

# Photometric Test Report



## ECLFWVW PRL26

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:

7951 lm

Peak candela output:

68966 cd

Light quality:

CRI: 95,4

Color temperature:

3998 K

PRODUCT NAME:

ECLFWWW

MEASURAMENT CONDITIONS:

Beam angle:

PRL26

Target:

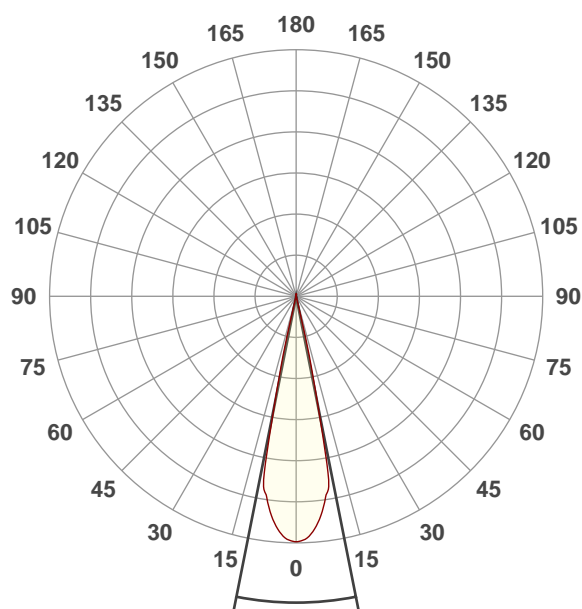
Full On

Operator:

Paolo Carvone

Date and time:

11/06/2021 12:23:32

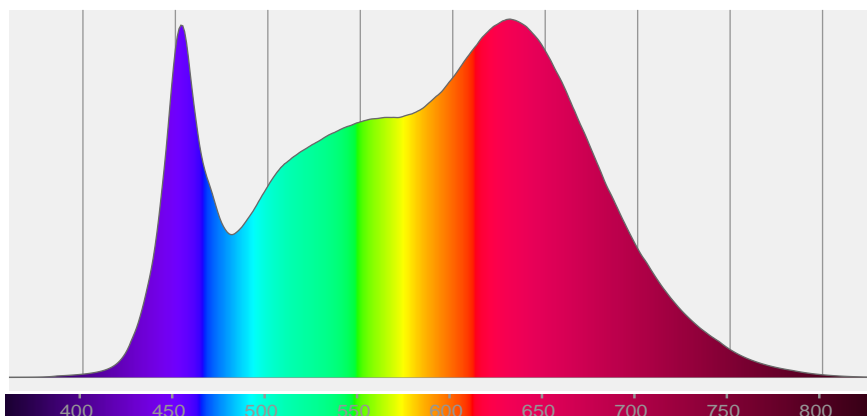


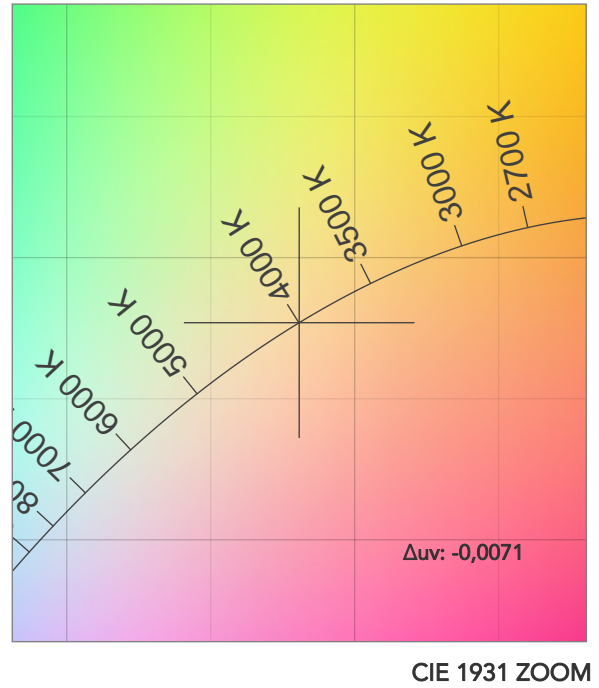
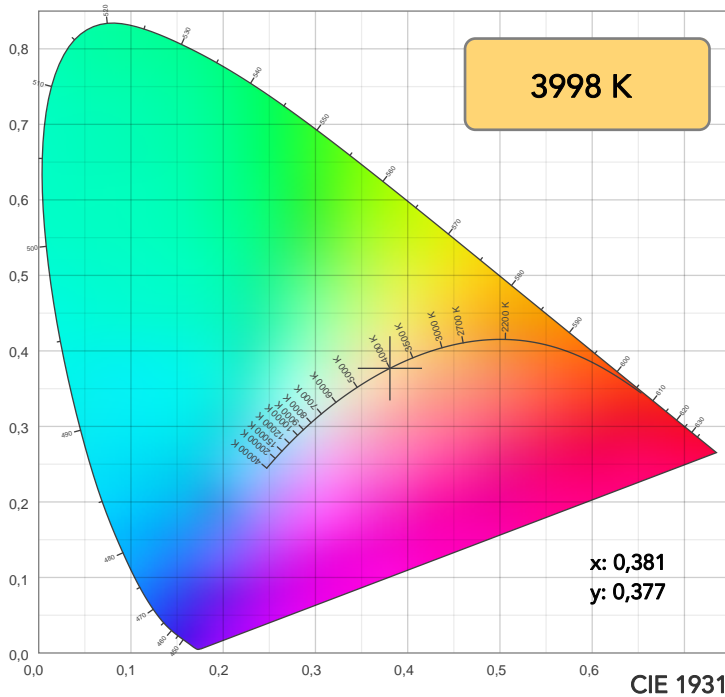
Beam angle 50%: 22,5°

Field angle 10%: 27°

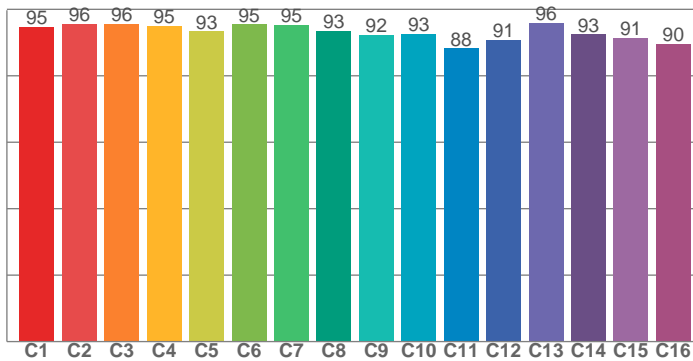
Cut off angle 2.5%: 28,1°

Spectra

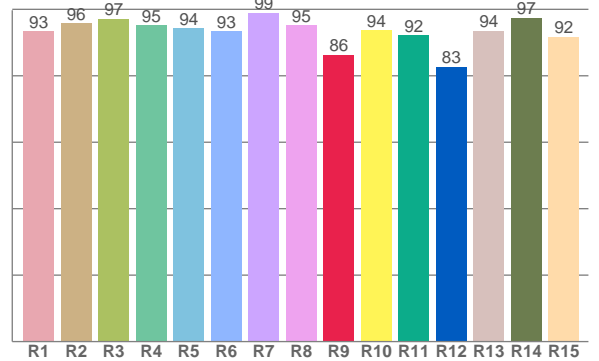




**TM30: 93,2**



**CRI: 95,4 (R1-R8)**



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93,4	95,8	97,2	95,3	94,3	93,4	99,0	95,2	86,4	93,7	92,2	82,7	93,5	97,5	91,7

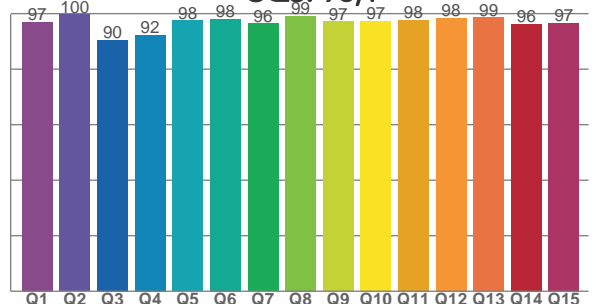
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,8	95,7	95,6	95,0	93,3	95,4	95,3	93,4	92,2	92,6	88,3	90,8	96,0	92,5	91,4	89,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,0	99,7	90,4	92,4	97,5	98,1	96,4	99,2	97,2	97,3	97,7	98,5	98,6	96,3	96,6

**CQS: 96,1**



## COLOR PARAMETERS

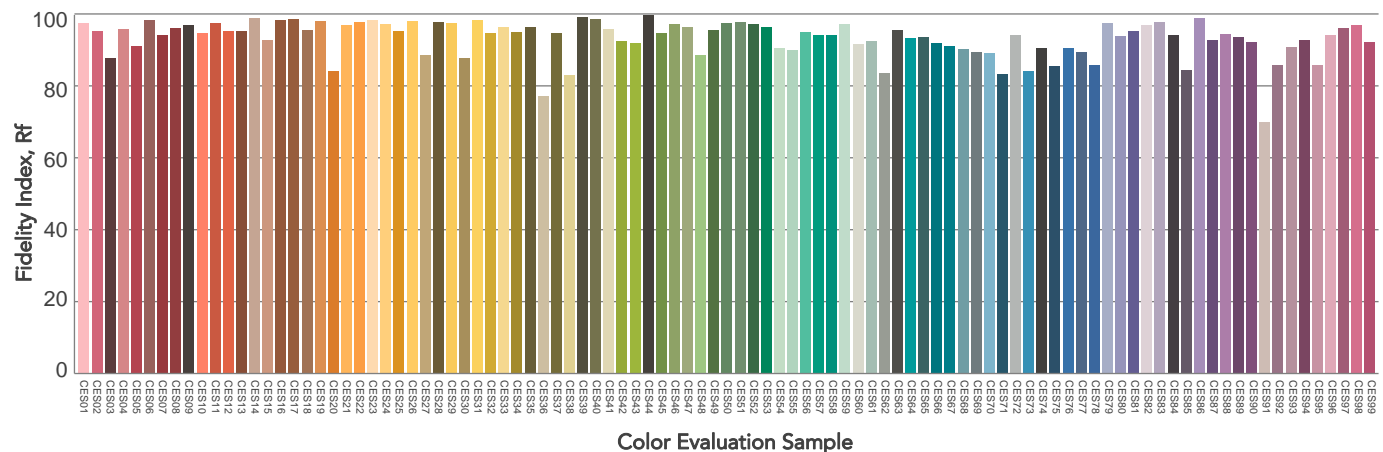
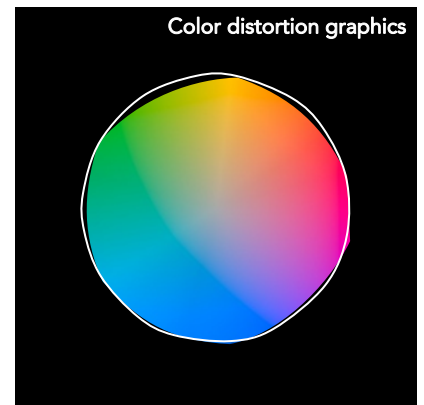
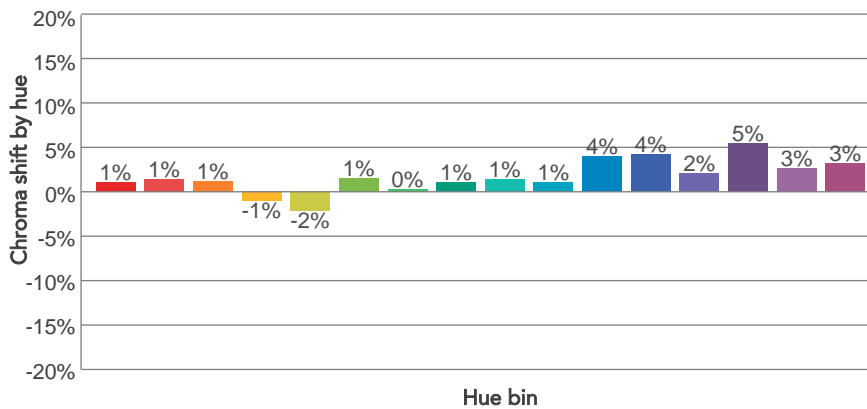
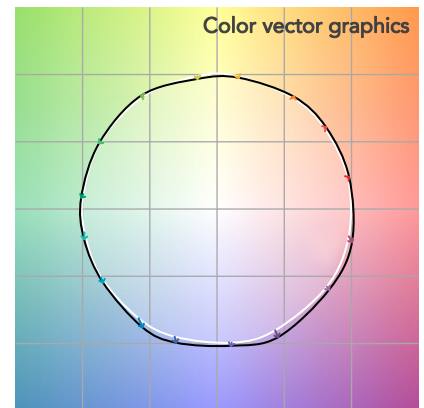
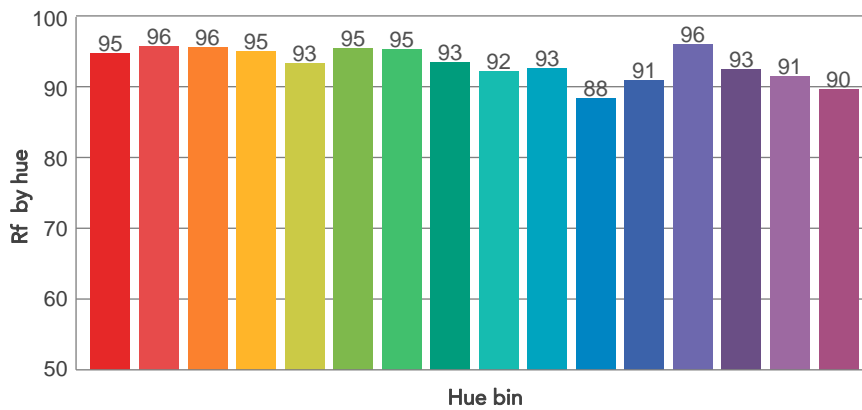
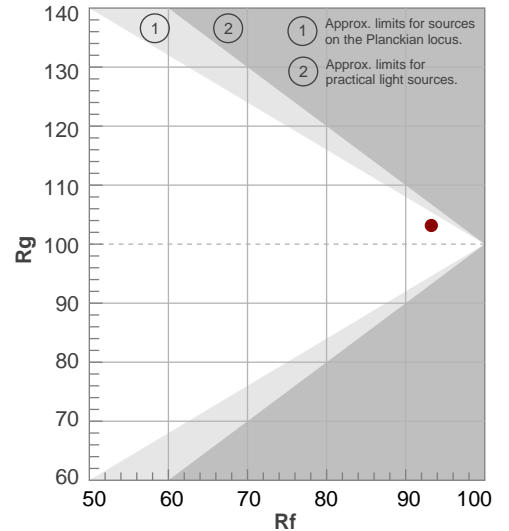
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3998 K	95,4	86,4	93,2	103,2	96,1	98	0,381	0,377	-0,0071

# TM30 DETAILS

**Rf 93,2**  
Fidelity index Rf

**Rg 103,2**  
Gammut index

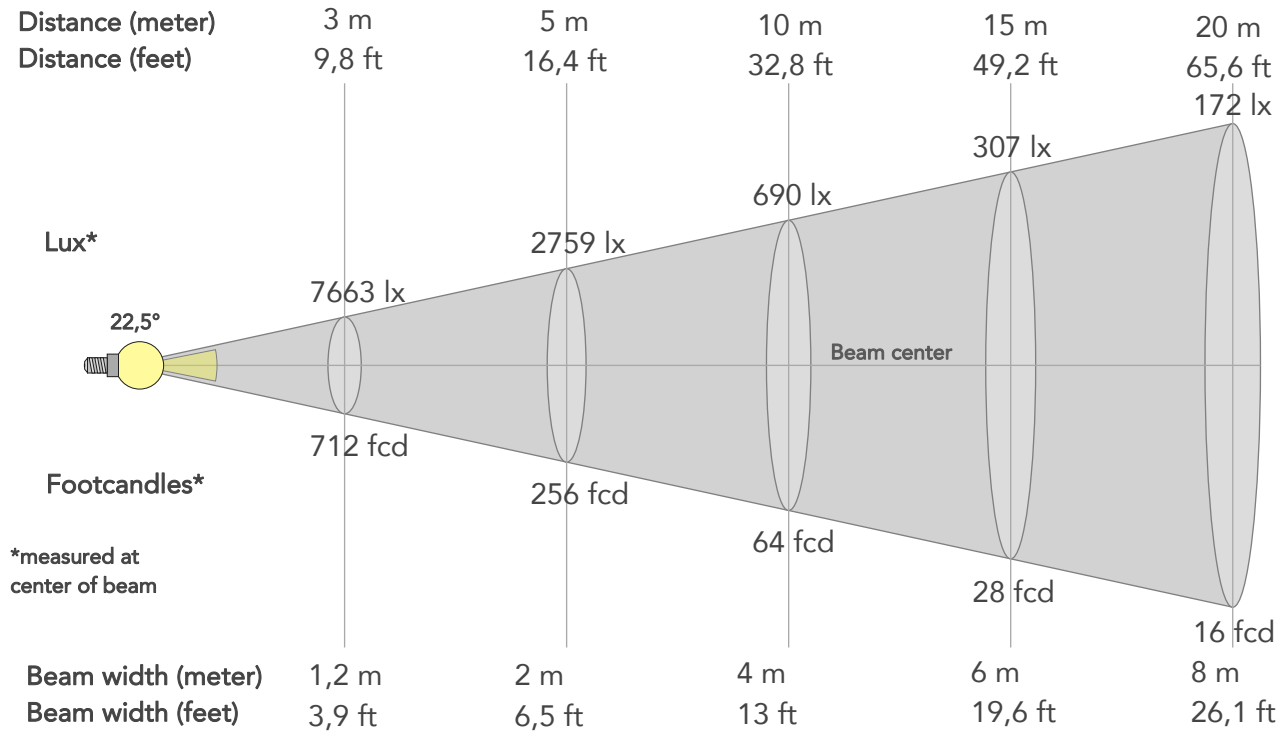
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	1%	0%
2	96	1%	0%
3	96	1%	1%
4	95	-1%	-1%
5	93	-2%	0%
6	95	1%	1%
7	95	0%	2%
8	93	1%	3%
9	92	1%	5%
10	93	1%	4%
11	88	4%	6%
12	91	4%	2%
13	96	2%	-1%
14	93	5%	-1%
15	91	3%	-1%
16	90	3%	-4%



# BEAM DETAILS



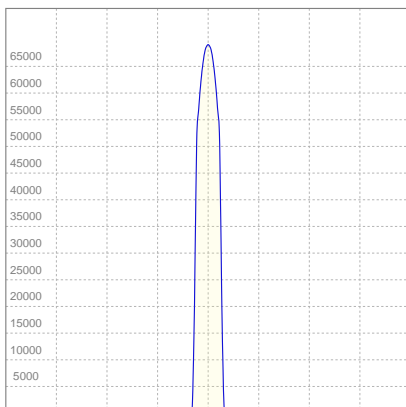
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,5°	27°	28,1°	100,0%	100,0%



## 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	68966lx	17241lx	7663lx	4310lx	2759lx	1226lx	690lx	307lx	172lx	110lx	77lx	43lx	28lx
Footcand.	6407fcd	1602fcd	712fcd	400fcd	256fcd	114fcd	64fcd	28fcd	16fcd	10fcd	7fcd	4fcd	3fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	4m	6m	8m	9,9m	11,9m	15,9m	19,9m
Beam wid.	1,3ft	2,6ft	3,9ft	5,2ft	6,5ft	9,8ft	13ft	19,6ft	26,1ft	32,6ft	39,1ft	52,2ft	65,2ft

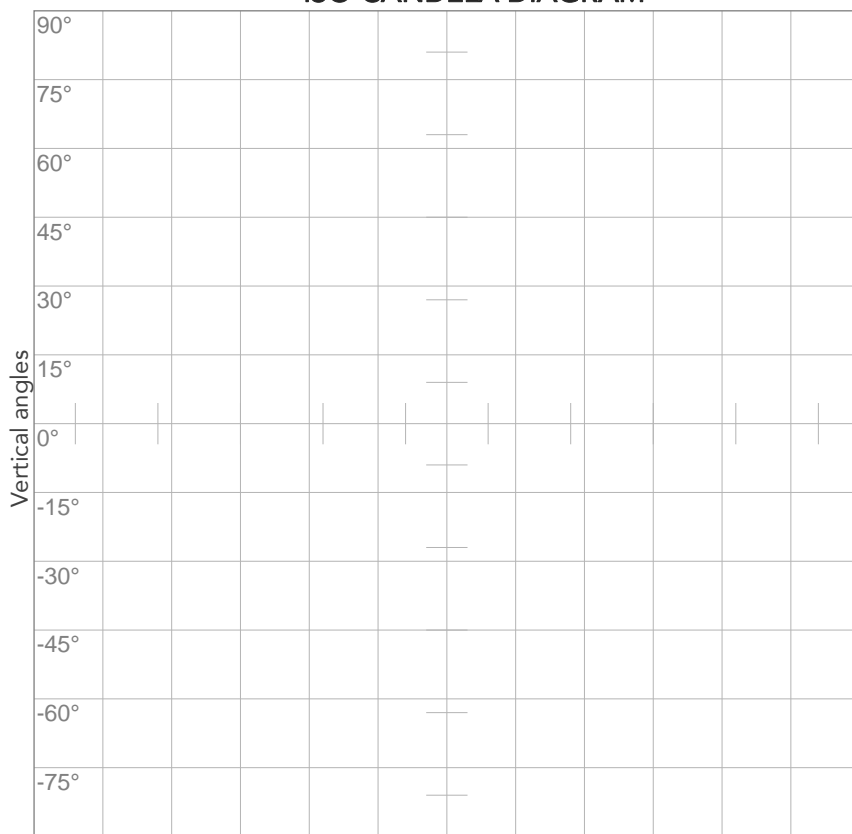
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
228V	1,20A	263W	30lm/W
Power Fc			
0,97			

## ISO CANDELA DIAGRAM



Horizontal angles

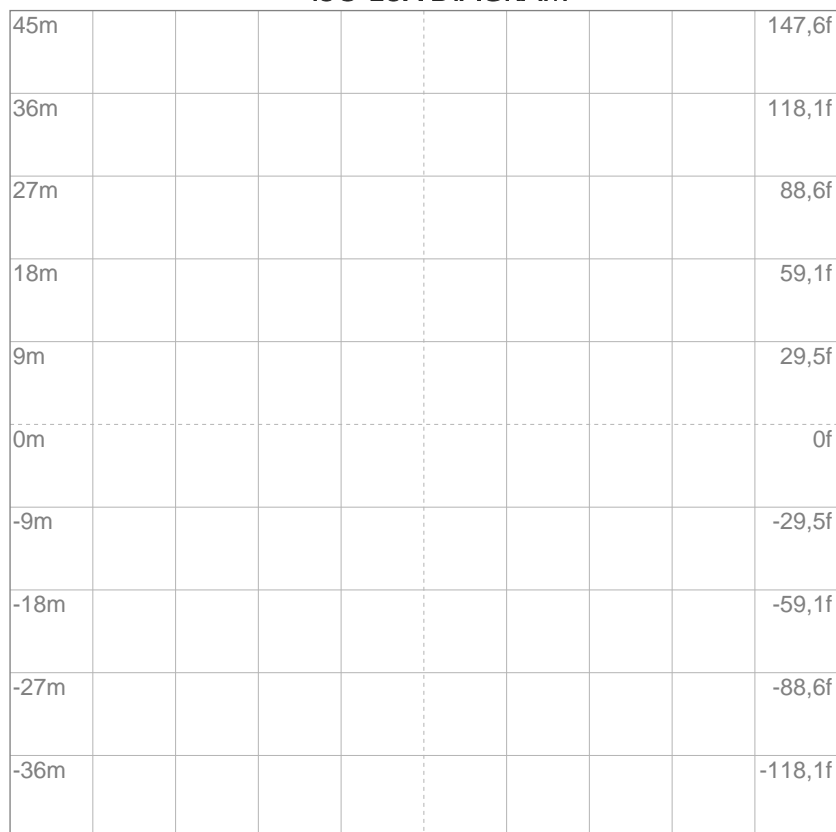
10%	6897 cd
20%	13793 cd
30%	20690 cd
40%	27586 cd
50%	34483 cd
60%	41379 cd
70%	48276 cd
80%	55173 cd

### Conditions:

Number of c-planes: 2

Candela at center: 68966 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	20,7 lx
5%	34,5 lx
10%	69,0 lx
30%	207 lx
50%	345 lx

### Conditions:

Number of c-planes: 2

Lux at center: 690 lx

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





Total lumen output:

4406 lm

Peak candela output:

38225 cd

Light quality:

CRI: 97,4

Color temperature:

5612 K

PRODUCT NAME:

ECLFWWW

MEASURAMENT CONDITIONS:

Beam angle:

PRL26

Target:

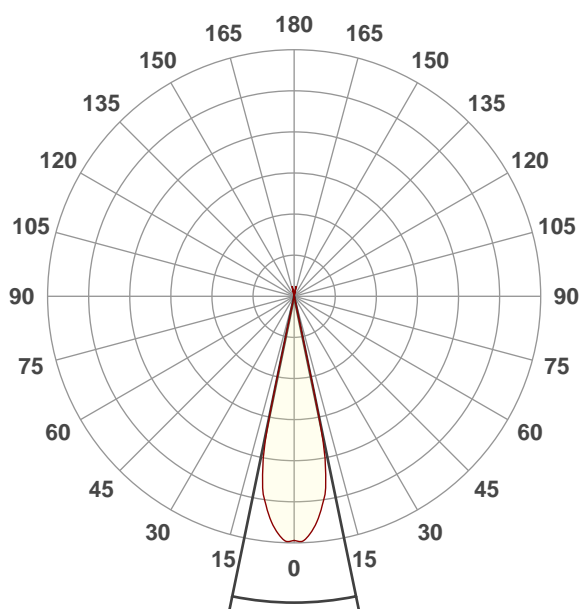
Cold White

Operator:

Paolo Carvone

Date and time:

11/06/2021 12:35:06

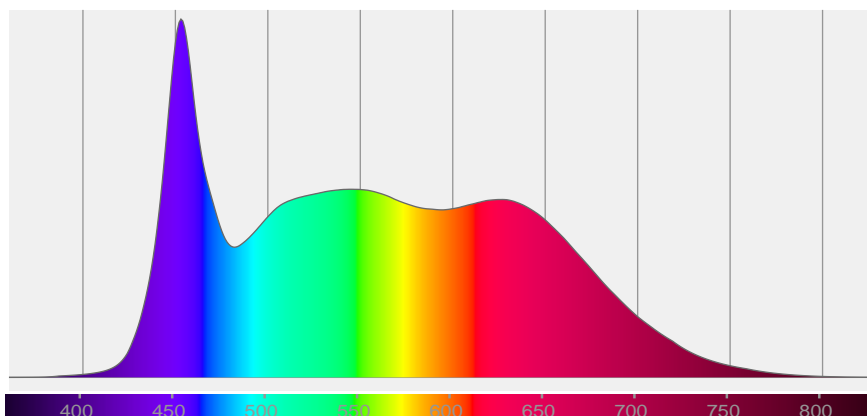


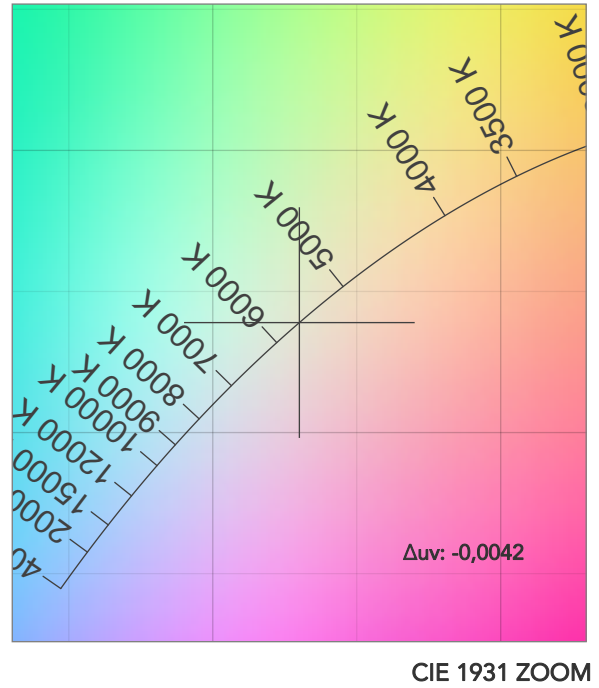
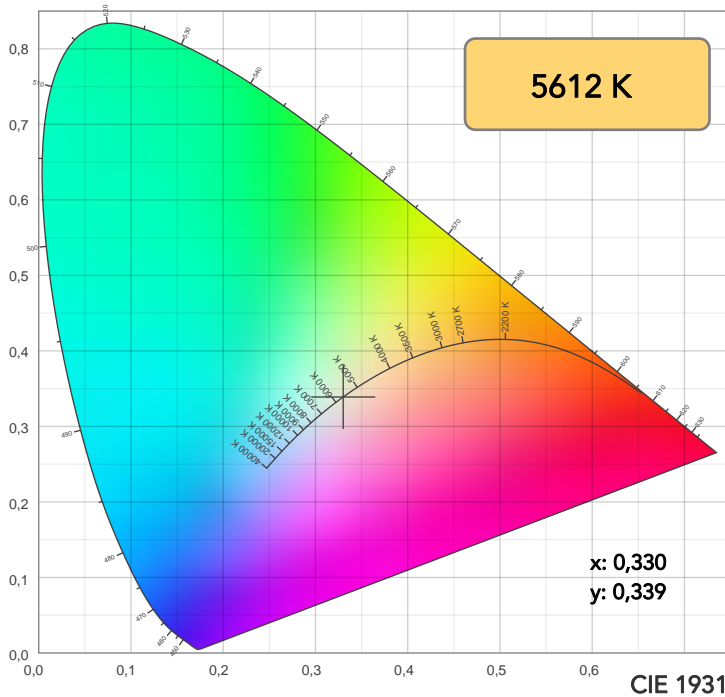
Beam angle 50%: 23,3°

Field angle 10%: 26,1°

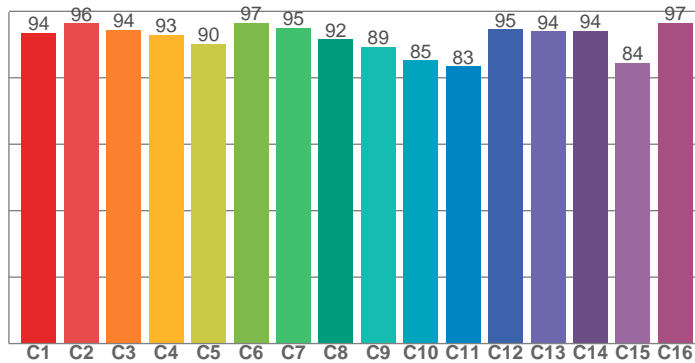
Cut off angle 2.5%: 26,6°

Spectra

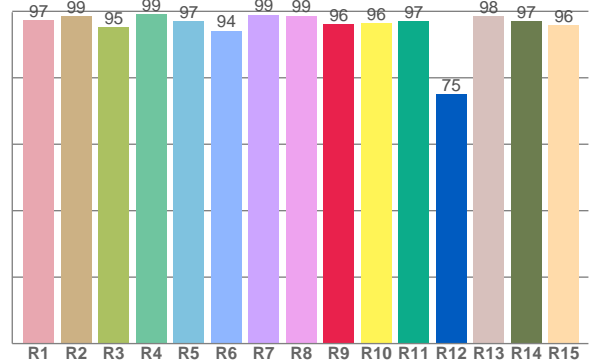




TM30: 91,7



CRI: 97,4 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
97,4	98,6	95,3	99,1	97,0	94,2	99,0	98,6	96,2	96,4	97,0	75,0	98,4	97,0	95,8

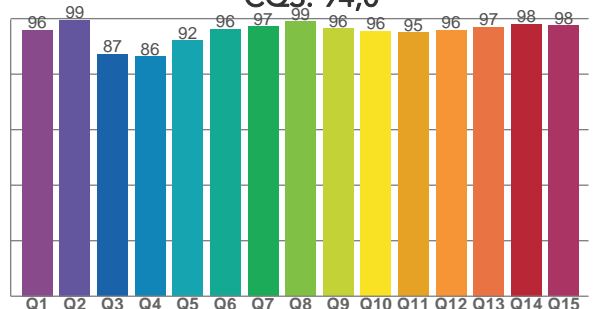
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,6	96,3	94,4	92,9	90,2	96,6	95,0	91,6	89,3	85,3	83,5	94,5	94,0	94,1	84,4	96,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,9	99,5	87,2	86,4	92,1	96,1	97,1	98,9	96,5	95,6	95,0	95,9	97,1	98,1	97,6

CQS: 94,0



## COLOR PARAMETERS

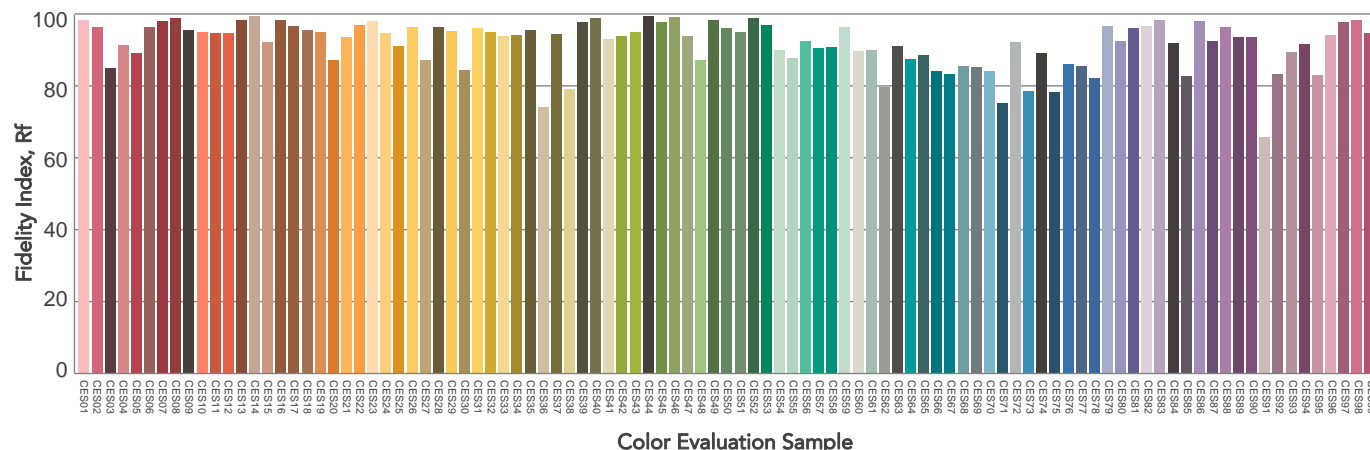
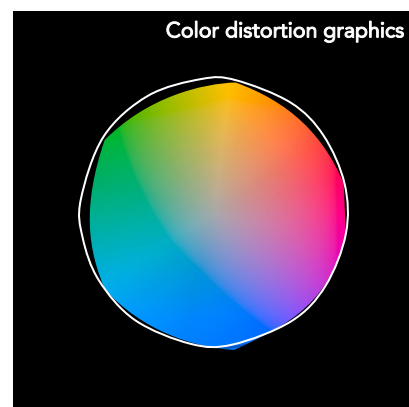
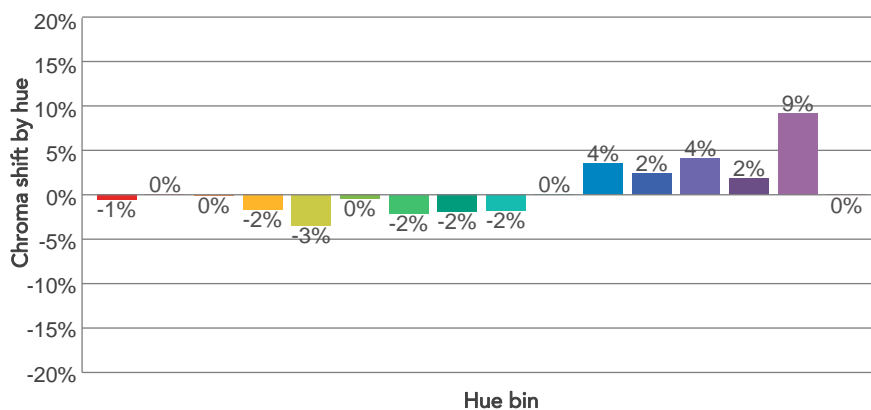
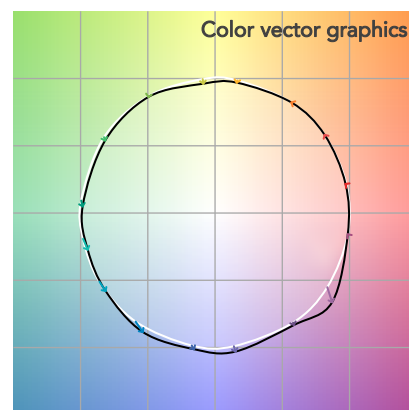
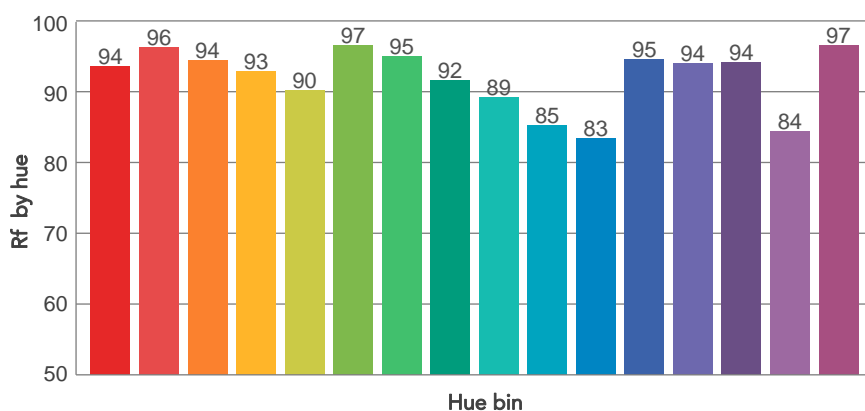
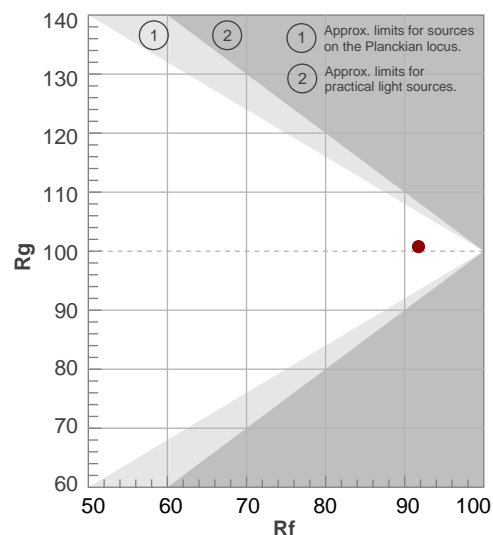
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5612 K	97,4	96,2	91,7	100,8	94,0	98	0,330	0,339	-0,0042

# TM30 DETAILS

**Rf 91,7**  
Fidelity index Rf

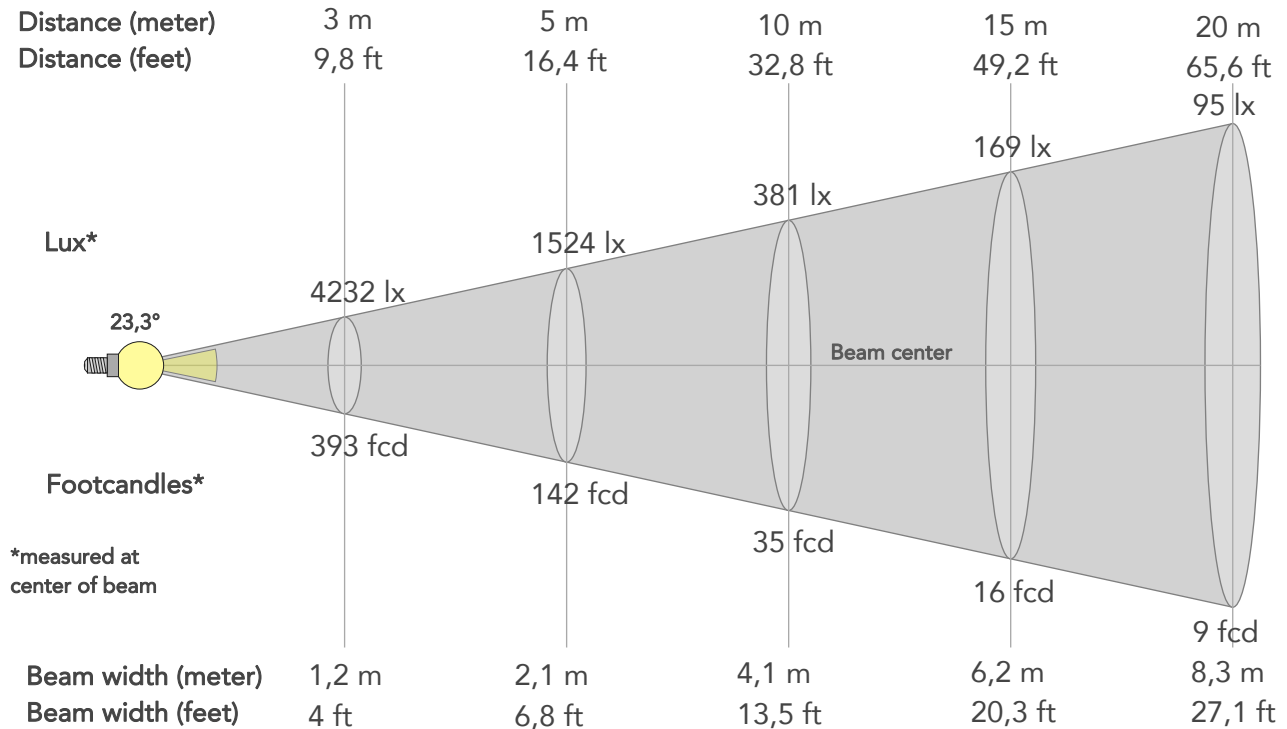
**Rg 100,8**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-1%	1%
2	96	0%	1%
3	94	0%	1%
4	93	-2%	0%
5	90	-3%	0%
6	97	0%	0%
7	95	-2%	2%
8	92	-2%	4%
9	89	-2%	9%
10	85	0%	8%
11	83	4%	9%
12	95	2%	2%
13	94	4%	0%
14	94	2%	0%
15	84	9%	-7%
16	97	0%	0%



## BEAM DETAILS

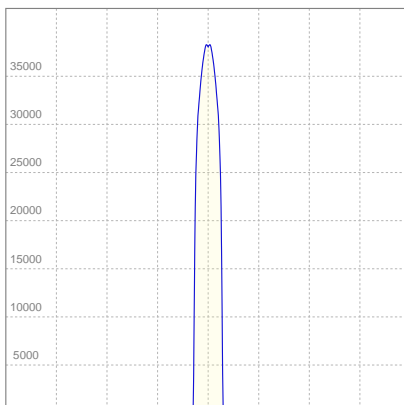
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,3°	26,1°	26,6°	100,0%	100,0%



### 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	38091lx	9523lx	4232lx	2381lx	1524lx	677lx	381lx	169lx	95lx	61lx	42lx	24lx	15lx
Footcand.	3539fcd	885fcd	393fcd	221fcd	142fcd	63fcd	35fcd	16fcd	9fcd	6fcd	4fcd	2fcd	1fcd
Beam wid.	0,4m	0,8m	1,2m	1,7m	2,1m	3,1m	4,1m	6,2m	8,3m	10,3m	12,4m	16,5m	20,6m
Beam wid.	1,4ft	2,7ft	4ft	5,4ft	6,8ft	10,2ft	13,5ft	20,3ft	27,1ft	33,8ft	40,6ft	54,1ft	67,7ft

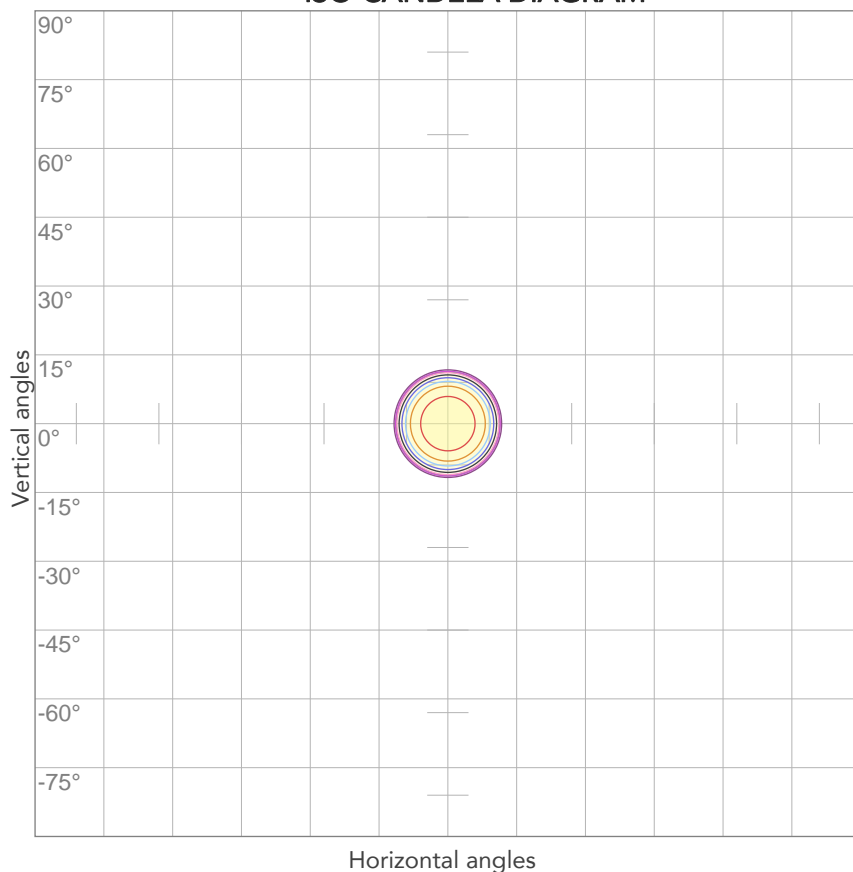
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
228V	0,625A	131,8W	33lm/W
Power Fc			
0,97			

## ISO CANDELA DIAGRAM



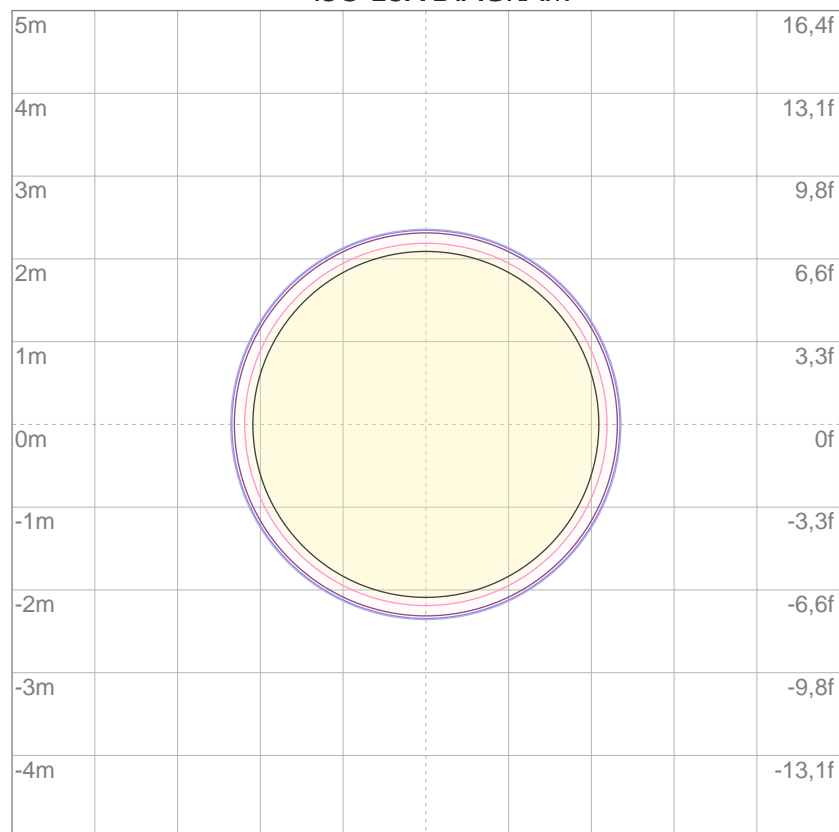
10%	3809 cd
20%	7618 cd
30%	11427 cd
40%	15236 cd
50%	19045 cd
60%	22854 cd
70%	26664 cd
80%	30473 cd

### Conditions:

Number of c-planes: 2

Candela at center: 38091 cd

## ISO LUX DIAGRAM



3%	11,4 lx
5%	19,0 lx
10%	38,1 lx
30%	114 lx
50%	190 lx

### Conditions:

Number of c-planes: 2

Lux at center: 381 lx

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



Total lumen output:

3696 lm

Peak candela output:

32227 cd

Light quality:

CRI: 97,0

Color temperature:

2716 K

PRODUCT NAME:

ECLFWWW

MEASURAMENT CONDITIONS:

Beam angle:

PRL26

Target:

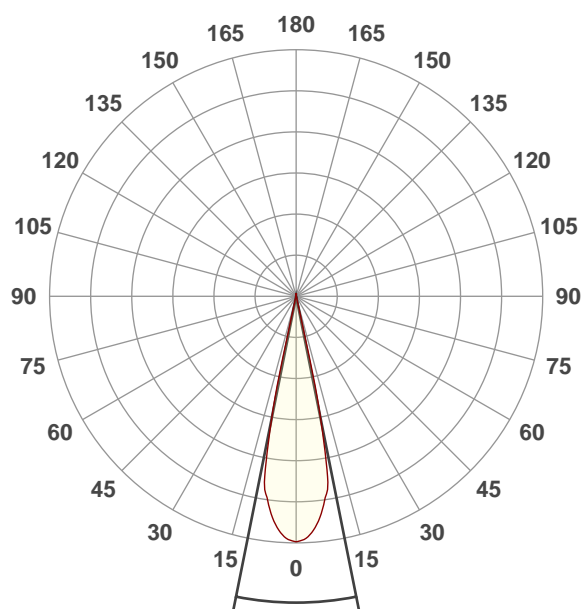
Warm White

Operator:

Paolo Carvone

Date and time:

11/06/2021 12:33:39

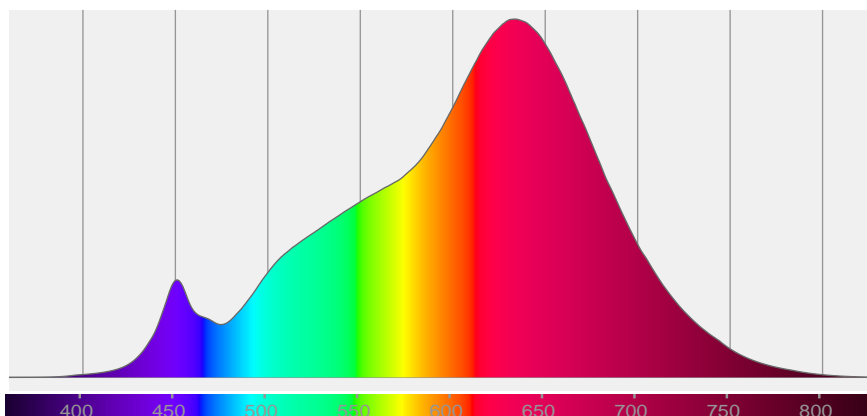


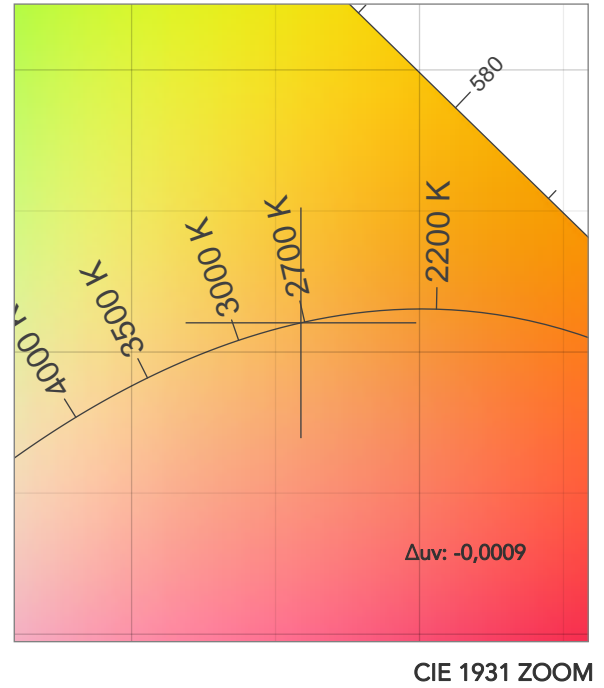
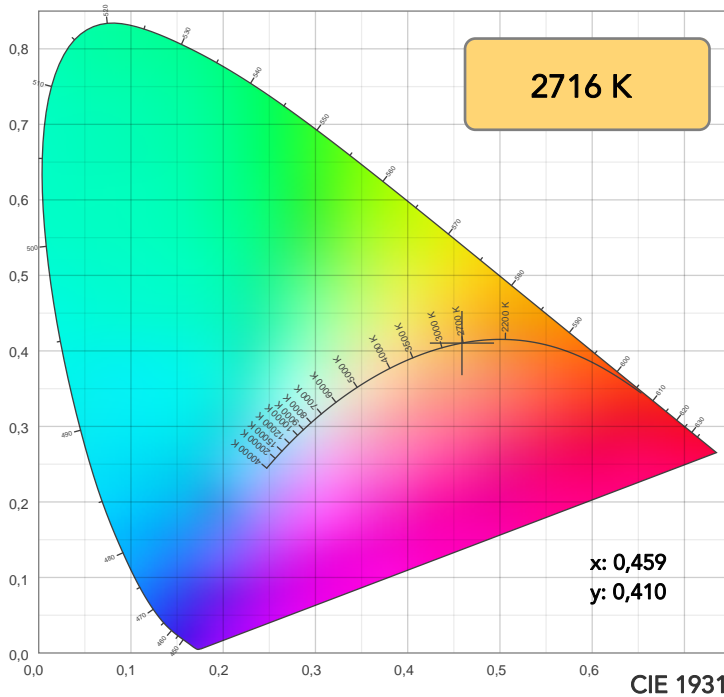
Beam angle 50%: 22,6°

Field angle 10%: 26,6°

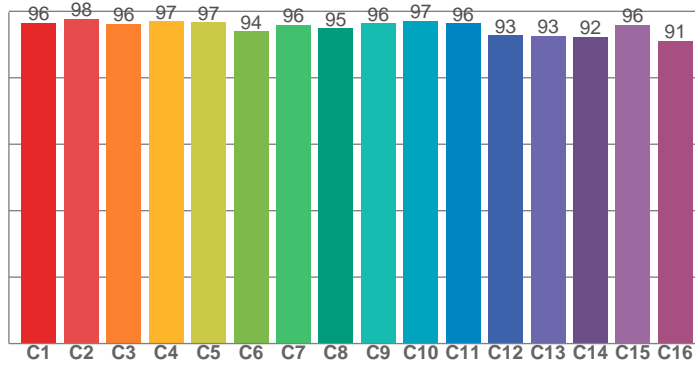
Cut off angle 2.5%: 27,5°

Spectra

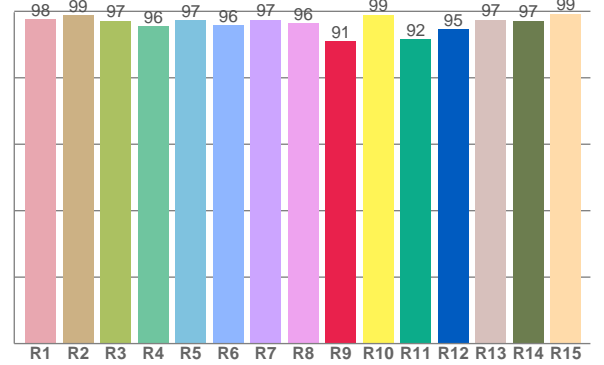




TM30: 95,5



CRI: 97,0 (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
97,5	98,8	97,2	95,6	97,2	95,8	97,4	96,3	91,0	99,0	91,7	94,6	97,4	97,2	99,2

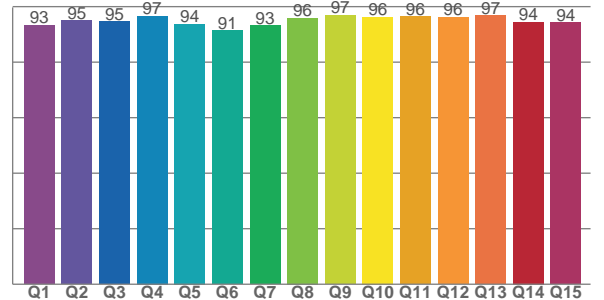
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,5	97,8	96,3	97,0	96,7	93,9	96,0	94,9	96,4	97,1	96,3	92,8	92,6	92,4	95,9	91,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,3	95,0	94,6	96,6	93,8	91,4	93,1	95,9	96,9	96,3	96,5	96,2	96,7	94,5	94,2

CQS: 94,5



## COLOR PARAMETERS

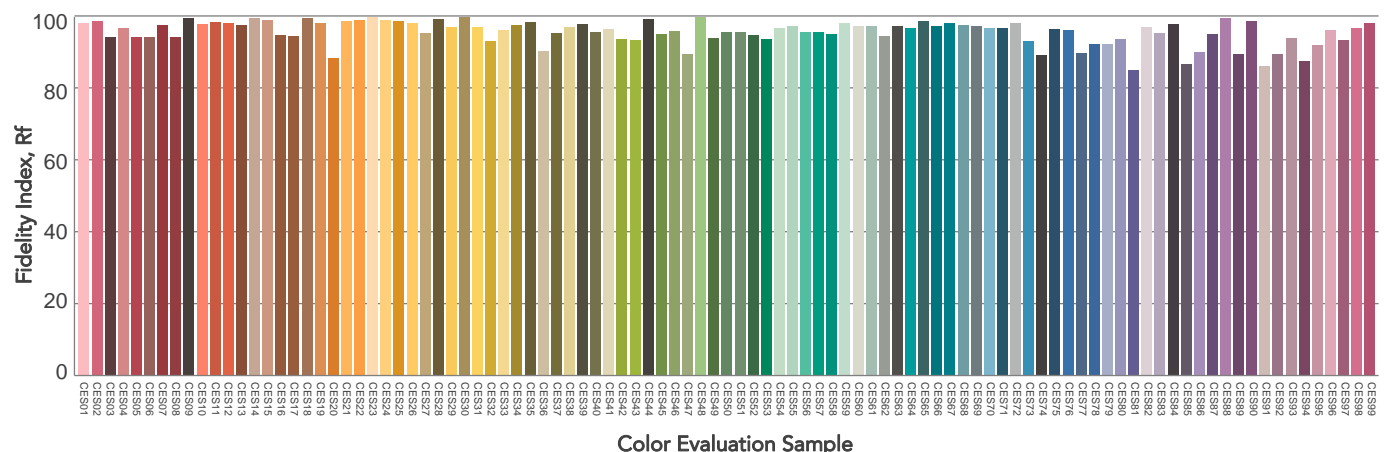
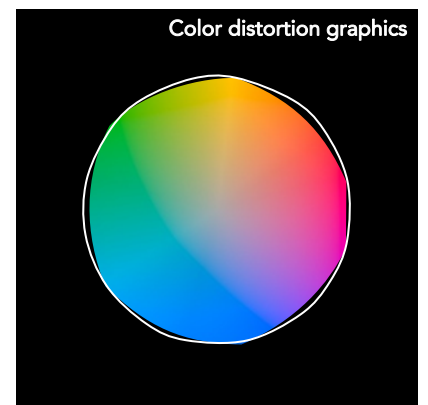
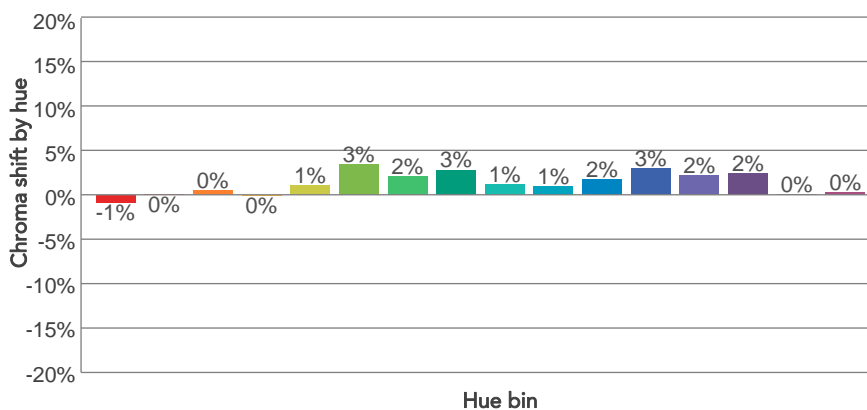
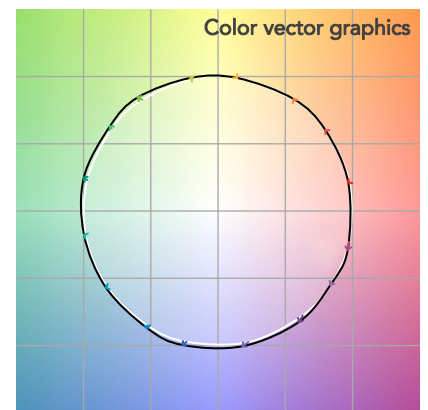
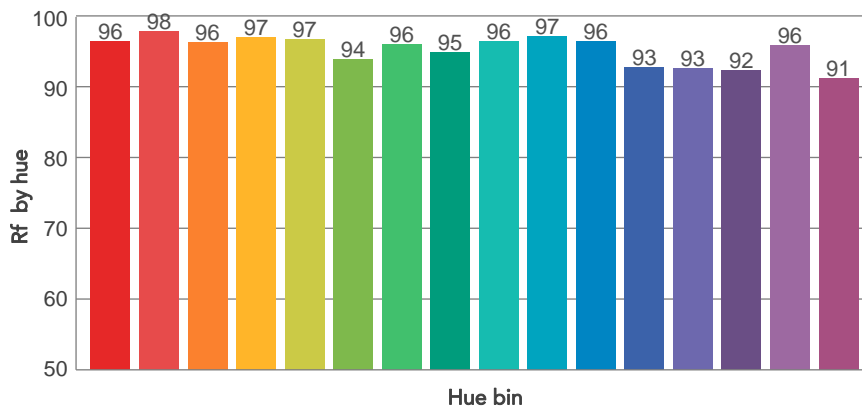
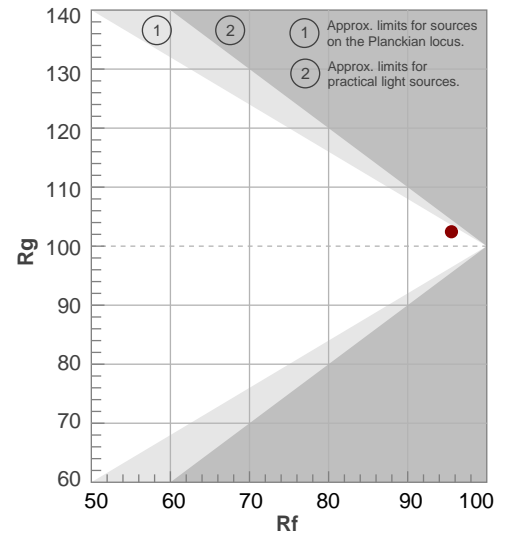
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2716 K	97,0	91,0	95,5	102,4	94,5	98	0,459	0,410	-0,0009

# TM30 DETAILS

**Rf 95,5**  
Fidelity index Rf

**Rg 102,4**  
Gammut index

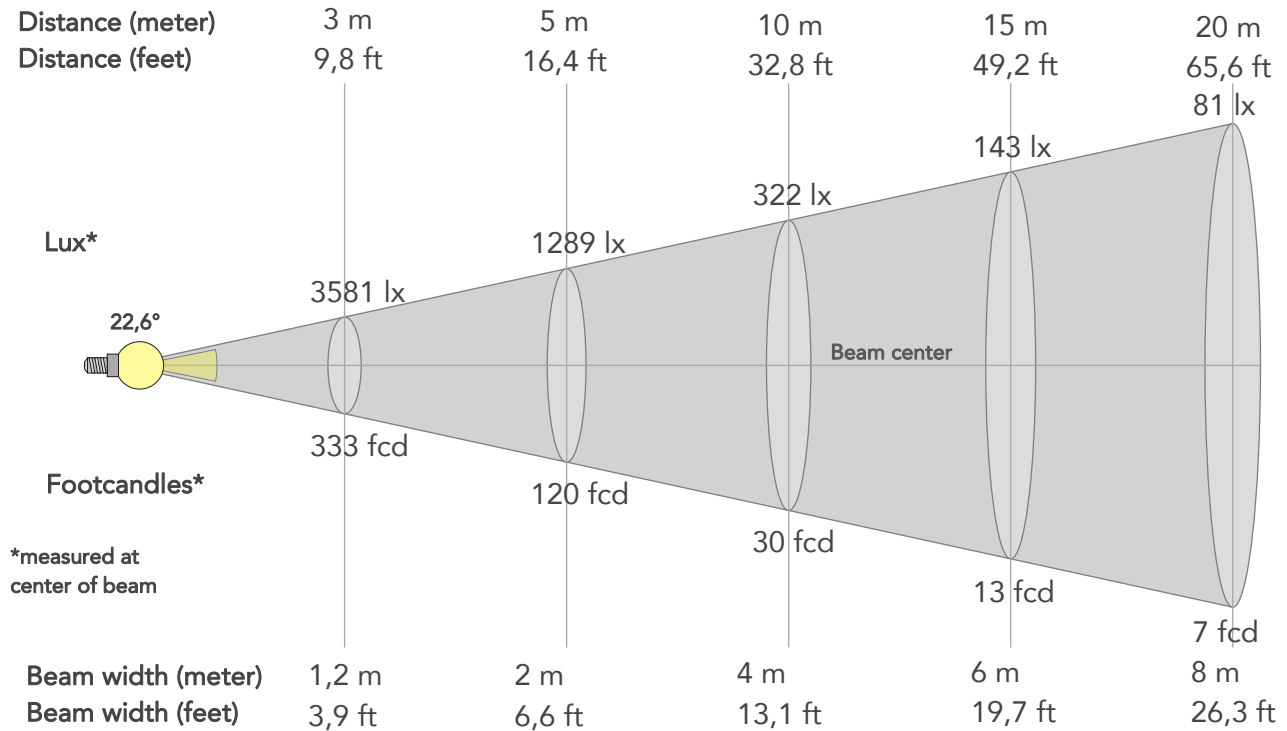
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	96	-1%	0%
2	98	0%	0%
3	96	0%	1%
4	97	0%	0%
5	97	1%	2%
6	94	3%	2%
7	96	2%	-1%
8	95	3%	-1%
9	96	1%	-1%
10	97	1%	0%
11	96	2%	1%
12	93	3%	-2%
13	93	2%	-5%
14	92	2%	-5%
15	96	0%	-2%
16	91	0%	-6%





## BEAM DETAILS

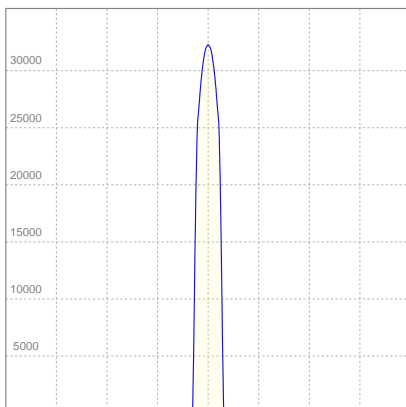
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,6°	26,6°	27,5°	100,0%	100,0%



### 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	32227lx	8057lx	3581lx	2014lx	1289lx	573lx	322lx	143lx	81lx	52lx	36lx	20lx	13lx
Footcand.	2994fcd	748fcd	333fcd	187fcd	120fcd	53fcd	30fcd	13fcd	7fcd	5fcd	3fcd	2fcd	1fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	4m	6m	8m	10m	12m	16m	20m
Beam wid.	1,3ft	2,6ft	3,9ft	5,2ft	6,6ft	9,8ft	13,1ft	19,7ft	26,3ft	32,8ft	39,4ft	52,5ft	65,7ft

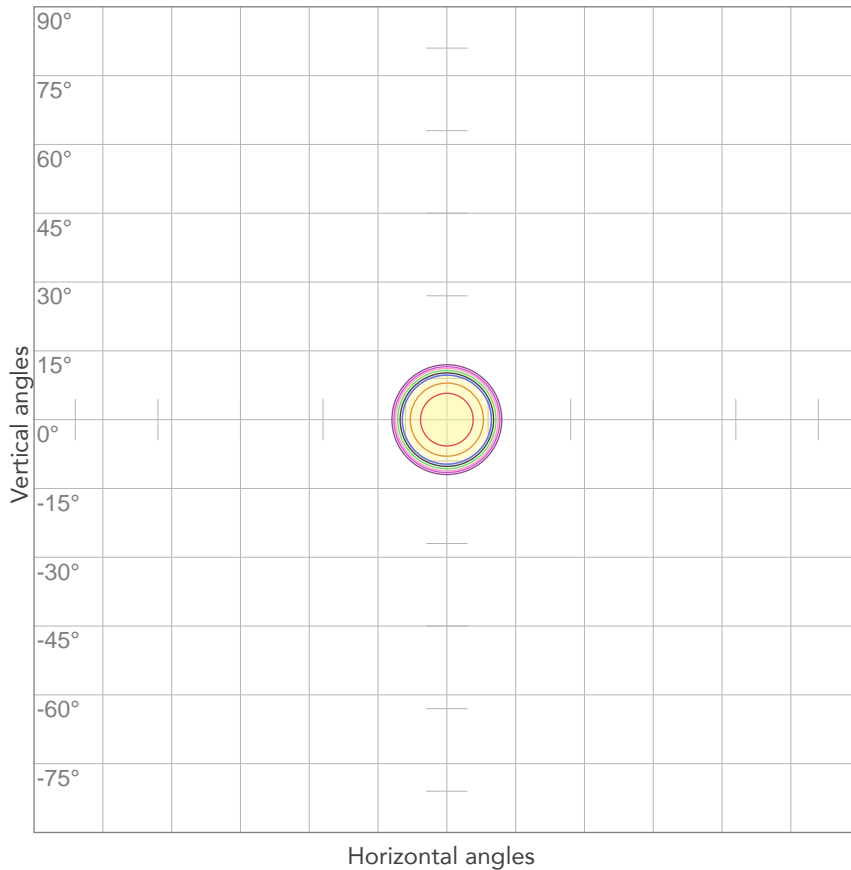
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
228V	0,641A	135,5W	27lm/W
Power Fc			
0,97			

## ISO CANDELA DIAGRAM



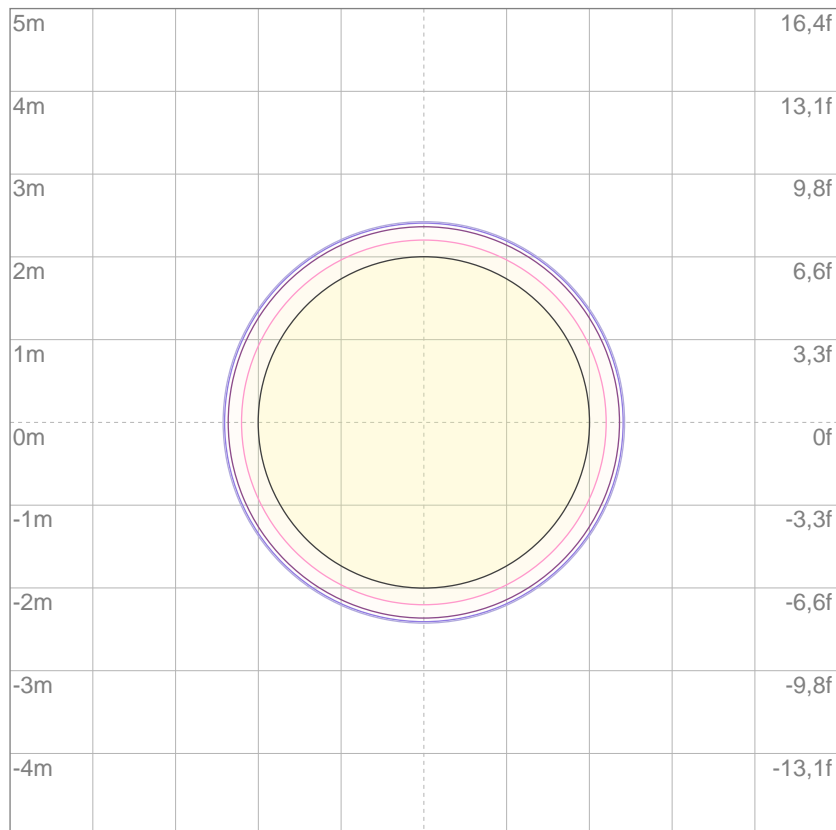
10%	3223 cd
20%	6445 cd
30%	9668 cd
40%	12891 cd
50%	16113 cd
60%	19336 cd
70%	22559 cd
80%	25782 cd

### Conditions:

Number of c-planes: 2

Candela at center: 32227 cd

## ISO LUX DIAGRAM



3%	9,67 lx
5%	16,1 lx
10%	32,2 lx
30%	96,7 lx
50%	161 lx

### Conditions:

Number of c-planes: 2

Lux at center: 322 lx

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