

# Photometric Test Report



## EclPanel IPHard1x1

1x1 Hard Source LED Panel, IP65 with 300W  
power and 6 colors source

(PRELIMINARY)

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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:

16798 lm

Peak candela output:

74668 cd

Light quality:

CRI: 88,4

Color temperature:

3257 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

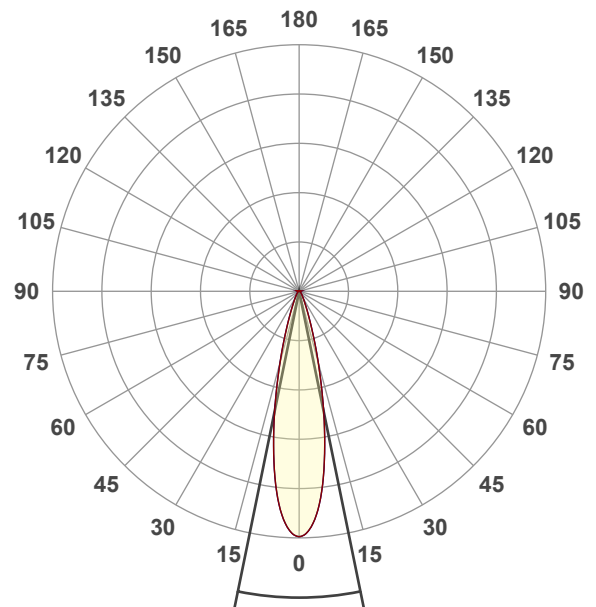
**MEASURAMENT CONDITIONS:**

Beam angle:  
TIR Lens

Target:  
3200K - HB

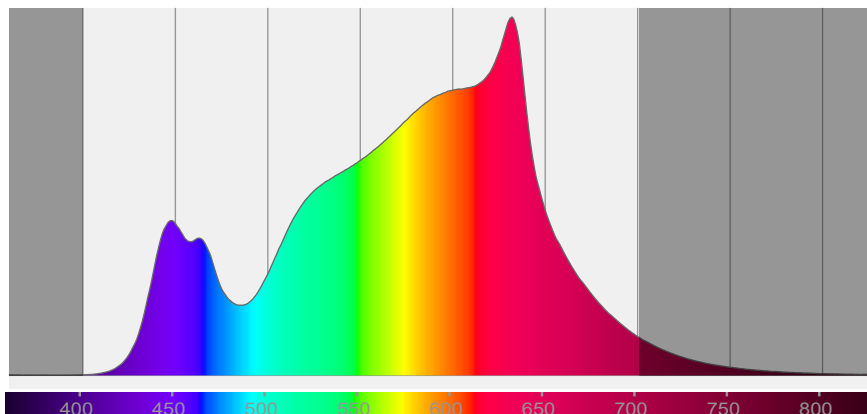
Operator:  
Salvatore Giglio

Date and time:  
06/09/2024 17:15:48

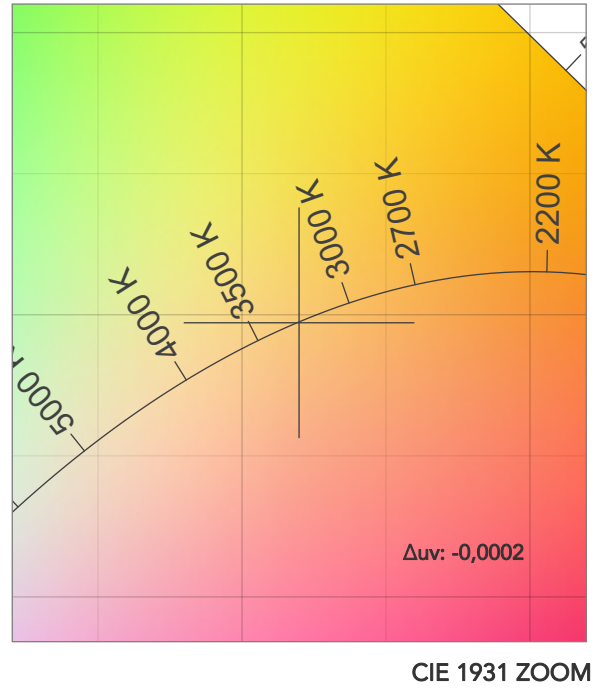
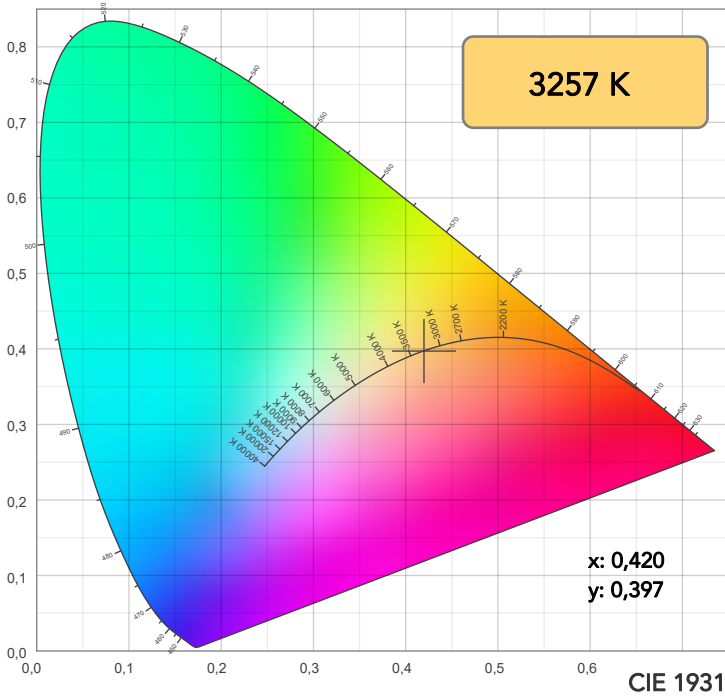


Beam angle 50%: 23,1°  
Field angle 10%: 43°  
Cut off angle 2.5%: 67,2°

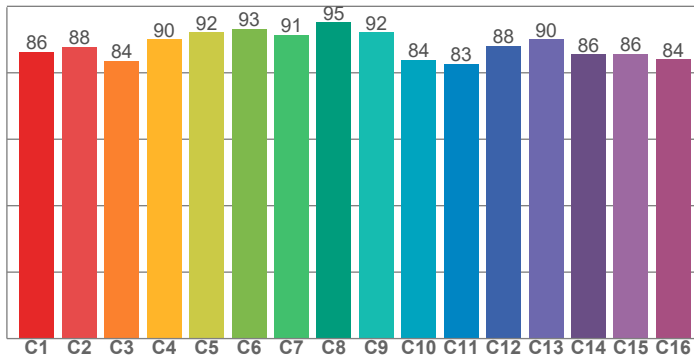
Spectra



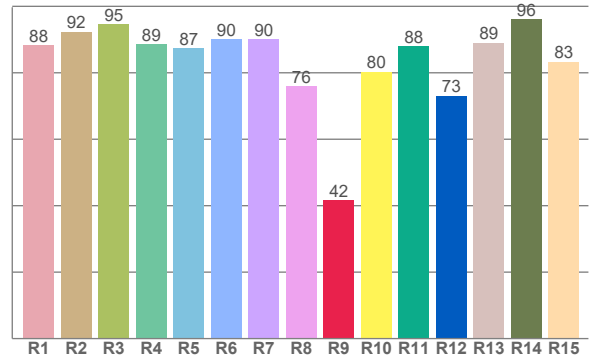
# COLOR DETAILS



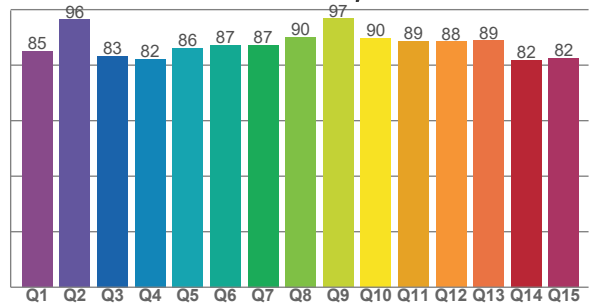
**TM30: 88,1**



**CRI: 88,4 (R1-R8)**



**CQS: 86,8**



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
88,2	92,3	94,6	88,5	87,3	90,1	90,0	75,9	41,6	80,3	87,9	73,1	89,1	96,2	83,3

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
86,3	87,8	83,6	90,1	92,2	93,2	91,4	95,1	92,2	84,0	82,7	88,1	90,0	85,6	85,7	84,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85,0	96,4	83,3	82,2	86,2	87,2	87,2	90,1	96,7	89,8	88,6	88,5	88,8	81,8	82,4

## COLOR PARAMETERS

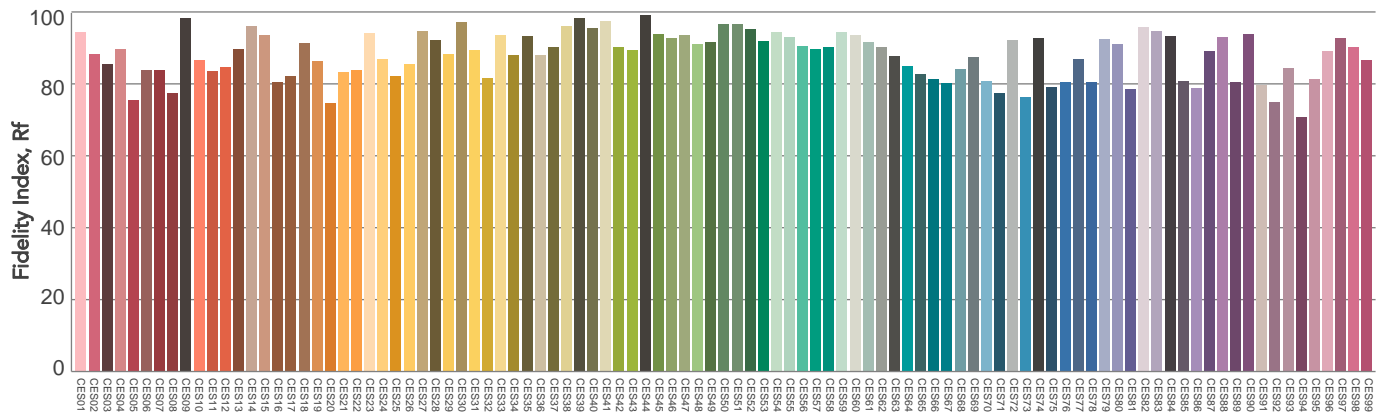
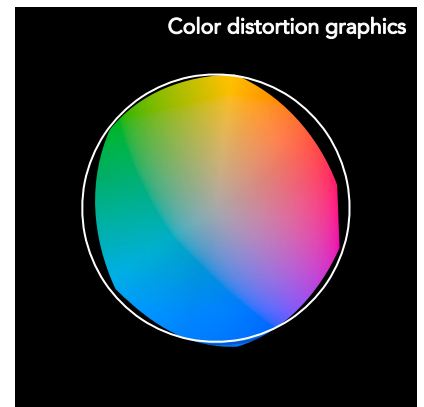
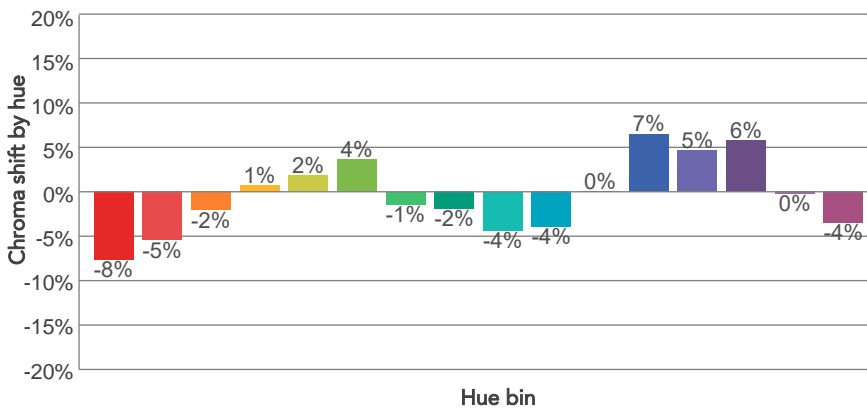
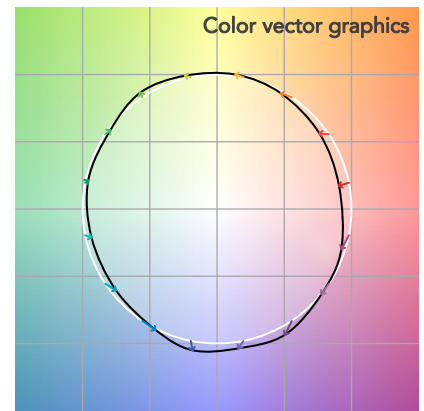
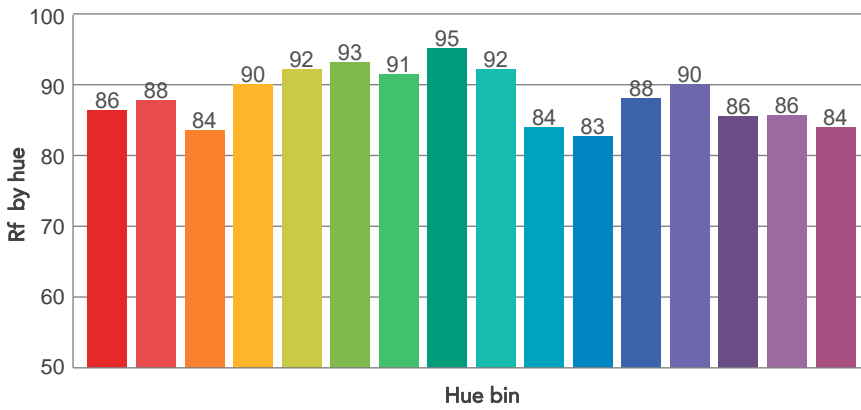
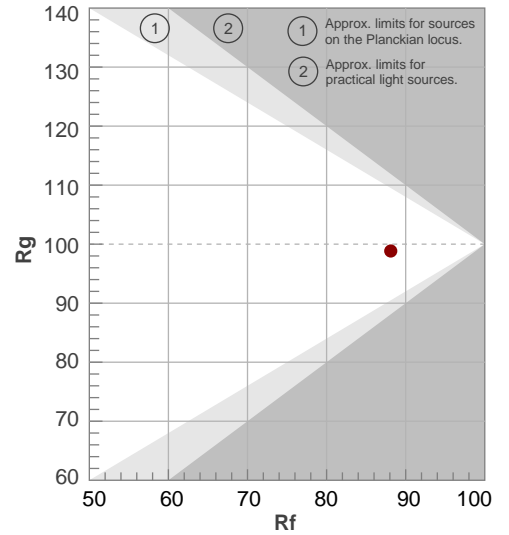
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3257 K	88,4	41,6	88,1	98,8	86,8	80	0,420	0,397	-0,0002

# TM30 DETAILS

**Rf 88,1**  
Fidelity index Rf

**Rg 98,8**  
Gammut index

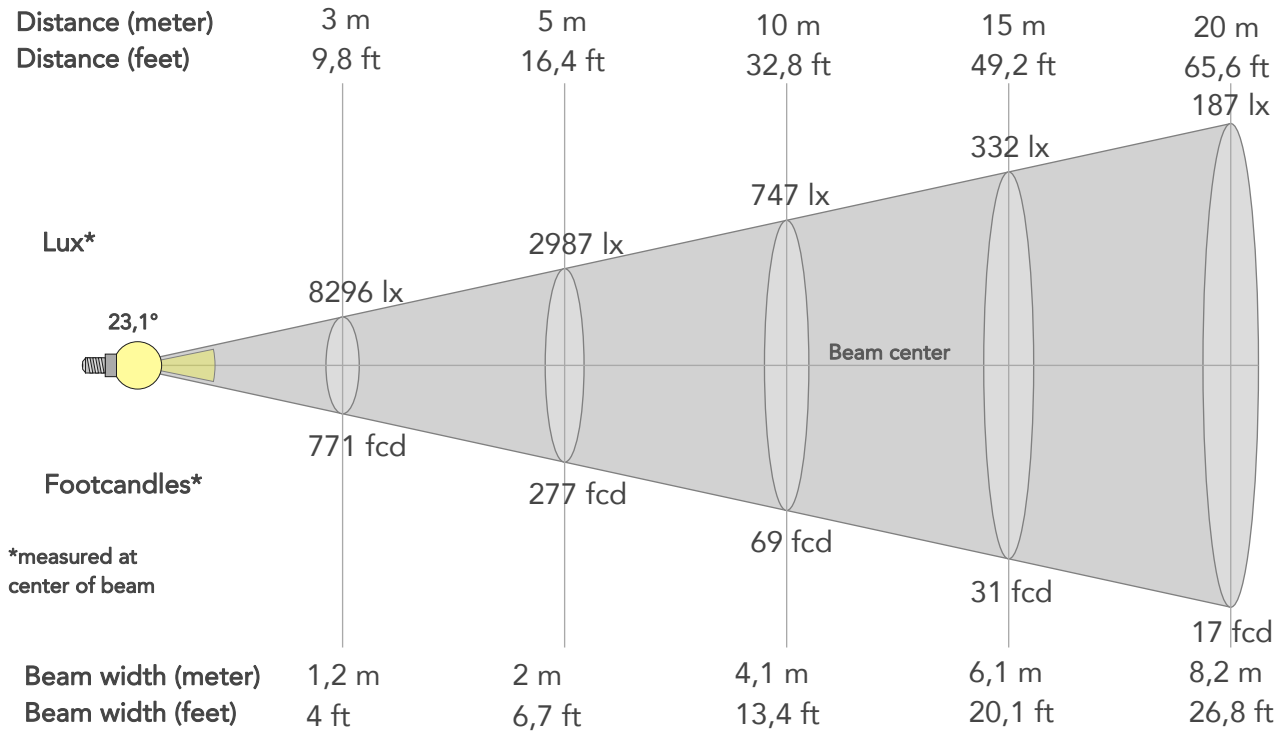
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	86	-8%	-1%
2	88	-5%	4%
3	84	-2%	8%
4	90	1%	6%
5	92	2%	4%
6	93	4%	-1%
7	91	-1%	-5%
8	95	-2%	-2%
9	92	-4%	3%
10	84	-4%	8%
11	83	0%	12%
12	88	7%	3%
13	90	5%	-5%
14	86	6%	-10%
15	86	0%	-9%
16	84	-4%	-11%



# BEAM DETAILS



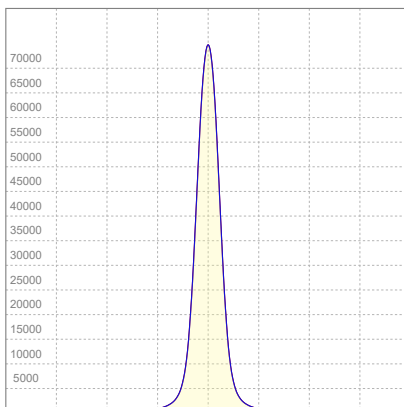
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,1°	43°	67,2°	97,5%	92,8%



## 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	74668lx	18667lx	8296lx	4667lx	2987lx	1327lx	747lx	332lx	187lx	119lx	83lx	47lx	30lx
Footcand.	6937fcd	1734fcd	771fcd	434fcd	277fcd	123fcd	69fcd	31fcd	17fcd	11fcd	8fcd	4fcd	3fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3,1m	4,1m	6,1m	8,2m	10,2m	12,3m	16,3m	20,4m
Beam wid.	1,3ft	2,7ft	4ft	5,4ft	6,7ft	10ft	13,4ft	20,1ft	26,8ft	33,5ft	40,2ft	53,6ft	67ft

## LINEAR DISTRIBUTION DIAGRAM

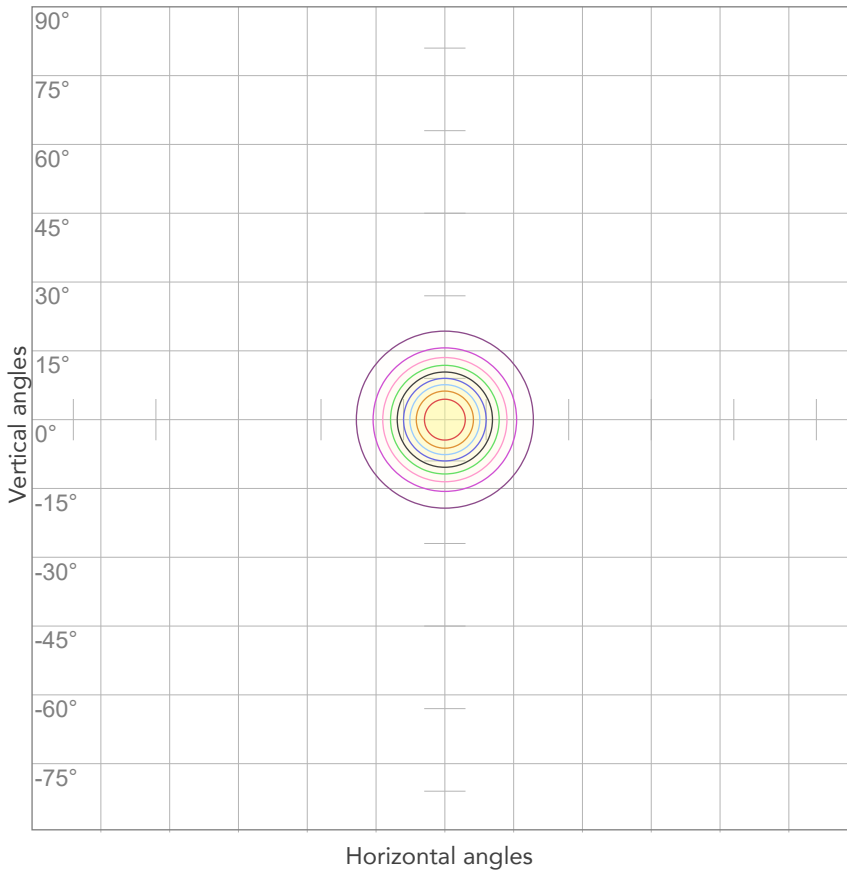


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	1,27A	286W	0,99	59lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



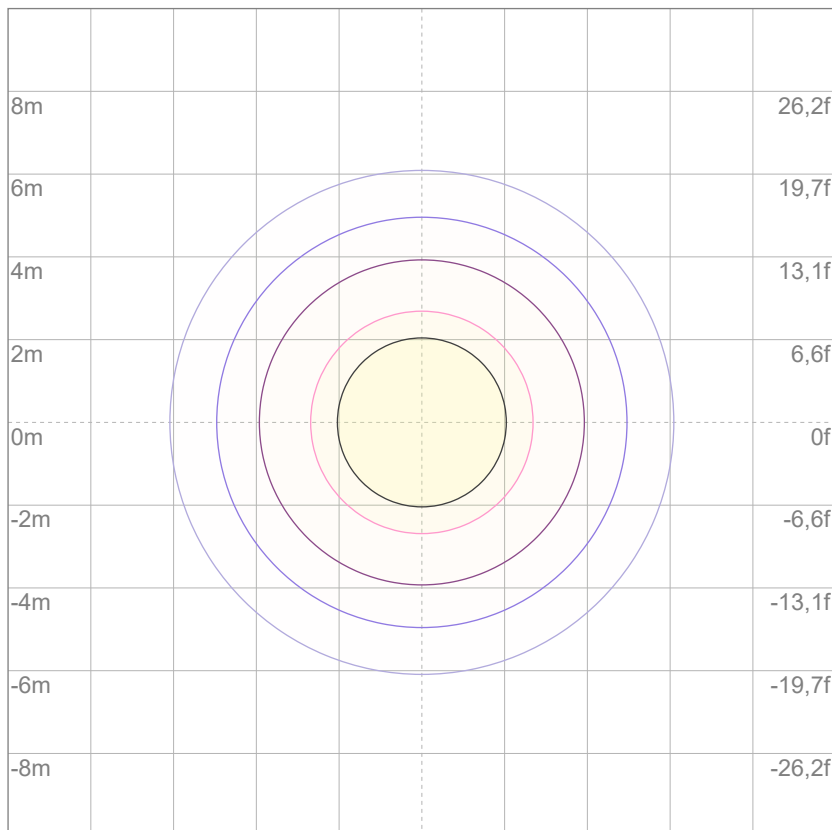
10%	7467 cd
20%	14934 cd
30%	22400 cd
40%	29867 cd
50%	37334 cd
60%	44801 cd
70%	52267 cd
80%	59734 cd

Conditions:

Number of c-planes: 4

Candela at center: 74668 cd

## ISO LUX DIAGRAM



3%	22,4 lx
5%	37,3 lx
10%	74,7 lx
30%	224 lx
50%	373 lx

Conditions:

Number of c-planes: 4

Lux at center: 747 lx

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





Total lumen output:

17966 lm

Peak candela output:

80160 cd

Light quality:

CRI: 81,8

Color temperature:

5622 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

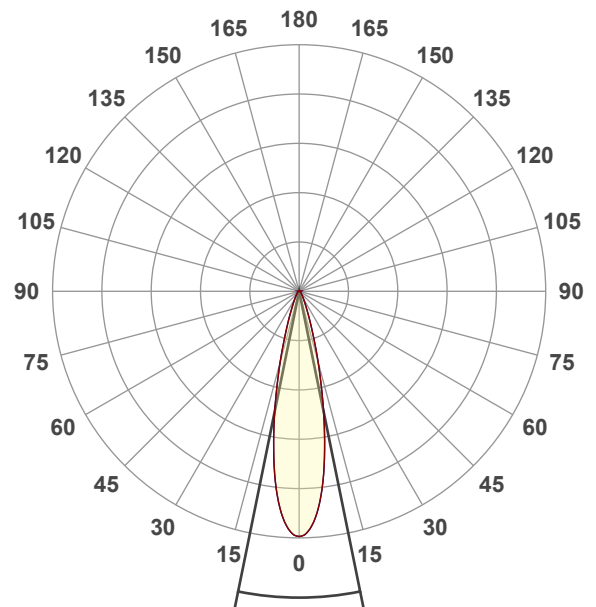
**MEASURAMENT CONDITIONS:**

Beam angle:  
TIR Lens

Target:  
5600K - HB

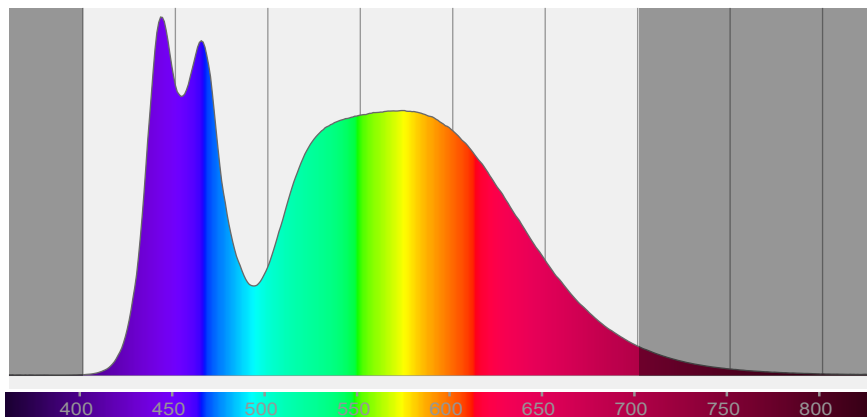
Operator:  
Salvatore Giglio

Date and time:  
06/09/2024 17:18:25

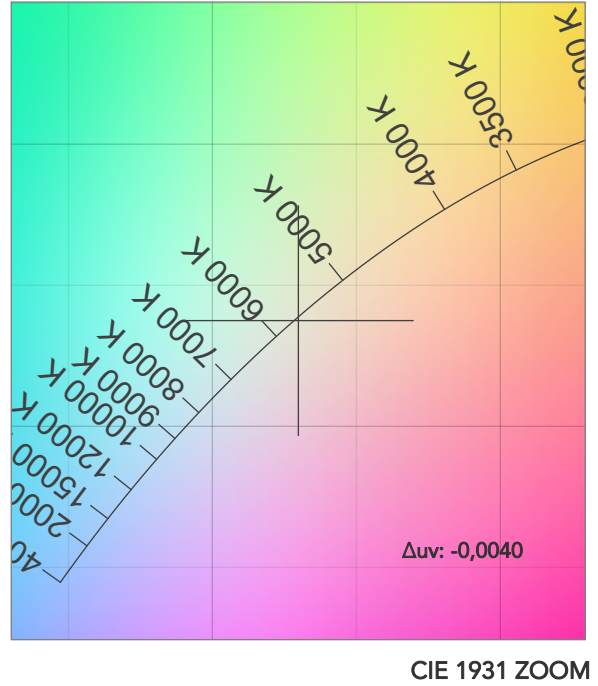
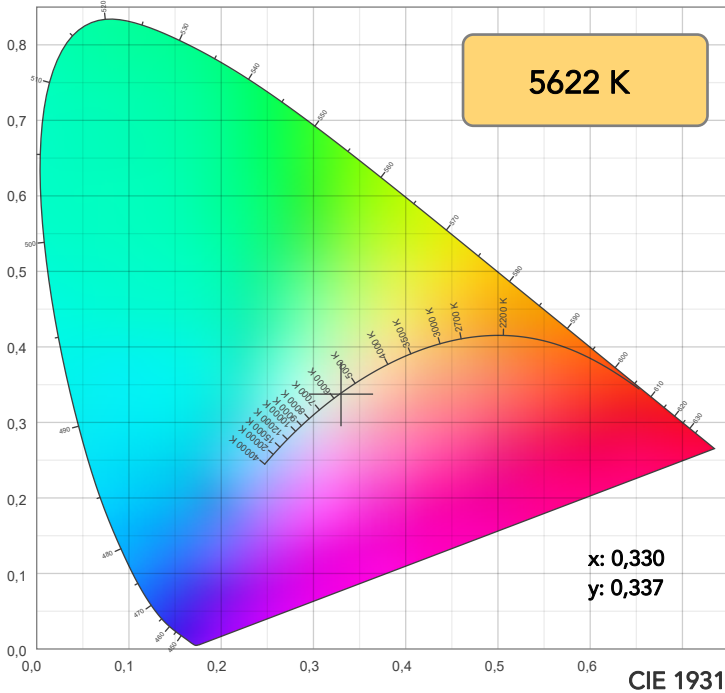


Beam angle 50%: 23°  
Field angle 10%: 43°  
Cut off angle 2.5%: 67,4°

Spectra

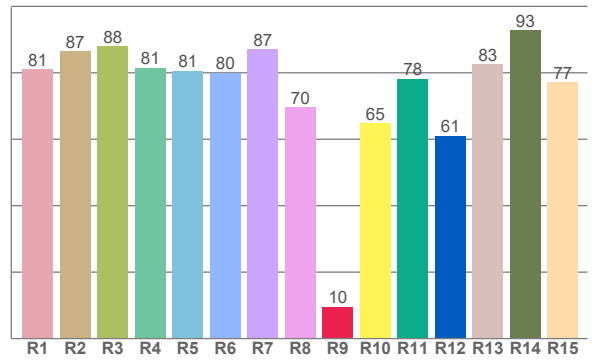
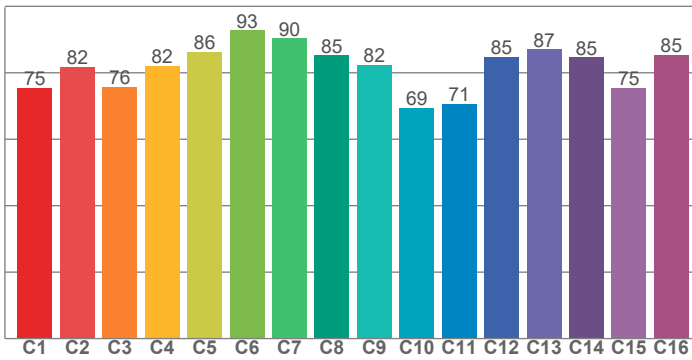


# COLOR DETAILS



TM30: 81,4

CRI: 81,8 (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
81,0	86,6	87,9	81,5	80,6	80,0	87,1	69,6	9,6	64,8	78,2	61,0	82,5	92,9	77,1

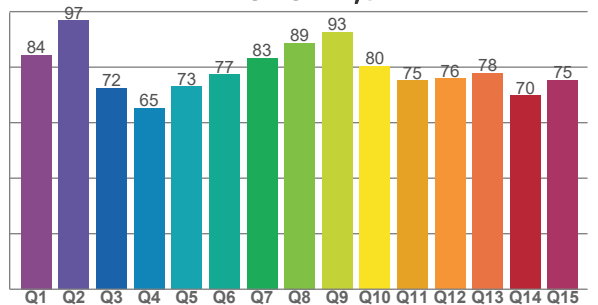
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75,5	81,7	75,7	82,1	86,3	92,7	90,3	85,2	82,4	69,4	70,6	84,8	87,1	84,6	75,4	85,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,4	96,8	72,4	65,3	73,1	77,4	83,2	88,7	92,6	80,3	75,1	75,8	77,9	69,8	75,4

CQS: 77,6



## COLOR PARAMETERS

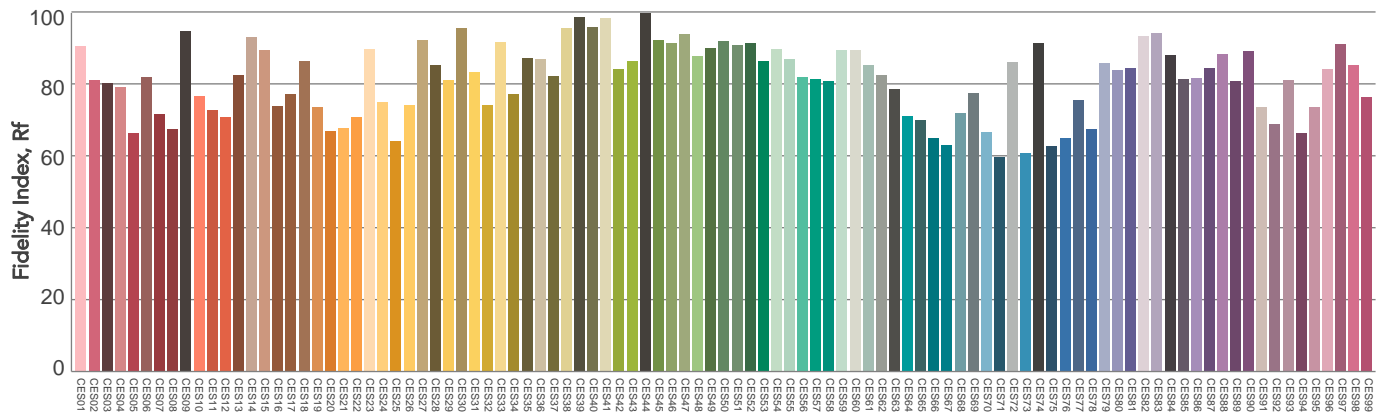
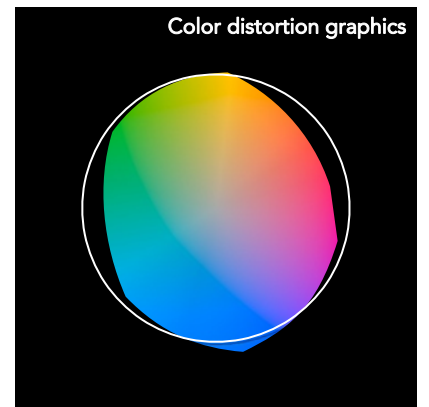
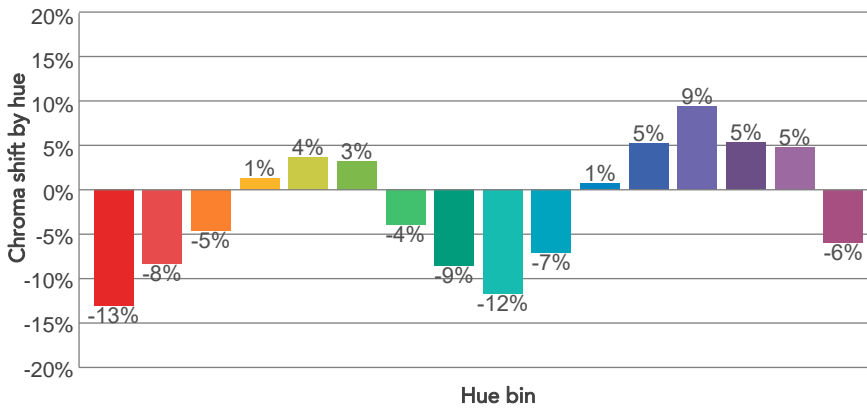
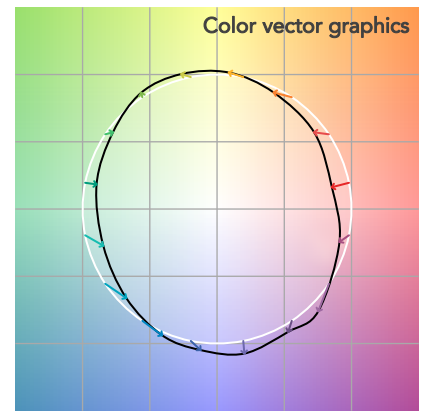
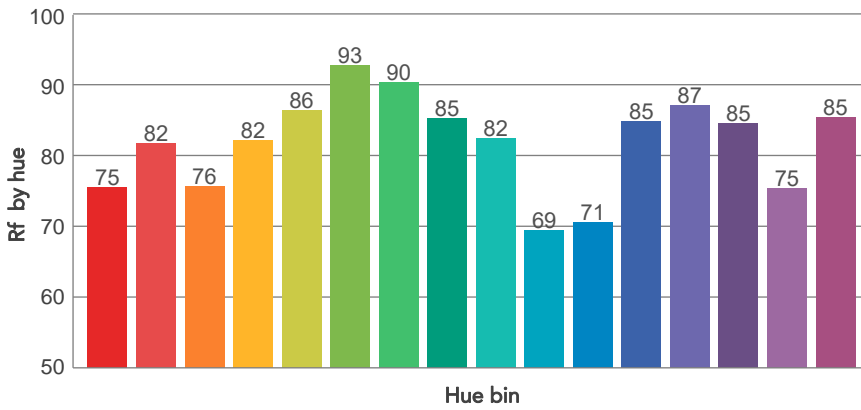
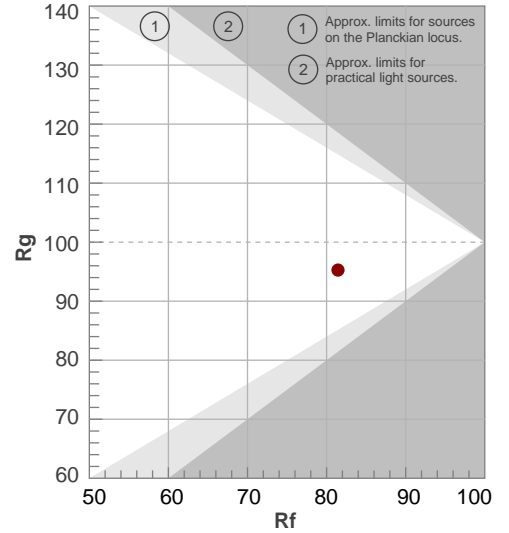
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5622 K	81,8	9,6	81,4	95,3	77,6	67	0,330	0,337	-0,0040

# TM30 DETAILS

**Rf 81,4**  
Fidelity index Rf

**Rg 95,3**  
Gammut index

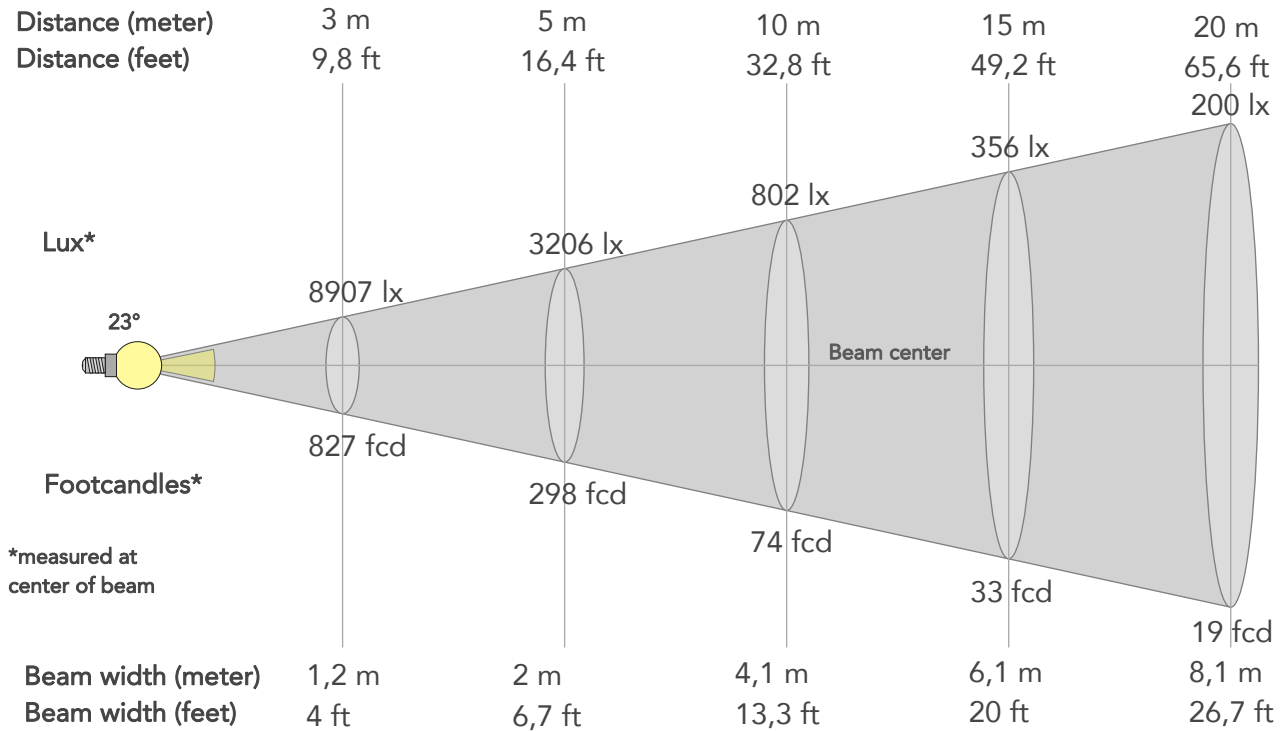
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-13%	-1%
2	82	-8%	7%
3	76	-5%	13%
4	82	1%	11%
5	86	4%	6%
6	93	3%	-1%
7	90	-4%	-4%
8	85	-9%	0%
9	82	-12%	10%
10	69	-7%	18%
11	71	1%	18%
12	85	5%	8%
13	87	9%	-1%
14	85	5%	-7%
15	75	5%	-21%
16	85	-6%	-6%



# BEAM DETAILS



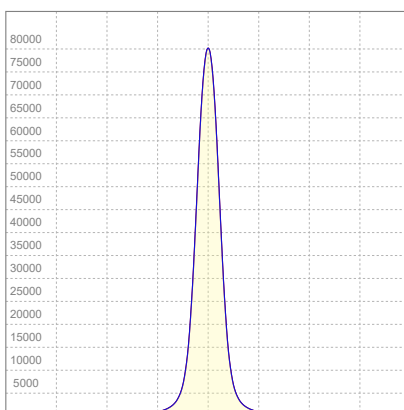
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23°	43°	67,4°	97,5%	92,9%



## 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	80160lx	20040lx	8907lx	5010lx	3206lx	1425lx	802lx	356lx	200lx	128lx	89lx	50lx	32lx
Footcand.	7447fcd	1862fcd	827fcd	465fcd	298fcd	132fcd	74fcd	33fcd	19fcd	12fcd	8fcd	5fcd	3fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	4,1m	6,1m	8,1m	10,2m	12,2m	16,3m	20,3m
Beam wid.	1,3ft	2,7ft	4ft	5,3ft	6,7ft	10ft	13,3ft	20ft	26,7ft	33,3ft	40ft	53,3ft	66,7ft

## LINEAR DISTRIBUTION DIAGRAM

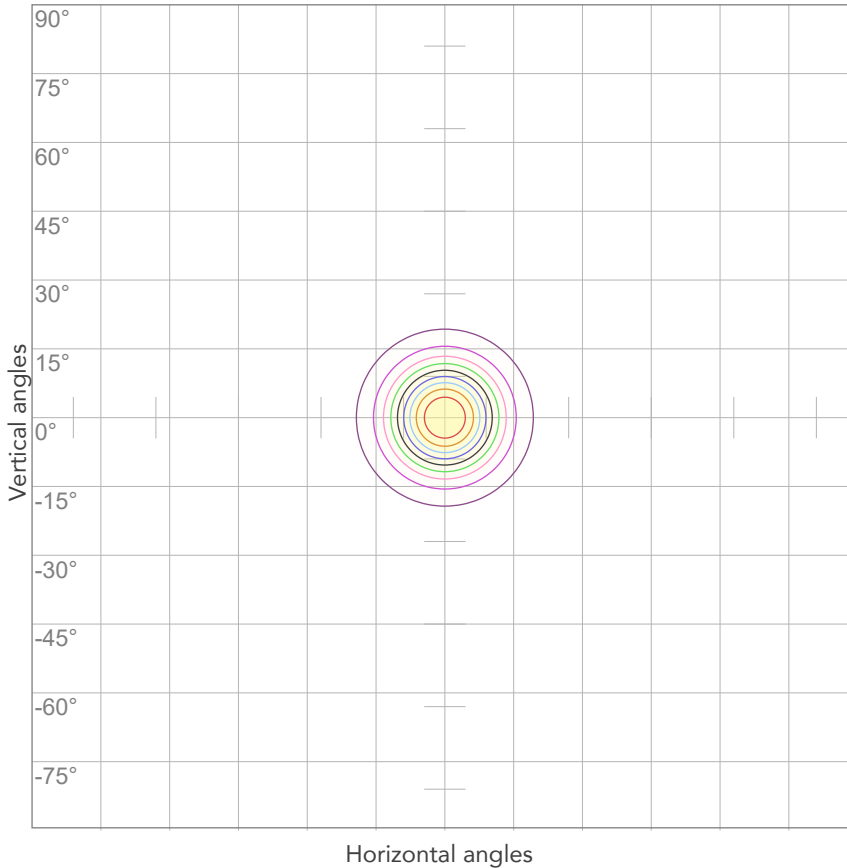


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	1,30A	290W	0,99	62lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



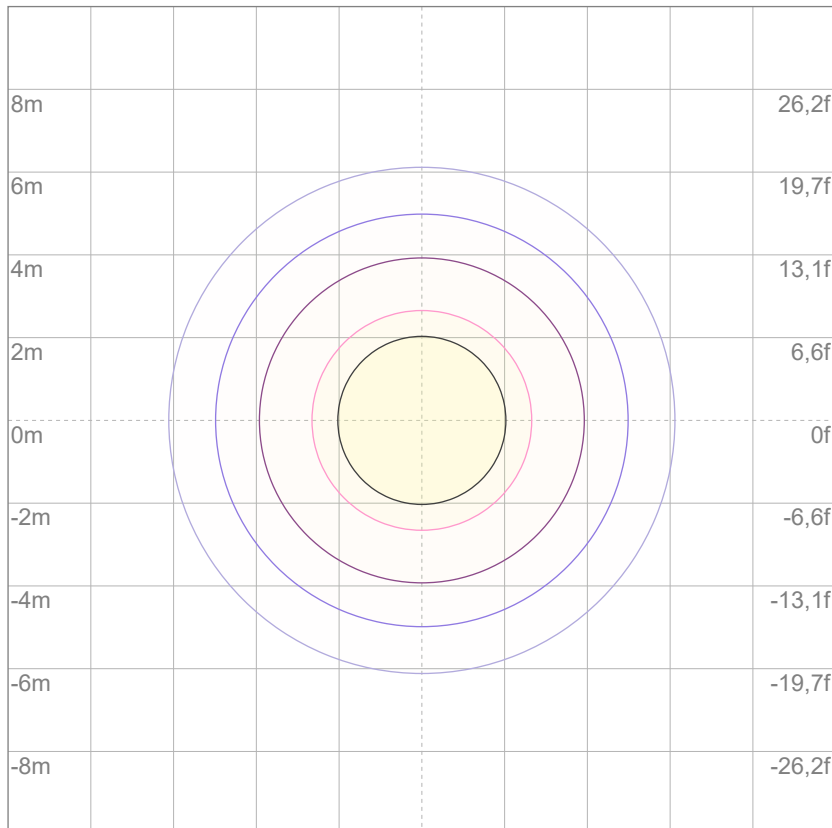
10%	8016 cd
20%	16032 cd
30%	24048 cd
40%	32064 cd
50%	40080 cd
60%	48096 cd
70%	56112 cd
80%	64128 cd

Conditions:

Number of c-planes: 4

Candela at center: 80160 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	24,0 lx
5%	40,1 lx
10%	80,2 lx
30%	240 lx
50%	401 lx

Conditions:

Number of c-planes: 4

Lux at center: 802 lx

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



Total lumen output:

16425 lm

Peak candela output:

73509 cd

Light quality:

CRI: 95,6

Color temperature:

3262 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

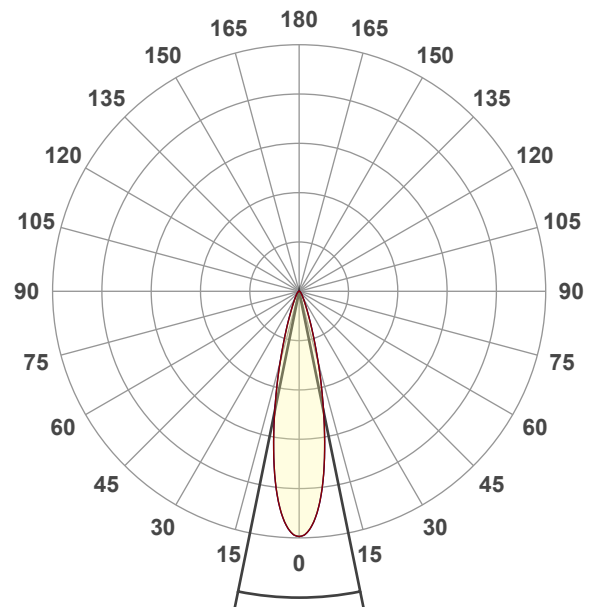
**MEASURAMENT CONDITIONS:**

Beam angle:  
TIR Lens

Target:  
3200K - HQ

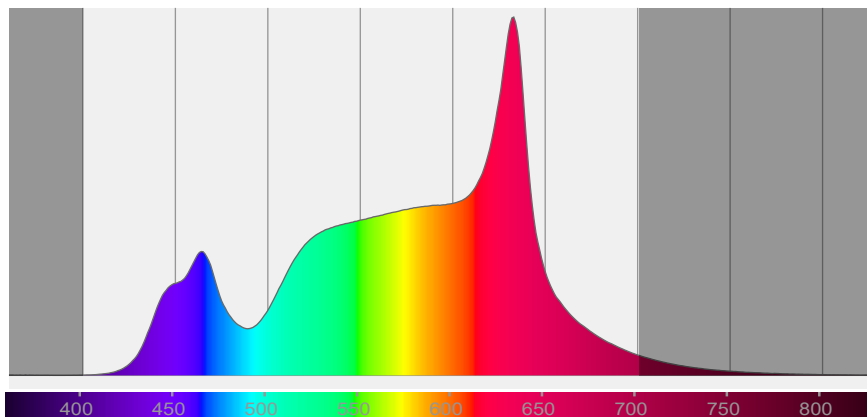
Operator:  
Salvatore Giglio

Date and time:  
06/09/2024 17:07:37

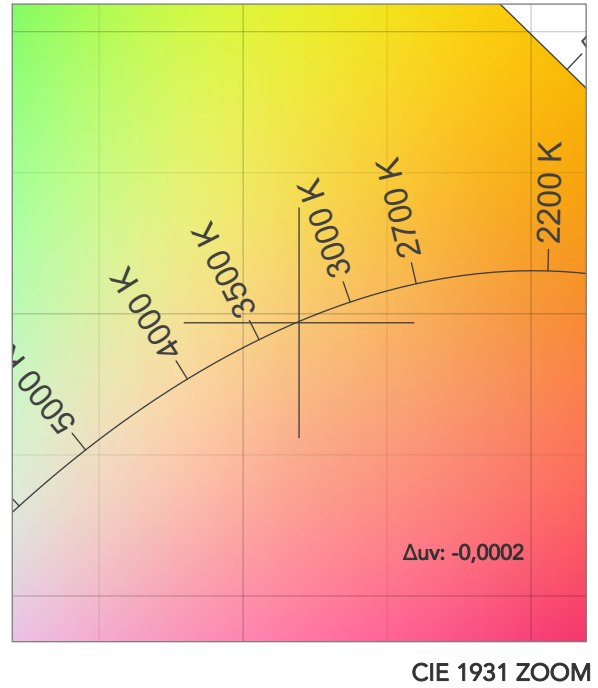
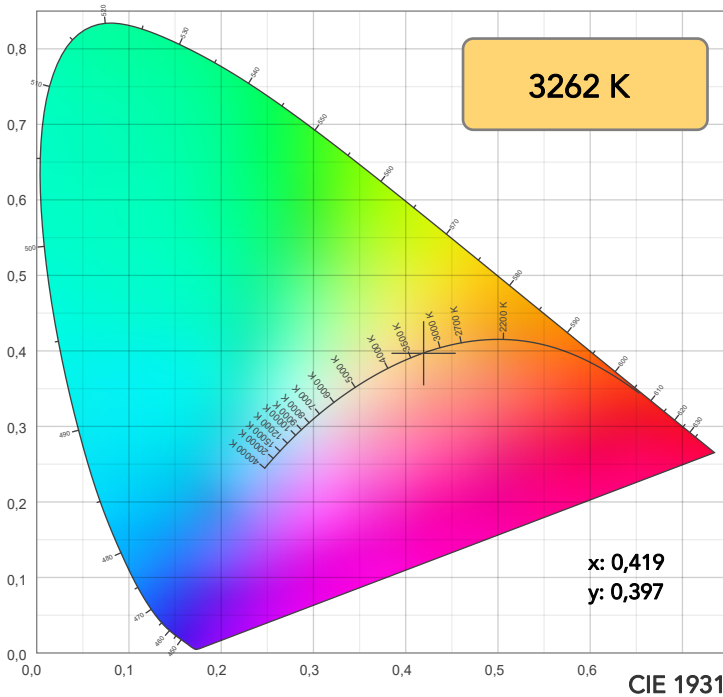


Beam angle 50%: 23°  
Field angle 10%: 43°  
Cut off angle 2.5%: 67°

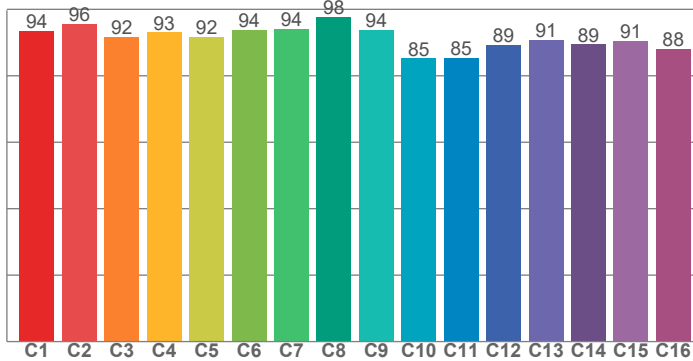
Spectra



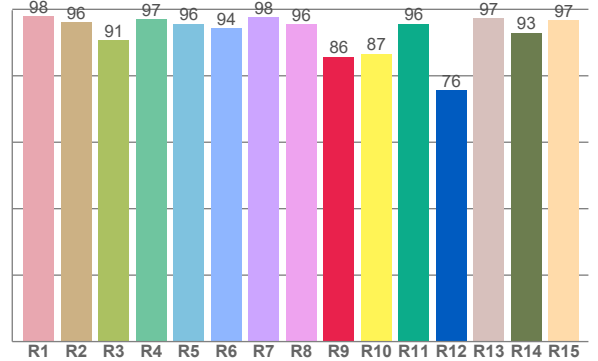
# COLOR DETAILS



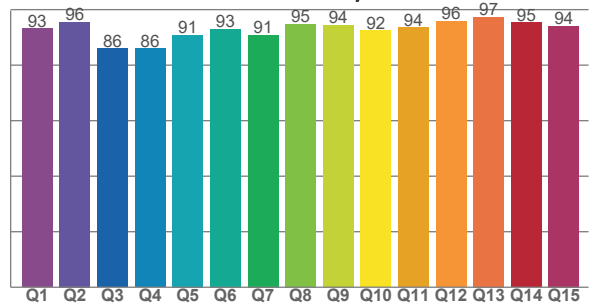
**TM30: 91,5**



**CRI: 95,6 (R1-R8)**



**CQS: 92,1**



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
98,0	96,2	90,7	97,0	95,6	94,4	97,6	95,6	85,7	86,6	95,7	75,6	97,4	93,0	96,7

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,6	95,6	91,7	93,0	91,7	93,9	94,1	97,8	93,8	85,3	85,4	89,2	90,8	89,5	90,6	88,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,1	95,6	85,9	85,9	90,9	93,0	90,8	94,8	94,5	92,4	93,5	95,8	97,3	95,3	94,1

## COLOR PARAMETERS

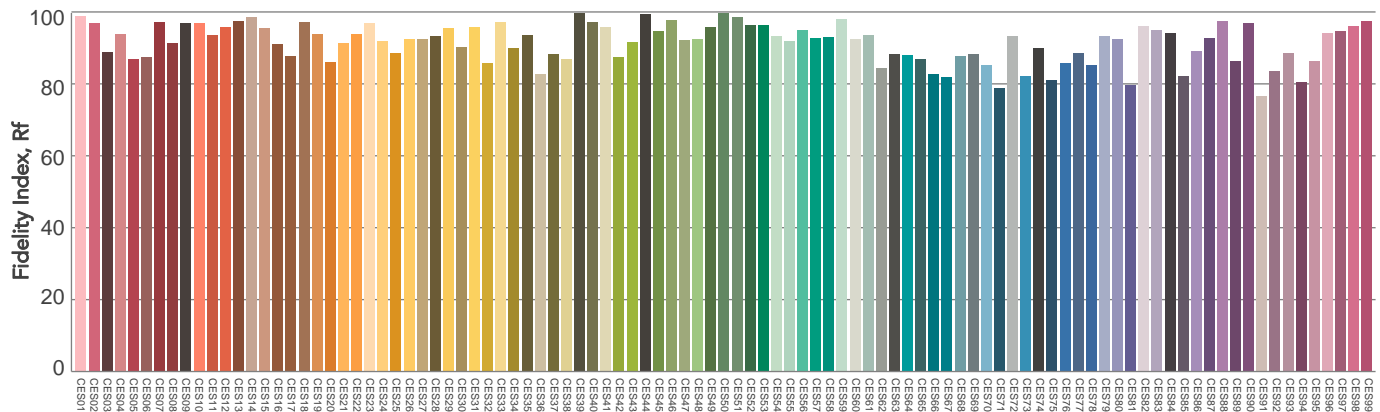
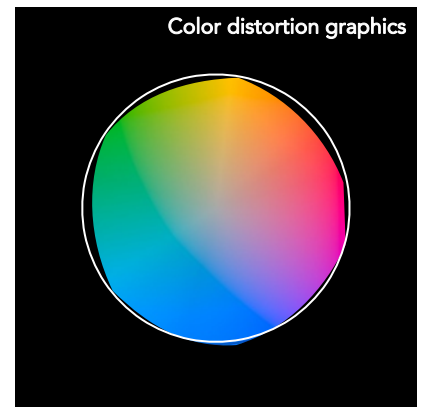
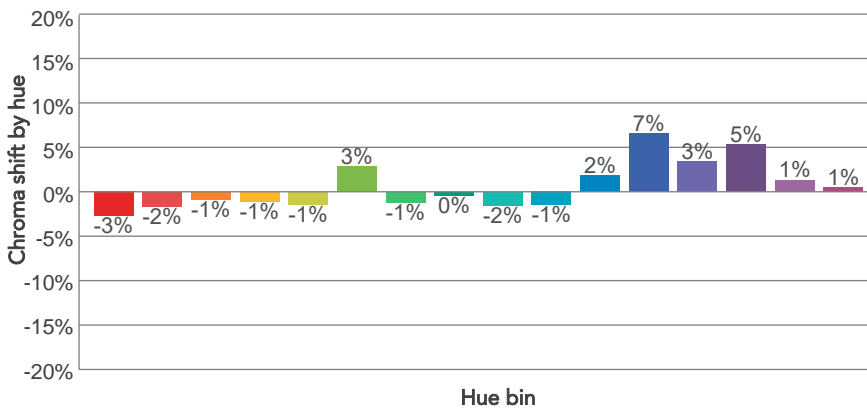
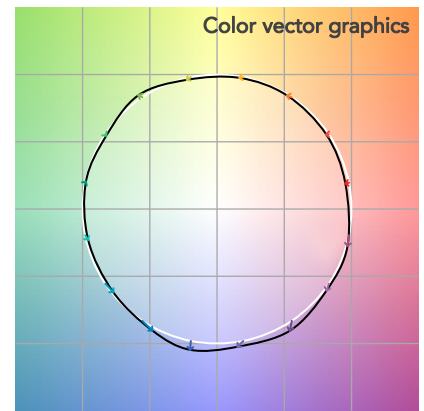
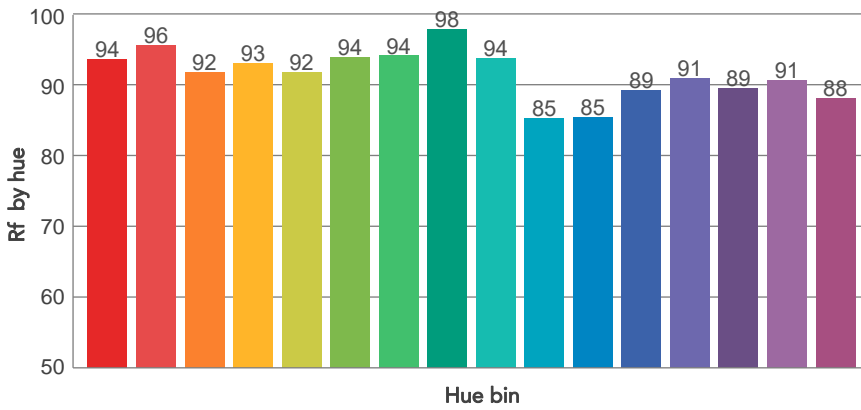
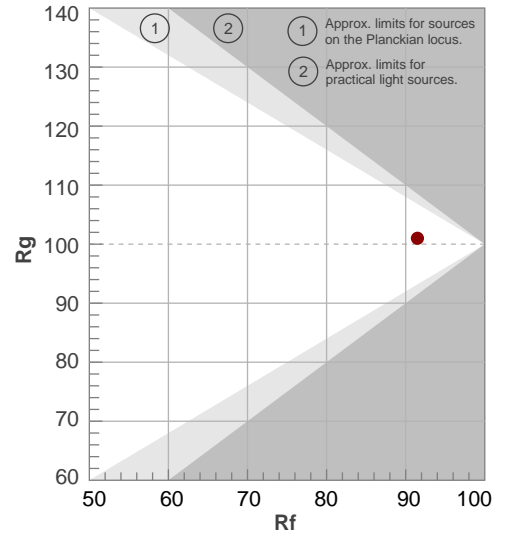
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
3262 K	95,6	85,7	91,5	101,0	92,1	89	0,419	0,397	-0,0002

# TM30 DETAILS

**Rf 91,5**  
Fidelity index Rf

**Rg 101,0**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-3%	0%
2	96	-2%	1%
3	92	-1%	4%
4	93	-1%	3%
5	92	-1%	3%
6	94	3%	2%
7	94	-1%	0%
8	98	0%	-1%
9	94	-2%	4%
10	85	-1%	9%
11	85	2%	10%
12	89	7%	1%
13	91	3%	-5%
14	89	5%	-5%
15	91	1%	-5%
16	88	1%	-8%

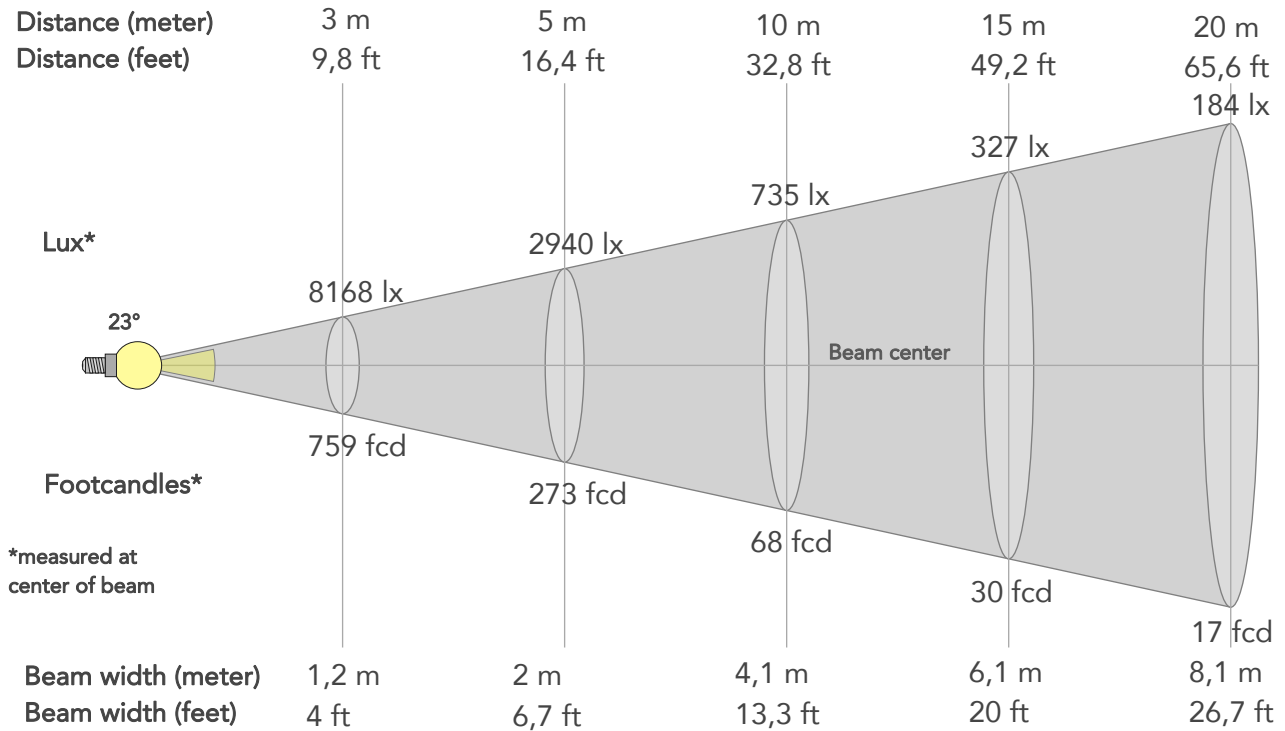




# BEAM DETAILS



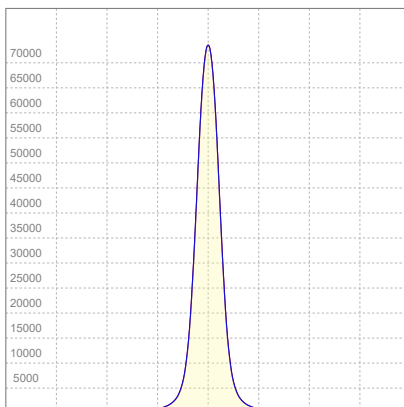
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23°	43°	67°	97,9%	93,3%



## 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	73509lx	18377lx	8168lx	4594lx	2940lx	1307lx	735lx	327lx	184lx	118lx	82lx	46lx	29lx
Footcand.	6829fcd	1707fcd	759fcd	427fcd	273fcd	121fcd	68fcd	30fcd	17fcd	11fcd	8fcd	4fcd	3fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3,1m	4,1m	6,1m	8,1m	10,2m	12,2m	16,3m	20,3m
Beam wid.	1,3ft	2,7ft	4ft	5,3ft	6,7ft	10ft	13,3ft	20ft	26,7ft	33,4ft	40ft	53,4ft	66,7ft

## LINEAR DISTRIBUTION DIAGRAM

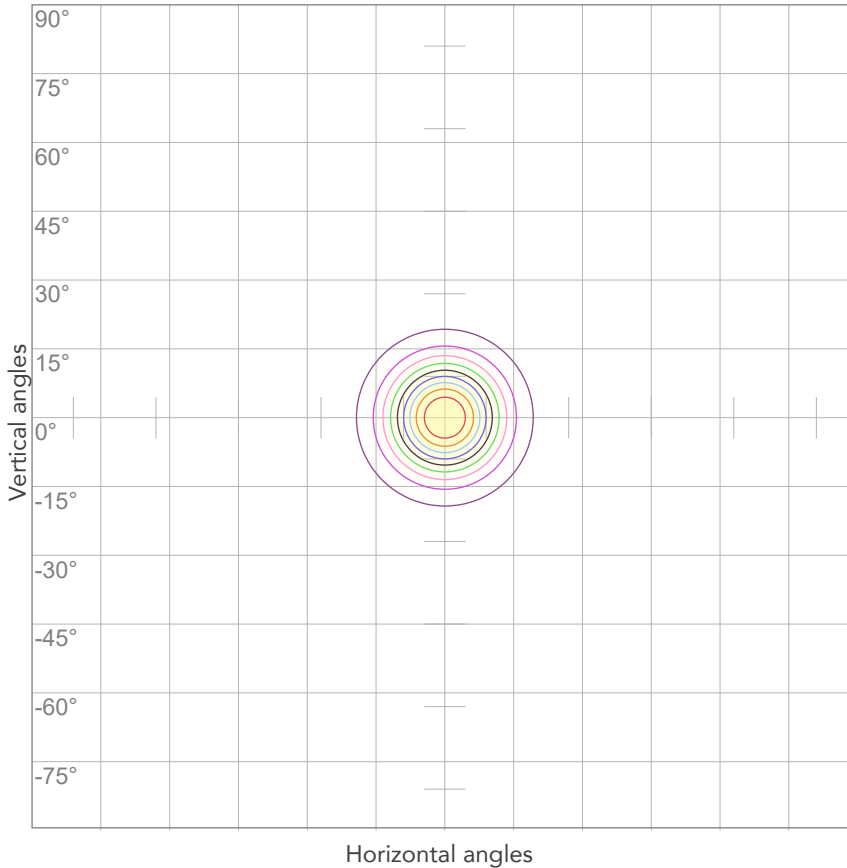


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
225V	1,26A	283W	0,99	58lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



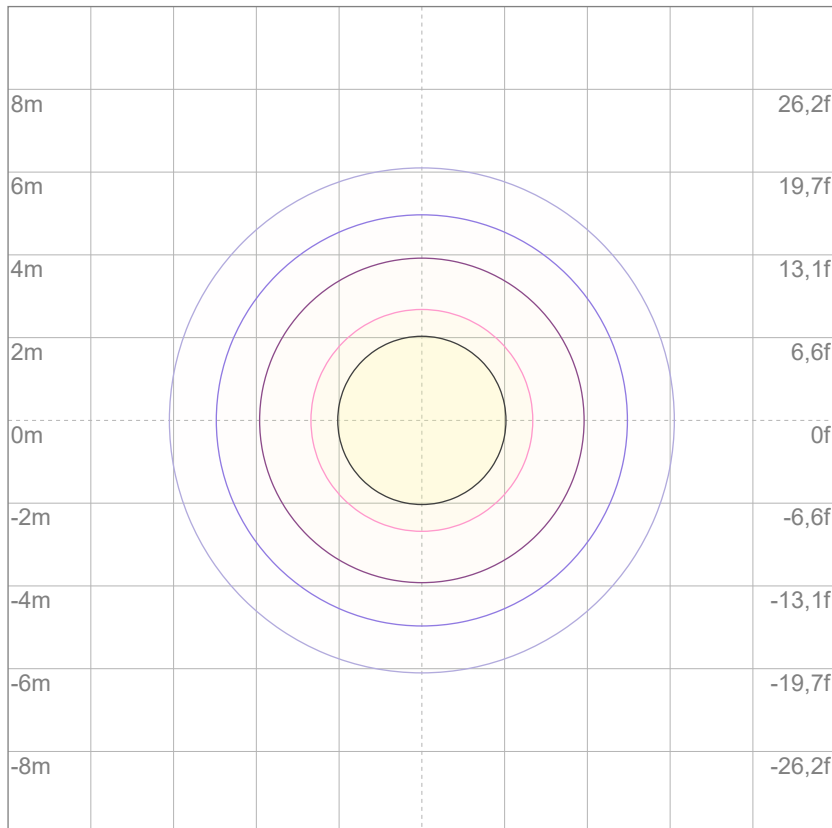
10%	7351 cd
20%	14702 cd
30%	22053 cd
40%	29404 cd
50%	36755 cd
60%	44106 cd
70%	51457 cd
80%	58808 cd

Conditions:

Number of c-planes: 4

Candela at center: 73509 cd

## ISO LUX DIAGRAM



3%	22,1 lx
5%	36,8 lx
10%	73,5 lx
30%	221 lx
50%	368 lx

Conditions:

Number of c-planes: 4

Lux at center: 735 lx

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



Total lumen output:

15066 lm

Peak candela output:

68222 cd

Light quality:

CRI: 96,4

Color temperature:

5616 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

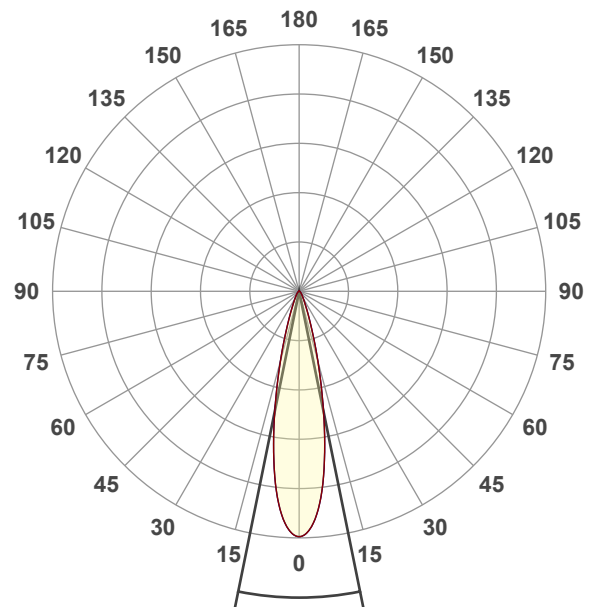
**MEASURAMENT CONDITIONS:**

Beam angle:  
TIR Lens

Target:  
5600K - HQ

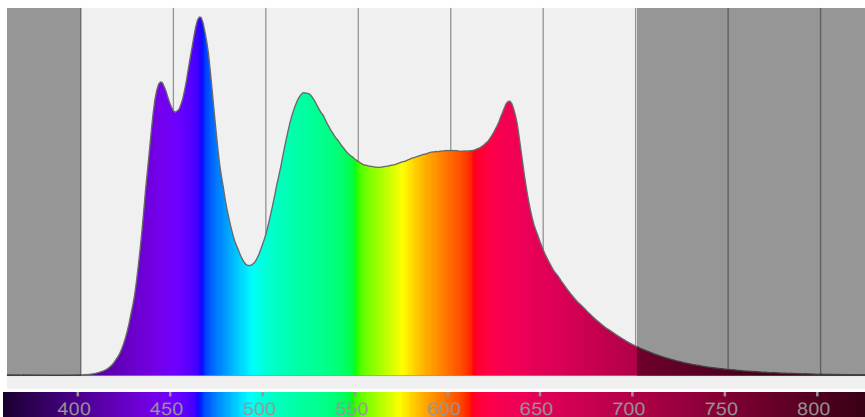
Operator:  
Salvatore Giglio

Date and time:  
06/09/2024 17:12:04

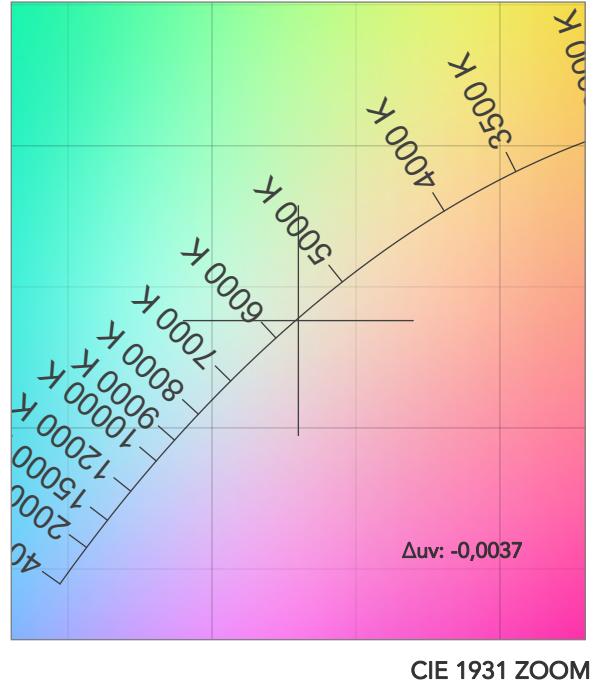
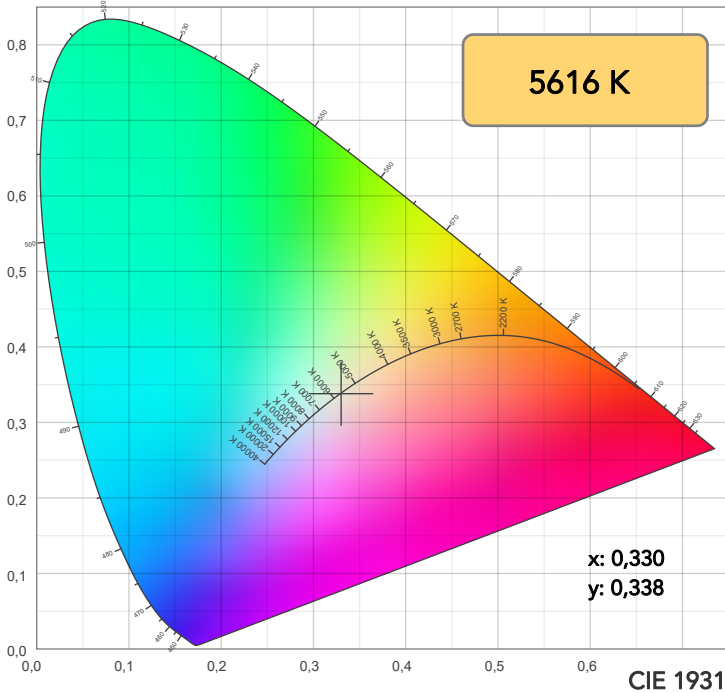


Beam angle 50%: 22,9°  
Field angle 10%: 42,7°  
Cut off angle 2.5%: 66,5°

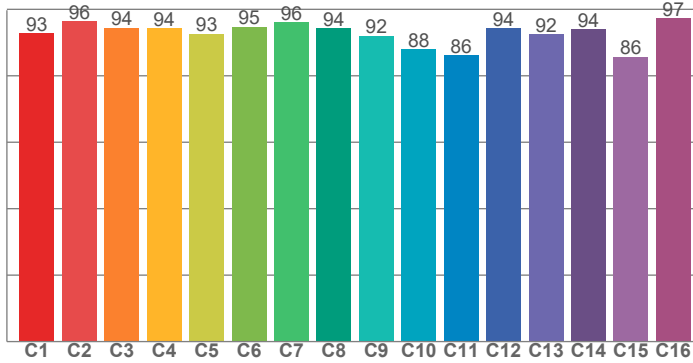
Spectra



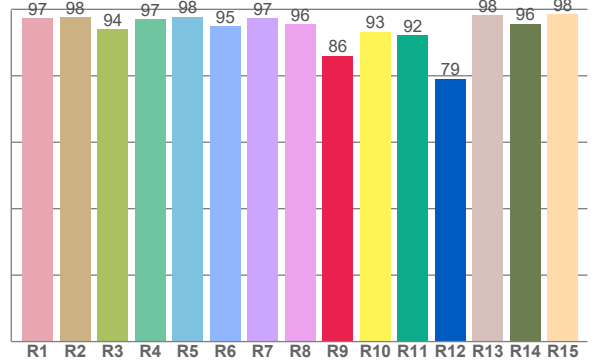
# COLOR DETAILS



TM30: 92,5



CRI: 96,4 (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	97,6	94,0	97,0	97,7	94,8	97,2	95,6	86,0	93,2	92,2	79,1	98,1	95,7	98,5

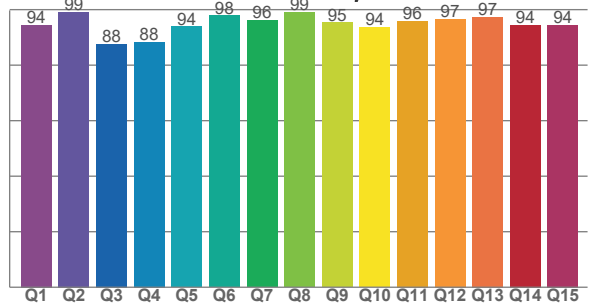
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,7	96,3	94,4	94,2	92,6	94,7	96,1	94,3	91,9	87,9	86,1	94,2	92,4	94,0	85,7	97,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,4	99,2	87,6	88,3	93,9	97,8	96,1	99,1	95,4	93,6	95,9	96,6	97,4	94,5	94,5

CQS: 94,0



## COLOR PARAMETERS

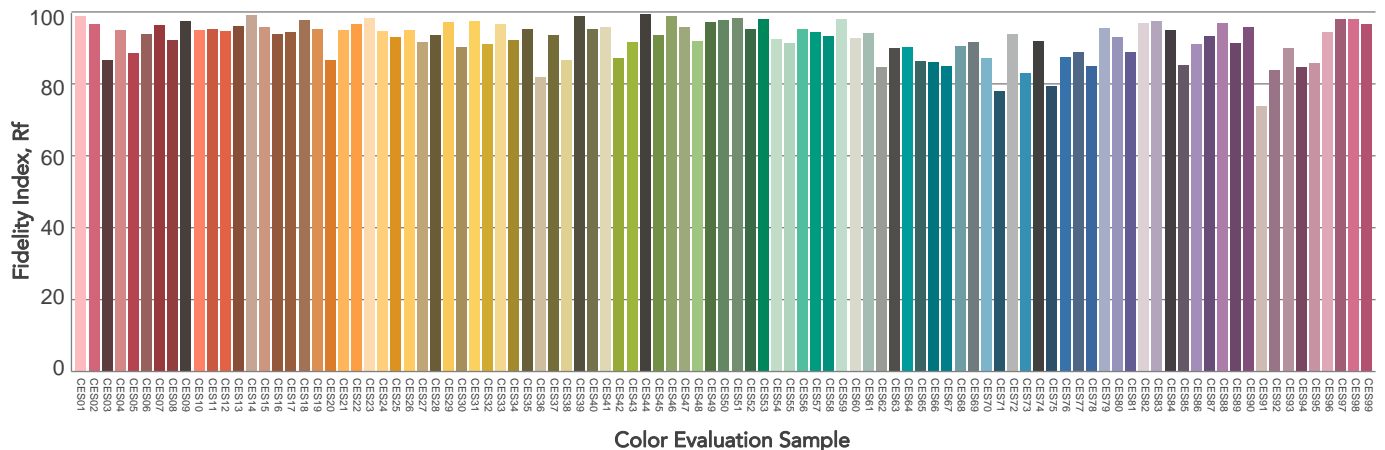
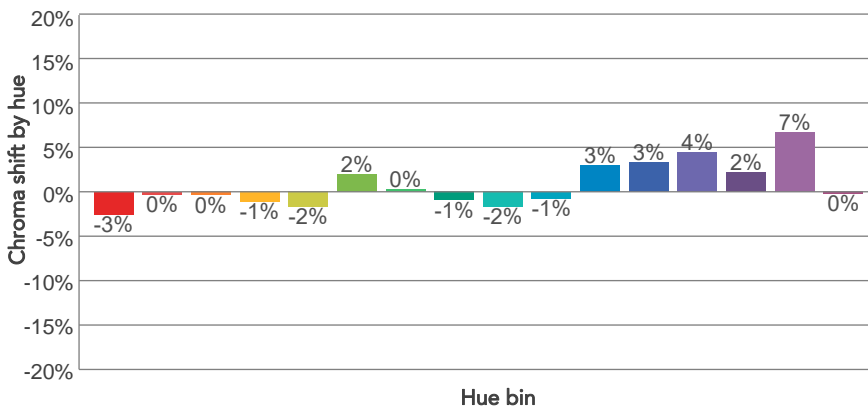
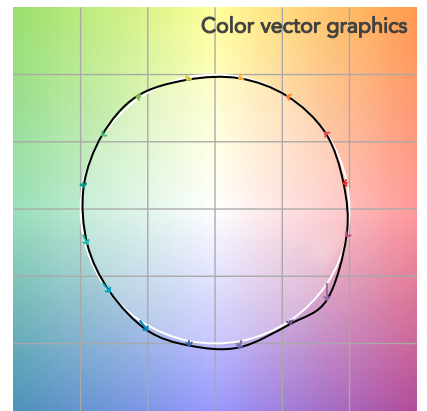
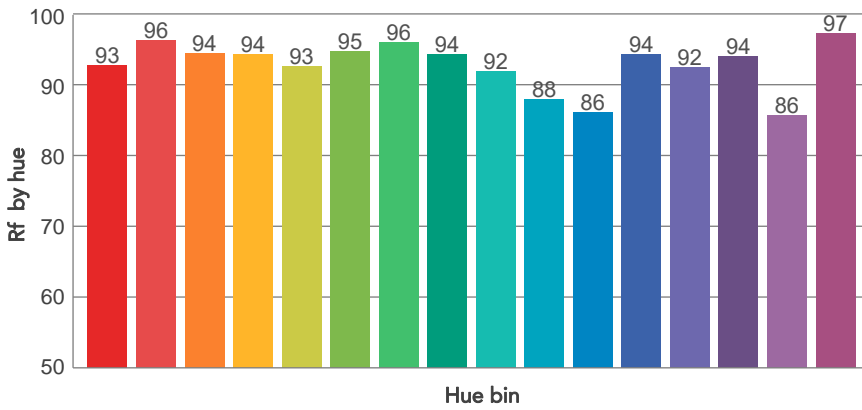
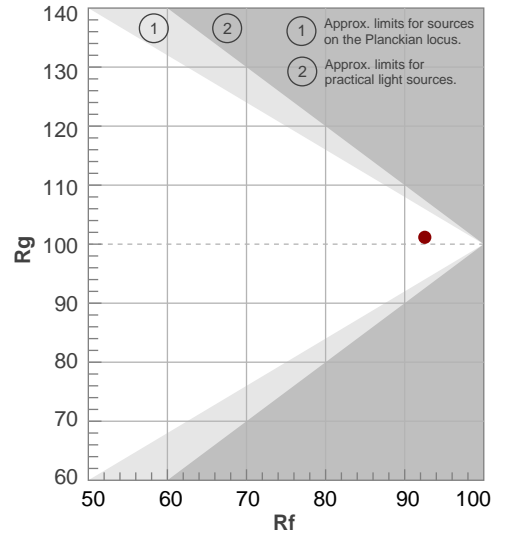
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
5616 K	96,4	86,0	92,5	101,2	94,0	95	0,330	0,338	-0,0037

# TM30 DETAILS

**Rf 92,5**  
Fidelity index Rf

**Rg 101,2**  
Gammut index

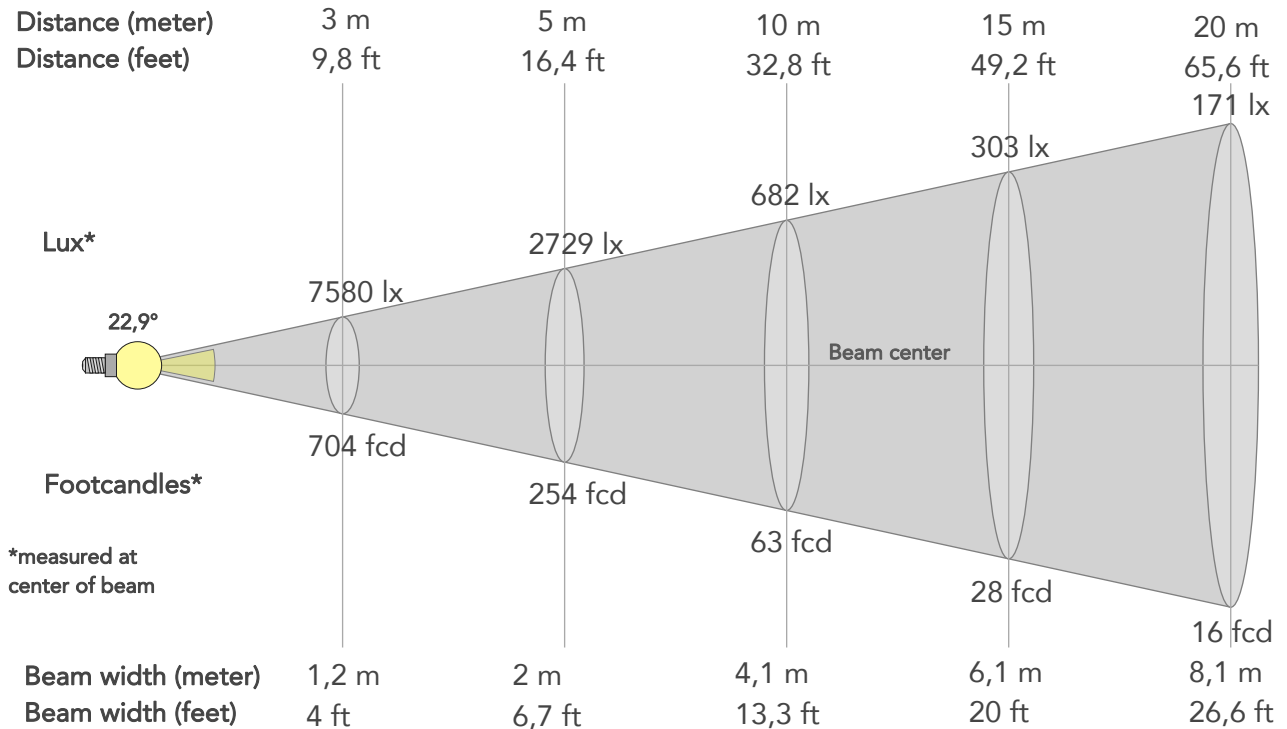
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	-3%	0%
2	96	0%	2%
3	94	0%	2%
4	94	-1%	1%
5	93	-2%	2%
6	95	2%	2%
7	96	0%	1%
8	94	-1%	3%
9	92	-2%	7%
10	88	-1%	8%
11	86	3%	8%
12	94	3%	1%
13	92	4%	-3%
14	94	2%	-1%
15	86	7%	-10%
16	97	0%	0%



# BEAM DETAILS



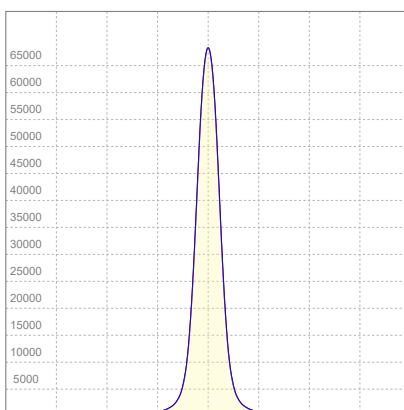
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,9°	42,7°	66,5°	97,7%	93,1%



## 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	68222lx	17055lx	7580lx	4264lx	2729lx	1213lx	682lx	303lx	171lx	109lx	76lx	43lx	27lx
Footcand.	6338fcd	1585fcd	704fcd	396fcd	254fcd	113fcd	63fcd	28fcd	16fcd	10fcd	7fcd	4fcd	3fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	4,1m	6,1m	8,1m	10,1m	12,2m	16,2m	20,3m
Beam wid.	1,3ft	2,7ft	4ft	5,3ft	6,7ft	10ft	13,3ft	20ft	26,6ft	33,3ft	39,9ft	53,2ft	66,6ft

## LINEAR DISTRIBUTION DIAGRAM

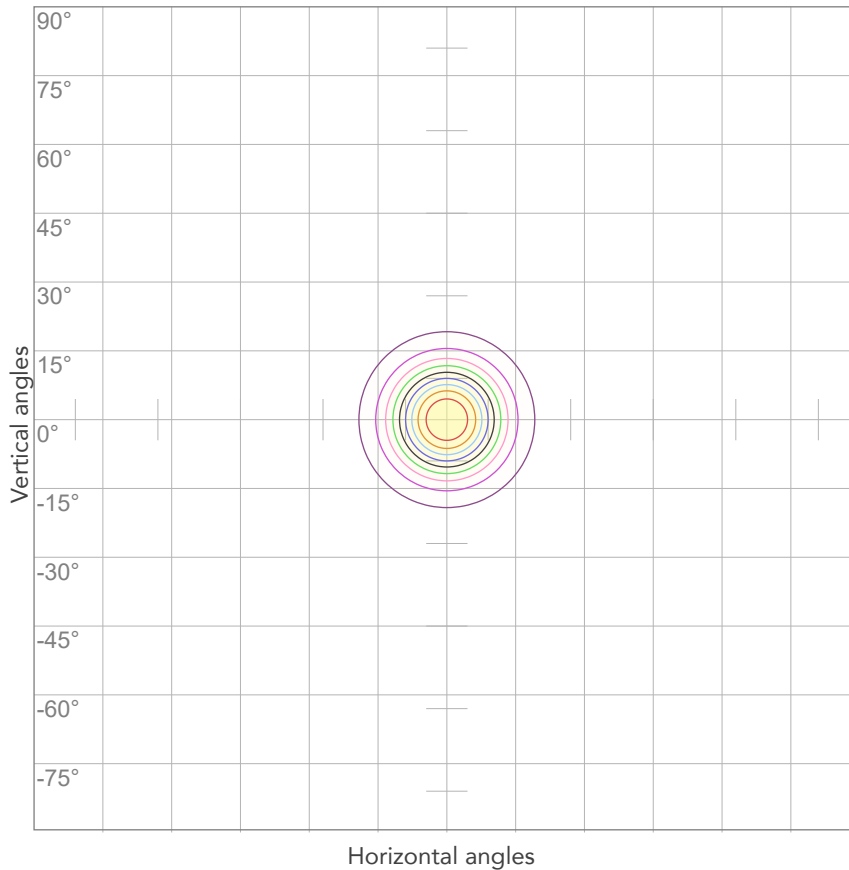


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	1,30A	291W	0,99	52lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



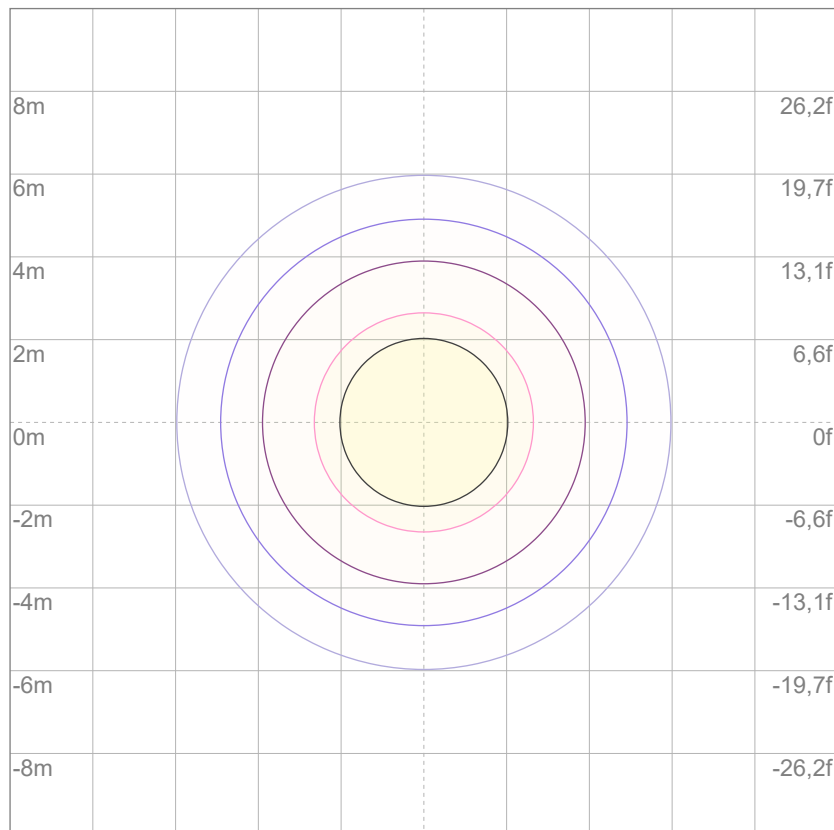
10%	6822 cd
20%	13644 cd
30%	20467 cd
40%	27289 cd
50%	34111 cd
60%	40933 cd
70%	47755 cd
80%	54578 cd

Conditions:

Number of c-planes: 4

Candela at center: 68222 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	20,5 lx
5%	34,1 lx
10%	68,2 lx
30%	205 lx
50%	341 lx

Conditions:

Number of c-planes: 4

Lux at center: 682 lx

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



Total lumen output:

13639 lm

Peak candela output:

7751 cd

Light quality:

CRI: 87,3

Color temperature:

3261 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

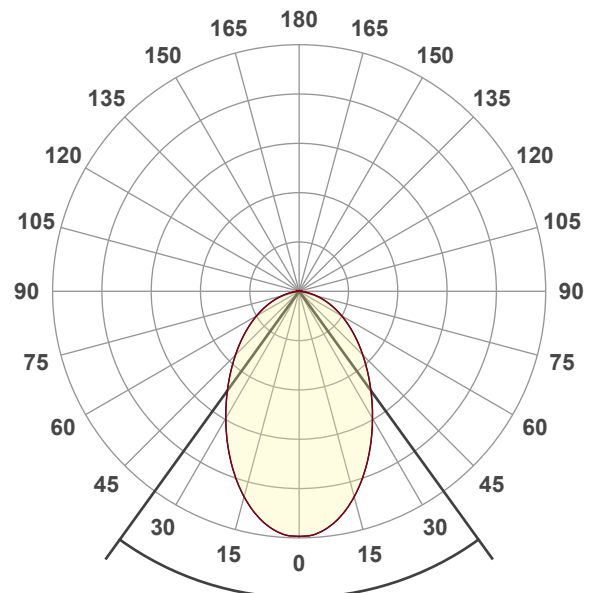
**MEASURAMENT CONDITIONS:**

Beam angle:  
MD Filter

Target:  
3200K - HB

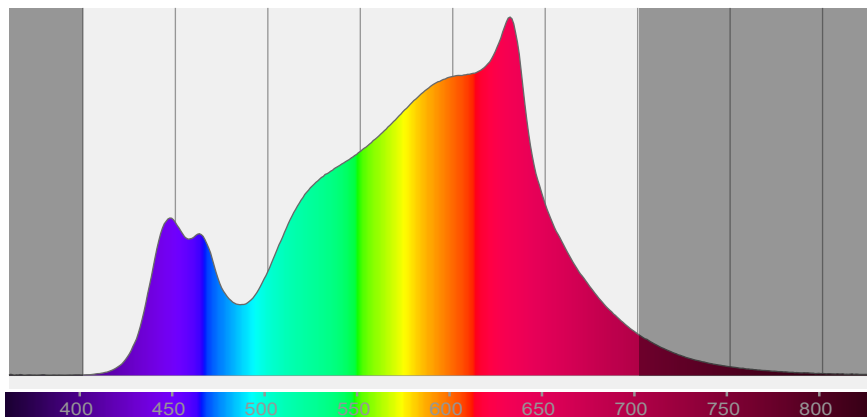
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 12:22:34



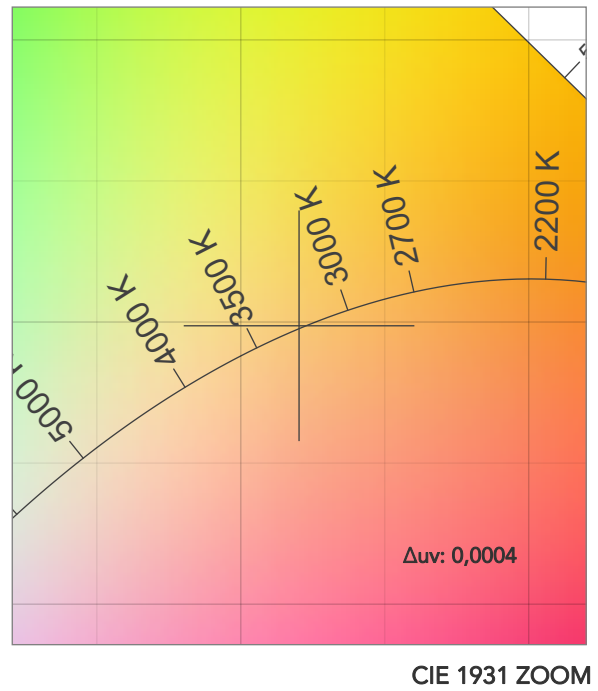
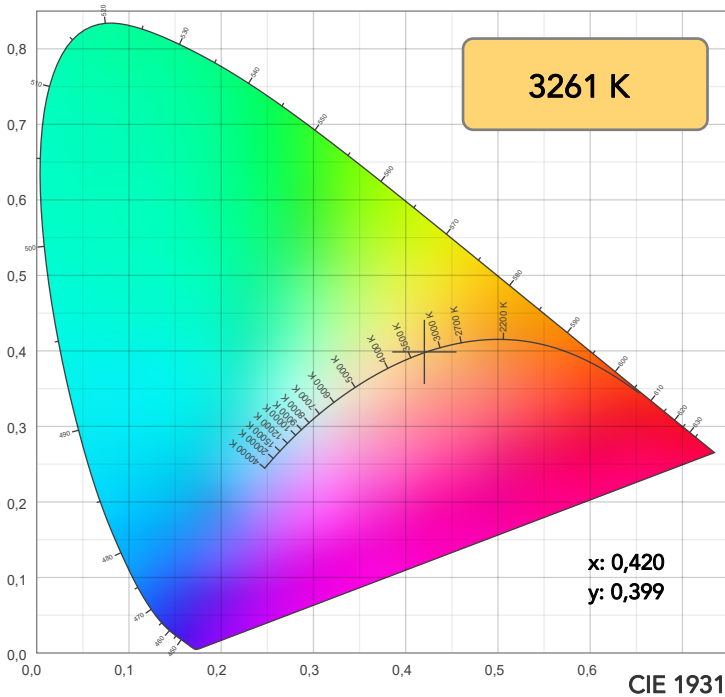
Beam angle 50%: 71,7°  
Field angle 10%: 143°  
Cut off angle 2.5%: 164,6°

Spectra

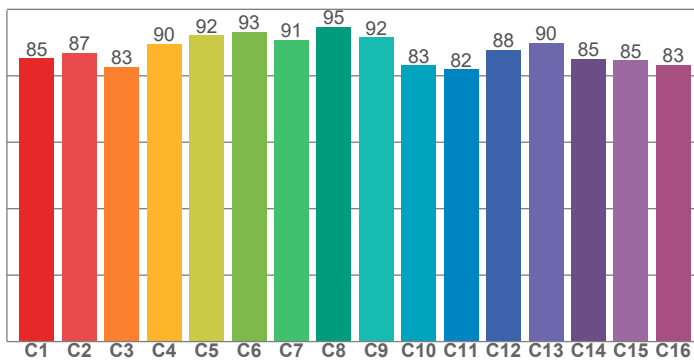




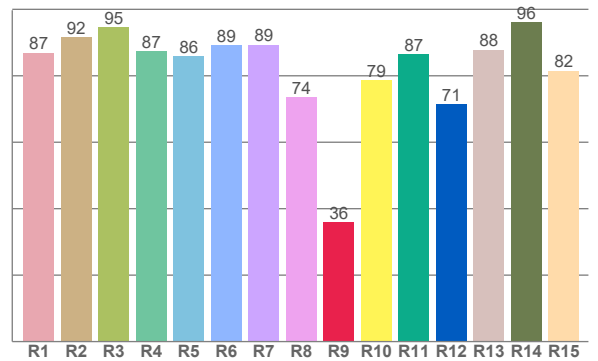
# COLOR DETAILS



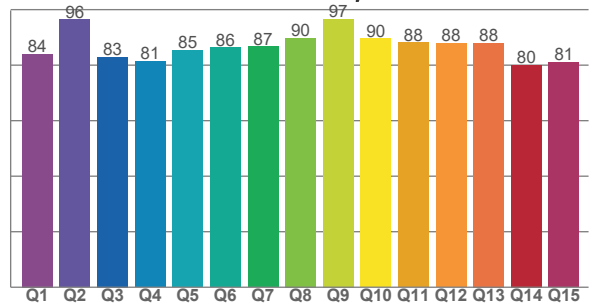
**TM30: 87,5**



**CRI: 87,3 (R1-R8)**



**CQS: 86,0**



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
86,9	91,6	94,6	87,4	85,9	89,1	89,4	73,6	35,9	78,6	86,6	71,4	87,8	96,2	81,5

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
85,2	86,9	82,7	89,6	92,1	93,2	90,8	94,7	91,6	83,1	81,9	87,9	89,9	85,0	84,6	83,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,9	96,4	82,9	81,4	85,3	86,3	86,6	89,7	96,7	89,5	88,2	87,9	88,0	80,1	81,0

## COLOR PARAMETERS

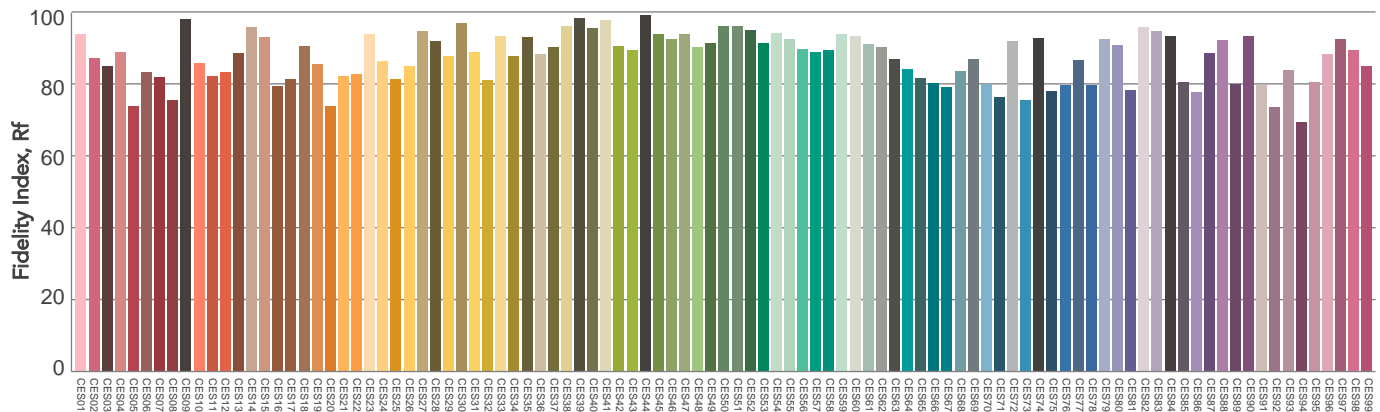
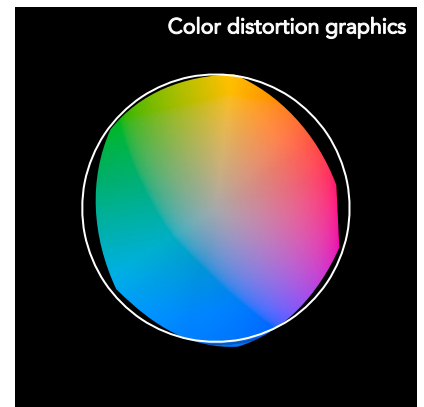
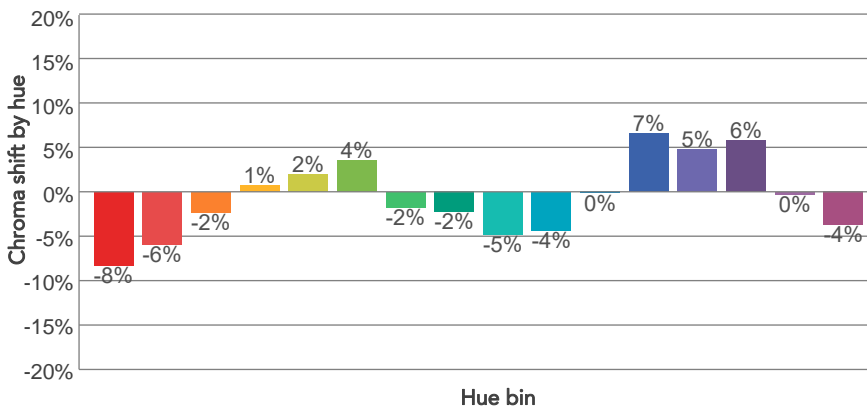
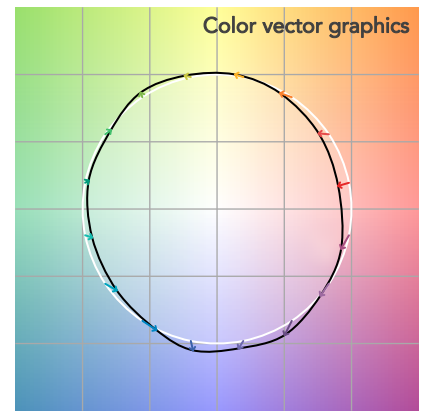
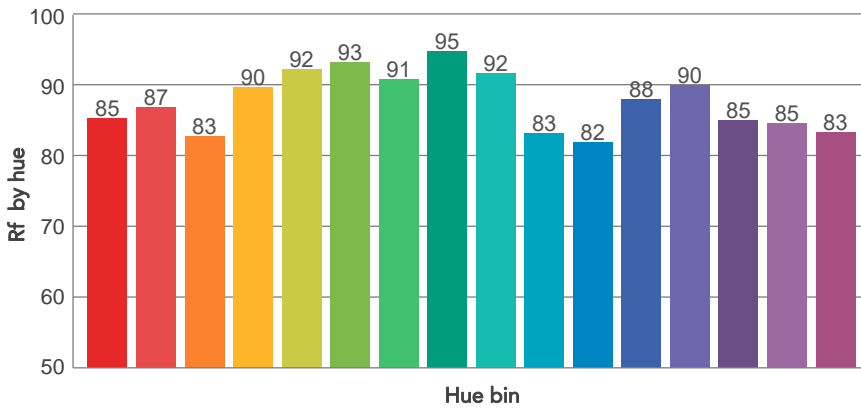
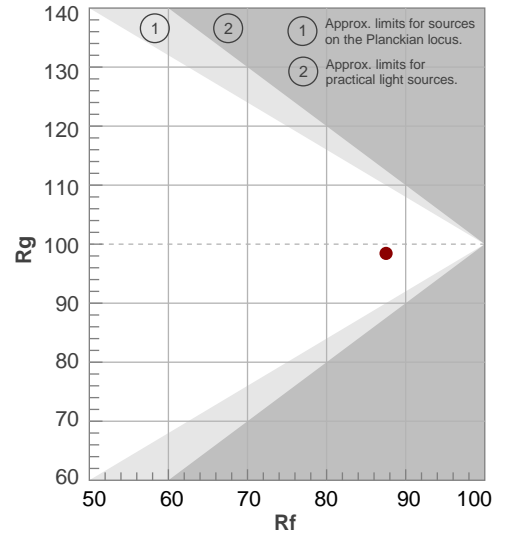
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3261 K	87,3	35,9	87,5	98,4	86,0	79	0,420	0,399	0,0004

# TM30 DETAILS

**Rf 87,5**  
Fidelity index Rf

**Rg 98,4**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	85	-8%	-1%
2	87	-6%	5%
3	83	-2%	9%
4	90	1%	6%
5	92	2%	4%
6	93	4%	-1%
7	91	-2%	-5%
8	95	-2%	-2%
9	92	-5%	3%
10	83	-4%	9%
11	82	0%	12%
12	88	7%	3%
13	90	5%	-4%
14	85	6%	-10%
15	85	0%	-11%
16	83	-4%	-11%

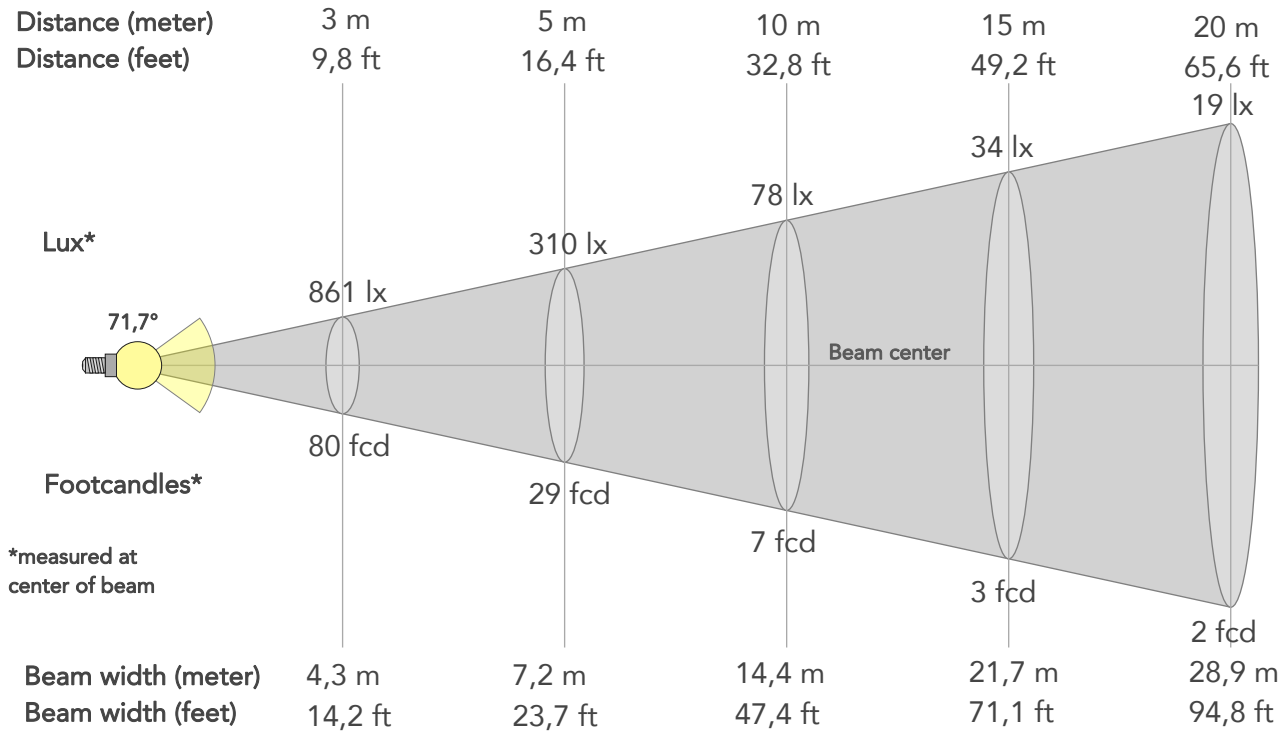


Color Evaluation Sample

# BEAM DETAILS



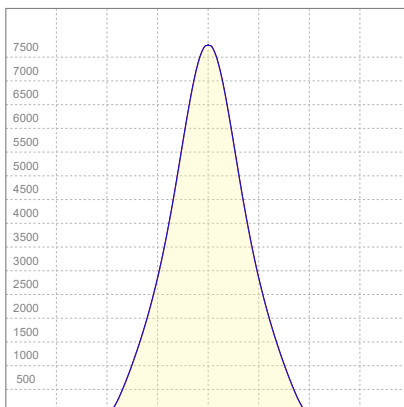
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
71,7°	143°	164,6°	84,2%	63,7%



## 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	7751lx	1938lx	861lx	484lx	310lx	138lx	78lx	34lx	19lx	12lx	9lx	5lx	3lx
Footcand.	720fcd	180fcd	80fcd	45fcd	29fcd	13fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	1,4m	2,9m	4,3m	5,8m	7,2m	10,8m	14,4m	21,7m	28,9m	36,1m	43,3m	57,8m	72,2m
Beam wid.	4,8ft	9,5ft	14,2ft	18,9ft	23,7ft	35,5ft	47,4ft	71,1ft	94,8ft	118,5ft	142,2ft	189,6ft	237ft

## LINEAR DISTRIBUTION DIAGRAM

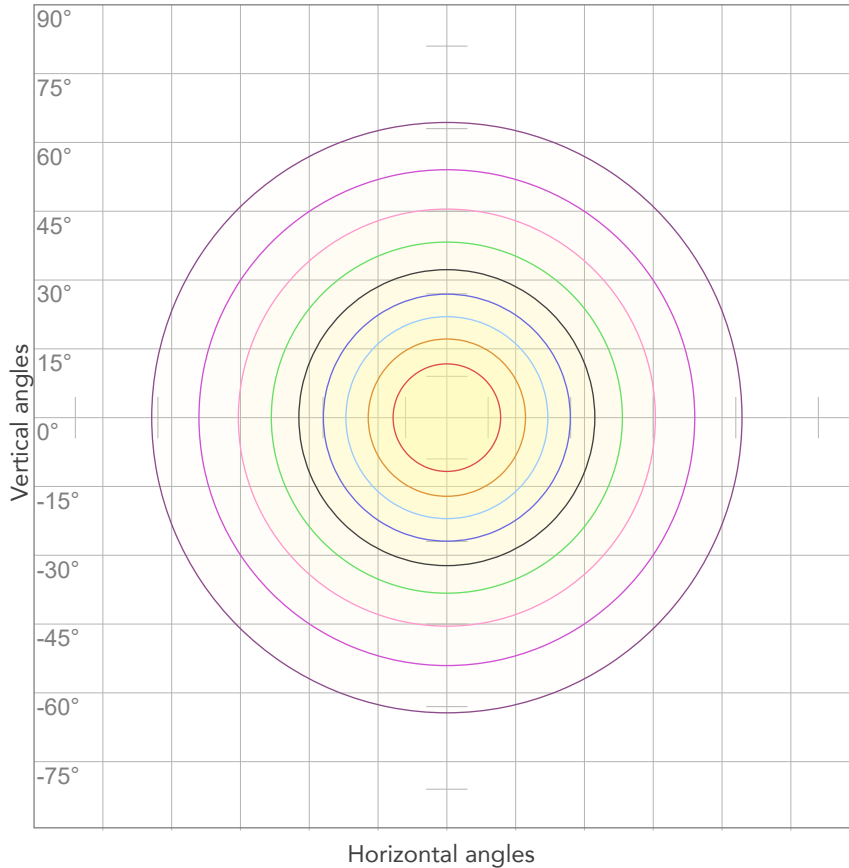


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
225V	1,26A	283W	0,99	48lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



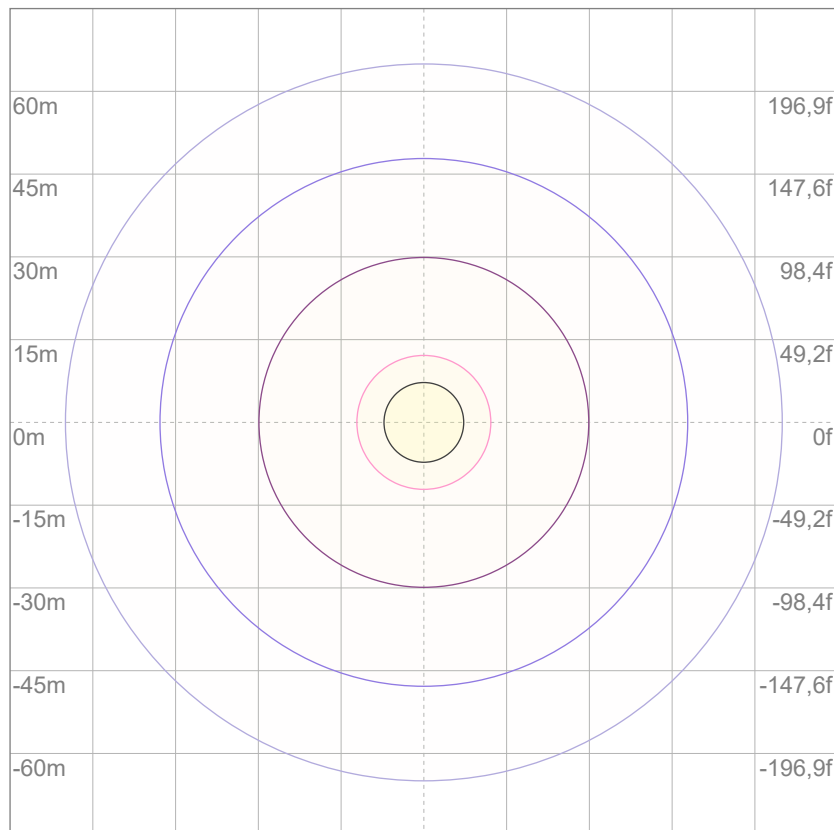
10%	775 cd
20%	1550 cd
30%	2325 cd
40%	3101 cd
50%	3876 cd
60%	4651 cd
70%	5426 cd
80%	6201 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 7751 cd

## ISO LUX DIAGRAM



3%	2,33 lx
5%	3,88 lx
10%	7,75 lx
30%	23,3 lx
50%	38,8 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 77,5 lx

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

Mounting height: 10 meters (33 feet)



Total lumen output:

14455 lm

Peak candela output:

8091 cd

Light quality:

CRI: 81,0

Color temperature:

5651 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

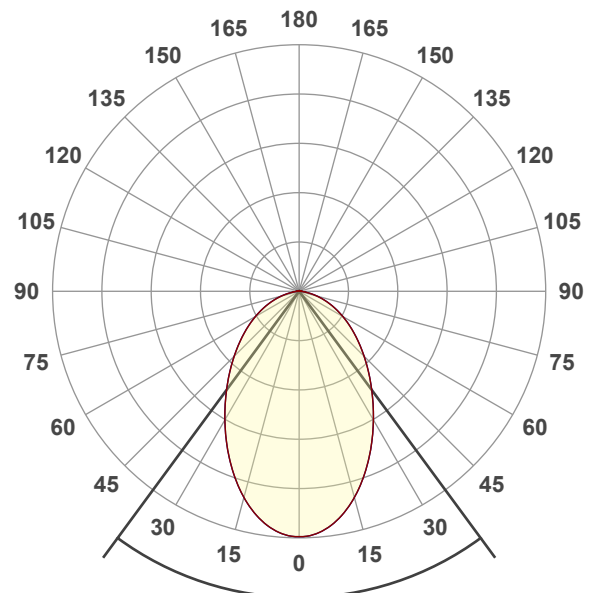
**MEASURAMENT CONDITIONS:**

Beam angle:  
MD Filter

Target:  
5600K - HB

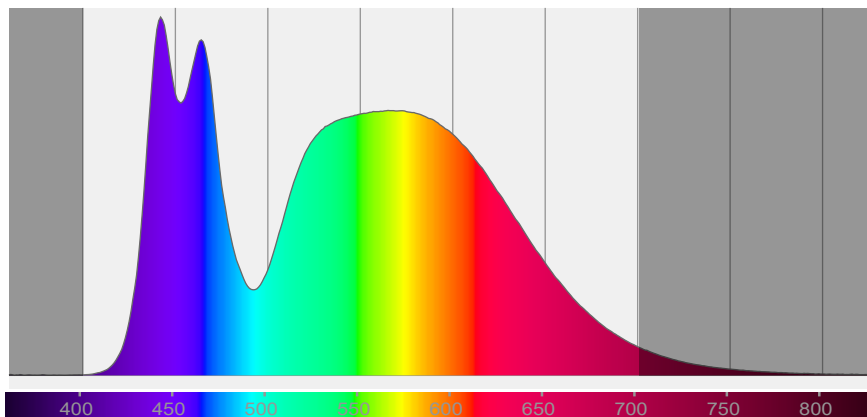
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 12:13:28

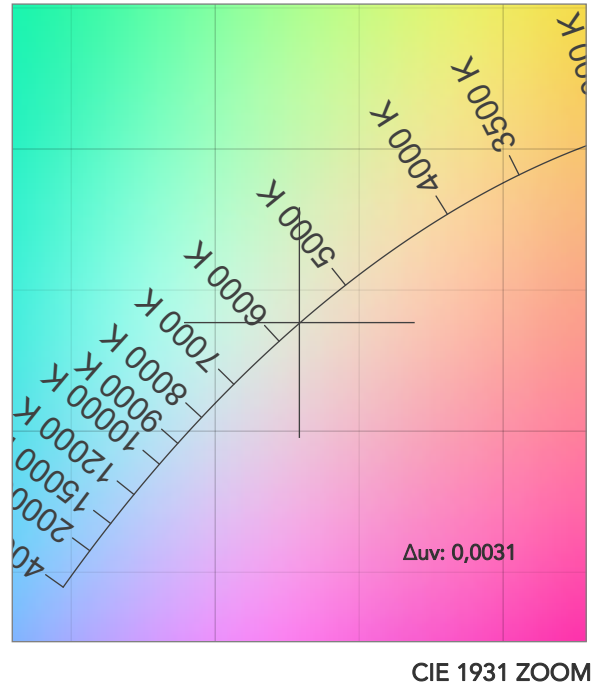
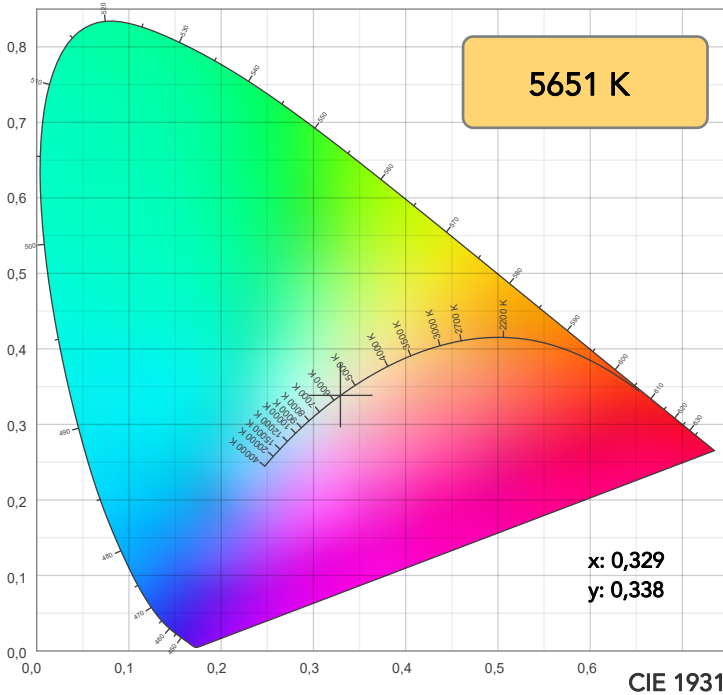


Beam angle 50%: 72,7°  
Field angle 10%: 143,7°  
Cut off angle 2.5%: 164,5°

Spectra

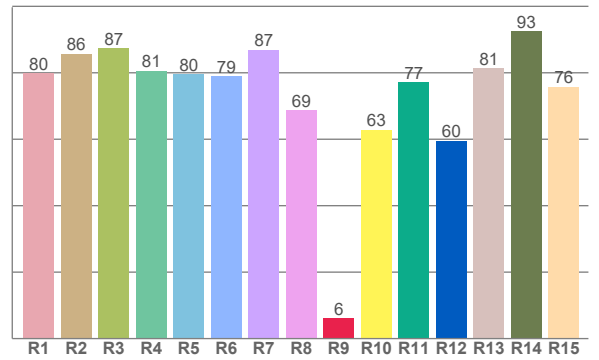
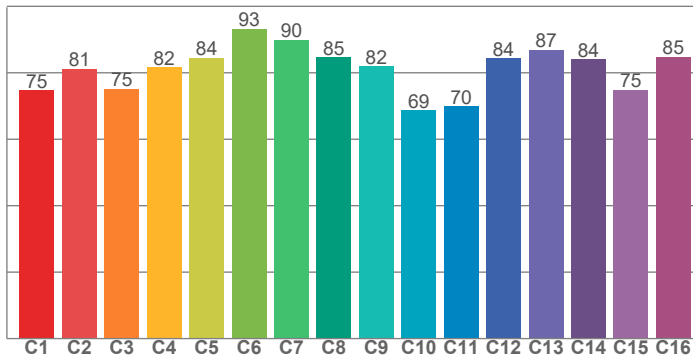


# COLOR DETAILS



**TM30: 80,9**

**CRI: 81,0 (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
79,9	85,7	87,4	80,6	79,6	79,0	86,9	68,7	6,1	62,9	77,2	59,5	81,4	92,6	75,8

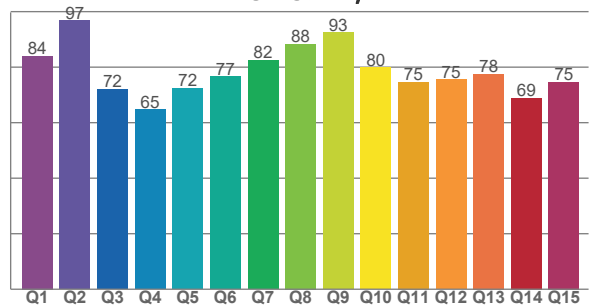
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
74,7	81,3	75,1	81,6	84,5	93,2	90,0	84,6	82,0	68,6	69,9	84,3	86,9	84,0	74,9	84,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,0	96,8	72,0	64,7	72,4	76,6	82,5	88,3	92,5	79,9	74,7	75,5	77,6	68,8	74,6

**CQS: 77,1**



## COLOR PARAMETERS

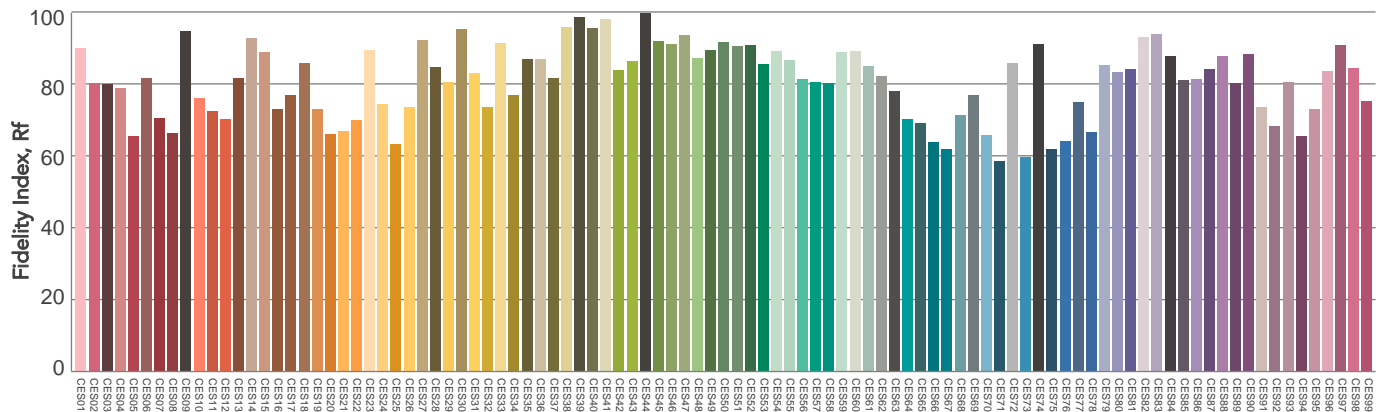
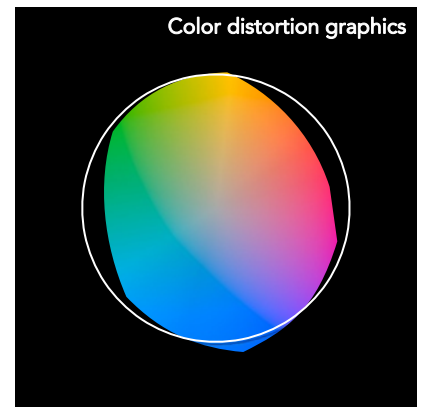
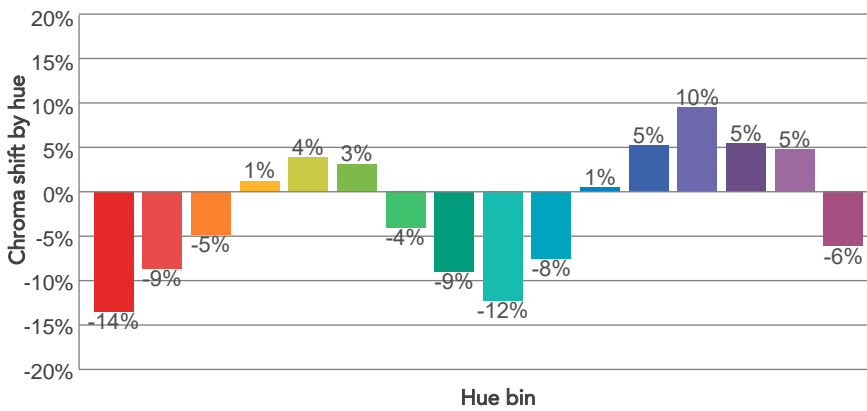
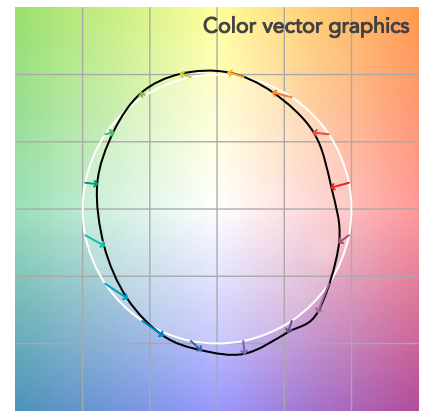
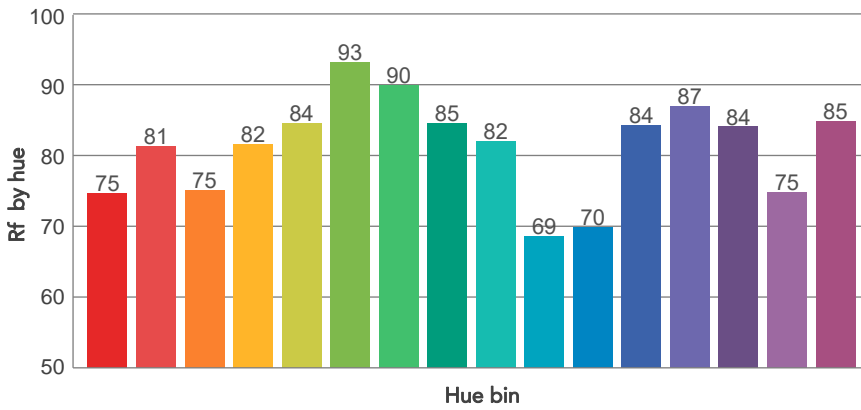
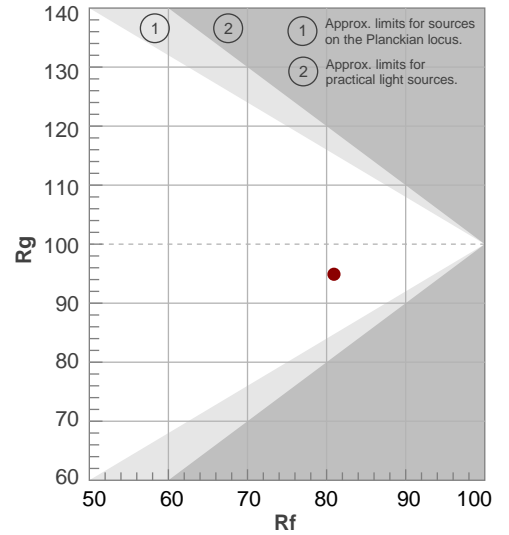
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5651 K	81,0	6,1	80,9	94,9	77,1	66	0,329	0,338	0,0031

# TM30 DETAILS

**Rf 80,9**  
Fidelity index Rf

**Rg 94,9**  
Gammut index

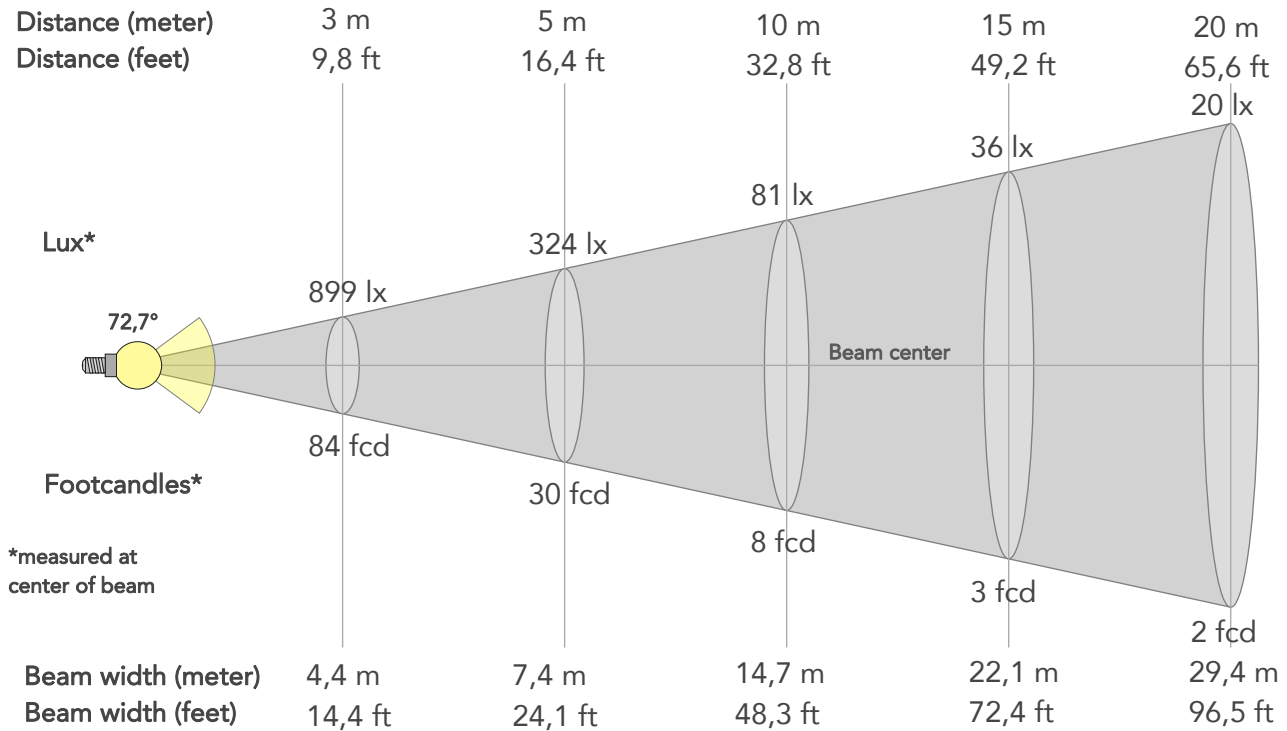
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-14%	-1%
2	81	-9%	7%
3	75	-5%	13%
4	82	1%	12%
5	84	4%	7%
6	93	3%	-1%
7	90	-4%	-5%
8	85	-9%	-1%
9	82	-12%	10%
10	69	-8%	18%
11	70	1%	19%
12	84	5%	9%
13	87	10%	-1%
14	84	5%	-7%
15	75	5%	-22%
16	85	-6%	-7%



# BEAM DETAILS



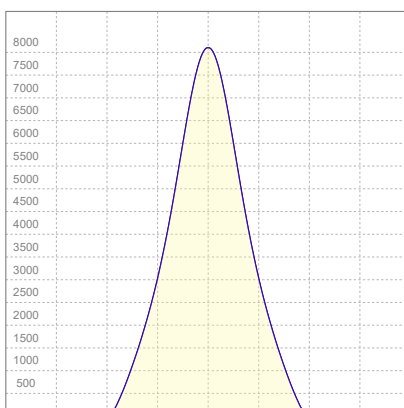
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
72,7°	143,7°	164,5°	84,1%	63,5%



## 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	8091lx	2023lx	899lx	506lx	324lx	144lx	81lx	36lx	20lx	13lx	9lx	5lx	3lx
Footcand.	752fcd	188fcd	84fcd	47fcd	30fcd	13fcd	8fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	1,5m	2,9m	4,4m	5,9m	7,4m	11m	14,7m	22,1m	29,4m	36,8m	44,1m	58,9m	73,6m
Beam wid.	4,9ft	9,7ft	14,4ft	19,3ft	24,1ft	36,2ft	48,3ft	72,4ft	96,5ft	120,7ft	144,8ft	193,1ft	241,3ft

## LINEAR DISTRIBUTION DIAGRAM



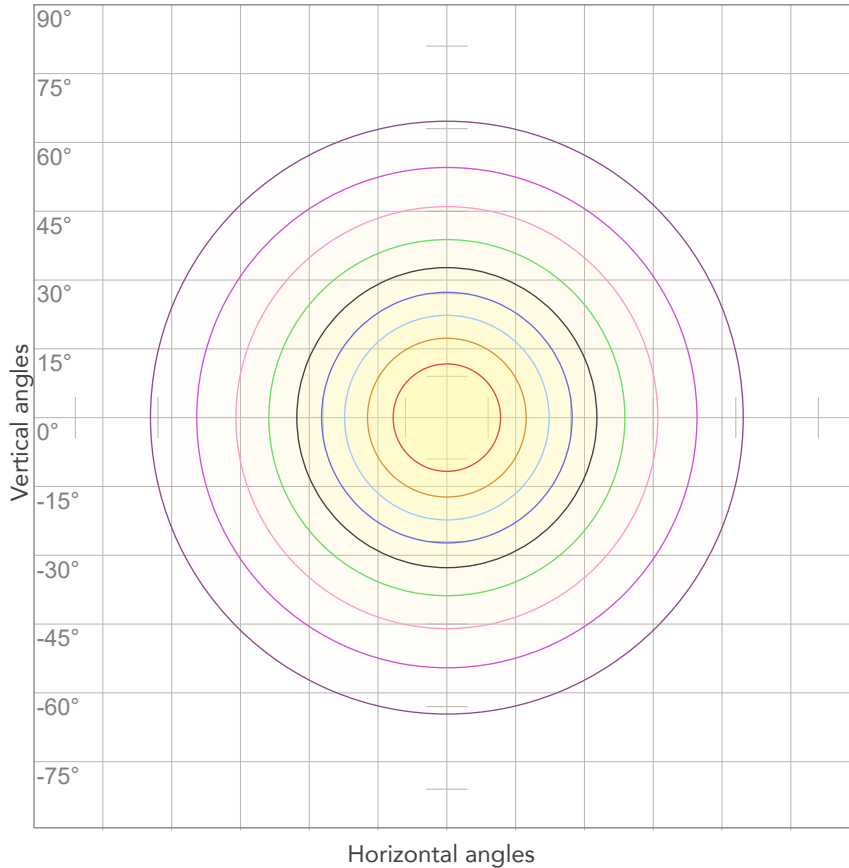
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
225V	1,28A	288W	0,99	50lm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



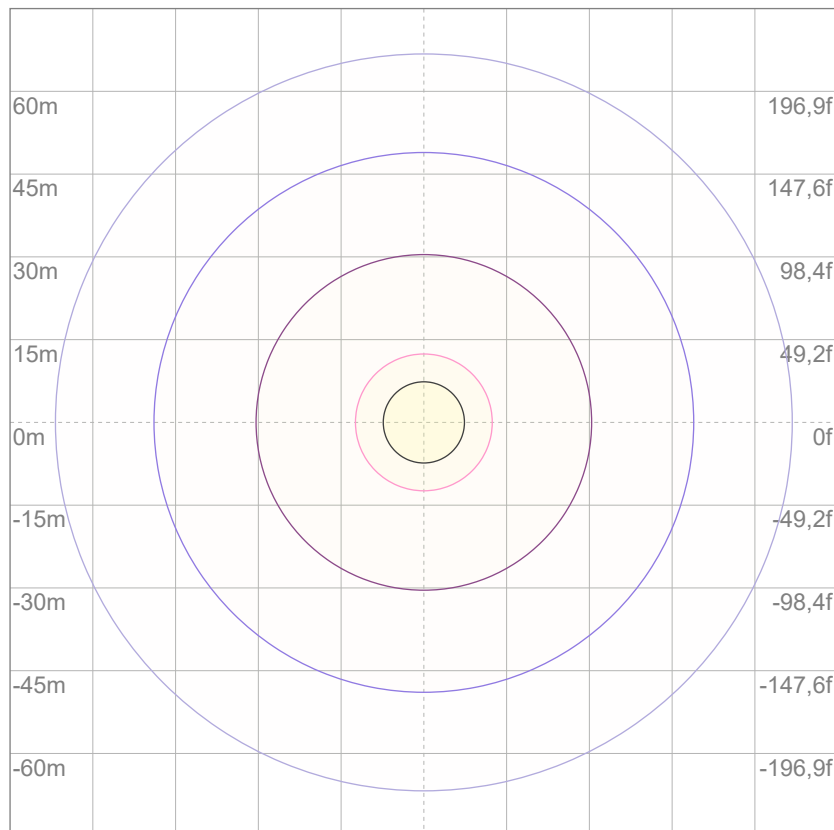
10%	809 cd
20%	1618 cd
30%	2427 cd
40%	3236 cd
50%	4045 cd
60%	4854 cd
70%	5663 cd
80%	6472 cd

Conditions:

Number of c-planes: 4

Candela at center: 8091 cd

## ISO LUX DIAGRAM



3%	2,43 lx
5%	4,05 lx
10%	8,09 lx
30%	24,3 lx
50%	40,5 lx

Conditions:

Number of c-planes: 4

Lux at center: 80,9 lx

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



Total lumen output:

13356 lm

Peak candela output:

7584 cd

Light quality:

CRI: 95,3

Color temperature:

3193 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

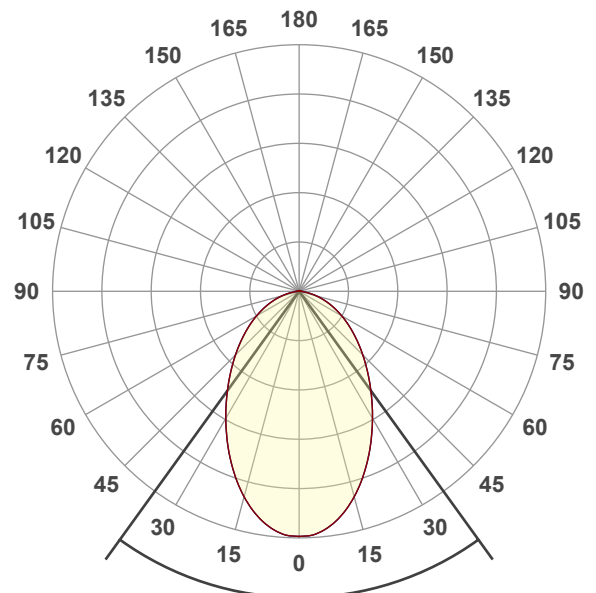
**MEASURAMENT CONDITIONS:**

Beam angle:  
MD Filter

Target:  
3200K - HQ

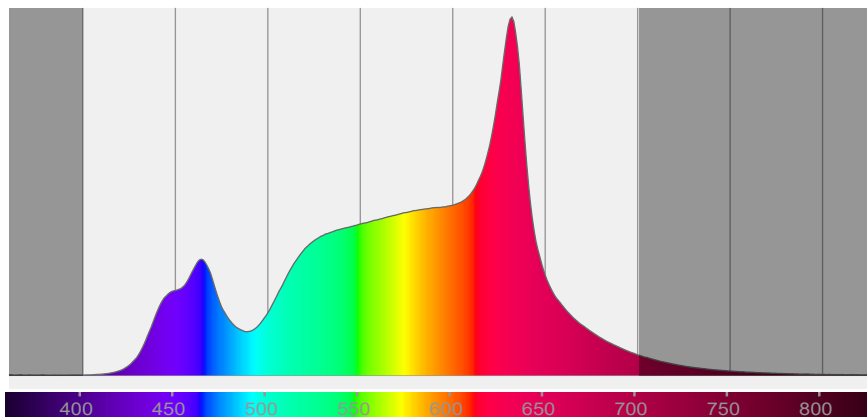
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 11:48:18

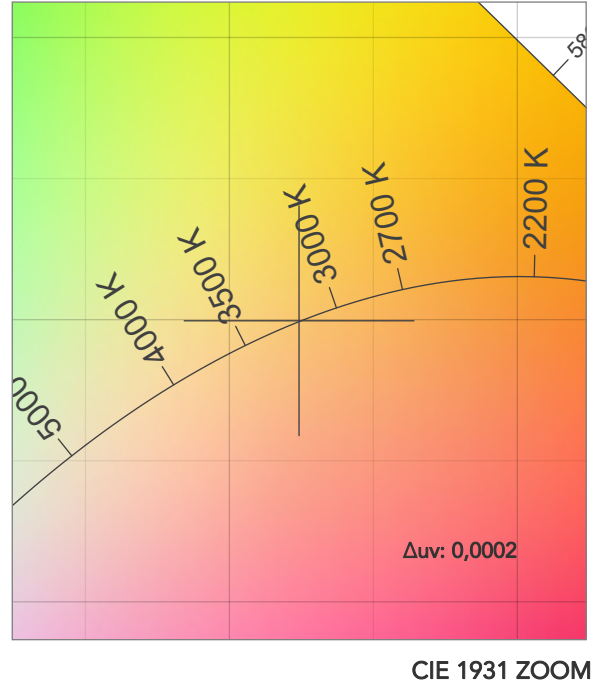
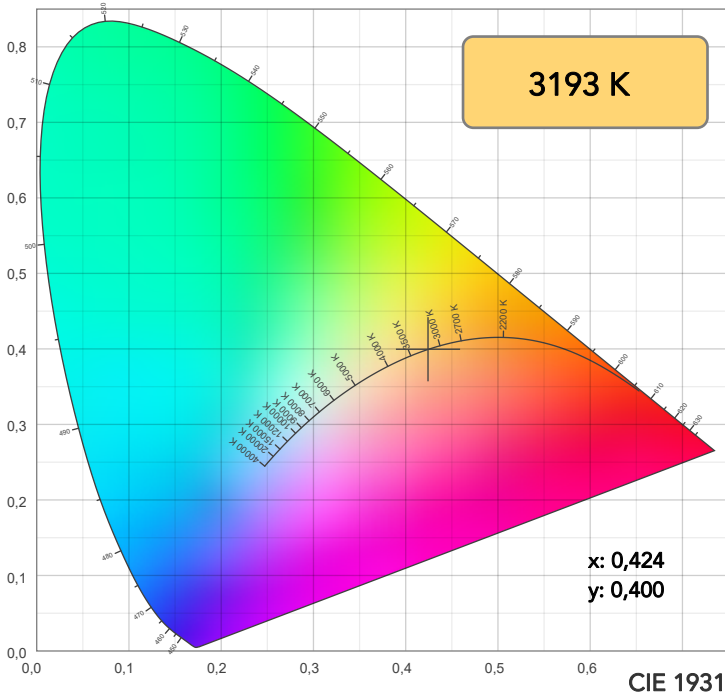


Beam angle 50%: 71,6°  
Field angle 10%: 143°  
Cut off angle 2.5%: 164,2°

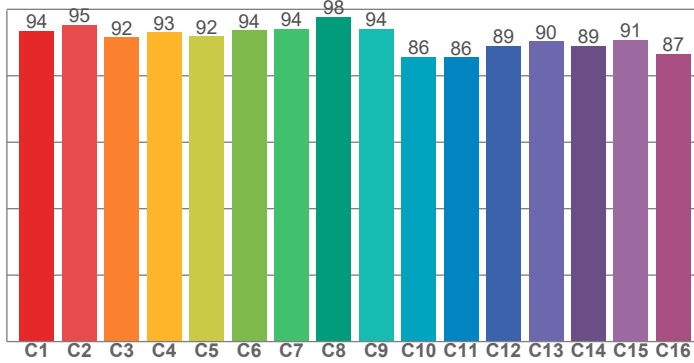
Spectra



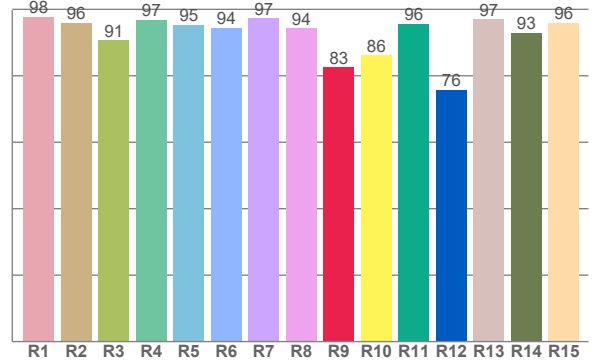
# COLOR DETAILS



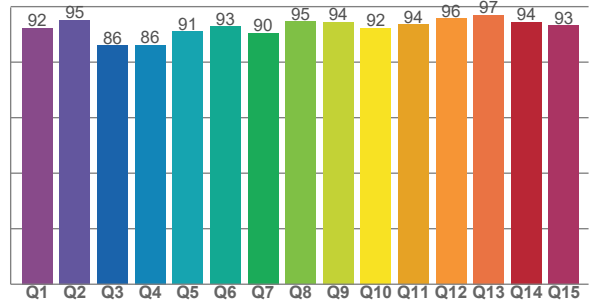
**TM30: 91,4**



**CRI: 95,3 (R1-R8)**



**CQS: 91,9**



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
97,8	96,0	90,7	96,9	95,4	94,5	97,2	94,3	82,6	86,2	95,7	75,8	97,1	93,0	96,0

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,5	95,4	91,5	93,1	91,8	93,7	94,2	97,8	94,1	85,6	85,6	89,0	90,4	89,0	90,9	86,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,3	95,2	86,0	86,2	91,0	92,8	90,5	94,6	94,5	92,3	93,6	95,6	97,0	94,4	93,1

## COLOR PARAMETERS

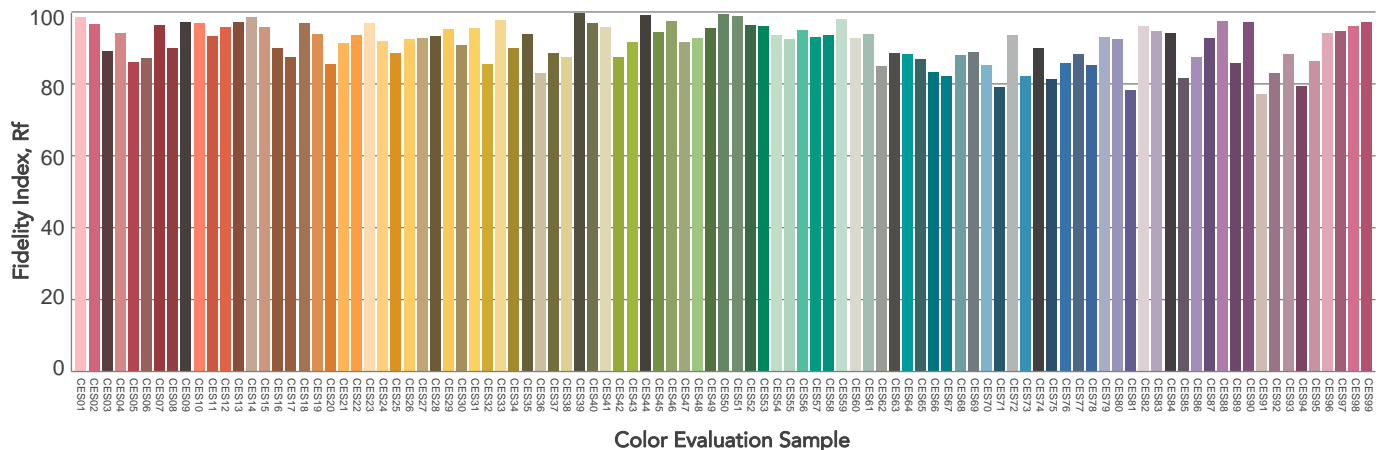
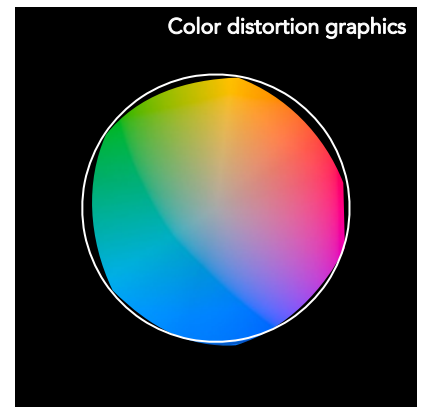
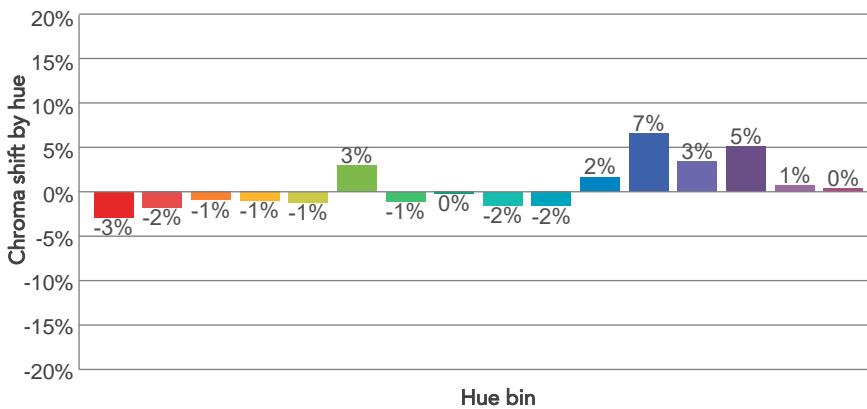
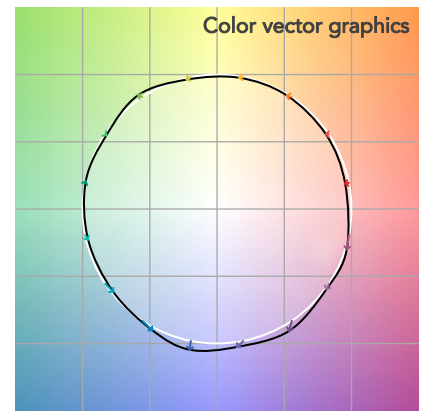
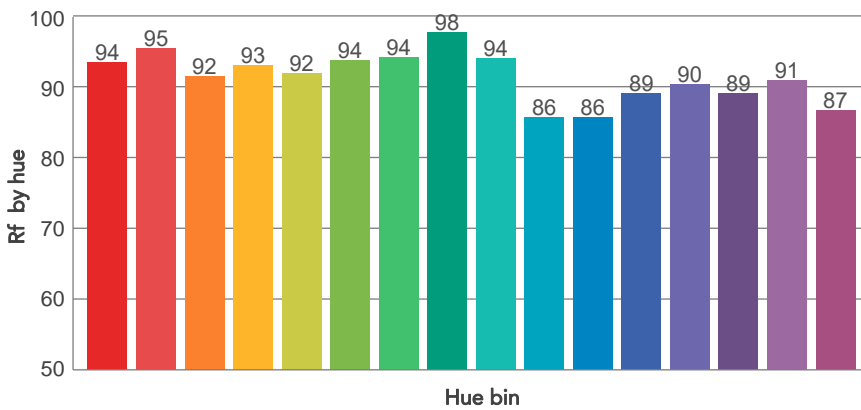
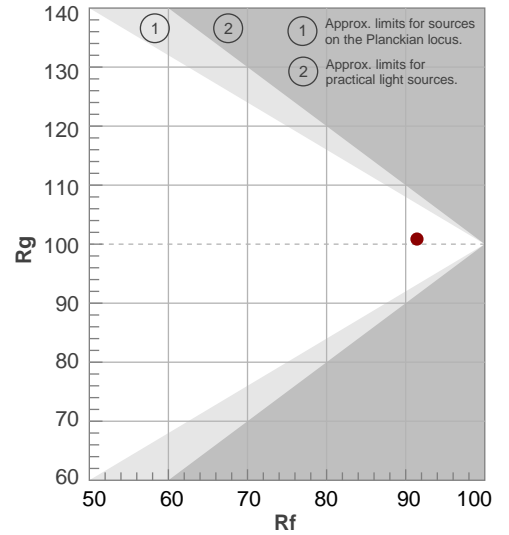
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3193 K	95,3	82,6	91,4	100,9	91,9	89	0,424	0,400	0,0002

# TM30 DETAILS

**Rf 91,4**  
Fidelity index Rf

**Rg 100,9**  
Gammut index

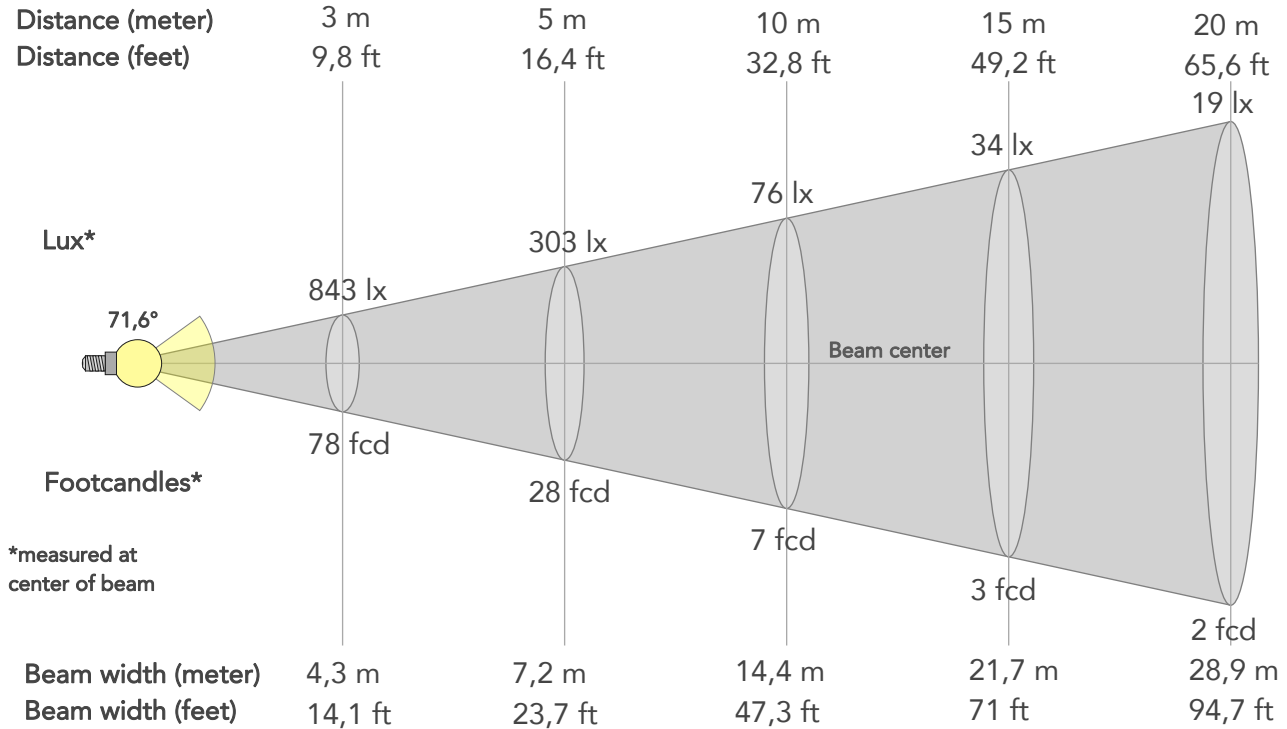
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-3%	0%
2	95	-2%	1%
3	92	-1%	4%
4	93	-1%	3%
5	92	-1%	2%
6	94	3%	0%
7	94	-1%	-1%
8	98	0%	-1%
9	94	-2%	4%
10	86	-2%	8%
11	86	2%	10%
12	89	7%	0%
13	90	3%	-5%
14	89	5%	-6%
15	91	1%	-4%
16	87	0%	-11%



# BEAM DETAILS



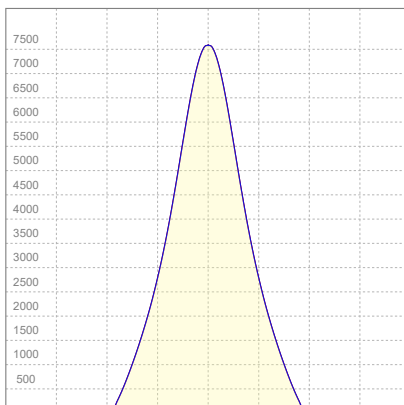
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
71,6°	143°	164,2°	84,1%	63,7%



## 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	7584lx	1896lx	843lx	474lx	303lx	135lx	76lx	34lx	19lx	12lx	8lx	5lx	3lx
Footcand.	705fcd	176fcd	78fcd	44fcd	28fcd	13fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	1,4m	2,9m	4,3m	5,8m	7,2m	10,8m	14,4m	21,7m	28,9m	36,1m	43,3m	57,7m	72,2m
Beam wid.	4,8ft	9,5ft	14,1ft	18,9ft	23,7ft	35,5ft	47,3ft	71ft	94,7ft	118,4ft	142ft	189,4ft	236,7ft

## LINEAR DISTRIBUTION DIAGRAM

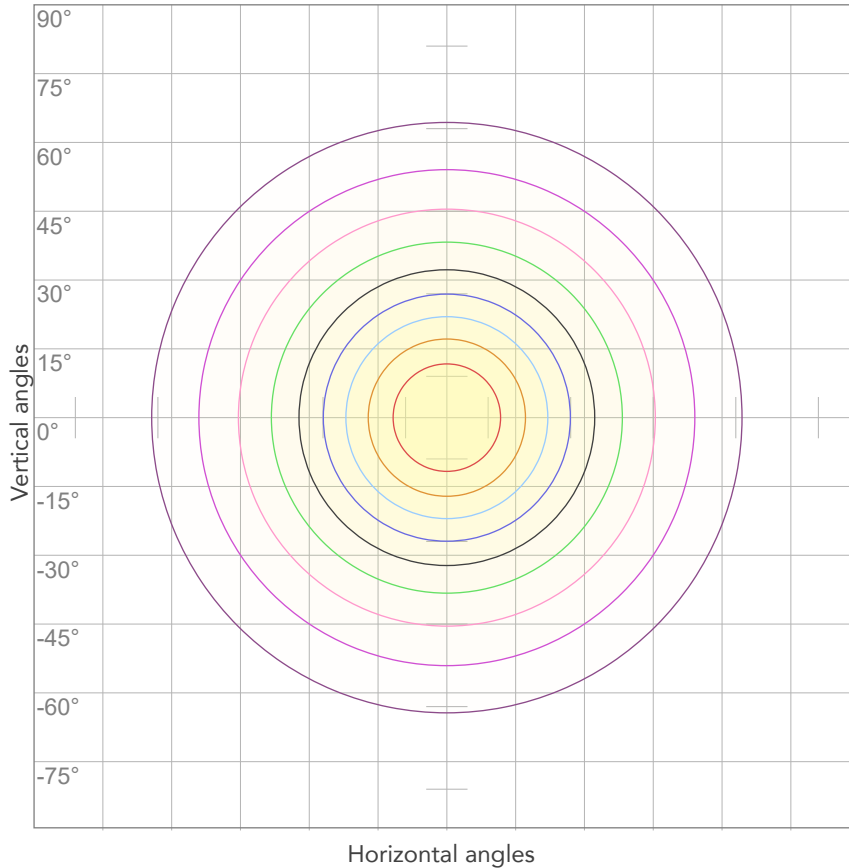


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	1,25A	279W	0,99	48lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



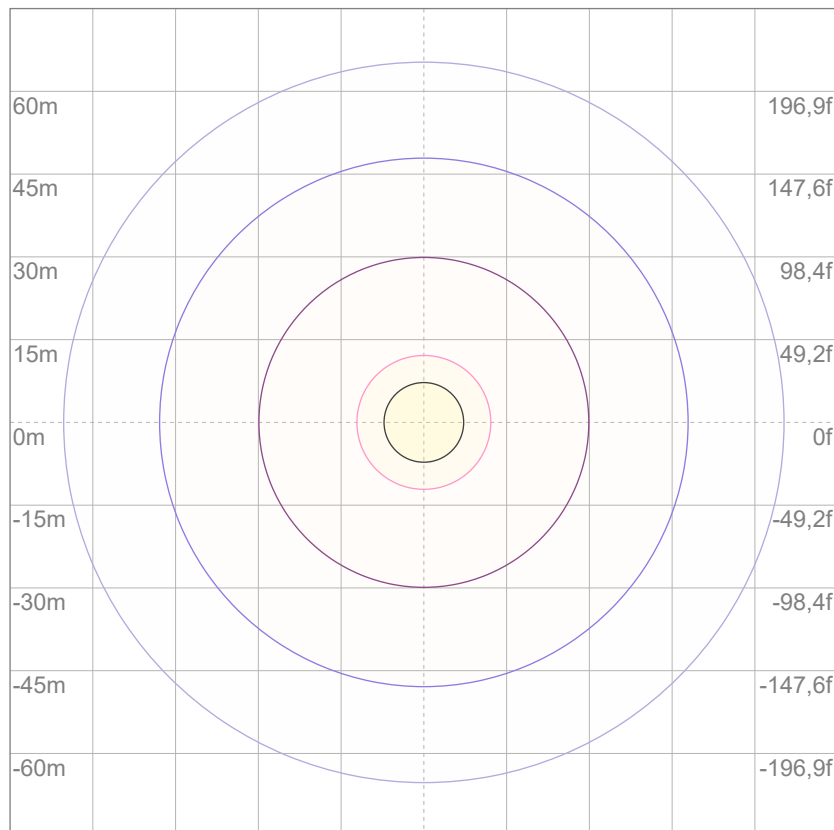
10%	758 cd
20%	1517 cd
30%	2275 cd
40%	3033 cd
50%	3792 cd
60%	4550 cd
70%	5309 cd
80%	6067 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 7584 cd

## ISO LUX DIAGRAM



3%	2,28 lx
5%	3,79 lx
10%	7,58 lx
30%	22,8 lx
50%	37,9 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 75,8 lx

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

Mounting height: 10 meters (33 feet)



Total lumen output:

12034 lm

Peak candela output:

6725 cd

Light quality:

CRI: 96,3

Color temperature:

5617 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

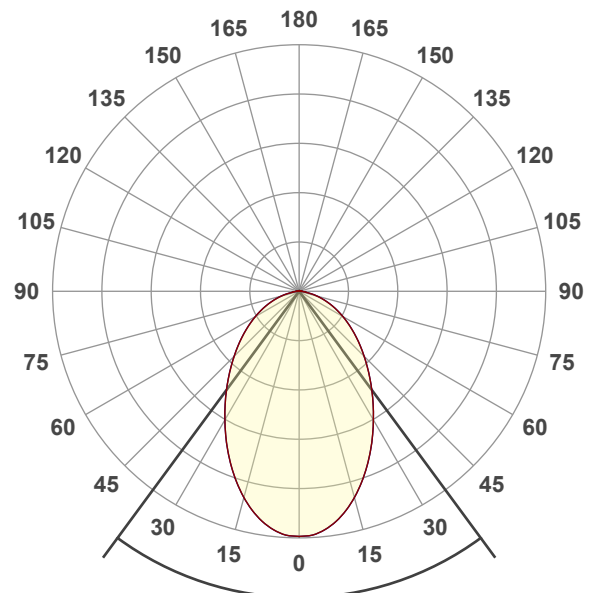
**MEASURAMENT CONDITIONS:**

Beam angle:  
MD Filter

Target:  
5600K - HQ

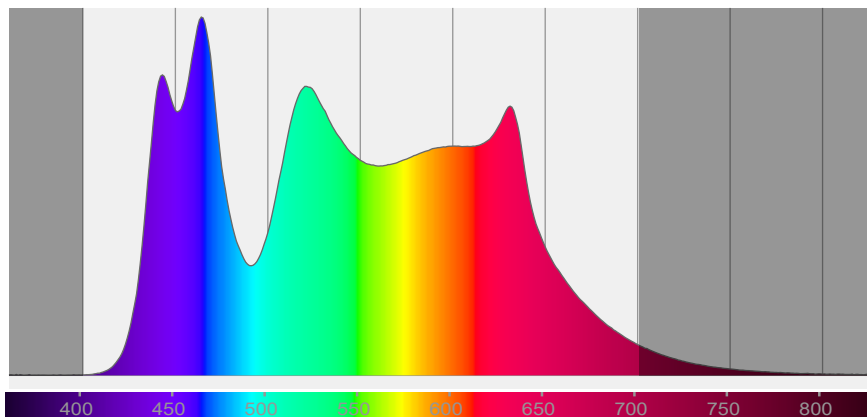
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 12:05:49

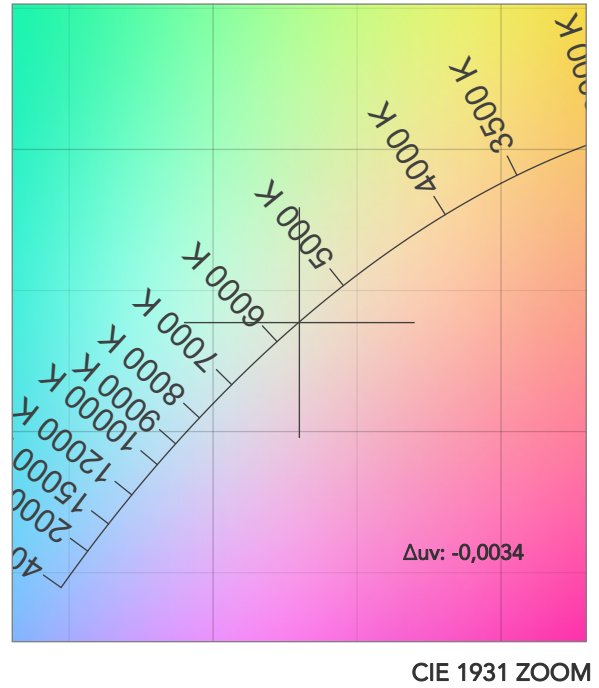
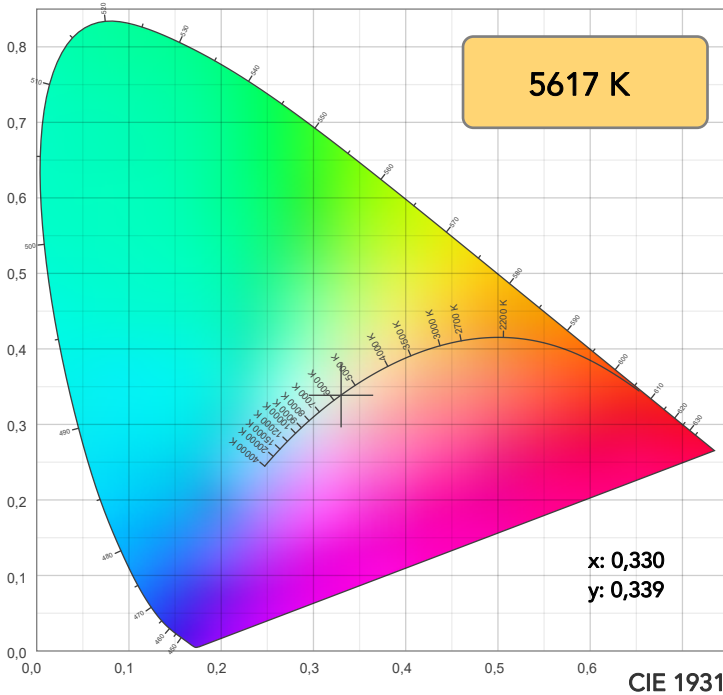


Beam angle 50%: 72,7°  
Field angle 10%: 143,7°  
Cut off angle 2.5%: 164,6°

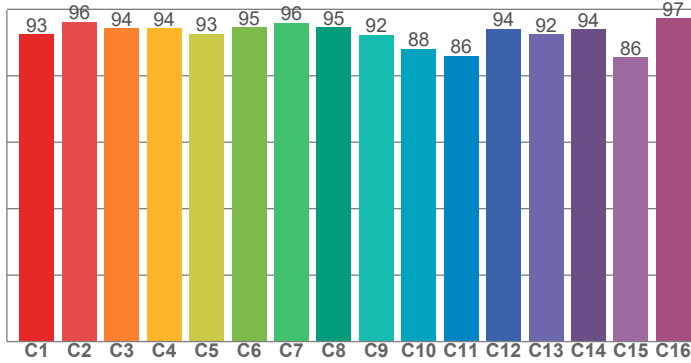
Spectra



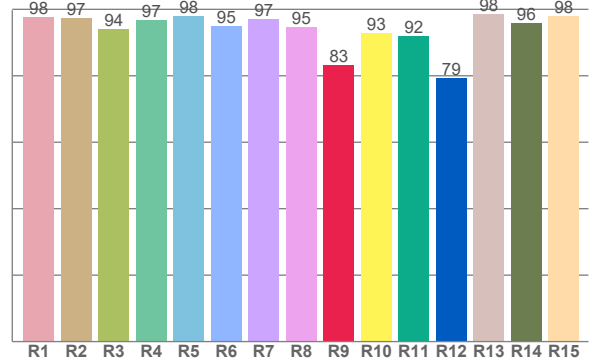
# COLOR DETAILS



TM30: 92,6



CRI: 96,3 (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
97,6	97,3	94,0	96,8	97,9	94,9	97,0	94,7	83,1	92,7	91,8	79,2	98,4	95,7	98,0

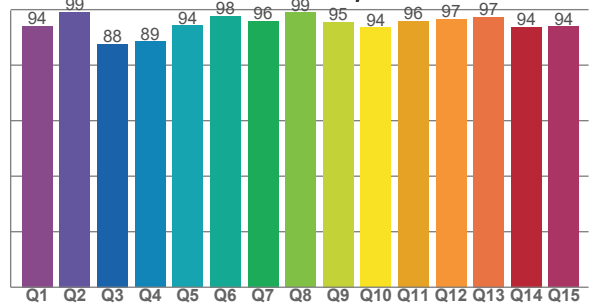
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,5	96,3	94,3	94,3	92,7	94,5	96,0	94,6	92,3	88,2	86,1	94,2	92,4	94,0	85,6	97,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,2	99,1	87,6	88,6	94,2	97,8	96,0	99,0	95,5	93,6	96,0	96,7	97,4	93,8	93,9

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	$\Delta uv$
5617 K	96,3	83,1	92,6	101,2	94,0	95	0,330	0,339	-0,0034

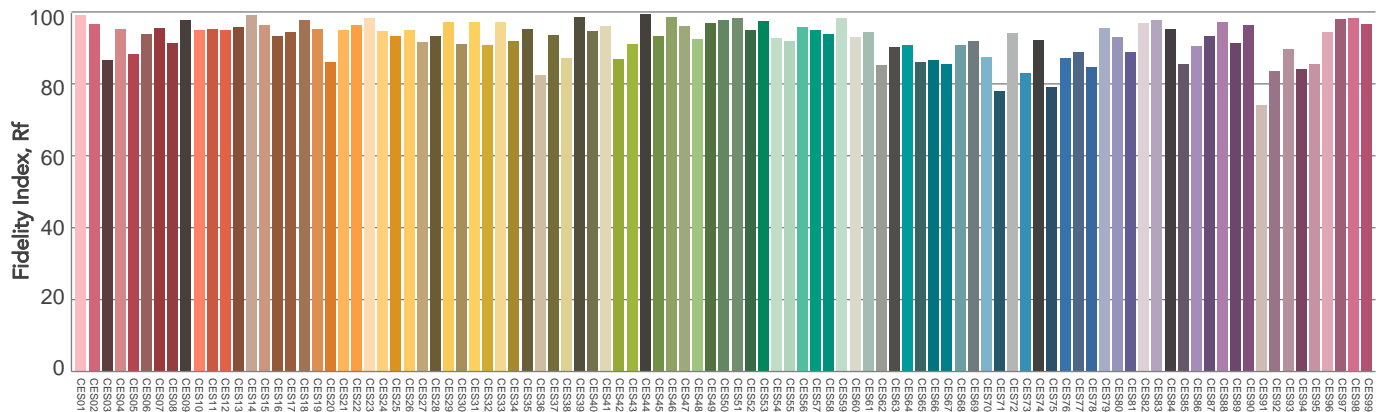
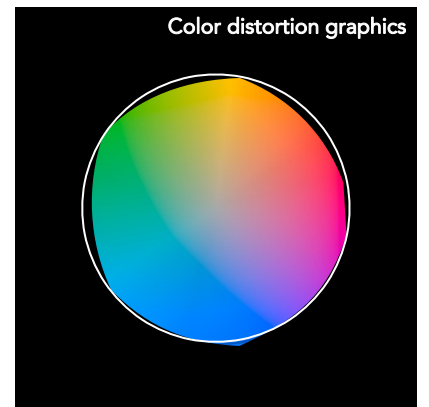
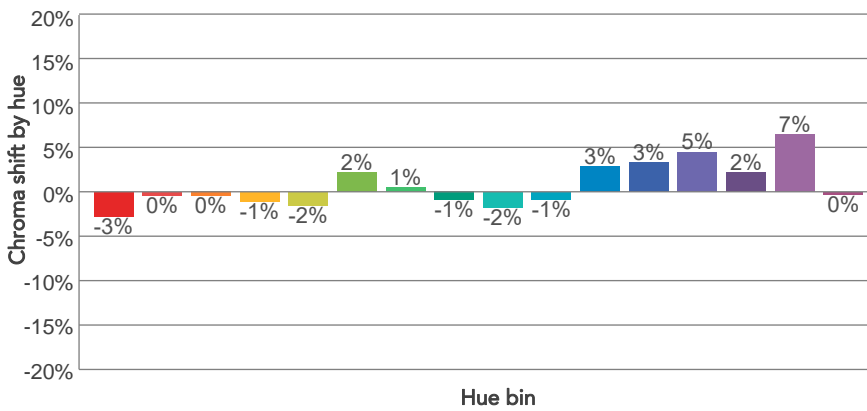
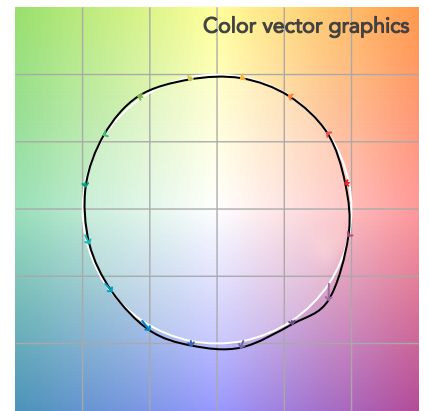
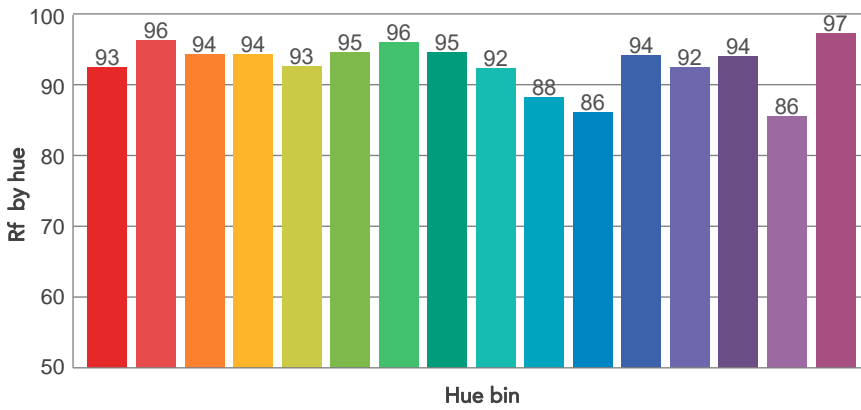
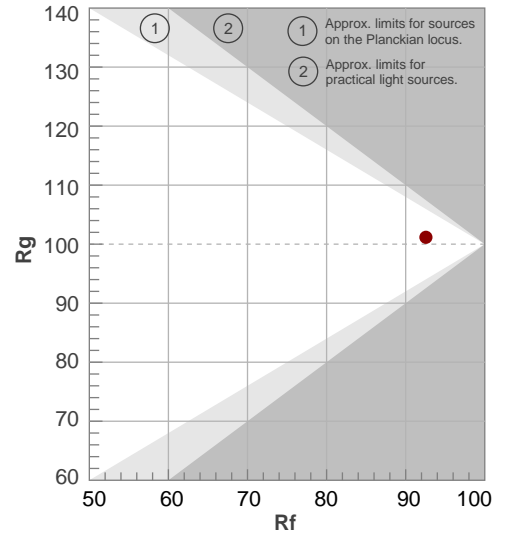


# TM30 DETAILS

**Rf 92,6**  
Fidelity index Rf

**Rg 101,2**  
Gammut index

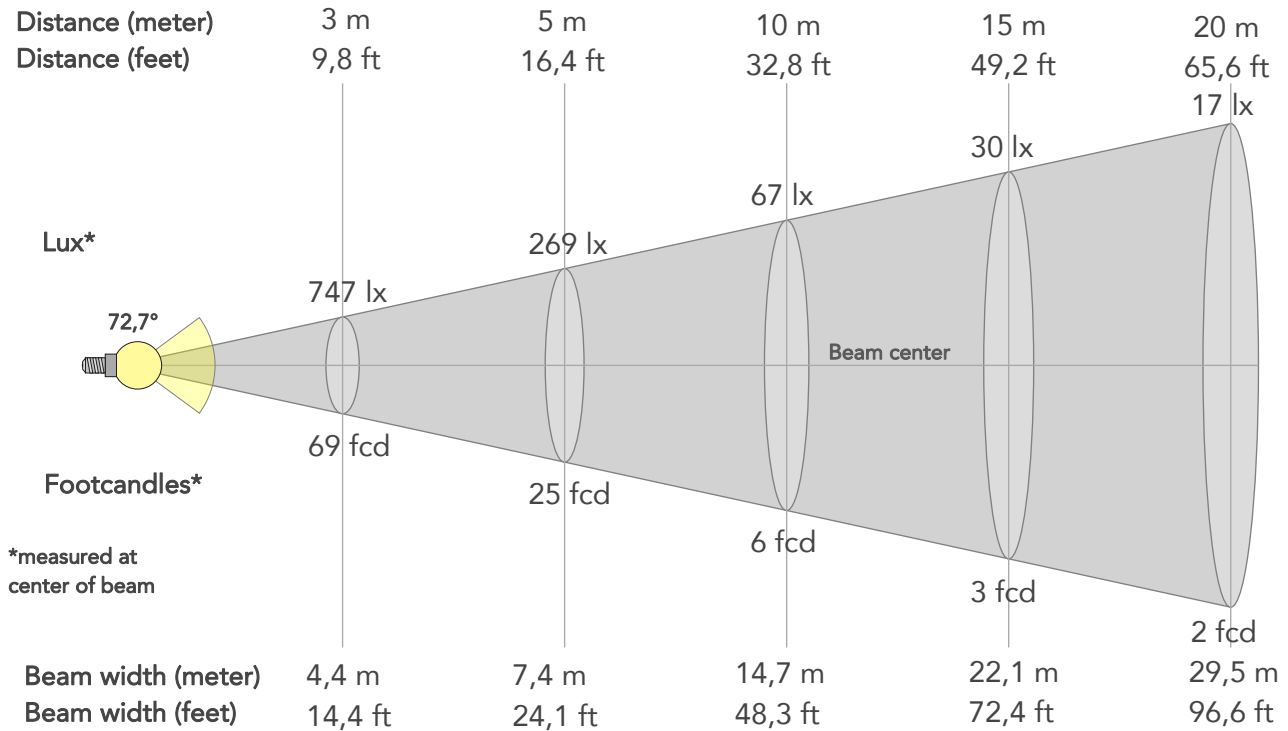
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	-3%	0%
2	96	0%	2%
3	94	0%	2%
4	94	-1%	1%
5	93	-2%	2%
6	95	2%	2%
7	96	1%	1%
8	95	-1%	2%
9	92	-2%	6%
10	88	-1%	7%
11	86	3%	8%
12	94	3%	1%
13	92	5%	-3%
14	94	2%	-1%
15	86	7%	-10%
16	97	0%	-1%



# BEAM DETAILS



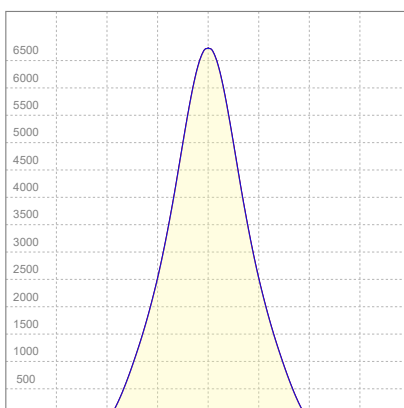
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
72,7°	143,7°	164,6°	84,0%	63,3%



## 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	6725lx	1681lx	747lx	420lx	269lx	120lx	67lx	30lx	17lx	11lx	7lx	4lx	3lx
Footcand.	625fcd	156fcd	69fcd	39fcd	25fcd	11fcd	6fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	1,5m	2,9m	4,4m	5,9m	7,4m	11m	14,7m	22,1m	29,5m	36,8m	44,2m	58,9m	73,6m
Beam wid.	4,9ft	9,7ft	14,4ft	19,3ft	24,1ft	36,2ft	48,3ft	72,4ft	96,6ft	120,7ft	144,9ft	193,2ft	241,5ft

## LINEAR DISTRIBUTION DIAGRAM

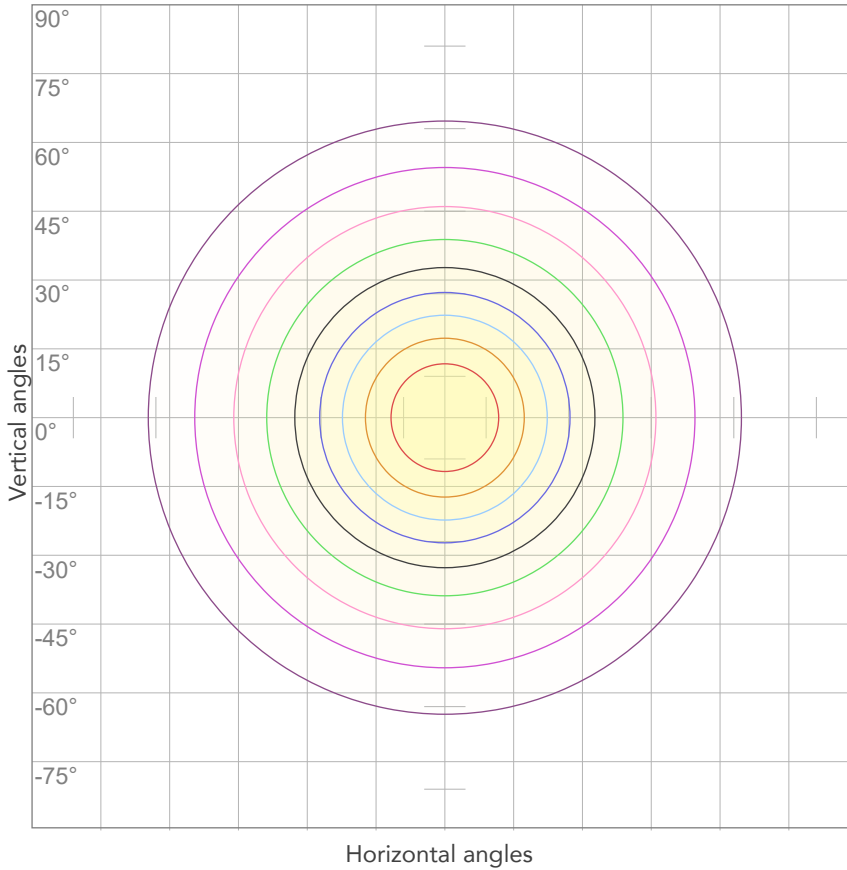


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
225V	1,28A	287W	0,99	42lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



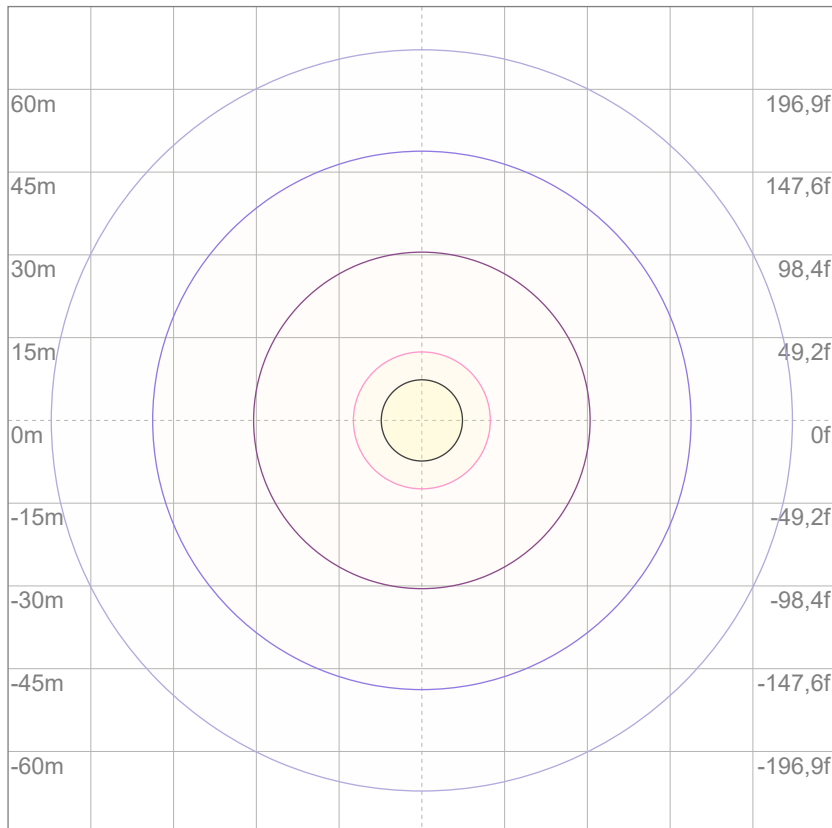
10%	673 cd
20%	1345 cd
30%	2018 cd
40%	2690 cd
50%	3363 cd
60%	4035 cd
70%	4708 cd
80%	5380 cd

Conditions:

Number of c-planes: 4

Candela at center: 6725 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	2,02 lx
5%	3,36 lx
10%	6,73 lx
30%	20,2 lx
50%	33,6 lx

Conditions:

Number of c-planes: 4

Lux at center: 67,3 lx

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



Total lumen output:

10465 lm

Peak candela output:

3737 cd

Light quality:

CRI: 90,7

Color temperature:

3203 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

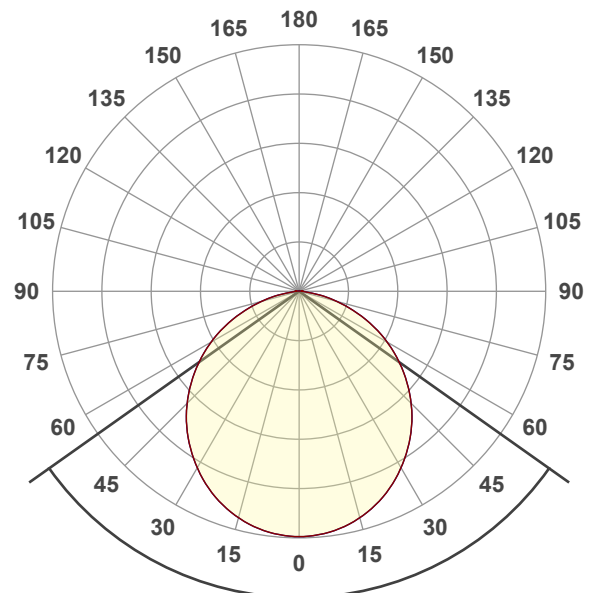
**MEASURAMENT CONDITIONS:**

Beam angle:  
HD Filter

Target:  
3200K - HB

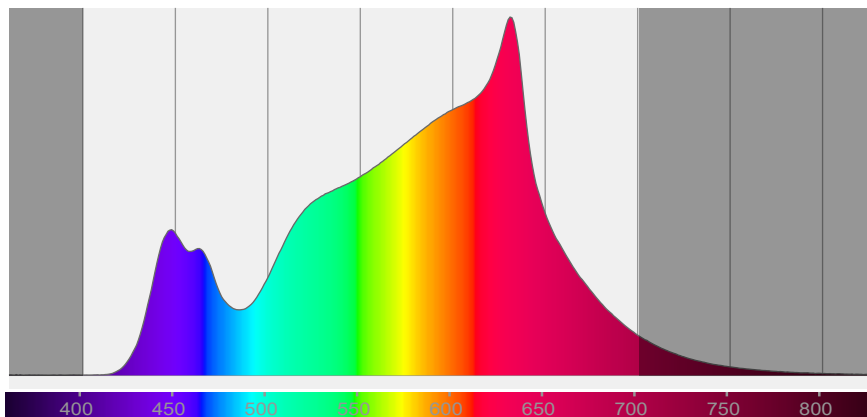
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 12:30:38

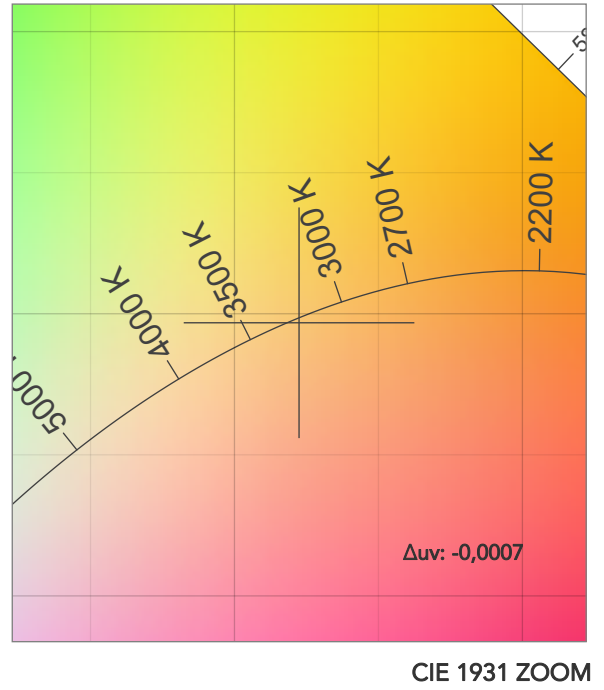
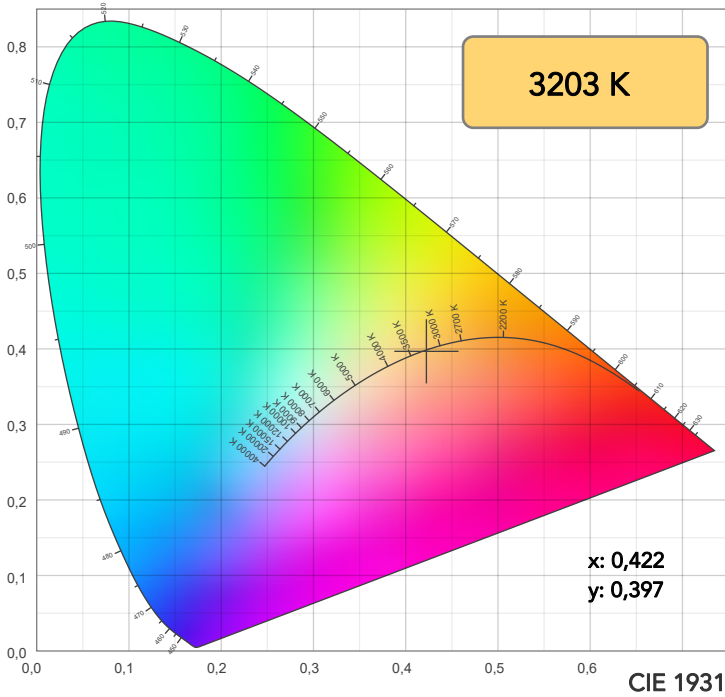


Beam angle 50%: 109,4°  
Field angle 10%: 157,6°  
Cut off angle 2.5%: 170,2°

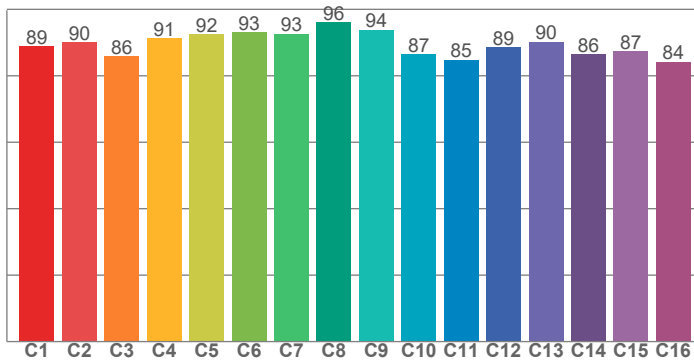
Spectra



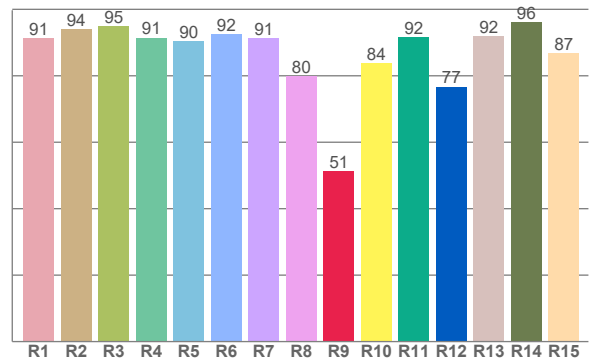
# COLOR DETAILS



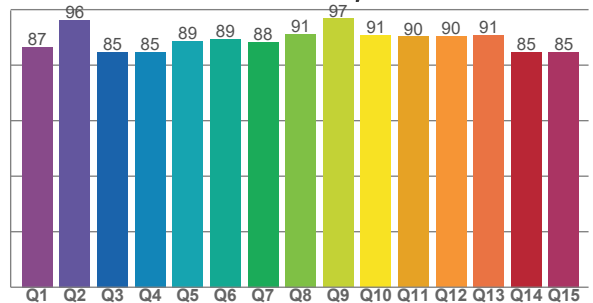
**TM30: 89,5**



**CRI: 90,7 (R1-R8)**



**CQS: 88,5**



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
91,3	93,9	94,8	91,4	90,3	92,4	91,3	79,8	51,2	83,9	91,6	76,7	91,9	96,1	86,8

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
88,8	90,0	85,8	91,3	92,4	93,0	92,6	96,1	93,8	86,5	84,7	88,5	90,2	86,5	87,4	84,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
86,5	96,2	84,7	84,7	88,8	89,4	88,4	91,2	96,8	90,8	90,3	90,4	90,9	84,8	84,8

## COLOR PARAMETERS

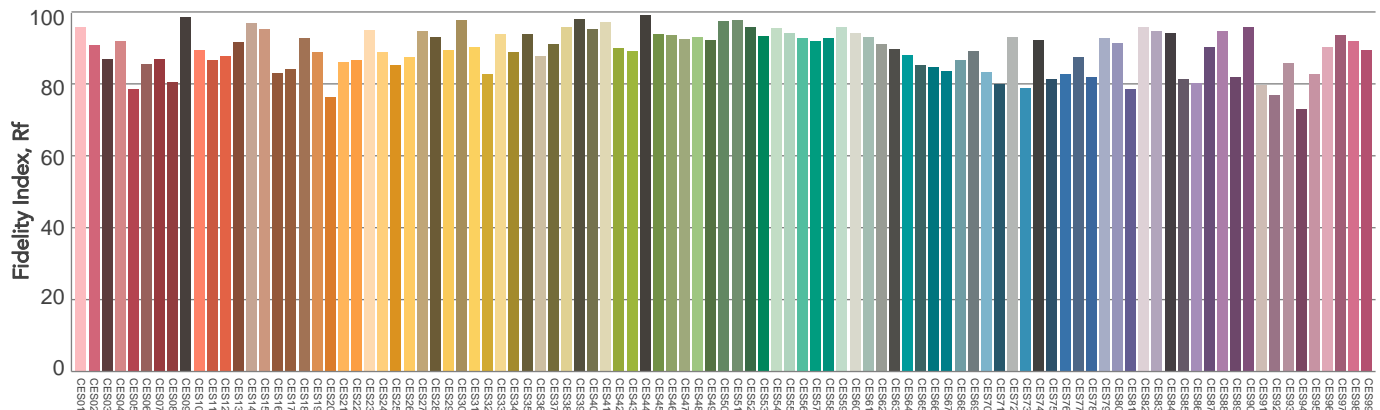
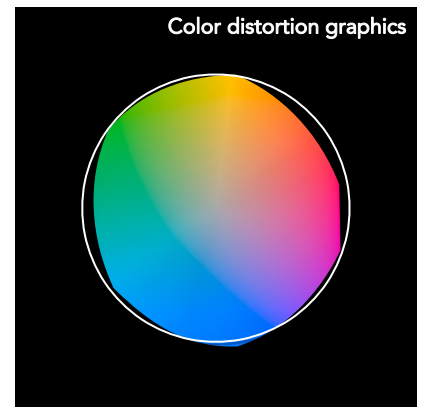
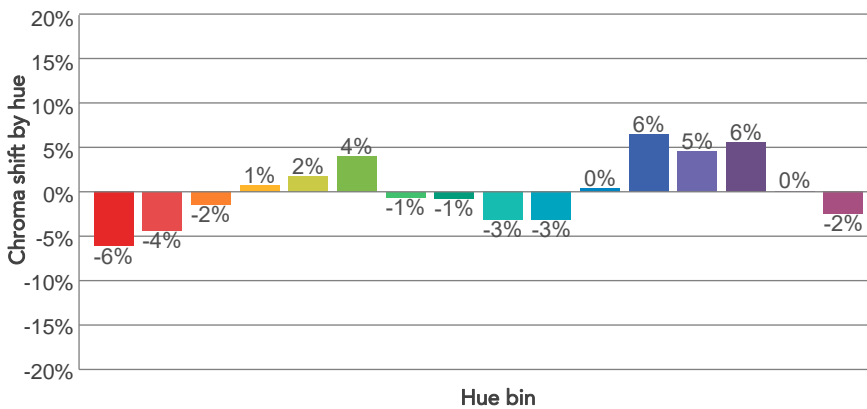
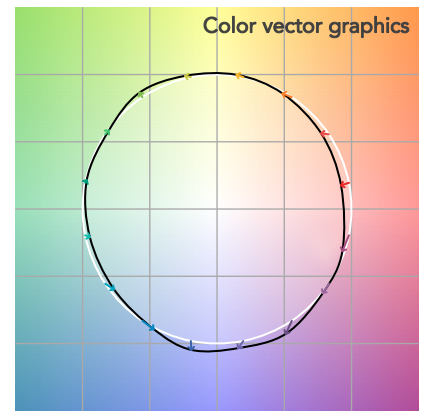
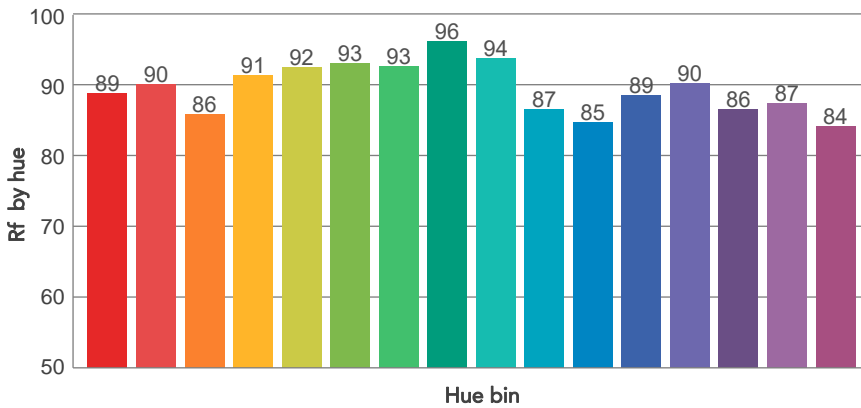
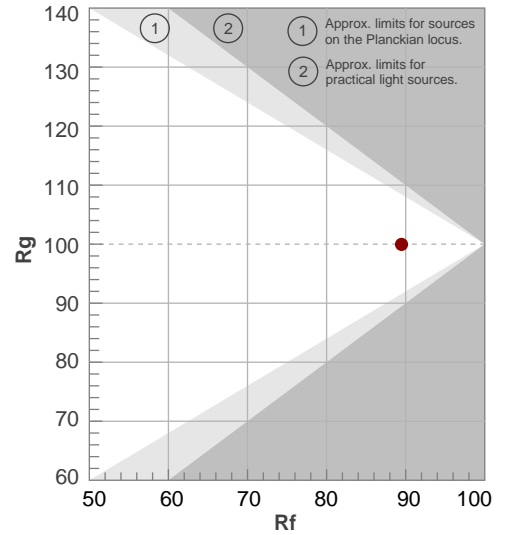
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3203 K	90,7	51,2	89,5	100,0	88,5	83	0,422	0,397	-0,0007

# TM30 DETAILS

**Rf 89,5**  
Fidelity index Rf

**Rg 100,0**  
Gammut index

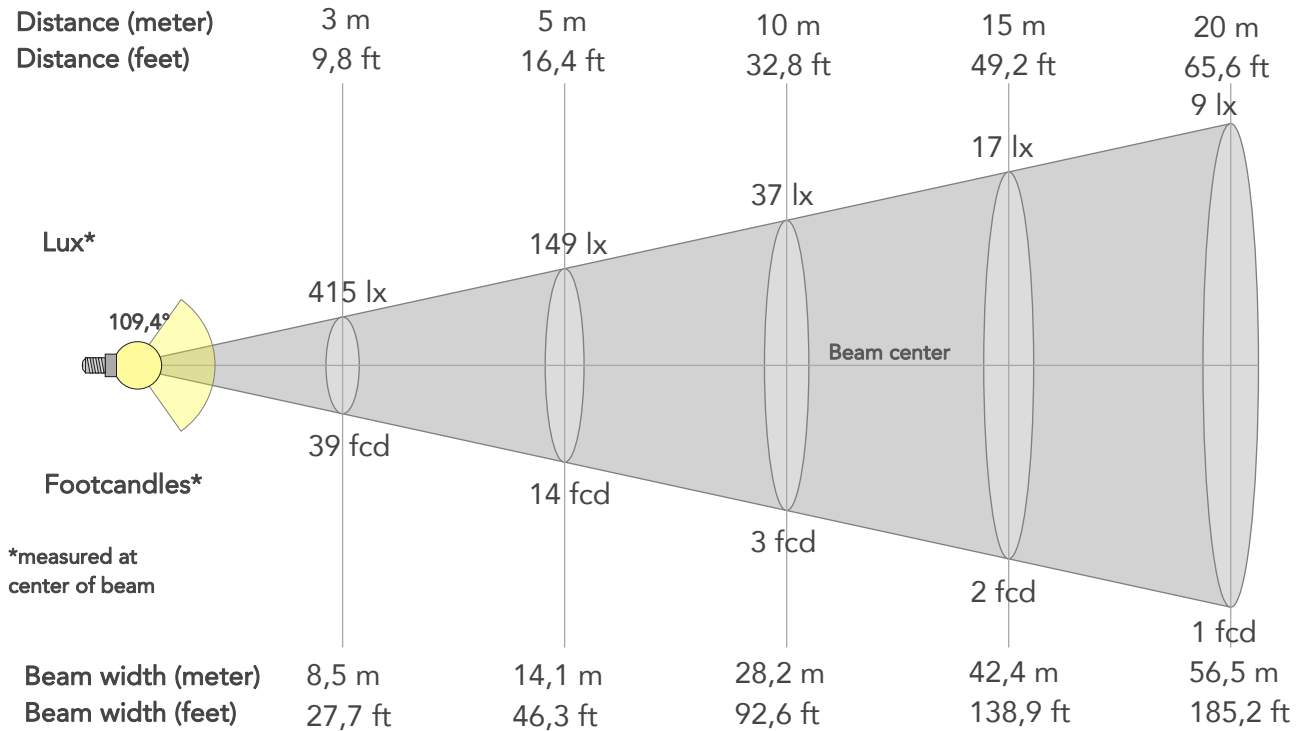
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	89	-6%	-1%
2	90	-4%	4%
3	86	-2%	7%
4	91	1%	5%
5	92	2%	4%
6	93	4%	0%
7	93	-1%	-4%
8	96	-1%	-2%
9	94	-3%	2%
10	87	-3%	7%
11	85	0%	10%
12	89	6%	2%
13	90	5%	-5%
14	86	6%	-9%
15	87	0%	-8%
16	84	-2%	-12%



# BEAM DETAILS



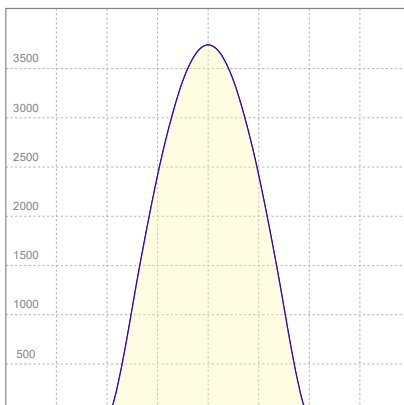
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
109,4°	157,6°	170,2°	78,5%	53,9%



## 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	3737lx	934lx	415lx	234lx	149lx	66lx	37lx	17lx	9lx	6lx	4lx	2lx	1lx
Footcand.	347fcd	87fcd	39fcd	22fcd	14fcd	6fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	2,8m	5,6m	8,5m	11,3m	14,1m	21,2m	28,2m	42,4m	56,5m	70,6m	84,7m	113m	141,2m
Beam wid.	9,3ft	18,6ft	27,7ft	37ft	46,3ft	69,5ft	92,6ft	138,9ft	185,2ft	231,6ft	277,9ft	370,5ft	463,1ft

## LINEAR DISTRIBUTION DIAGRAM

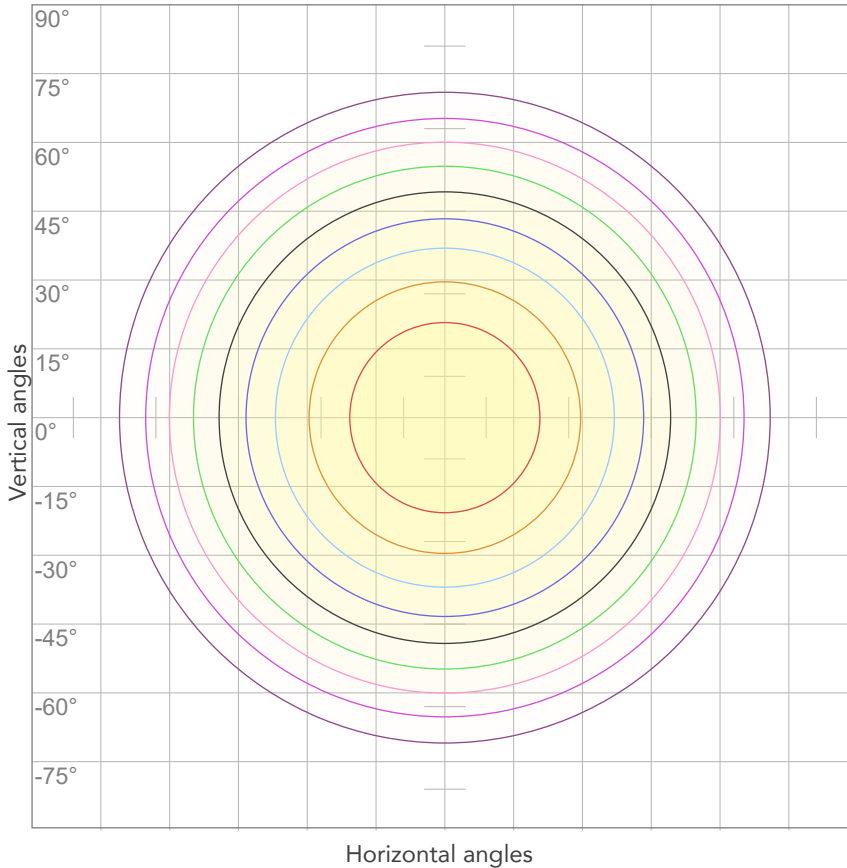


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	1,26A	281W	0,99	37lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



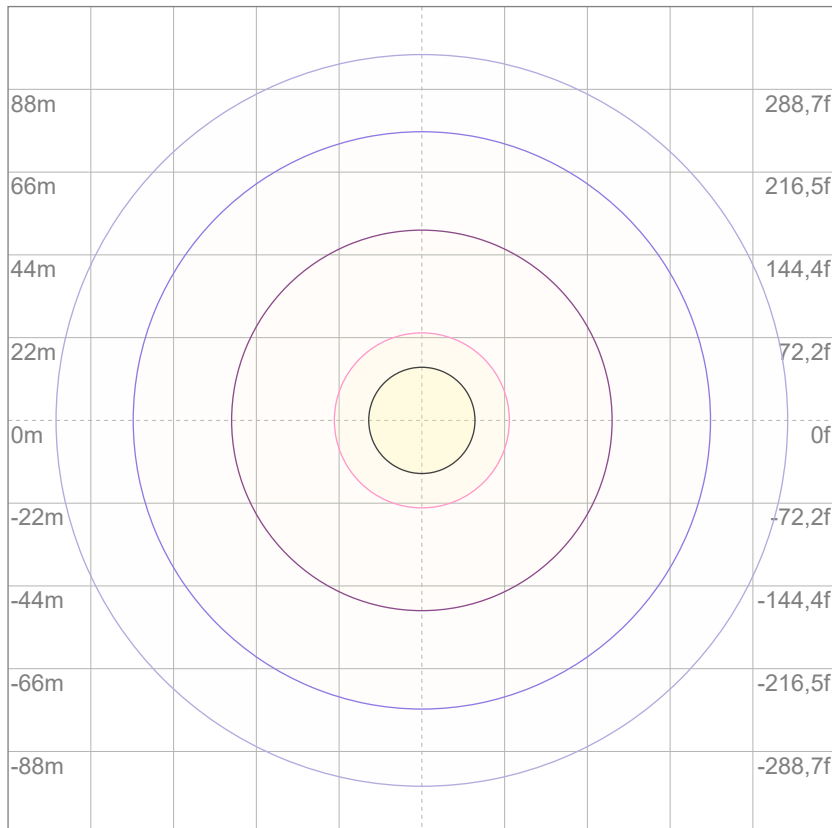
10%	374 cd
20%	747 cd
30%	1121 cd
40%	1495 cd
50%	1868 cd
60%	2242 cd
70%	2616 cd
80%	2990 cd

Conditions:

Number of c-planes: 4

Candela at center: 3737 cd

## ISO LUX DIAGRAM



3%	1,12 lx
5%	1,87 lx
10%	3,74 lx
30%	11,2 lx
50%	18,7 lx

Conditions:

Number of c-planes: 4

Lux at center: 37,4 lx

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

Mounting height: 10 meters (33 feet)





Total lumen output:

11208 lm

Peak candela output:

3995 cd

Light quality:

CRI: 83,6

Color temperature:

5631 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

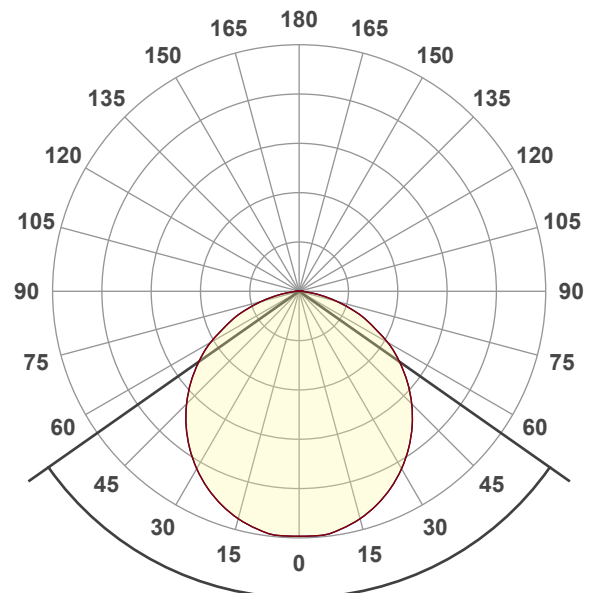
**MEASURAMENT CONDITIONS:**

Beam angle:  
HD Filter

Target:  
5600K - HB

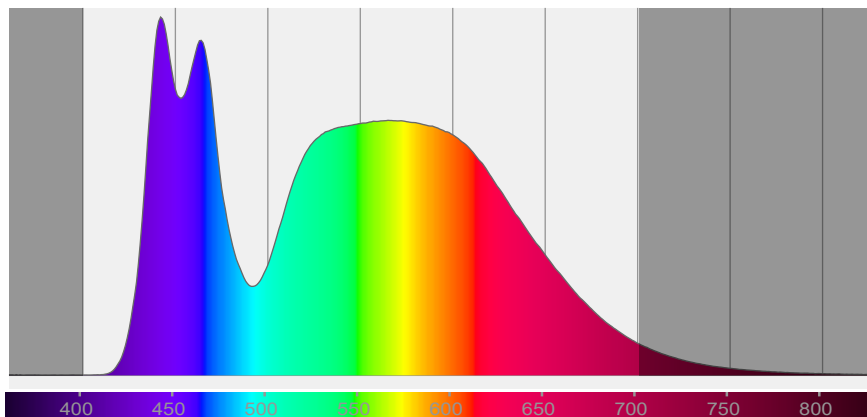
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 13:09:08

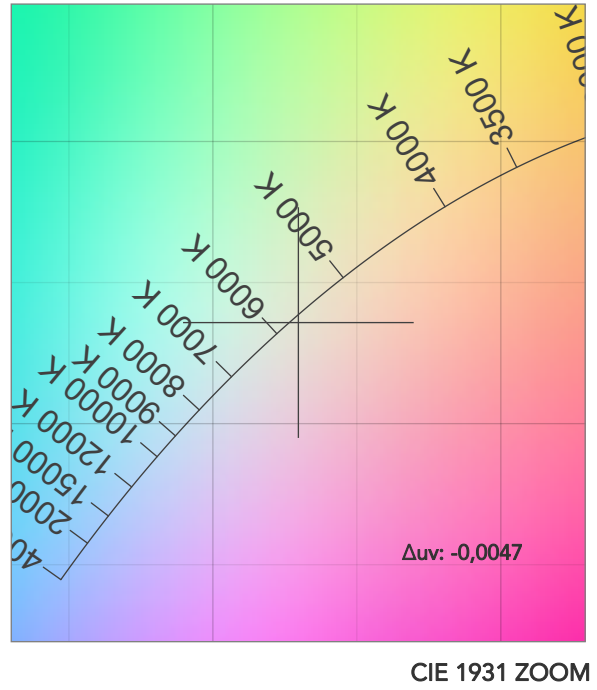
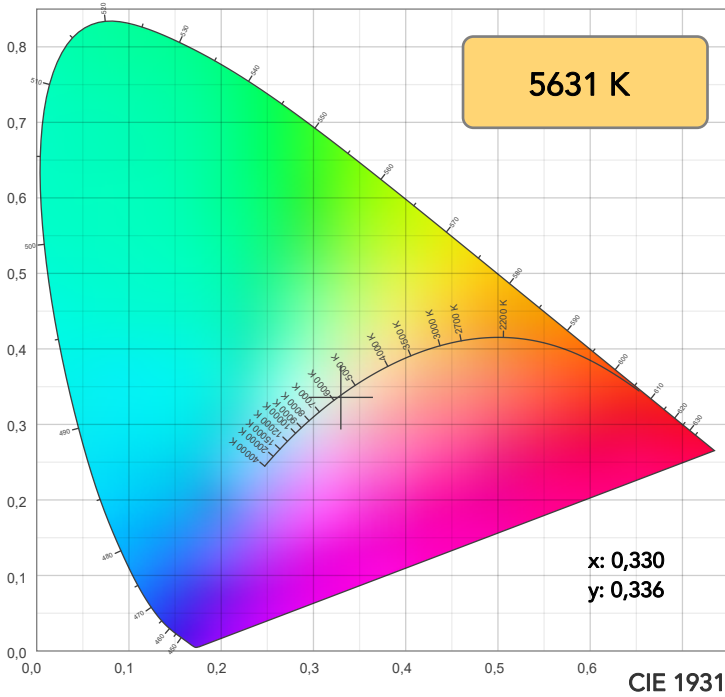


Beam angle 50%: 109,9°  
Field angle 10%: 157,6°  
Cut off angle 2.5%: 169,9°

Spectra

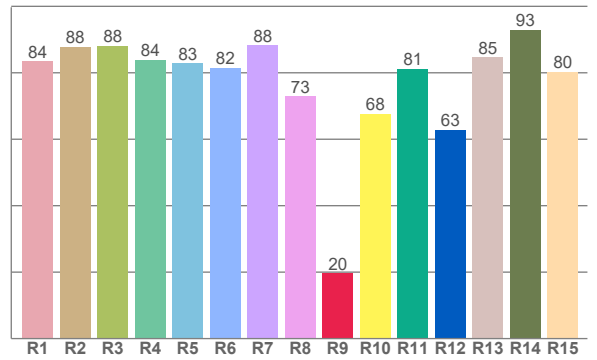
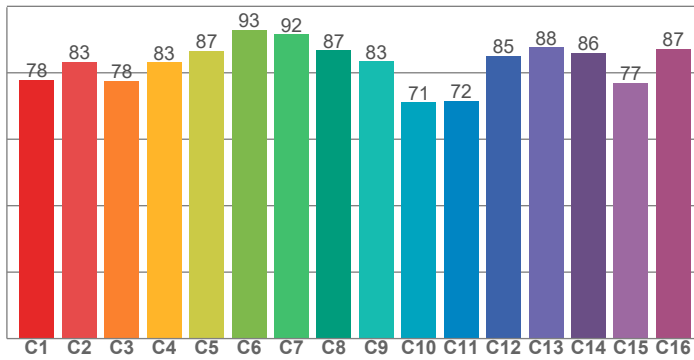


# COLOR DETAILS



TM30: 82,6

CRI: 83,6 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
83,5	87,8	88,1	83,9	82,9	81,5	88,2	72,9	19,7	67,6	81,2	62,9	84,8	92,9	80,3

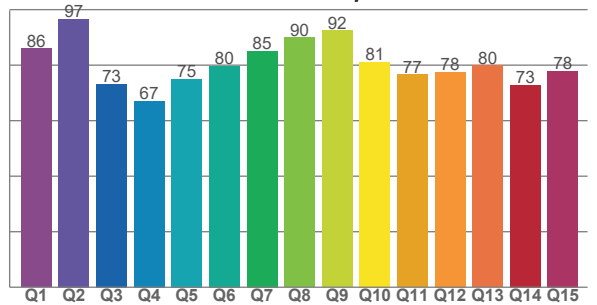
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77,8	83,4	77,6	83,1	86,7	92,9	91,5	86,7	83,5	71,1	71,5	85,1	87,6	86,0	77,0	87,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
86,0	96,7	73,2	67,1	75,0	79,7	85,2	89,9	92,4	81,2	76,7	77,5	79,8	72,9	77,9

CQS: 79,3



## COLOR PARAMETERS

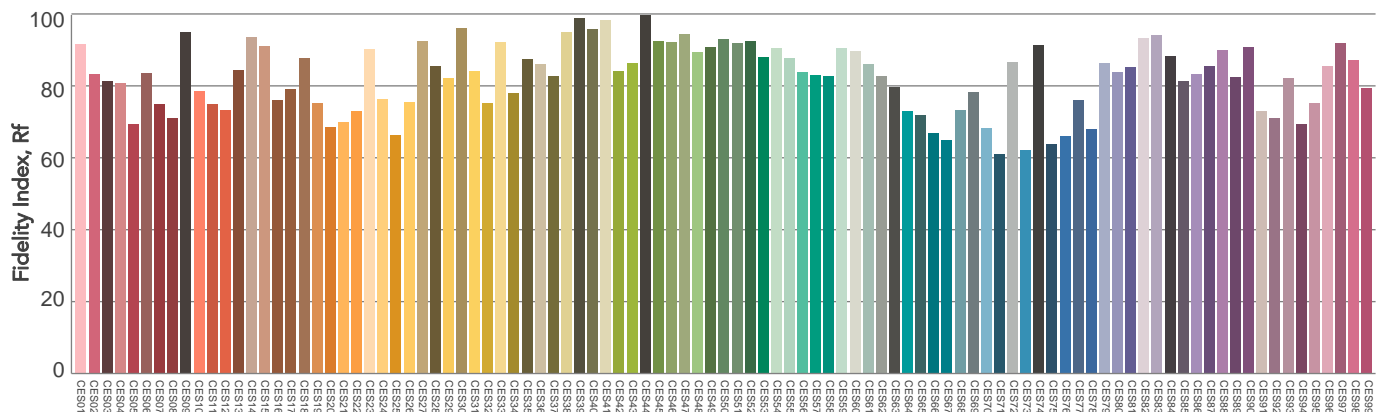
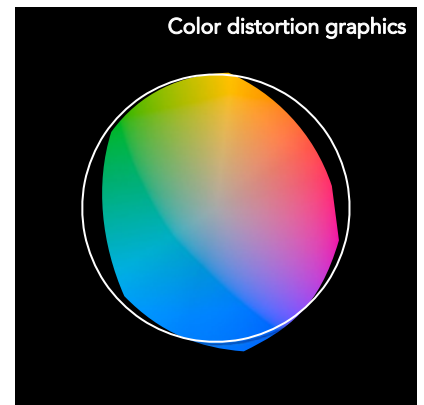
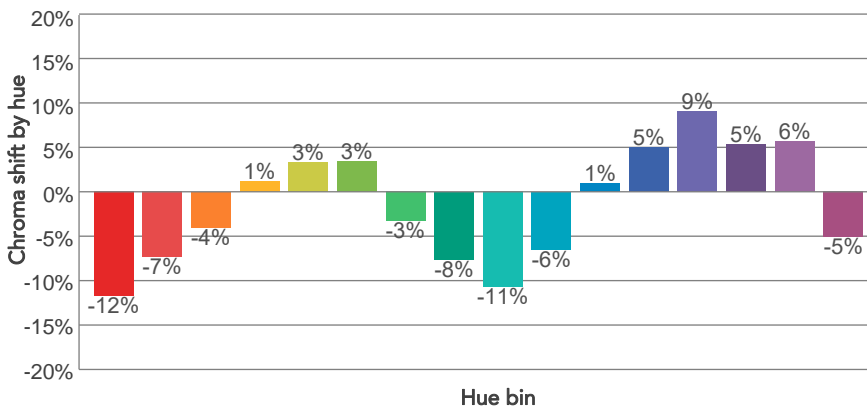
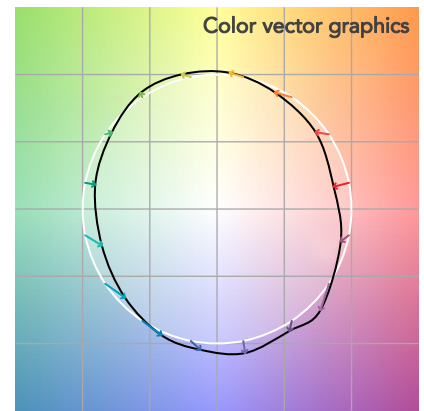
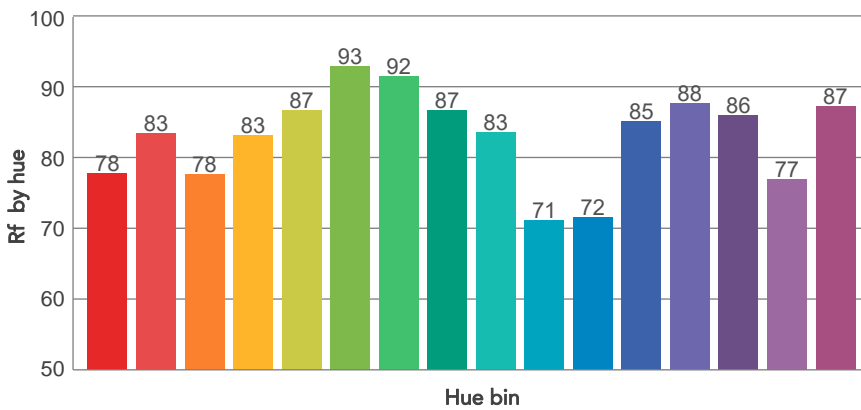
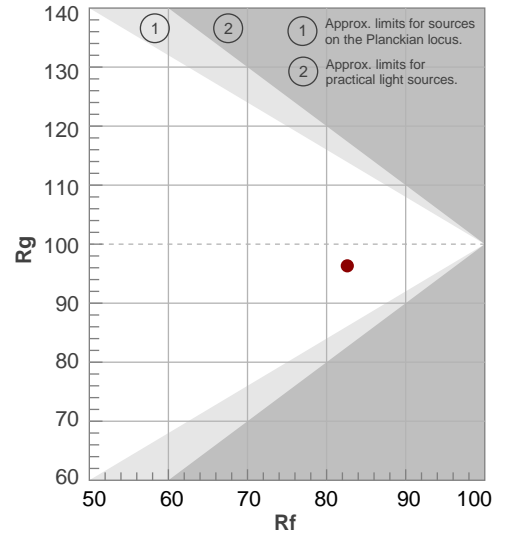
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5631 K	83,6	19,7	82,6	96,3	79,3	72	0,330	0,336	-0,0047

# TM30 DETAILS

**Rf 82,6**  
Fidelity index Rf

**Rg 96,3**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	78	-12%	-1%
2	83	-7%	7%
3	78	-4%	12%
4	83	1%	11%
5	87	3%	6%
6	93	3%	-1%
7	92	-3%	-4%
8	87	-8%	0%
9	83	-11%	10%
10	71	-6%	17%
11	72	1%	18%
12	85	5%	8%
13	88	9%	0%
14	86	5%	-6%
15	77	6%	-20%
16	87	-5%	-6%

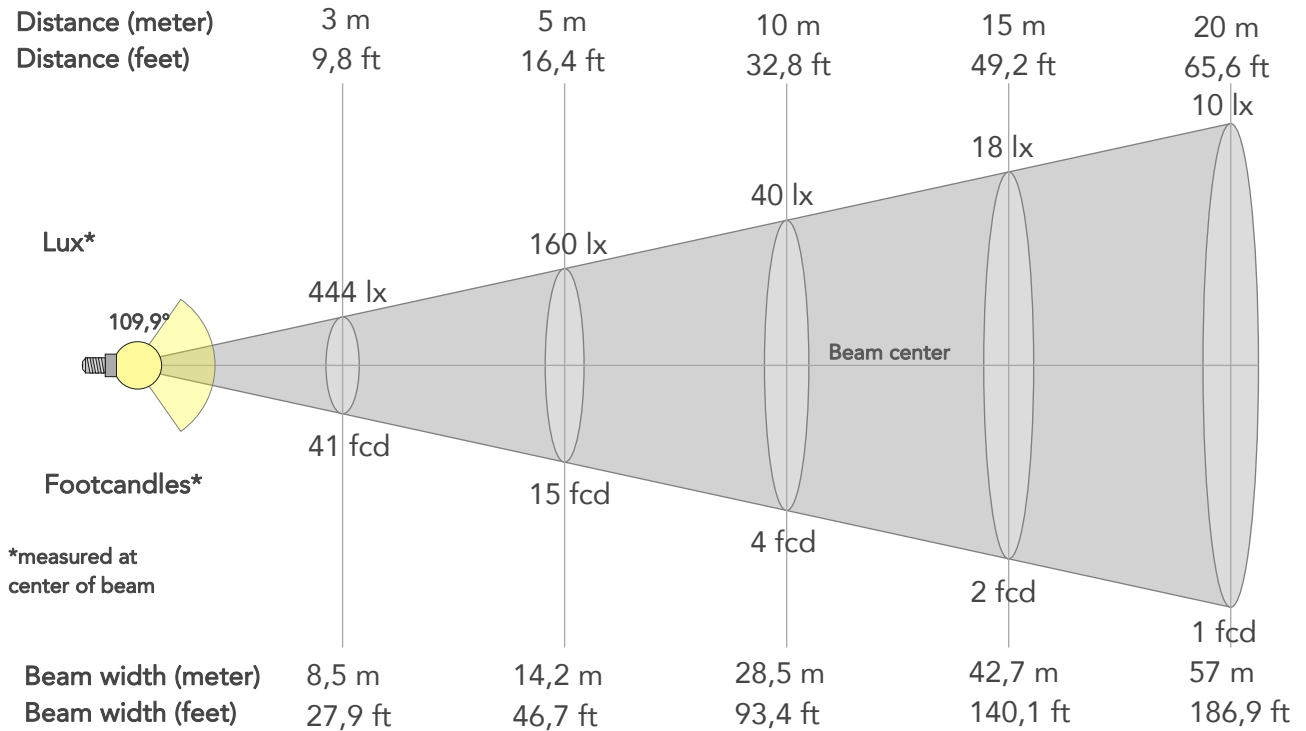


Color Evaluation Sample

# BEAM DETAILS



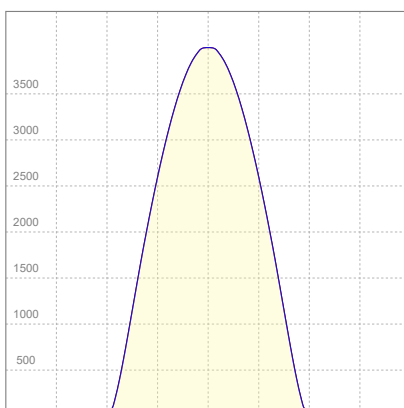
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
109,9°	157,6°	169,9°	78,6%	53,9%



## 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	3995lx	999lx	444lx	250lx	160lx	71lx	40lx	18lx	10lx	6lx	4lx	2lx	2lx
Footcand.	371fcd	93fcd	41fcd	23fcd	15fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	2,8m	5,7m	8,5m	11,4m	14,2m	21,4m	28,5m	42,7m	57m	71,2m	85,5m	113,9m	142,4m
Beam wid.	9,4ft	18,8ft	27,9ft	37,3ft	46,7ft	70,1ft	93,4ft	140,1ft	186,9ft	233,6ft	280,3ft	373,7ft	467,1ft

## LINEAR DISTRIBUTION DIAGRAM

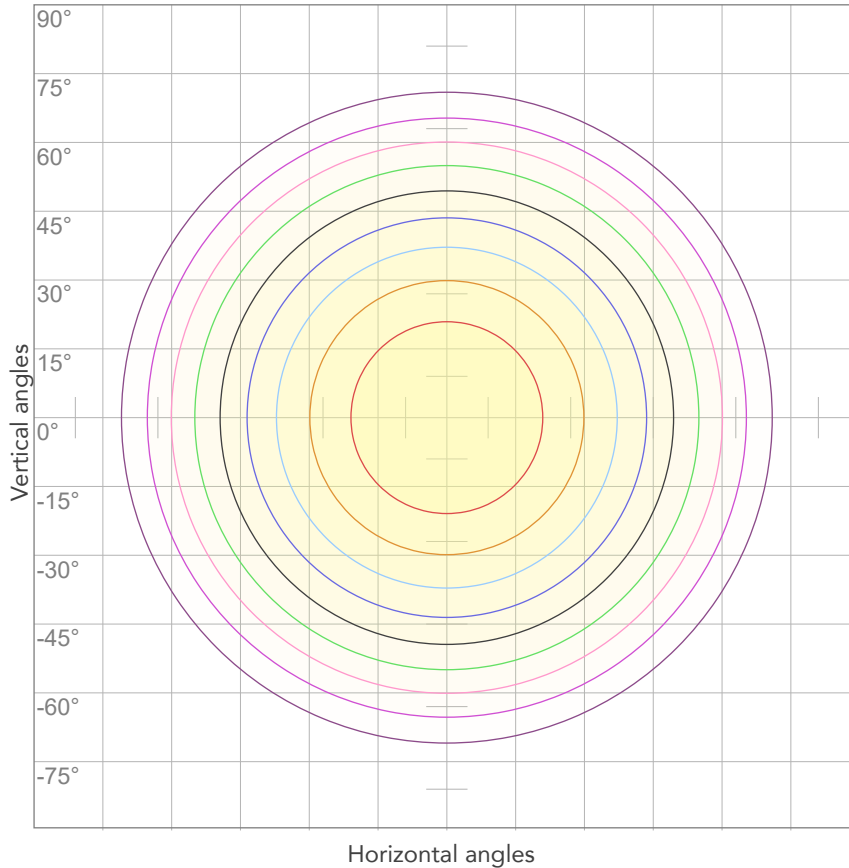


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	1,30A	291W	0,99	39lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



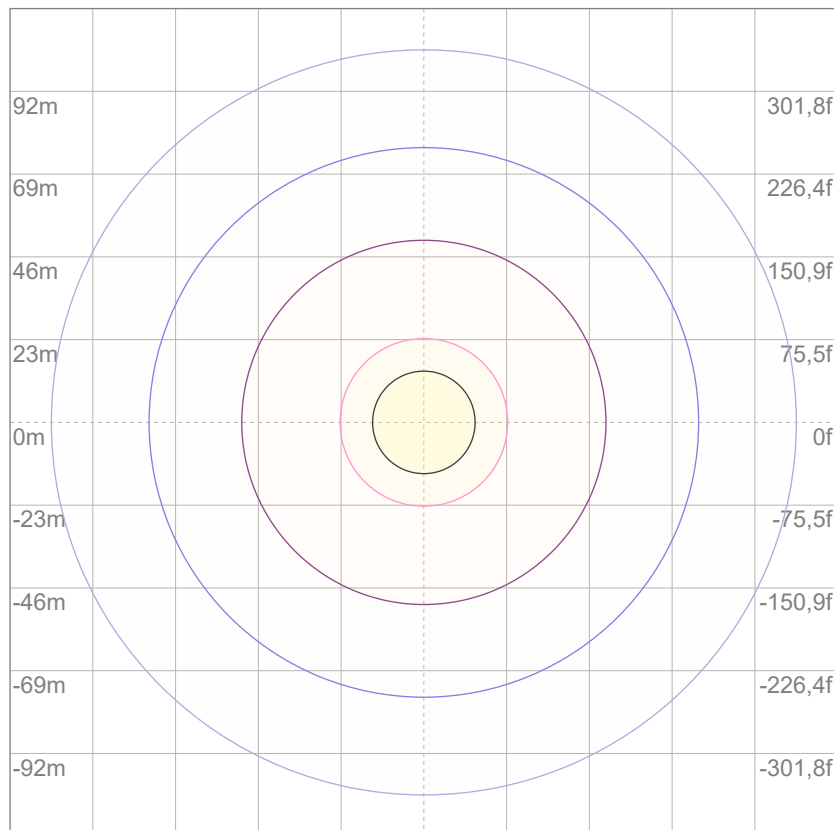
10%	400 cd
20%	799 cd
30%	1199 cd
40%	1598 cd
50%	1998 cd
60%	2397 cd
70%	2797 cd
80%	3196 cd

Conditions:

Number of c-planes: 4

Candela at center: 3995 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	1,20 lx
5%	2,00 lx
10%	4,00 lx
30%	12,0 lx
50%	20,0 lx

Conditions:

Number of c-planes: 4

Lux at center: 40,0 lx

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



Total lumen output:

10264 lm

Peak candela output:

3670 cd

Light quality:

CRI: 96,7

Color temperature:

3206 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

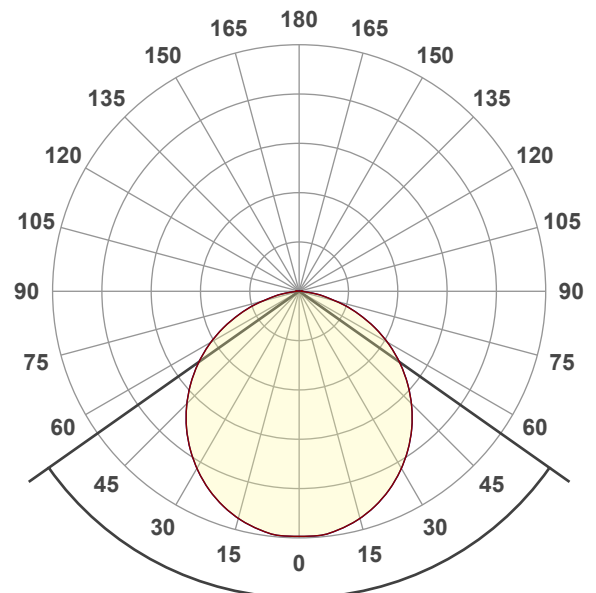
**MEASURAMENT CONDITIONS:**

Beam angle:  
HD Filter

Target:  
3200K - HQ

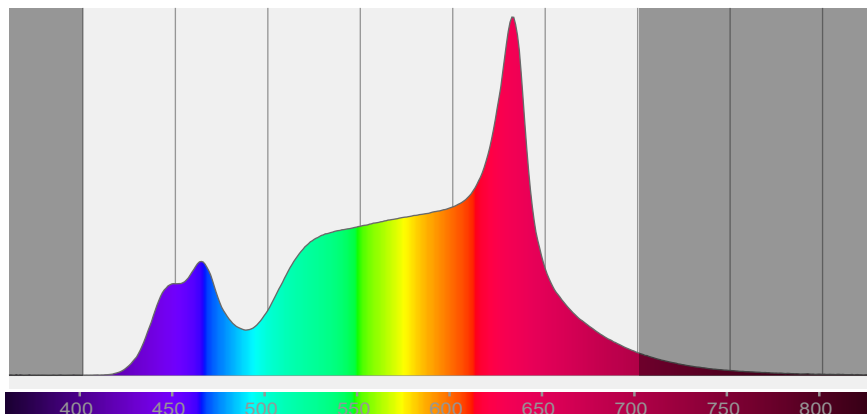
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 13:12:44

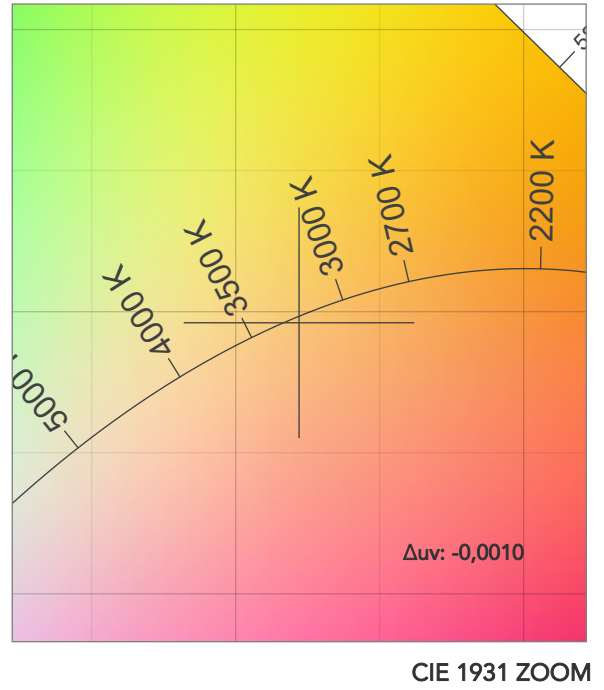
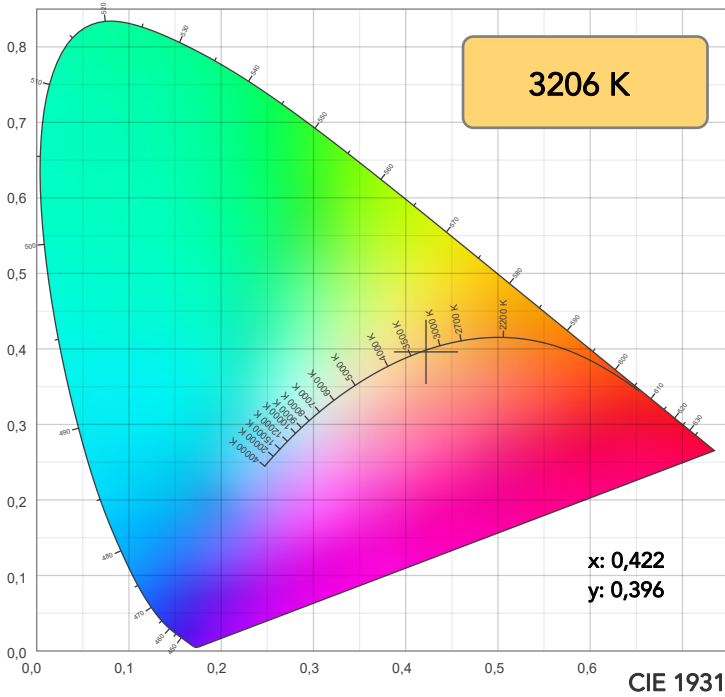


Beam angle 50%: 109,6°  
Field angle 10%: 157,6°  
Cut off angle 2.5%: 169,5°

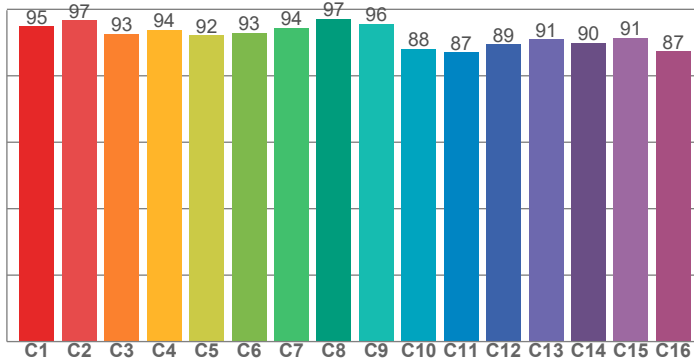
Spectra



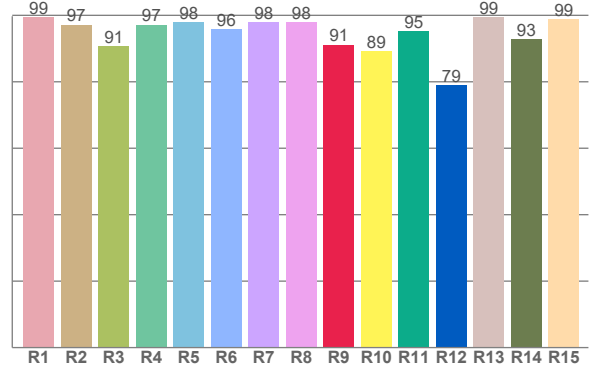
# COLOR DETAILS



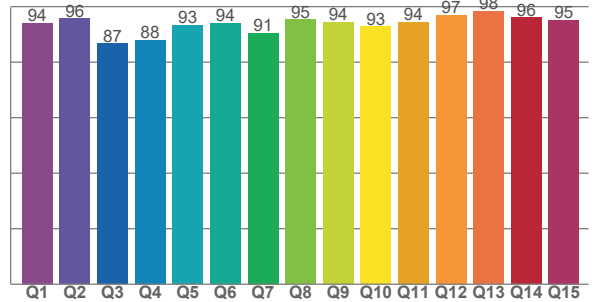
**TM30: 92,3**



**CRI: 96,7 (R1-R8)**



**CQS: 92,9**



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
99,5	97,2	90,6	97,2	98,0	95,7	97,9	97,9	91,2	89,2	95,3	78,9	99,3	92,9	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
94,9	96,7	92,6	93,8	92,2	92,9	94,4	97,2	95,5	88,0	87,0	89,4	91,0	89,8	91,4	87,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,1	95,7	86,7	88,0	93,3	94,0	90,6	95,3	94,3	92,8	94,5	96,9	98,3	96,1	95,3

## COLOR PARAMETERS

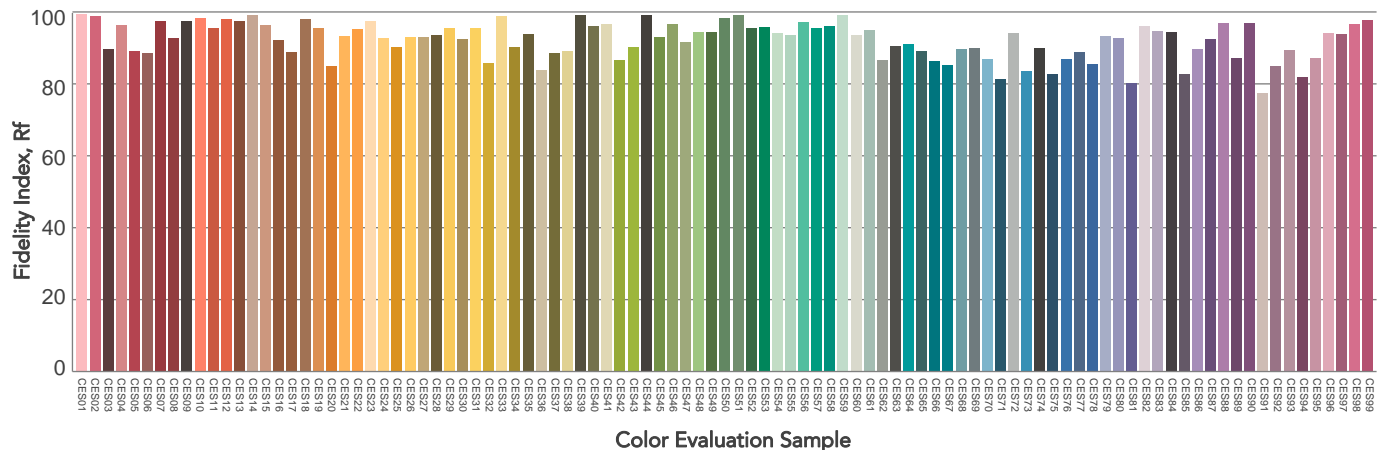
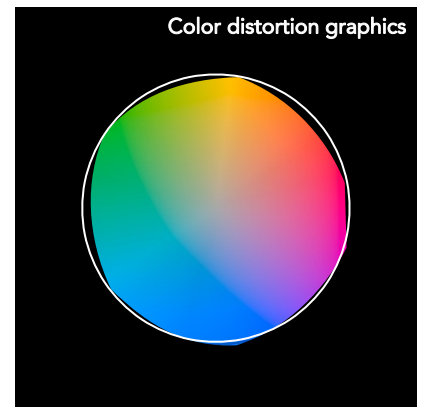
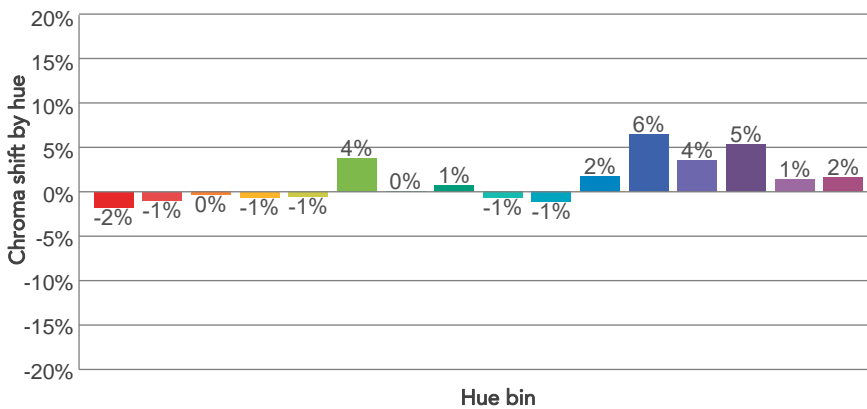
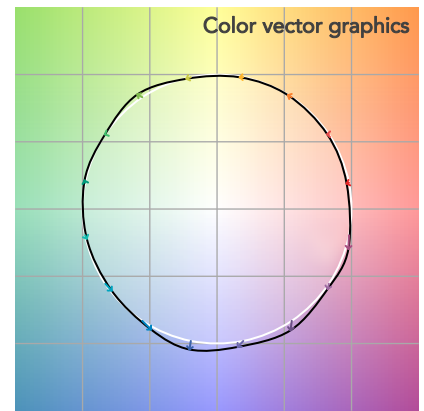
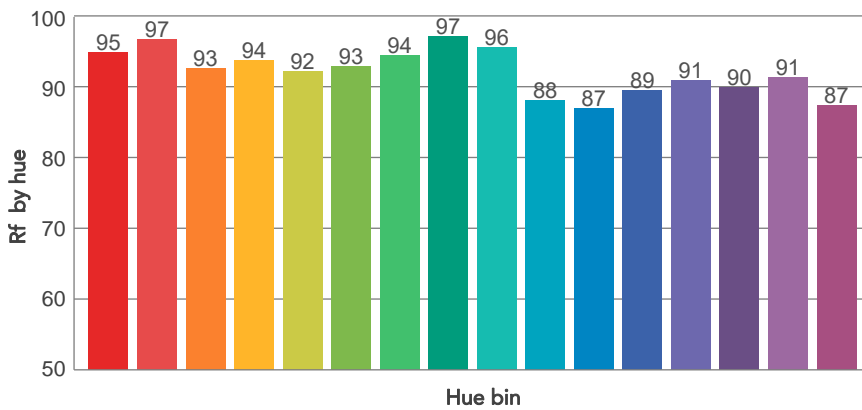
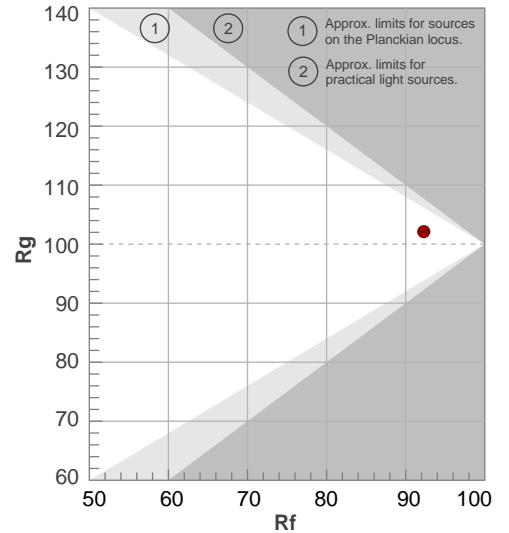
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3206 K	96,7	91,2	92,3	102,1	92,9	90	0,422	0,396	-0,0010

# TM30 DETAILS

**Rf 92,3**  
Fidelity index Rf

**Rg 102,1**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	0%
2	97	-1%	1%
3	93	0%	3%
4	94	-1%	3%
5	92	-1%	3%
6	93	4%	2%
7	94	0%	0%
8	97	1%	-2%
9	96	-1%	3%
10	88	-1%	7%
11	87	2%	9%
12	89	6%	0%
13	91	4%	-5%
14	90	5%	-5%
15	91	1%	-4%
16	87	2%	-10%

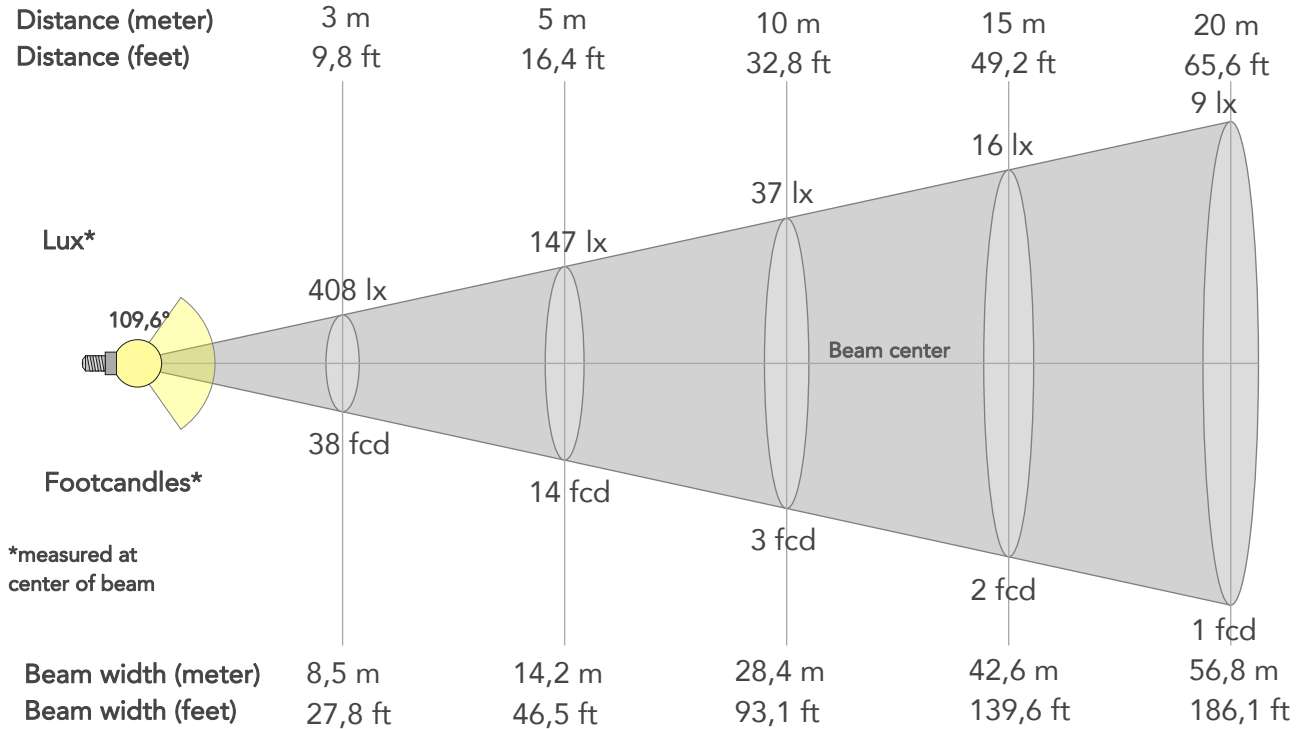




# BEAM DETAILS



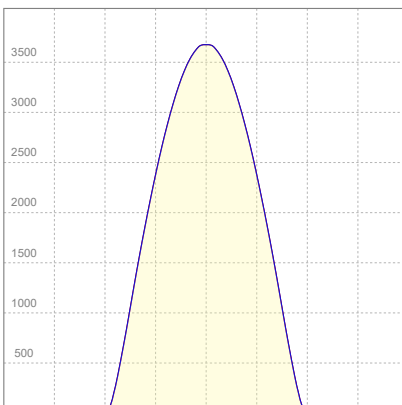
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
109,6°	157,6°	169,5°	78,7%	54,0%



## 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	3670lx	917lx	408lx	229lx	147lx	65lx	37lx	16lx	9lx	6lx	4lx	2lx	1lx
Footcand.	341fcd	85fcd	38fcd	21fcd	14fcd	6fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	2,8m	5,7m	8,5m	11,4m	14,2m	21,3m	28,4m	42,6m	56,8m	70,9m	85,1m	113,5m	141,9m
Beam wid.	9,4ft	18,7ft	27,8ft	37,2ft	46,5ft	69,8ft	93,1ft	139,6ft	186,1ft	232,7ft	279,2ft	372,3ft	465,4ft

## LINEAR DISTRIBUTION DIAGRAM

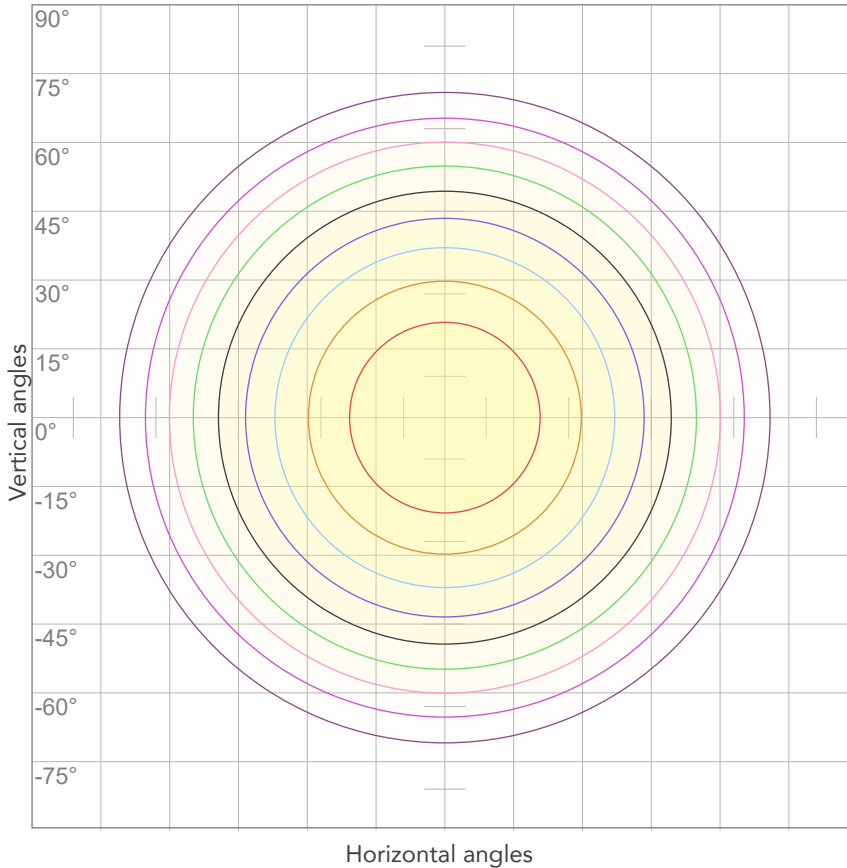


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	1,26A	283W	0,99	36lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



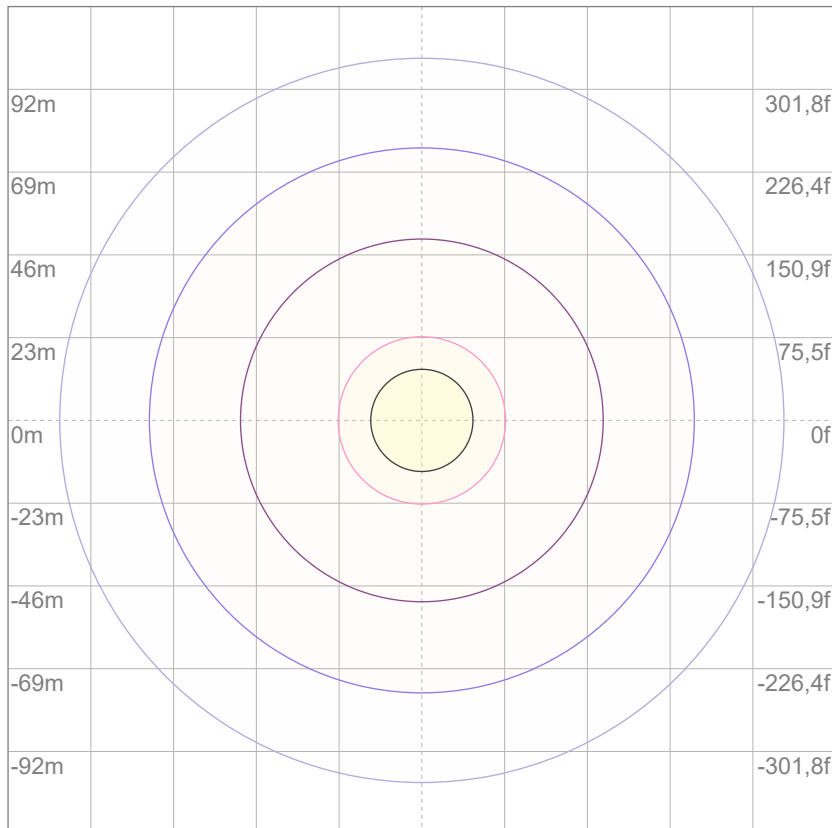
10%	367 cd
20%	734 cd
30%	1101 cd
40%	1468 cd
50%	1835 cd
60%	2202 cd
70%	2569 cd
80%	2936 cd

Conditions:

Number of c-planes: 4

Candela at center: 3670 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	1,10 lx
5%	1,83 lx
10%	3,67 lx
30%	11,0 lx
50%	18,3 lx

Conditions:

Number of c-planes: 4

Lux at center: 36,7 lx

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



Total lumen output:

9487 lm

Peak candela output:

3379 cd

Light quality:

CRI: 96,5

Color temperature:

5678 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

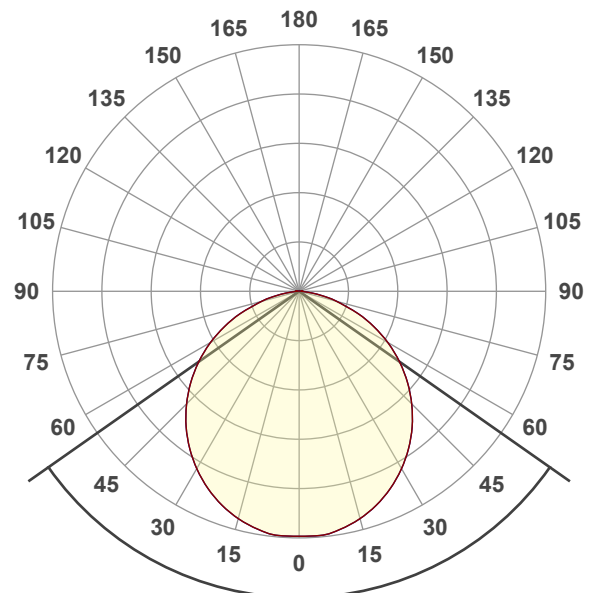
**MEASURAMENT CONDITIONS:**

Beam angle:  
HD Filter

Target:  
5600K - HQ

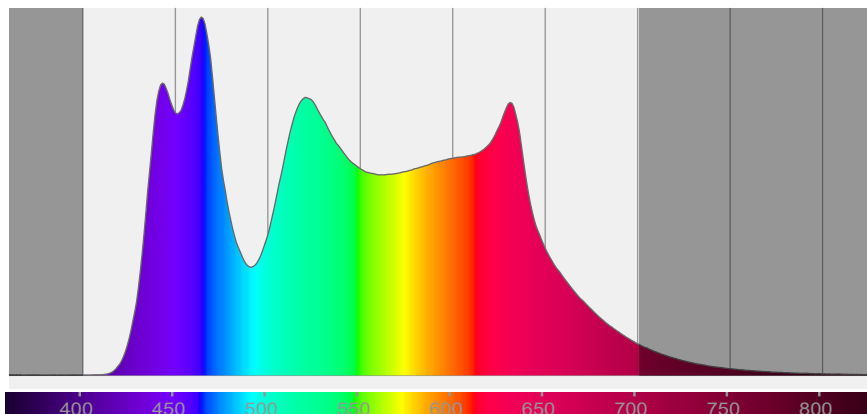
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 13:11:06

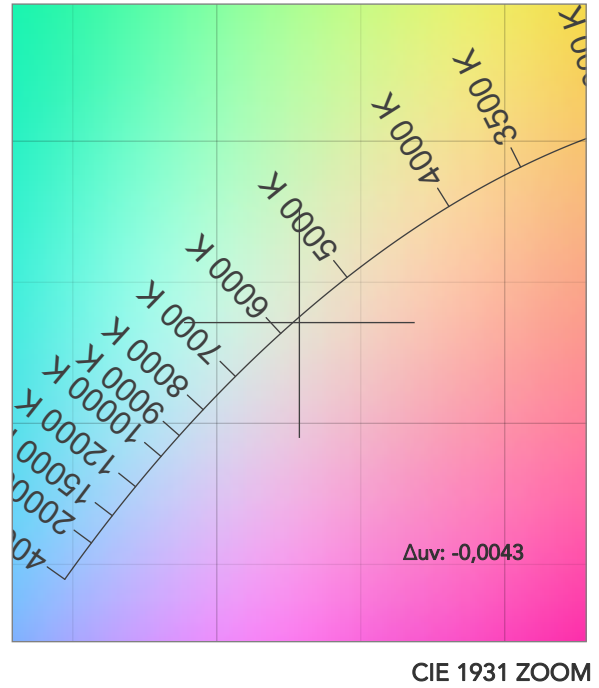
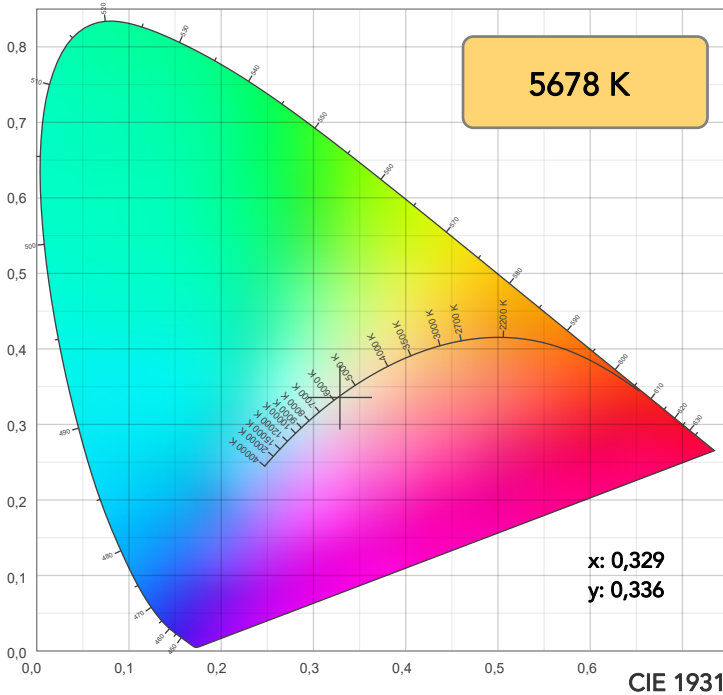


Beam angle 50%: 109,9°  
Field angle 10%: 157,6°  
Cut off angle 2.5%: 169,8°

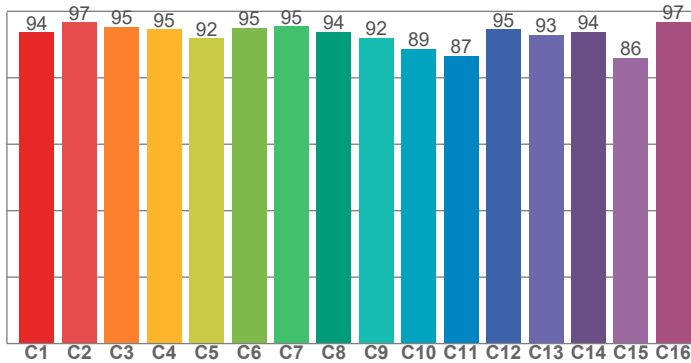
Spectra



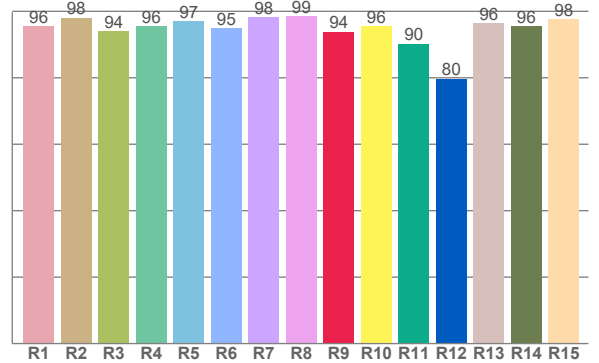
# COLOR DETAILS



**TM30: 92,8**



**CRI: 96,5 (R1-R8)**



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
95,6	98,0	94,1	95,6	97,1	94,9	98,3	98,5	93,9	95,6	90,2	79,7	96,4	95,6	97,5

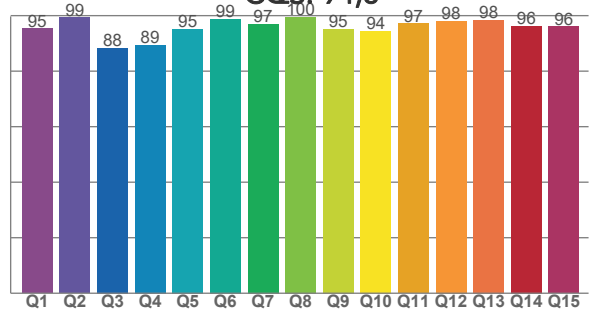
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,6	96,7	95,3	94,6	91,8	95,0	95,5	93,9	92,0	88,7	86,6	94,5	92,8	93,8	86,0	96,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,4	99,2	88,3	89,4	95,2	98,9	97,0	99,6	95,1	94,5	97,2	98,0	98,4	96,2	96,1

**CQS: 94,8**



## COLOR PARAMETERS

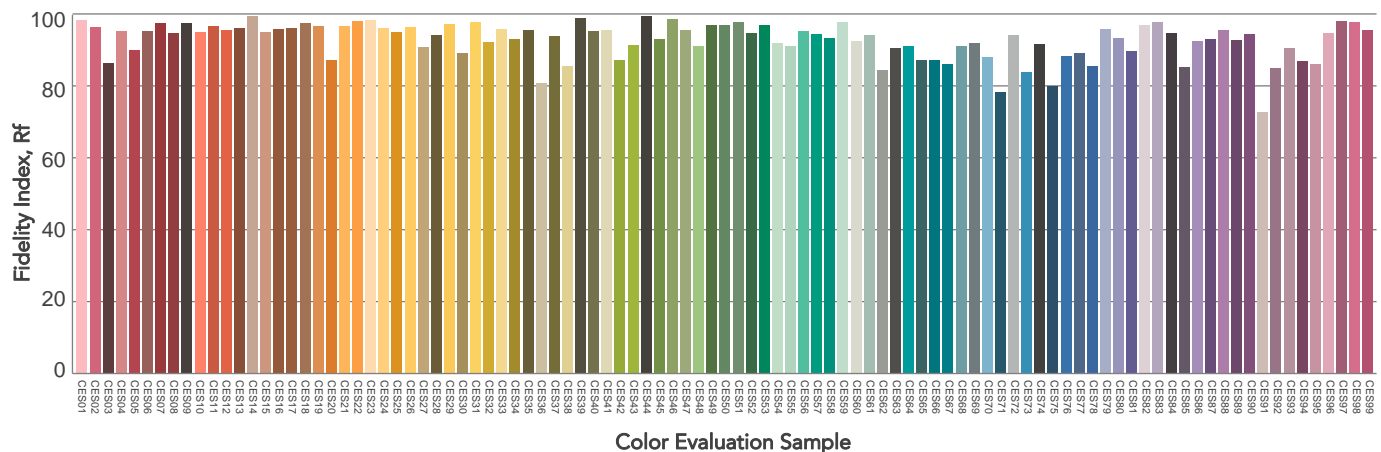
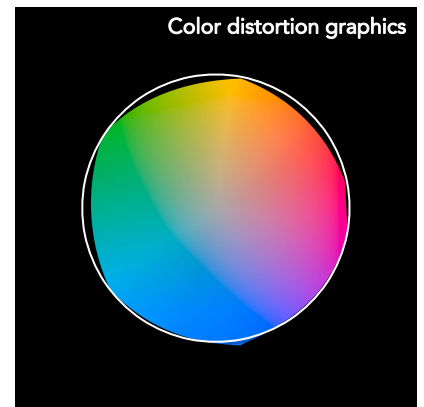
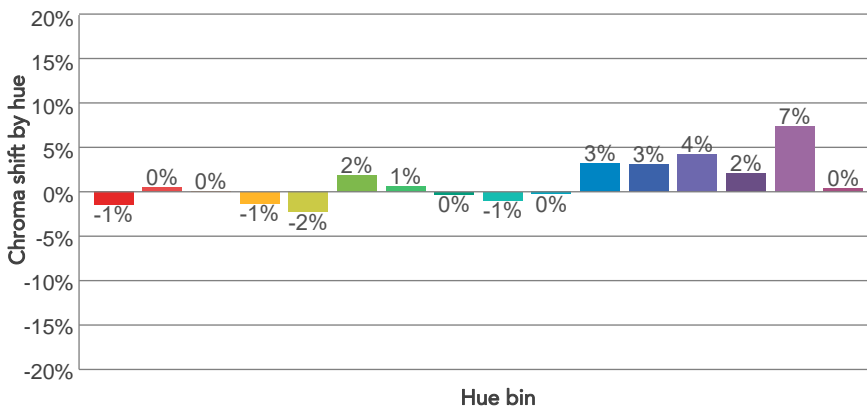
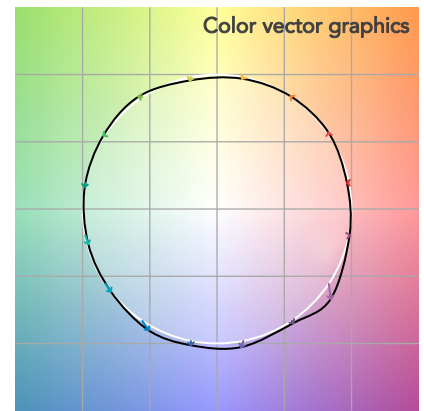
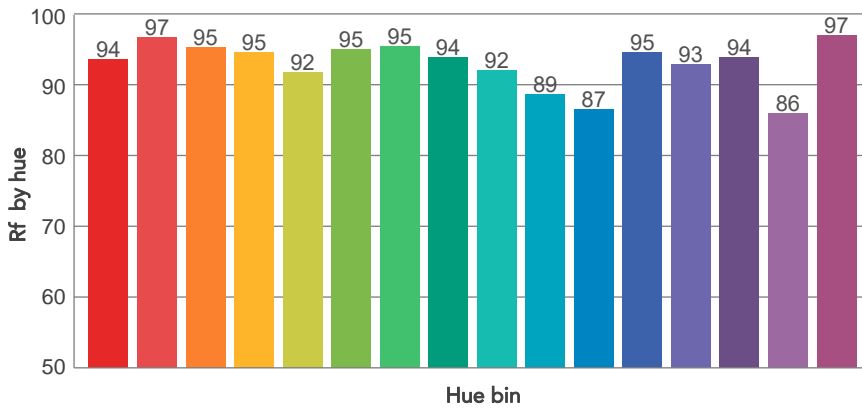
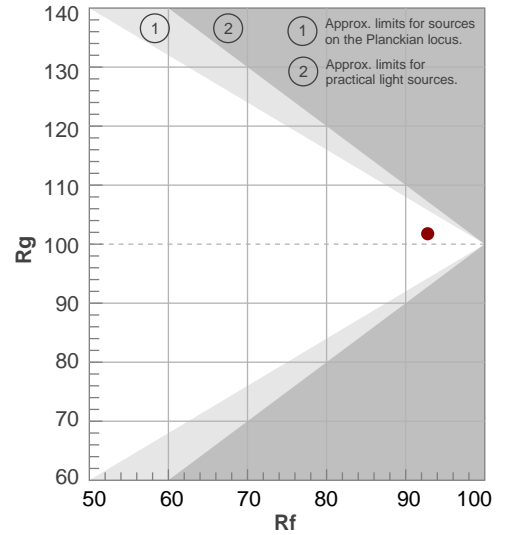
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
5678 K	96,5	93,9	92,8	101,8	94,8	96	0,329	0,336	-0,0043

# TM30 DETAILS

**Rf 92,8**  
Fidelity index Rf

**Rg 101,8**  
Gammut index

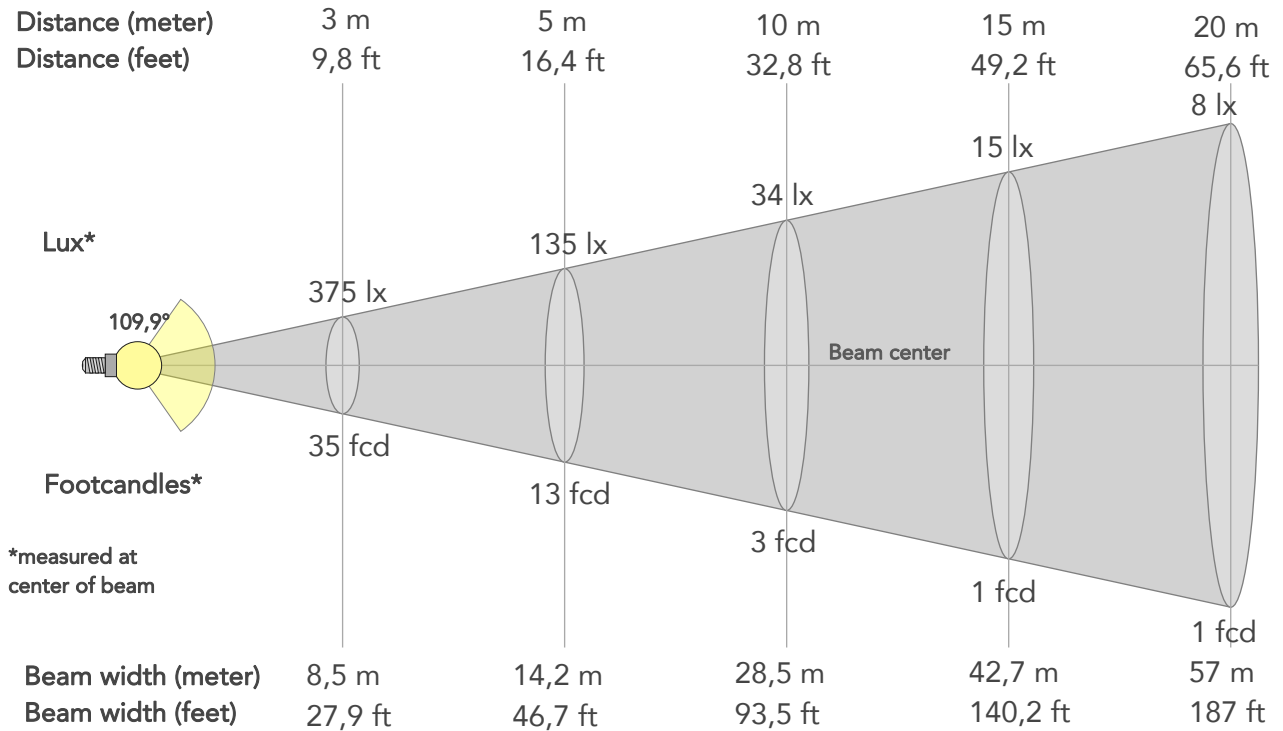
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-1%	0%
2	97	0%	1%
3	95	0%	1%
4	95	-1%	1%
5	92	-2%	1%
6	95	2%	2%
7	95	1%	2%
8	94	0%	3%
9	92	-1%	7%
10	89	0%	8%
11	87	3%	8%
12	95	3%	1%
13	93	4%	-2%
14	94	2%	0%
15	86	7%	-9%
16	97	0%	0%



# BEAM DETAILS



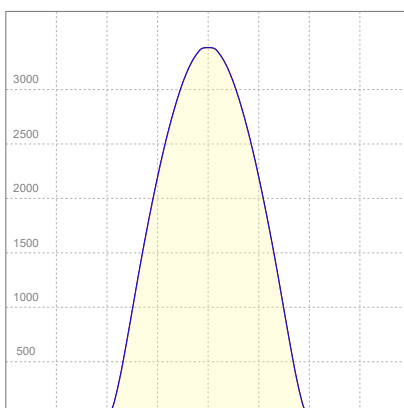
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
109,9°	157,6°	169,8°	78,6%	53,9%



## 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	3379lx	845lx	375lx	211lx	135lx	60lx	34lx	15lx	8lx	5lx	4lx	2lx	1lx
Footcand.	314fcd	78fcd	35fcd	20fcd	13fcd	6fcd	3fcd	1fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	2,8m	5,7m	8,5m	11,4m	14,2m	21,4m	28,5m	42,7m	57m	71,2m	85,5m	114m	142,5m
Beam wid.	9,4ft	18,8ft	27,9ft	37,3ft	46,7ft	70,1ft	93,5ft	140,2ft	187ft	233,7ft	280,4ft	373,9ft	467,4ft

## LINEAR DISTRIBUTION DIAGRAM

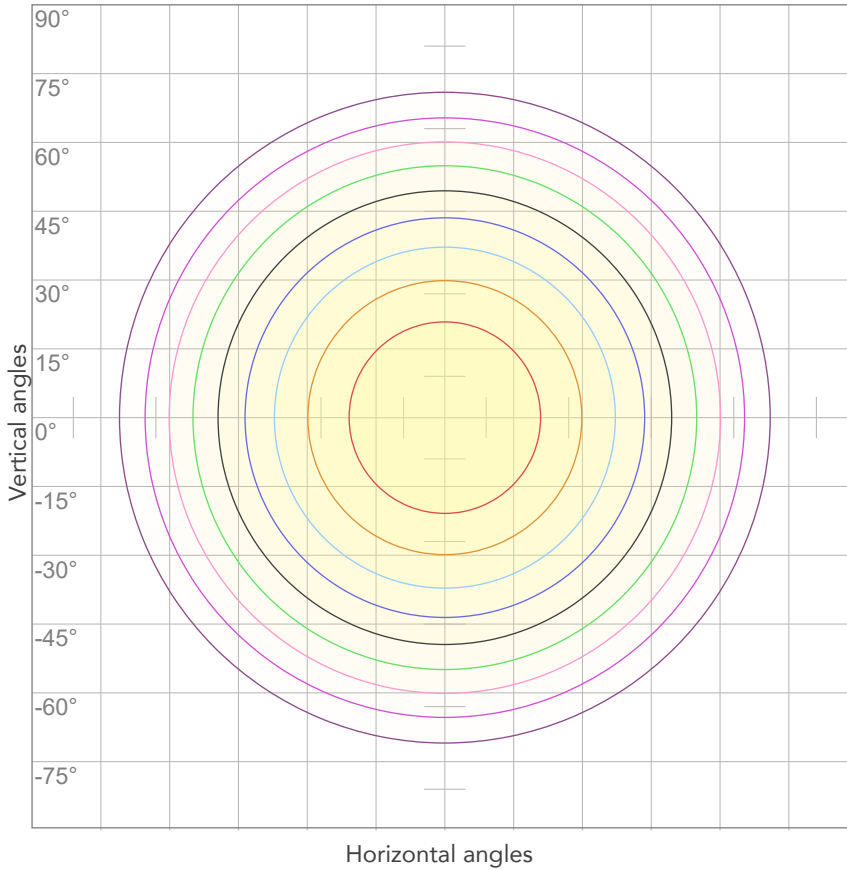


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	1,30A	292W	0,99	32lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



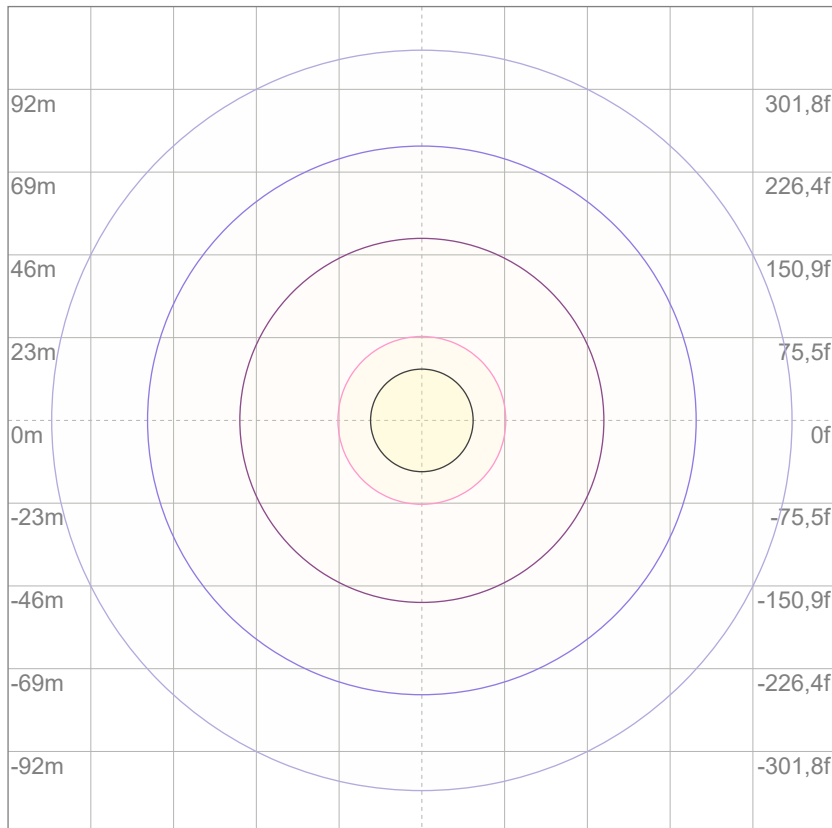
10%	338 cd
20%	676 cd
30%	1014 cd
40%	1352 cd
50%	1690 cd
60%	2028 cd
70%	2366 cd
80%	2703 cd

Conditions:

Number of c-planes: 4

Candela at center: 3379 cd

## ISO LUX DIAGRAM



3%	1,01 lx
5%	1,69 lx
10%	3,38 lx
30%	10,1 lx
50%	16,9 lx

Conditions:

Number of c-planes: 4

Lux at center: 33,8 lx

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



Total lumen output:

15274 lm

Peak candela output:

24572 cd

Light quality:

CRI: 88,4

Color temperature:

3253 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

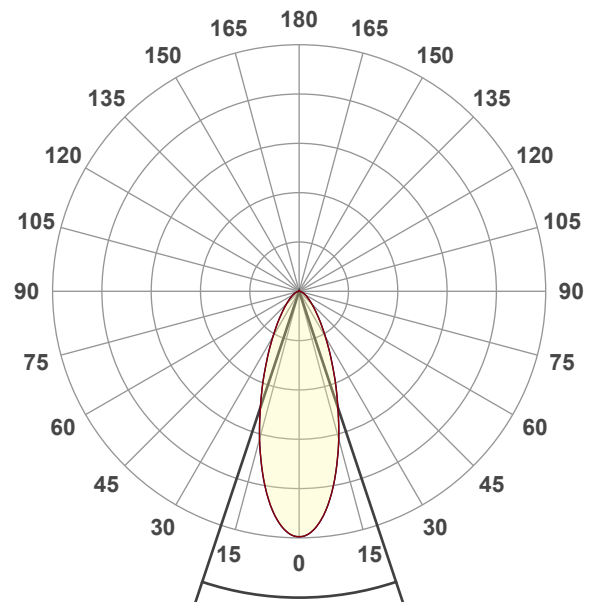
**MEASURAMENT CONDITIONS:**

Beam angle:  
LD Filter

Target:  
3200K - HB

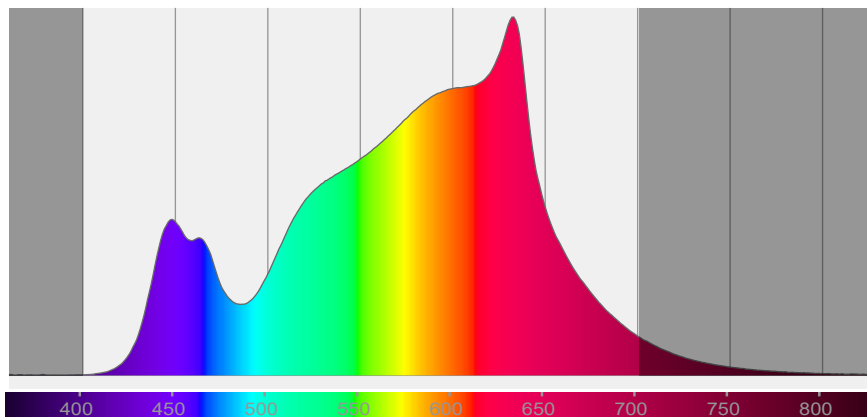
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 13:42:45



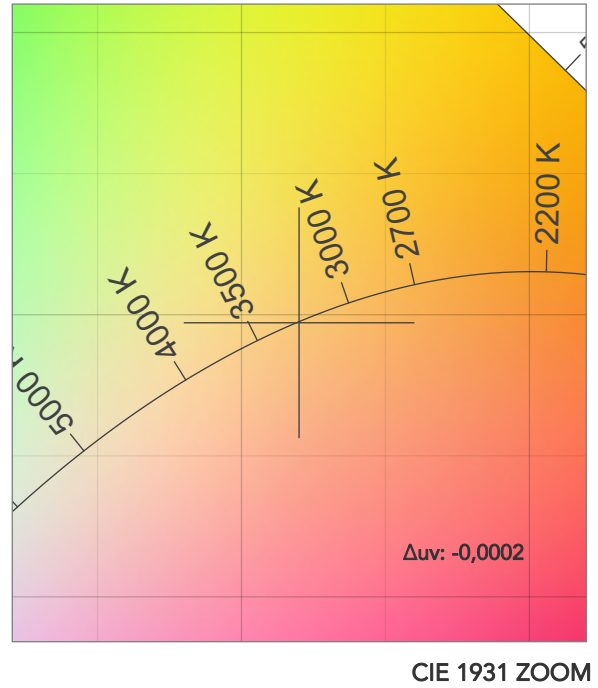
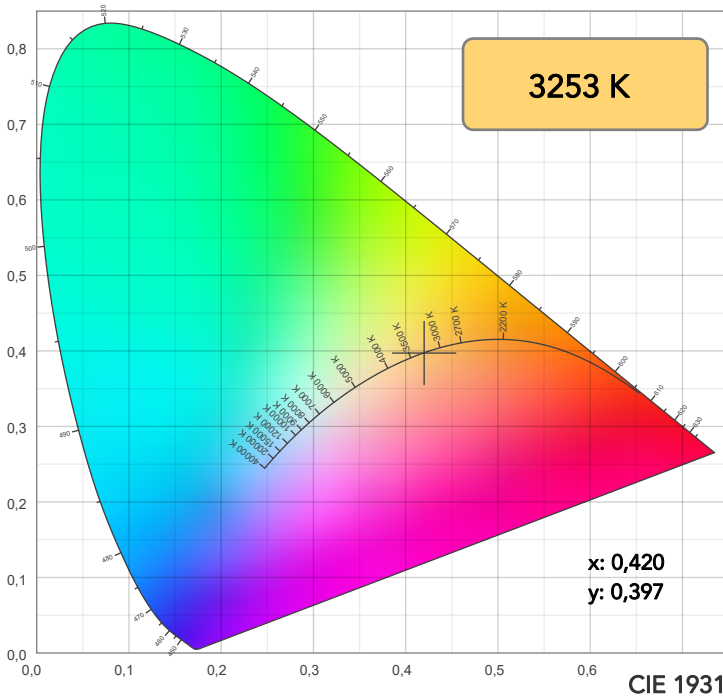
Beam angle 50%: 36,9°  
Field angle 10%: 80,7°  
Cut off angle 2.5%: 123,9°

Spectra

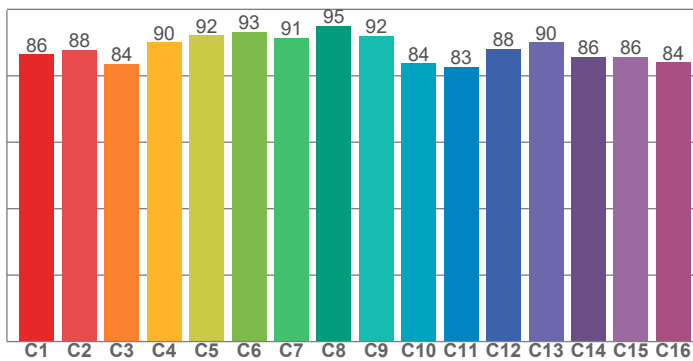




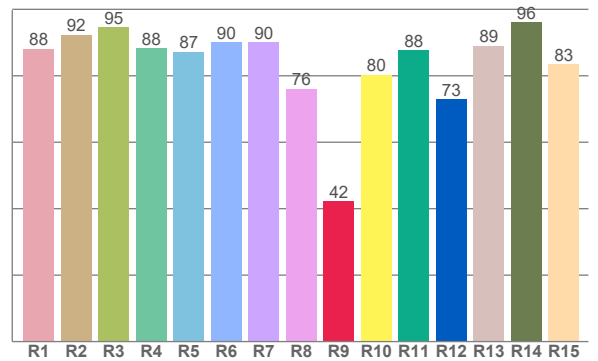
# COLOR DETAILS



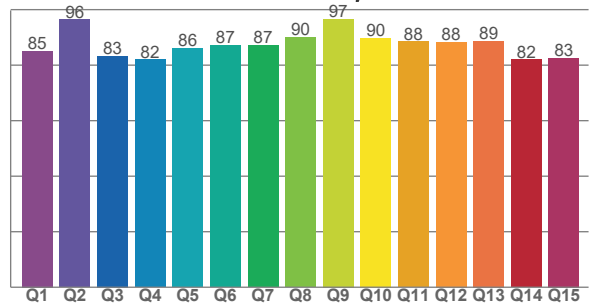
**TM30: 88,1**



**CRI: 88,4 (R1-R8)**



**CQS: 86,8**



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
88,2	92,3	94,6	88,4	87,2	90,0	90,0	76,1	42,2	80,3	87,7	72,9	89,0	96,2	83,4

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
86,4	87,8	83,5	90,1	92,2	93,3	91,4	95,0	92,1	83,8	82,6	88,1	90,1	85,7	85,7	84,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85,2	96,4	83,2	82,0	86,1	87,1	87,2	90,0	96,7	89,8	88,5	88,4	88,7	81,9	82,6

## COLOR PARAMETERS

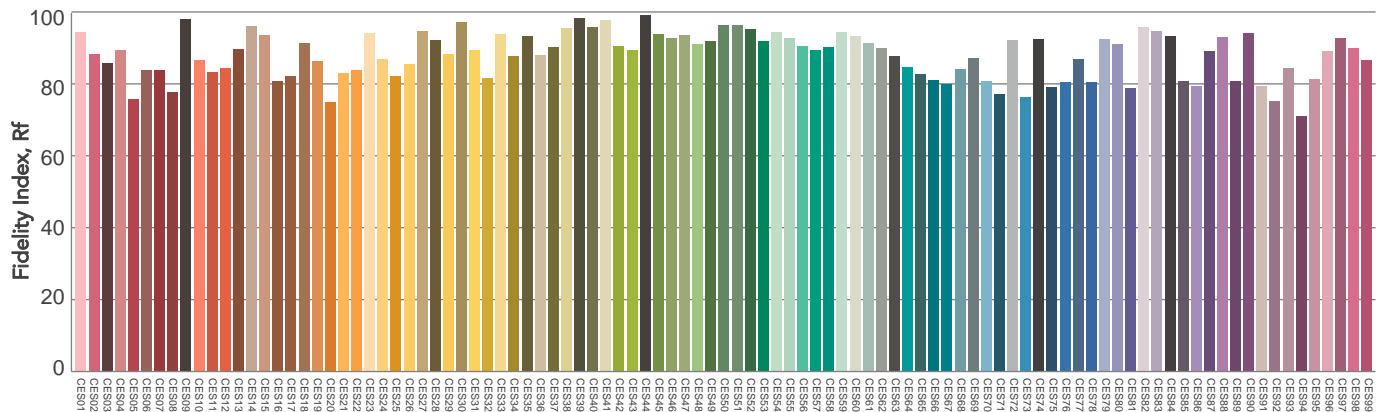
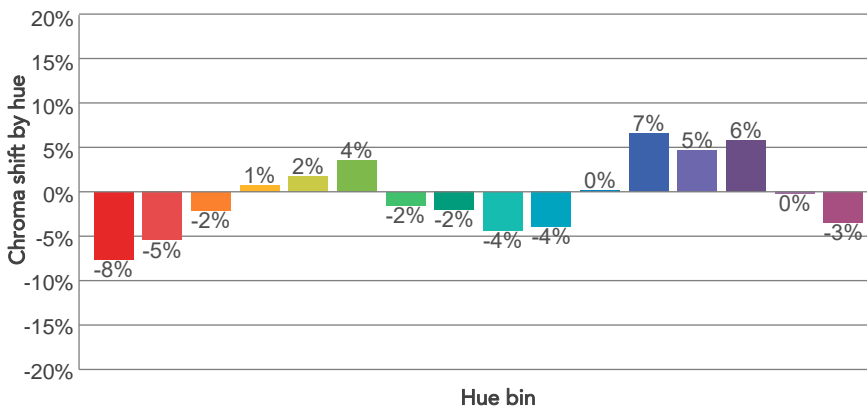
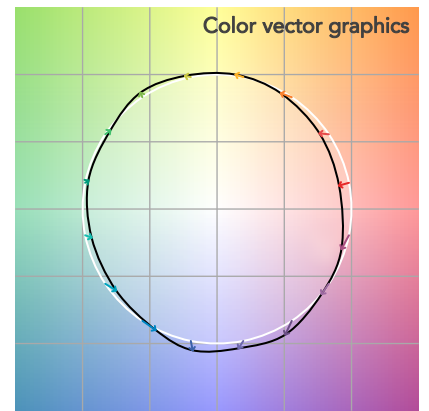
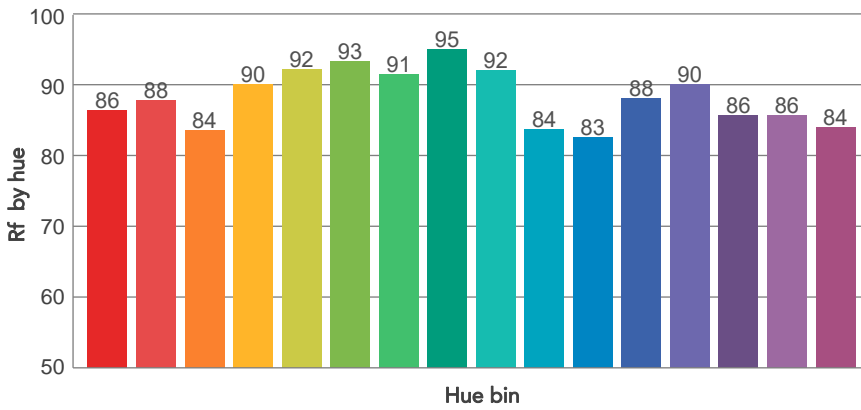
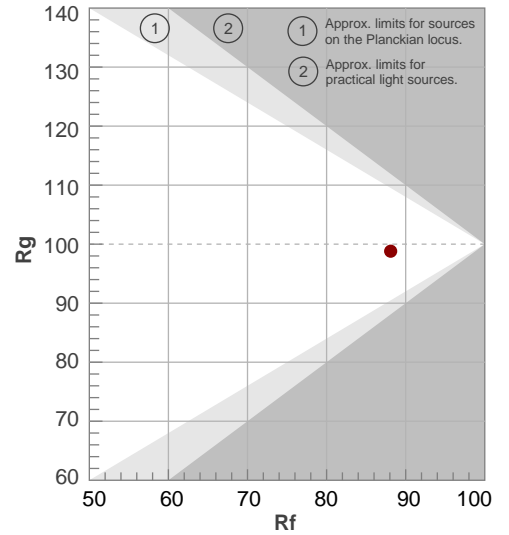
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3253 K	88,4	42,2	88,1	98,8	86,8	80	0,420	0,397	-0,0002

# TM30 DETAILS

**Rf 88,1**  
Fidelity index Rf

**Rg 98,8**  
Gammut index

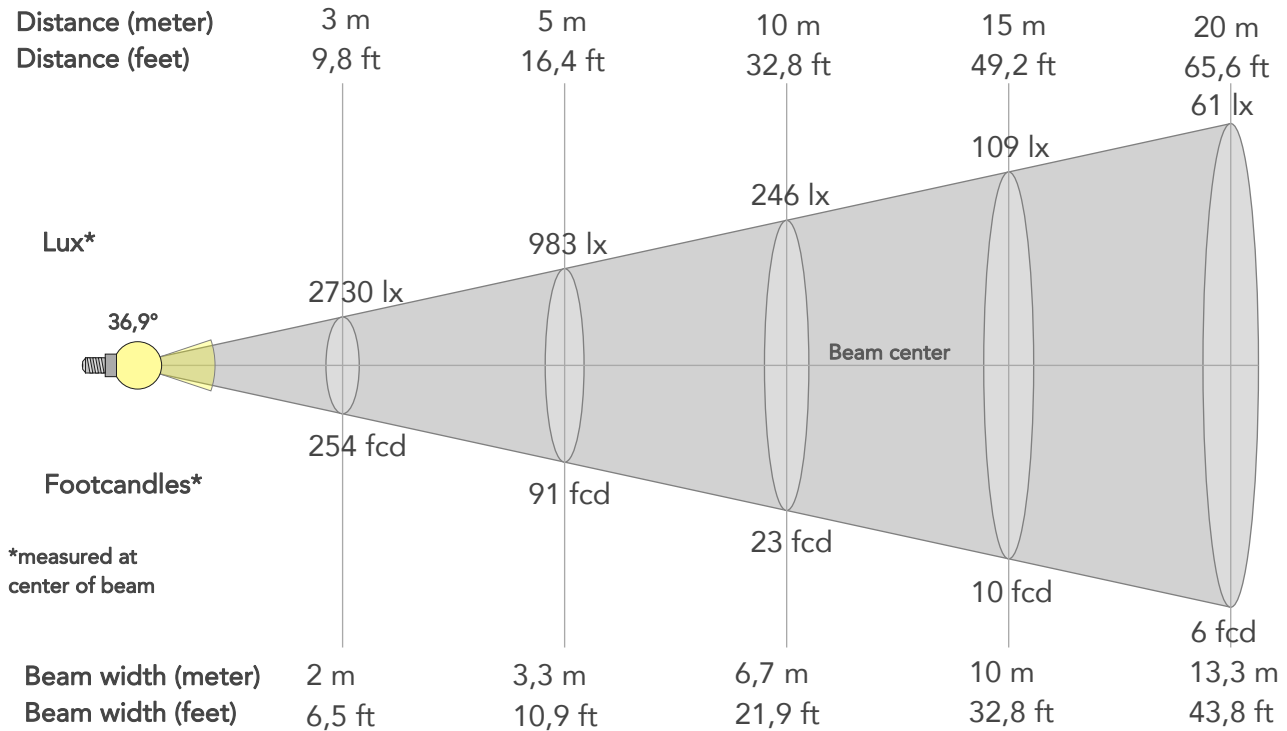
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	86	-8%	-1%
2	88	-5%	4%
3	84	-2%	8%
4	90	1%	6%
5	92	2%	4%
6	93	4%	-1%
7	91	-2%	-5%
8	95	-2%	-2%
9	92	-4%	3%
10	84	-4%	9%
11	83	0%	12%
12	88	7%	3%
13	90	5%	-4%
14	86	6%	-10%
15	86	0%	-9%
16	84	-3%	-11%



# BEAM DETAILS



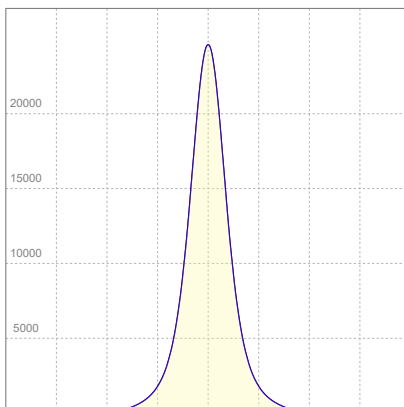
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
36,9°	80,7°	123,9°	94,4%	84,8%



## 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	24572lx	6143lx	2730lx	1536lx	983lx	437lx	246lx	109lx	61lx	39lx	27lx	15lx	10lx
Footcand.	2283fcd	571fcd	254fcd	143fcd	91fcd	41fcd	23fcd	10fcd	6fcd	4fcd	3fcd	1fcd	1fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,3m	5m	6,7m	10m	13,3m	16,7m	20m	26,7m	33,4m
Beam wid.	2,2ft	4,4ft	6,5ft	8,7ft	10,9ft	16,4ft	21,9ft	32,8ft	43,8ft	54,7ft	65,6ft	87,5ft	109,4ft

## LINEAR DISTRIBUTION DIAGRAM

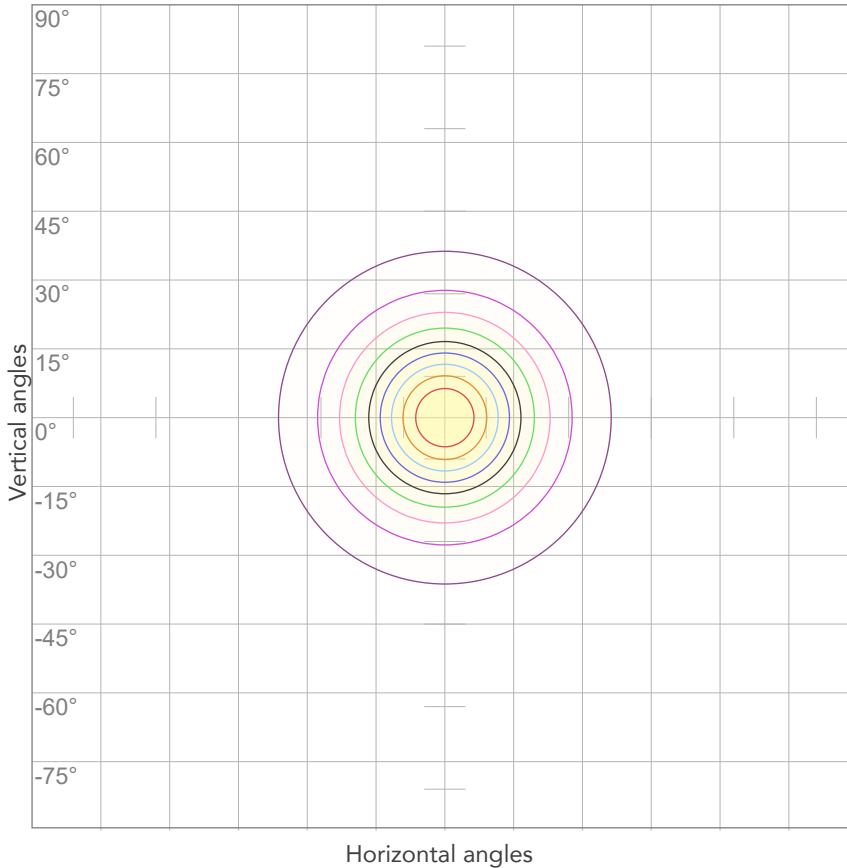


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	1,26A	282W	0,99	54lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



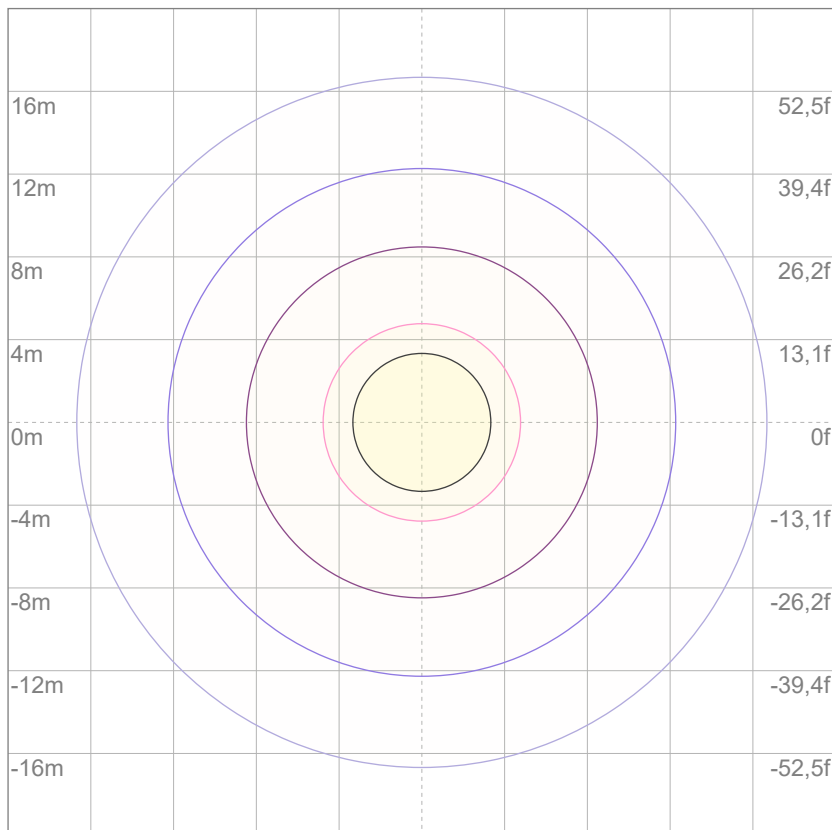
10%	2457 cd
20%	4914 cd
30%	7372 cd
40%	9829 cd
50%	12286 cd
60%	14743 cd
70%	17200 cd
80%	19658 cd

Conditions:

Number of c-planes: 4

Candela at center: 24572 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	7,37 lx
5%	12,3 lx
10%	24,6 lx
30%	73,7 lx
50%	123 lx

Conditions:

Number of c-planes: 4

Lux at center: 246 lx

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



Total lumen output:

16479 lm

Peak candela output:

26258 cd

Light quality:

CRI: 81,5

Color temperature:

5629 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

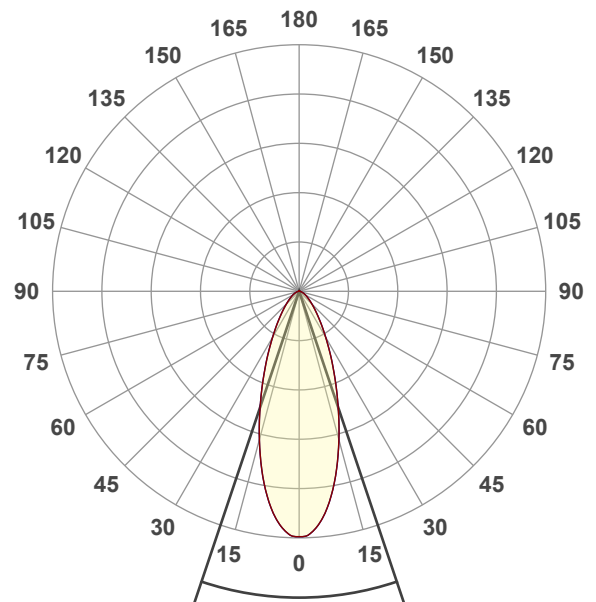
**MEASURAMENT CONDITIONS:**

Beam angle:  
LD Filter

Target:  
5600K - HB

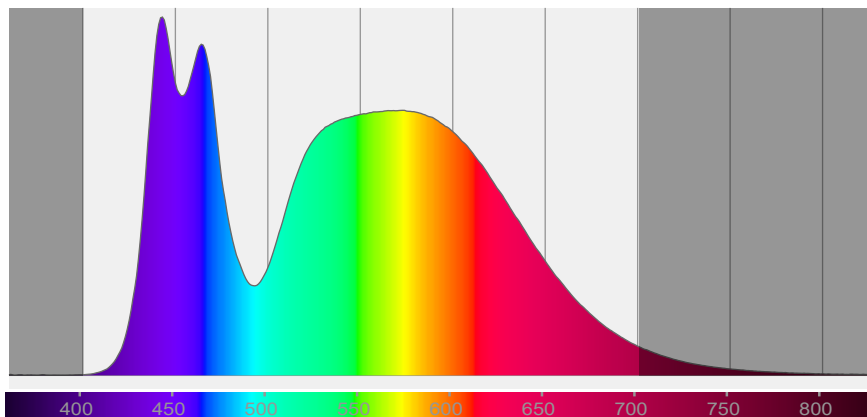
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 13:33:22

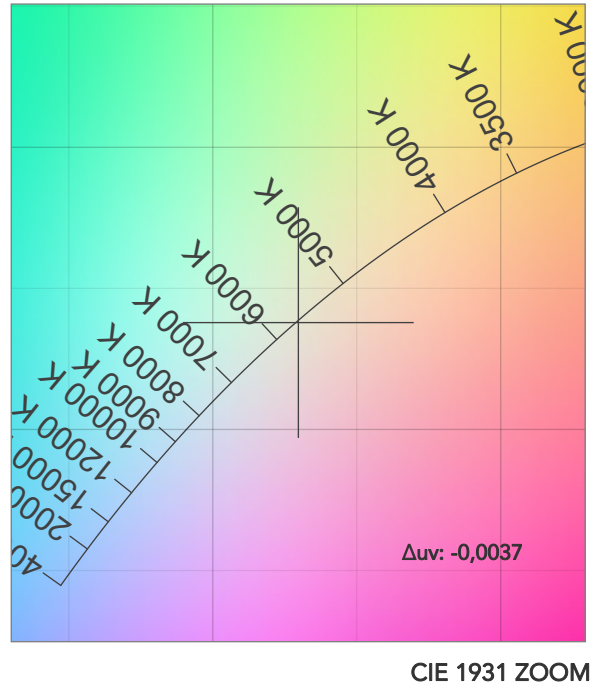
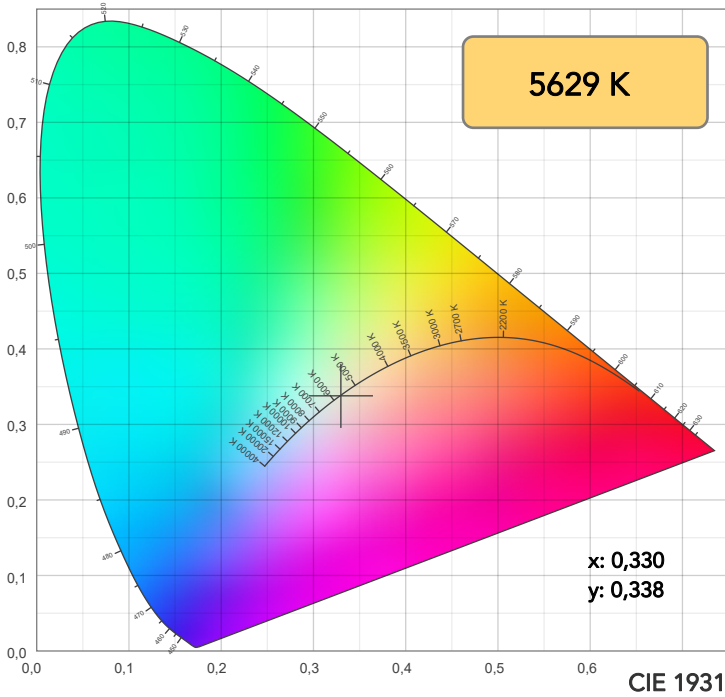


Beam angle 50%: 37,2°  
Field angle 10%: 81,1°  
Cut off angle 2.5%: 124,3°

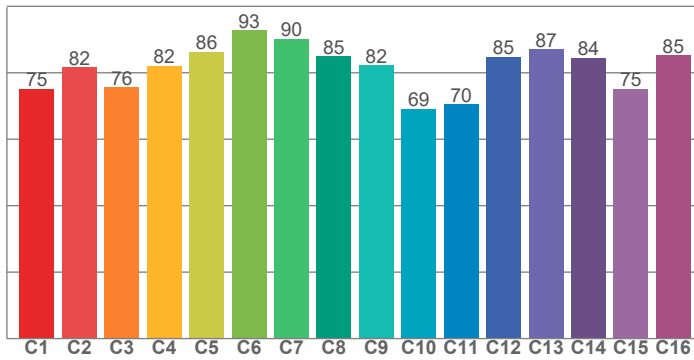
Spectra



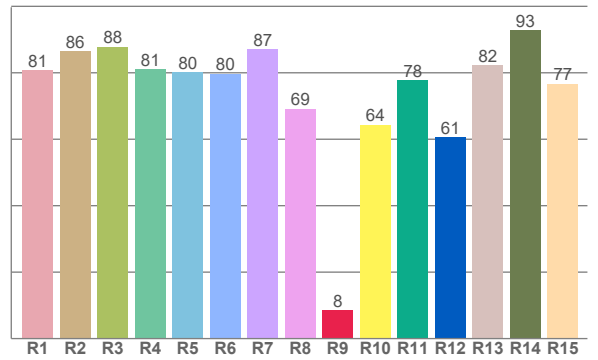
# COLOR DETAILS



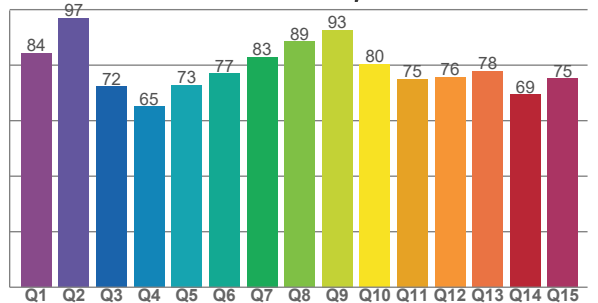
TM30: 81,3



CRI: 81,5 (R1-R8)



CQS: 77,4



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
80,7	86,4	87,8	81,1	80,3	79,7	87,1	69,2	8,4	64,3	77,7	60,6	82,2	92,8	76,7

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
75,2	81,6	75,6	82,1	86,3	92,7	90,1	84,9	82,2	69,2	70,5	84,8	87,1	84,4	75,2	85,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,2	96,9	72,4	65,1	72,8	77,0	82,9	88,5	92,6	80,3	75,0	75,7	77,8	69,5	75,1

## COLOR PARAMETERS

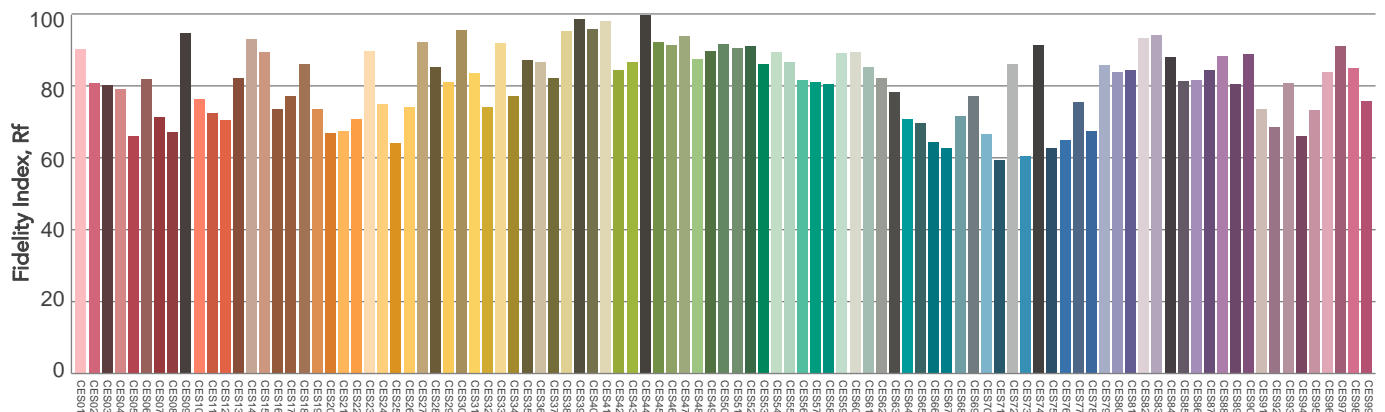
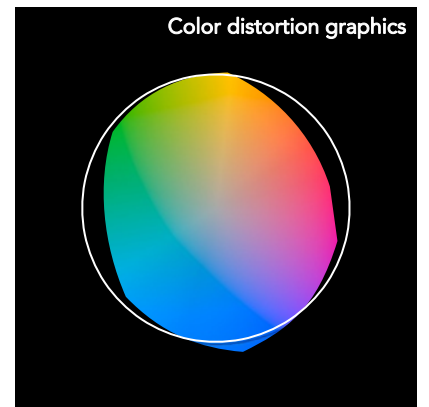
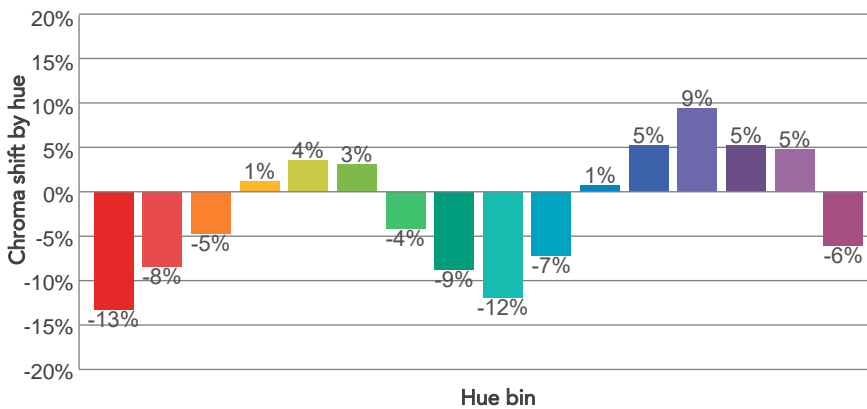
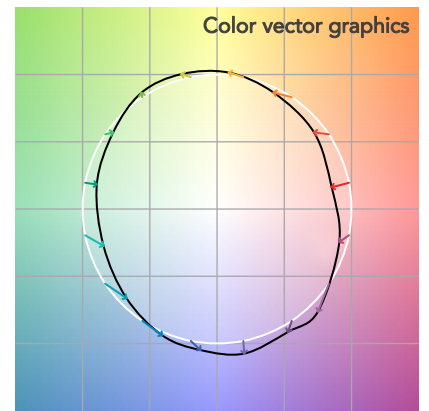
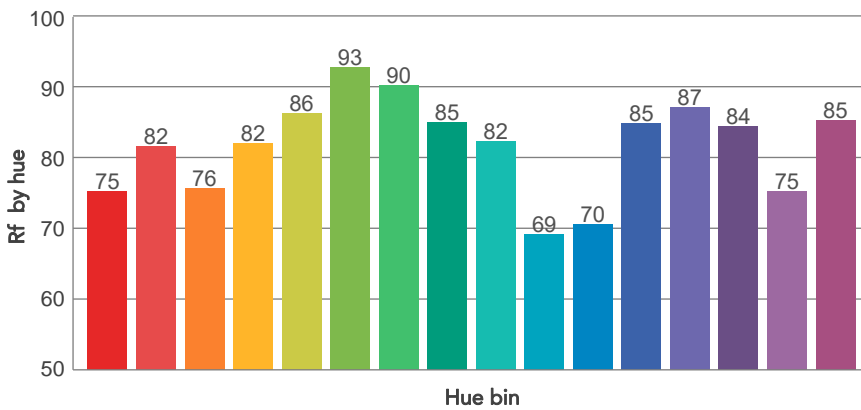
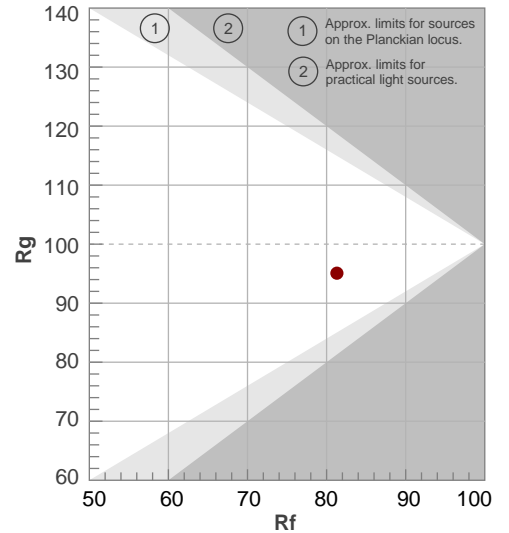
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5629 K	81,5	8,4	81,3	95,1	77,4	67	0,330	0,338	-0,0037

# TM30 DETAILS

**Rf 81,3**  
Fidelity index Rf

**Rg 95,1**  
Gammut index

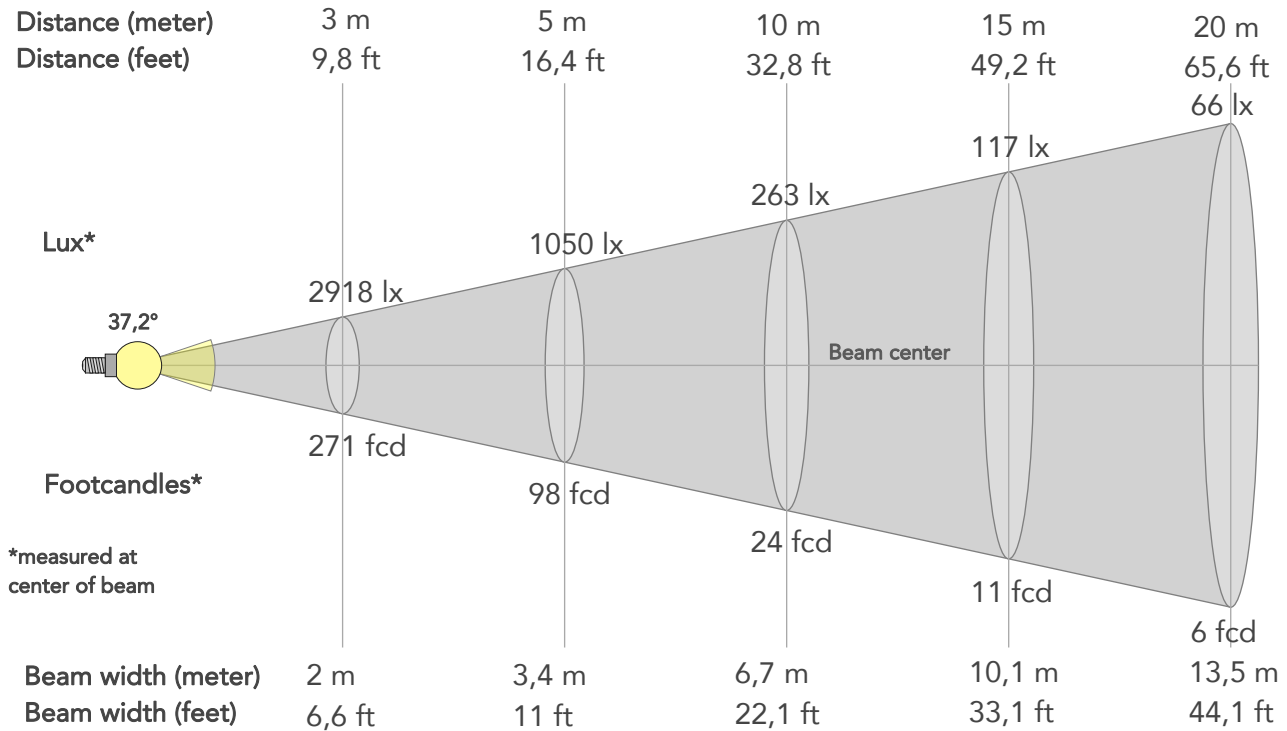
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-13%	-1%
2	82	-8%	7%
3	76	-5%	13%
4	82	1%	11%
5	86	4%	6%
6	93	3%	-1%
7	90	-4%	-4%
8	85	-9%	0%
9	82	-12%	10%
10	69	-7%	18%
11	70	1%	18%
12	85	5%	8%
13	87	9%	-1%
14	84	5%	-7%
15	75	5%	-22%
16	85	-6%	-6%



# BEAM DETAILS



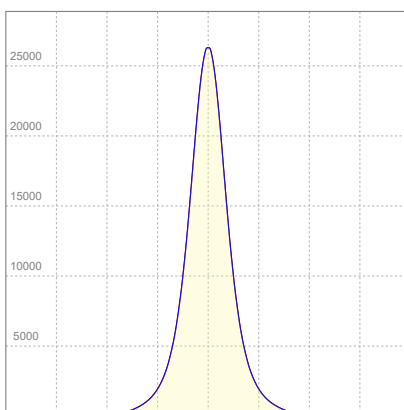
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37,2°	81,1°	124,3°	94,4%	84,7%



## 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	26258lx	6564lx	2918lx	1641lx	1050lx	467lx	263lx	117lx	66lx	42lx	29lx	16lx	11lx
Footcand.	2439fcd	610fcd	271fcd	152fcd	98fcd	43fcd	24fcd	11fcd	6fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,4m	5m	6,7m	10,1m	13,5m	16,8m	20,2m	26,9m	33,6m
Beam wid.	2,2ft	4,4ft	6,6ft	8,8ft	11ft	16,5ft	22,1ft	33,1ft	44,1ft	55,2ft	66,2ft	88,3ft	110,3ft

## LINEAR DISTRIBUTION DIAGRAM



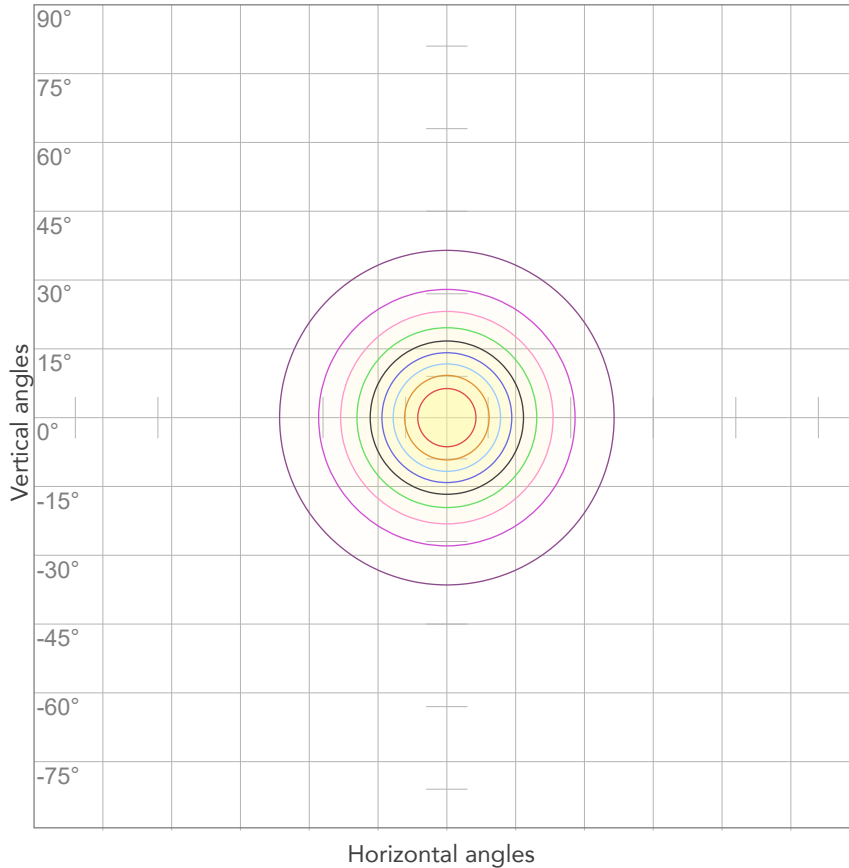
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	1,31A	291W	0,99	57lm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



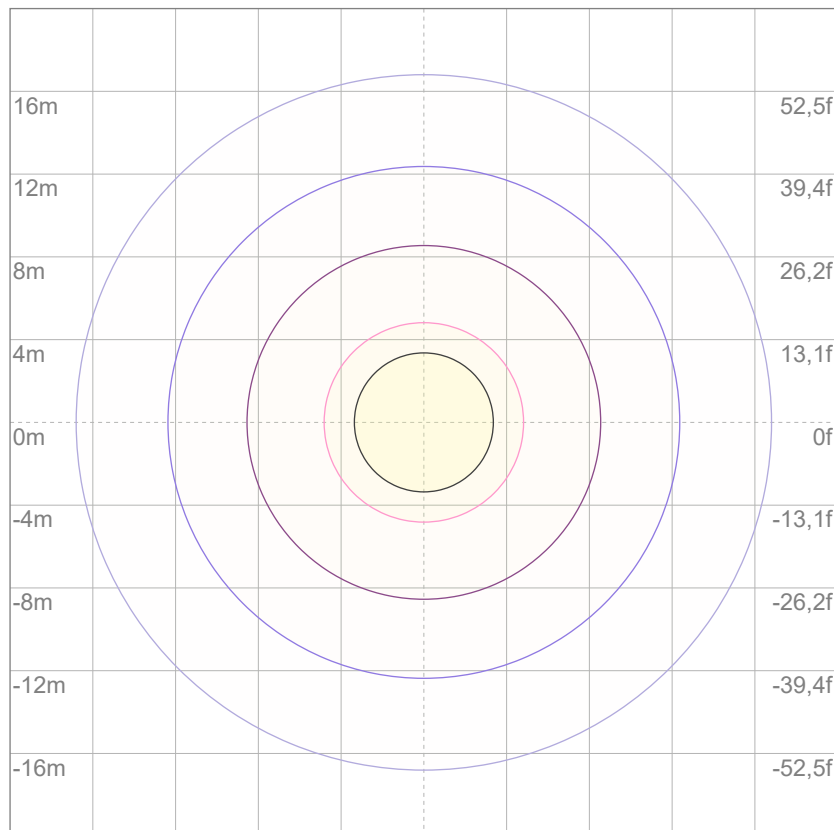
10%	2626 cd
20%	5252 cd
30%	7877 cd
40%	10503 cd
50%	13129 cd
60%	15755 cd
70%	18380 cd
80%	21006 cd

Conditions:

Number of c-planes: 4

Candela at center: 26258 cd

## ISO LUX DIAGRAM



3%	7,88 lx
5%	13,1 lx
10%	26,3 lx
30%	78,8 lx
50%	131 lx

Conditions:

Number of c-planes: 4

Lux at center: 263 lx

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



Total lumen output:

15125 lm

Peak candela output:

24273 cd

Light quality:

CRI: 95,6

Color temperature:

3256 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

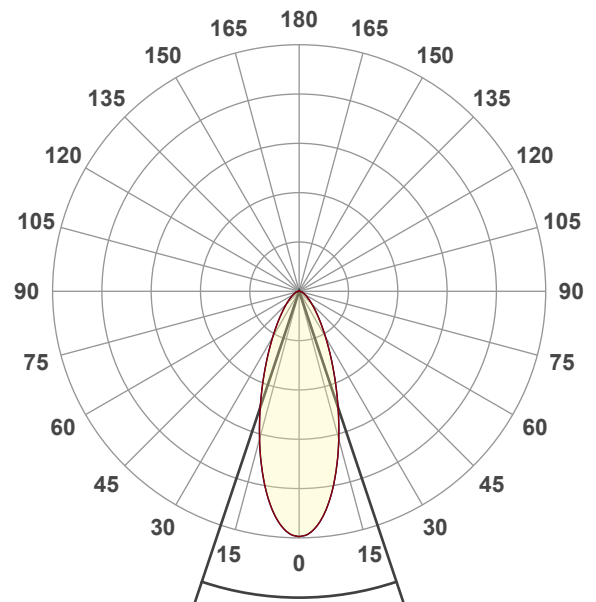
**MEASURAMENT CONDITIONS:**

Beam angle:  
LD Filter

Target:  
3200K - HQ

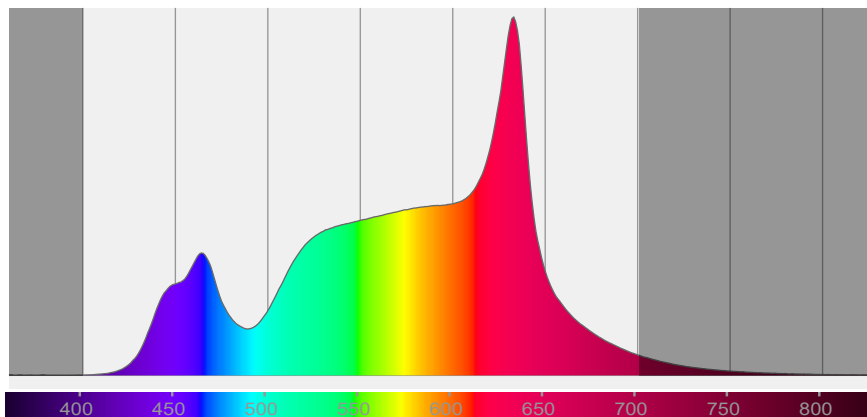
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 13:19:45

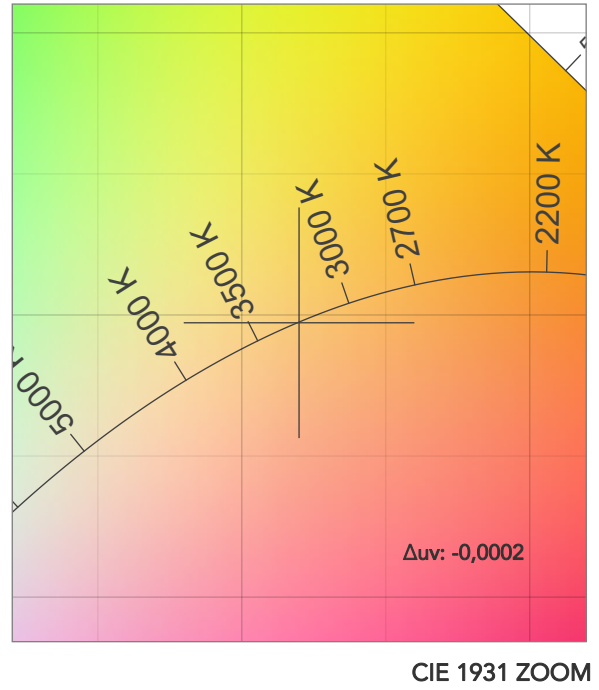
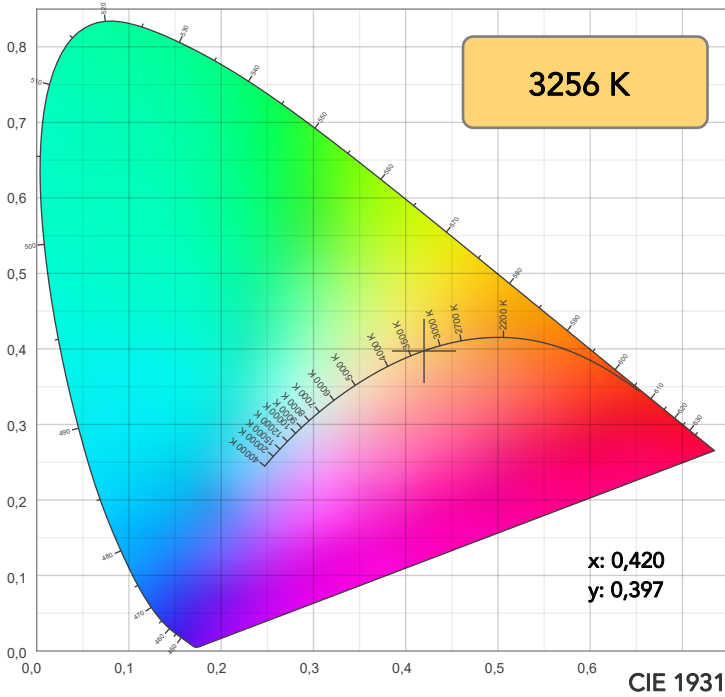


Beam angle 50%: 37,1°  
Field angle 10%: 80,9°  
Cut off angle 2.5%: 123,9°

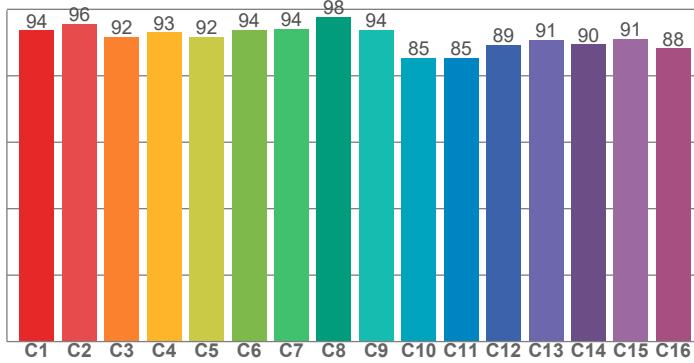
Spectra



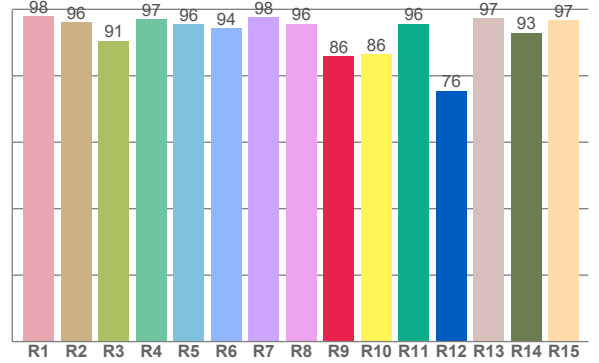
# COLOR DETAILS



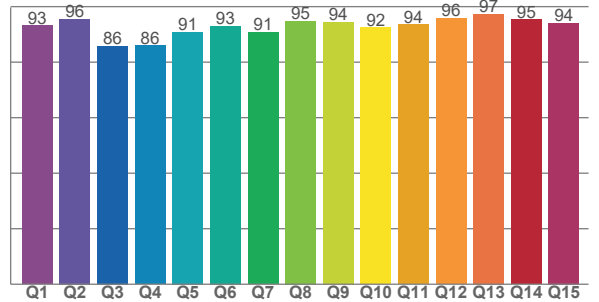
**TM30: 91,5**



**CRI: 95,6 (R1-R8)**



**CQS: 92,1**



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
98,0	96,1	90,6	97,0	95,6	94,3	97,6	95,7	85,9	86,5	95,6	75,5	97,3	92,9	96,7

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,6	95,6	91,7	93,0	91,8	93,8	94,1	97,7	93,8	85,3	85,4	89,3	90,9	89,5	91,1	88,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,2	95,6	85,9	85,9	90,9	93,0	90,8	94,8	94,4	92,4	93,5	95,8	97,3	95,4	94,1

## COLOR PARAMETERS

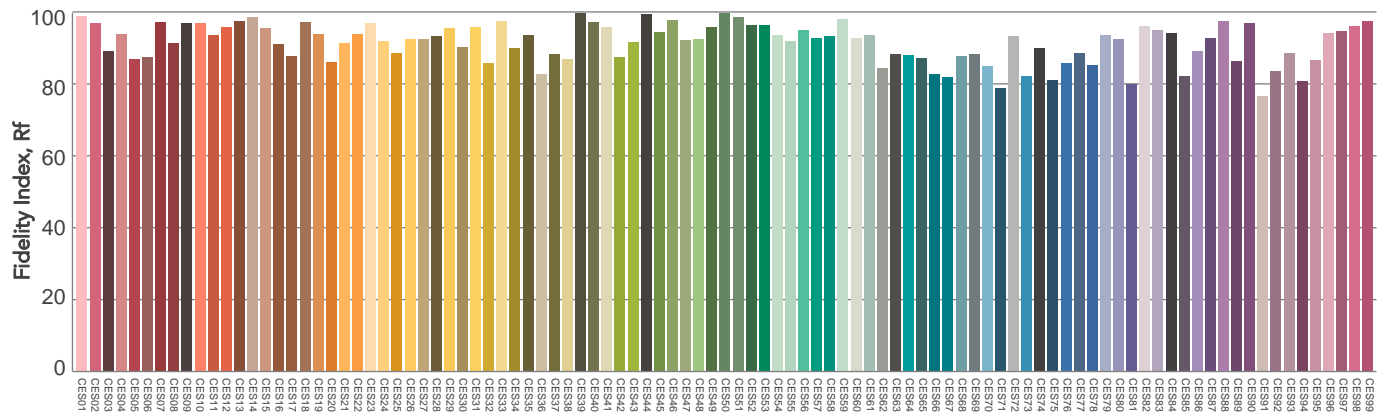
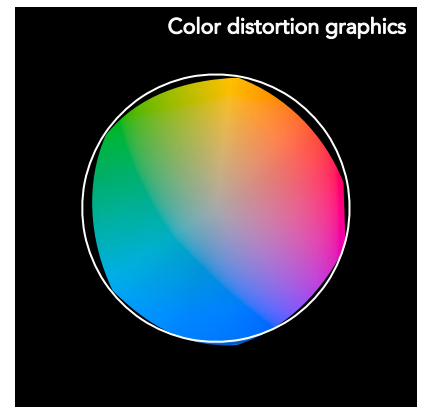
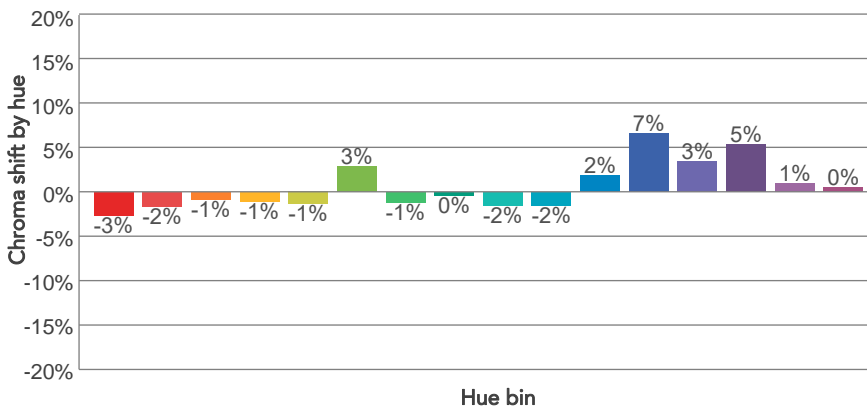
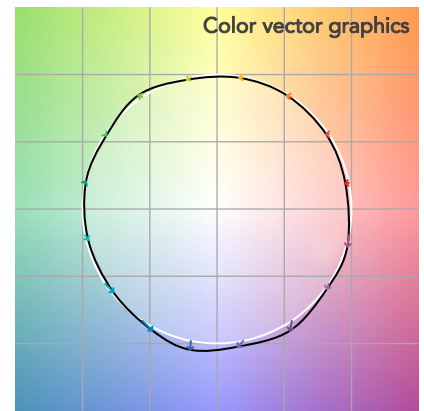
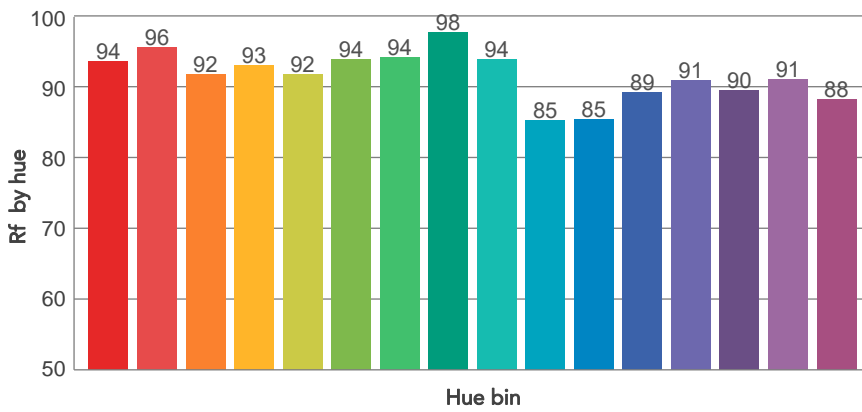
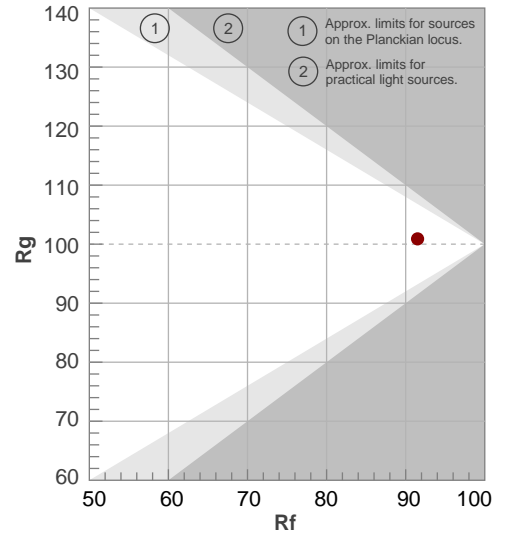
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3256 K	95,6	85,9	91,5	100,9	92,1	89	0,420	0,397	-0,0002

# TM30 DETAILS

**Rf 91,5**  
Fidelity index Rf

**Rg 100,9**  
Gammut index

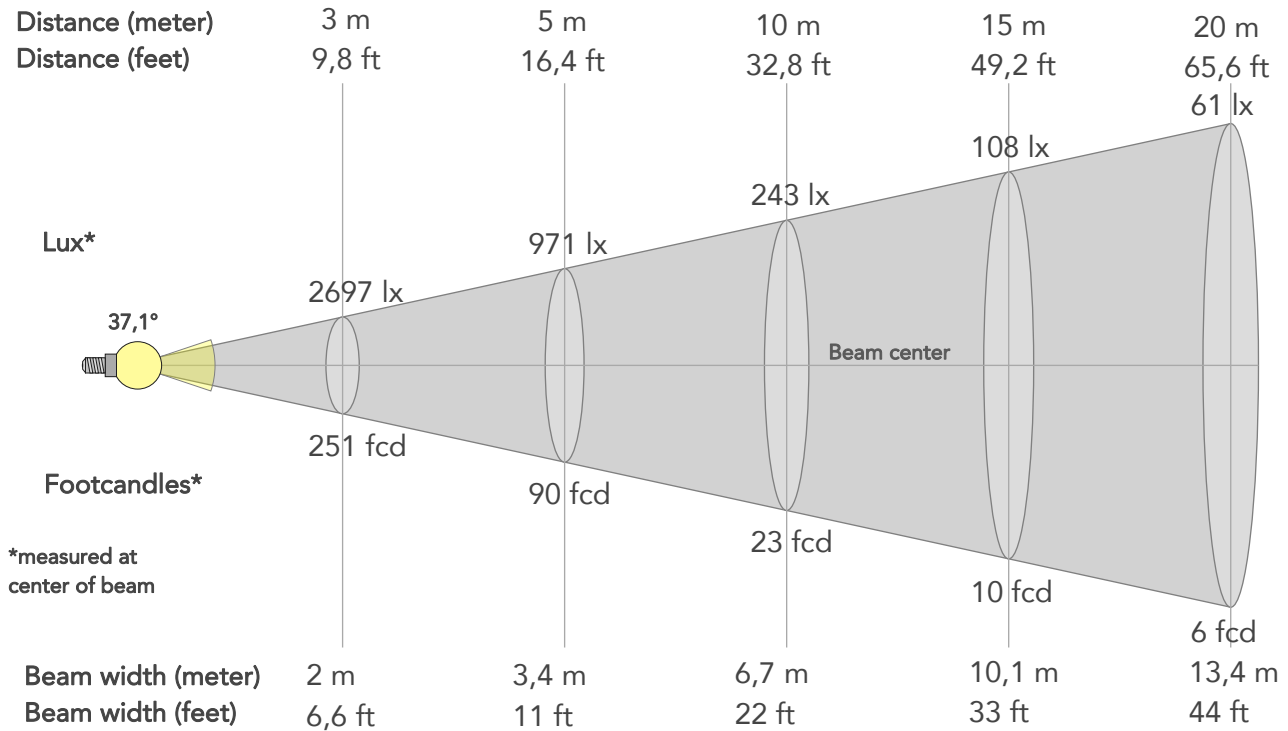
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-3%	0%
2	96	-2%	1%
3	92	-1%	4%
4	93	-1%	3%
5	92	-1%	2%
6	94	3%	0%
7	94	-1%	-1%
8	98	0%	-1%
9	94	-2%	4%
10	85	-2%	9%
11	85	2%	10%
12	89	7%	1%
13	91	3%	-5%
14	90	5%	-5%
15	91	1%	-4%
16	88	0%	-8%



# BEAM DETAILS



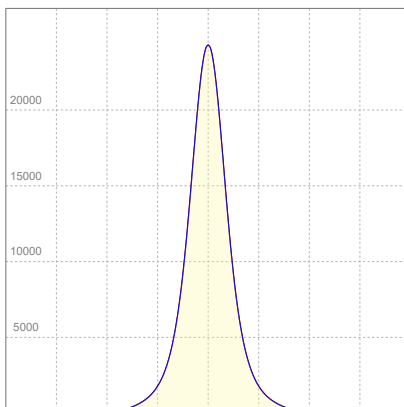
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37,1°	80,9°	123,9°	94,5%	84,8%



## 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	24273lx	6068lx	2697lx	1517lx	971lx	432lx	243lx	108lx	61lx	39lx	27lx	15lx	10lx
Footcand.	2255fcd	564fcd	251fcd	141fcd	90fcd	40fcd	23fcd	10fcd	6fcd	4fcd	3fcd	1fcd	1fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,4m	5m	6,7m	10,1m	13,4m	16,8m	20,1m	26,8m	33,5m
Beam wid.	2,2ft	4,4ft	6,6ft	8,8ft	11ft	16,5ft	22ft	33ft	44ft	55ft	66ft	87,9ft	109,9ft

## LINEAR DISTRIBUTION DIAGRAM

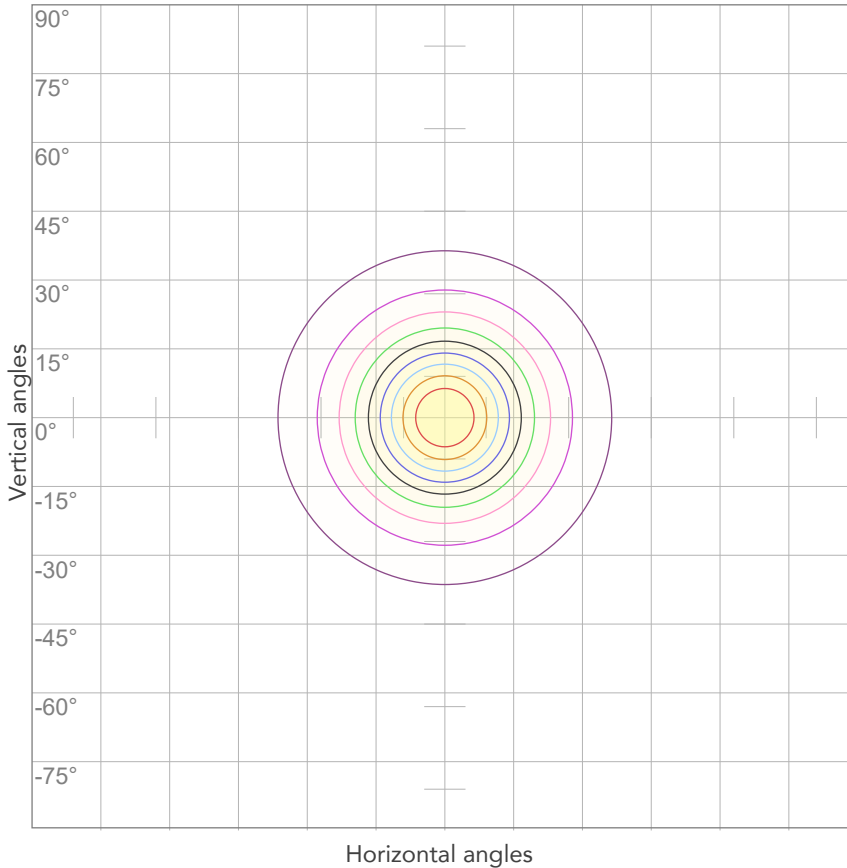


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	1,27A	283W	0,99	53lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



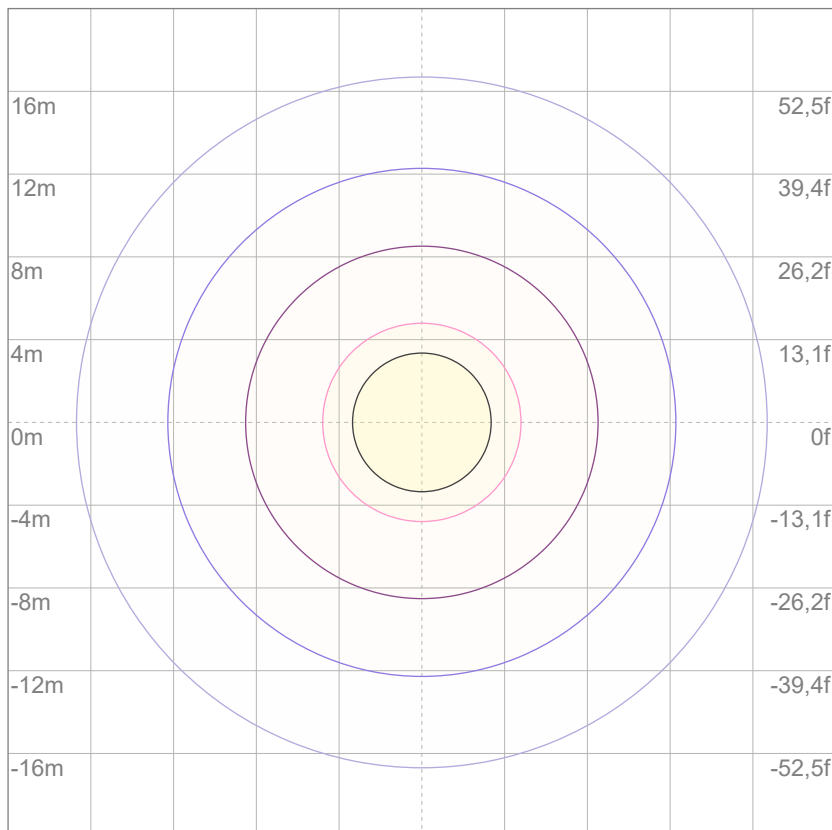
10%	2427 cd
20%	4855 cd
30%	7282 cd
40%	9709 cd
50%	12136 cd
60%	14564 cd
70%	16991 cd
80%	19418 cd

Conditions:

Number of c-planes: 4

Candela at center: 24273 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	7,28 lx
5%	12,1 lx
10%	24,3 lx
30%	72,8 lx
50%	121 lx

Conditions:

Number of c-planes: 4

Lux at center: 243 lx

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



Total lumen output:

13812 lm

Peak candela output:

22160 cd

Light quality:

CRI: 96,4

Color temperature:

5604 K

**PRODUCT NAME:**  
ECLPANELIP HARD 1X1

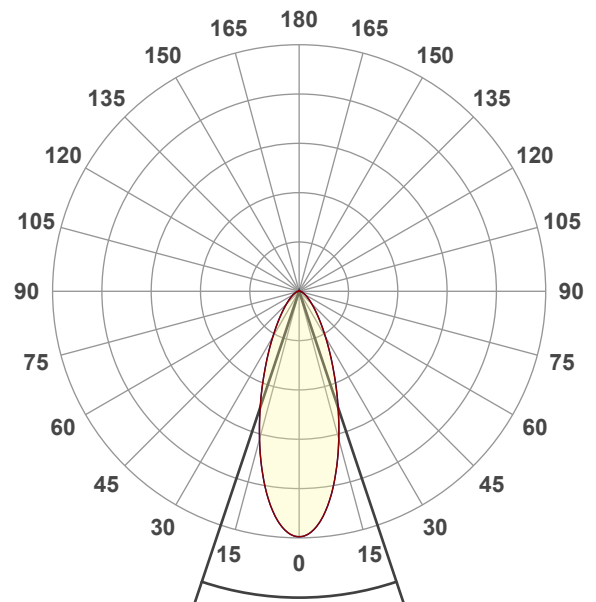
**MEASURAMENT CONDITIONS:**

Beam angle:  
LD Filter

Target:  
5600K - HQ

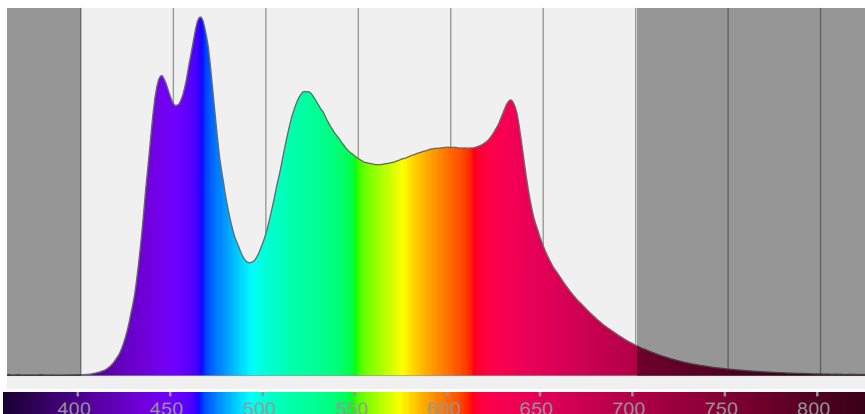
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 13:28:24

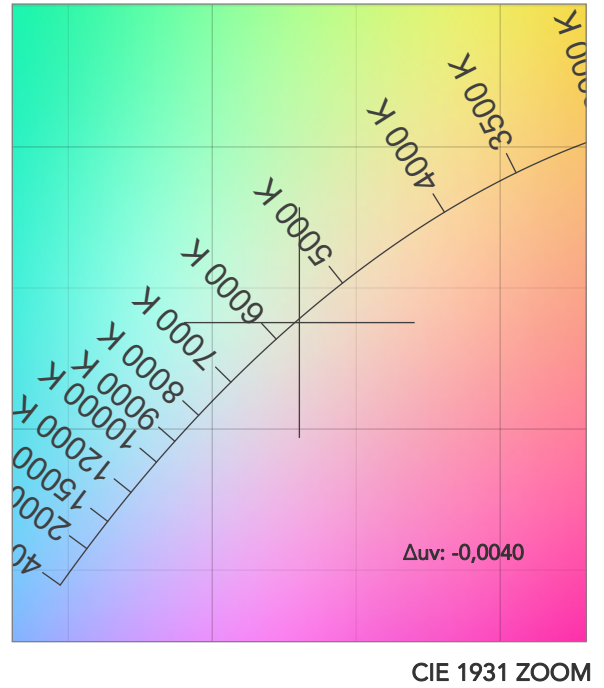
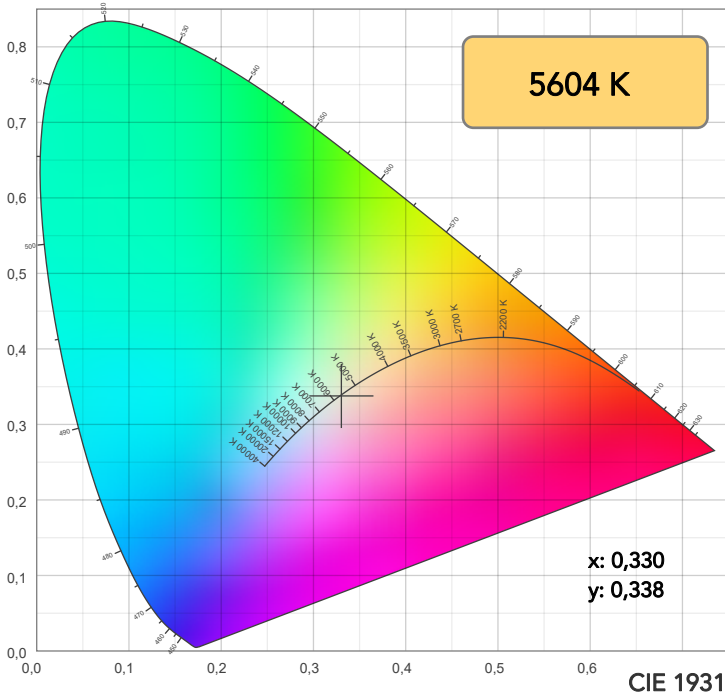


Beam angle 50%: 37,1°  
Field angle 10%: 80,8°  
Cut off angle 2.5%: 124,1°

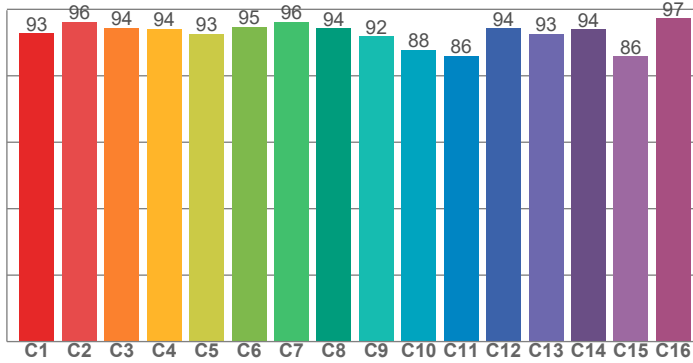
Spectra



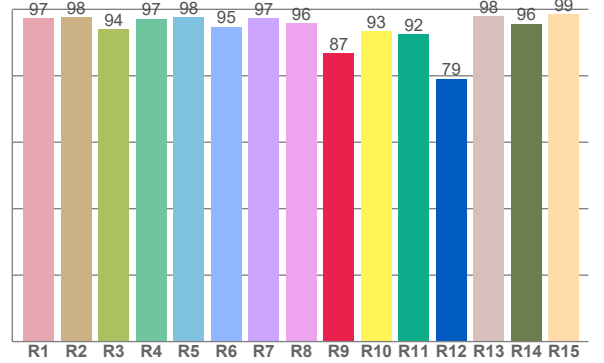
# COLOR DETAILS



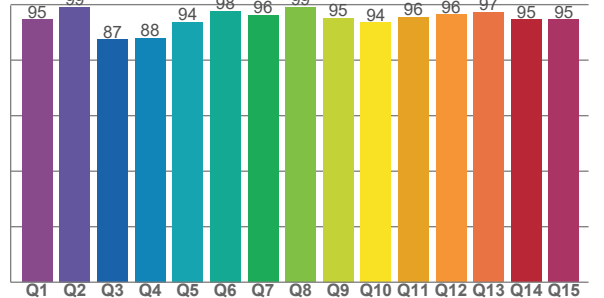
**TM30: 92,5**



**CRI: 96,4 (R1-R8)**



**CQS: 93,9**



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
97,3	97,6	94,0	97,2	97,6	94,7	97,2	95,8	86,9	93,3	92,5	79,1	98,0	95,6	98,6

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
92,8	96,2	94,4	94,1	92,5	94,8	96,2	94,2	91,8	87,7	86,0	94,2	92,5	94,0	85,8	97,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,6	99,2	87,5	88,0	93,7	97,7	96,2	99,0	95,2	93,5	95,6	96,4	97,2	94,6	94,7

## 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
5604 K	96,4	86,9	92,5	101,2	93,9	95	0,330	0,338	-0,0040

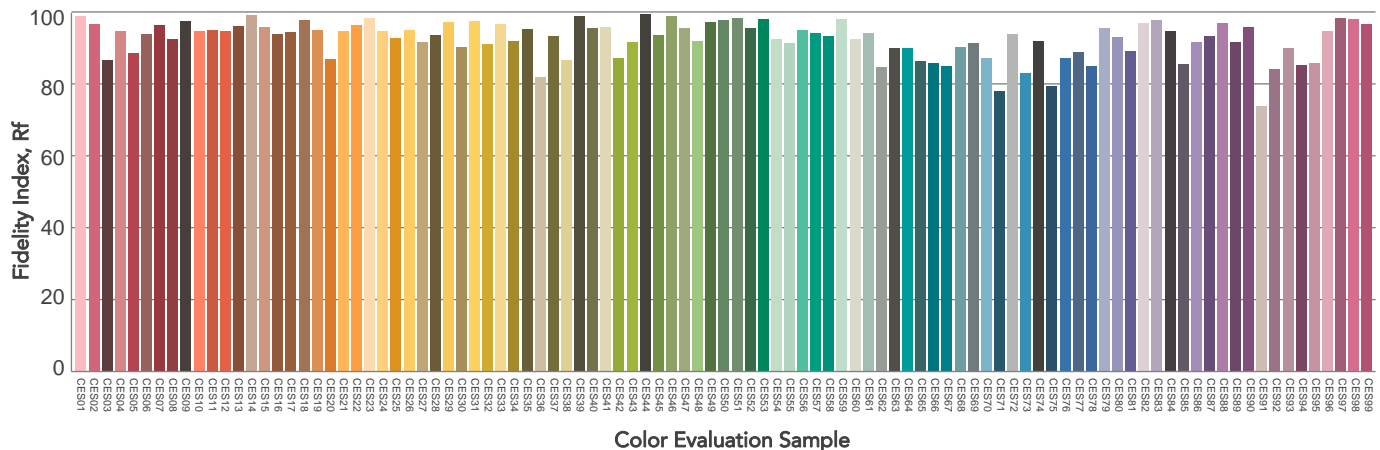
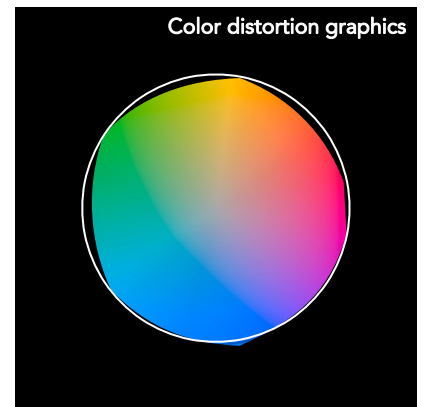
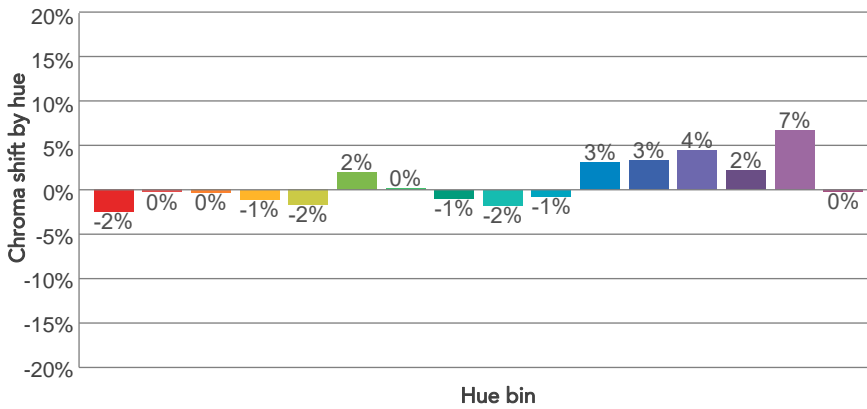
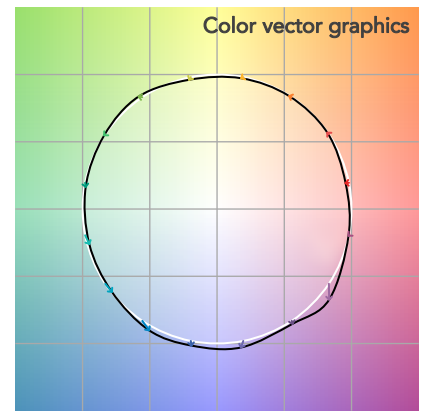
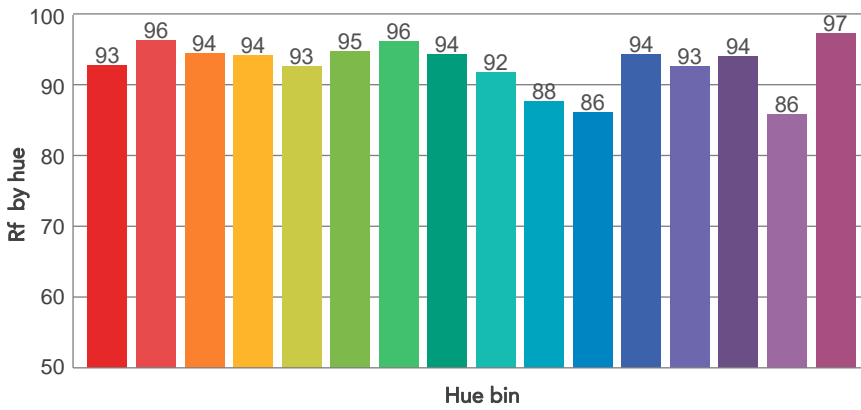
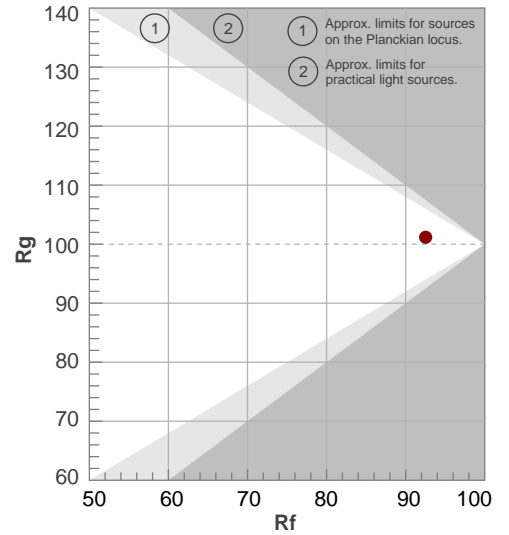


# TM30 DETAILS

**Rf 92,5**  
Fidelity index Rf

**Rg 101,2**  
Gammut index

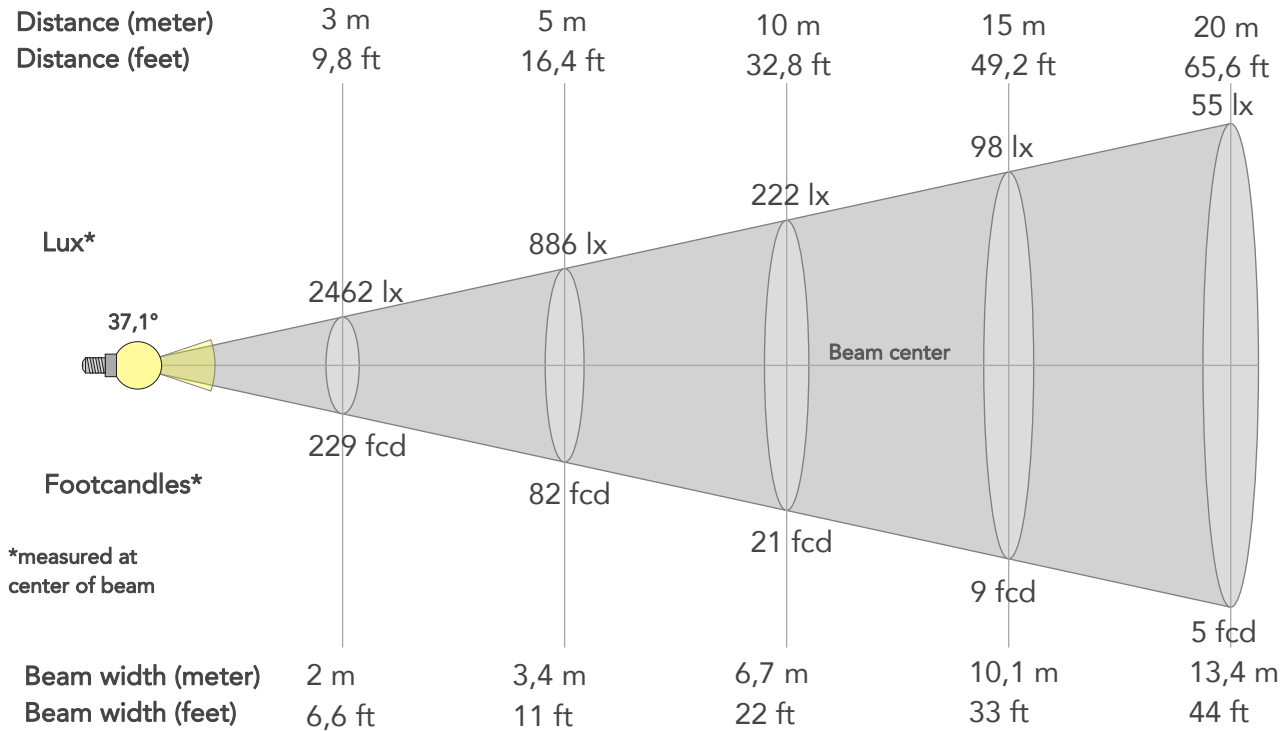
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	-2%	0%
2	96	0%	2%
3	94	0%	2%
4	94	-1%	1%
5	93	-2%	2%
6	95	2%	2%
7	96	0%	1%
8	94	-1%	3%
9	92	-2%	7%
10	88	-1%	8%
11	86	3%	8%
12	94	3%	1%
13	93	4%	-3%
14	94	2%	-1%
15	86	7%	-10%
16	97	0%	0%



# BEAM DETAILS



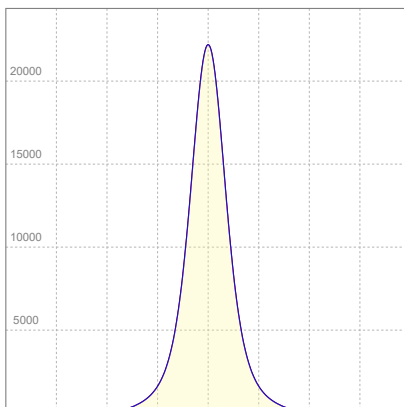
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37,1°	80,8°	124,1°	94,5%	84,8%



## 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	22160lx	5540lx	2462lx	1385lx	886lx	394lx	222lx	98lx	55lx	35lx	25lx	14lx	9lx
Footcand.	2059fcd	515fcd	229fcd	129fcd	82fcd	37fcd	21fcd	9fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,4m	5m	6,7m	10,1m	13,4m	16,8m	20,1m	26,8m	33,5m
Beam wid.	2,2ft	4,4ft	6,6ft	8,8ft	11ft	16,5ft	22ft	33ft	44ft	55ft	66ft	87,9ft	109,9ft

## LINEAR DISTRIBUTION DIAGRAM

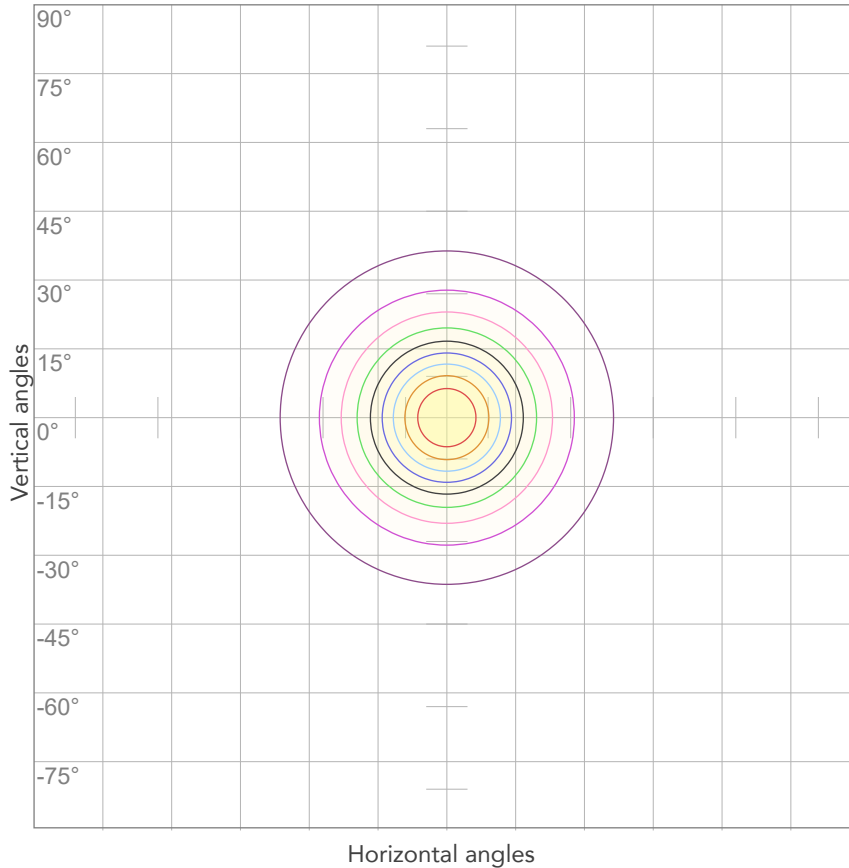


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	1,31A	292W	0,99	47lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



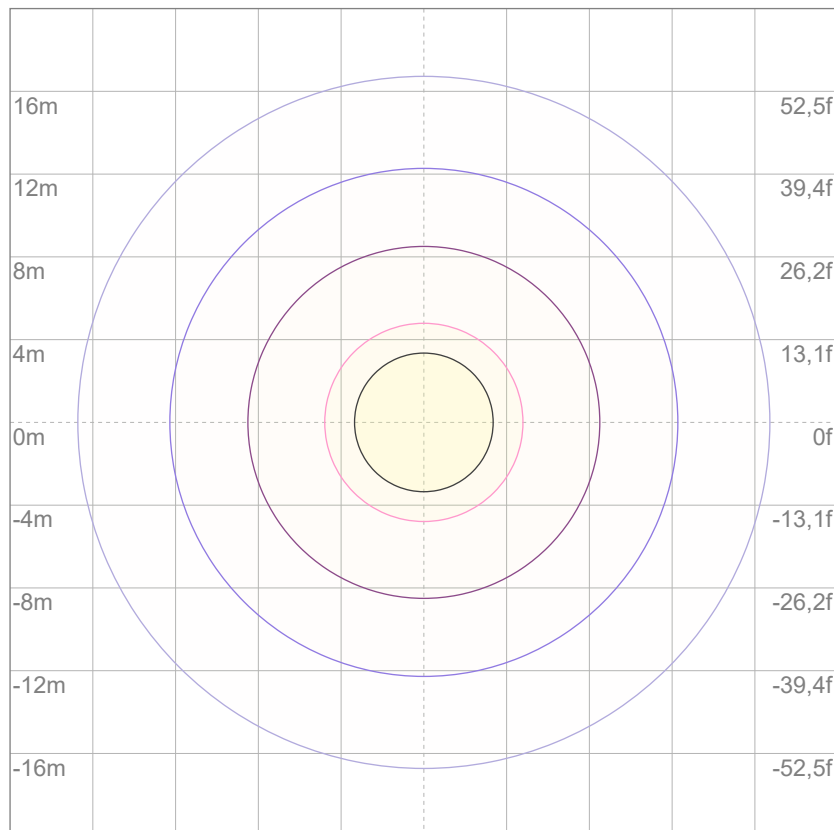
10%	2216 cd
20%	4432 cd
30%	6648 cd
40%	8864 cd
50%	11080 cd
60%	13296 cd
70%	15512 cd
80%	17728 cd

Conditions:

Number of c-planes: 4

Candela at center: 22160 cd

## ISO LUX DIAGRAM



3%	6,65 lx
5%	11,1 lx
10%	22,2 lx
30%	66,5 lx
50%	111 lx

Conditions:

Number of c-planes: 4

Lux at center: 222 lx

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