

5628 K

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL36

Target:

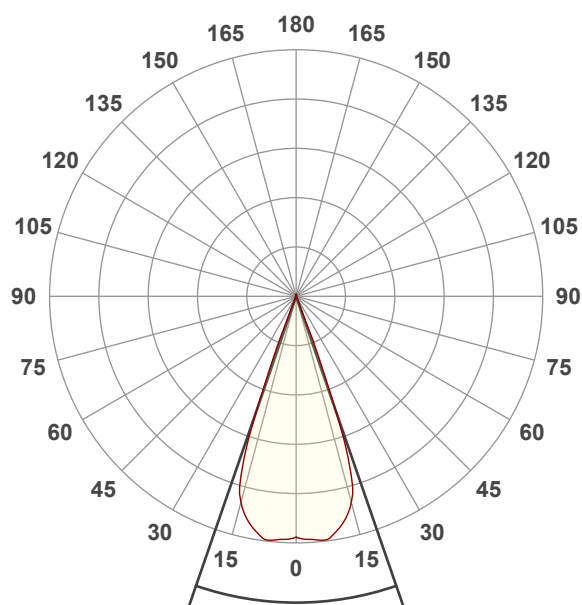
5600K HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 15:51:41

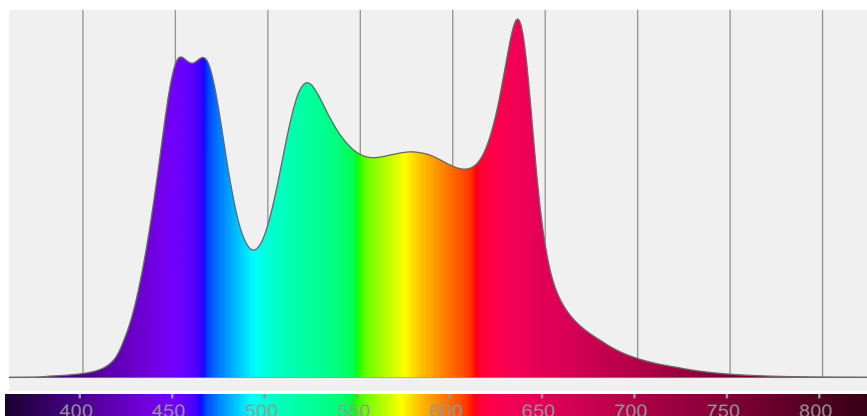


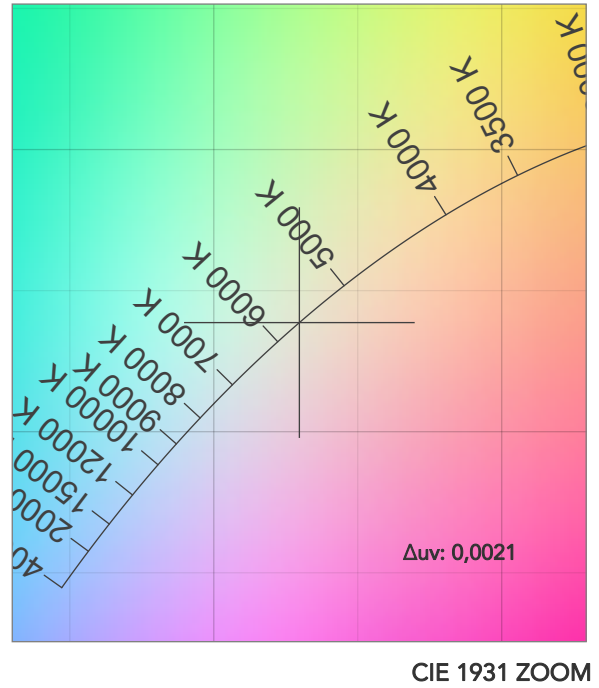
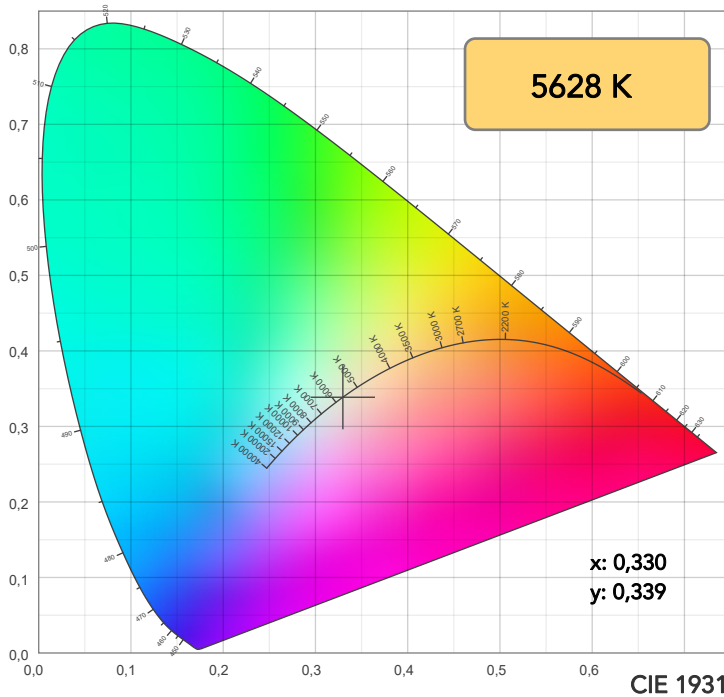
Beam angle 50%: 38,2°

Field angle 10%: 43,3°

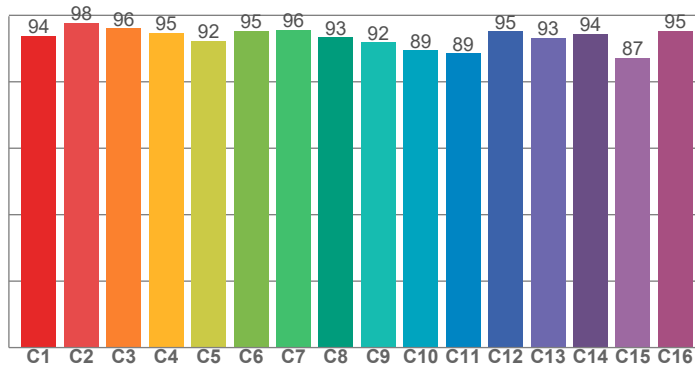
Cut off angle 2.5%: 44,5°

Spectra

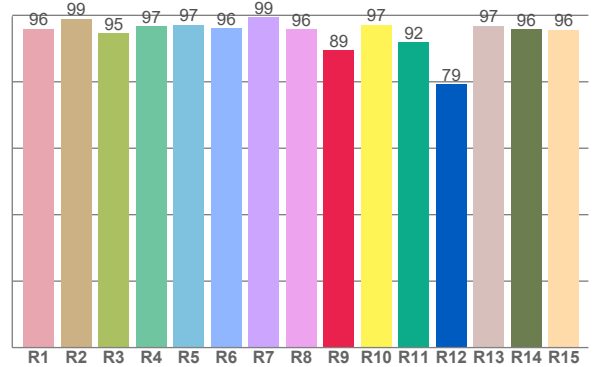




TM30: 93,3



CRI: 96,8 (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
96,0	99,0	94,6	96,8	97,1	96,1	99,4	95,8	89,4	97,2	92,0	79,3	96,8	95,8	95,7

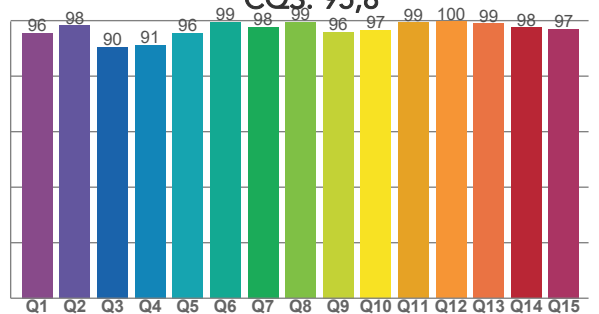
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,8	97,7	96,0	94,7	92,3	95,2	95,6	93,4	91,9	89,4	88,6	95,2	93,3	94,4	87,3	95,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,5	98,3	90,5	91,2	95,6	99,4	97,7	99,4	96,0	96,7	99,3	99,6	99,0	97,6	97,0

CQS: 95,8

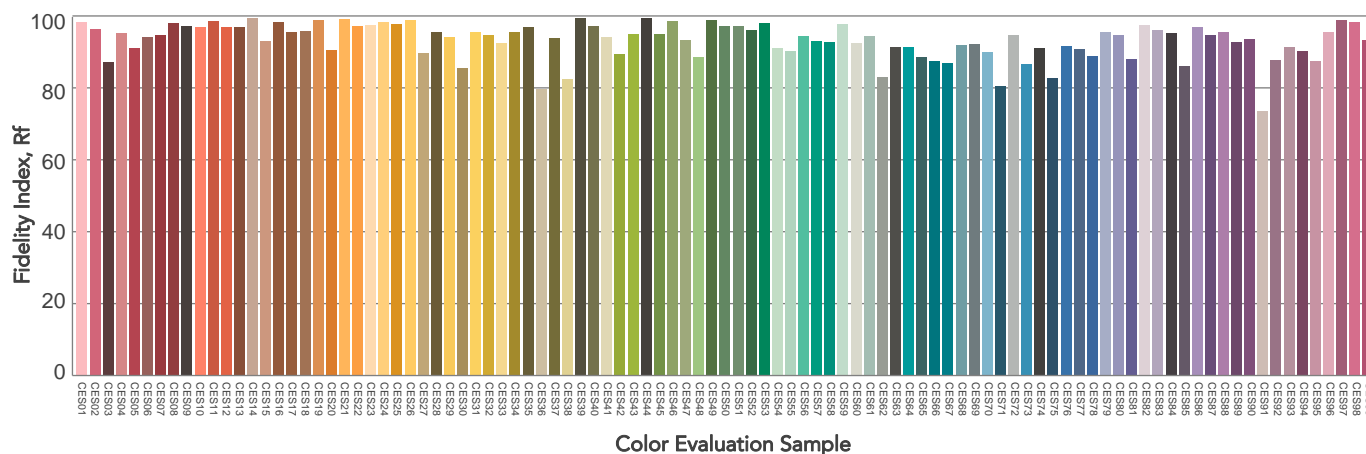
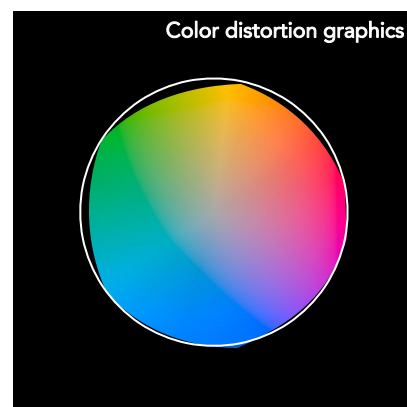
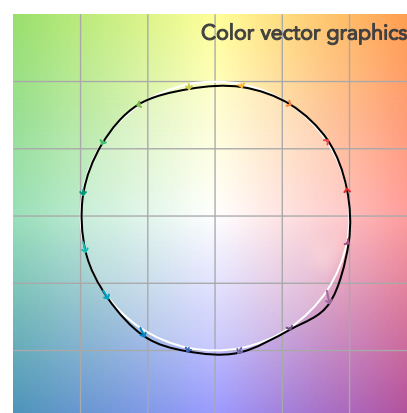
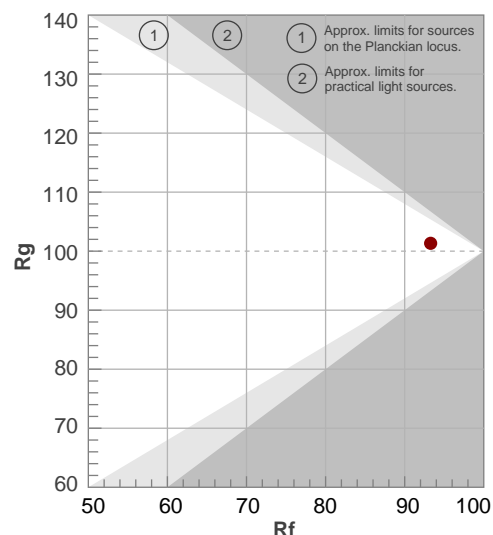


COLOR PARAMETERS

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
5628 K	96,8	89,4	93,3	101,3	95,8	96	0,330	0,339	0,0021

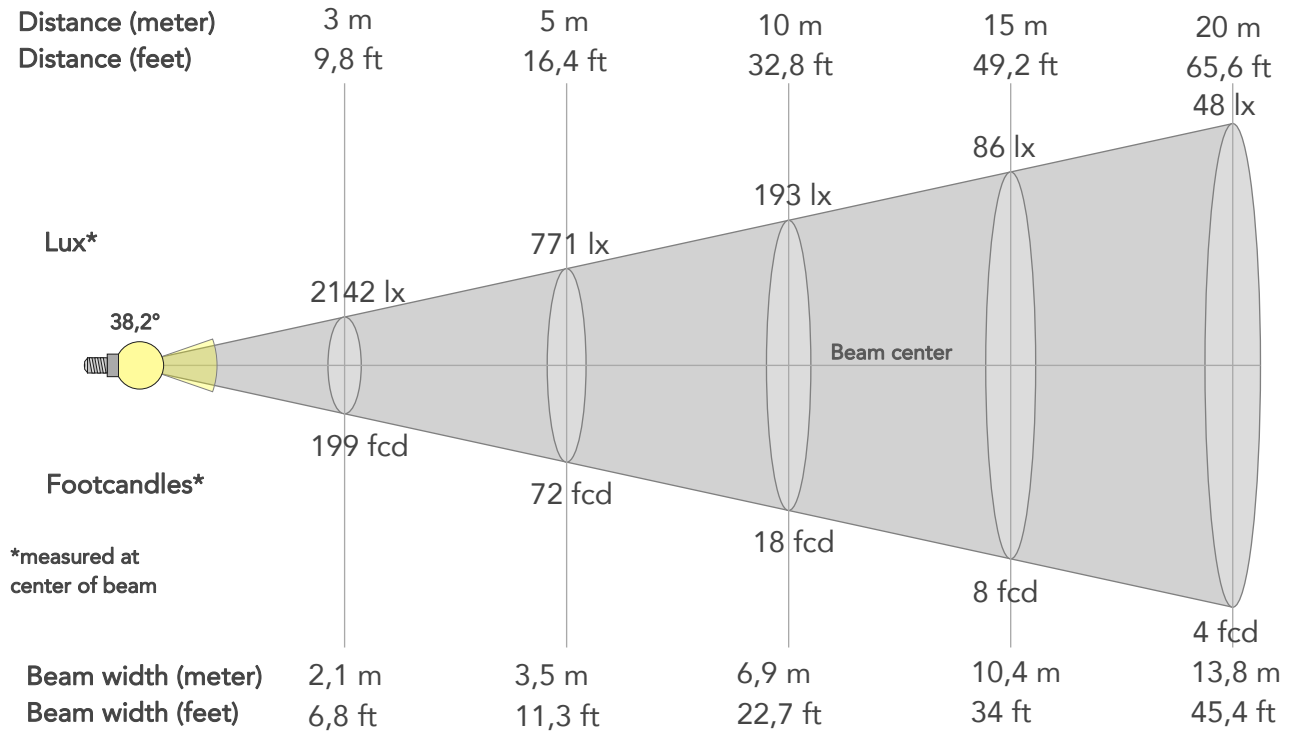
Gammut index

		Graphic shifts (%)	
Hue Bin	R_i	Chroma	Hue
1	94	0%	1%
2	98	1%	0%
3	96	0%	-1%
4	95	-2%	-1%
5	92	-4%	0%
6	95	1%	2%
7	96	0%	2%
8	93	-1%	4%
9	92	0%	7%
10	89	0%	7%
11	89	4%	6%
12	95	3%	-1%
13	93	3%	-3%
14	94	1%	0%
15	87	7%	-7%
16	95	1%	-1%



BEAM DETAILS

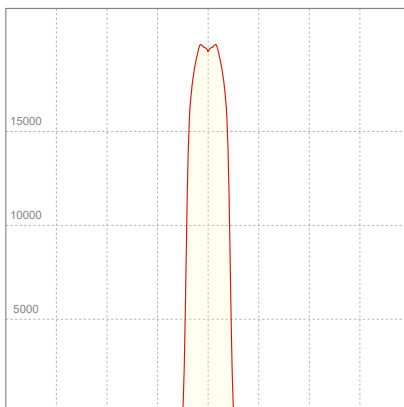
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
38,2°	43,3°	44,5°	99,7%	99,6%



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	19277lx	4819lx	2142lx	1205lx	771lx	343lx	193lx	86lx	48lx	31lx	21lx	12lx	8lx
Footcand.	1791fcd	448fcd	199fcd	112fcd	72fcd	32fcd	18fcd	8fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,7m	1,4m	2,1m	2,8m	3,5m	5,2m	6,9m	10,4m	13,8m	17,3m	20,8m	27,7m	34,6m
Beam wid.	2,3ft	4,6ft	6,8ft	9,1ft	11,3ft	17ft	22,7ft	34ft	45,4ft	56,7ft	68,1ft	90,8ft	113,5ft

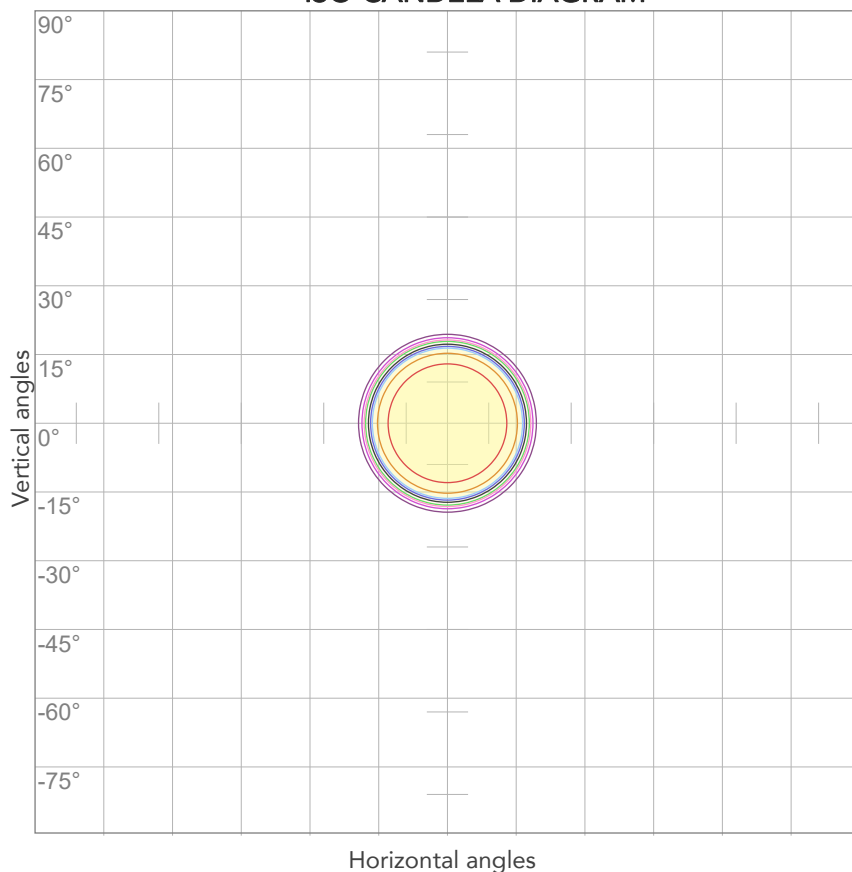
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	1,05A	225,6W	29lm/W

ISO CANDELA DIAGRAM



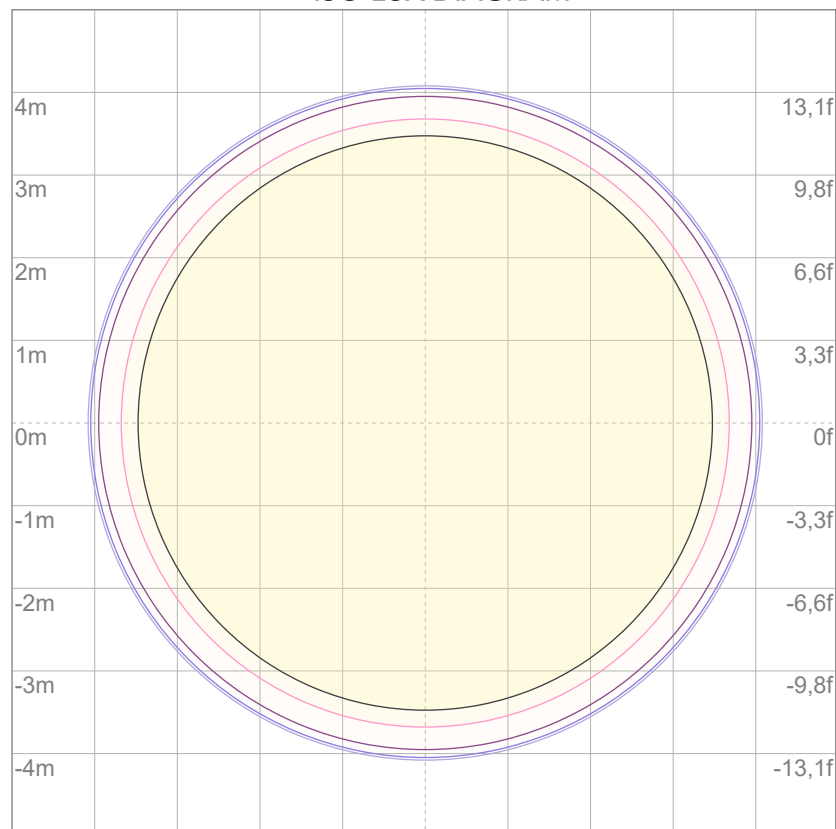
10%	1928 cd
20%	3855 cd
30%	5783 cd
40%	7711 cd
50%	9638 cd
60%	11566 cd
70%	13494 cd
80%	15421 cd

Conditions:

Number of c-planes: 2

Candela at center: 19277 cd

ISO LUX DIAGRAM



3%	5,78 lx
5%	9,64 lx
10%	19,3 lx
30%	57,8 lx
50%	96,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 193 lx

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



Total lumen output:

6470 lm

Peak candela output:

19499 cd

Light quality:

CRI: 96,7

Color temperature:

5931 K

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL36

Target:

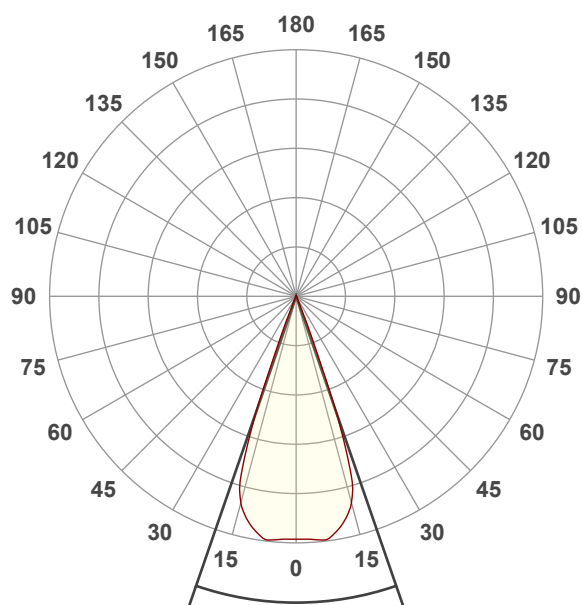
6000K HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 15:54:14

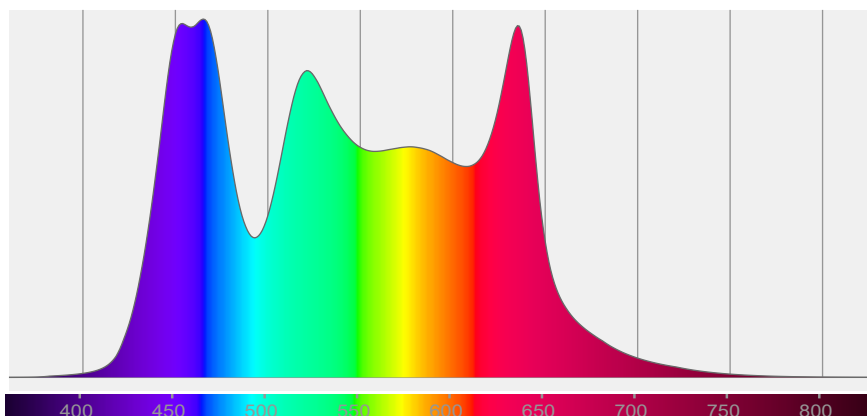


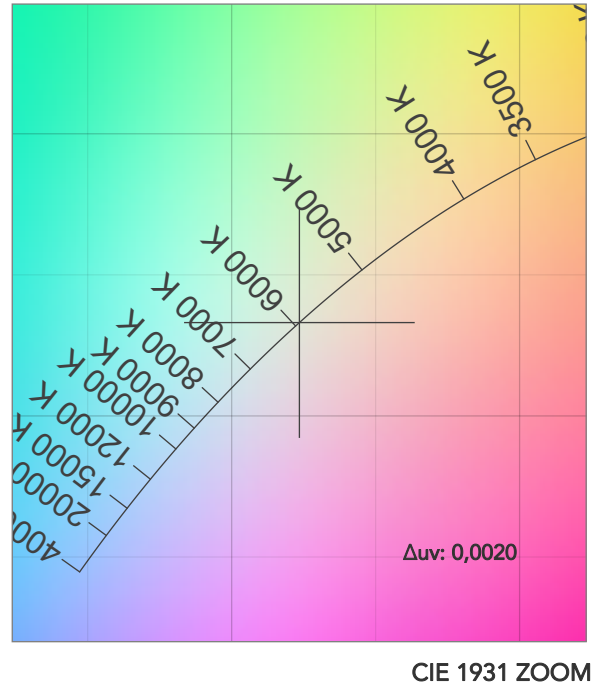
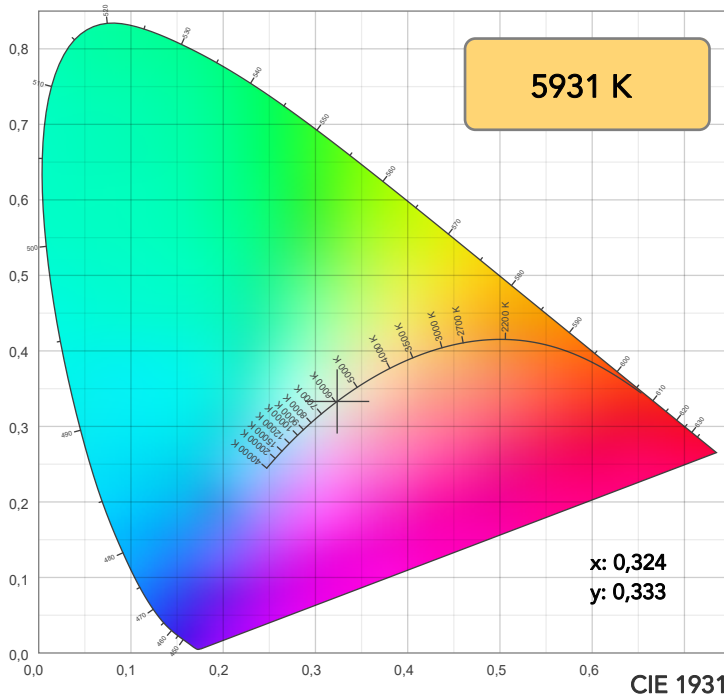
Beam angle 50%: 38,1°

Field angle 10%: 43,7°

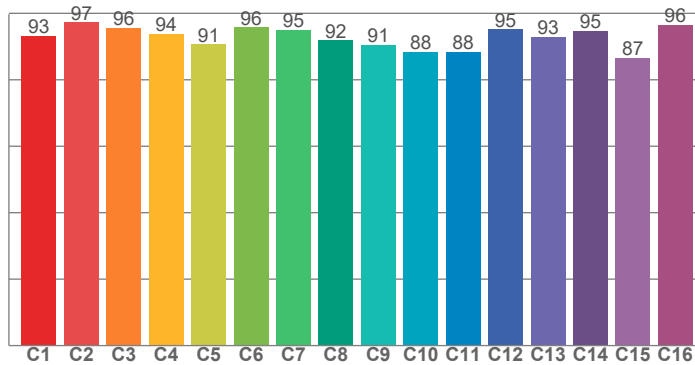
Cut off angle 2.5%: 45,6°

Spectra

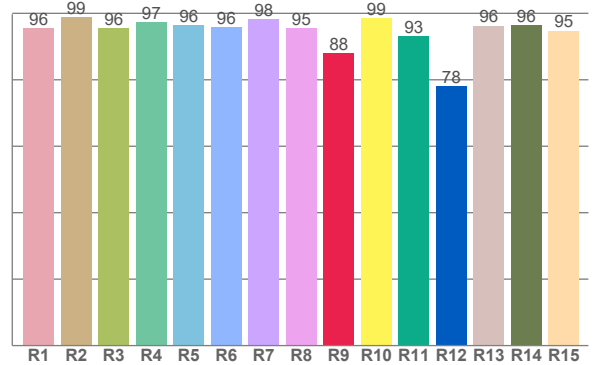




TM30: 92,7



CRI: 96,7 (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
95,6	98,9	95,5	97,4	96,5	95,8	98,3	95,4	87,9	98,6	93,1	78,0	96,3	96,3	94,8

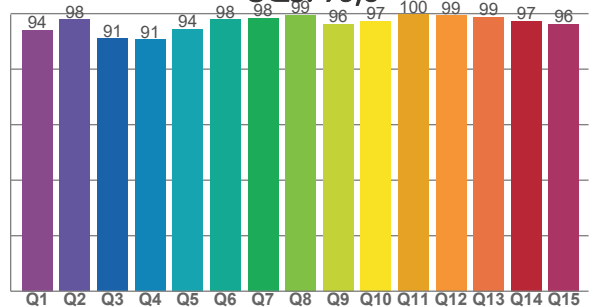
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,1	97,2	95,6	93,9	90,7	95,8	95,1	91,9	90,5	88,4	88,4	95,1	92,9	94,6	86,6	96,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,2	97,9	91,0	90,6	94,4	97,8	98,5	99,4	96,3	97,4	99,7	99,3	98,9	97,4	96,3

CQS: 95,6



COLOR PARAMETERS

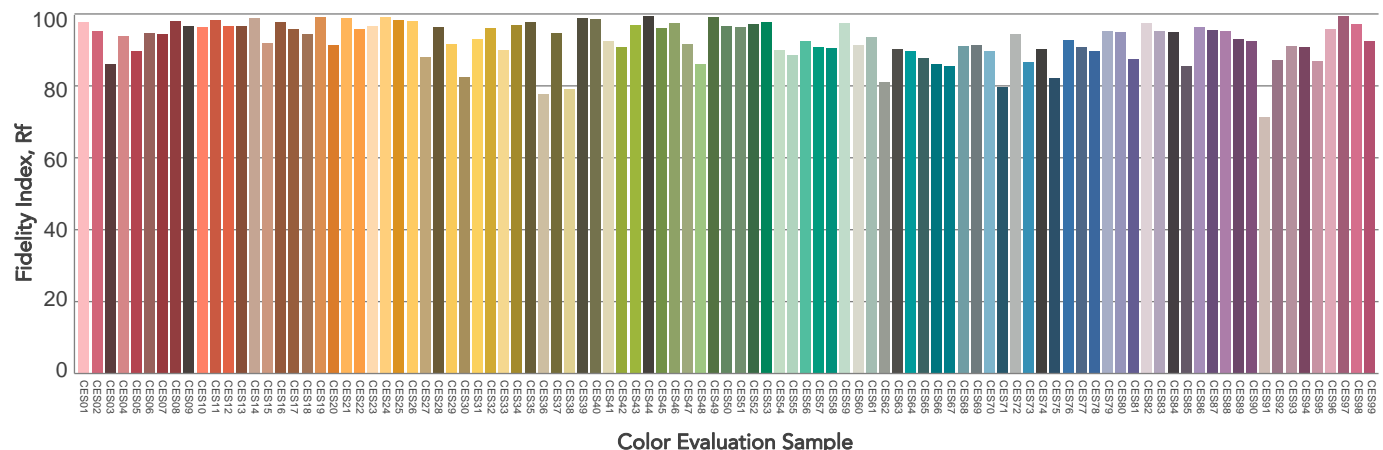
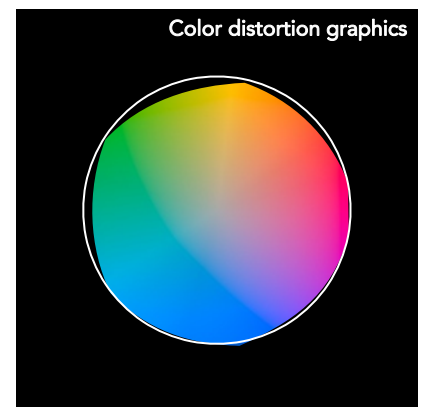
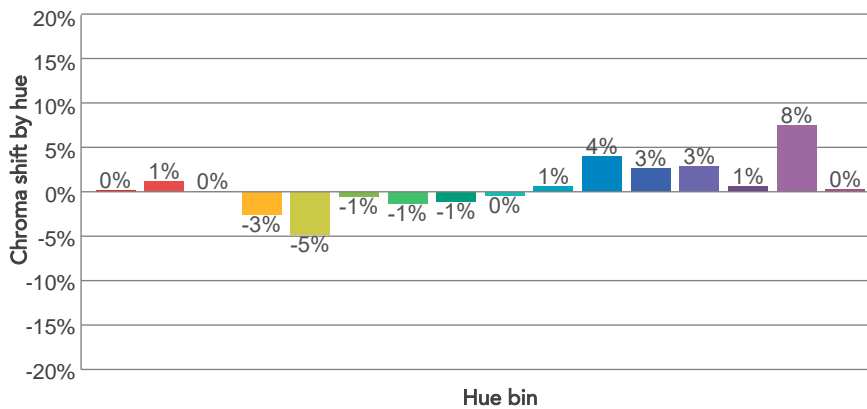
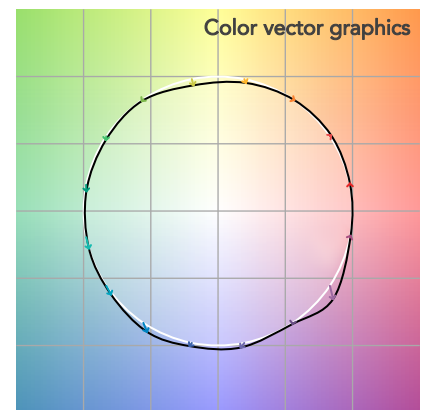
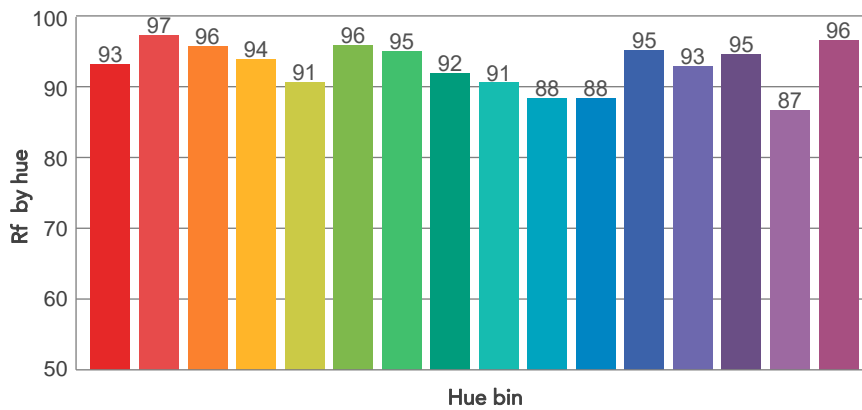
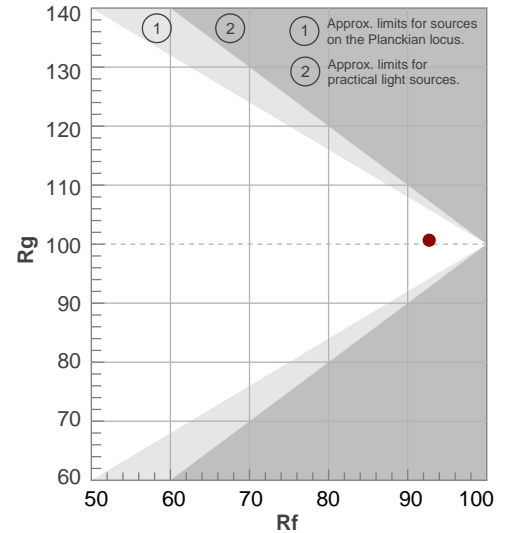
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5931 K	96,7	87,9	92,7	100,7	95,6	96	0,324	0,333	0,0020

TM30 DETAILS

Rf 92,7
Fidelity index Rf

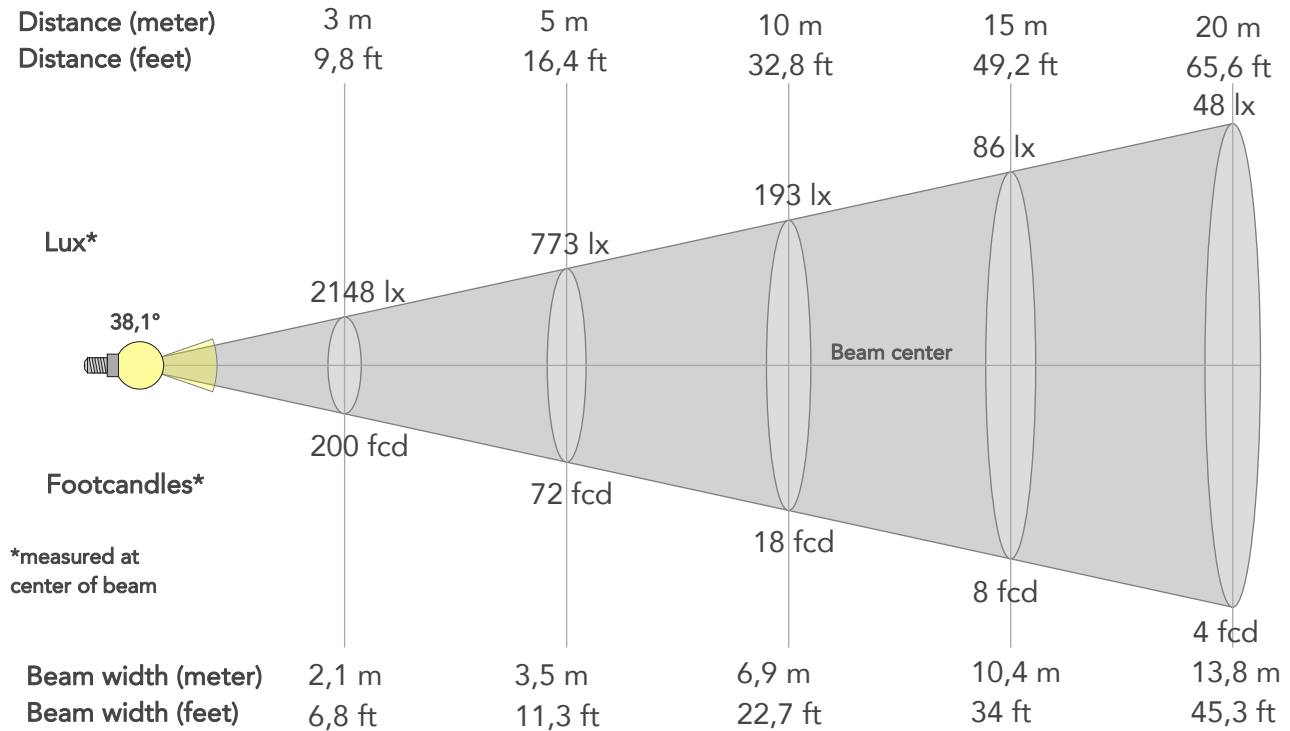
Rg 100,7
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	0%	1%
2	97	1%	0%
3	96	0%	-1%
4	94	-3%	-2%
5	91	-5%	0%
6	96	-1%	2%
7	95	-1%	2%
8	92	-1%	5%
9	91	0%	9%
10	88	1%	7%
11	88	4%	6%
12	95	3%	-1%
13	93	3%	-3%
14	95	1%	-1%
15	87	8%	-7%
16	96	0%	1%



BEAM DETAILS

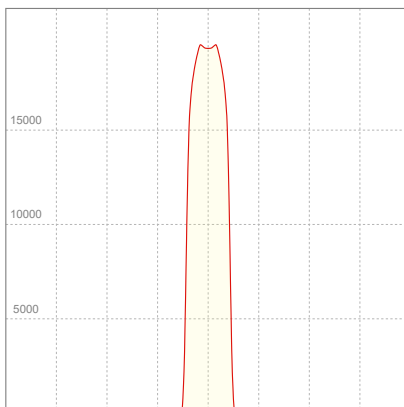
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
38,1°	43,7°	45,6°	99,7%	99,6%



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	19334lx	4834lx	2148lx	1208lx	773lx	344lx	193lx	86lx	48lx	31lx	21lx	12lx	8lx
Footcand.	1796fcd	449fcd	200fcd	112fcd	72fcd	32fcd	18fcd	8fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,7m	1,4m	2,1m	2,8m	3,5m	5,2m	6,9m	10,4m	13,8m	17,3m	20,7m	27,7m	34,6m
Beam wid.	2,3ft	4,6ft	6,8ft	9,1ft	11,3ft	17ft	22,7ft	34ft	45,3ft	56,7ft	68ft	90,7ft	113,4ft

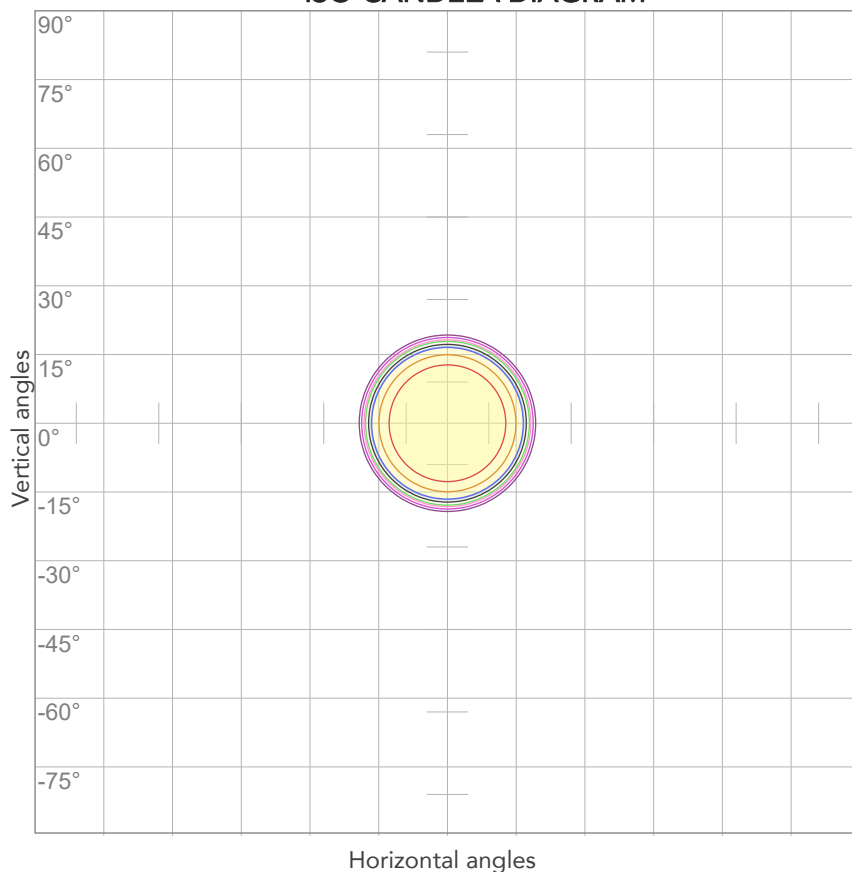
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	1,07A	229,1W	28lm/W

ISO CANDELA DIAGRAM



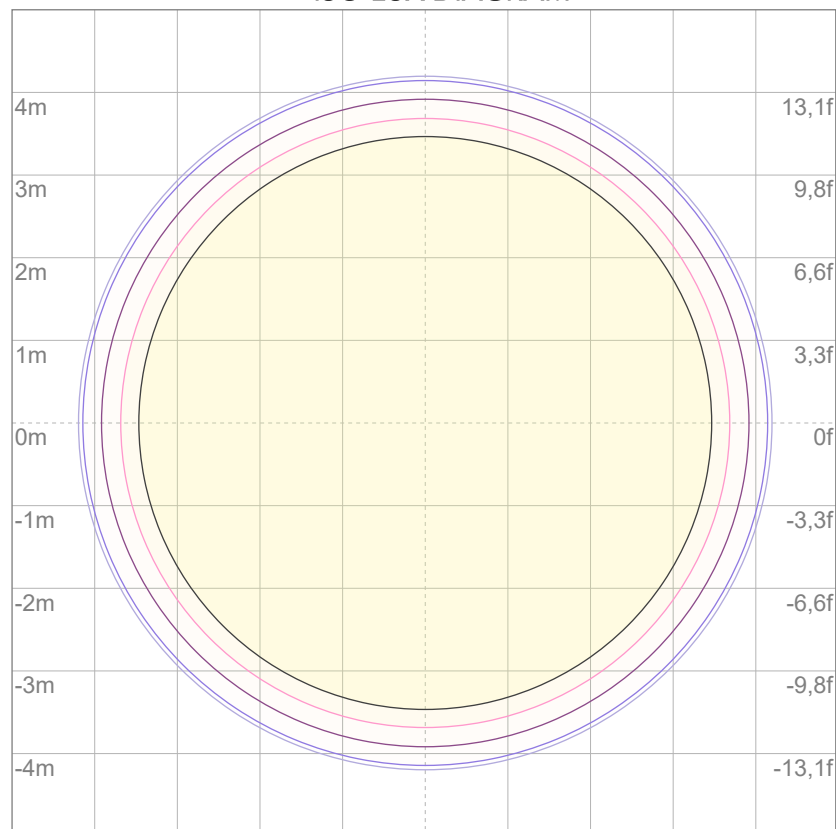
10%	1933 cd
20%	3867 cd
30%	5800 cd
40%	7734 cd
50%	9667 cd
60%	11601 cd
70%	13534 cd
80%	15467 cd

Conditions:

Number of c-planes: 2

Candela at center: 19334 cd

ISO LUX DIAGRAM



3%	5,80 lx
5%	9,67 lx
10%	19,3 lx
30%	58,0 lx
50%	96,7 lx

Conditions:

Number of c-planes: 2

Lux at center: 193 lx

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