

Photometric Test Report



ECLEXPOFL150VW

150W asymmetric LED floodlight, with
Variable White CCT 2,700K – 6,500K

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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:

8598 lm

Peak candela output:

6367 cd

Light quality:

CRI: 94,4

Color temperature:

4014 K

PRODUCT NAME:
ECLEXPOFL150VWBK

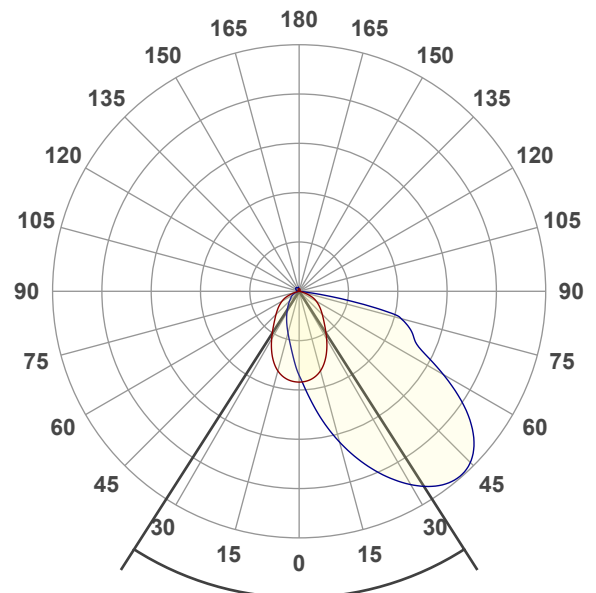
MEASUREMENT CONDITIONS:

Beam angle:
Asymmetric

Target:
Full On

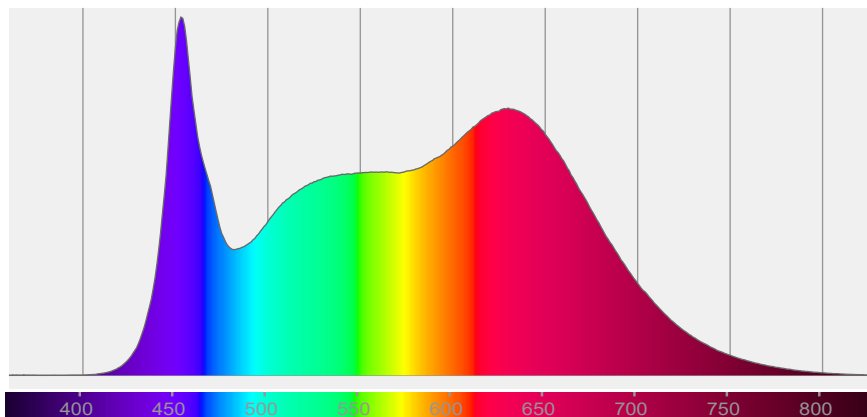
Operator:
Paolo Carvone

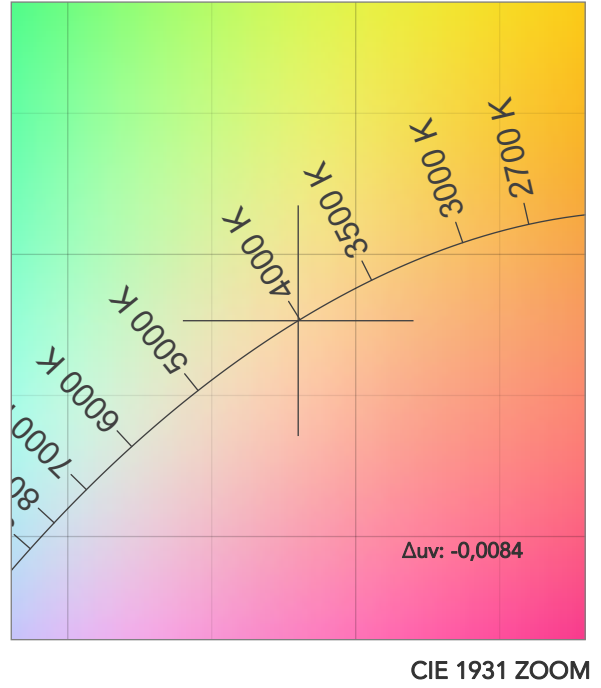
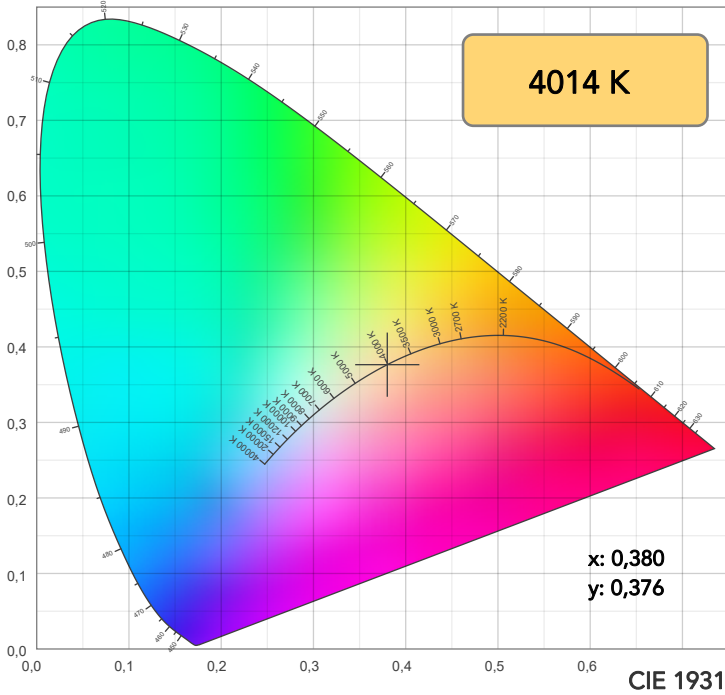
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16/03/2023 12:46:19



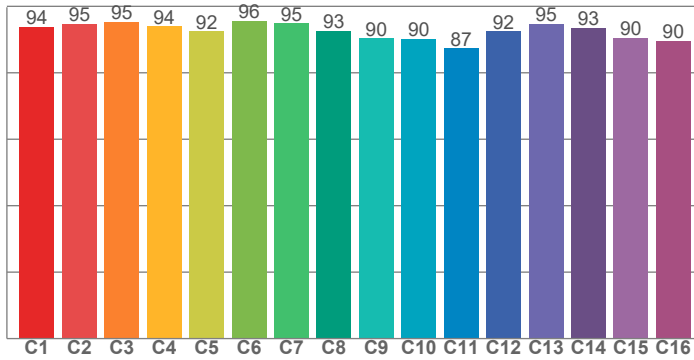
Beam angle 50%: 65,2°
Field angle 10%: 125,7°
Cut off angle 2.5%: 253,4°

Spectra

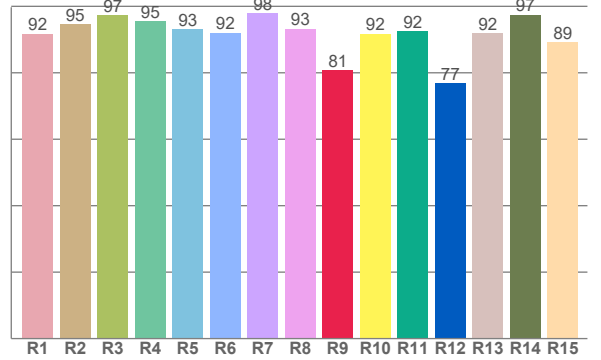




TM30: 92,5



CRI: 94,4 (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
91,8	94,6	97,3	95,5	93,1	92,1	98,0	93,3	80,7	91,8	92,5	76,8	91,9	97,5	89,2

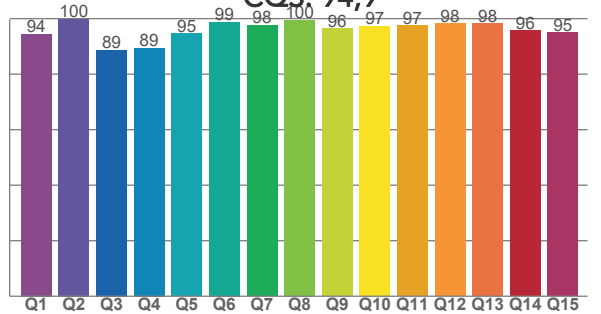
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,8	94,8	95,3	94,0	92,5	95,6	94,8	92,6	90,3	90,2	87,3	92,5	94,8	93,4	90,5	89,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,5	99,9	88,6	89,4	94,6	98,7	97,6	99,5	96,4	97,4	97,5	98,2	98,2	95,7	94,9

CQS: 94,9



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
4014 K	94,4	80,7	92,5	102,7	94,9	98	0,380	0,376	-0,0084

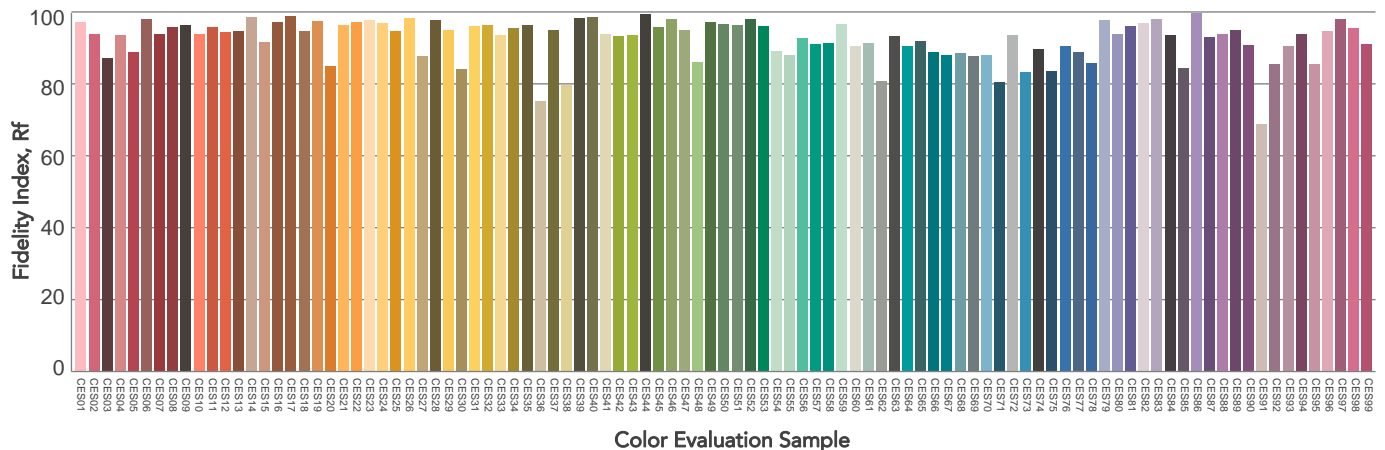
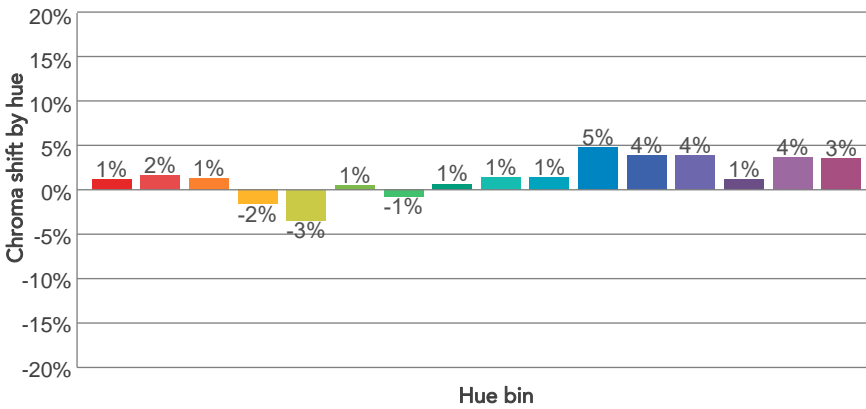
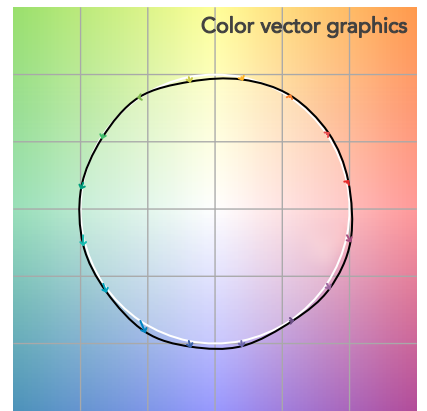
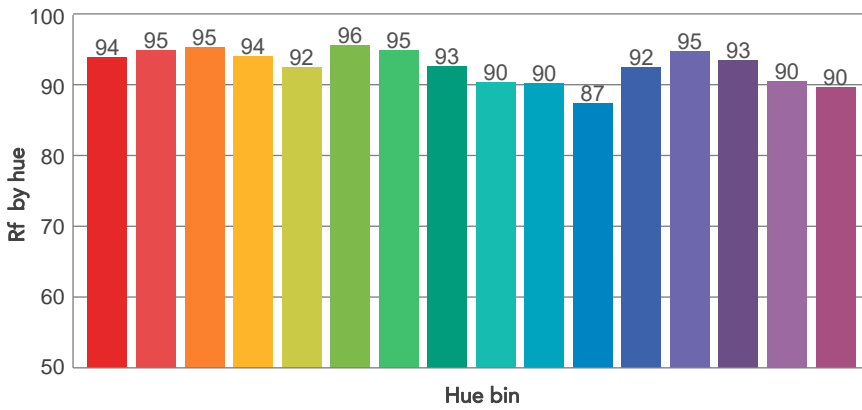
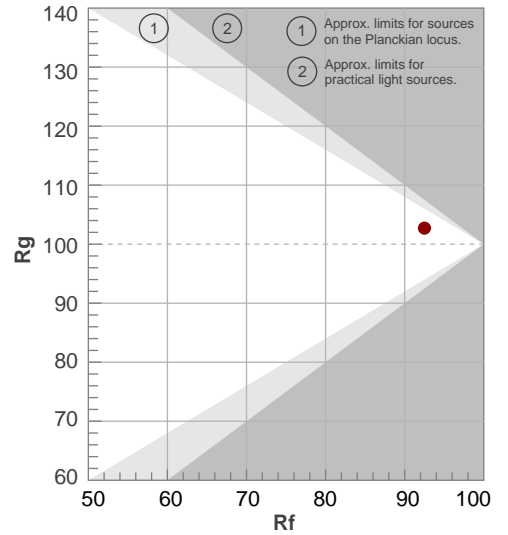
TM30 DETAILS



Rf 92,5
Fidelity index Rf

Rg 102,7
Gammut index

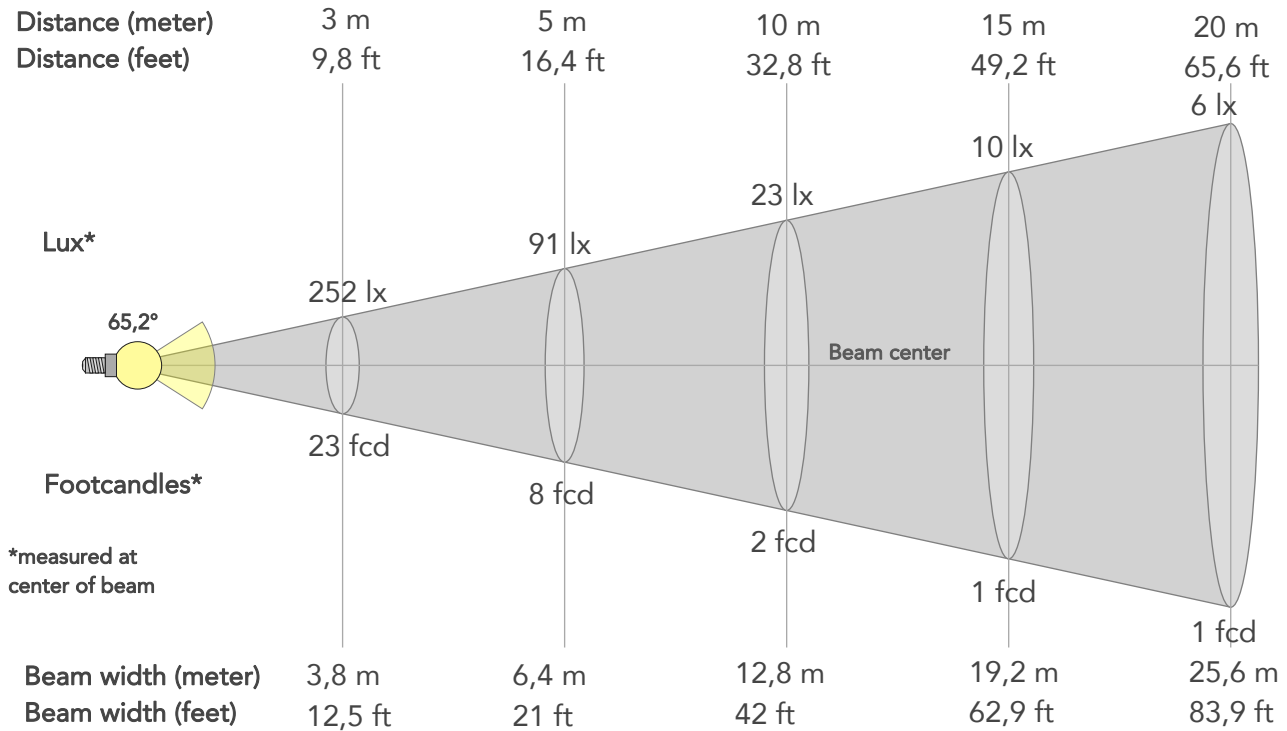
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	1%	1%
2	95	2%	0%
3	95	1%	0%
4	94	-2%	-1%
5	92	-3%	0%
6	96	1%	1%
7	95	-1%	3%
8	93	1%	4%
9	90	1%	7%
10	90	1%	6%
11	87	5%	7%
12	92	4%	2%
13	95	4%	0%
14	93	1%	2%
15	90	4%	-2%
16	90	3%	-4%



BEAM DETAILS



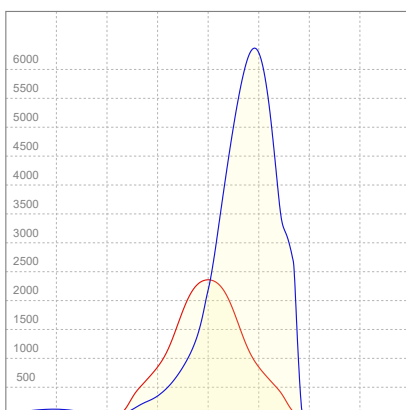
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
65,2°	125,7°	253,4°	75,6%	48,8%



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	2272lx	568lx	252lx	142lx	91lx	40lx	23lx	10lx	6lx	4lx	3lx	1lx	1lx
Footcand.	211fcd	53fcd	23fcd	13fcd	8fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,3m	2,6m	3,8m	5,1m	6,4m	9,6m	12,8m	19,2m	25,6m	32m	38,4m	51,2m	64m
Beam wid.	4,2ft	8,4ft	12,5ft	16,8ft	21ft	31,5ft	42ft	62,9ft	83,9ft	104,9ft	125,9ft	167,9ft	209,8ft

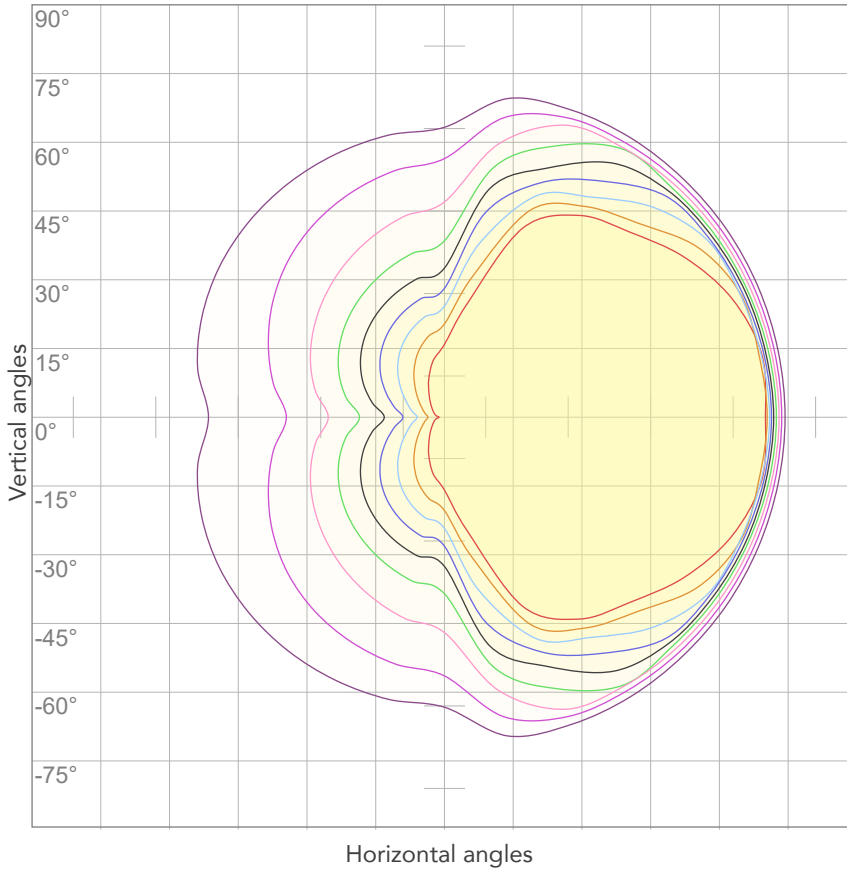
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,751A	166,8W	52lm/W
Power Fc			
0,99			

ISO CANDELA DIAGRAM



10%	227 cd
20%	454 cd
30%	682 cd
40%	909 cd
50%	1136 cd
60%	1363 cd
70%	1590 cd
80%	1817 cd

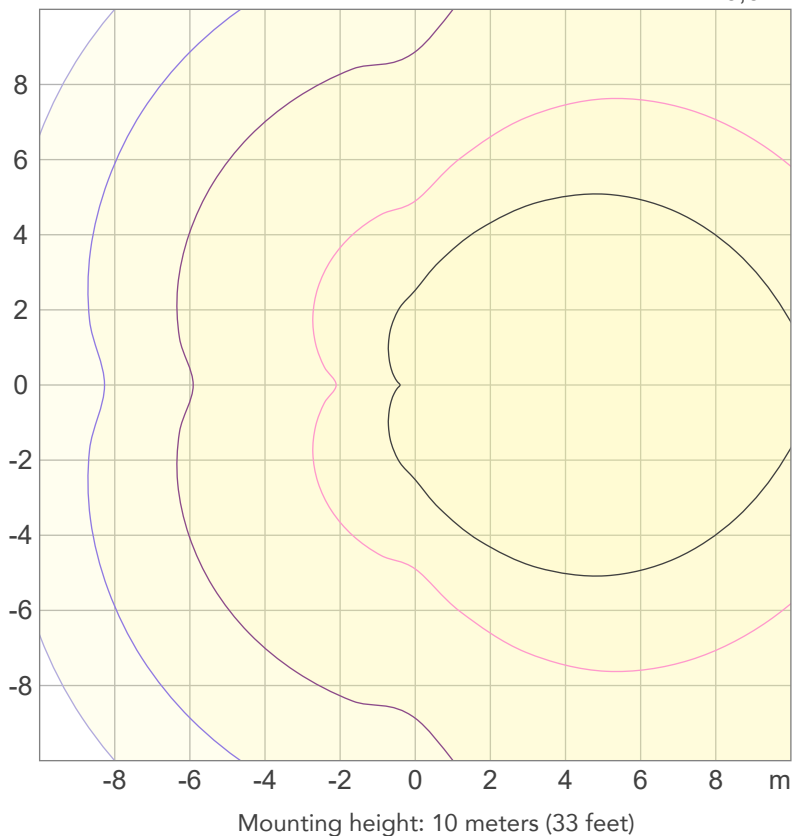
Conditions:

Number of c-planes: 4

Candela at center: 2272 cd

ISO LUX DIAGRAM

MH: 10,0 m



3%	0,682 lx
5%	1,14 lx
10%	2,27 lx
30%	6,82 lx
50%	11,4 lx

Conditions:

Number of c-planes: 4

Lux at center: 22,7 lx

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



Total lumen output:

9733 lm

Peak candela output:

7090 cd

Light quality:

CRI: 95,3

Color temperature:

6513 K

PRODUCT NAME:
ECLEXPFL150VWBK

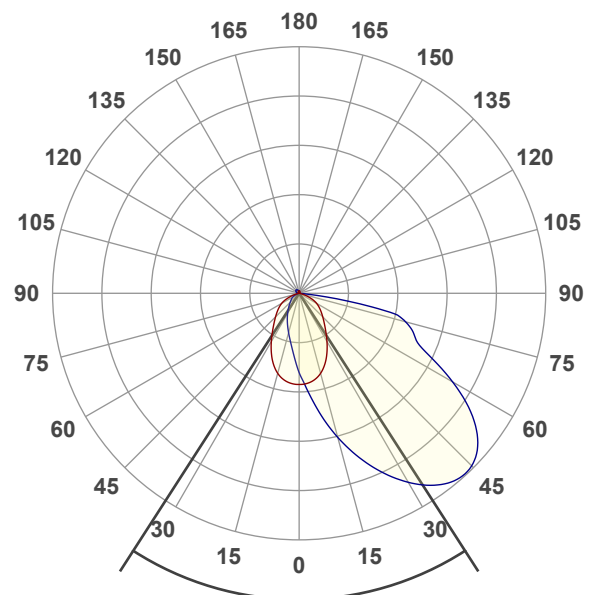
MEASURAMENT CONDITIONS:

Beam angle:
Asymmetric

Target:
Cold White

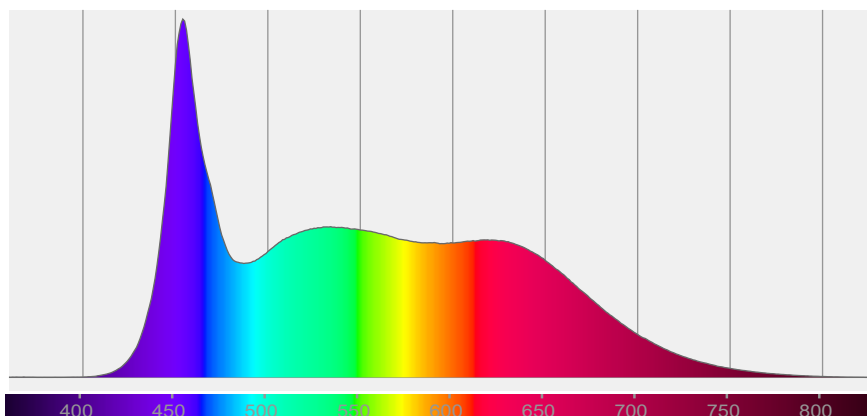
Operator:
Paolo Carvone

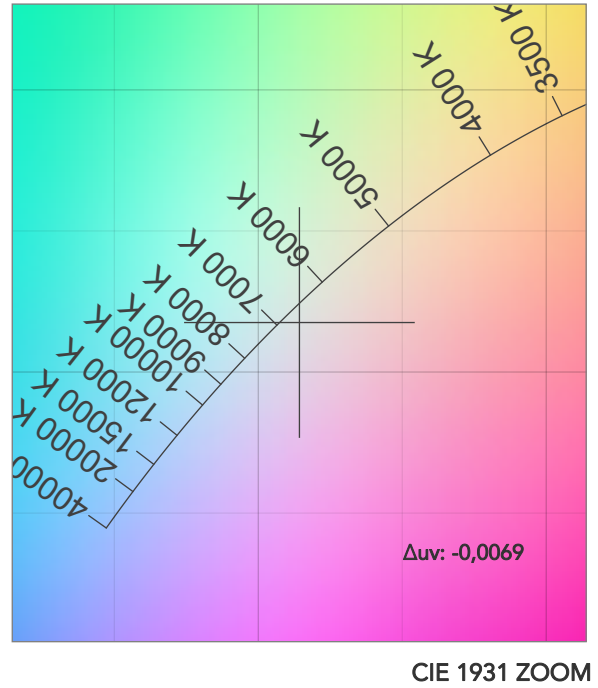
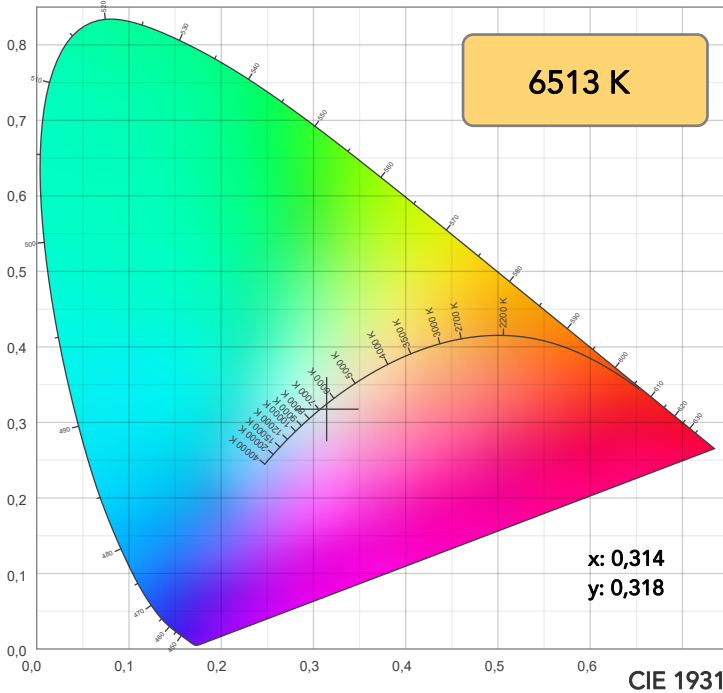
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Beam angle 50%: 65,6°
Field angle 10%: 125,2°
Cut off angle 2.5%: 253,1°

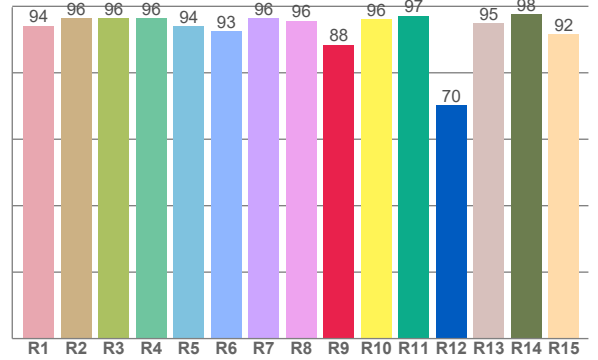
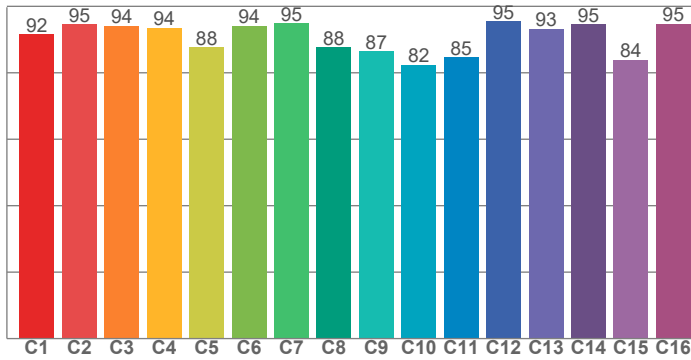
Spectra





TM30: 90,4

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
94,1	96,5	96,5	96,5	94,1	92,6	96,4	95,6	88,4	96,0	97,2	70,3	94,9	97,5	91,5

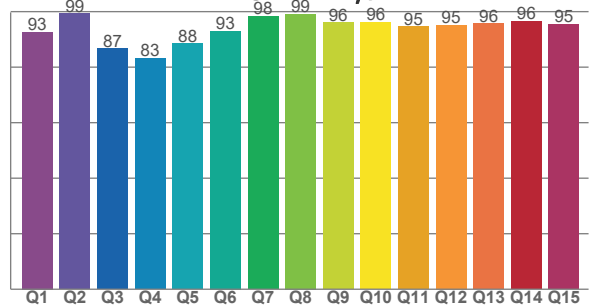
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91,5	94,6	94,1	93,6	87,7	94,1	94,8	87,6	86,5	82,3	84,6	95,5	93,3	94,5	83,9	94,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,7	99,3	86,6	83,2	88,4	93,0	98,3	99,2	96,1	96,2	94,7	95,2	95,8	96,5	95,4

CQS: 92,5



COLOR PARAMETERS

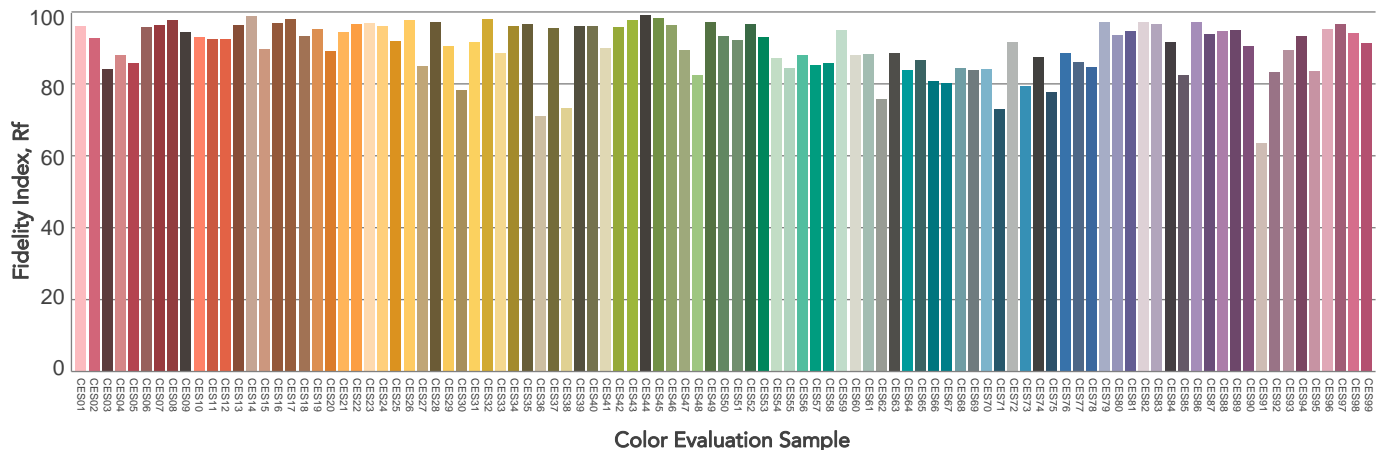
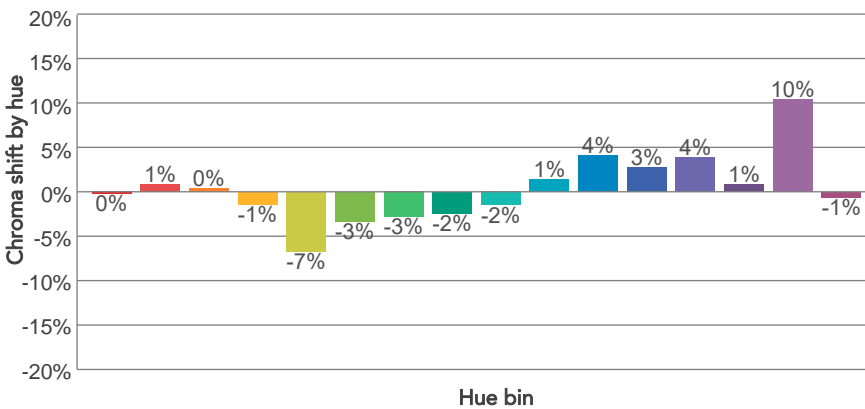
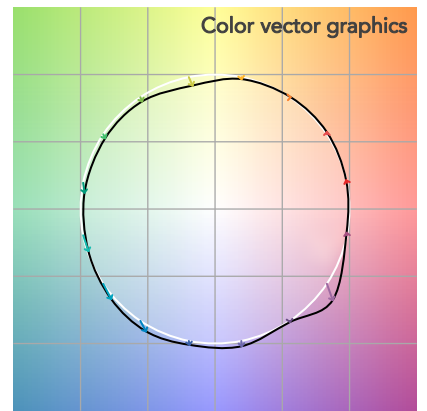
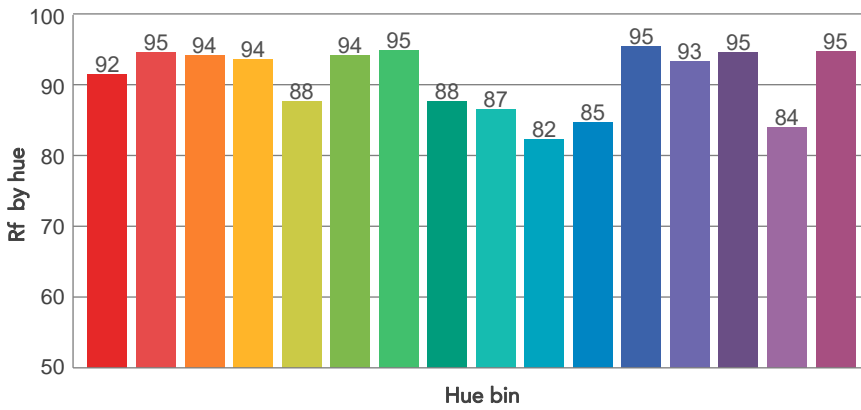
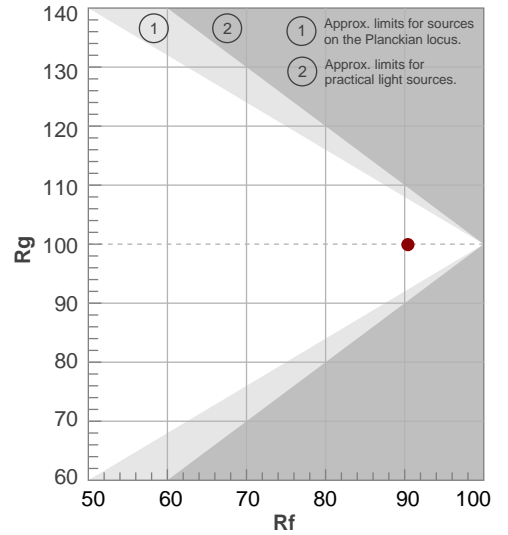
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6513 K	95,3	88,4	90,4	99,9	92,5	96	0,314	0,318	-0,0069

TM30 DETAILS

Rf 90,4
Fidelity index Rf

Rg 99,9
Gammut index

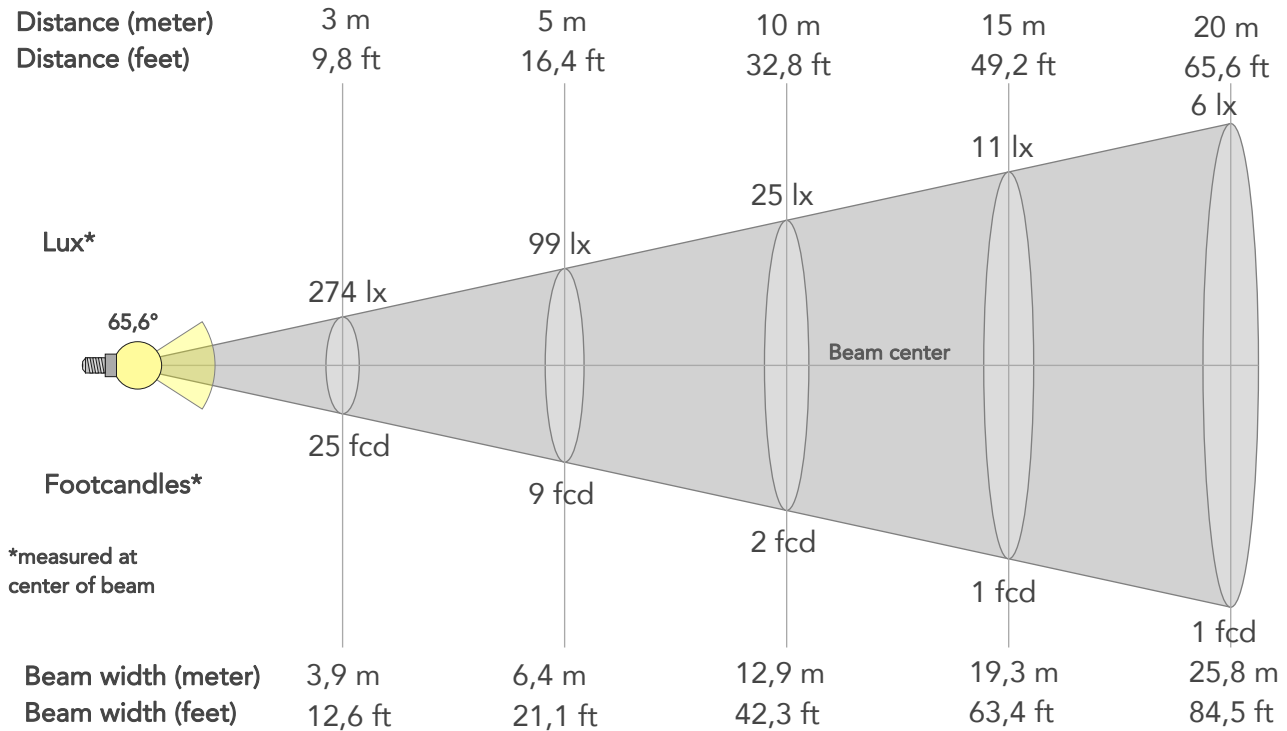
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	92	0%	2%
2	95	1%	1%
3	94	0%	0%
4	94	-1%	0%
5	88	-7%	-1%
6	94	-3%	1%
7	95	-3%	2%
8	88	-2%	7%
9	87	-2%	12%
10	82	1%	13%
11	85	4%	8%
12	95	3%	1%
13	93	4%	0%
14	95	1%	0%
15	84	10%	-8%
16	95	-1%	2%



BEAM DETAILS



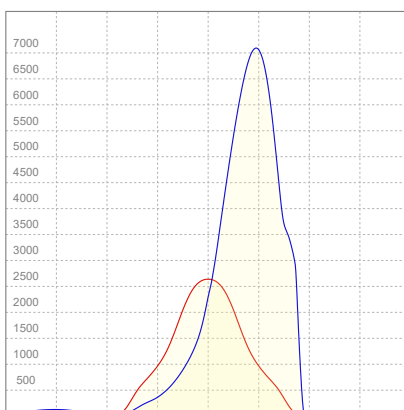
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
65,6°	125,2°	253,1°	74,5%	47,4%



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	2466lx	616lx	274lx	154lx	99lx	44lx	25lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	229fcd	57fcd	25fcd	14fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,3m	2,6m	3,9m	5,2m	6,4m	9,7m	12,9m	19,3m	25,8m	32,2m	38,7m	51,5m	64,4m
Beam wid.	4,3ft	8,5ft	12,6ft	16,9ft	21,1ft	31,7ft	42,3ft	63,4ft	84,5ft	105,7ft	126,8ft	169,1ft	211,3ft

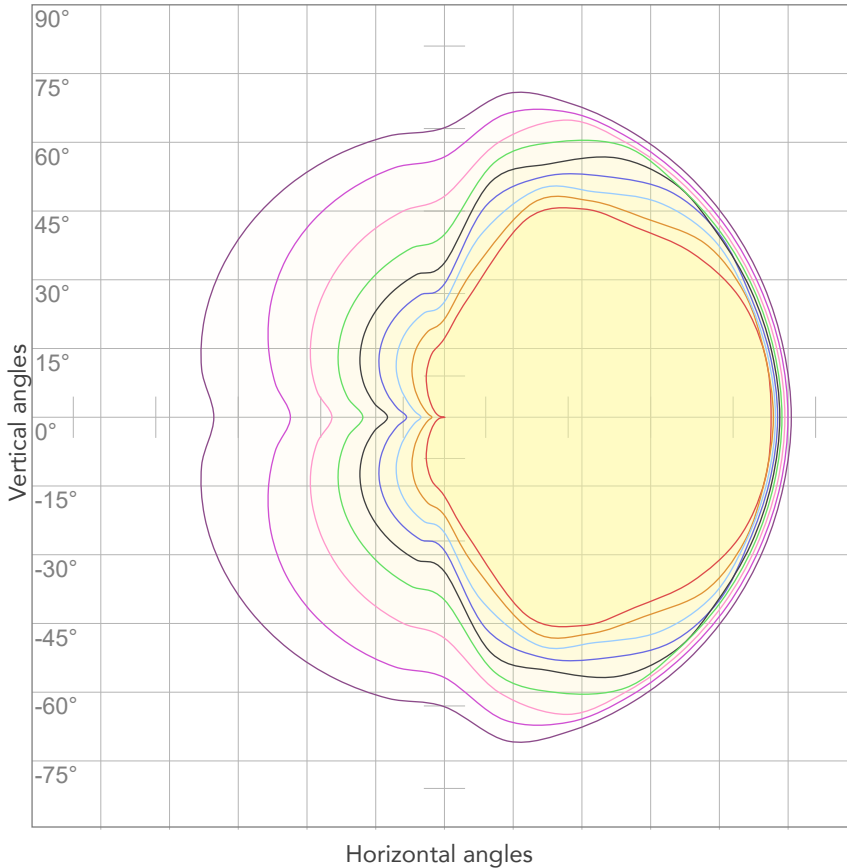
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,734A	163,7W	59lm/W

ISO CANDELA DIAGRAM



10%	247 cd
20%	493 cd
30%	740 cd
40%	986 cd
50%	1233 cd
60%	1480 cd
70%	1726 cd
80%	1973 cd

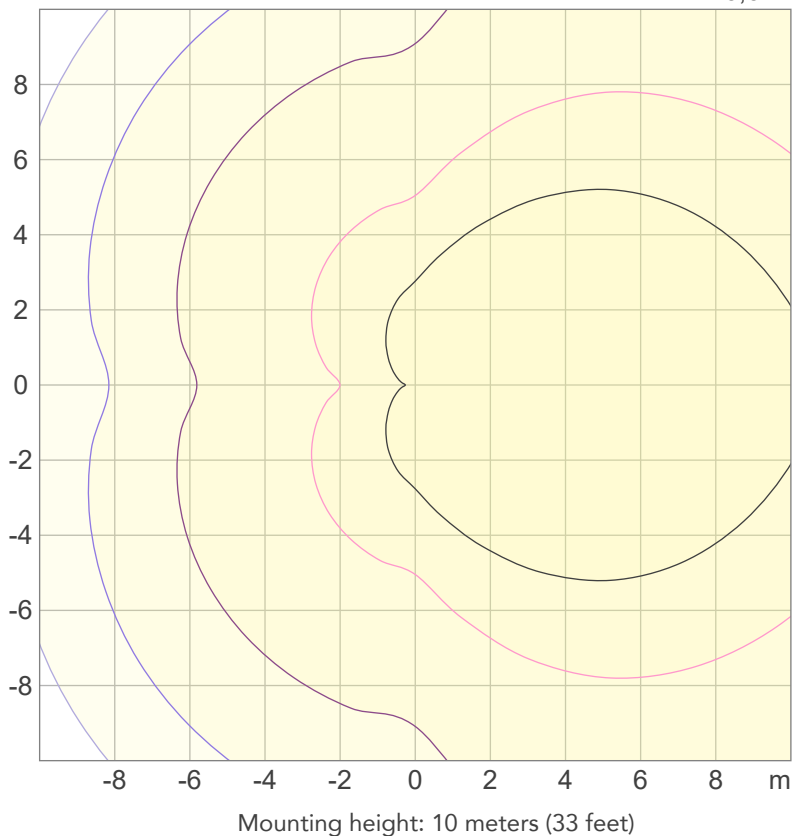
Conditions:

Number of c-planes: 4

Candela at center: 2466 cd

ISO LUX DIAGRAM

MH: 10,0 m



3%	0,740 lx
5%	1,23 lx
10%	2,47 lx
30%	7,40 lx
50%	12,3 lx

Conditions:

Number of c-planes: 4

Lux at center: 24,7 lx

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



Total lumen output:

6956 lm

Peak candela output:

5117 cd

Light quality:

CRI: 95,1

Color temperature:

2712 K

PRODUCT NAME:
ECLEXPFL150VWBK

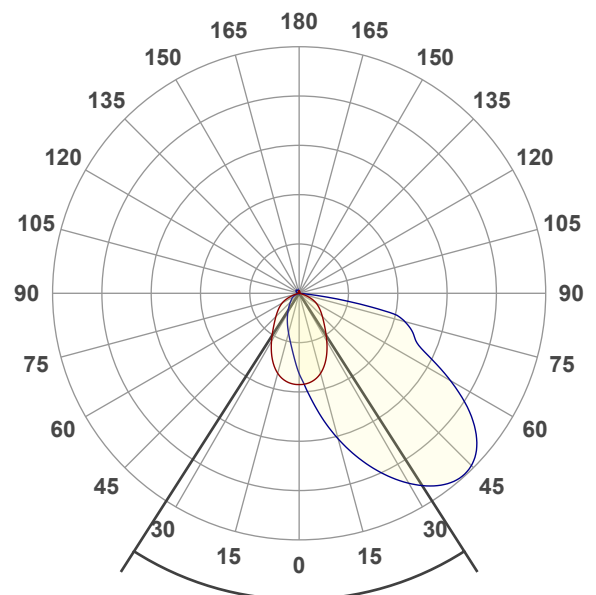
MEASURAMENT CONDITIONS:

Beam angle:
Asymmetric

Target:
Warm White

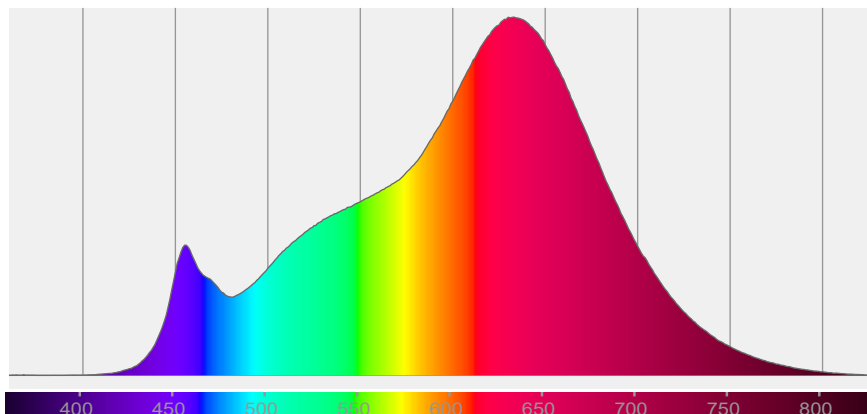
Operator:
Paolo Carvone

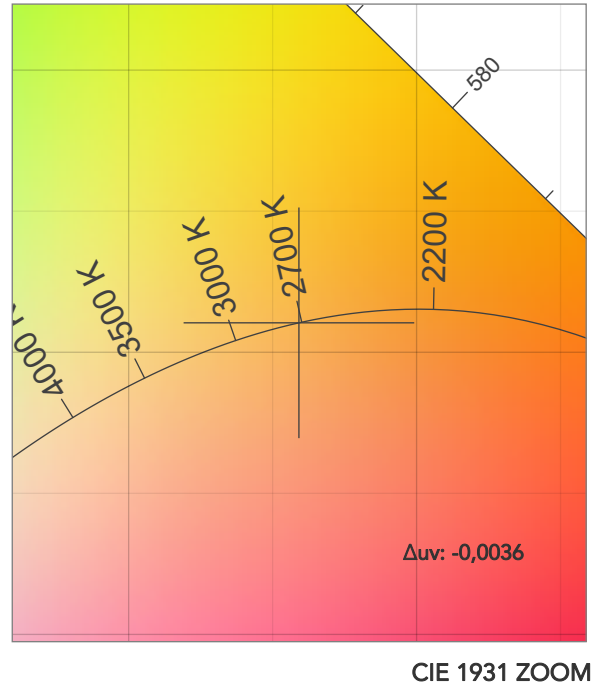
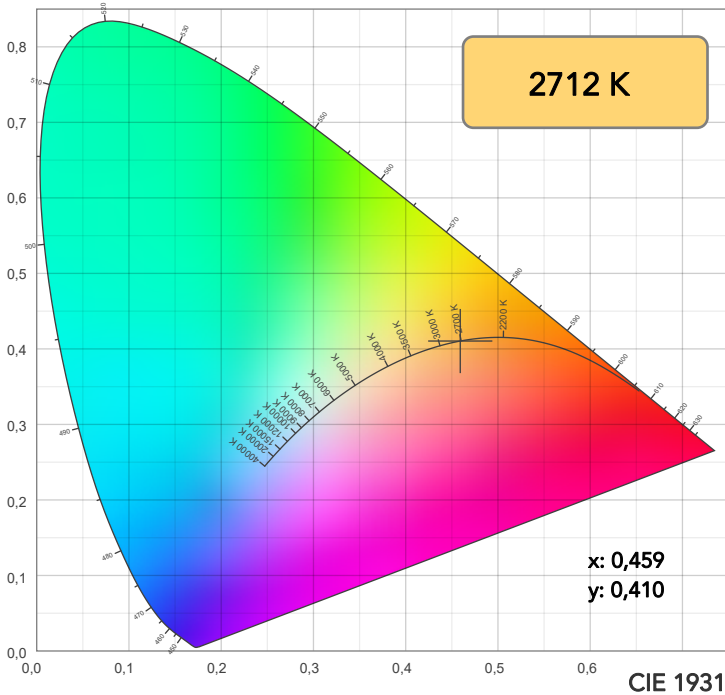
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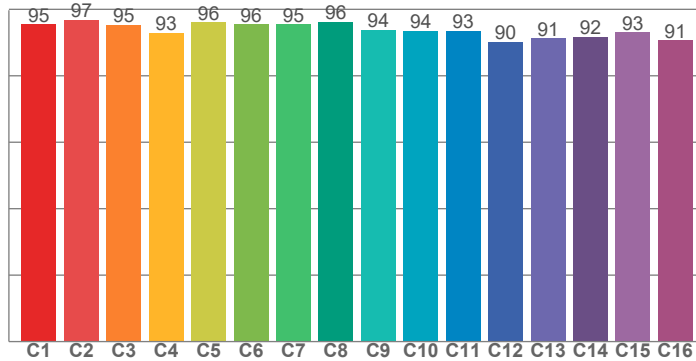
Beam angle 50%: 65,2°
Field angle 10%: 124,9°
Cut off angle 2.5%: 149,3°

Spectra

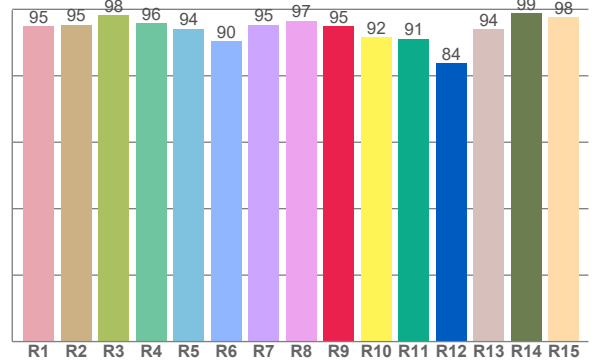




TM30: 94,0



CRI: 95,1 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
94,9	95,3	98,3	95,8	94,1	90,3	95,3	96,6	95,0	91,6	91,2	83,8	94,1	98,9	97,6

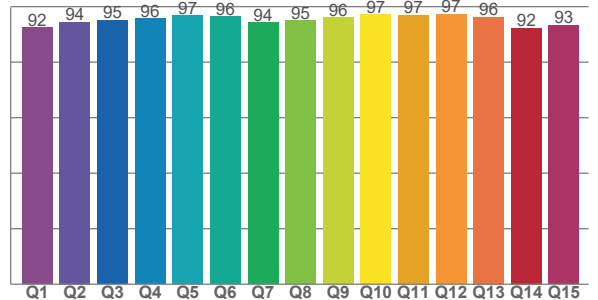
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,4	96,8	95,3	92,9	96,1	95,5	95,5	96,2	93,8	93,5	93,5	90,2	91,3	91,7	93,1	90,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,4	94,5	95,1	95,7	96,7	96,5	94,2	95,0	96,1	97,1	97,0	97,2	96,2	92,3	93,3

CQS: 94,8



COLOR PARAMETERS

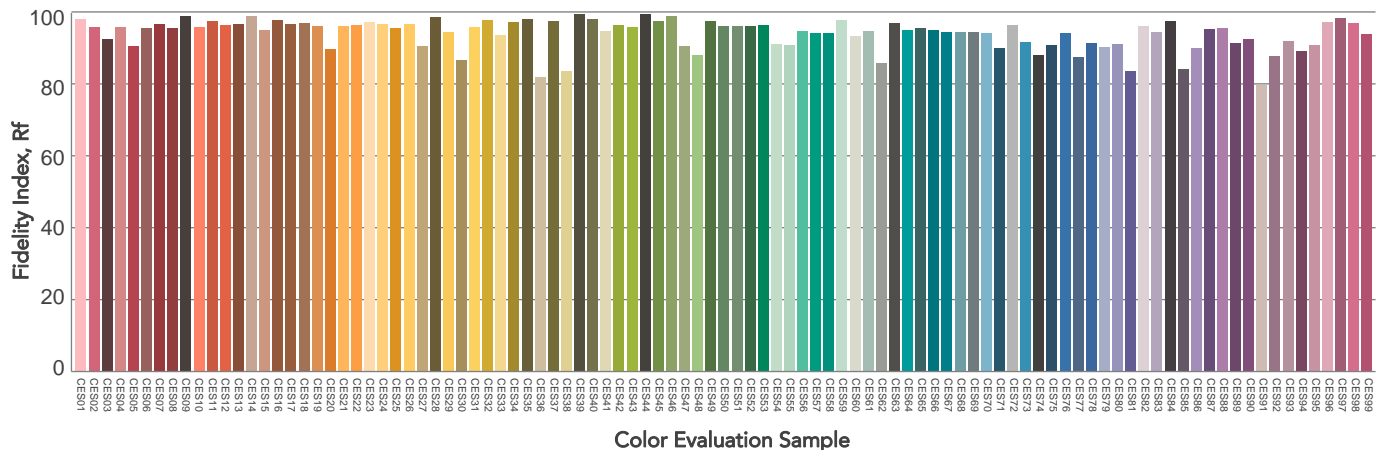
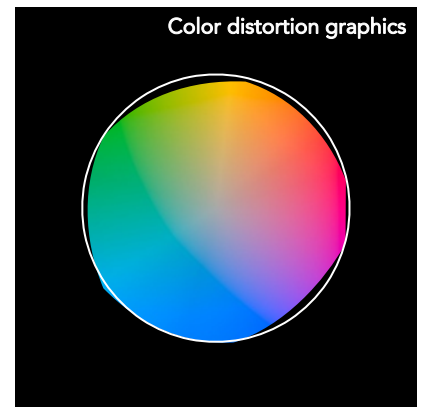
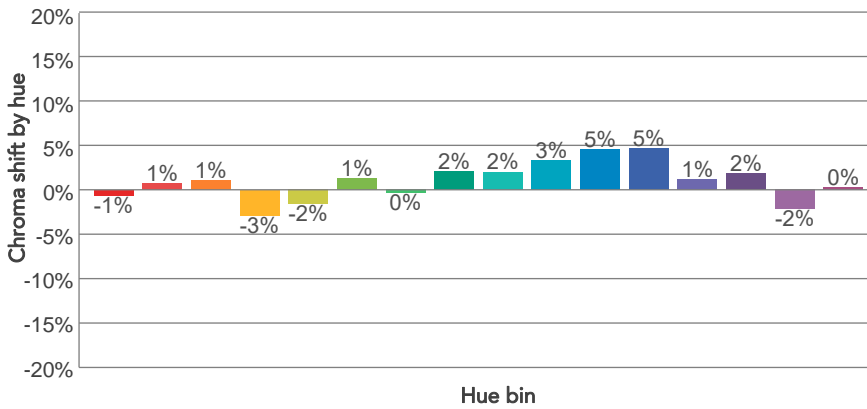
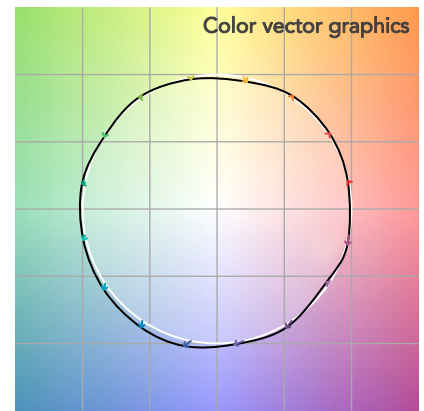
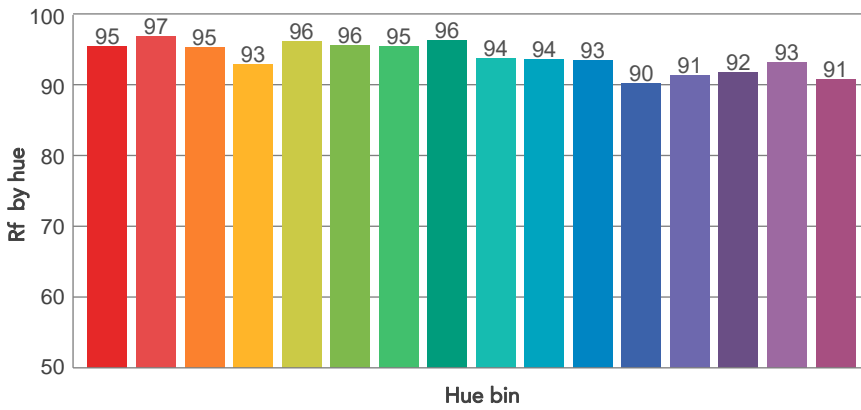
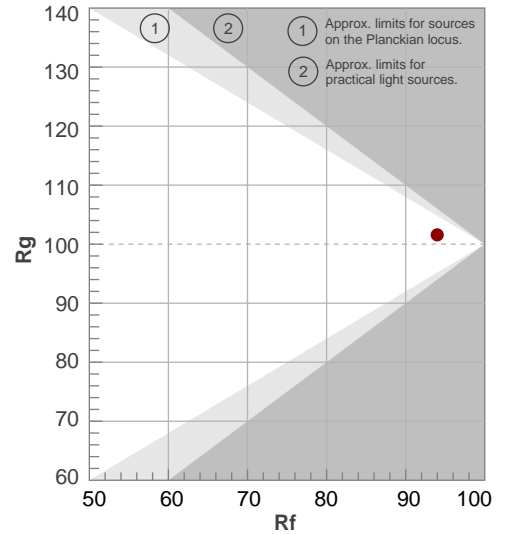
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2712 K	95,1	95,0	94,0	101,6	94,8	97	0,459	0,410	-0,0036

TM30 DETAILS

Rf 94,0
Fidelity index Rf

Rg 101,6
Gammut index

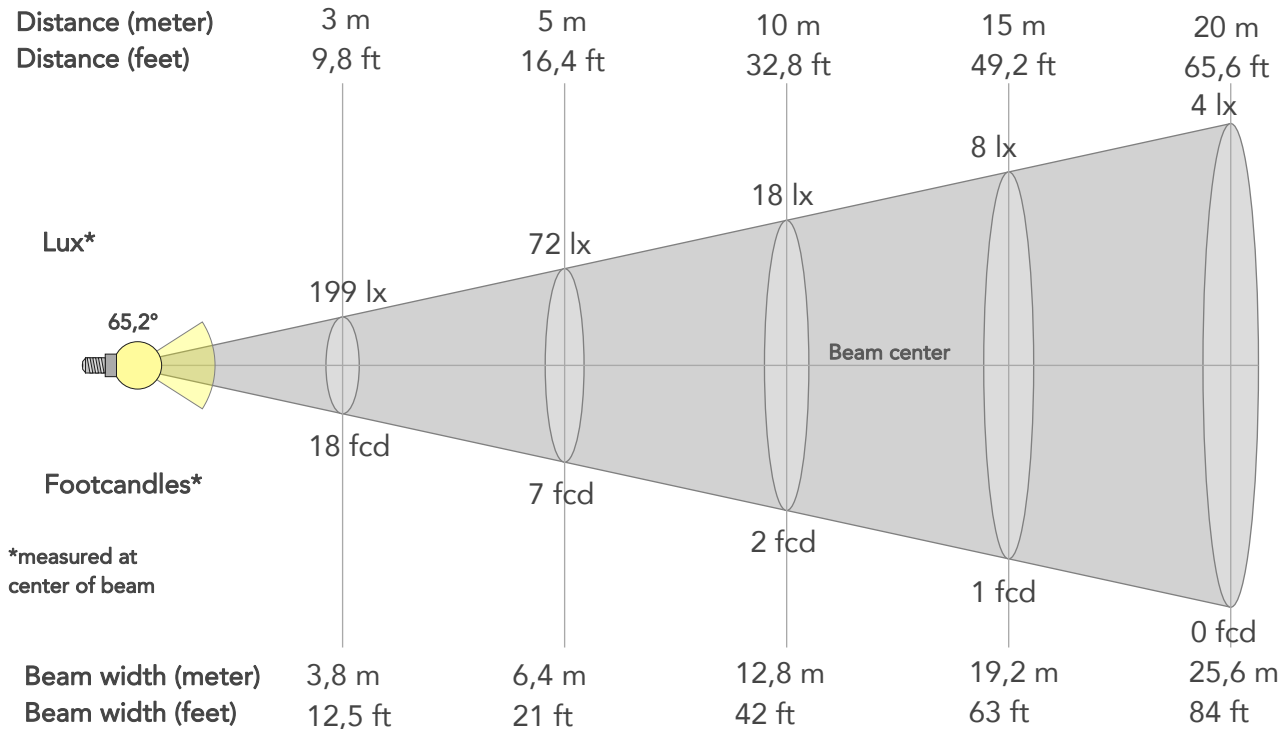
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	97	1%	0%
3	95	1%	0%
4	93	-3%	-3%
5	96	-2%	0%
6	96	1%	2%
7	95	0%	2%
8	96	2%	1%
9	94	2%	3%
10	94	3%	3%
11	93	5%	2%
12	90	5%	-4%
13	91	1%	-7%
14	92	2%	-6%
15	93	-2%	0%
16	91	0%	-7%



BEAM DETAILS



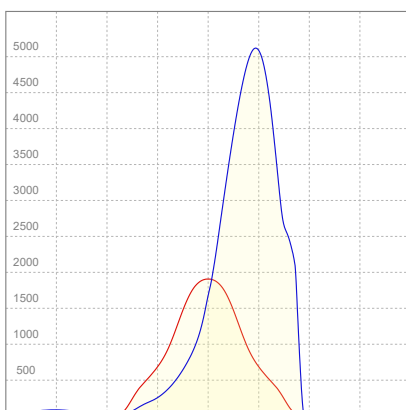
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
65,2°	124,9°	149,3°	75,0%	47,9%



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	1791lx	448lx	199lx	112lx	72lx	32lx	18lx	8lx	4lx	3lx	2lx	1lx	1lx
Footcand.	166fcd	42fcd	18fcd	10fcd	7fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,3m	2,6m	3,8m	5,1m	6,4m	9,6m	12,8m	19,2m	25,6m	32m	38,4m	51,2m	64m
Beam wid.	4,2ft	8,4ft	12,5ft	16,8ft	21ft	31,5ft	42ft	63ft	84ft	104,9ft	125,9ft	167,9ft	209,9ft

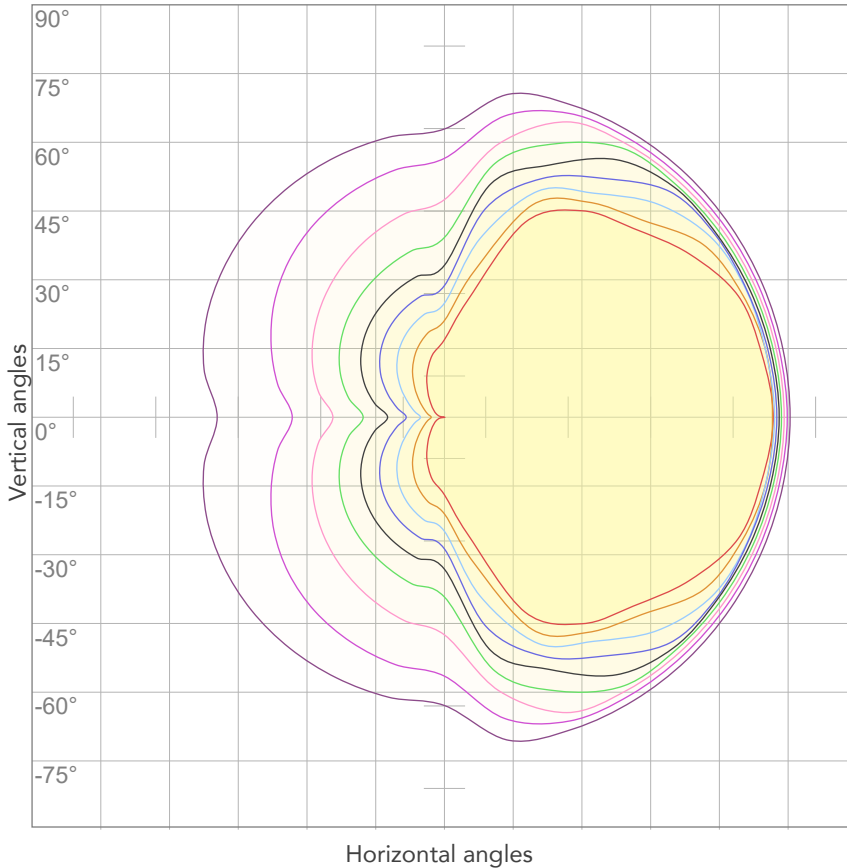
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,732A	163,3W	43lm/W

ISO CANDELA DIAGRAM



10%	179 cd
20%	358 cd
30%	537 cd
40%	716 cd
50%	896 cd
60%	1075 cd
70%	1254 cd
80%	1433 cd

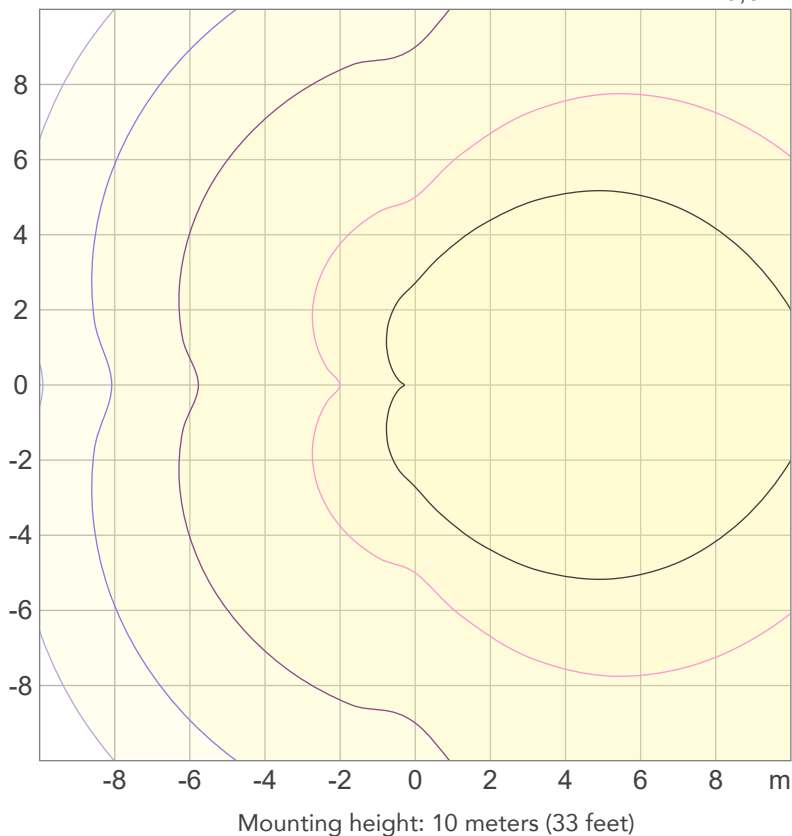
Conditions:

Number of c-planes: 4

Candela at center: 1791 cd

ISO LUX DIAGRAM

MH: 10,0 m



3%	0,537 lx
5%	0,896 lx
10%	1,79 lx
30%	5,37 lx
50%	8,96 lx

Conditions:

Number of c-planes: 4

Lux at center: 17,9 lx

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