



Photometric Test Report



ECLFWIP VW PRL36

Waterproofed High quality Variable
White LED ellipsoidal, with linear CCT
2.700K - 5.600K

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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:

8659 lm

Peak candela output:

31922 cd

Light quality:

CRI: 95,1

Color temperature:

3993 K

PRODUCT NAME:

ECLFWIP VW

MEASURAMENT CONDITIONS:

Beam angle:

PRL36

Target:

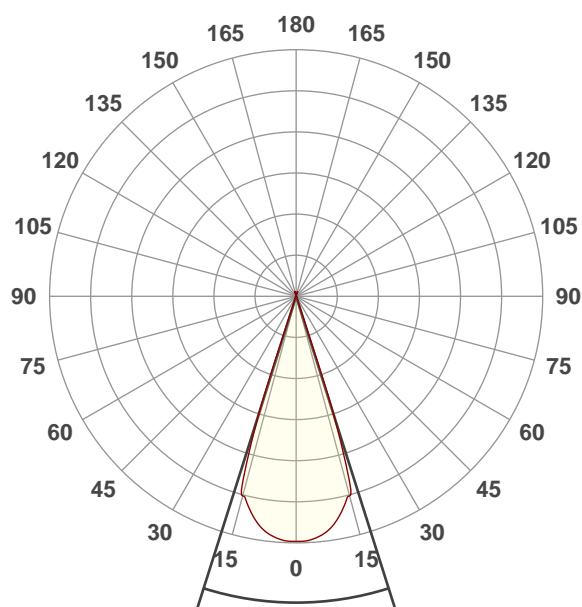
Full On

Operator:

Paolo Carvone

Date and time:

11/06/2021 12:55:01

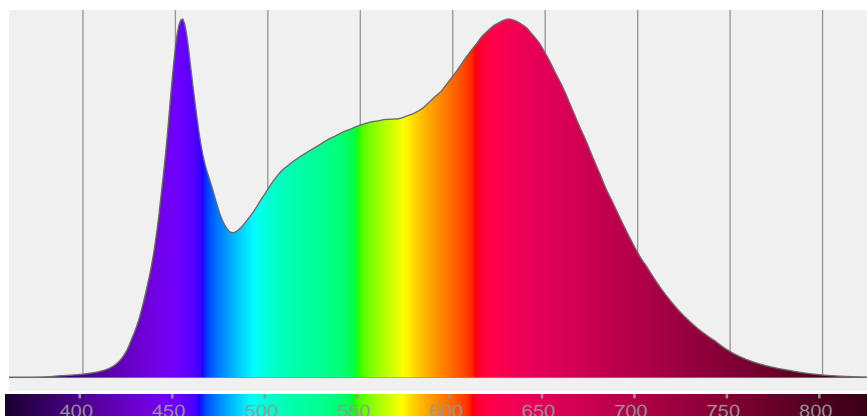


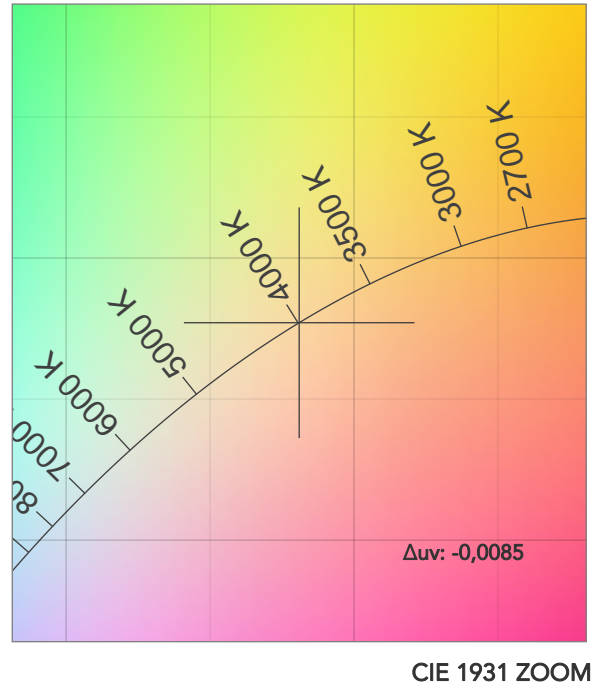
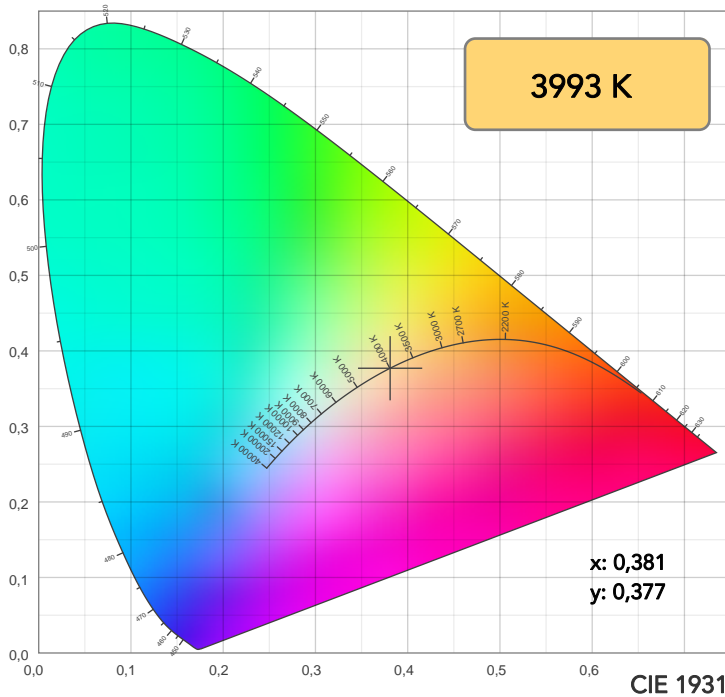
Beam angle 50%: 35,2°

Field angle 10%: 38,3°

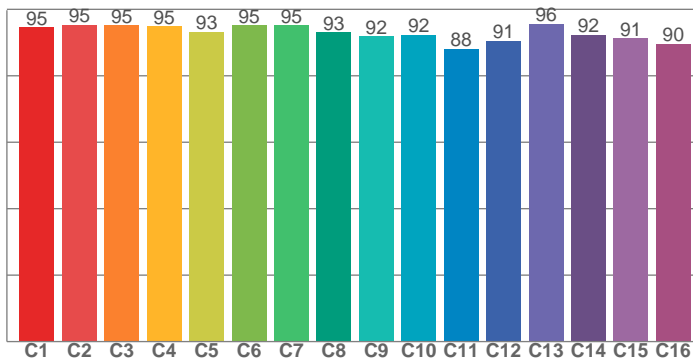
Cut off angle 2.5%: 39,1°

Spectra

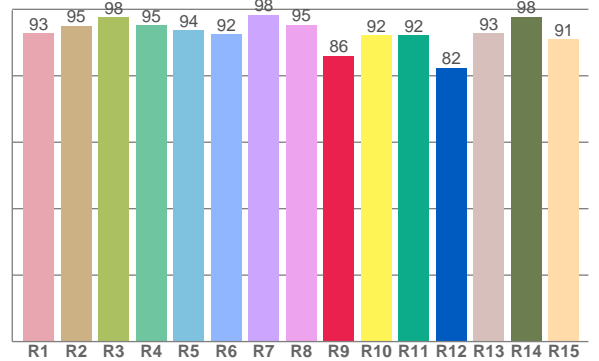




TM30: 93,0



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
92,8	95,0	97,6	95,2	93,7	92,4	98,4	95,3	86,0	92,2	92,1	82,4	92,8	97,8	91,1

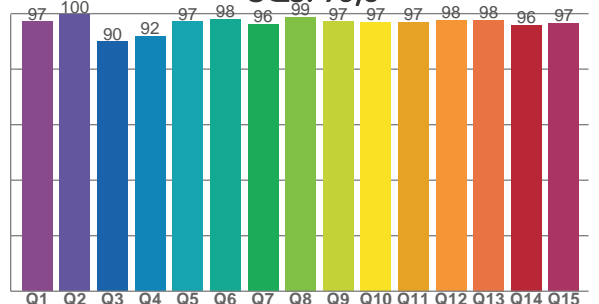
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,6	95,3	95,1	94,9	93,3	95,2	95,2	93,1	91,9	92,3	88,1	90,6	95,7	92,3	91,3	89,6

CQS Q values

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

CQS: 95,8



COLOR PARAMETERS

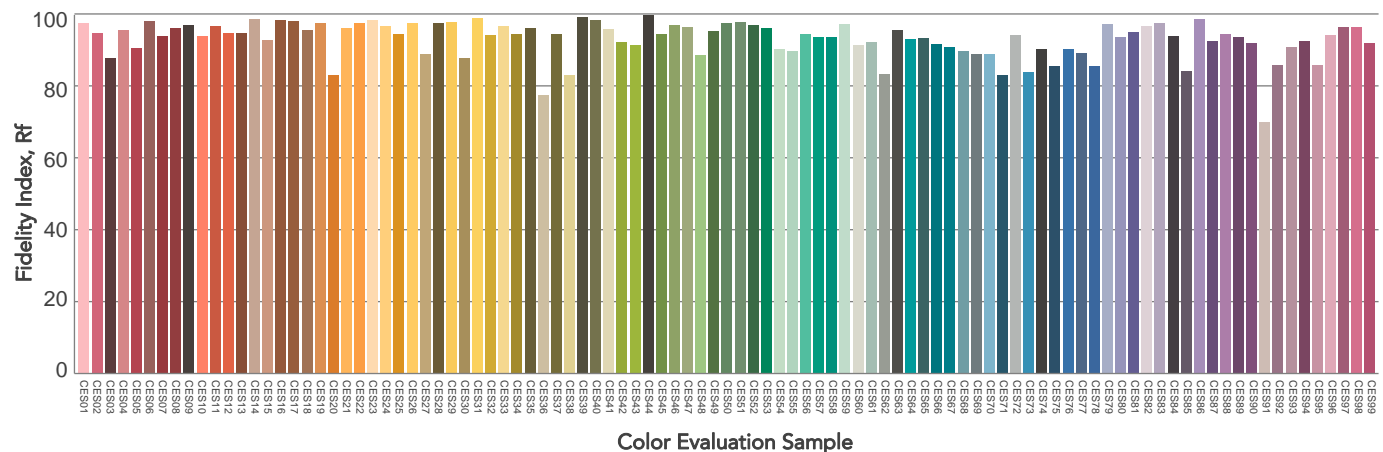
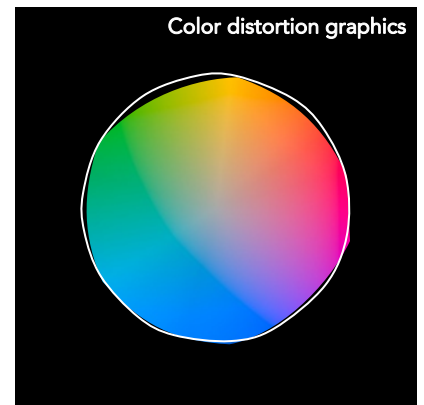
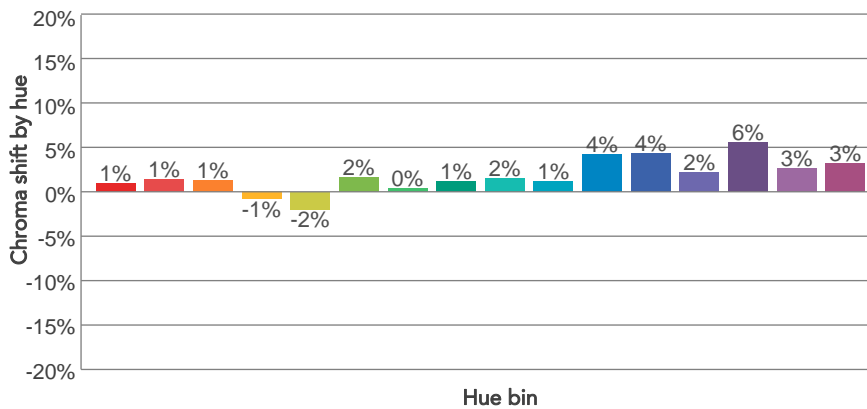
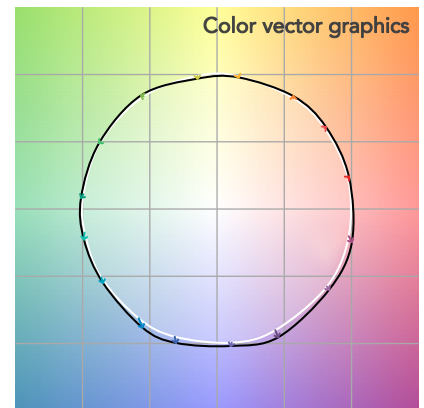
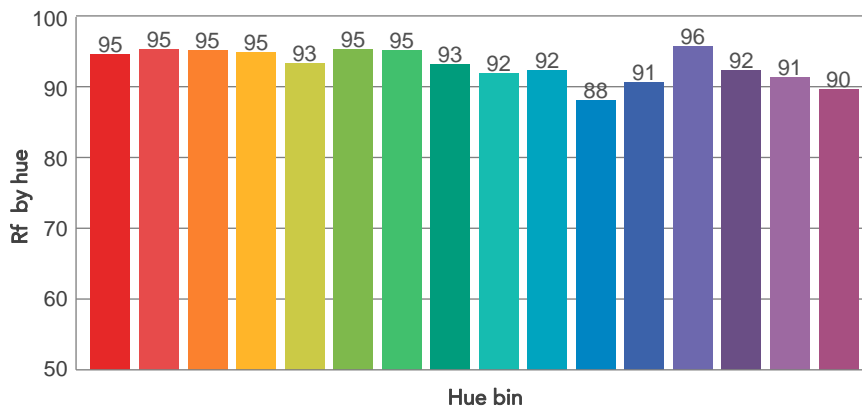
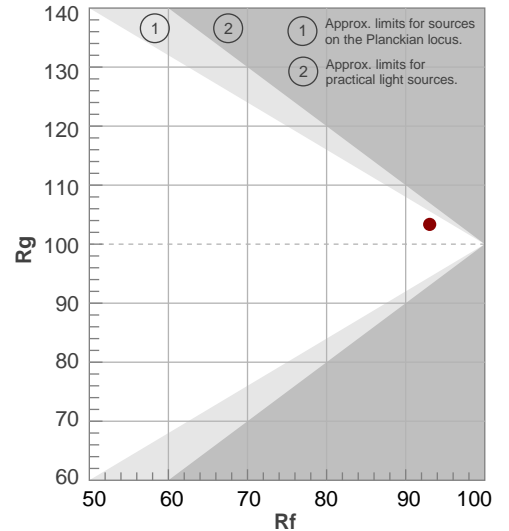
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3993 K	95,1	86,0	93,0	103,3	95,8	98	0,381	0,377	-0,0085

TM30 DETAILS

Rf 93,0
Fidelity index Rf

Rg 103,3
Gammut index

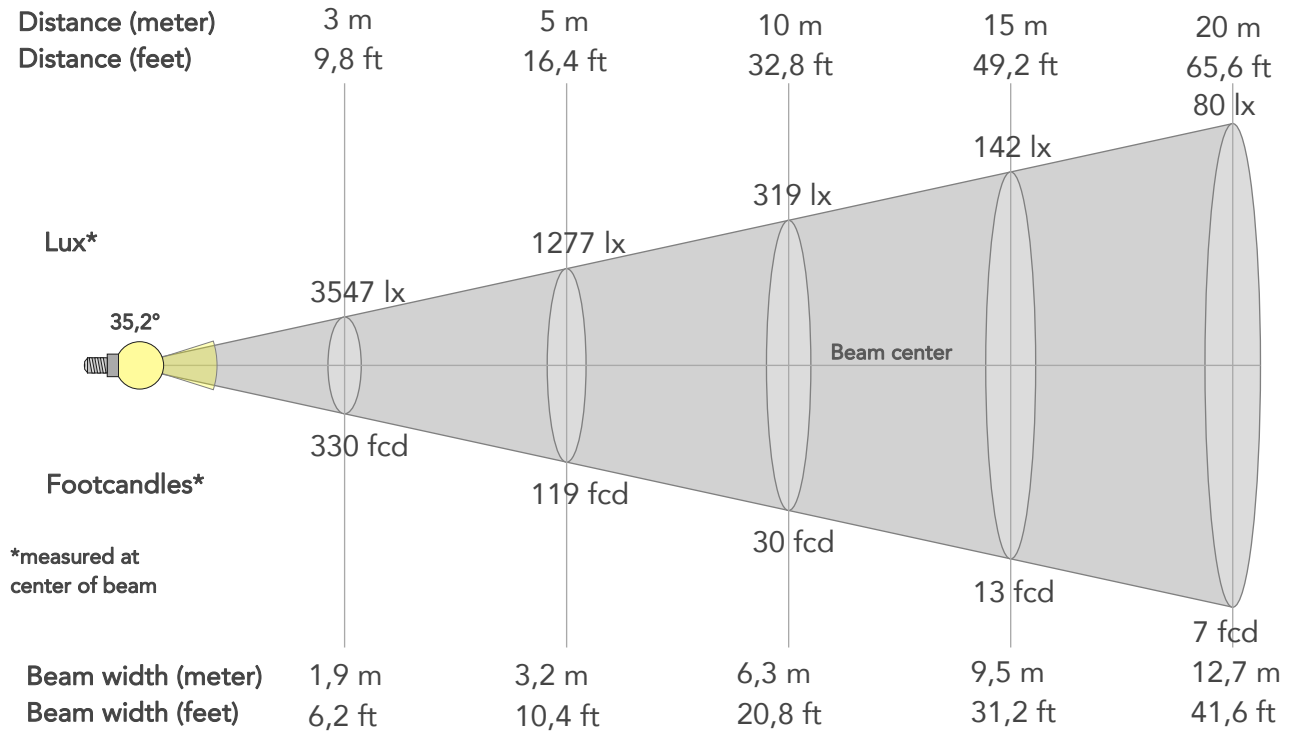
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	1%	1%
2	95	1%	0%
3	95	1%	1%
4	95	-1%	-1%
5	93	-2%	0%
6	95	2%	1%
7	95	0%	2%
8	93	1%	3%
9	92	2%	5%
10	92	1%	4%
11	88	4%	6%
12	91	4%	2%
13	96	2%	-1%
14	92	6%	-1%
15	91	3%	-1%
16	90	3%	-4%



BEAM DETAILS



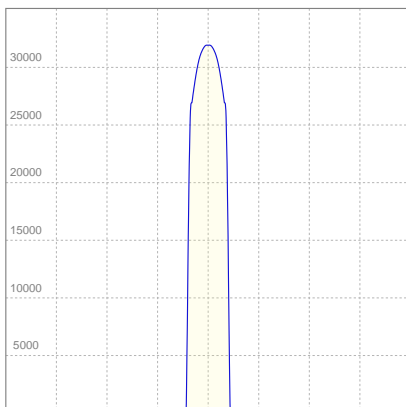
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
35,2°	38,3°	39,1°	100,0%	100,0%



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	31922lx	7980lx	3547lx	1995lx	1277lx	567lx	319lx	142lx	80lx	51lx	35lx	20lx	13lx
Footcand.	2966fcd	741fcd	330fcd	185fcd	119fcd	53fcd	30fcd	13fcd	7fcd	5fcd	3fcd	2fcd	1fcd
Beam wid.	0,6m	1,3m	1,9m	2,5m	3,2m	4,8m	6,3m	9,5m	12,7m	15,8m	19m	25,3m	31,7m
Beam wid.	2,1ft	4,2ft	6,2ft	8,3ft	10,4ft	15,6ft	20,8ft	31,2ft	41,6ft	52ft	62,3ft	83,1ft	103,9ft

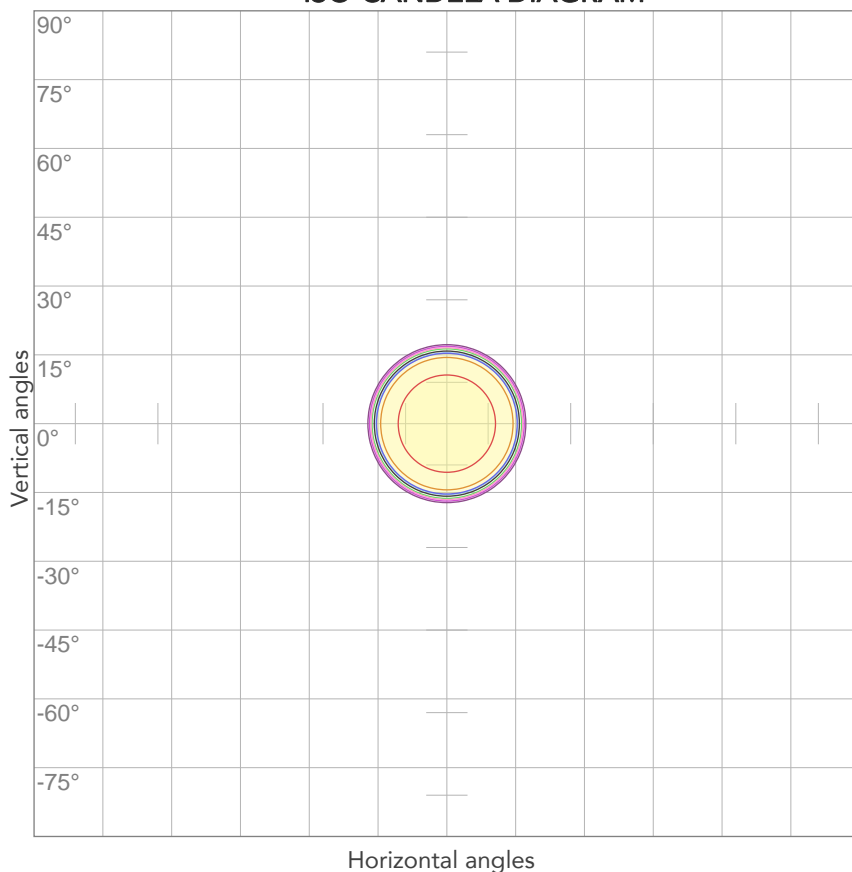
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	1,19A	260,5W	33lm/W
Power Fc			
0,98			

ISO CANDELA DIAGRAM



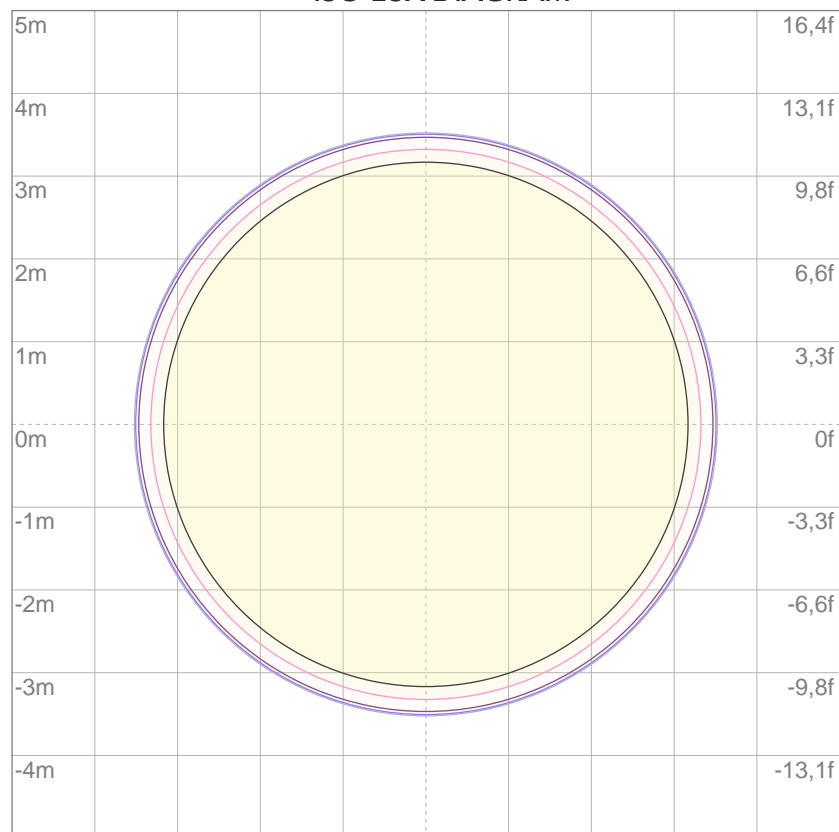
10%	3192 cd
20%	6384 cd
30%	9577 cd
40%	12769 cd
50%	15961 cd
60%	19153 cd
70%	22345 cd
80%	25537 cd

Conditions:

Number of c-planes: 2

Candela at center: 31922 cd

ISO LUX DIAGRAM



3%	9,58 lx
5%	16,0 lx
10%	31,9 lx
30%	95,8 lx
50%	160 lx

Conditions:

Number of c-planes: 2

Lux at center: 319 lx

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



Total lumen output:

4801 lm

Peak candela output:

17712 cd

Light quality:

CRI: 96,9

Color temperature:

5610 K

PRODUCT NAME:

ECLFWIP VW

MEASURAMENT CONDITIONS:

Beam angle:

PRL36

Target:

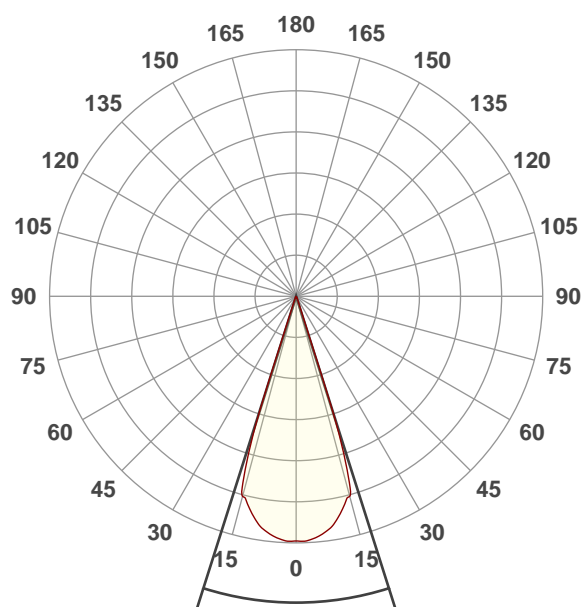
Cold White

Operator:

Paolo Carvone

Date and time:

11/06/2021 12:58:01

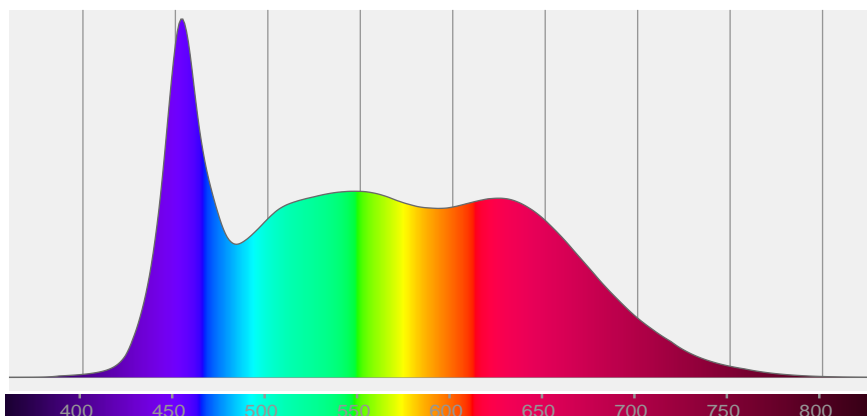


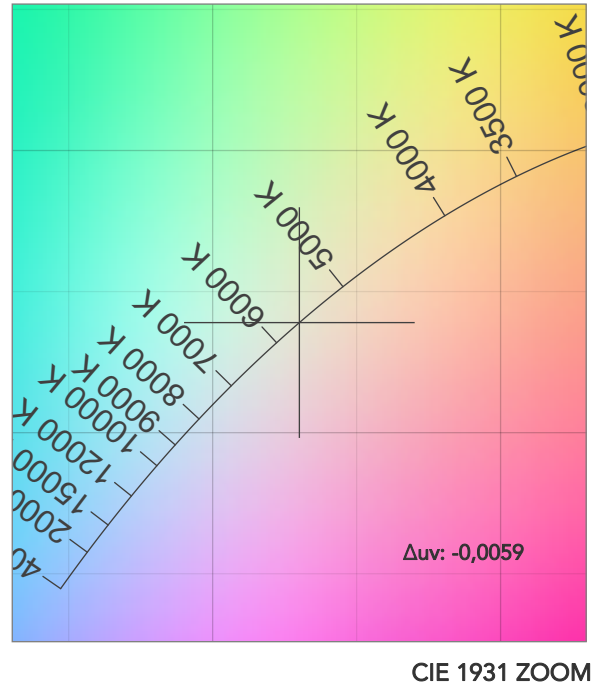
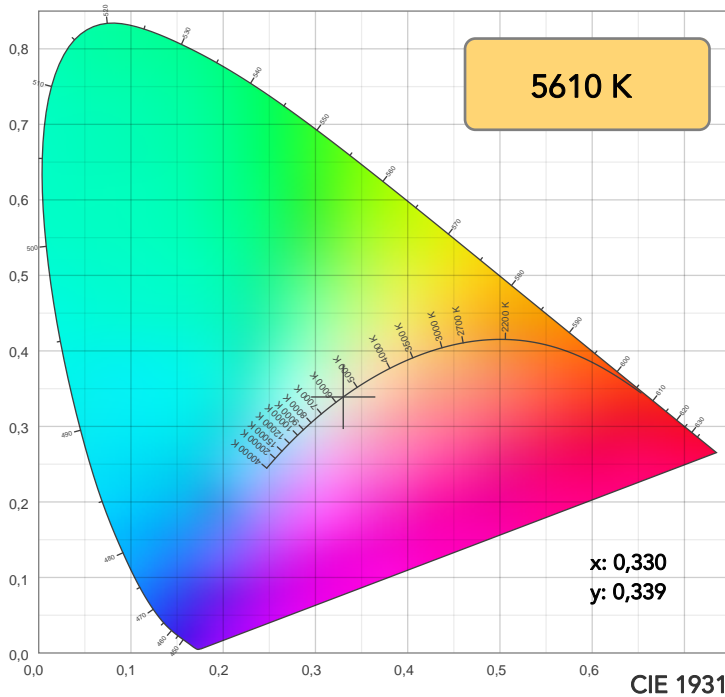
Beam angle 50%: 35,3°

Field angle 10%: 38,1°

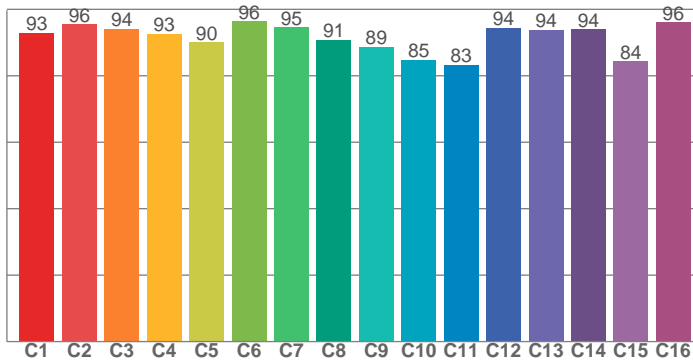
Cut off angle 2.5%: 40,5°

Spectra

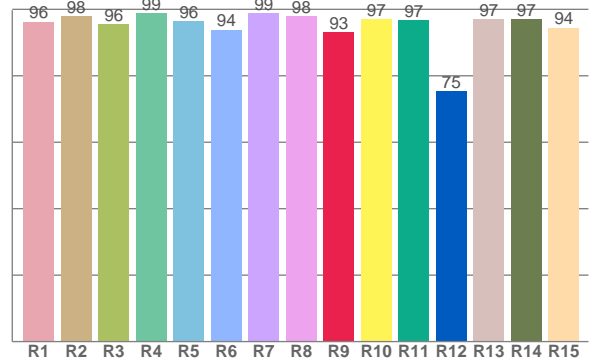




TM30: 91,4



CRI: 96,9 (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
96,2	97,9	95,5	98,8	96,4	93,8	98,7	97,8	93,0	97,0	96,7	75,4	97,0	97,1	94,4

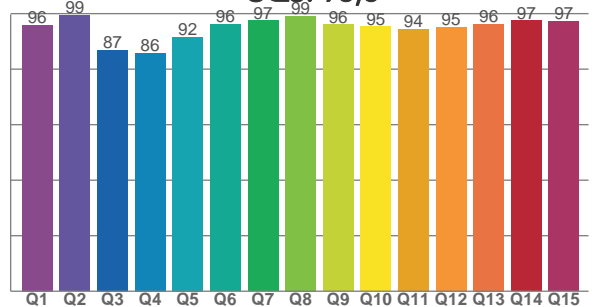
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,0	95,5	94,1	92,7	90,0	96,3	94,6	90,7	88,8	84,9	83,3	94,4	93,9	94,0	84,4	96,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,9	99,4	86,8	85,7	91,6	96,1	97,4	99,1	96,1	95,4	94,4	95,2	96,2	97,5	97,2

CQS: 93,6

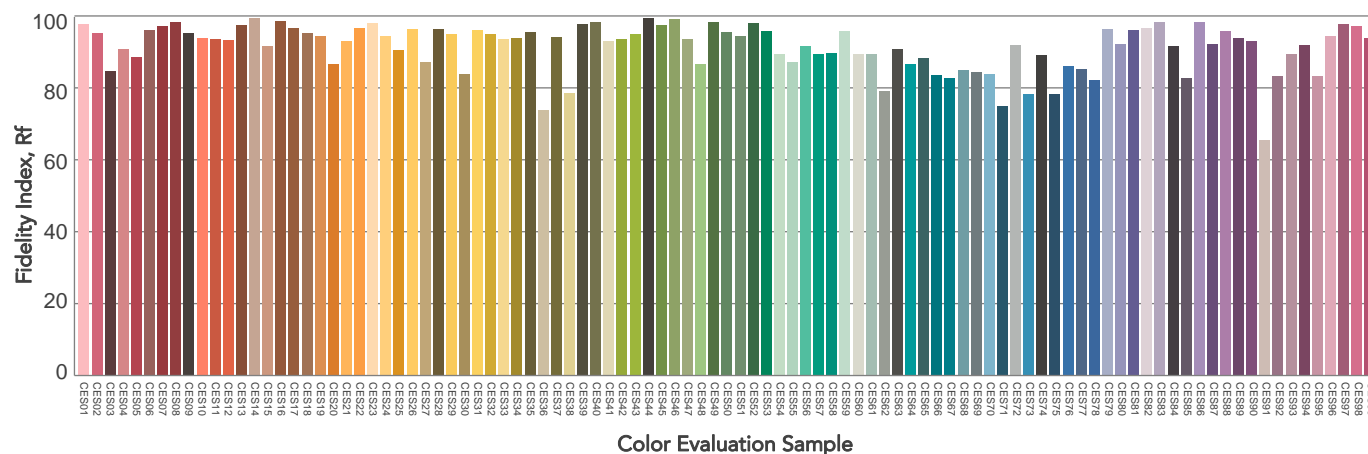
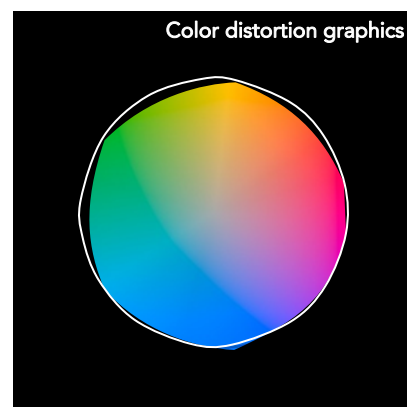
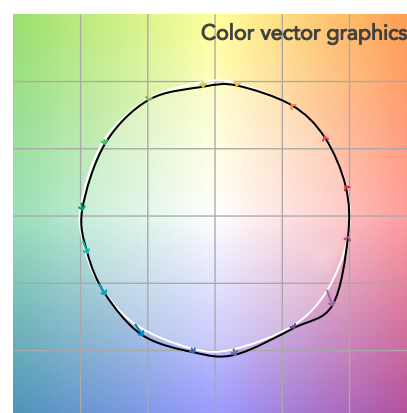
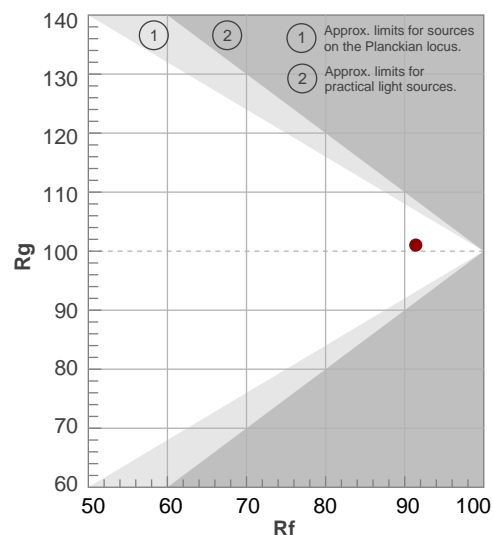


COLOR PARAMETERS

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
5610 K	96,9	93,0	91,4	101,0	93,6	98	0,330	0,339	-0,0059

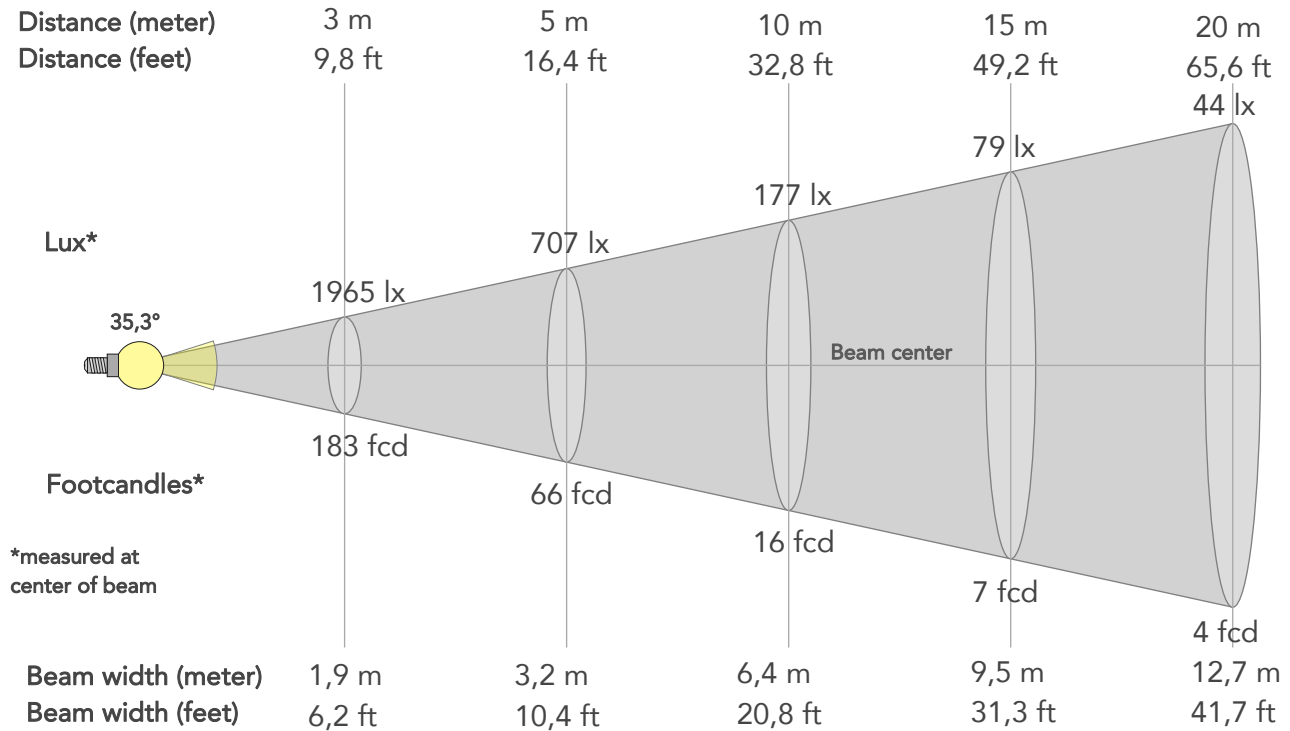
Gammut index

		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	93	0%	1%
2	96	0%	1%
3	94	0%	1%
4	93	-2%	0%
5	90	-3%	0%
6	96	0%	0%
7	95	-2%	2%
8	91	-2%	5%
9	89	-2%	9%
10	85	0%	9%
11	83	4%	9%
12	94	3%	2%
13	94	4%	0%
14	94	2%	0%
15	84	9%	-7%
16	96	0%	0%



BEAM DETAILS

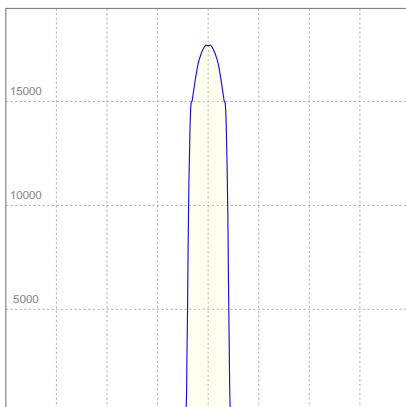
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
35,3°	38,1°	40,5°	100,0%	100,0%



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	17686lx	4422lx	1965lx	1105lx	707lx	314lx	177lx	79lx	44lx	28lx	20lx	11lx	7lx
Footcand.	1643fcd	411fcd	183fcd	103fcd	66fcd	29fcd	16fcd	7fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,6m	1,3m	1,9m	2,5m	3,2m	4,8m	6,4m	9,5m	12,7m	15,9m	19,1m	25,4m	31,8m
Beam wid.	2,1ft	4,2ft	6,2ft	8,3ft	10,4ft	15,6ft	20,8ft	31,3ft	41,7ft	52,1ft	62,5ft	83,4ft	104,2ft

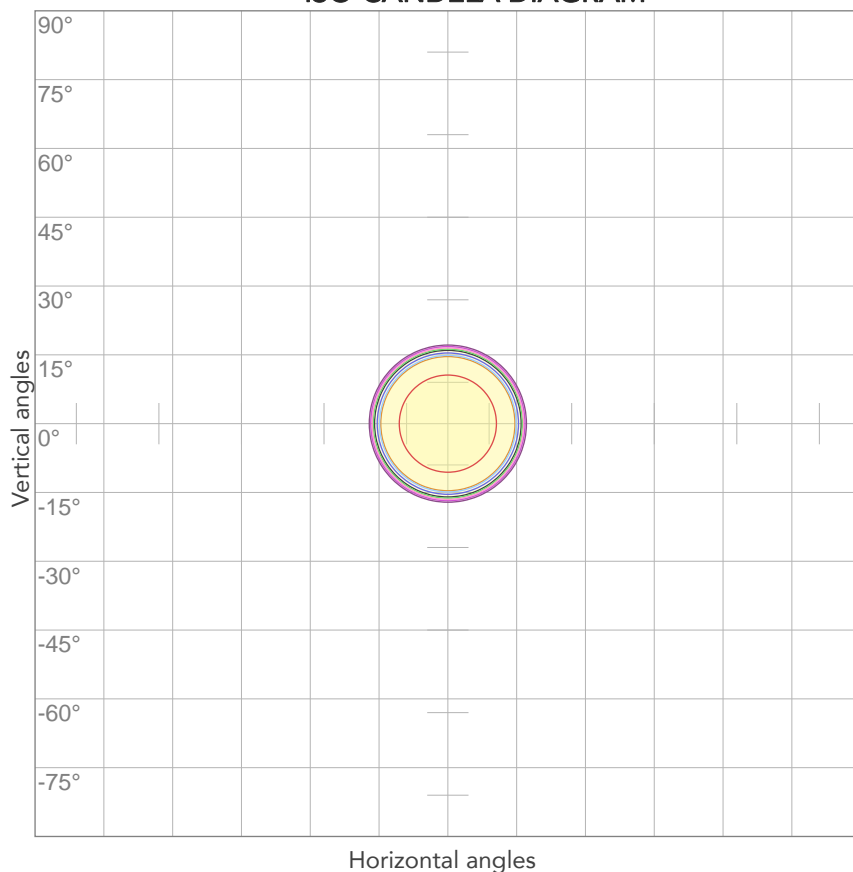
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,618A	130,3W	37lm/W
Power Fc			
0,98			

ISO CANDELA DIAGRAM



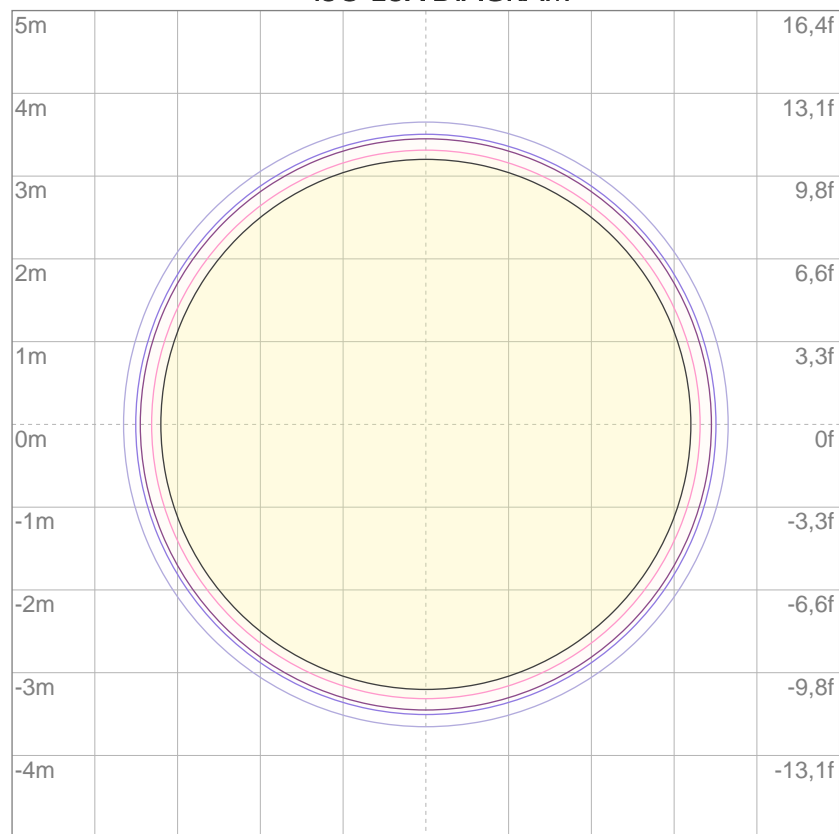
10%	1769 cd
20%	3537 cd
30%	5306 cd
40%	7074 cd
50%	8843 cd
60%	10612 cd
70%	12380 cd
80%	14149 cd

Conditions:

Number of c-planes: 2

Candela at center: 17686 cd

ISO LUX DIAGRAM



3%	5,31 lx
5%	8,84 lx
10%	17,7 lx
30%	53,1 lx
50%	88,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 177 lx

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



Total lumen output:

3955 lm

Peak candela output:

14617 cd

Light quality:

CRI: 96,7

Color temperature:

2711 K

PRODUCT NAME:

ECLFWIP VW

MEASURAMENT CONDITIONS:

Beam angle:

PRL36

Target:

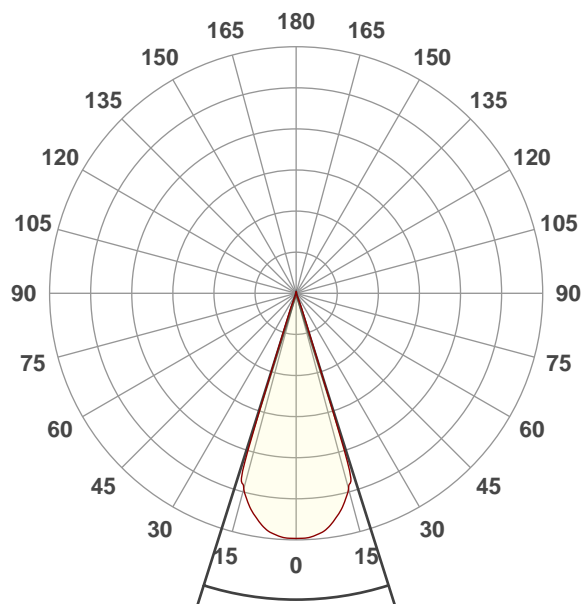
Warm White

Operator:

Paolo Carvone

Date and time:

11/06/2021 12:56:33

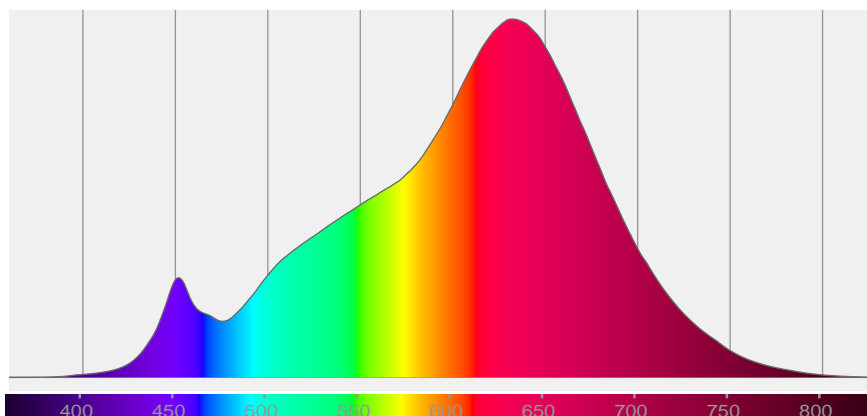


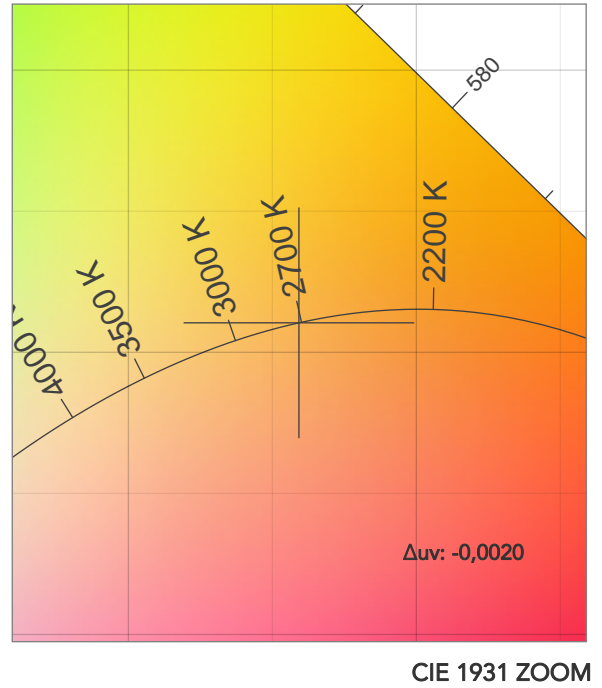
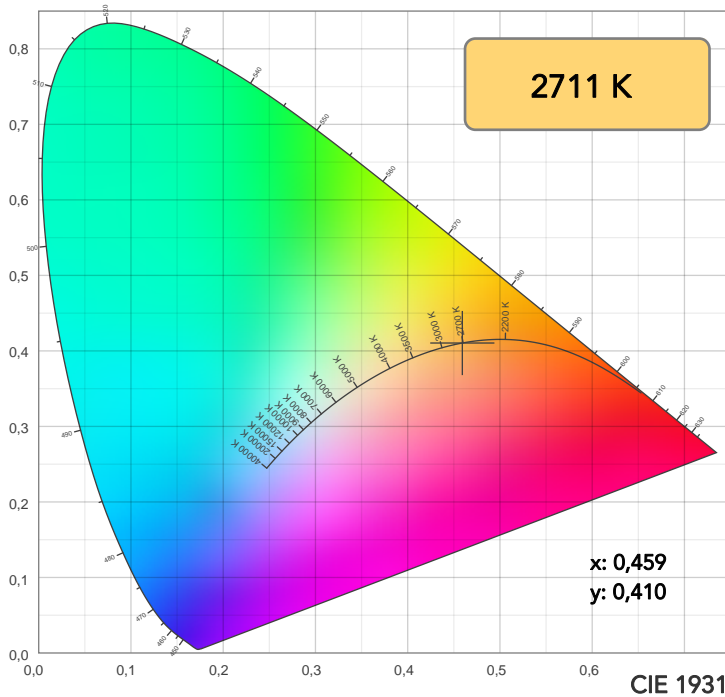
Beam angle 50%: 35,1°

Field angle 10%: 38,2°

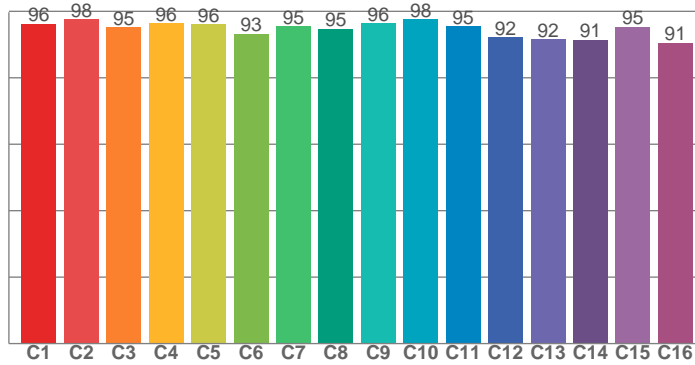
Cut off angle 2.5%: 40,1°

Spectra

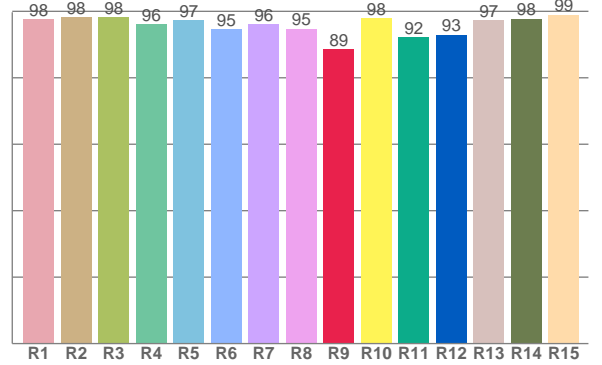




TM30: 95,0



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
97,7	98,3	98,2	96,2	97,2	94,7	96,2	94,7	88,6	97,9	92,2	93,0	97,3	97,7	98,9

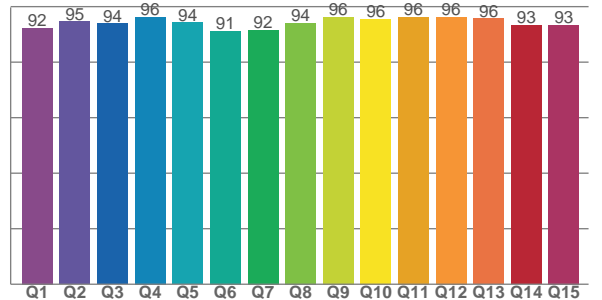
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,1	97,6	95,2	96,4	96,1	93,2	95,5	94,6	96,4	97,6	95,5	92,1	91,6	91,4	95,3	90,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,4	94,6	93,9	96,3	94,3	91,3	91,6	94,1	96,2	95,6	96,2	96,2	95,7	93,3	93,3

CQS: 93,9



COLOR PARAMETERS

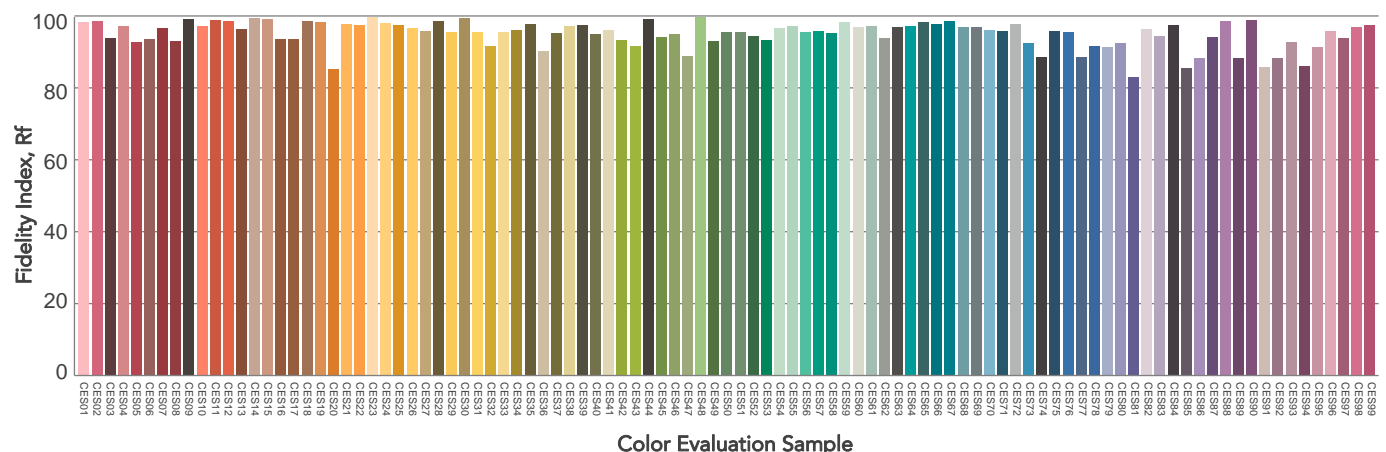
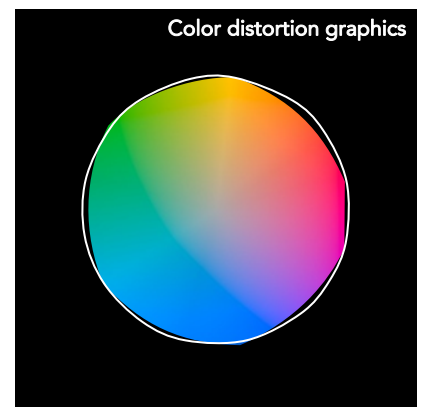
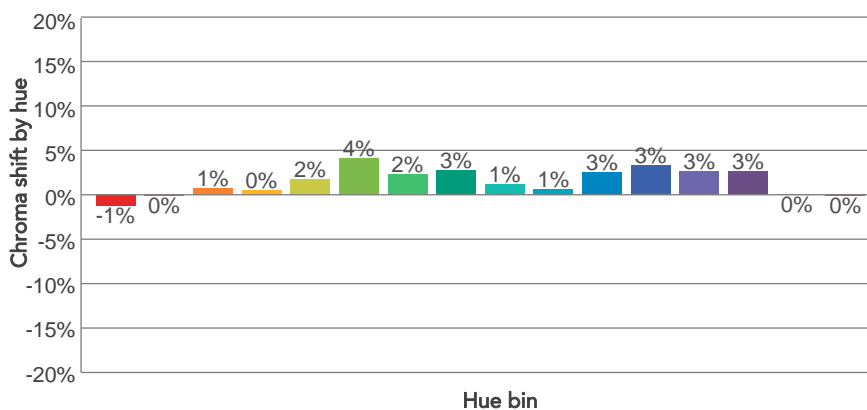
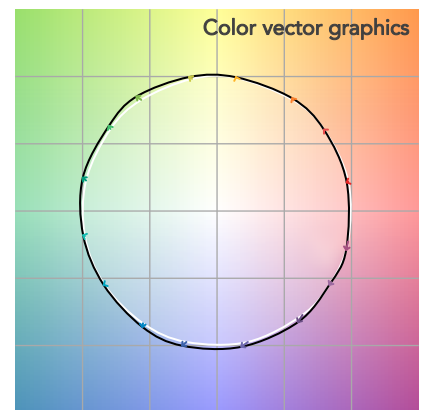
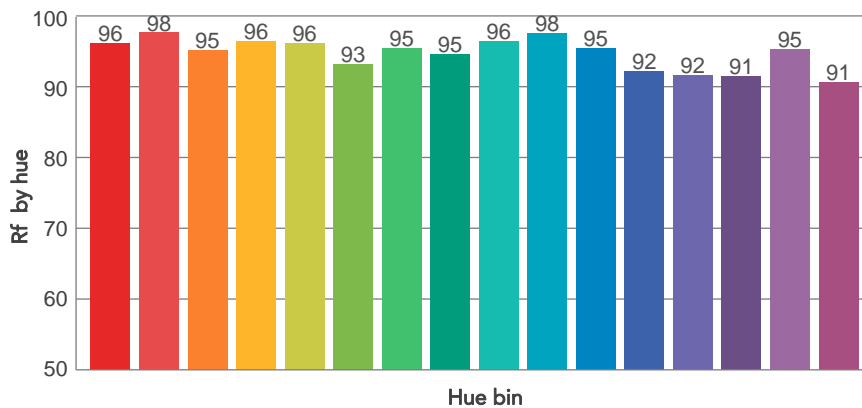
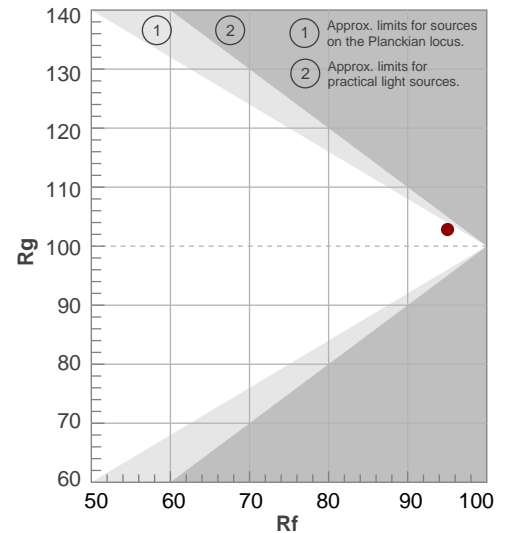
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2711 K	96,7	88,6	95,0	102,8	93,9	97	0,459	0,410	-0,0020

TM30 DETAILS

Rf 95,0
Fidelity index Rf

Rg 102,8
Gammut index

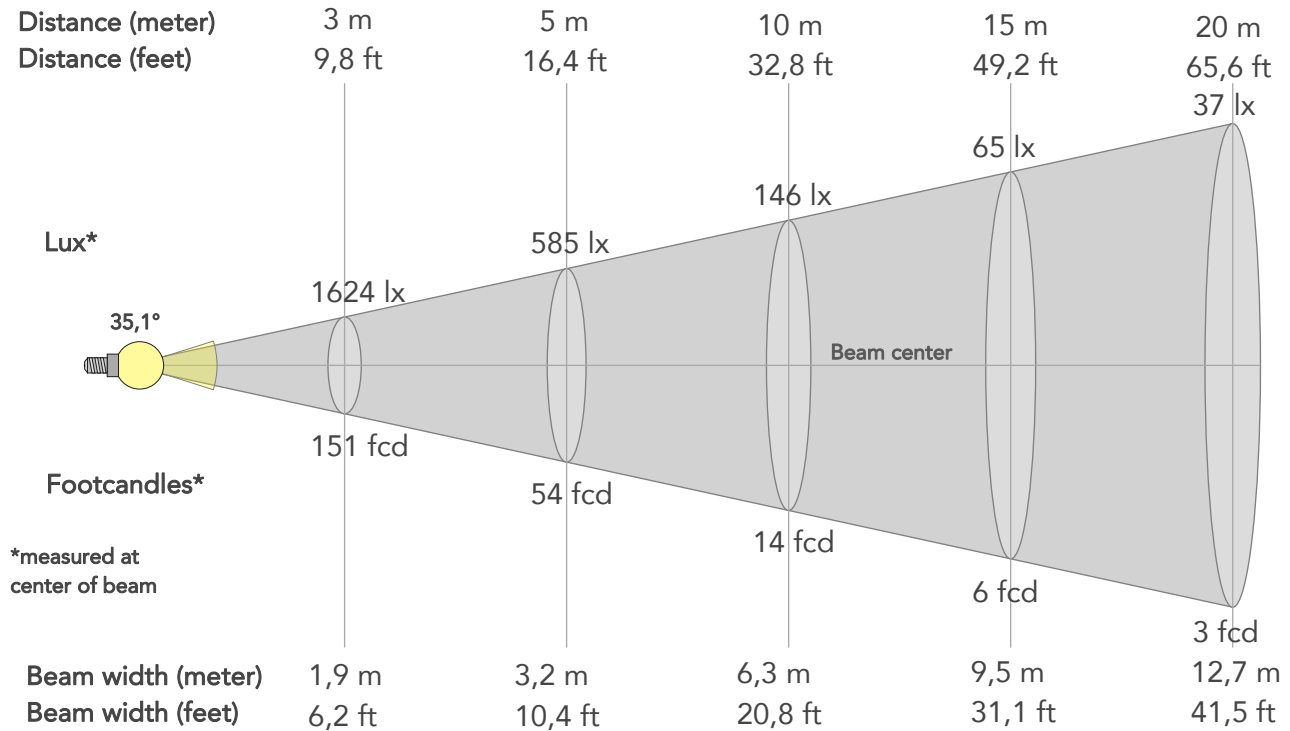
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	-1%	0%
2	98	0%	1%
3	95	1%	2%
4	96	0%	0%
5	96	2%	2%
6	93	4%	2%
7	95	2%	-1%
8	95	3%	-2%
9	96	1%	-1%
10	98	1%	0%
11	95	3%	1%
12	92	3%	-3%
13	92	3%	-5%
14	91	3%	-6%
15	95	0%	-2%
16	91	0%	-6%



BEAM DETAILS



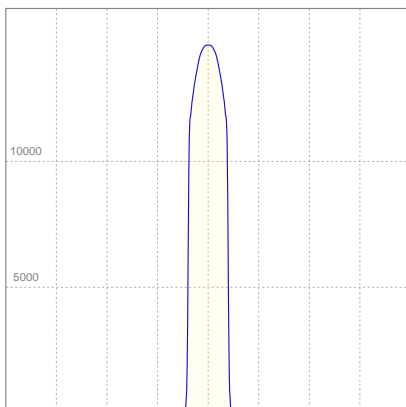
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
35,1°	38,2°	40,1°	100,0%	100,0%



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	14617lx	3654lx	1624lx	914lx	585lx	260lx	146lx	65lx	37lx	23lx	16lx	9lx	6lx
Footcand.	1358fcd	339fcd	151fcd	85fcd	54fcd	24fcd	14fcd	6fcd	3fcd	2fcd	2fcd	1fcd	1fcd
Beam wid.	0,6m	1,3m	1,9m	2,5m	3,2m	4,7m	6,3m	9,5m	12,7m	15,8m	19m	25,3m	31,6m
Beam wid.	2,1ft	4,2ft	6,2ft	8,3ft	10,4ft	15,6ft	20,8ft	31,1ft	41,5ft	51,9ft	62,3ft	83ft	103,8ft

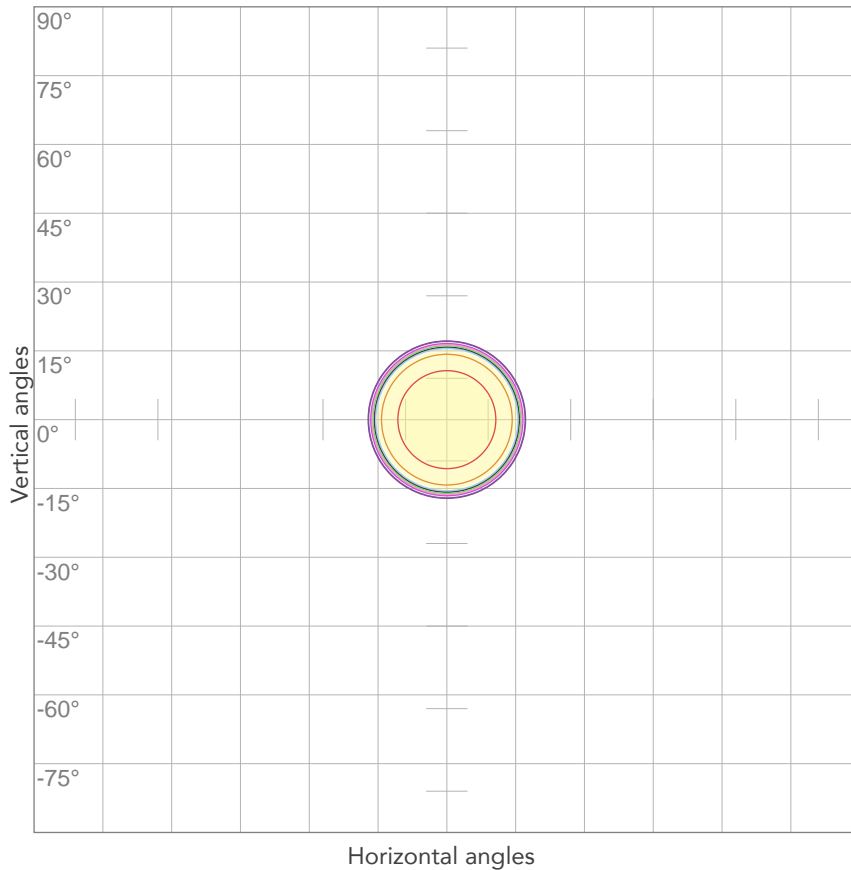
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,628A	132,3W	30lm/W
Power Fc			
0,98			

ISO CANDELA DIAGRAM



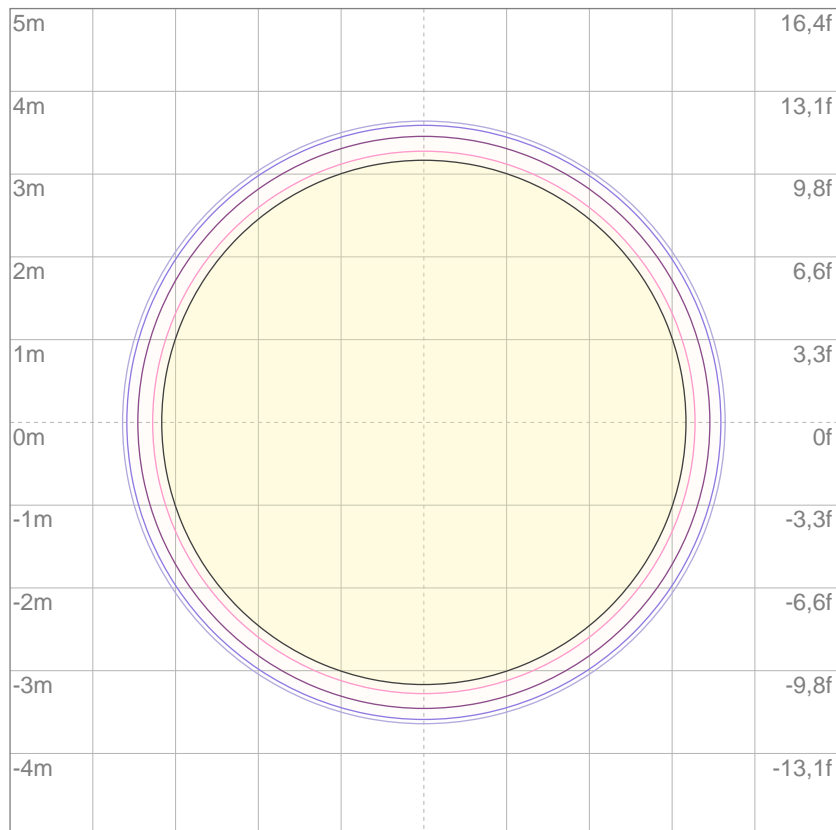
10%	1462 cd
20%	2923 cd
30%	4385 cd
40%	5847 cd
50%	7308 cd
60%	8770 cd
70%	10232 cd
80%	11693 cd

Conditions:

Number of c-planes: 2

Candela at center: 14617 cd

ISO LUX DIAGRAM



3%	4,38 lx
5%	7,31 lx
10%	14,6 lx
30%	43,8 lx
50%	73,1 lx

Conditions:

Number of c-planes: 2

Lux at center: 146 lx

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