

Photometric Test Report



ECLCTPLUS PRL50

High quality six colours full spectrum
ellipsoidal LED

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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:

5773 lm

Peak candela output:

11881 cd

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL50

Target:

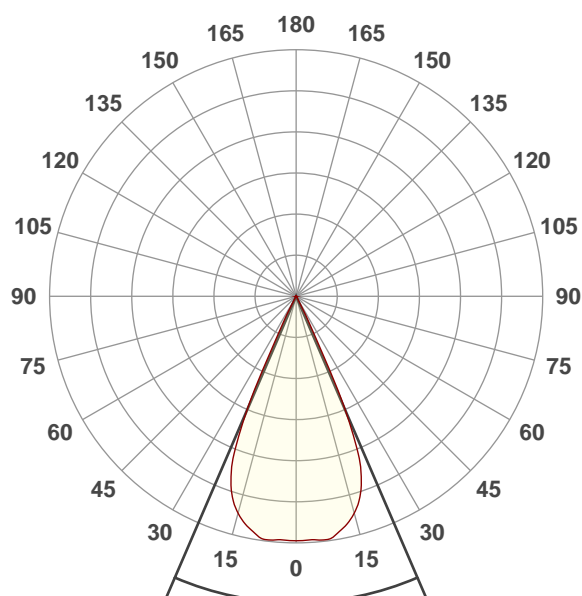
Full On HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 14:55:17

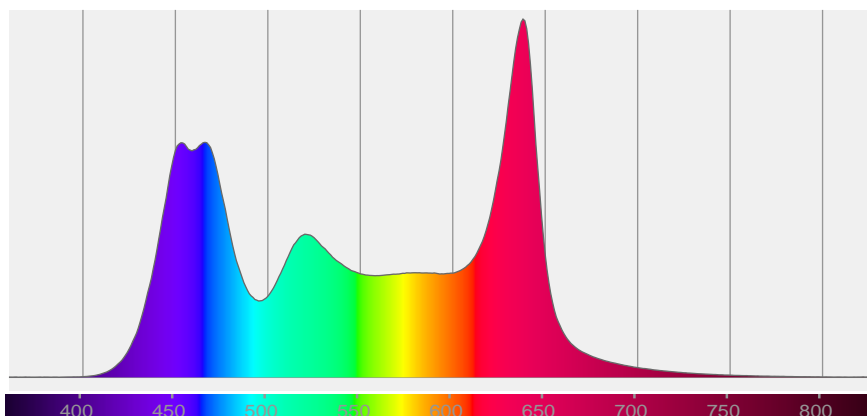


Beam angle 50%: 46,7°

Field angle 10%: 53,2°

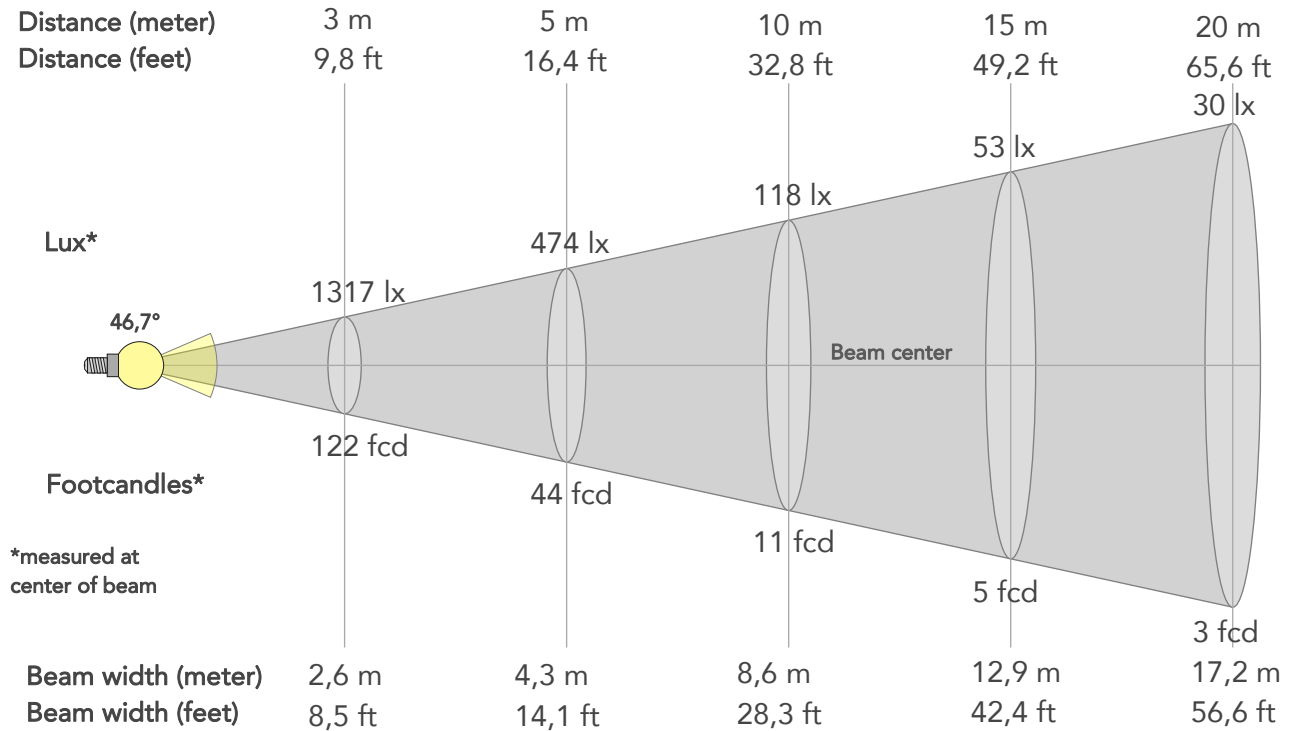
Cut off angle 2.5%: 56,3°

Spectra



BEAM DETAILS

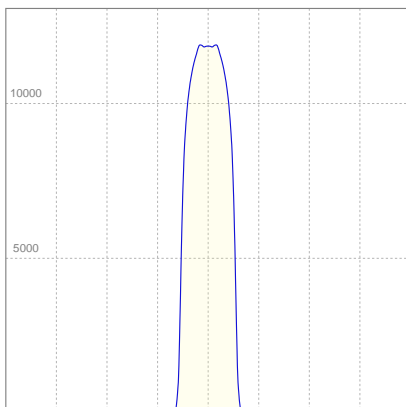
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,7°	53,2°	56,3°	99,7%	99,7%



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	11849lx	2962lx	1317lx	741lx	474lx	211lx	118lx	53lx	30lx	19lx	13lx	7lx	5lx
Footcand.	1101fcd	275fcd	122fcd	69fcd	44fcd	20fcd	11fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	0,9m	1,7m	2,6m	3,4m	4,3m	6,5m	8,6m	12,9m	17,2m	21,6m	25,9m	34,5m	43,1m
Beam wid.	2,8ft	5,7ft	8,5ft	11,3ft	14,1ft	21,2ft	28,3ft	42,4ft	56,6ft	70,7ft	84,9ft	113,1ft	141,4ft

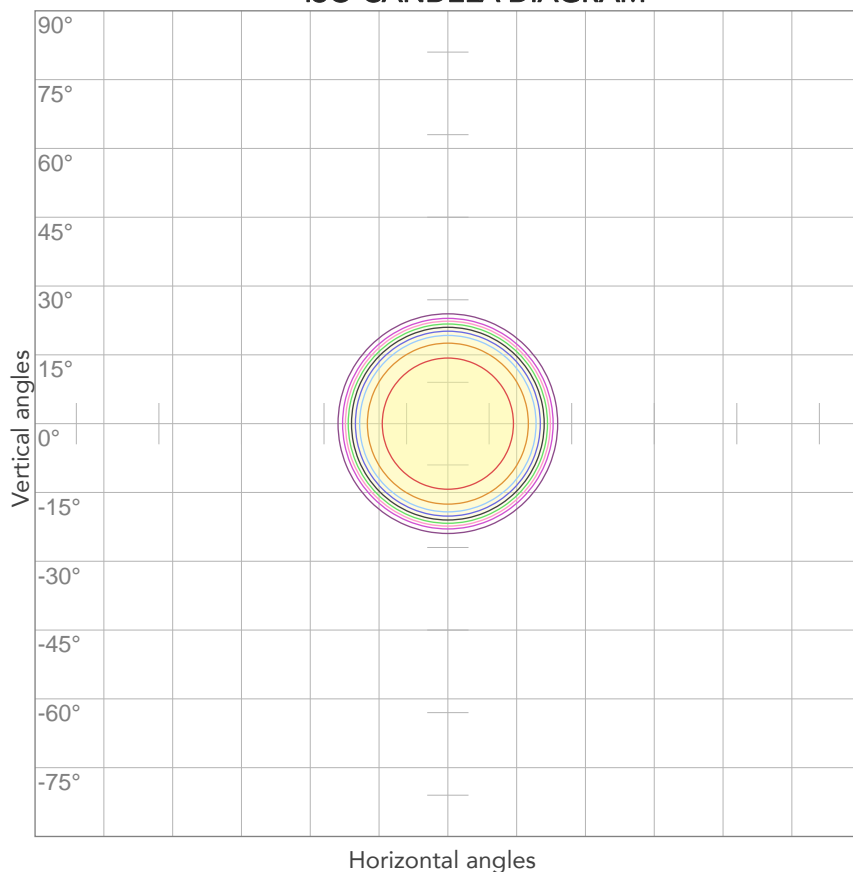
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	1,22A	264,4W	22lm/W
Power FC			
0,96			

ISO CANDELA DIAGRAM



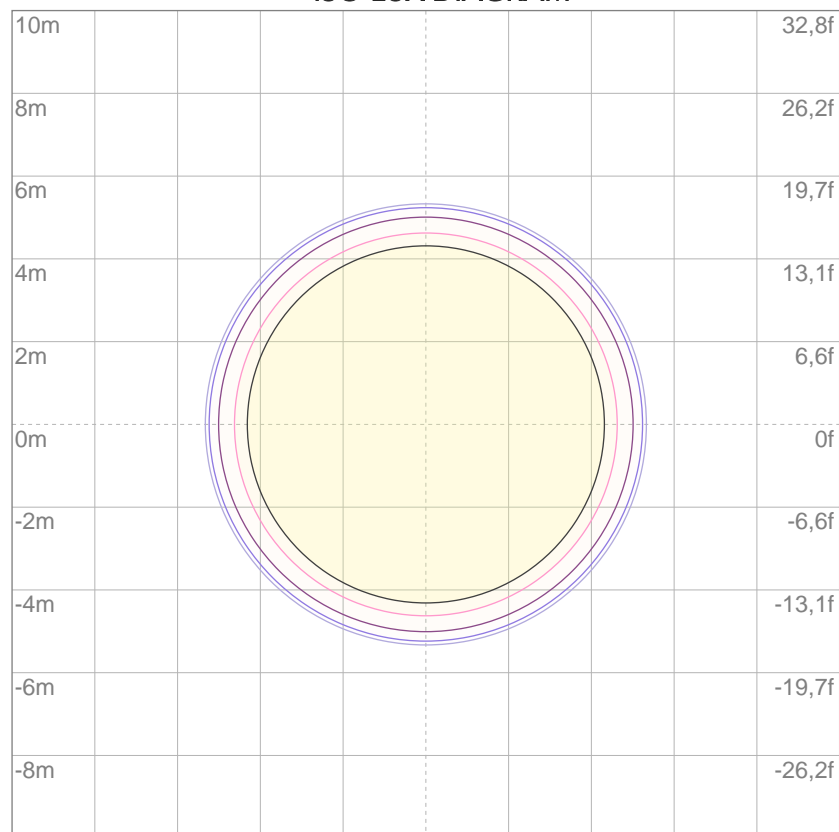
10%	1185 cd
20%	2370 cd
30%	3555 cd
40%	4740 cd
50%	5924 cd
60%	7109 cd
70%	8294 cd
80%	9479 cd

Conditions:

Number of c-planes: 2

Candela at center: 11849 cd

ISO LUX DIAGRAM



3%	3,55 lx
5%	5,92 lx
10%	11,8 lx
30%	35,5 lx
50%	59,2 lx

Conditions:

Number of c-planes: 2

Lux at center: 118 lx

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



Total lumen output:

891 lm

Peak candela output:

1801 cd

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL50

Target:

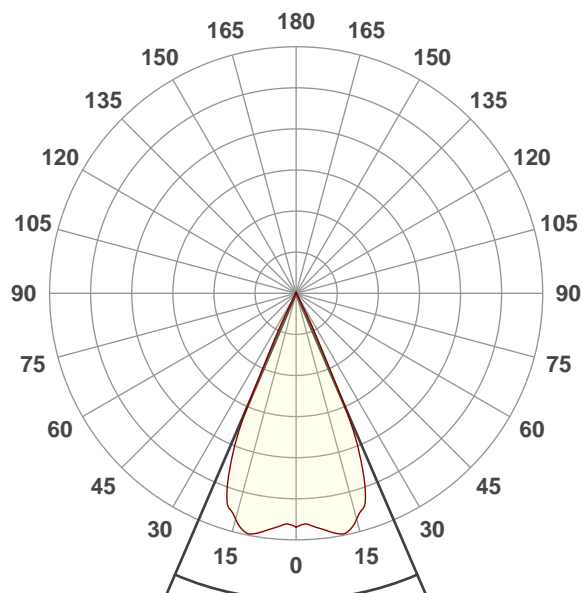
Red HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 14:57:22

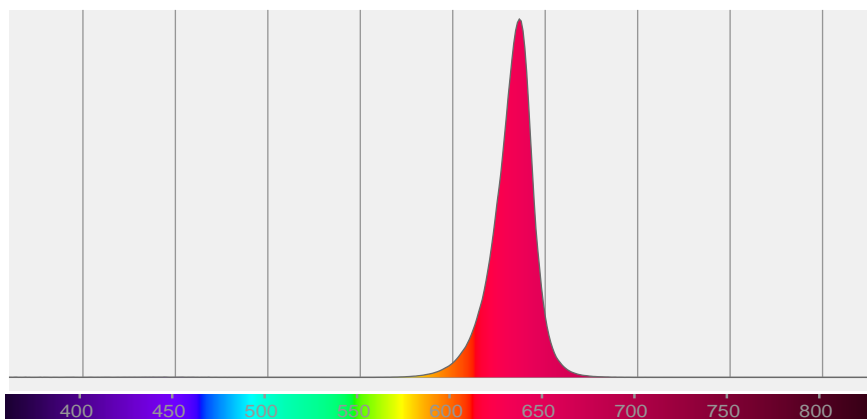


Beam angle 50%: 46,6°

Field angle 10%: 53,3°

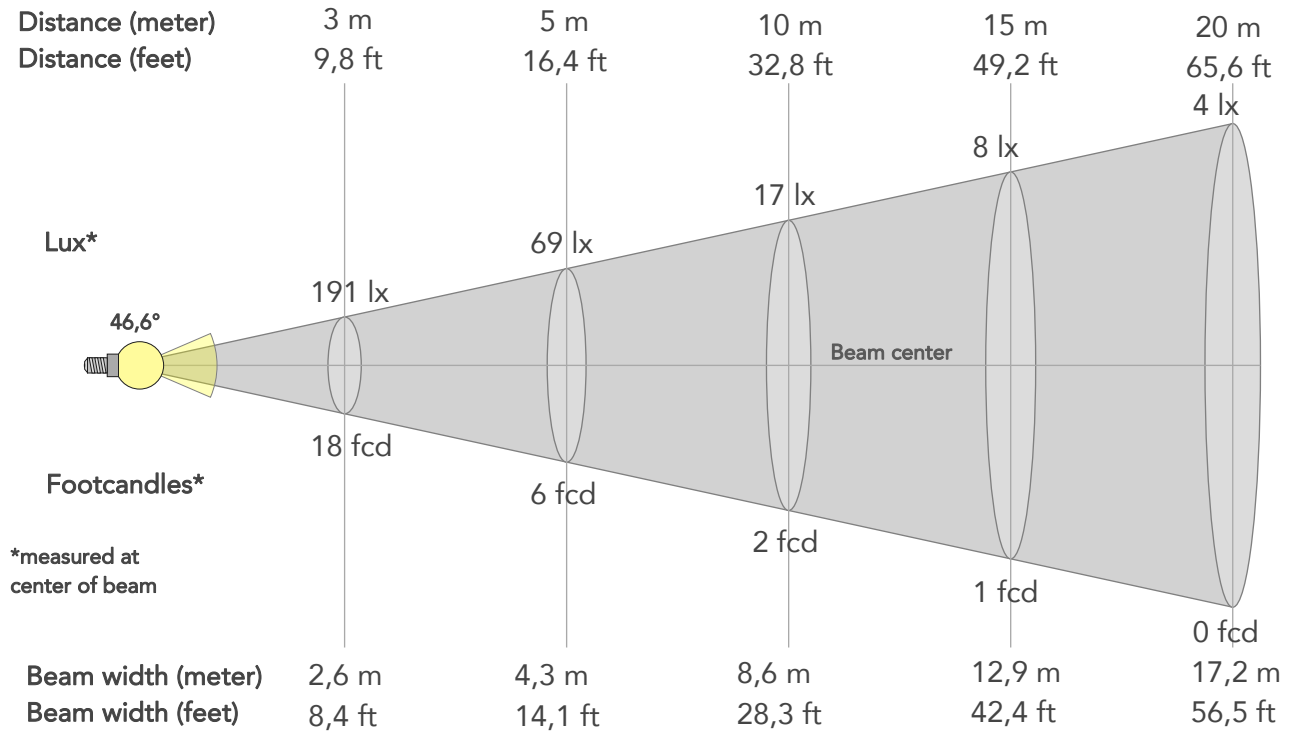
Cut off angle 2.5%: 57,1°

Spectra



BEAM DETAILS

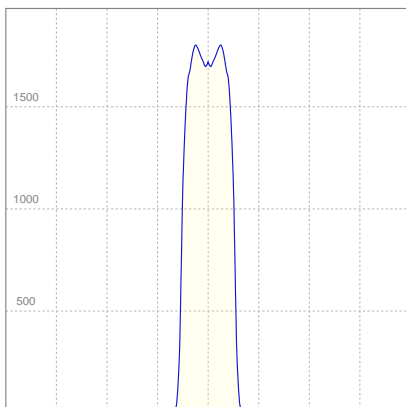
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,6°	53,3°	57,1°	99,8%	99,7%



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	1717lx	429lx	191lx	107lx	69lx	31lx	17lx	8lx	4lx	3lx	2lx	1lx	1lx
Footcand.	160fcd	40fcd	18fcd	10fcd	6fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,9m	1,7m	2,6m	3,4m	4,3m	6,5m	8,6m	12,9m	17,2m	21,5m	25,8m	34,5m	43,1m
Beam wid.	2,8ft	5,7ft	8,4ft	11,3ft	14,1ft	21,2ft	28,3ft	42,4ft	56,5ft	70,6ft	84,8ft	113ft	141,3ft

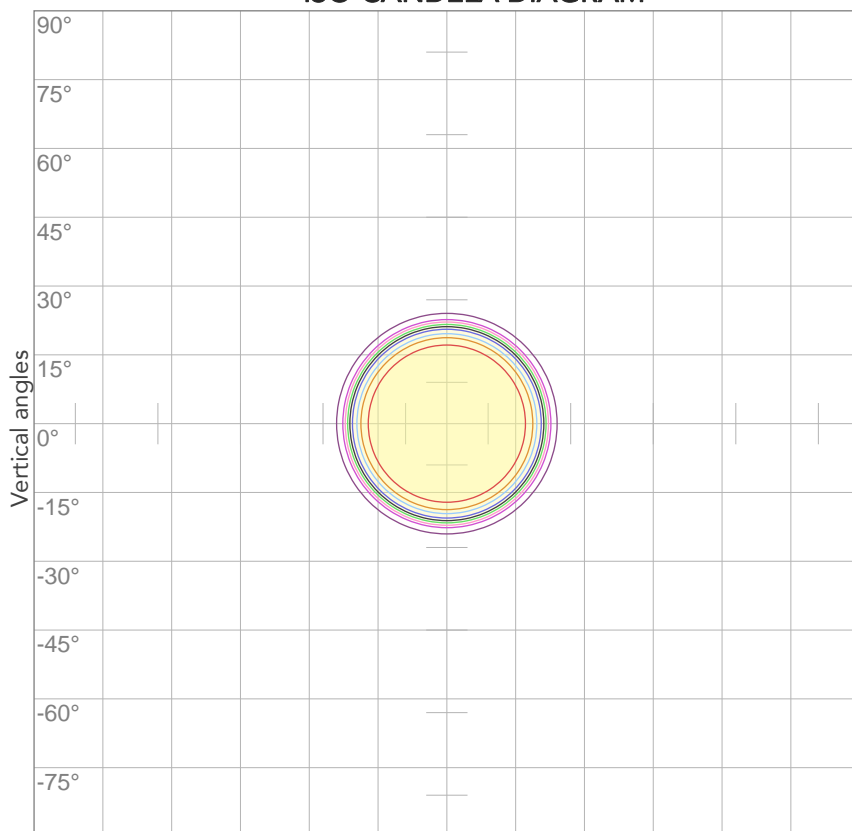
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,319A	52,2W	17lm/W

ISO CANDELA DIAGRAM



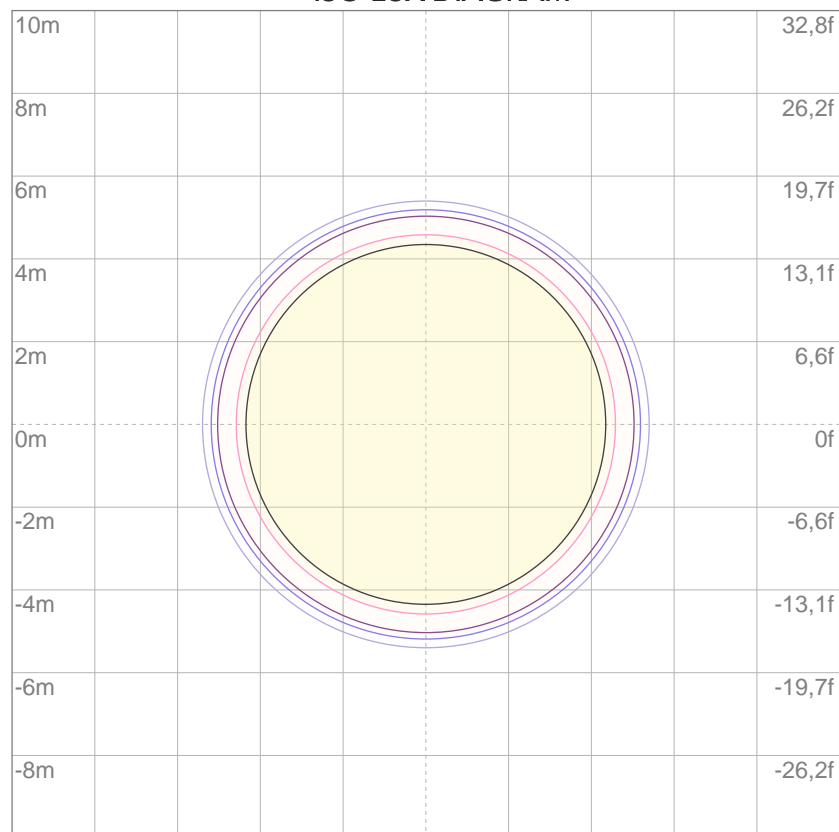
10%	172 cd
20%	343 cd
30%	515 cd
40%	687 cd
50%	858 cd
60%	1030 cd
70%	1202 cd
80%	1374 cd

Conditions:

Number of c-planes: 2

Candela at center: 1717 cd

ISO LUX DIAGRAM



3%	0,515 lx
5%	0,858 lx
10%	1,72 lx
30%	5,15 lx
50%	8,58 lx

Conditions:

Number of c-planes: 2

Lux at center: 17,2 lx

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



Total lumen output:

973 lm

Peak candela output:

2176 cd

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL50

Target:

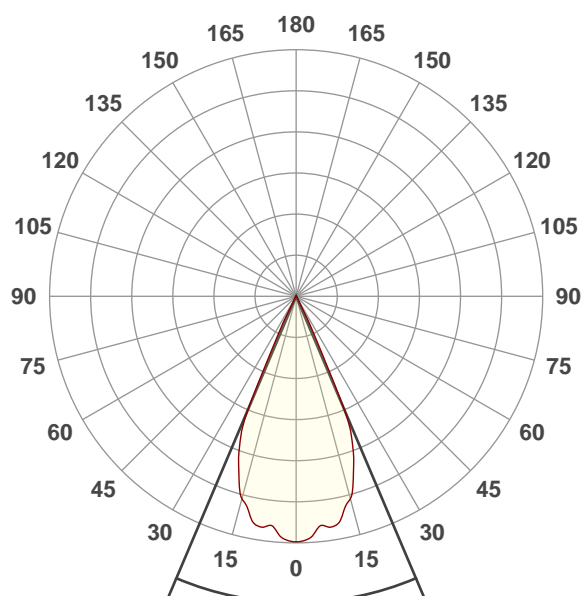
Green HQ

Operator:

Paolo Carvone

Date and time:

15/07/2020 16:17:55

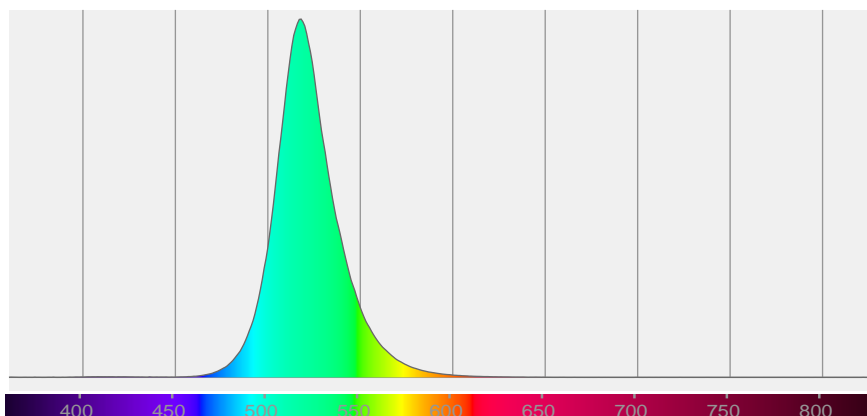


Beam angle 50%: 46°

Field angle 10%: 53°

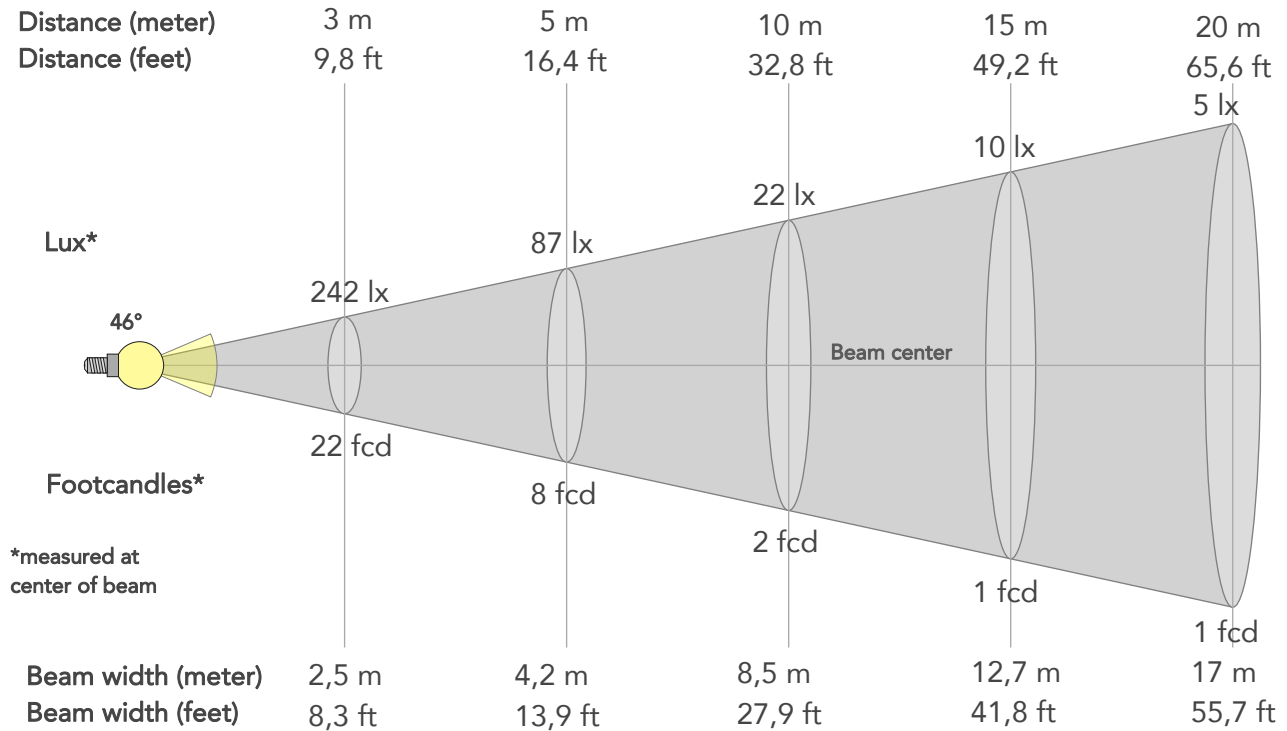
Cut off angle 2.5%: 56,4°

Spectra



BEAM DETAILS

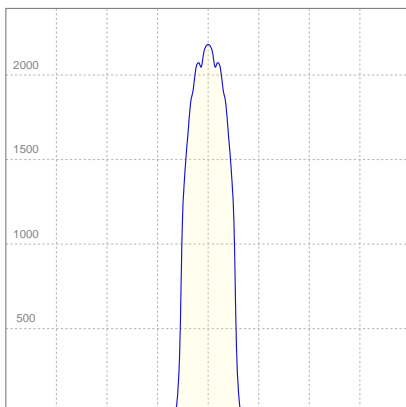
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46°	53°	56,4°	99,5%	99,4%



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	2176lx	544lx	242lx	136lx	87lx	39lx	22lx	10lx	5lx	3lx	2lx	1lx	1lx
Footcand.	202fcd	51fcd	22fcd	13fcd	8fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,8m	1,7m	2,5m	3,4m	4,2m	6,4m	8,5m	12,7m	17m	21,2m	25,5m	34m	42,5m
Beam wid.	2,8ft	5,6ft	8,3ft	11,1ft	13,9ft	20,9ft	27,9ft	41,8ft	55,7ft	69,7ft	83,6ft	111,5ft	139,4ft

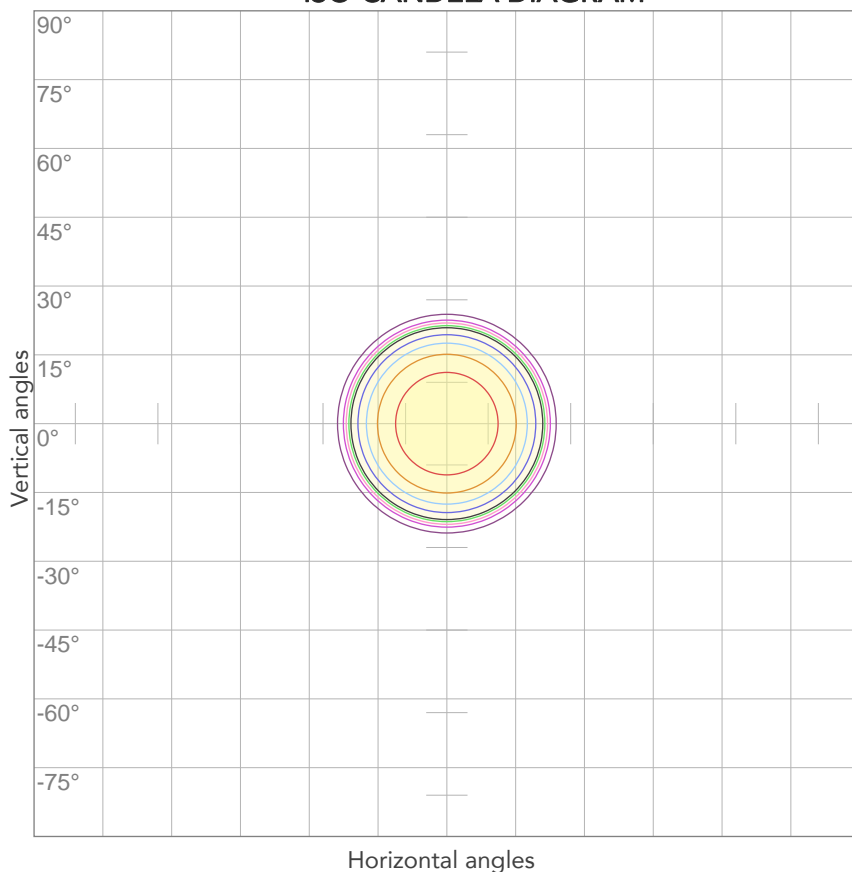
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,300A	47,6W	20lm/W

ISO CANDELA DIAGRAM



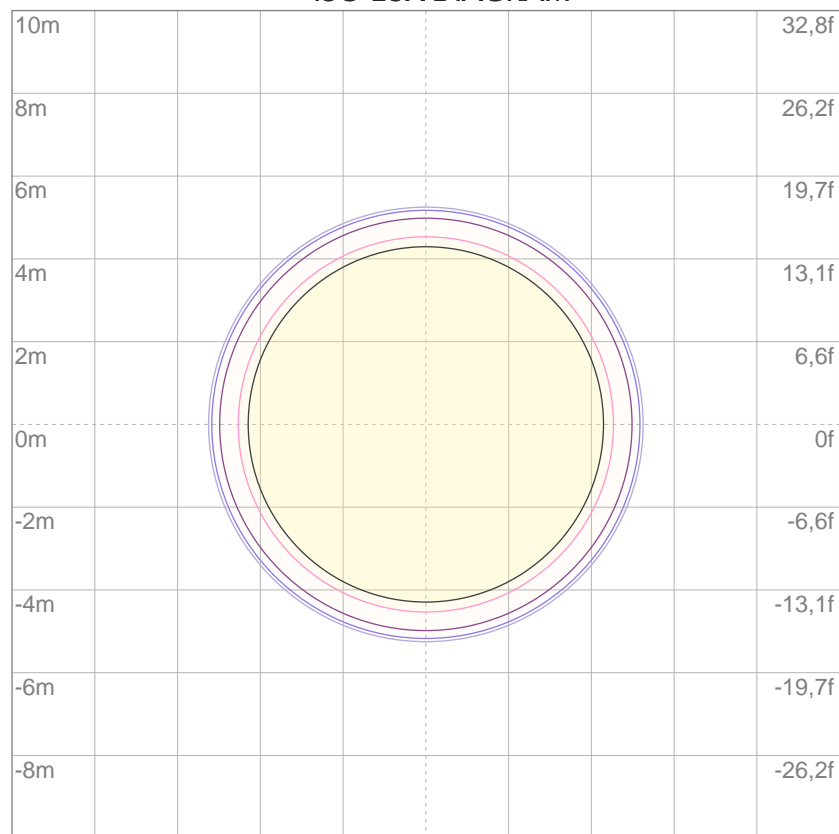
10%	218 cd
20%	435 cd
30%	653 cd
40%	870 cd
50%	1088 cd
60%	1306 cd
70%	1523 cd
80%	1741 cd

Conditions:

Number of c-planes: 2

Candela at center: 2176 cd

ISO LUX DIAGRAM



3%	0,653 lx
5%	1,09 lx
10%	2,18 lx
30%	6,53 lx
50%	10,9 lx

Conditions:

Number of c-planes: 2

Lux at center: 21,8 lx

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



Total lumen output:

109 lm

Peak candela output:

242 cd

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL50

Target:

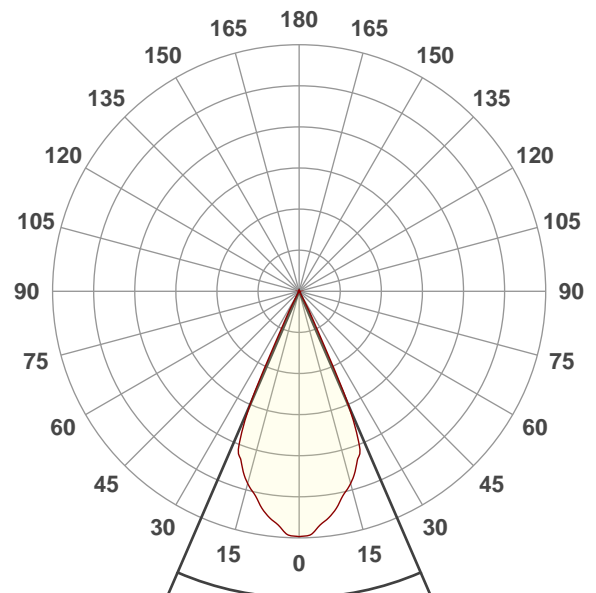
Blue HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 15:00:48

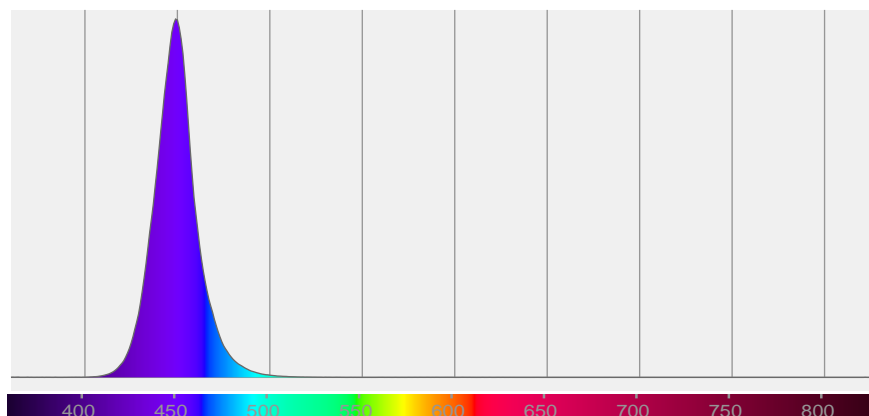


Beam angle 50%: 46,8°

Field angle 10%: 53,4°

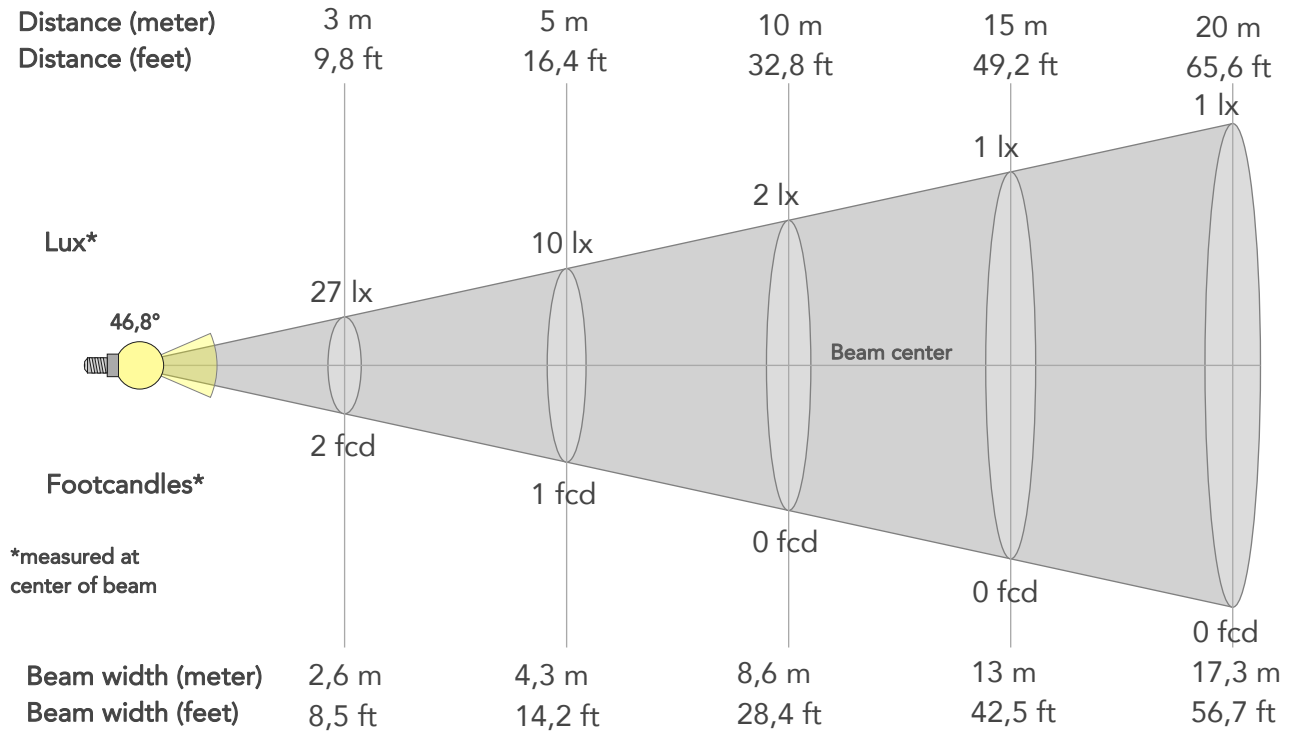
Cut off angle 2.5%: 57,6°

Spectra



BEAM DETAILS

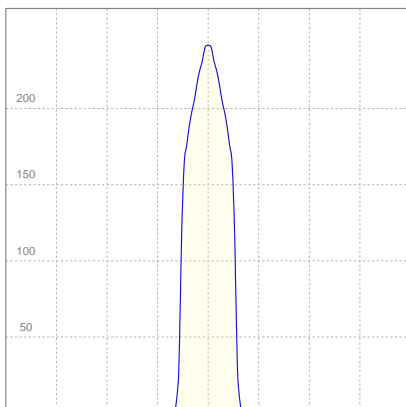
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,8°	53,4°	57,6°	99,6%	99,6%



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	242lx	60lx	27lx	15lx	10lx	4lx	2lx	1lx	1lx	0lx	0lx	0lx	0lx
Footcand.	22fcd	6fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,9m	1,7m	2,6m	3,5m	4,3m	6,5m	8,6m	13m	17,3m	21,6m	25,9m	34,6m	43,2m
Beam wid.	2,9ft	5,7ft	8,5ft	11,3ft	14,2ft	21,3ft	28,4ft	42,5ft	56,7ft	70,9ft	85,1ft	113,4ft	141,8ft

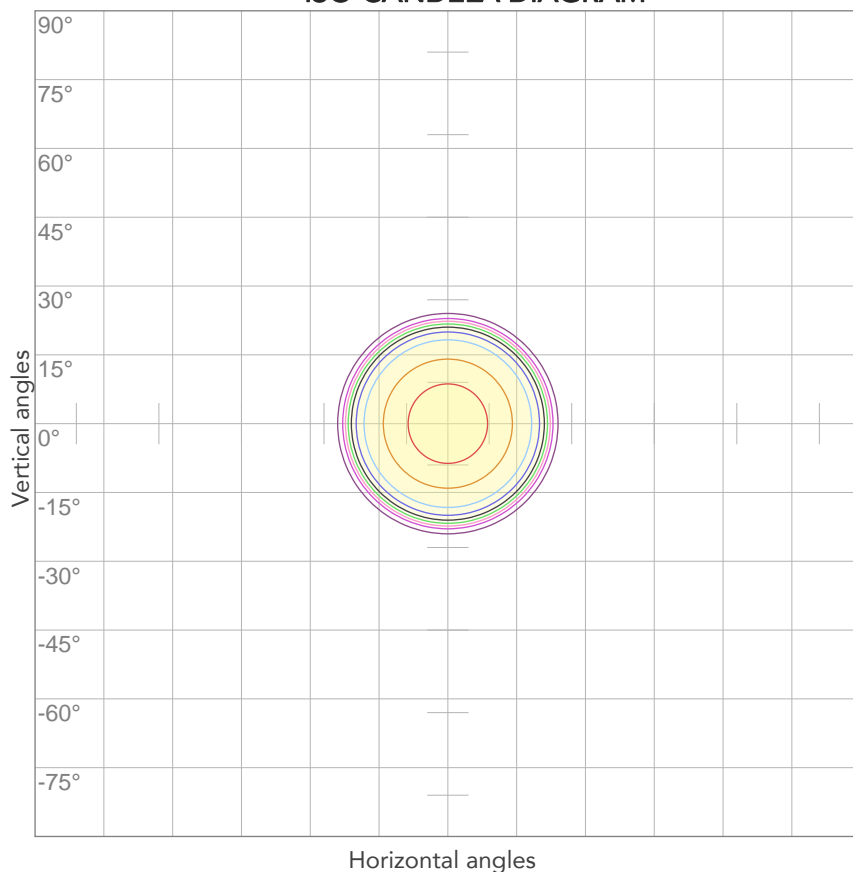
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
228V	0,234A	32,0W	3lm/W

ISO CANDELA DIAGRAM



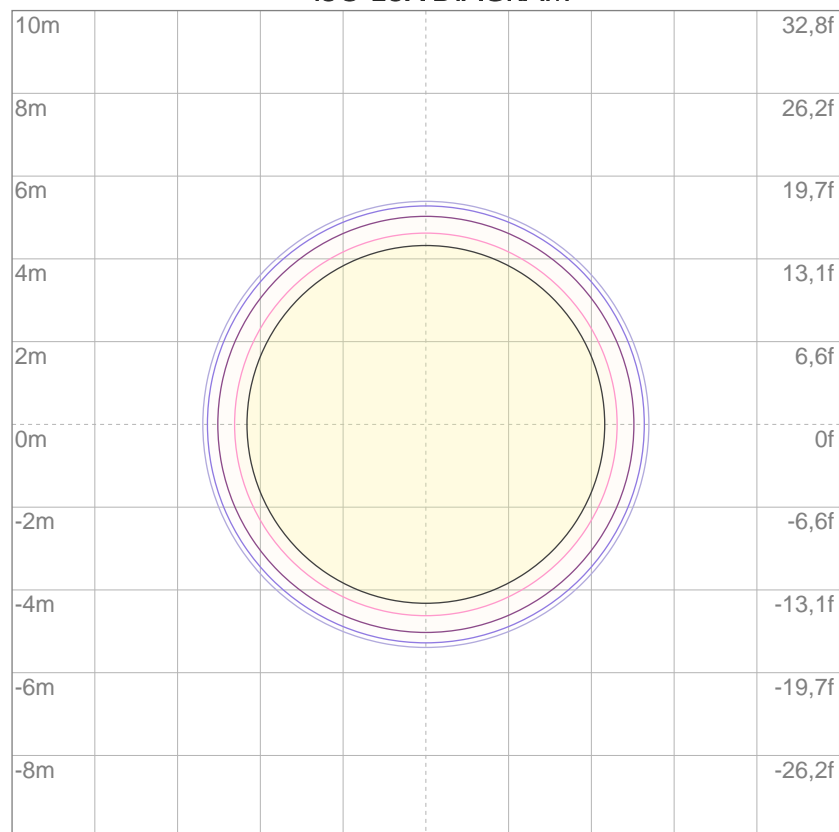
10%	24 cd
20%	48 cd
30%	72 cd
40%	97 cd
50%	121 cd
60%	145 cd
70%	169 cd
80%	193 cd

Conditions:

Number of c-planes: 2

Candela at center: 242 cd

ISO LUX DIAGRAM



3%	72,5m lx
5%	0,121 lx
10%	0,242 lx
30%	0,725 lx
50%	1,21 lx

Conditions:

Number of c-planes: 2

Lux at center: 2,42 lx

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



Total lumen output:

4658 lm

Peak candela output:

9592 cd

Light quality:

CRI: 92,3

Color temperature:

2821 K

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL50

Target:

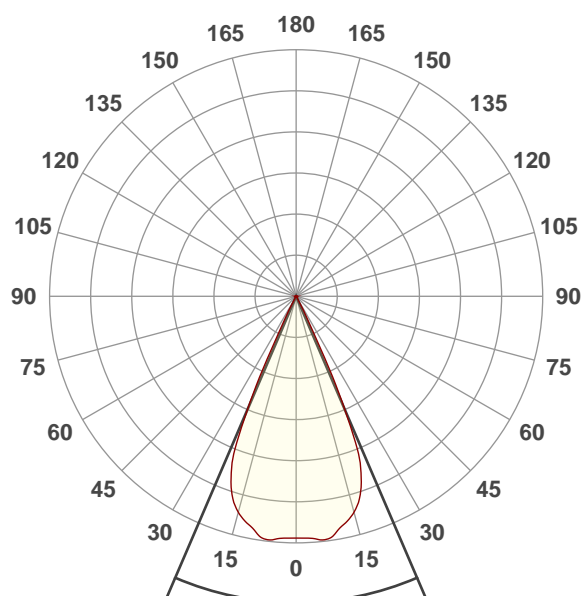
2800K HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 15:21:40

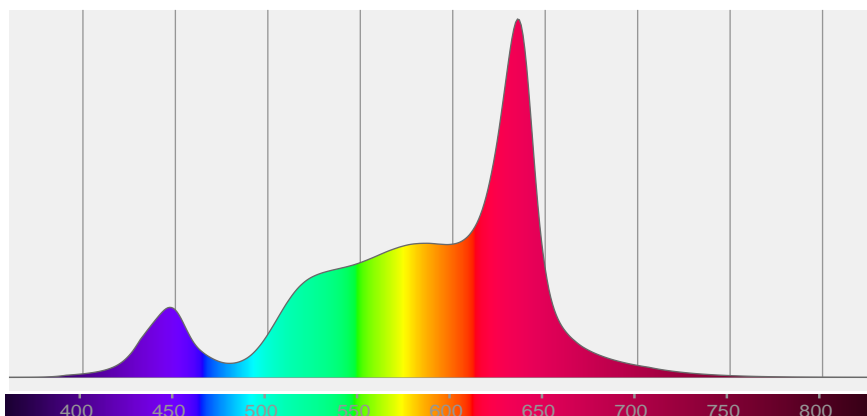


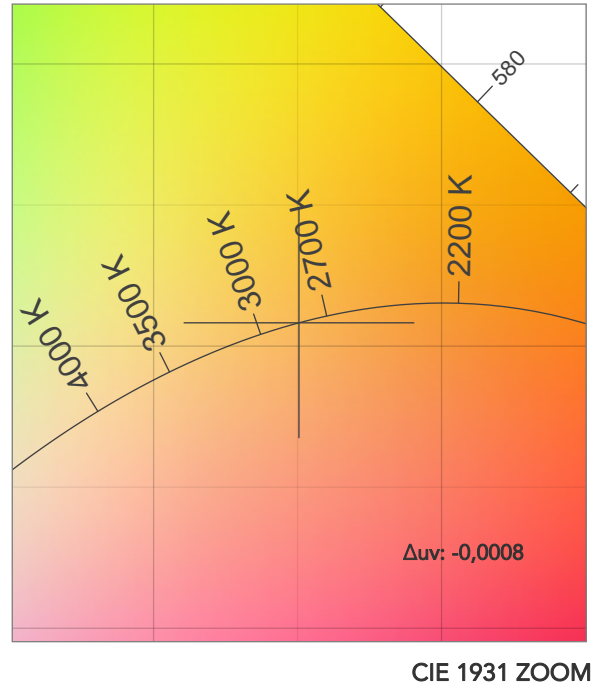
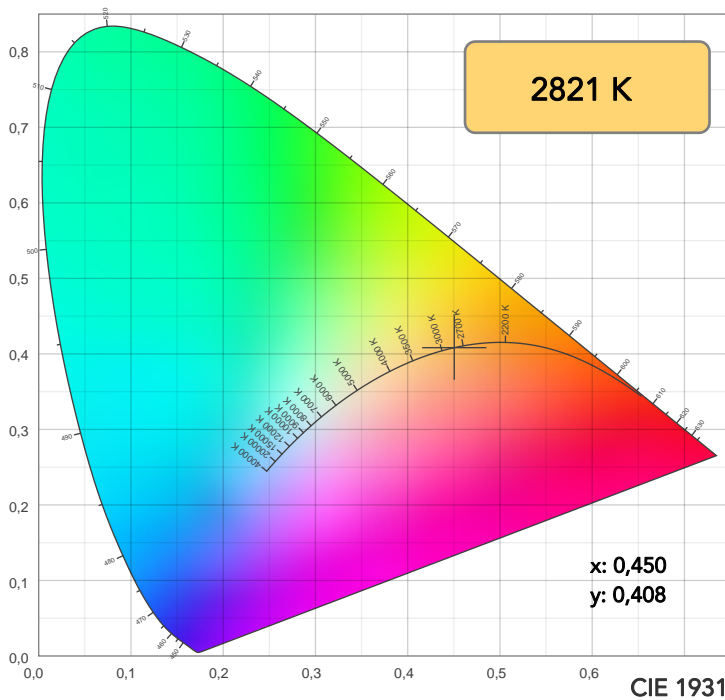
Beam angle 50%: 46,5°

Field angle 10%: 53°

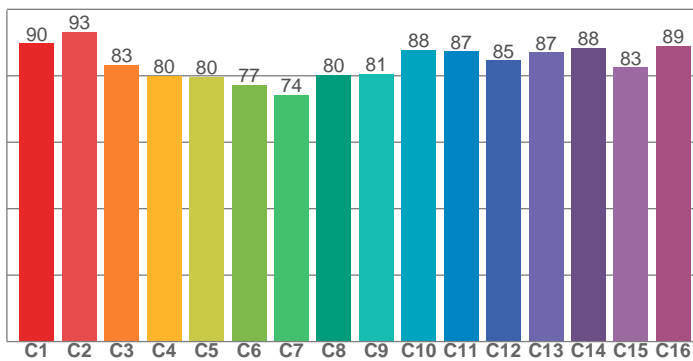
Cut off angle 2.5%: 56,7°

Spectra

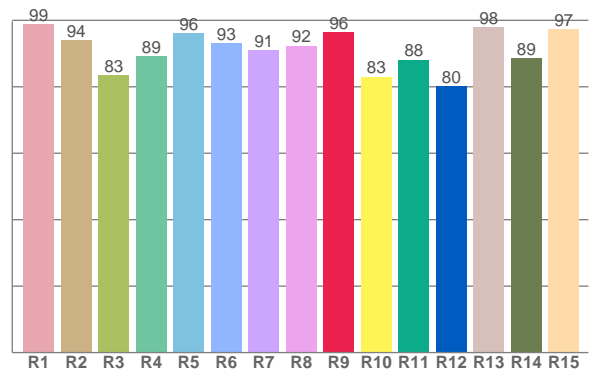




TM30: 84,6



CRI: 92,3 (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
98,8	94,1	83,5	89,2	96,2	93,0	91,1	92,3	96,4	83,0	88,1	80,1	98,0	88,7	97,2

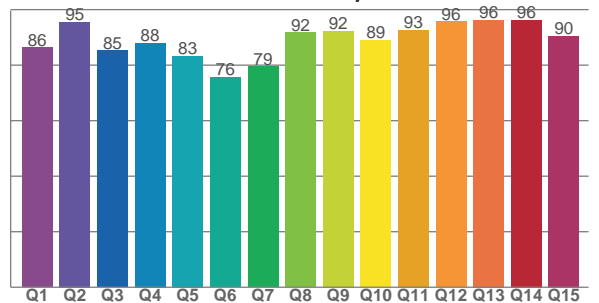
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,7	93,2	83,3	79,9	79,7	77,3	74,2	80,3	80,6	87,8	87,4	84,6	87,0	88,4	82,6	89,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
86,3	95,5	85,3	88,0	83,4	75,6	79,4	91,7	92,4	89,0	92,7	95,6	96,3	96,3	90,5

CQS: 87,3



COLOR PARAMETERS

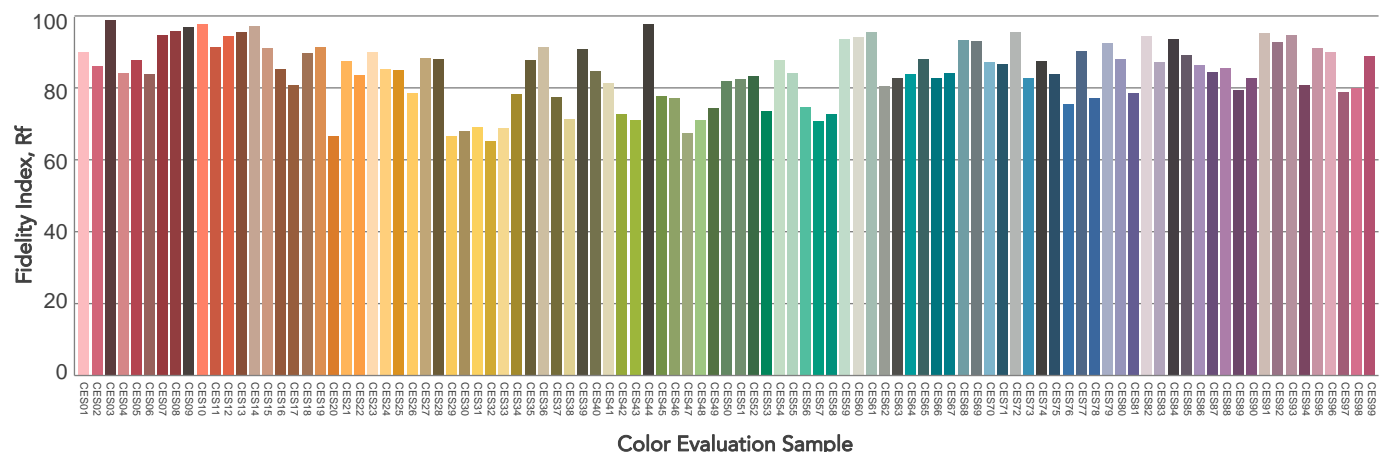
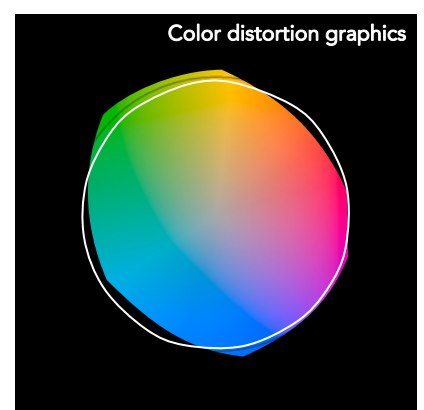
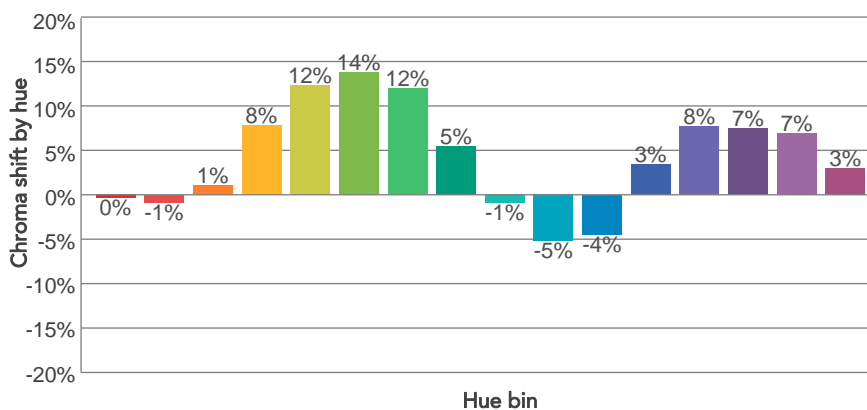
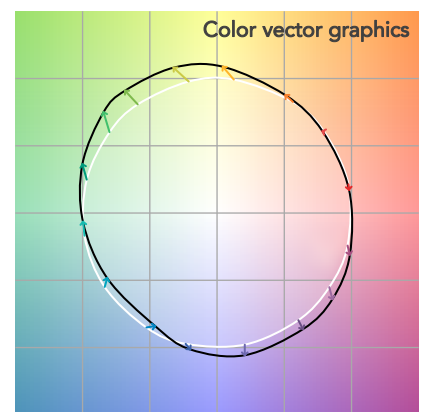
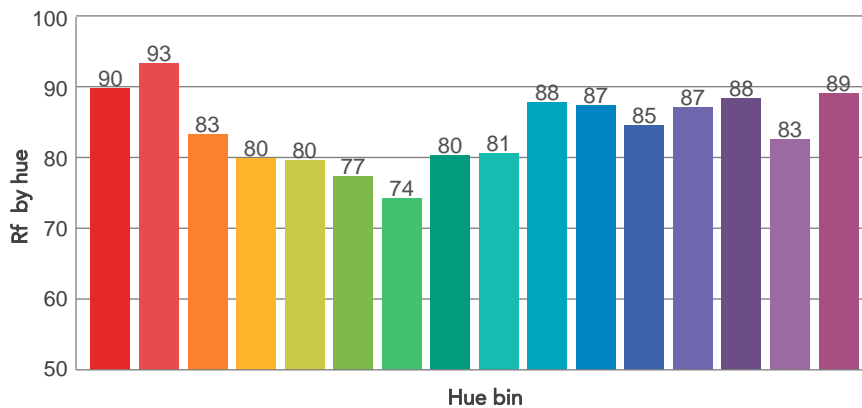
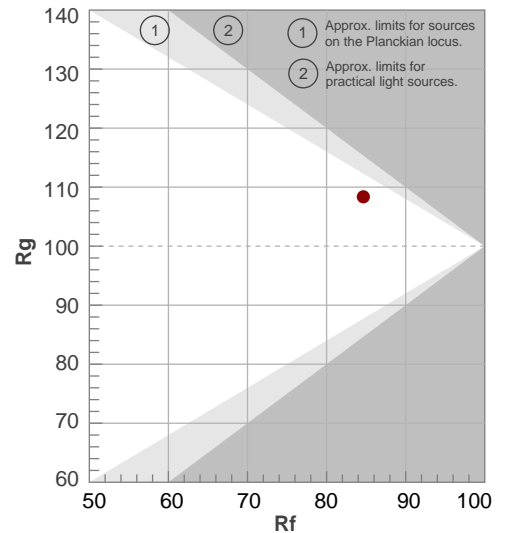
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2821 K	92,3	96,4	84,6	108,4	87,3	72	0,450	0,408	-0,0008

TM30 DETAILS

Rf 84,6
Fidelity index Rf

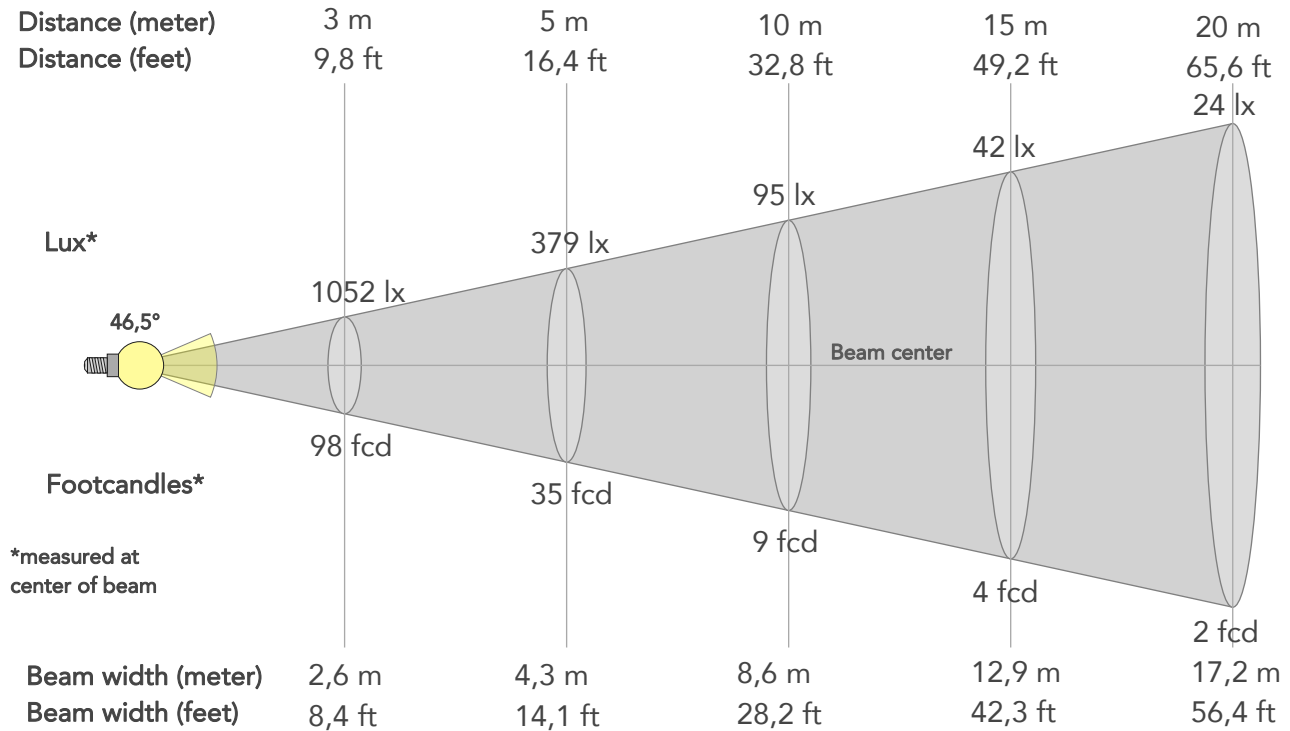
Rg 108,4
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	90	0%	-4%
2	93	-1%	1%
3	83	1%	7%
4	80	8%	10%
5	80	12%	9%
6	77	14%	2%
7	74	12%	-10%
8	80	5%	-11%
9	81	-1%	-10%
10	88	-5%	-4%
11	87	-4%	5%
12	85	3%	4%
13	87	8%	-2%
14	88	7%	-1%
15	83	7%	-6%
16	89	3%	-6%



BEAM DETAILS

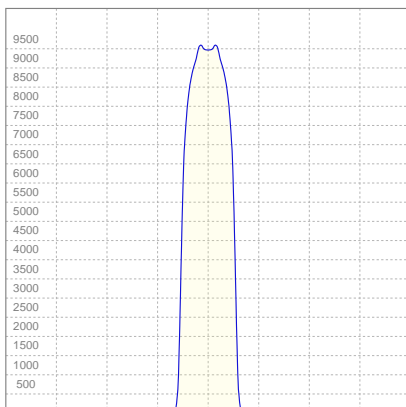
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,5°	53°	56,7°	99,6%	99,6%



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	9470lx	2367lx	1052lx	592lx	379lx	168lx	95lx	42lx	24lx	15lx	11lx	6lx	4lx
Footcand.	880fcd	220fcd	98fcd	55fcd	35fcd	16fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	0,9m	1,7m	2,6m	3,4m	4,3m	6,4m	8,6m	12,9m	17,2m	21,5m	25,8m	34,4m	43m
Beam wid.	2,8ft	5,7ft	8,4ft	11,3ft	14,1ft	21,1ft	28,2ft	42,3ft	56,4ft	70,5ft	84,6ft	112,7ft	140,9ft

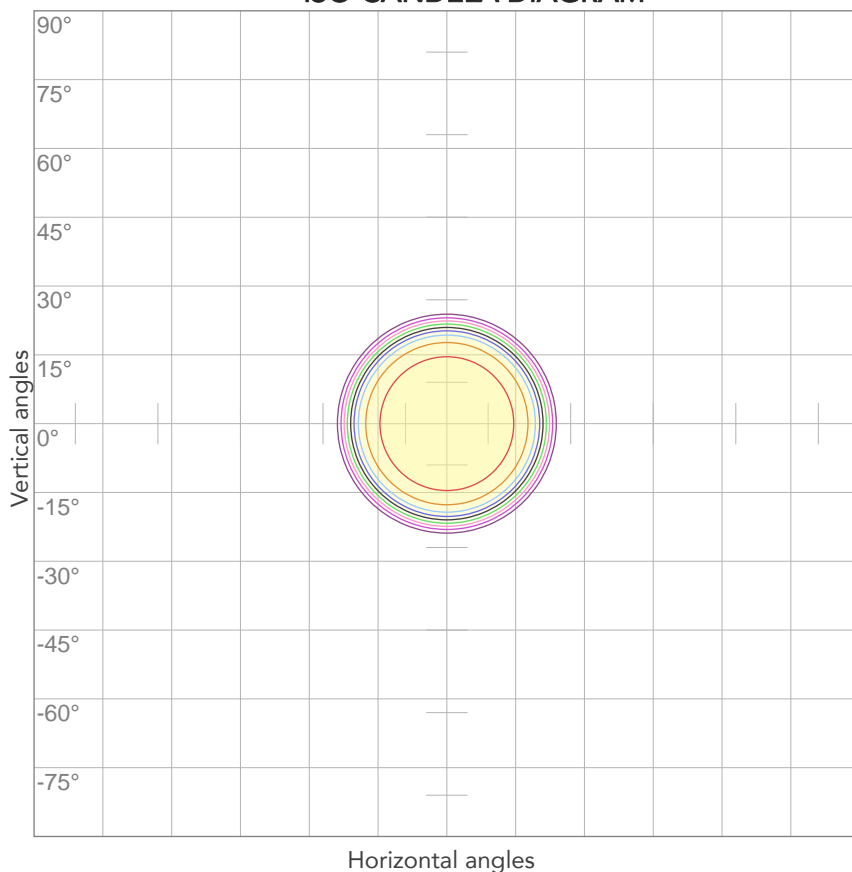
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,815A	170,3W	27lm/W

ISO CANDELA DIAGRAM



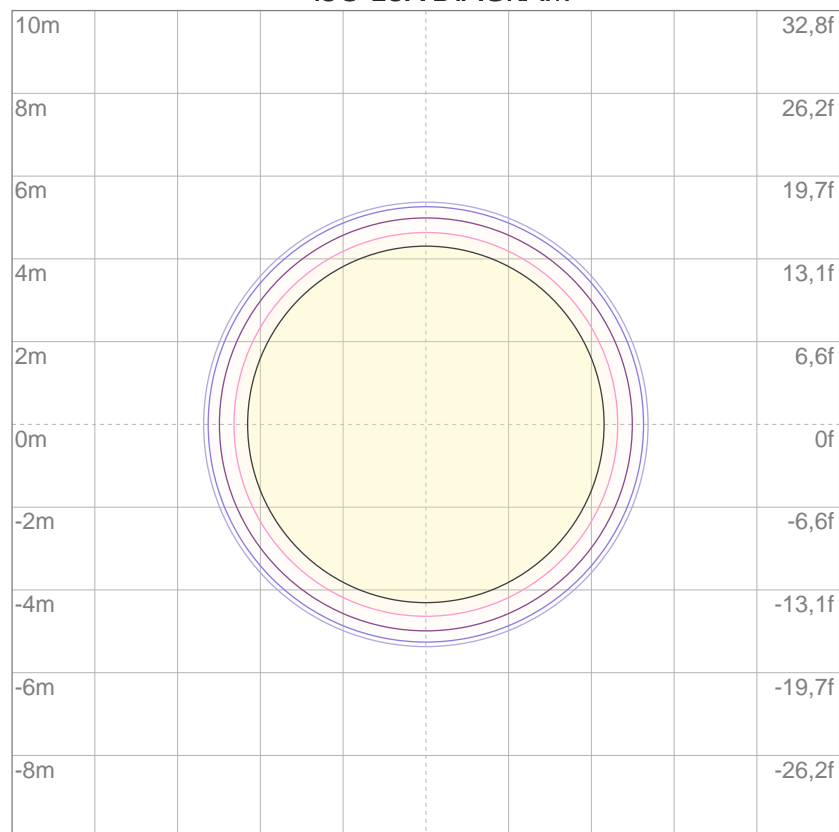
10%	947 cd
20%	1894 cd
30%	2841 cd
40%	3788 cd
50%	4735 cd
60%	5682 cd
70%	6629 cd
80%	7576 cd

Conditions:

Number of c-planes: 2

Candela at center: 9470 cd

ISO LUX DIAGRAM



3%	2,84 lx
5%	4,73 lx
10%	9,47 lx
30%	28,4 lx
50%	47,3 lx

Conditions:

Number of c-planes: 2

Lux at center: 94,7 lx

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



Total lumen output:

4840 lm

Peak candela output:

9984 cd

Light quality:

CRI: 93,2

Color temperature:

3220 K

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL50

Target:

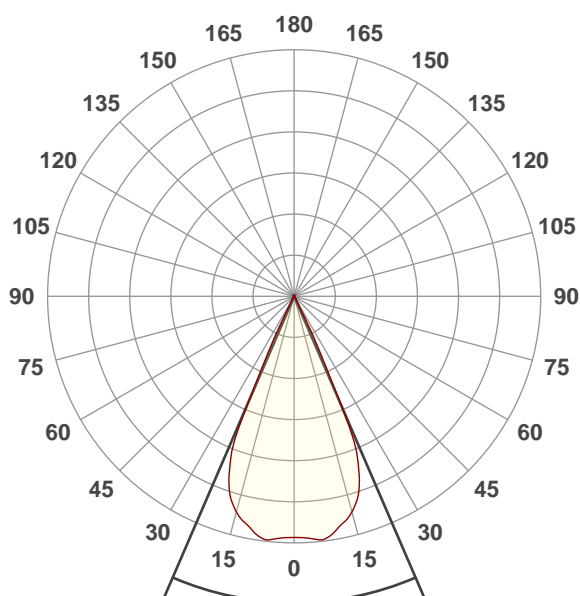
3200K HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 15:32:01

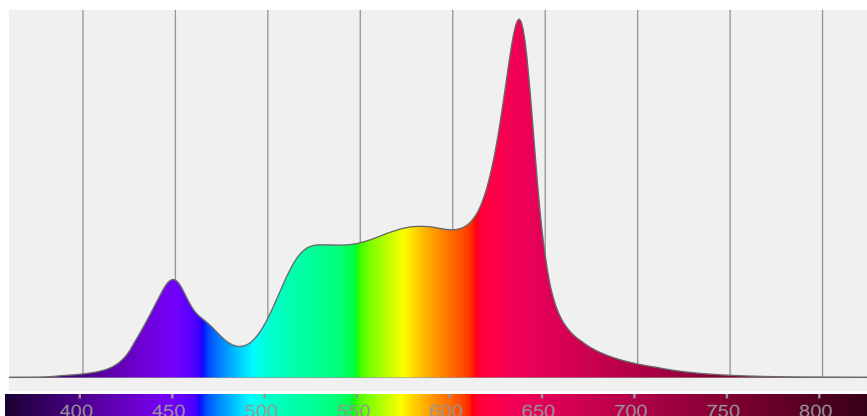


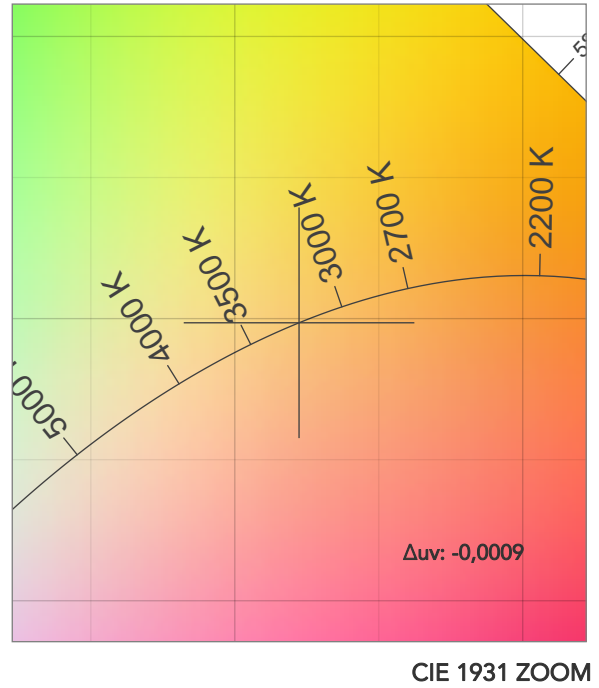
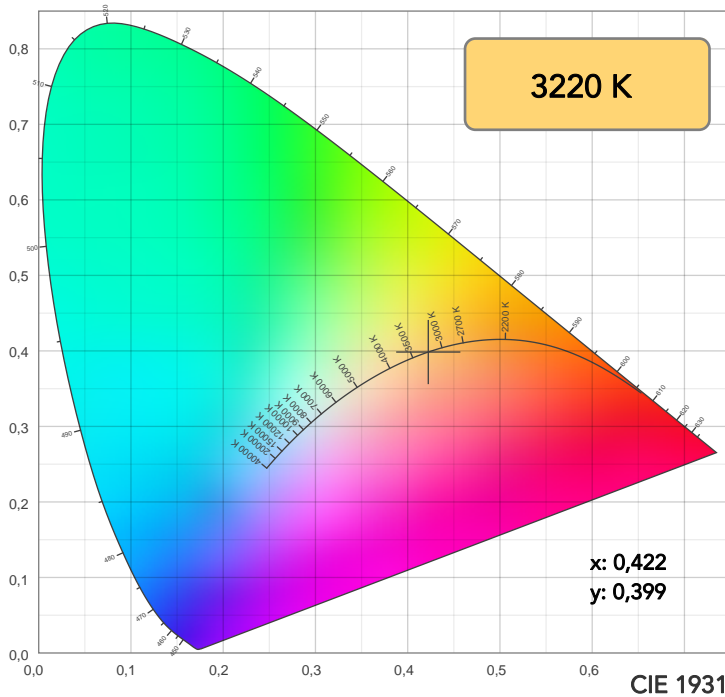
Beam angle 50%: 46,7°

Field angle 10%: 53,3°

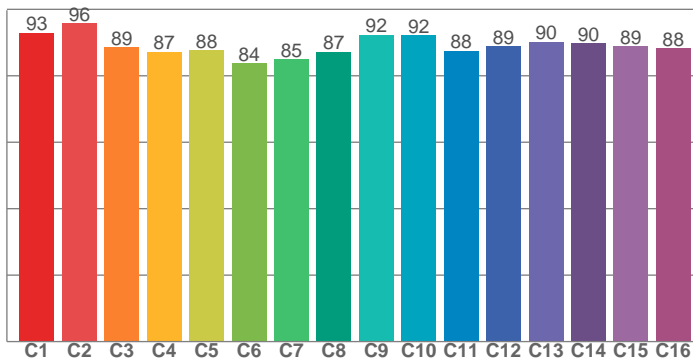
Cut off angle 2.5%: 57°

Spectra

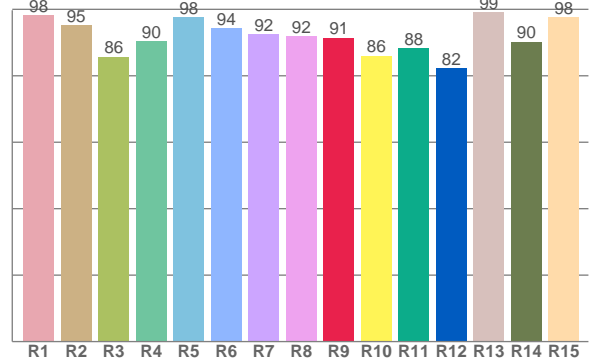




TM30: 89,5



CRI: 93,2 (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
98,3	95,1	85,7	90,4	97,6	94,2	92,4	91,8	91,5	86,0	88,3	82,2	99,1	90,3	97,5

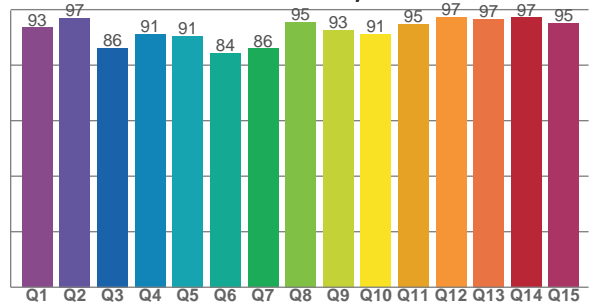
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,9	95,8	88,6	87,2	87,6	83,7	84,9	87,2	92,4	92,2	87,6	88,8	90,2	89,8	88,9	88,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,5	96,9	86,2	91,2	90,6	84,5	86,0	95,5	92,7	91,1	94,7	97,4	96,6	97,2	95,1

CQS: 91,3



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
3220 K	93,2	91,5	89,5	106,5	91,3	86	0,422	0,399	-0,0009

TM30 DETAILS

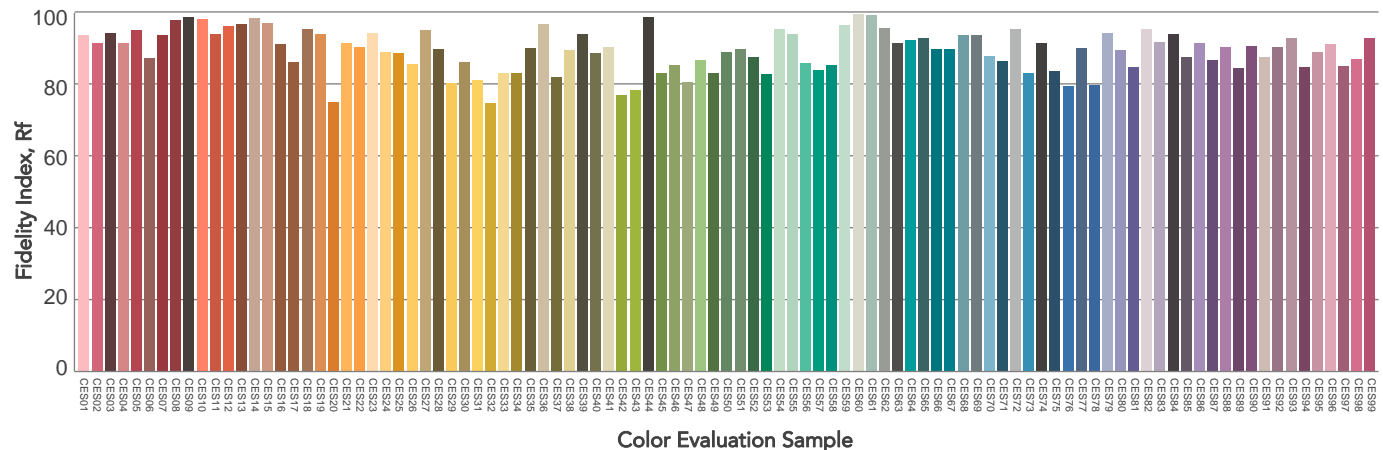
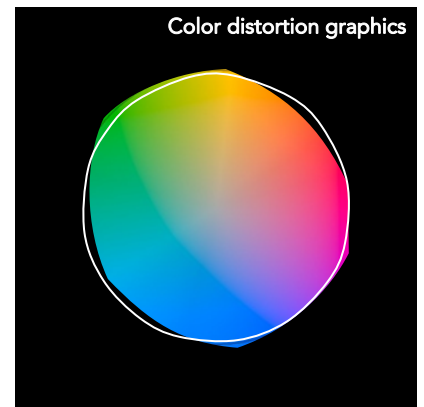
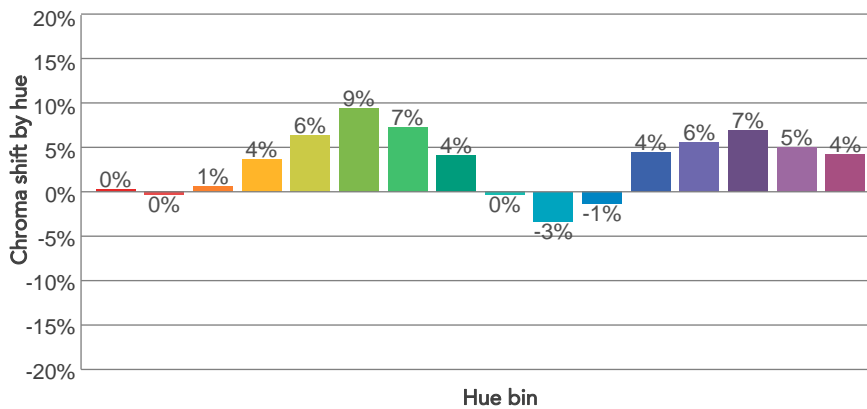
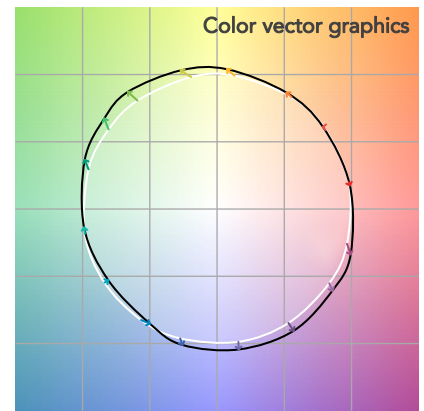
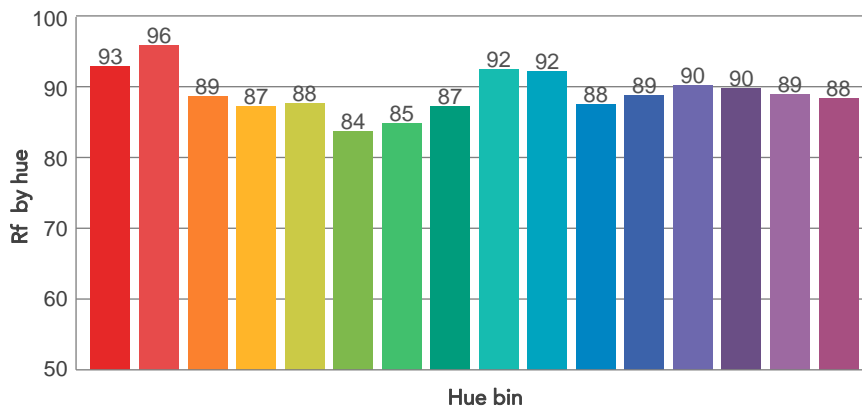
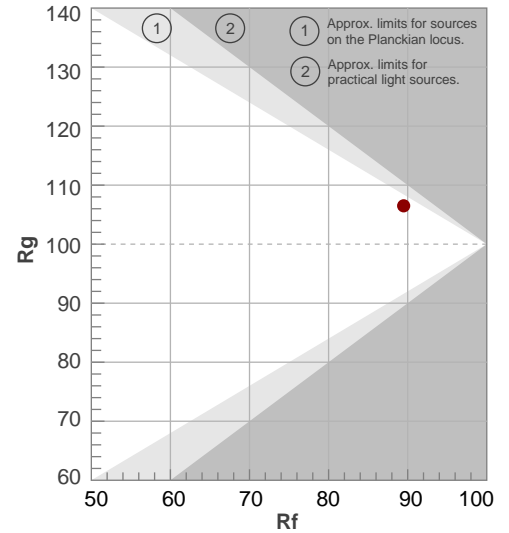
Rf 89,5

Fidelity index Rf

Rg 106,5

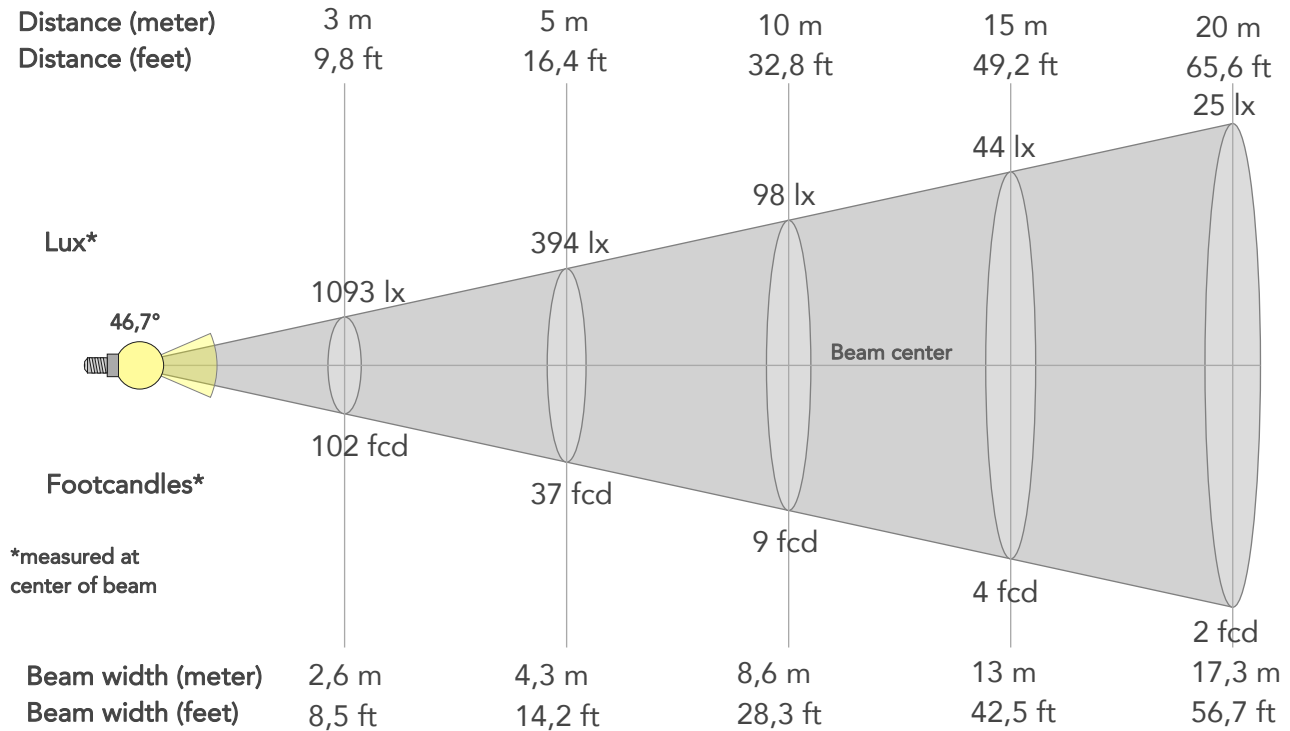
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	0%	-3%
2	96	0%	0%
3	89	1%	5%
4	87	4%	6%
5	88	6%	7%
6	84	9%	2%
7	85	7%	-5%
8	87	4%	-6%
9	92	0%	-5%
10	92	-3%	0%
11	88	-1%	7%
12	89	4%	3%
13	90	6%	-1%
14	90	7%	0%
15	89	5%	-3%
16	88	4%	-7%



BEAM DETAILS

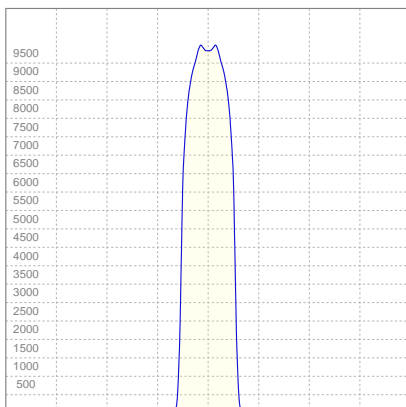
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,7°	53,3°	57°	99,6%	99,5%



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	9840lx	2460lx	1093lx	615lx	394lx	175lx	98lx	44lx	25lx	16lx	11lx	6lx	4lx
Footcand.	914fcd	229fcd	102fcd	57fcd	37fcd	16fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	0,9m	1,7m	2,6m	3,5m	4,3m	6,5m	8,6m	13m	17,3m	21,6m	25,9m	34,5m	43,2m
Beam wid.	2,8ft	5,7ft	8,5ft	11,3ft	14,2ft	21,2ft	28,3ft	42,5ft	56,7ft	70,8ft	85ft	113,3ft	141,6ft

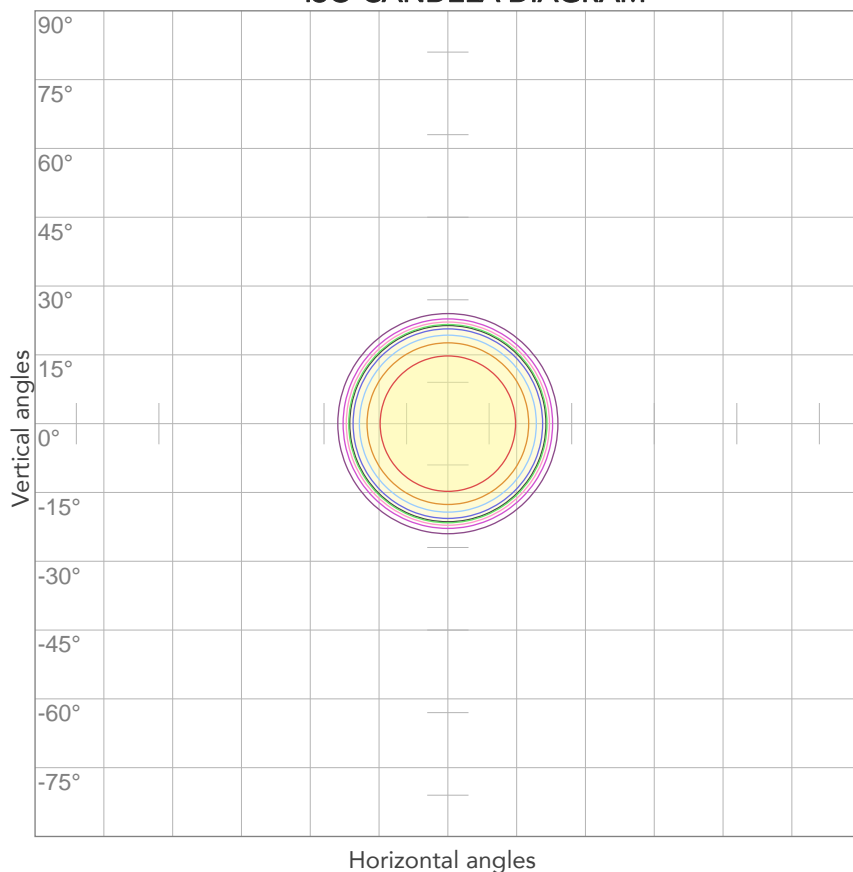
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,867A	182,7W	26lm/W

ISO CANDELA DIAGRAM



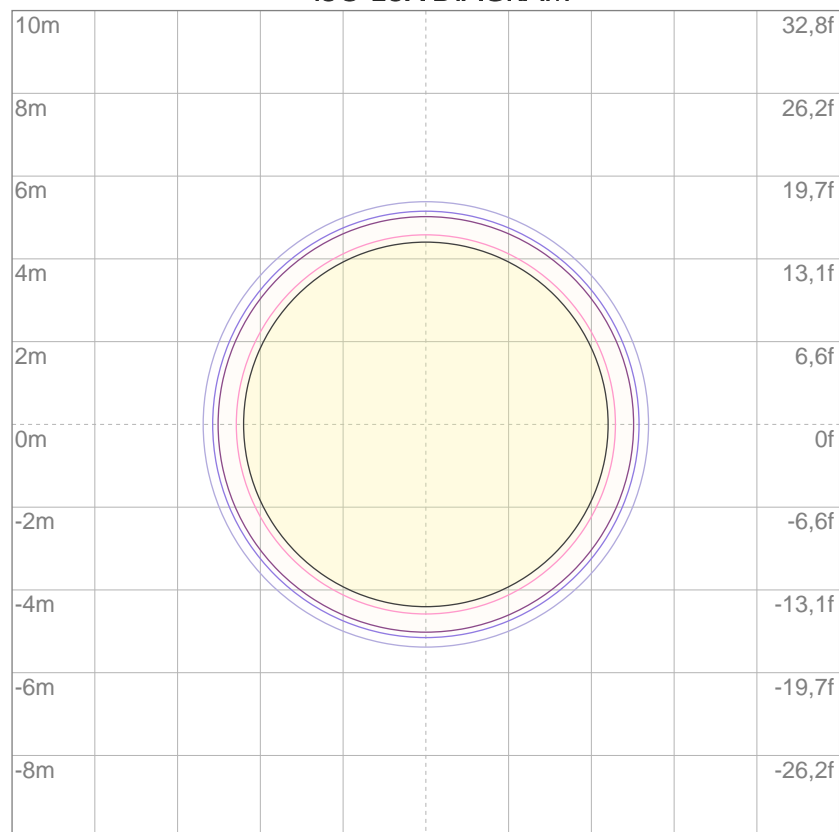
10%	984 cd
20%	1968 cd
30%	2952 cd
40%	3936 cd
50%	4920 cd
60%	5904 cd
70%	6888 cd
80%	7872 cd

Conditions:

Number of c-planes: 2

Candela at center: 9840 cd

ISO LUX DIAGRAM



3%	2,95 lx
5%	4,92 lx
10%	9,84 lx
30%	29,5 lx
50%	49,2 lx

Conditions:

Number of c-planes: 2

Lux at center: 98,4 lx

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



Total lumen output:

5126 lm

Peak candela output:

10613 cd

Light quality:

CRI: 95,3

Color temperature:

3990 K

PRODUCT NAME:
ECLCTPLUS

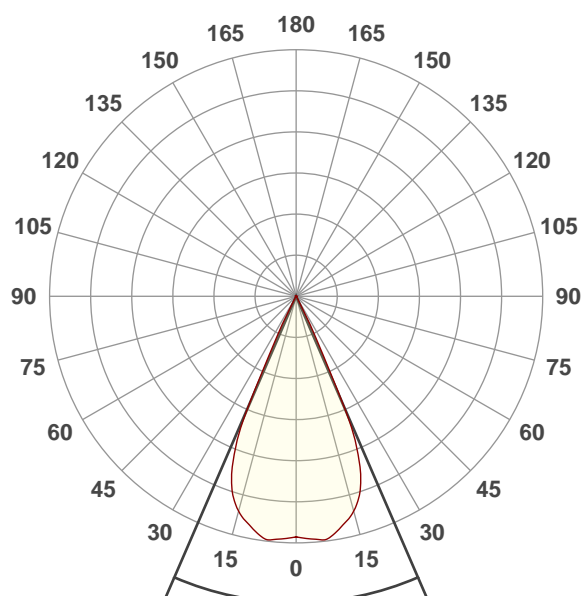
MEASURAMENT CONDITIONS:

Beam angle:
PRL50

Target:
4000K HQ

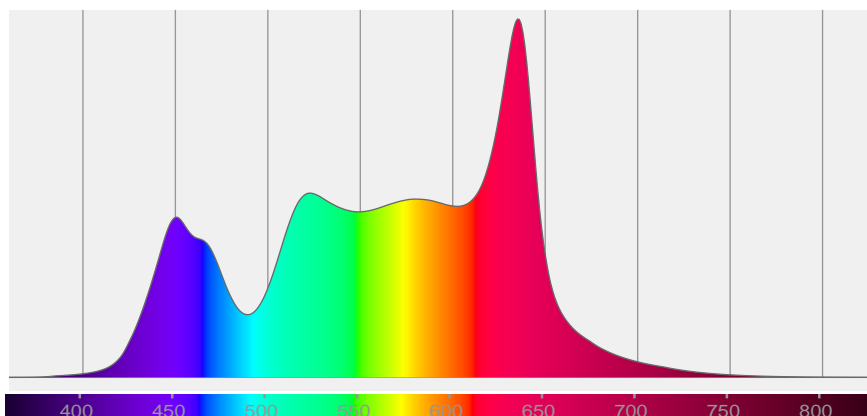
Operator:
Paolo Carvone

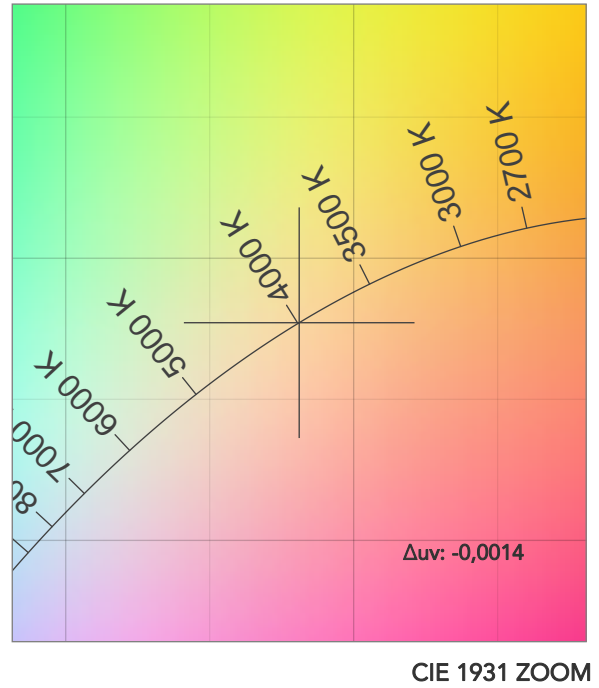
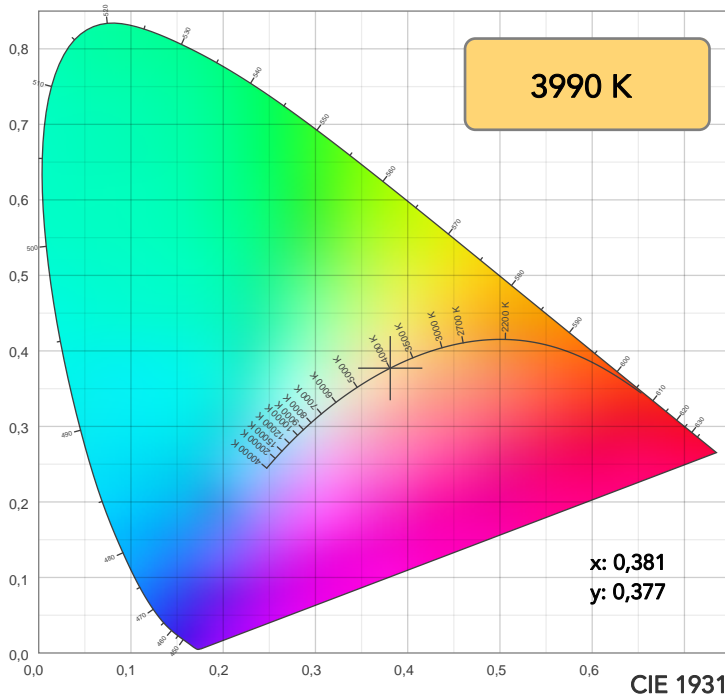
Date and time:
14/07/2020 15:26:40



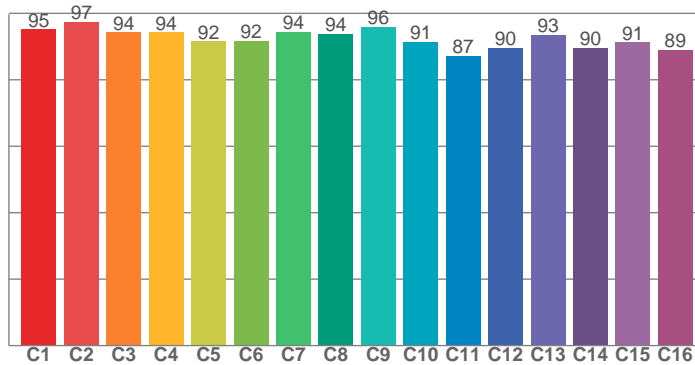
Beam angle 50%: 46,9°
Field angle 10%: 53,4°
Cut off angle 2.5%: 56,4°

Spectra

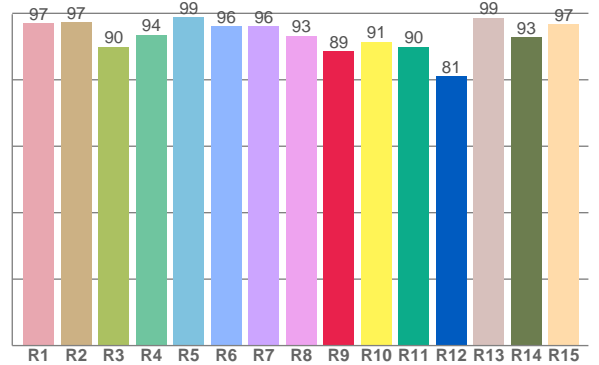




TM30: 92,6



CRI: 95,3 (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	89,9	93,5	98,8	96,0	96,0	93,2	88,5	91,5	89,9	81,1	98,7	92,9	96,8

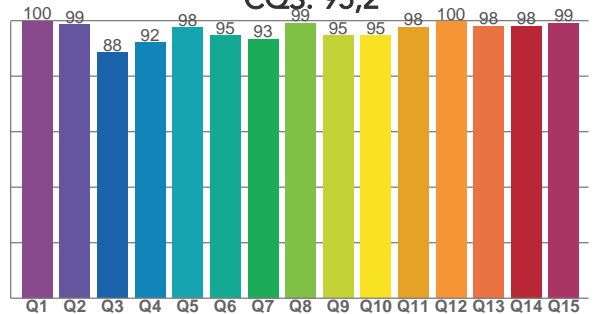
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,2	97,5	94,3	94,3	91,5	91,8	94,5	93,8	95,9	91,4	87,1	89,5	93,5	89,6	91,3	89,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,8	98,5	88,5	92,2	97,6	94,6	93,5	99,1	94,6	94,6	97,7	99,6	98,1	98,1	99,1

CQS: 95,2



COLOR PARAMETERS

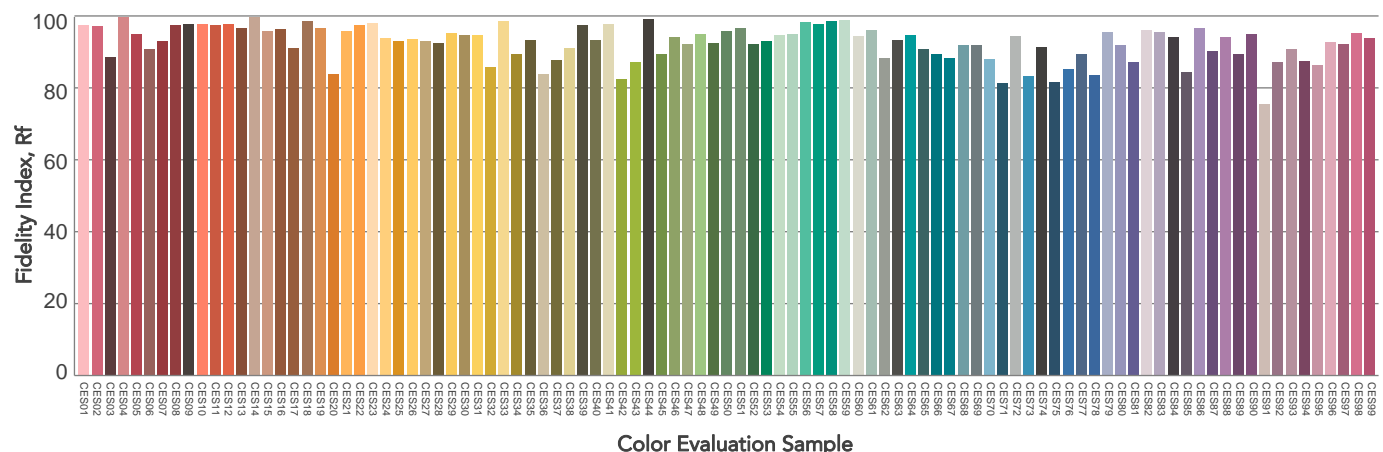
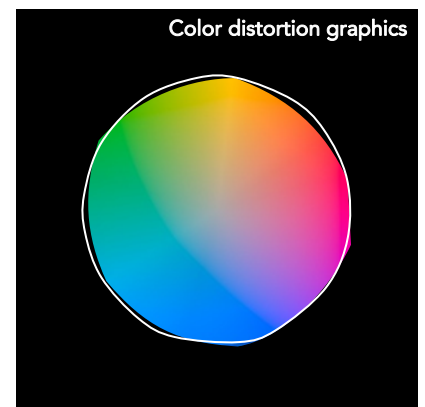
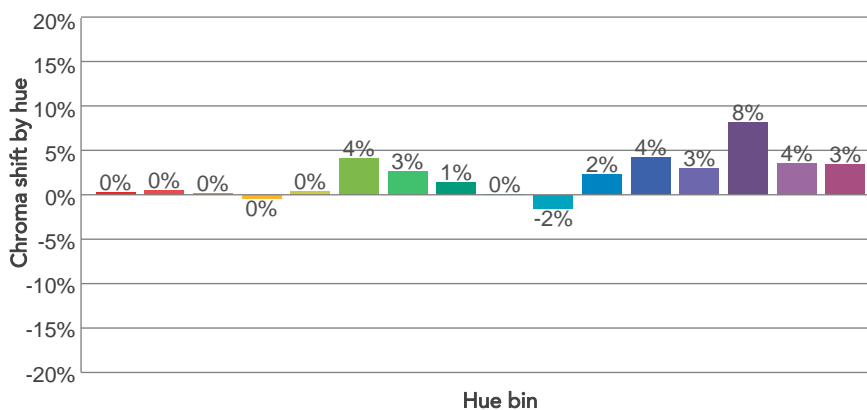
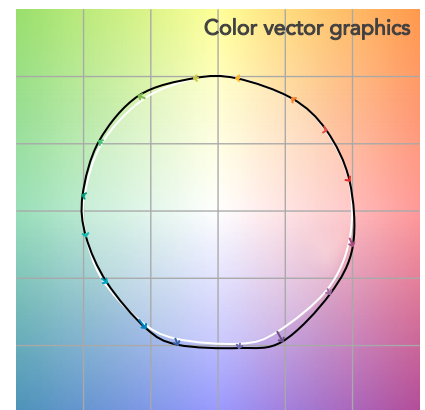
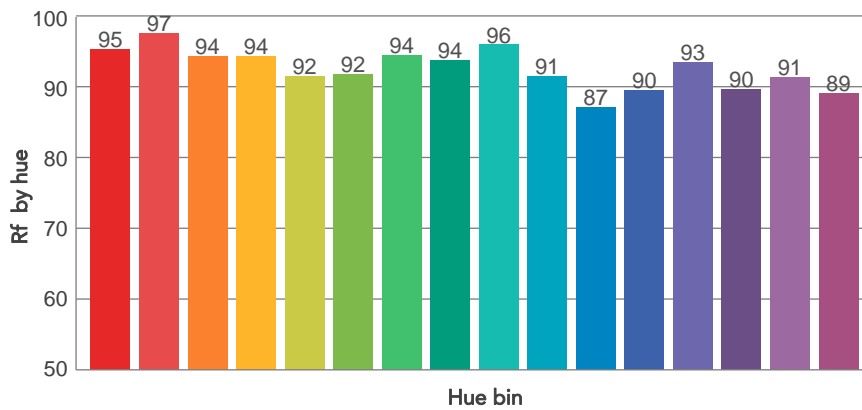
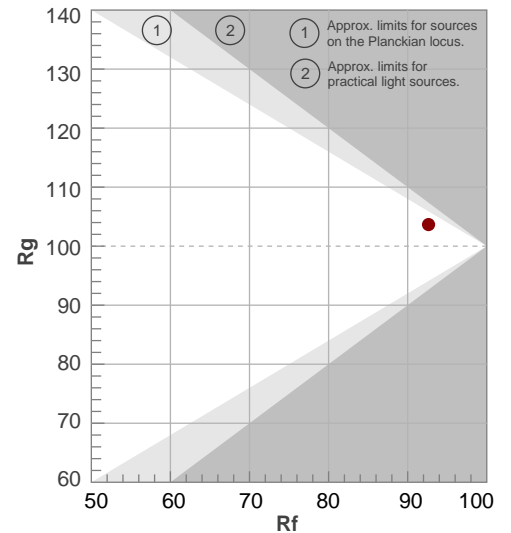
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3990 K	95,3	88,5	92,6	103,7	95,2	92	0,381	0,377	-0,0014

TM30 DETAILS

Rf 92,6
Fidelity index Rf

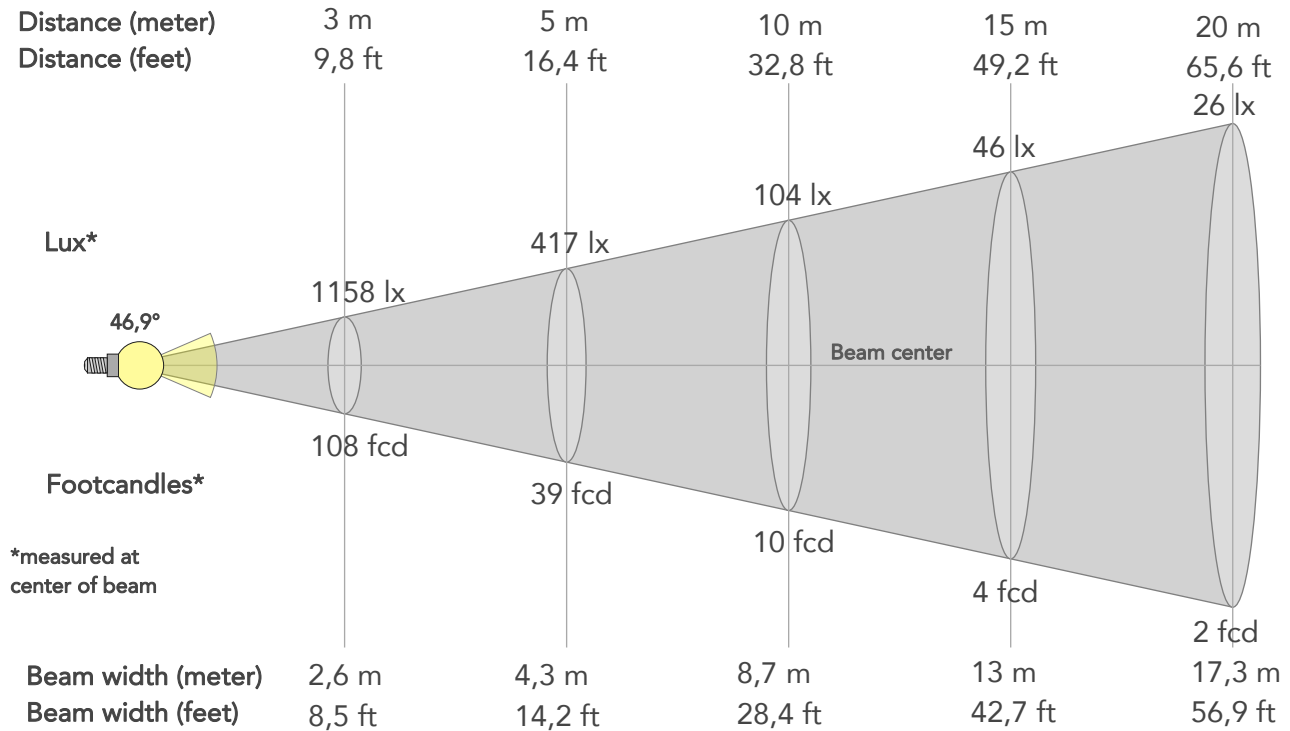
Rg 103,7
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	0%	-1%
2	97	0%	-1%
3	94	0%	2%
4	94	0%	2%
5	92	0%	3%
6	92	4%	3%
7	94	3%	0%
8	94	1%	0%
9	96	0%	2%
10	91	-2%	5%
11	87	2%	7%
12	90	4%	3%
13	93	3%	-1%
14	90	8%	-1%
15	91	4%	-2%
16	89	3%	-5%



BEAM DETAILS

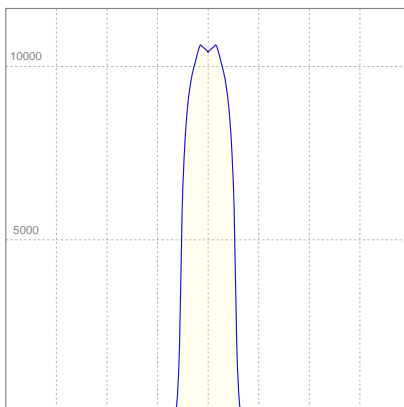
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,9°	53,4°	56,4°	99,5%	99,5%



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	10421lx	2605lx	1158lx	651lx	417lx	185lx	104lx	46lx	26lx	17lx	12lx	7lx	4lx
Footcand.	968fcd	242fcd	108fcd	61fcd	39fcd	17fcd	10fcd	4fcd	2fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	0,9m	1,7m	2,6m	3,5m	4,3m	6,5m	8,7m	13m	17,3m	21,7m	26m	34,7m	43,3m
Beam wid.	2,9ft	5,7ft	8,5ft	11,4ft	14,2ft	21,3ft	28,4ft	42,7ft	56,9ft	71,1ft	85,3ft	113,7ft	142,2ft

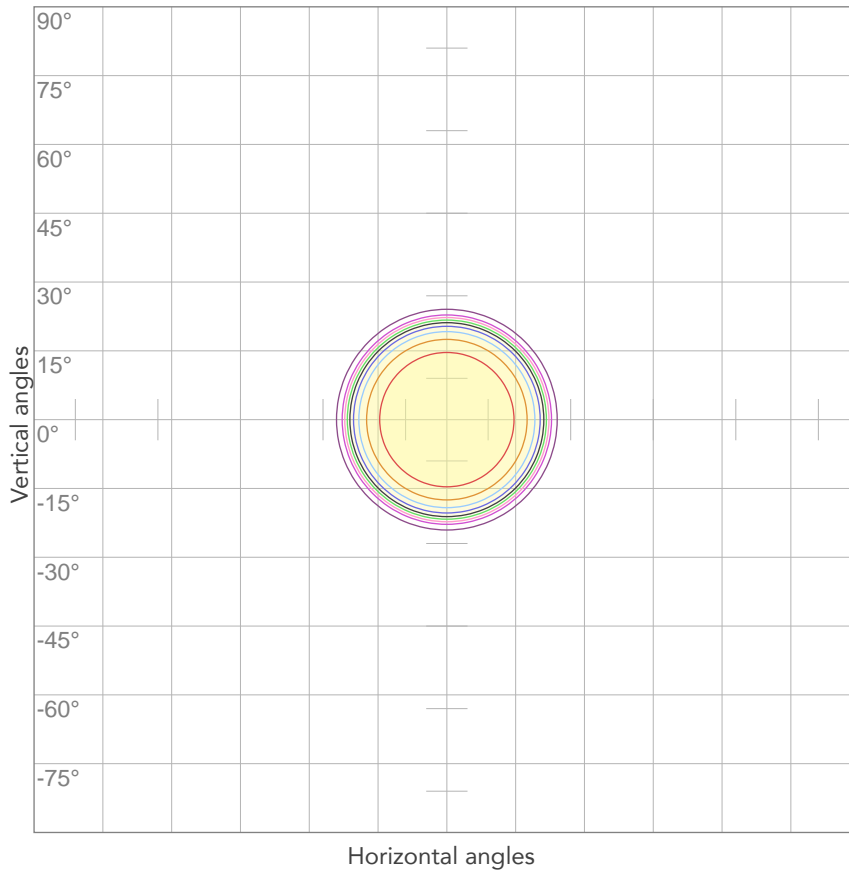
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,939A	199,4W	26lm/W

ISO CANDELA DIAGRAM



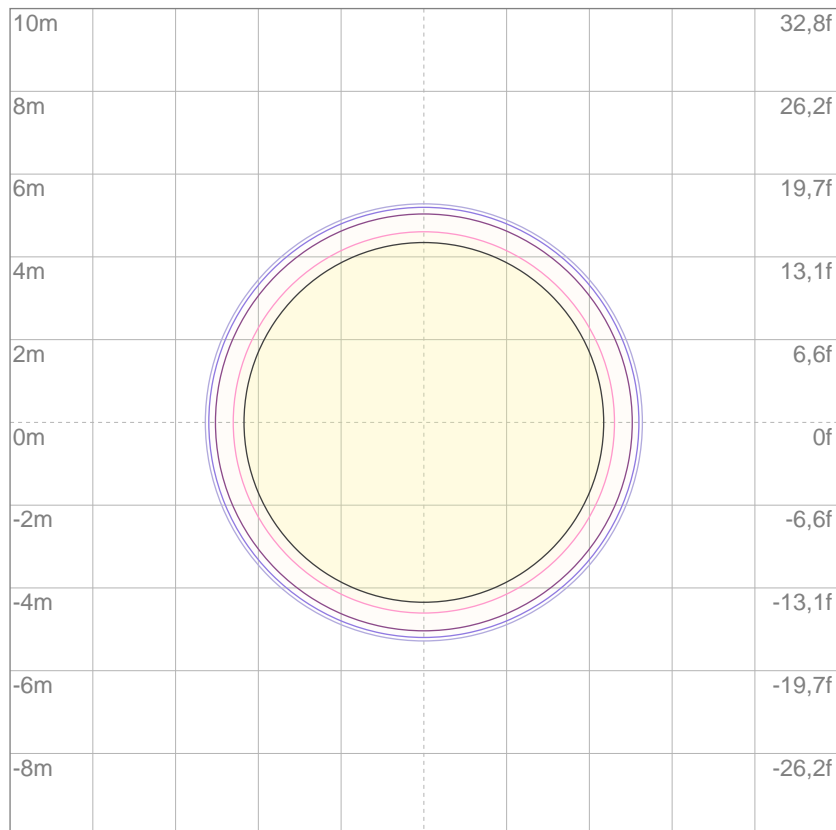
10%	1042 cd
20%	2084 cd
30%	3126 cd
40%	4168 cd
50%	5211 cd
60%	6253 cd
70%	7295 cd
80%	8337 cd

Conditions:

Number of c-planes: 2

Candela at center: 10421 cd

ISO LUX DIAGRAM



3%	3,13 lx
5%	5,21 lx
10%	10,4 lx
30%	31,3 lx
50%	52,1 lx

Conditions:

Number of c-planes: 2

Lux at center: 104 lx

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



Total lumen output:

5505 lm

Peak candela output:

11367 cd

Light quality:

CRI: 96,8

Color temperature:

5636 K

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL50

Target:

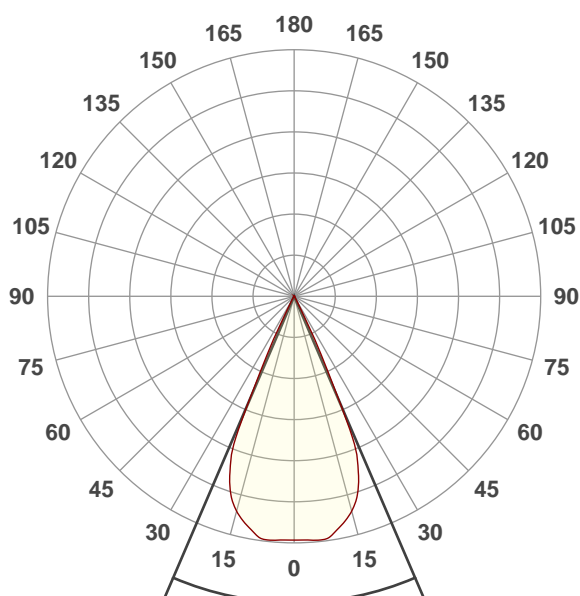
5600K HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 15:28:19

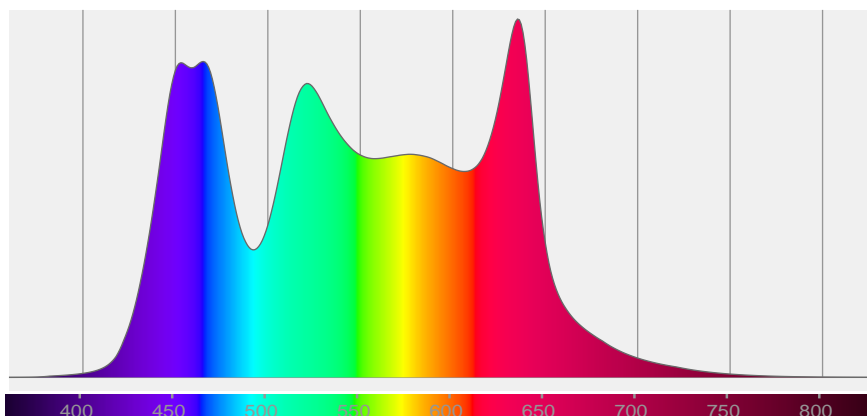


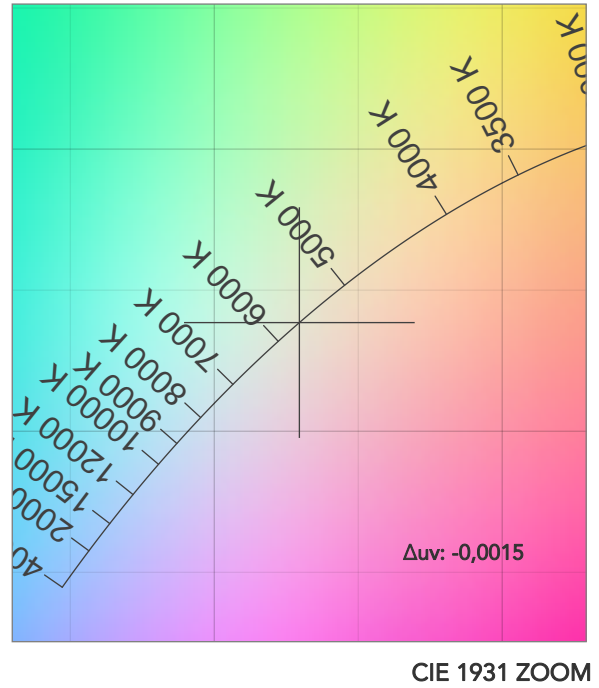
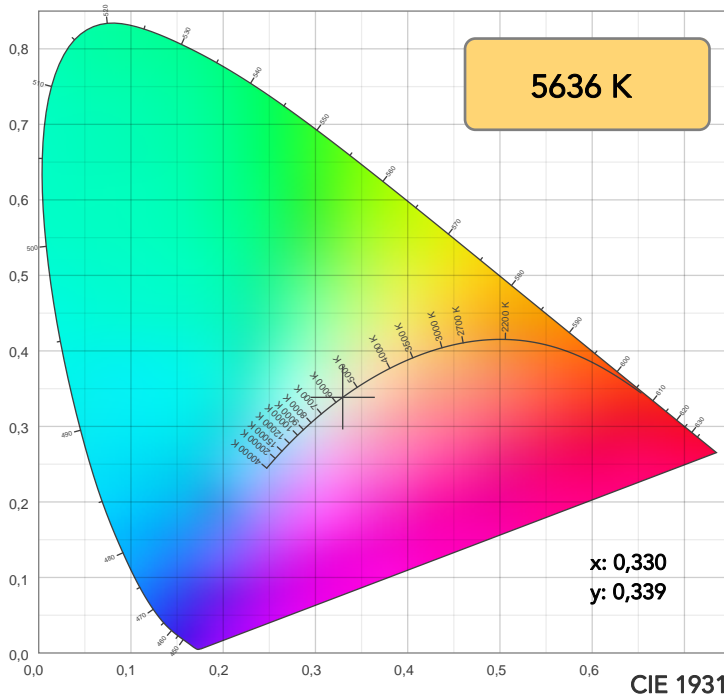
Beam angle 50%: 46,5°

Field angle 10%: 53,5°

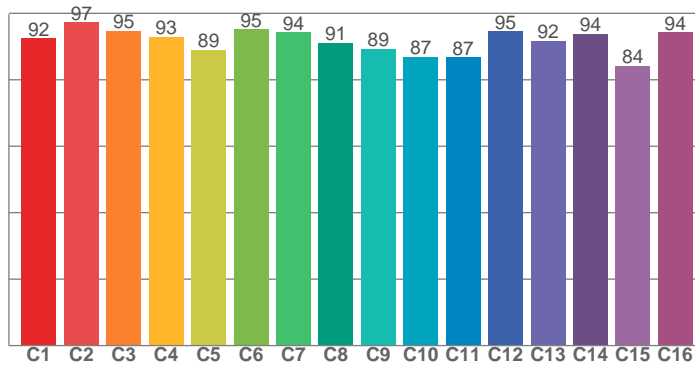
Cut off angle 2.5%: 57,5°

Spectra

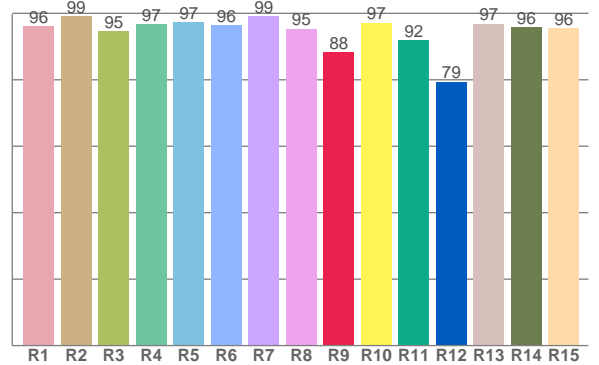




TM30: 91,7



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	99,1	94,5	96,7	97,2	96,3	99,2	95,3	88,3	97,2	92,0	79,4	96,9	95,8	95,6

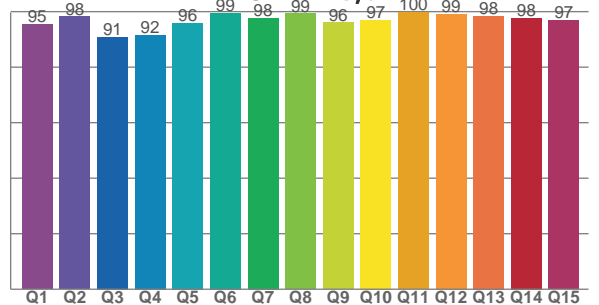
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,4	97,3	94,8	92,8	89,0	95,1	94,3	91,1	89,4	86,9	86,8	94,6	91,8	93,8	84,3	94,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,4	98,2	90,9	91,6	95,8	99,5	97,8	99,3	96,0	97,0	99,7	99,1	98,5	97,7	96,9

CQS: 96,0



COLOR PARAMETERS

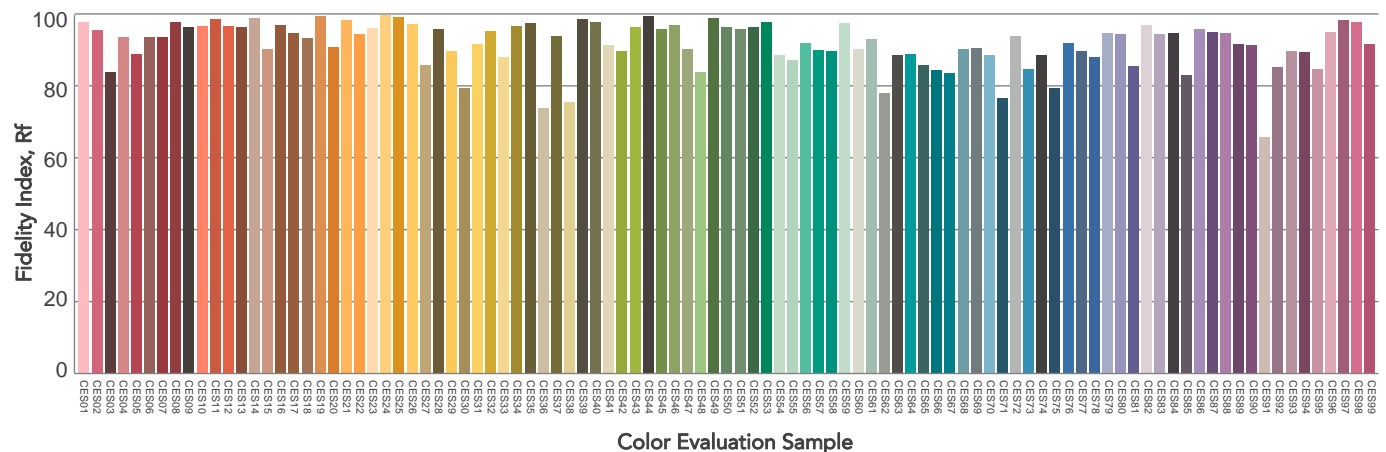
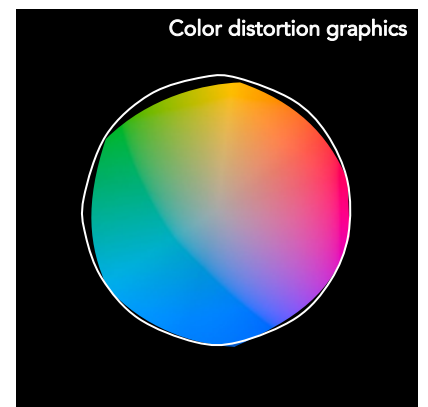
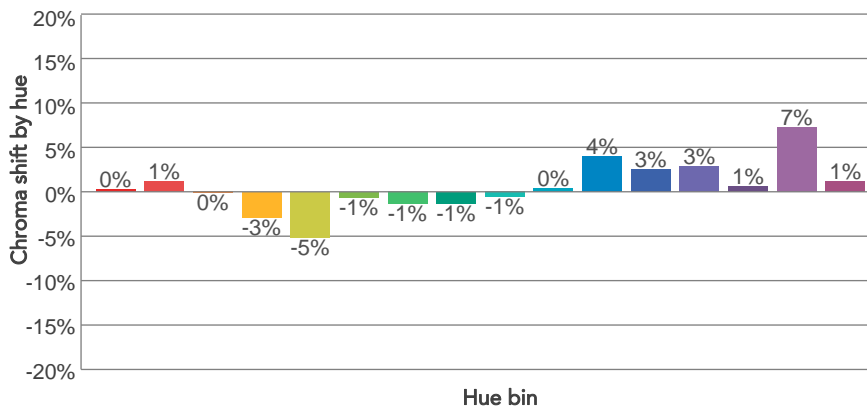
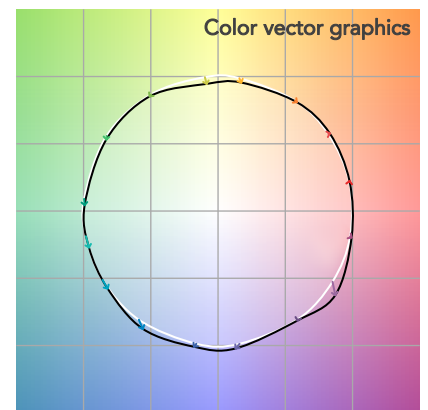
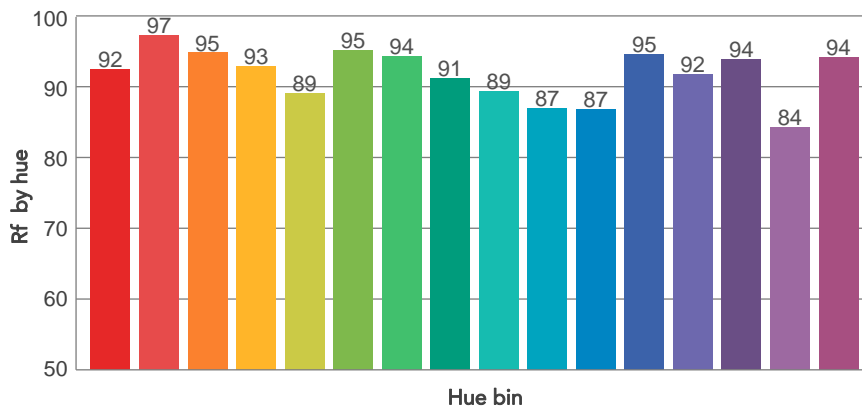
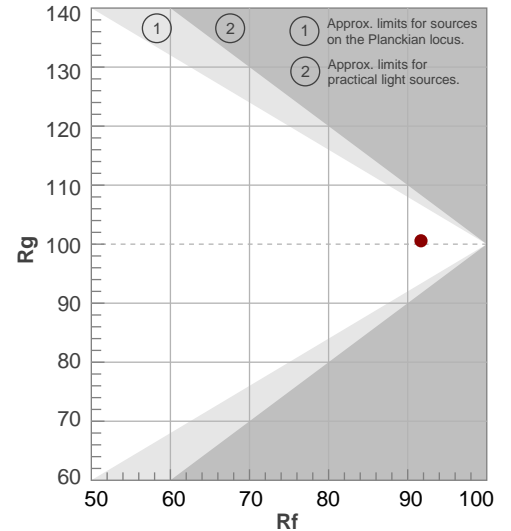
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5636 K	96,8	88,3	91,7	100,6	96,0	95	0,330	0,339	-0,0015

TM30 DETAILS

Rf 91,7
Fidelity index Rf

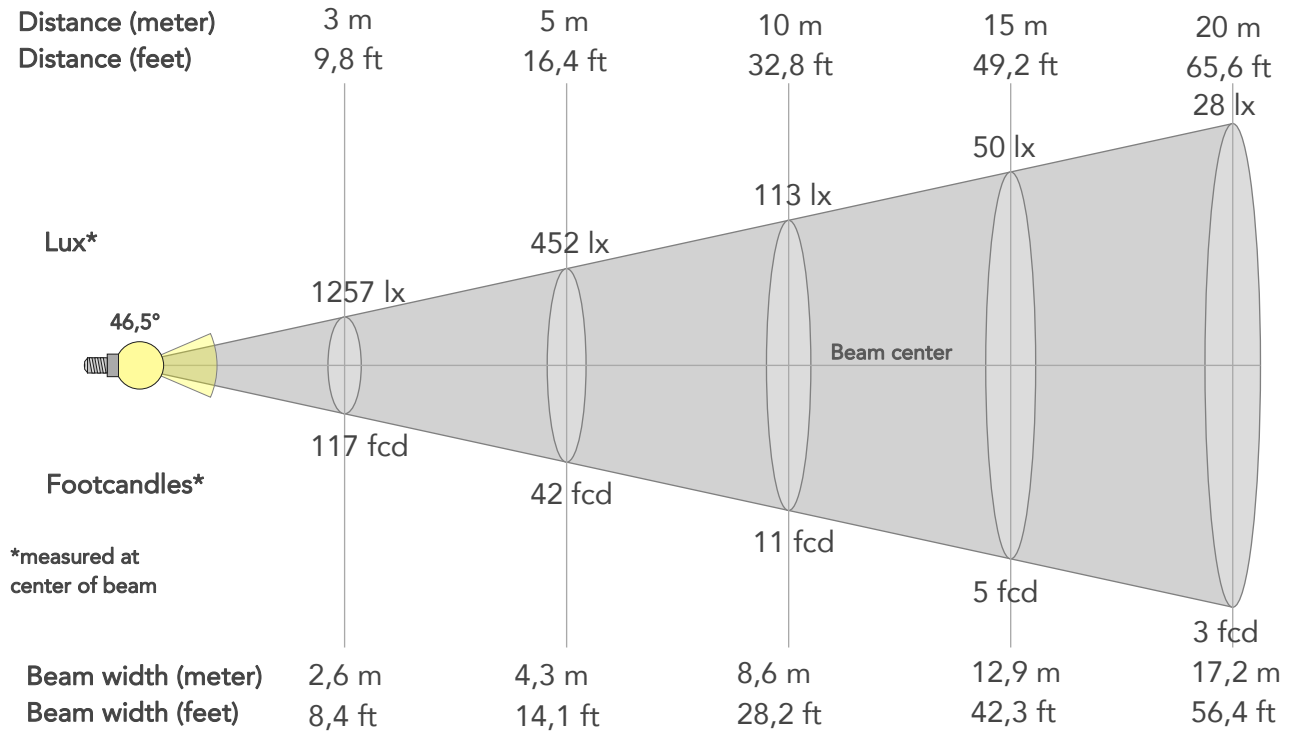
Rg 100,6
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	92	0%	1%
2	97	1%	0%
3	95	0%	-2%
4	93	-3%	-2%
5	89	-5%	0%
6	95	-1%	2%
7	94	-1%	2%
8	91	-1%	4%
9	89	-1%	9%
10	87	0%	7%
11	87	4%	6%
12	95	3%	-1%
13	92	3%	-3%
14	94	1%	-1%
15	84	7%	-7%
16	94	1%	-1%



BEAM DETAILS

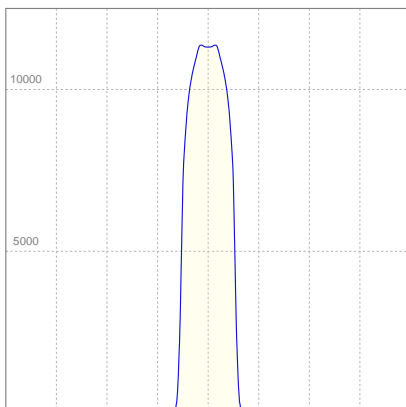
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,5°	53,5°	57,5°	99,5%	99,4%



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	11309lx	2827lx	1257lx	707lx	452lx	201lx	113lx	50lx	28lx	18lx	13lx	7lx	5lx
Footcand.	1051fcd	263fcd	117fcd	66fcd	42fcd	19fcd	11fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	0,9m	1,7m	2,6m	3,4m	4,3m	6,4m	8,6m	12,9m	17,2m	21,5m	25,8m	34,4m	43m
Beam wid.	2,8ft	5,7ft	8,4ft	11,3ft	14,1ft	21,1ft	28,2ft	42,3ft	56,4ft	70,5ft	84,6ft	112,8ft	141ft

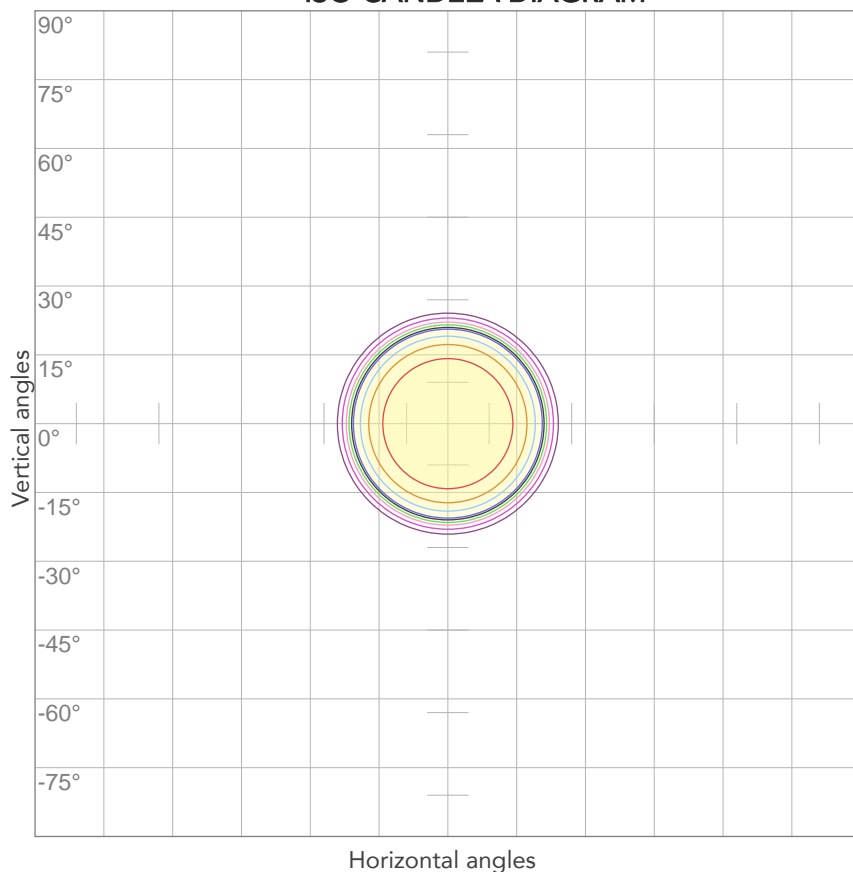
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	1,06A	227,1W	24lm/W

ISO CANDELA DIAGRAM



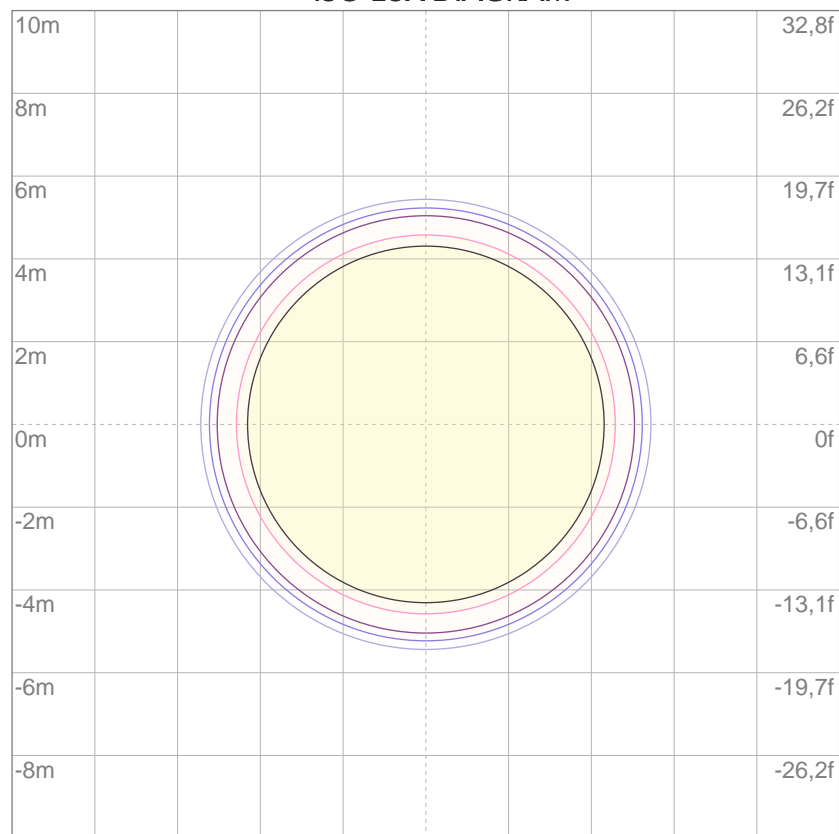
10%	1131 cd
20%	2262 cd
30%	3393 cd
40%	4524 cd
50%	5654 cd
60%	6785 cd
70%	7916 cd
80%	9047 cd

Conditions:

Number of c-planes: 2

Candela at center: 11309 cd

ISO LUX DIAGRAM



3%	3,39 lx
5%	5,65 lx
10%	11,3 lx
30%	33,9 lx
50%	56,5 lx

Conditions:

Number of c-planes: 2

Lux at center: 113 lx

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



Total lumen output:

5512 lm

Peak candela output:

11403 cd

Light quality:

CRI: 96,7

Color temperature:

5914 K

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL50

Target:

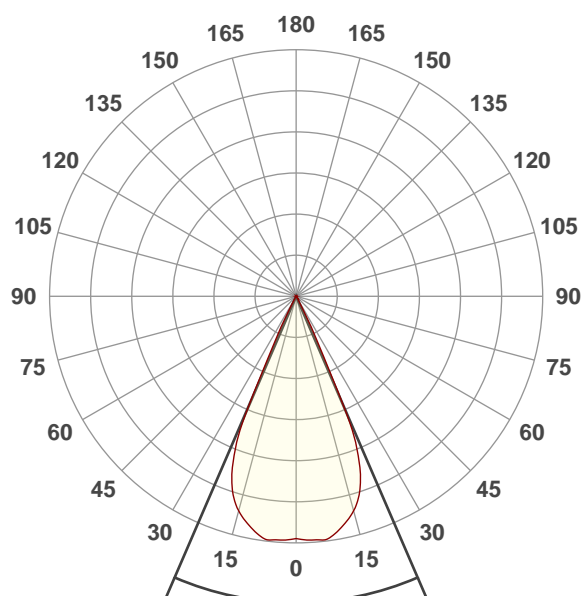
6000K HQ

Operator:

Paolo Carvone

Date and time:

14/07/2020 15:29:44

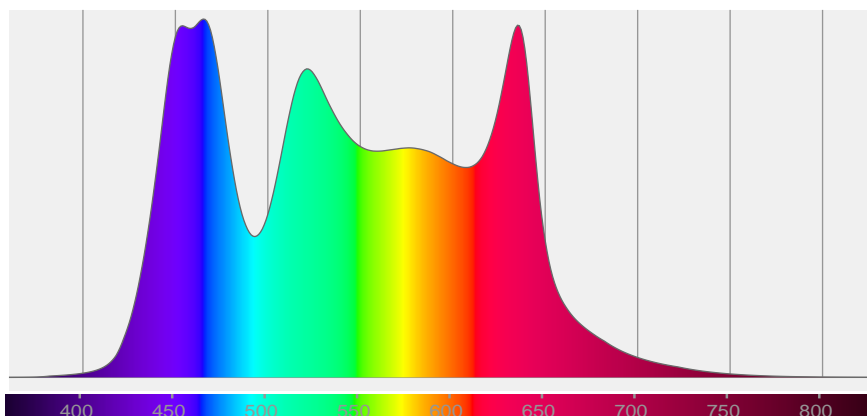


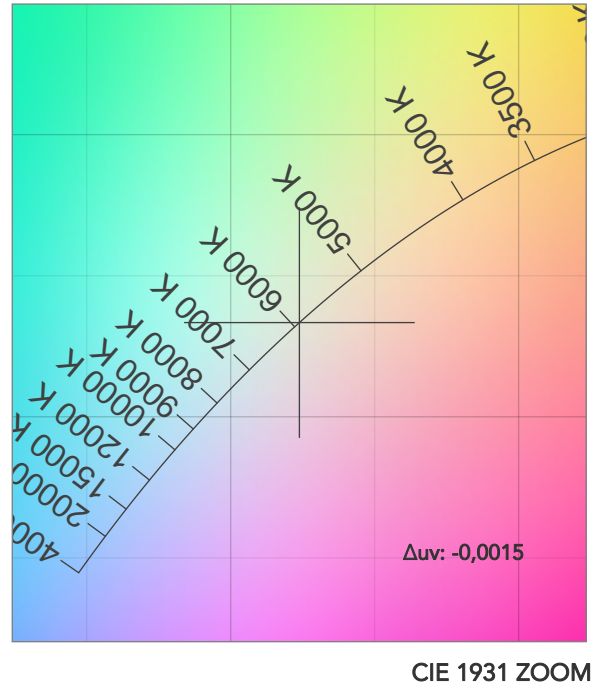
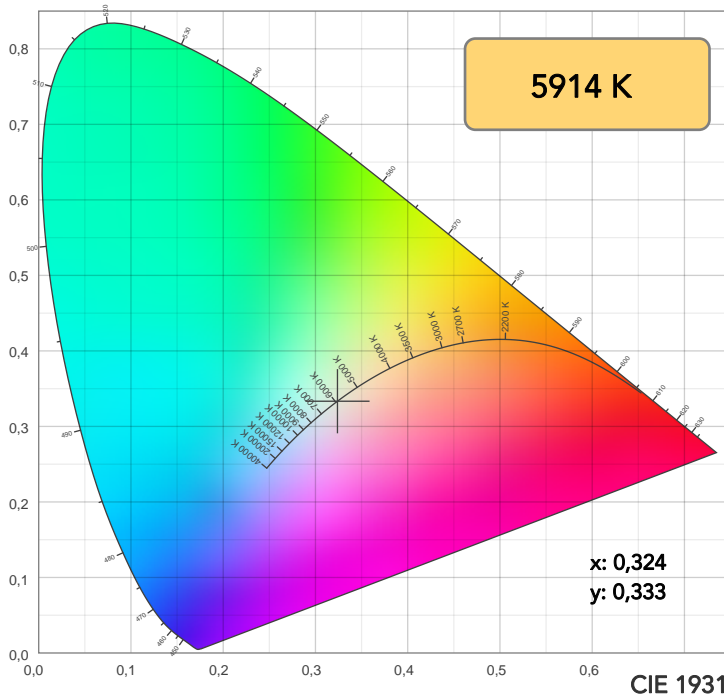
Beam angle 50%: 46,7°

Field angle 10%: 53,6°

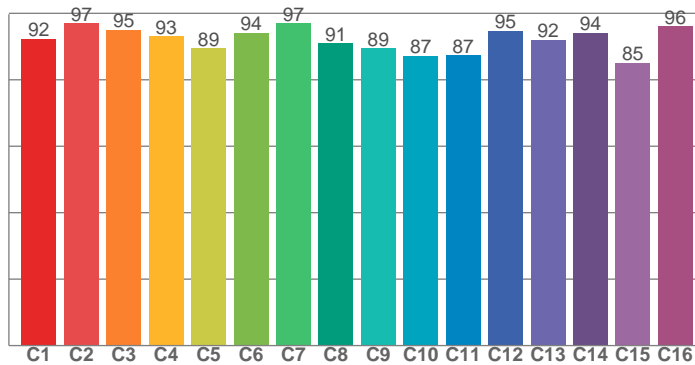
Cut off angle 2.5%: 57,6°

Spectra

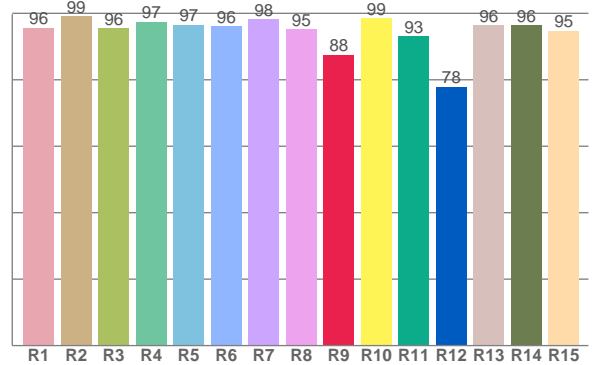




TM30: 91,9



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
95,7	99,0	95,5	97,4	96,6	96,1	98,1	95,2	87,5	98,6	93,2	77,9	96,3	96,3	94,8

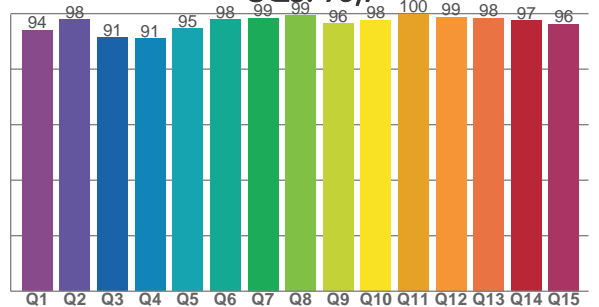
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,3	97,0	95,0	93,1	89,5	94,2	96,9	90,9	89,5	87,1	87,3	94,6	92,1	94,1	85,1	96,1

CQS Q values

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

CQS: 95,7



COLOR PARAMETERS

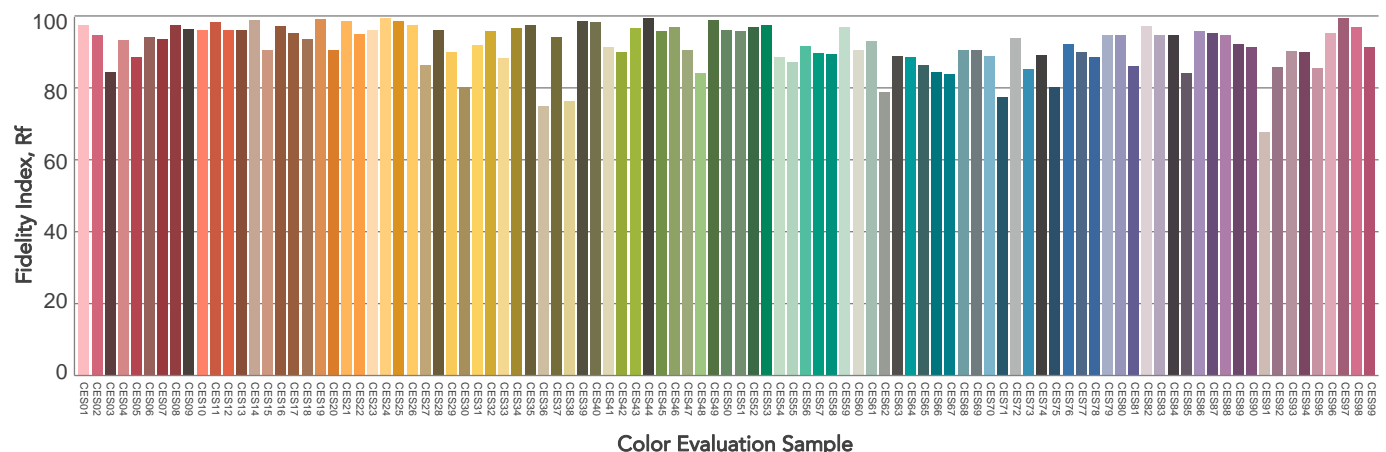
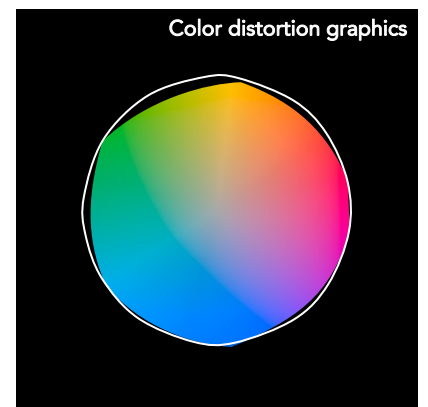
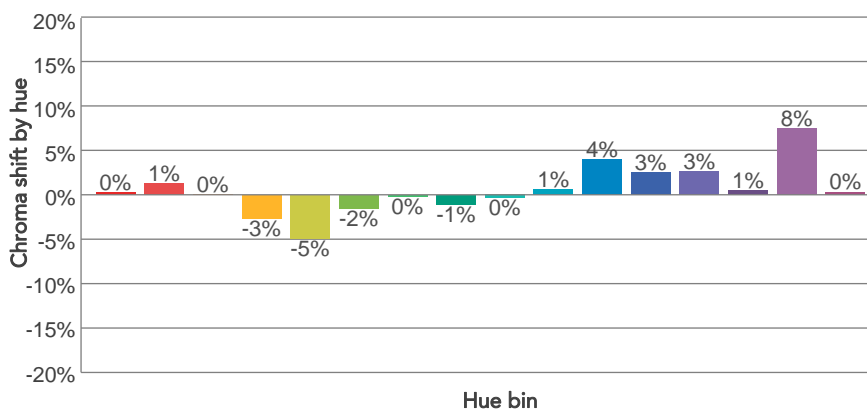
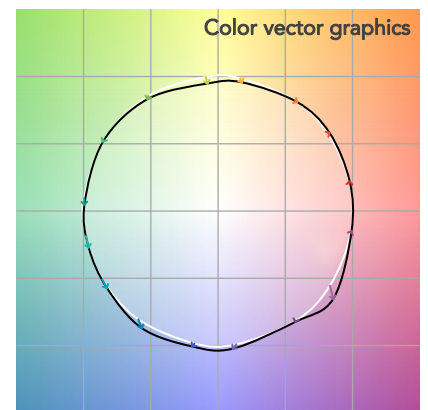
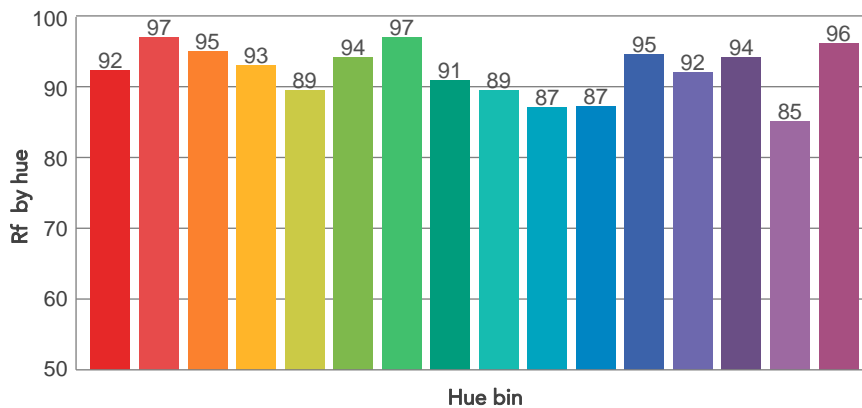
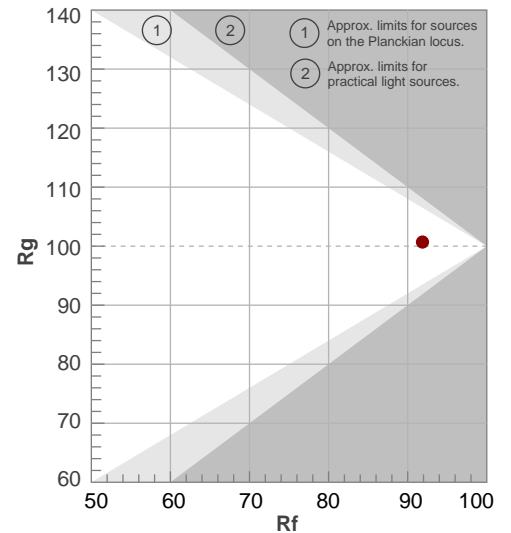
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5914 K	96,7	87,5	91,9	100,7	95,7	96	0,324	0,333	-0,0015

TM30 DETAILS

Rf 91,9
Fidelity index Rf

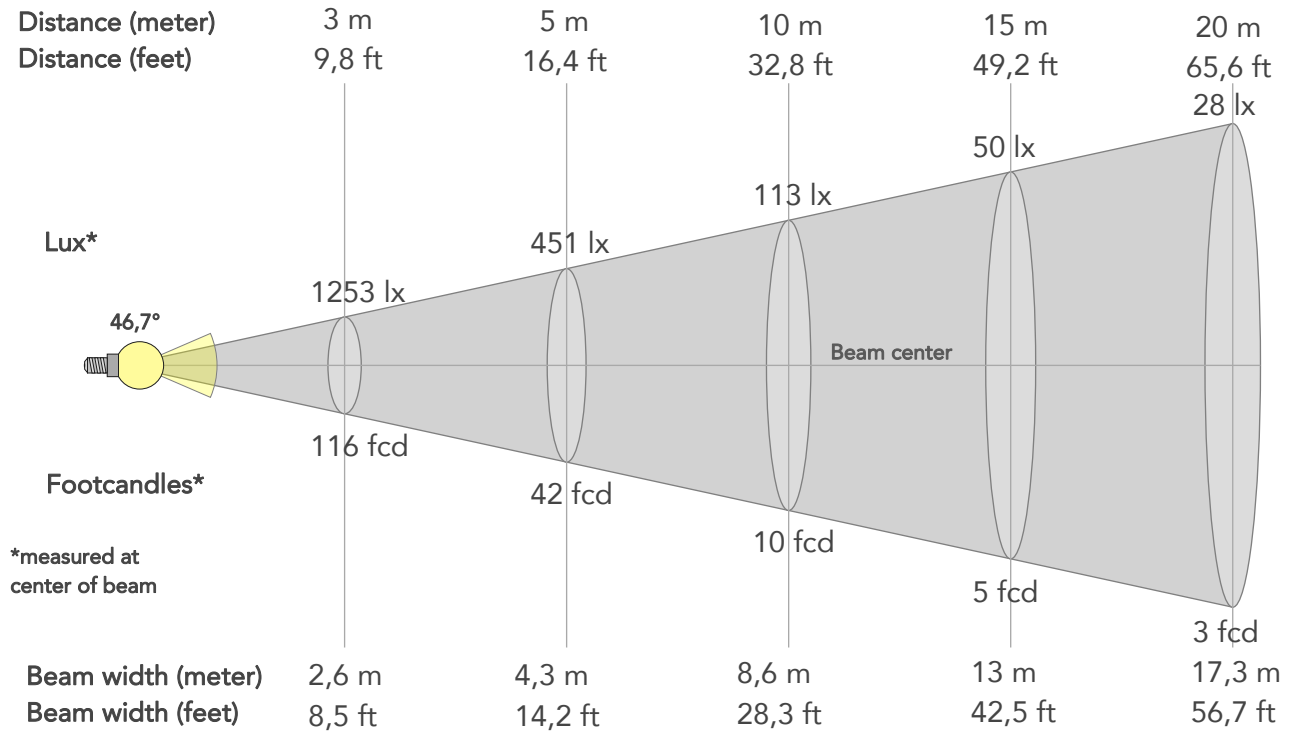
Rg 100,7
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	92	0%	1%
2	97	1%	0%
3	95	0%	-2%
4	93	-3%	-2%
5	89	-5%	0%
6	94	-2%	2%
7	97	0%	1%
8	91	-1%	5%
9	89	0%	9%
10	87	1%	7%
11	87	4%	6%
12	95	3%	-1%
13	92	3%	-3%
14	94	1%	-1%
15	85	8%	-7%
16	96	0%	1%



BEAM DETAILS

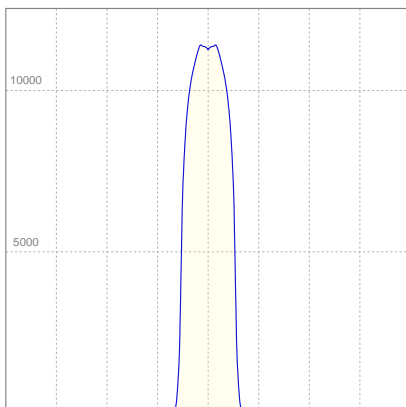
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,7°	53,6°	57,6°	99,5%	99,4%



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	11281lx	2820lx	1253lx	705lx	451lx	201lx	113lx	50lx	28lx	18lx	13lx	7lx	5lx
Footcand.	1048fcd	262fcd	116fcd	66fcd	42fcd	19fcd	10fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	0,9m	1,7m	2,6m	3,5m	4,3m	6,5m	8,6m	13m	17,3m	21,6m	25,9m	34,6m	43,2m
Beam wid.	2,9ft	5,7ft	8,5ft	11,3ft	14,2ft	21,3ft	28,3ft	42,5ft	56,7ft	70,9ft	85ft	113,4ft	141,7ft

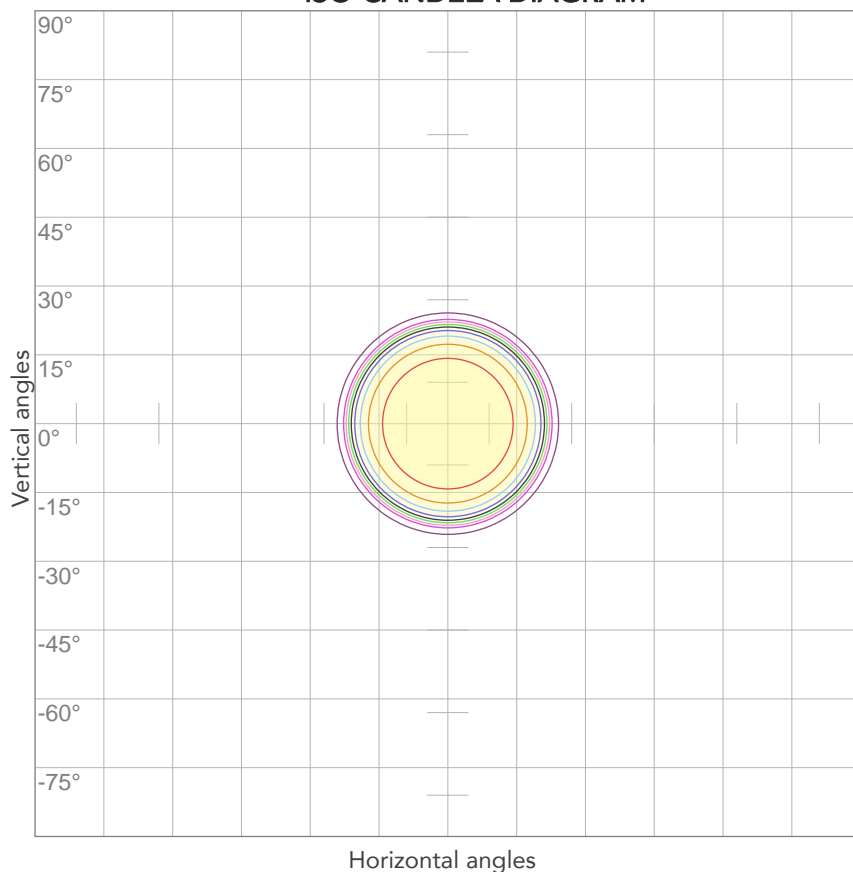
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	1,07A	230,1W	24lm/W

ISO CANDELA DIAGRAM



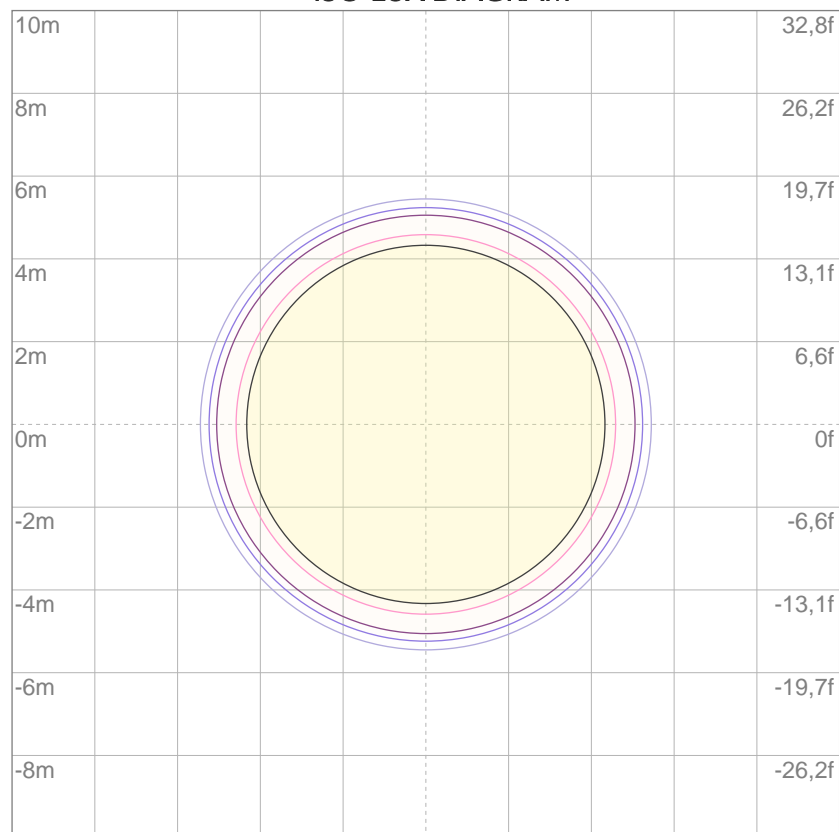
10%	1128 cd
20%	2256 cd
30%	3384 cd
40%	4512 cd
50%	5641 cd
60%	6769 cd
70%	7897 cd
80%	9025 cd

Conditions:

Number of c-planes: 2

Candela at center: 11281 cd

ISO LUX DIAGRAM



3%	3,38 lx
5%	5,64 lx
10%	11,3 lx
30%	33,8 lx
50%	56,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 113 lx

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