



# Photometric Test Report



## EclPanel IPHard2x1

2x1 Hard Source LED Panel, IP65 with 550W  
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:

36904 lm

Peak candela output:

142227 cd

Light quality:

CRI: 88,1

Color temperature:

3247 K

**PRODUCT NAME:**  
ECLPANELIP HARD 2X1

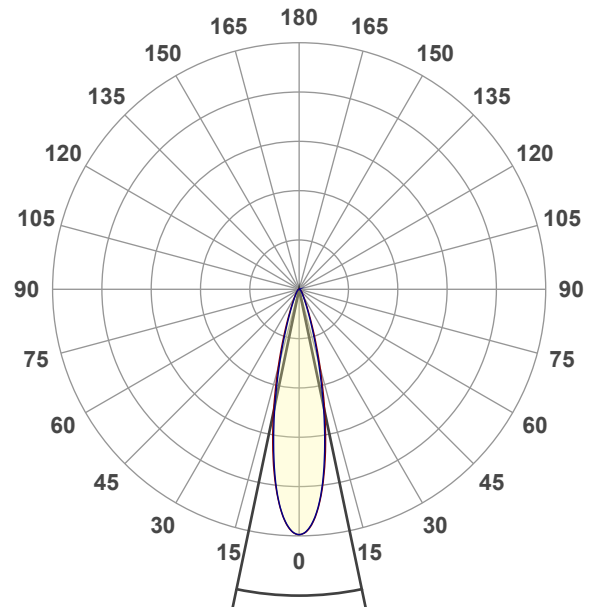
**MEASURAMENT CONDITIONS:**

Beam angle:  
TIR Lens

Target:  
3200K - HB

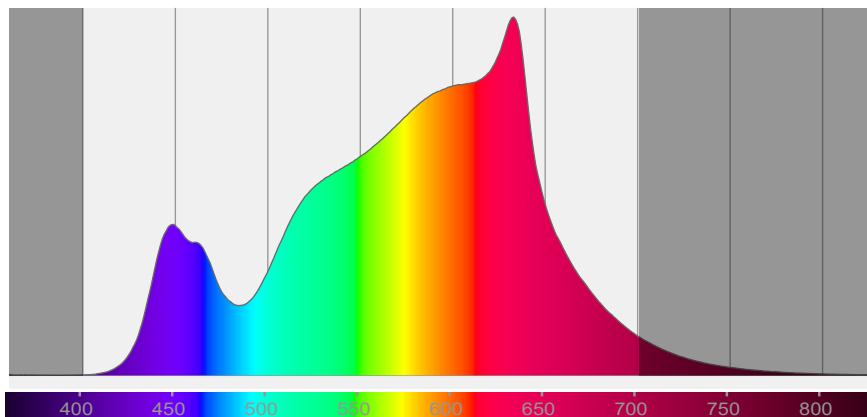
Operator:  
Salvatore Giglio

Date and time:  
06/09/2024 16:01:44

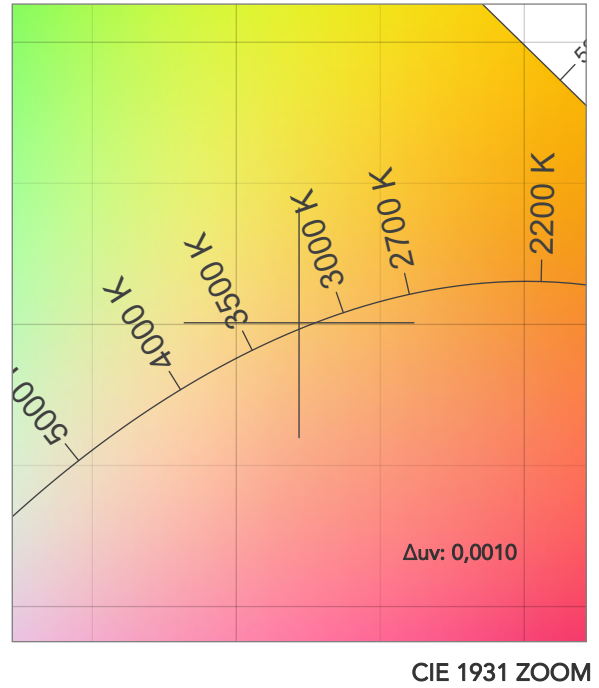
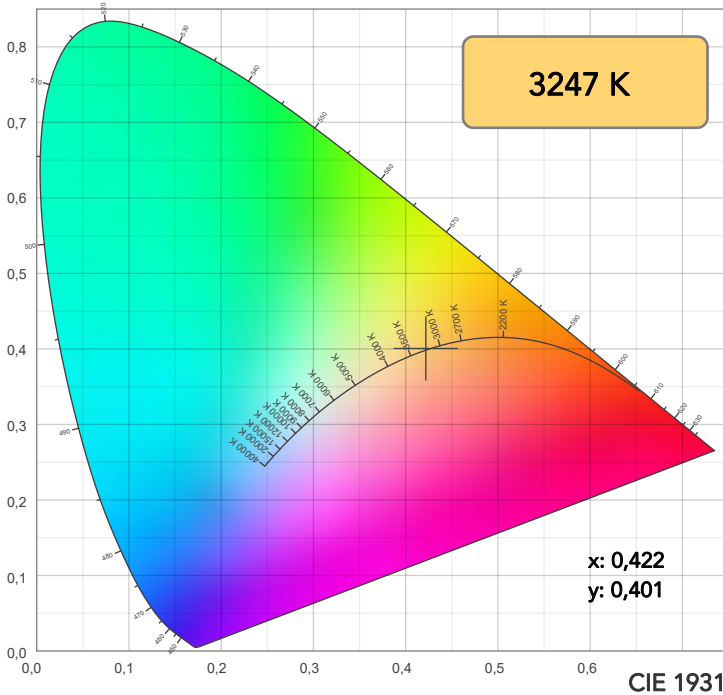


Beam angle 50%: 23,6°  
Field angle 10%: 44,1°  
Cut off angle 2.5%: 70,4°

Spectra

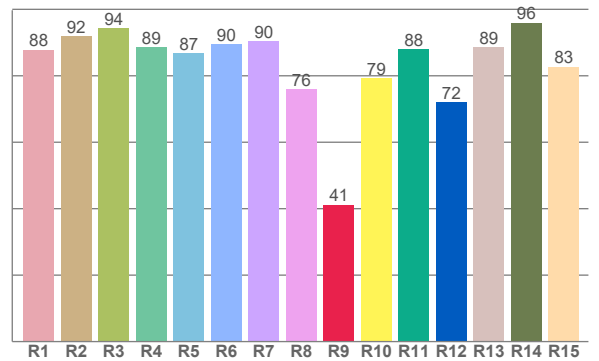
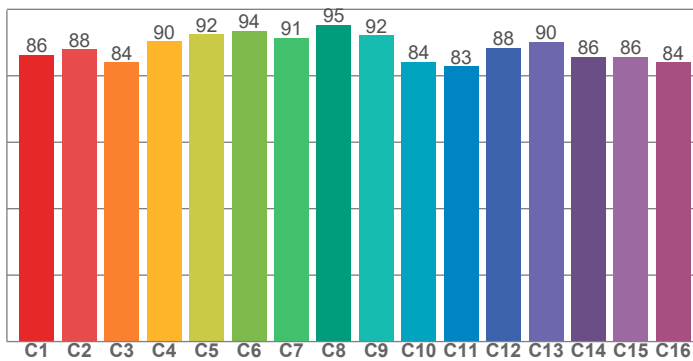


# COLOR DETAILS



TM30: 88,3

CRI: 88,1 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
87,8	91,8	94,3	88,5	86,8	89,5	90,4	75,9	41,2	79,3	88,0	72,0	88,5	96,0	82,7

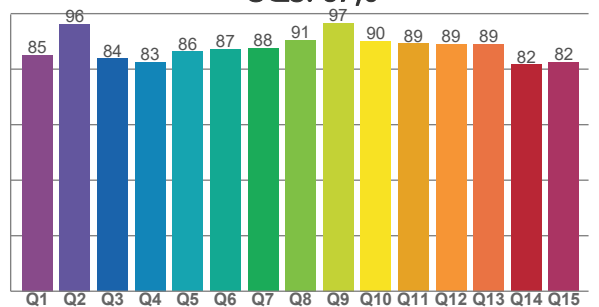
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
86,3	87,9	84,0	90,4	92,4	93,5	91,5	95,3	92,2	84,1	82,9	88,3	90,2	85,8	85,7	84,1

CQS Q values

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

CQS: 87,0



## COLOR PARAMETERS

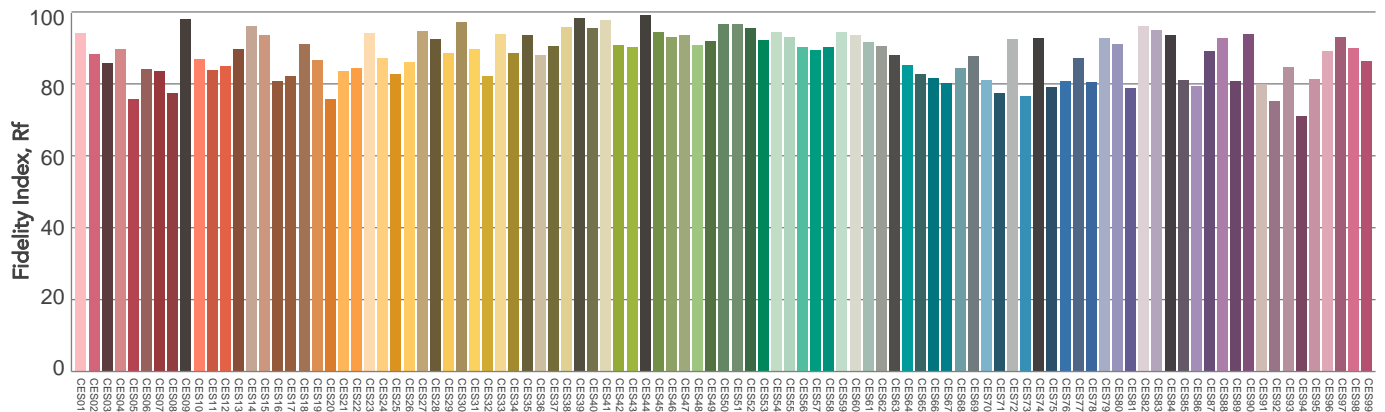
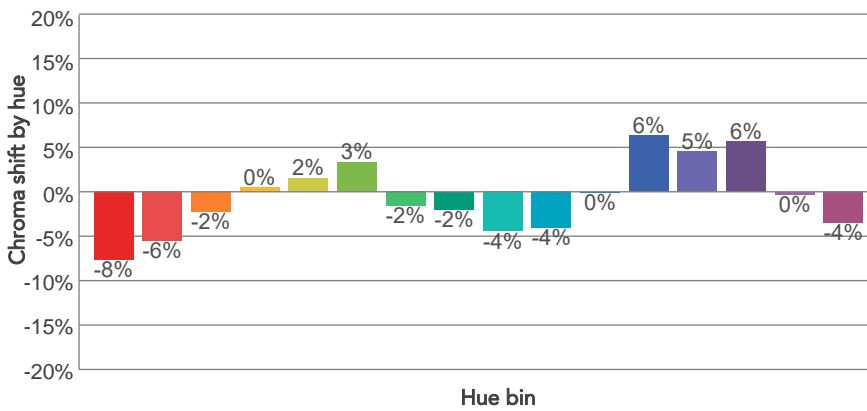
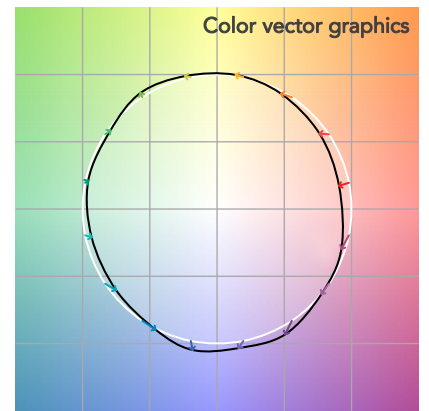
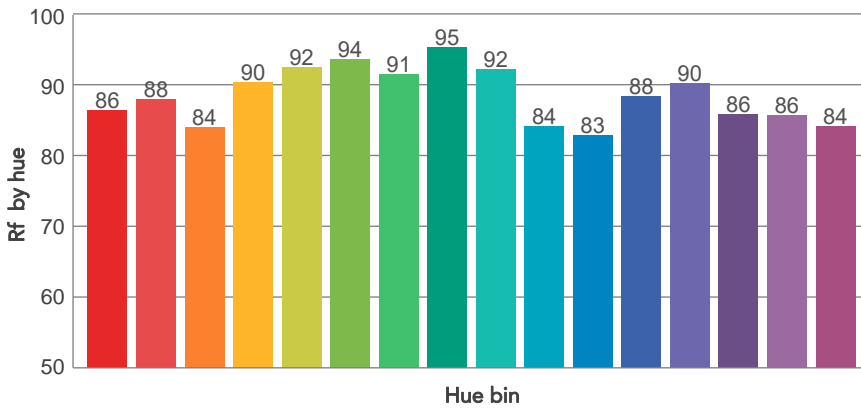
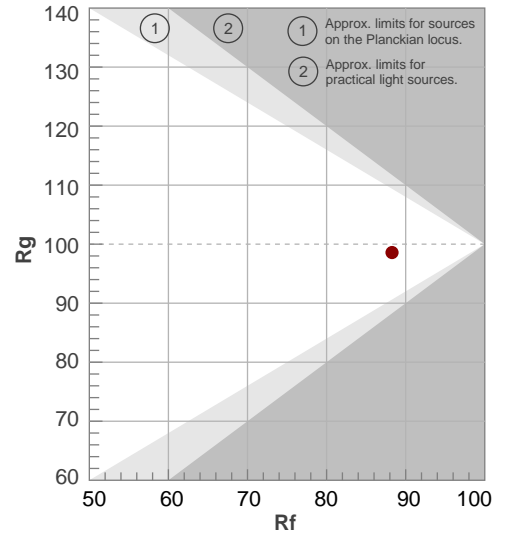
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3247 K	88,1	41,2	88,3	98,6	87,0	81	0,422	0,401	0,0010

# TM30 DETAILS

**Rf 88,3**  
Fidelity index Rf

**Rg 98,6**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	86	-8%	-1%
2	88	-6%	4%
3	84	-2%	8%
4	90	0%	6%
5	92	2%	4%
6	94	3%	-1%
7	91	-2%	-5%
8	95	-2%	-2%
9	92	-4%	2%
10	84	-4%	8%
11	83	0%	12%
12	88	6%	3%
13	90	5%	-4%
14	86	6%	-10%
15	86	0%	-9%
16	84	-4%	-11%

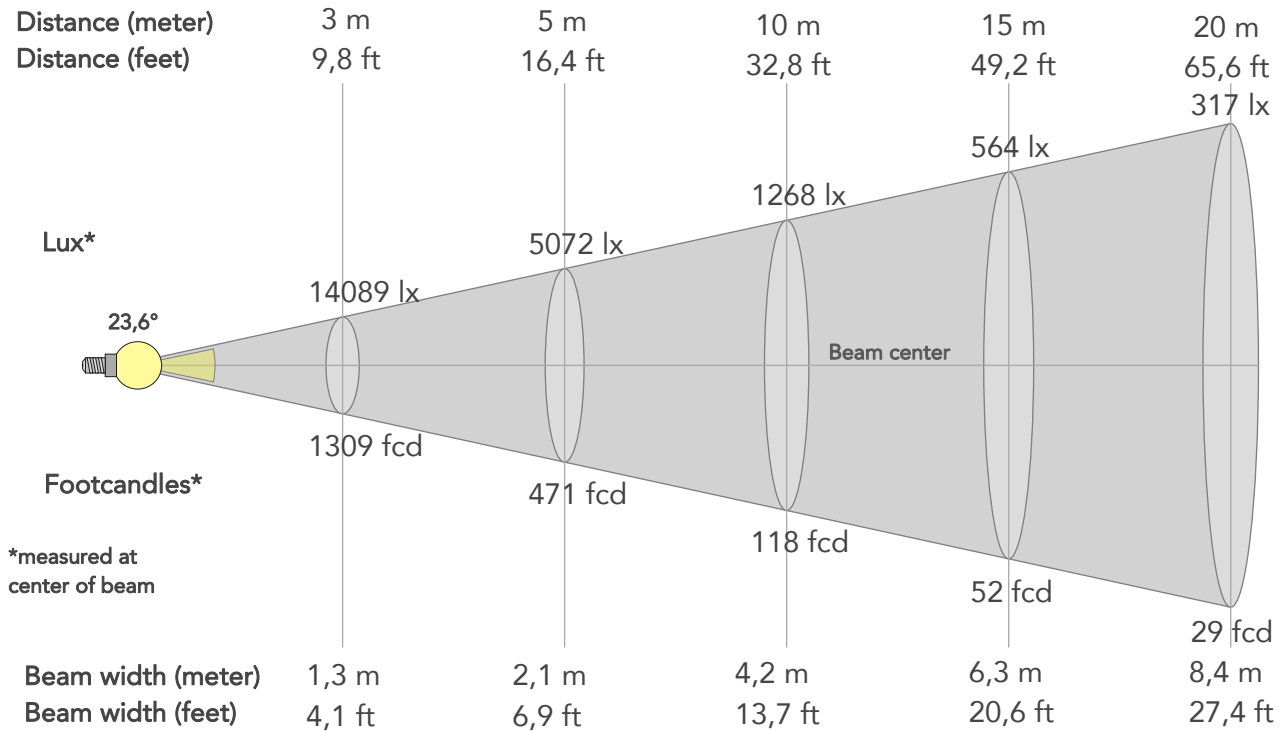


Color Evaluation Sample

# BEAM DETAILS



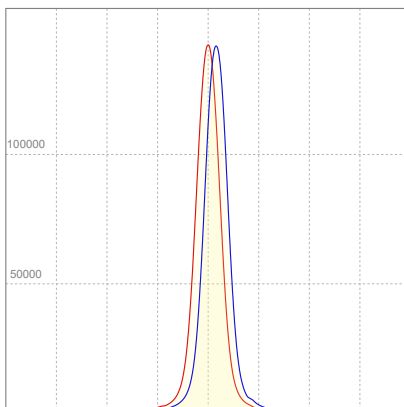
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,6°	44,1°	70,4°	97,5%	92,8%



## 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	126805lx	31701lx	14089lx	7925lx	5072lx	2254lx	1268lx	564lx	317lx	203lx	141lx	79lx	51lx
Footcand.	11781fcd	2945fcd	1309fcd	736fcd	471fcd	209fcd	118fcd	52fcd	29fcd	19fcd	13fcd	7fcd	5fcd
Beam wid.	0,4m	0,8m	1,3m	1,7m	2,1m	3,1m	4,2m	6,3m	8,4m	10,4m	12,5m	16,7m	20,9m
Beam wid.	1,4ft	2,8ft	4,1ft	5,5ft	6,9ft	10,3ft	13,7ft	20,6ft	27,4ft	34,3ft	41,1ft	54,8ft	68,5ft

## LINEAR DISTRIBUTION DIAGRAM

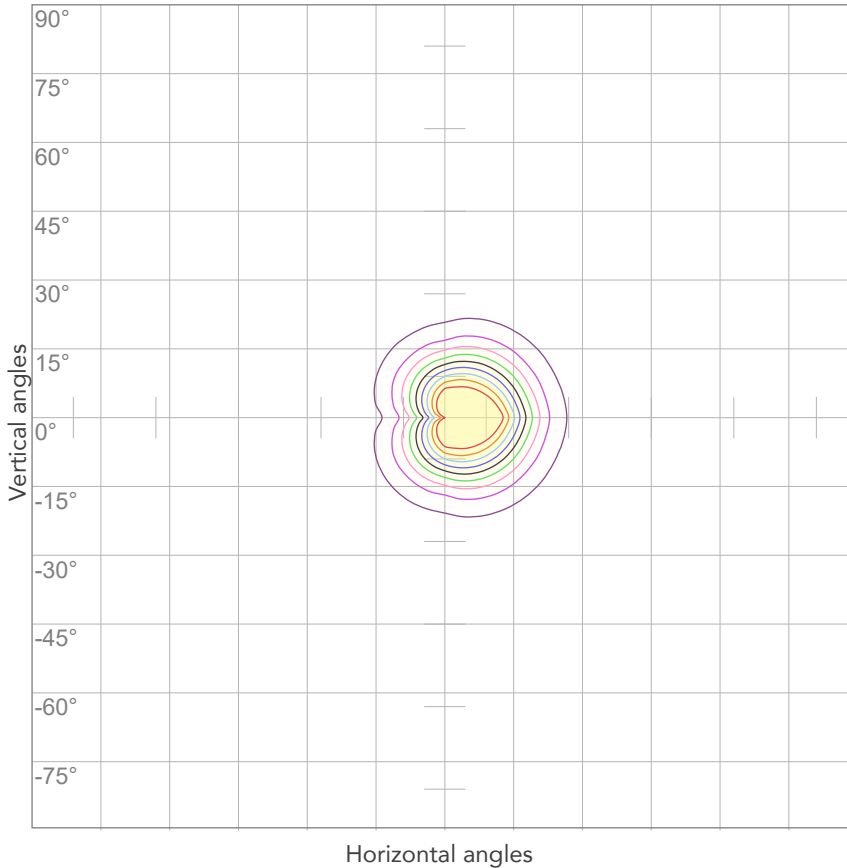


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	2,57A	572W	1,0	65lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



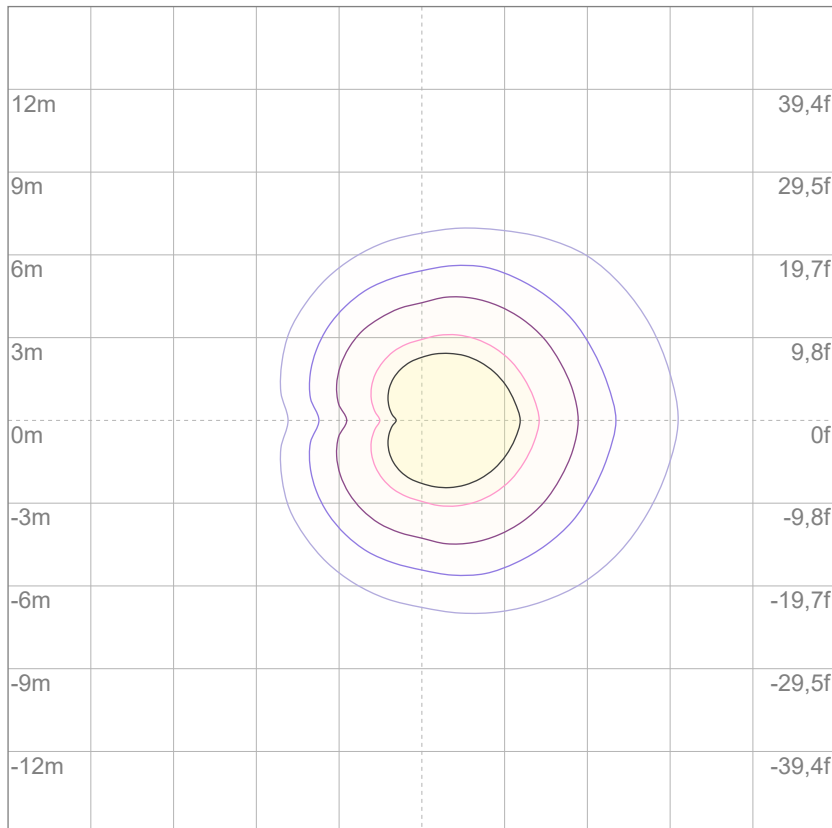
10%	12680 cd
20%	25361 cd
30%	38041 cd
40%	50722 cd
50%	63402 cd
60%	76083 cd
70%	88763 cd
80%	101444 cd

Conditions:

Number of c-planes: 4

Candela at center: 126805 cd

## ISO LUX DIAGRAM



3%	38,0 lx
5%	63,4 lx
10%	127 lx
30%	380 lx
50%	634 lx

Conditions:

Number of c-planes: 4

Lux at center: 1268 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:

38770 lm

Peak candela output:

149747 cd

Light quality:

CRI: 80,9

Color temperature:

5663 K

**PRODUCT NAME:**

ECLPANELIP HARD 2X1

**MEASURAMENT CONDITIONS:**

Beam angle:

TIR Lens

Target:

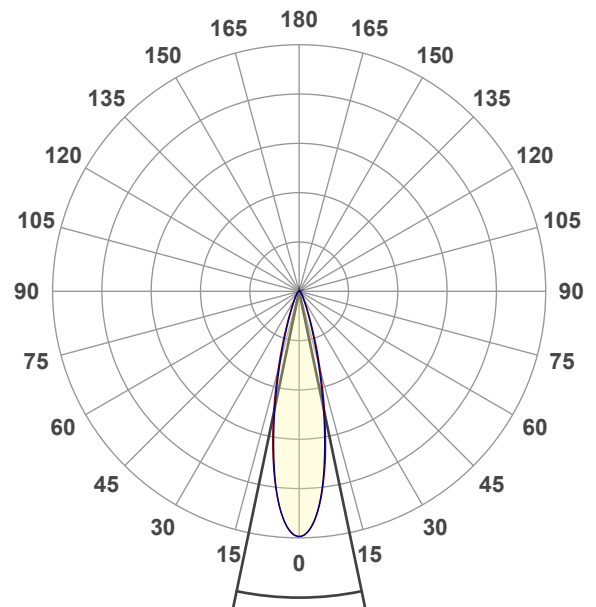
5600K - HB

Operator:

Salvatore Giglio

Date and time:

06/09/2024 16:12:02

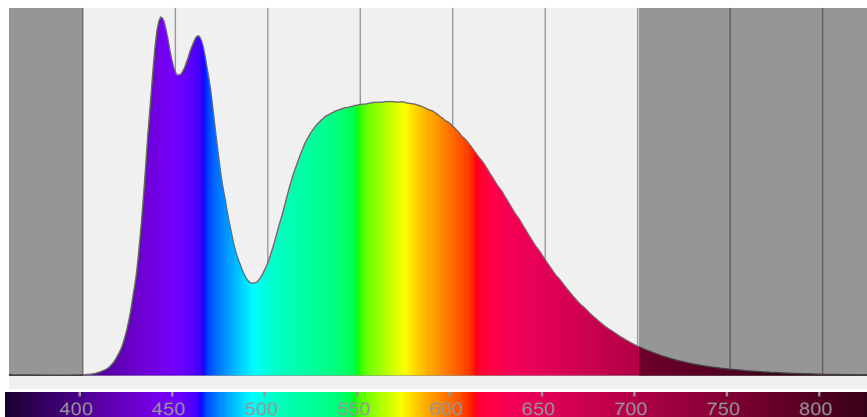


Beam angle 50%: 23,6°

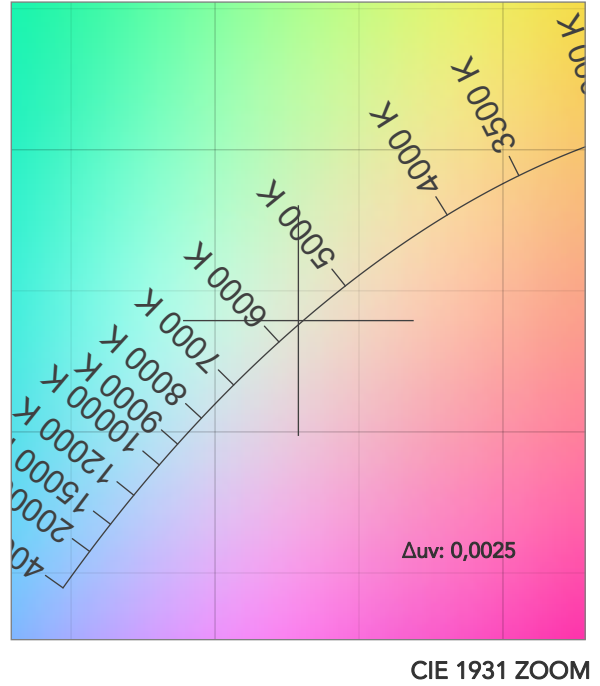
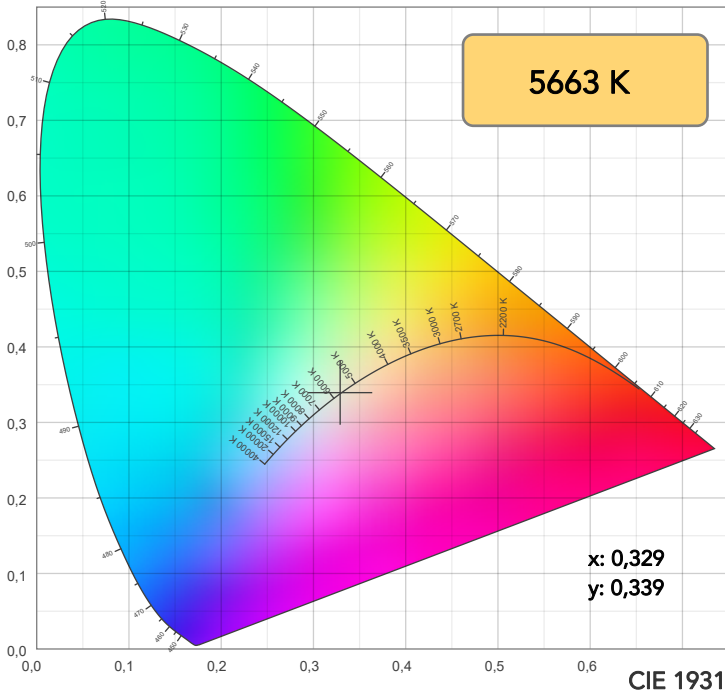
Field angle 10%: 44,3°

Cut off angle 2.5%: 70,6°

Spectra

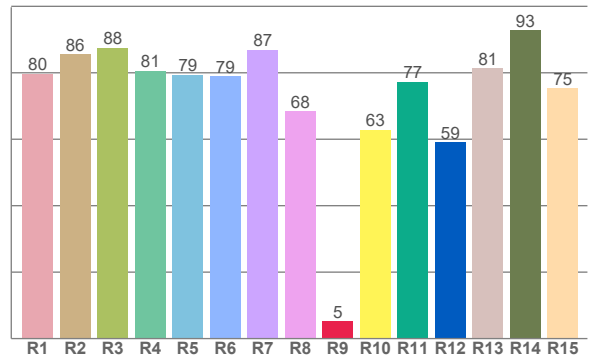
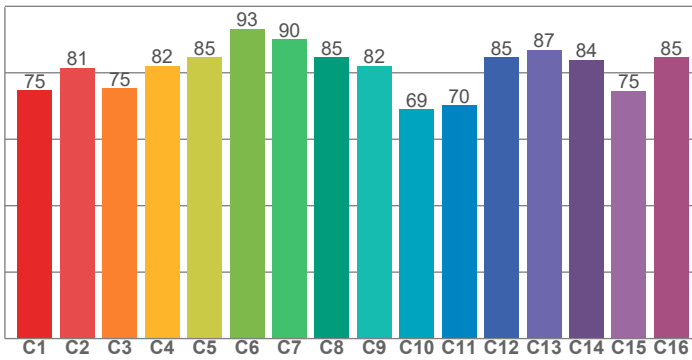


# COLOR DETAILS



TM30: 81,1

CRI: 80,9 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
79,8	85,6	87,5	80,6	79,5	79,0	87,0	68,4	5,2	62,9	77,3	59,1	81,3	92,7	75,4

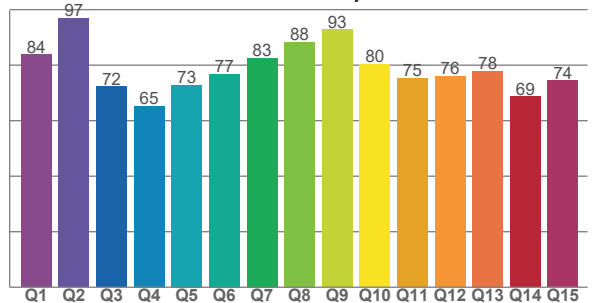
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
74,7	81,4	75,3	82,0	84,7	93,2	90,0	84,6	82,2	69,0	70,1	84,7	87,0	84,0	74,6	84,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,9	96,9	72,3	65,3	72,8	76,9	82,5	88,3	92,8	80,3	75,3	76,0	77,9	68,7	74,5

CQS: 77,3



## COLOR PARAMETERS

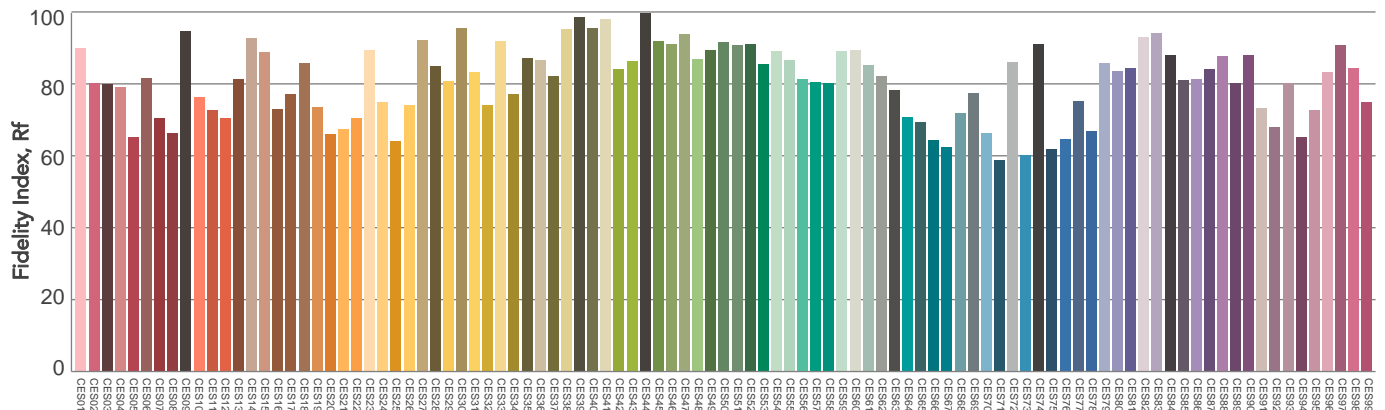
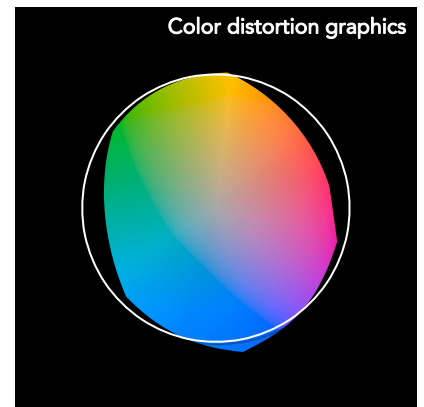
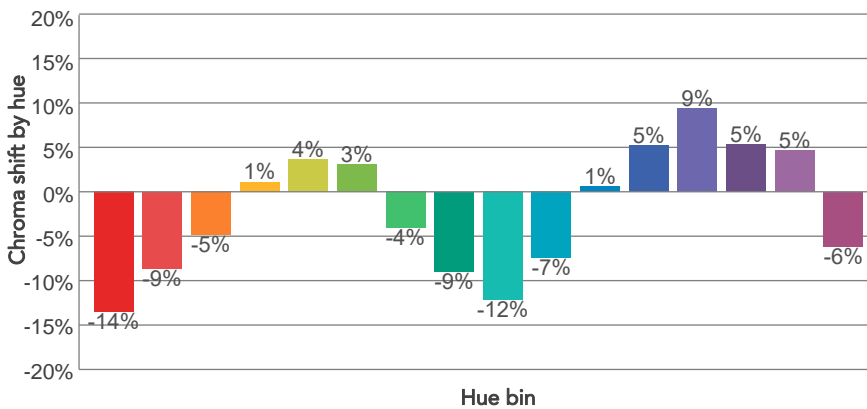
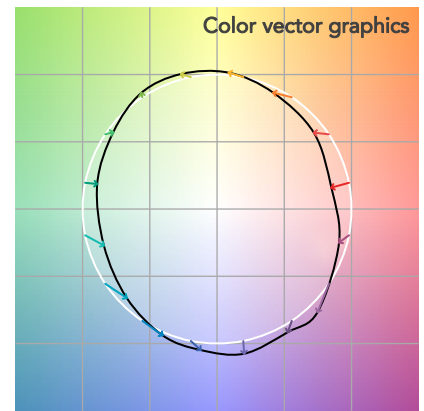
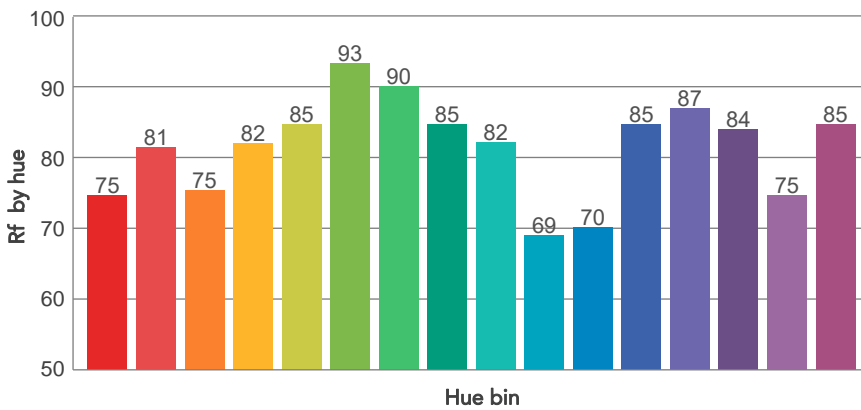
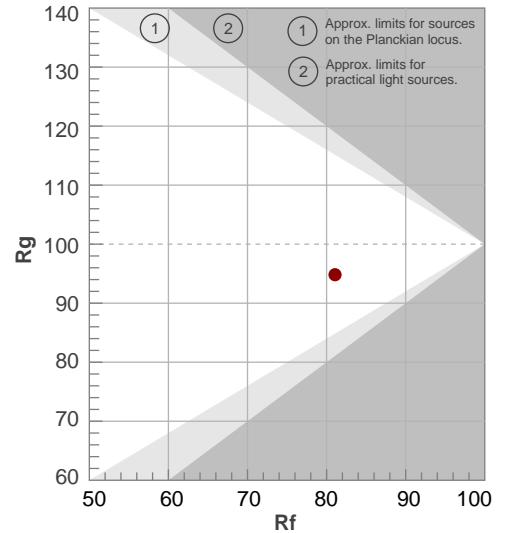
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5663 K	80,9	5,2	81,1	94,8	77,3	67	0,329	0,339	0,0025

# TM30 DETAILS

**Rf 81,1**  
Fidelity index Rf

**Rg 94,8**  
Gammut index

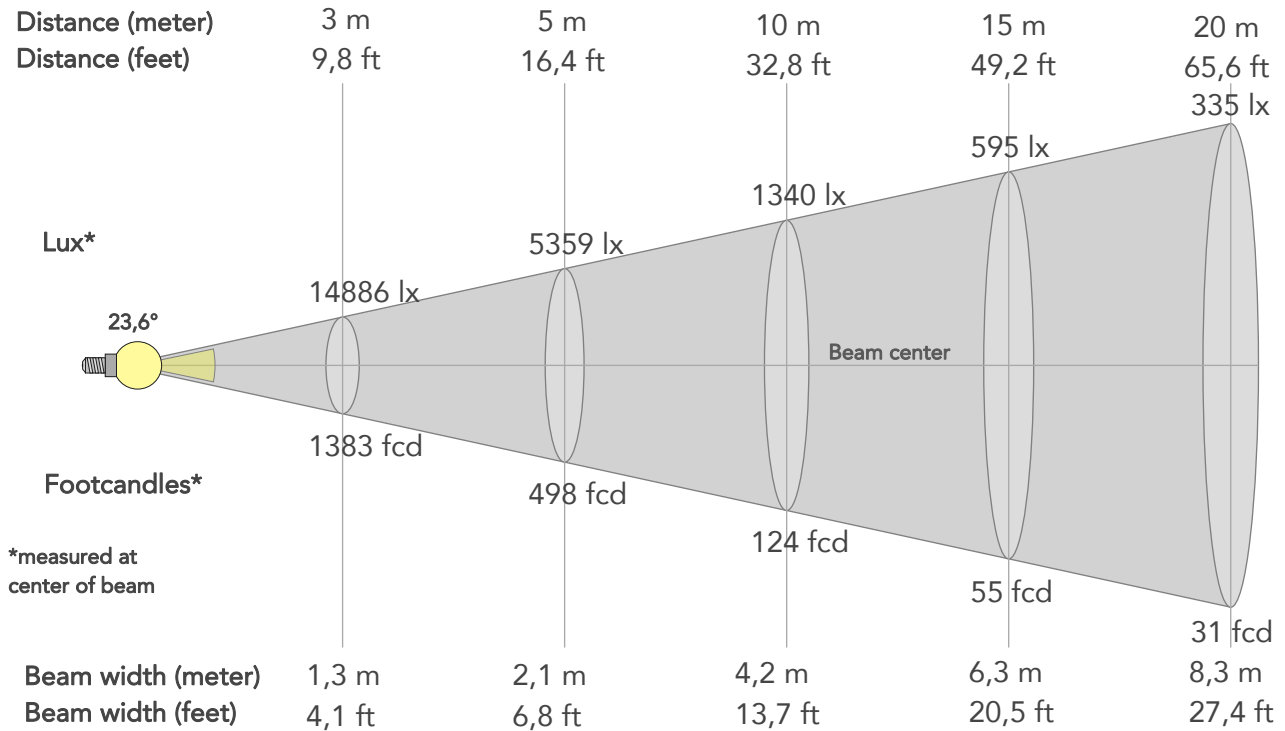
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-14%	-1%
2	81	-9%	7%
3	75	-5%	13%
4	82	1%	11%
5	85	4%	7%
6	93	3%	-1%
7	90	-4%	-5%
8	85	-9%	-1%
9	82	-12%	10%
10	69	-7%	18%
11	70	1%	19%
12	85	5%	9%
13	87	9%	-1%
14	84	5%	-7%
15	75	5%	-22%
16	85	-6%	-7%



# BEAM DETAILS



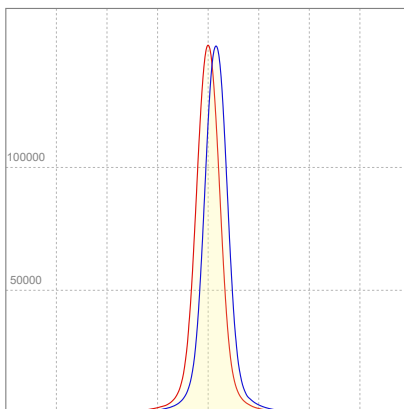
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,6°	44,3°	70,6°	97,6%	92,8%



## 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	133976lx	33494lx	14886lx	8373lx	5359lx	2382lx	1340lx	595lx	335lx	214lx	149lx	84lx	54lx
Footcand.	12447fcd	3112fcd	1383fcd	778fcd	498fcd	221fcd	124fcd	55fcd	31fcd	20fcd	14fcd	8fcd	5fcd
Beam wid.	0,4m	0,8m	1,3m	1,7m	2,1m	3,1m	4,2m	6,3m	8,3m	10,4m	12,5m	16,7m	20,9m
Beam wid.	1,4ft	2,8ft	4,1ft	5,5ft	6,8ft	10,3ft	13,7ft	20,5ft	27,4ft	34,2ft	41ft	54,7ft	68,4ft

## LINEAR DISTRIBUTION DIAGRAM

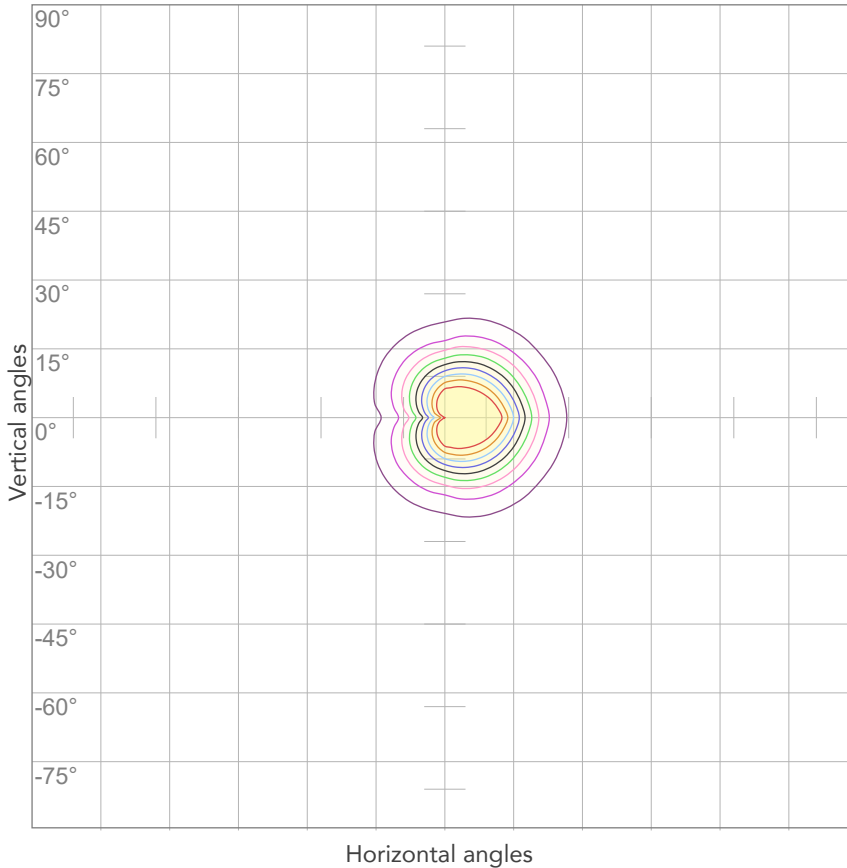


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	2,60A	579W	1,0	67lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



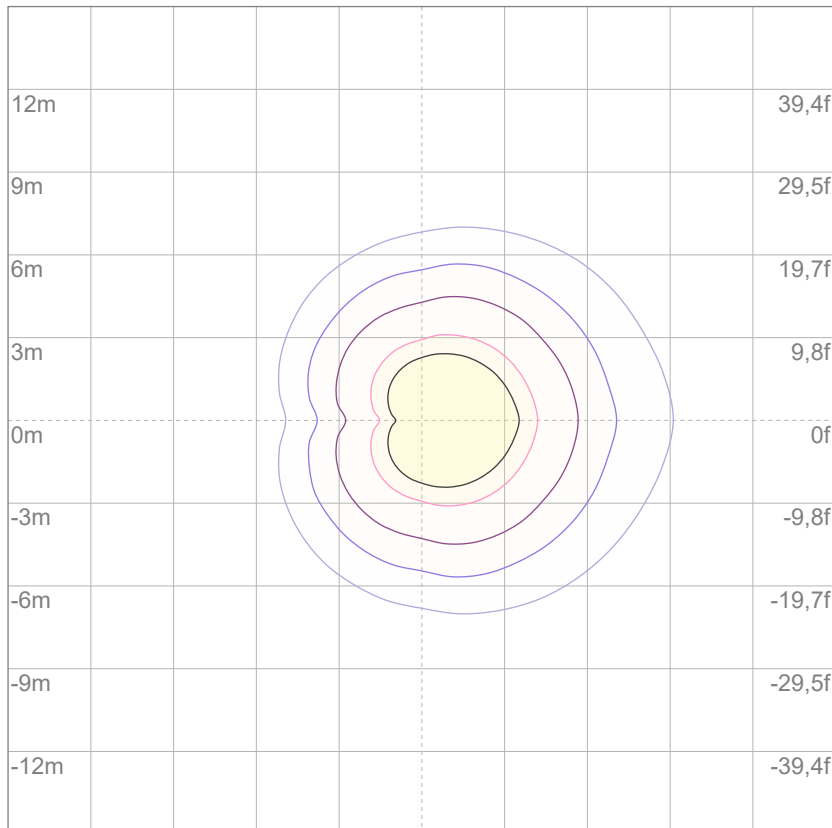
10%	13398 cd
20%	26795 cd
30%	40193 cd
40%	53590 cd
50%	66988 cd
60%	80385 cd
70%	93783 cd
80%	107180 cd

Conditions:

Number of c-planes: 4

Candela at center: 133976 cd

## ISO LUX DIAGRAM



3%	40,2 lx
5%	67,0 lx
10%	134 lx
30%	402 lx
50%	670 lx

Conditions:

Number of c-planes: 4

Lux at center: 1340 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:

35755 lm

Peak candela output:

138089 cd

Light quality:

CRI: 95,5

Color temperature:

3248 K

**PRODUCT NAME:**

ECLPANELIP HARD 2X1

**MEASURAMENT CONDITIONS:**

Beam angle:

TIR Lens

Target:

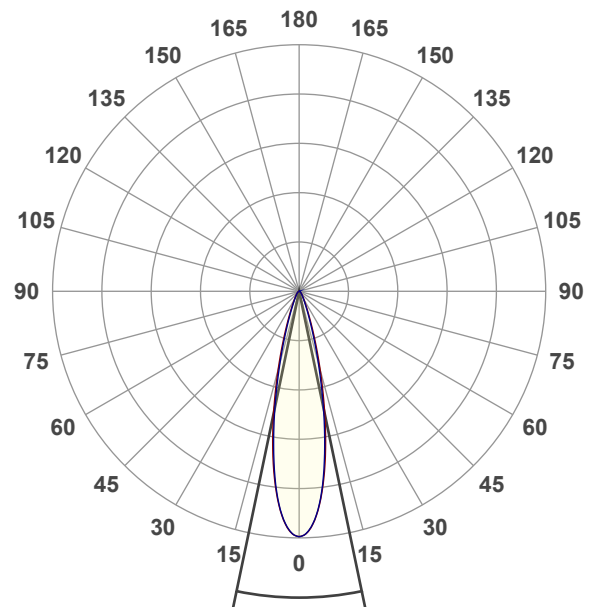
3200K - HQ

Operator:

Salvatore Giglio

Date and time:

06/09/2024 16:23:30

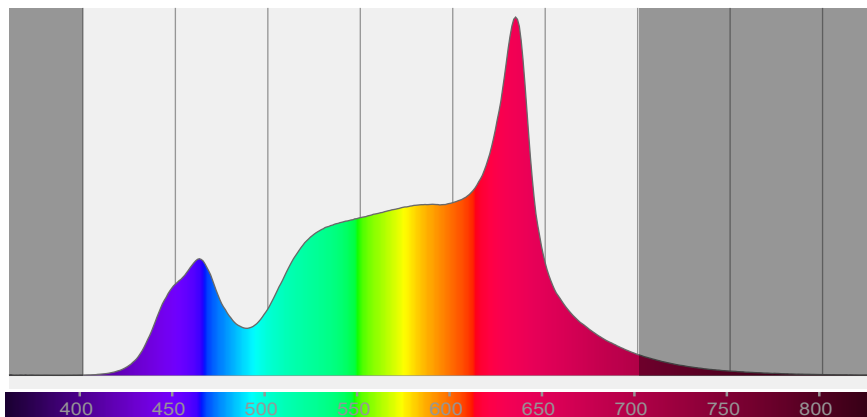


Beam angle 50%: 23,6°

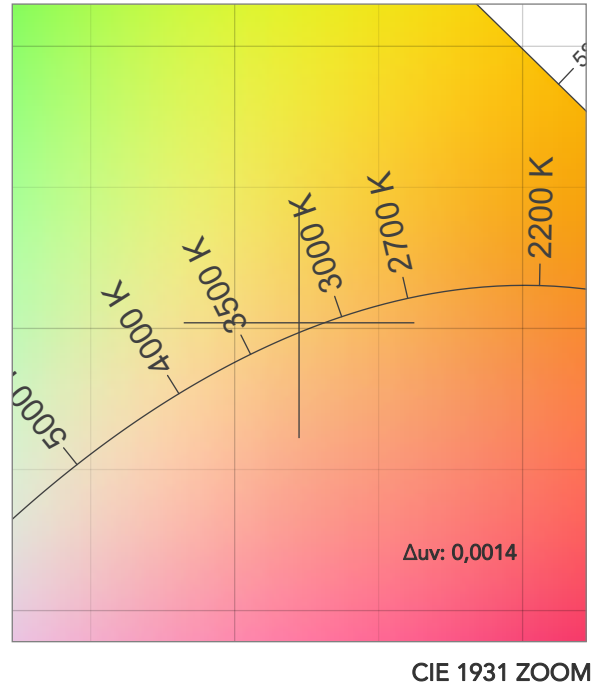
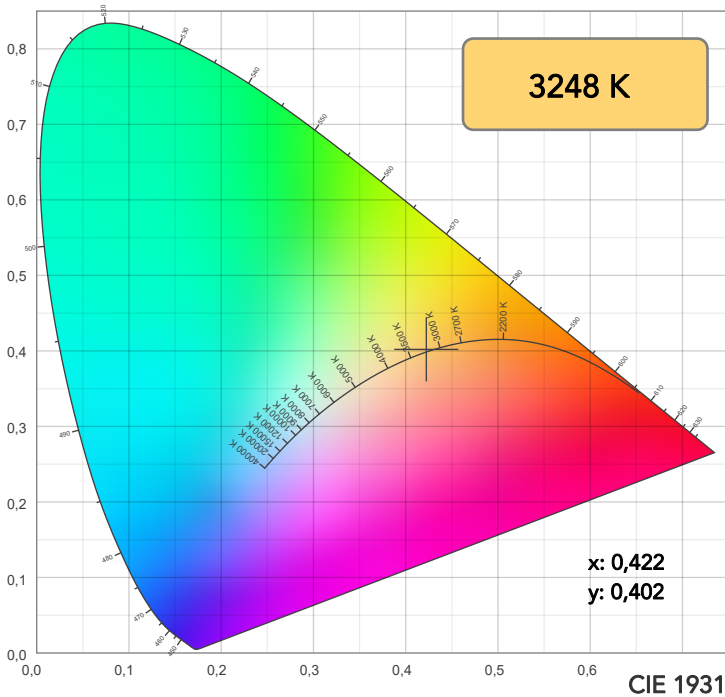
Field angle 10%: 44,3°

Cut off angle 2.5%: 70,9°

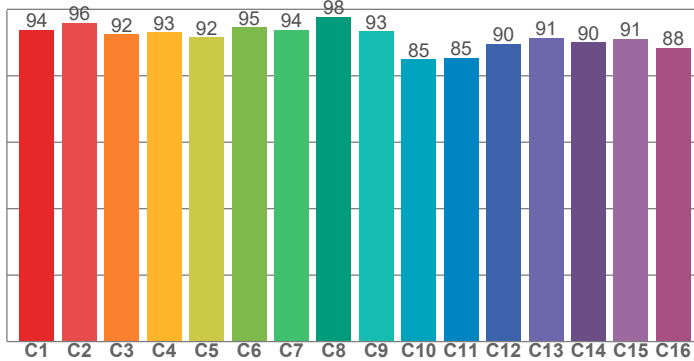
Spectra



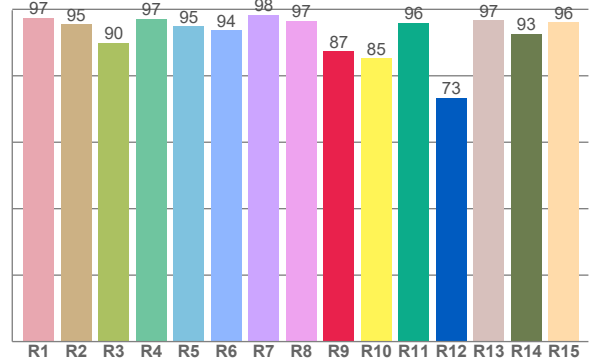
# COLOR DETAILS



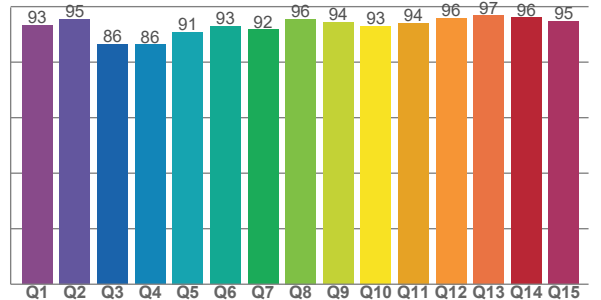
**TM30: 91,6**



**CRI: 95,5 (R1-R8)**



**CQS: 92,4**



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
97,5	95,5	90,0	97,2	95,0	93,6	98,4	96,6	87,3	85,3	95,9	73,4	96,6	92,7	96,1

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
93,8	95,9	92,5	93,1	91,5	94,5	93,8	97,7	93,3	84,9	85,4	89,6	91,4	90,1	91,1	88,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,3	95,5	86,4	86,3	90,9	92,9	91,7	95,6	94,3	93,1	94,1	95,9	96,8	96,0	94,7

## COLOR PARAMETERS

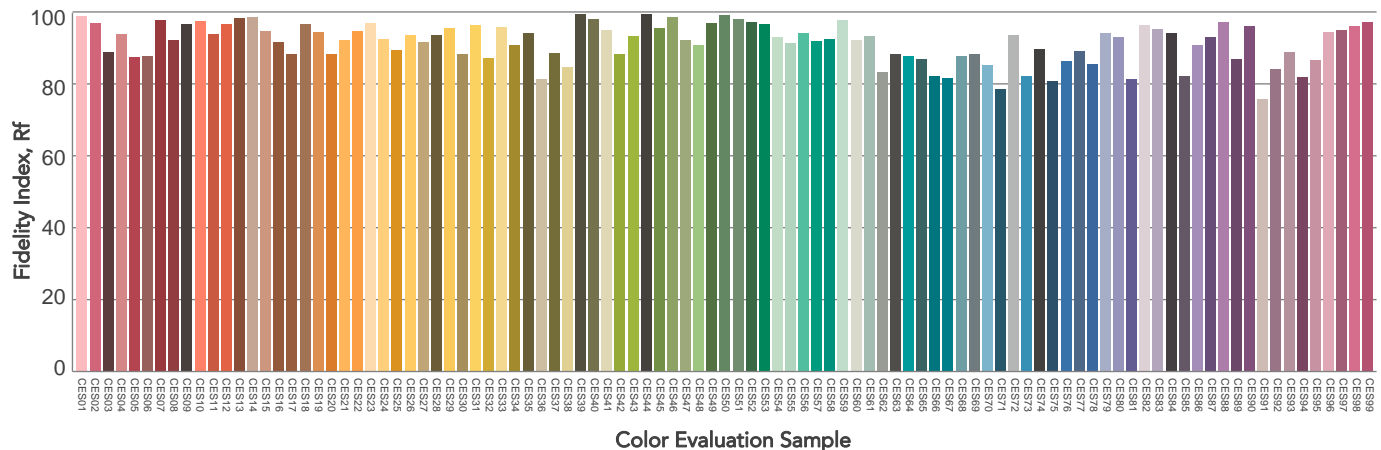
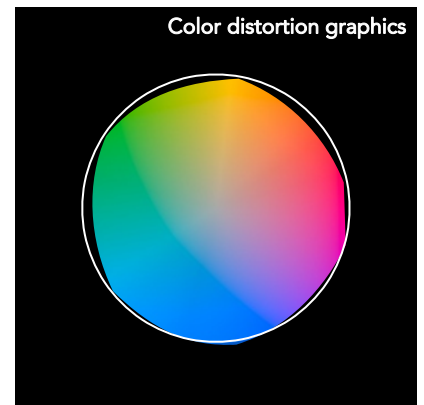
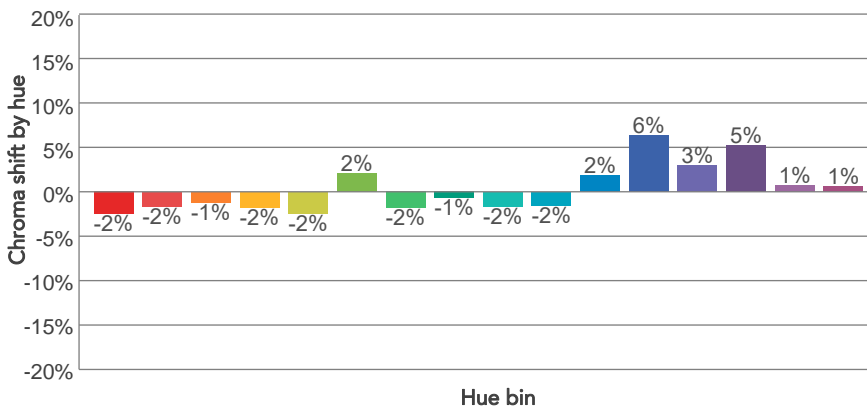
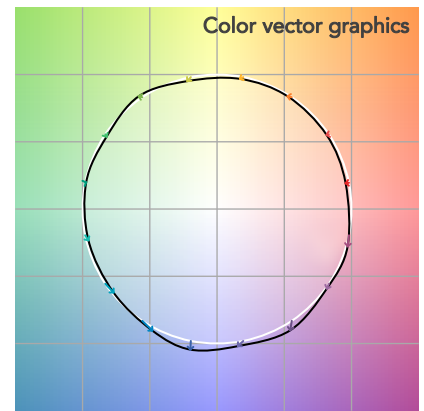
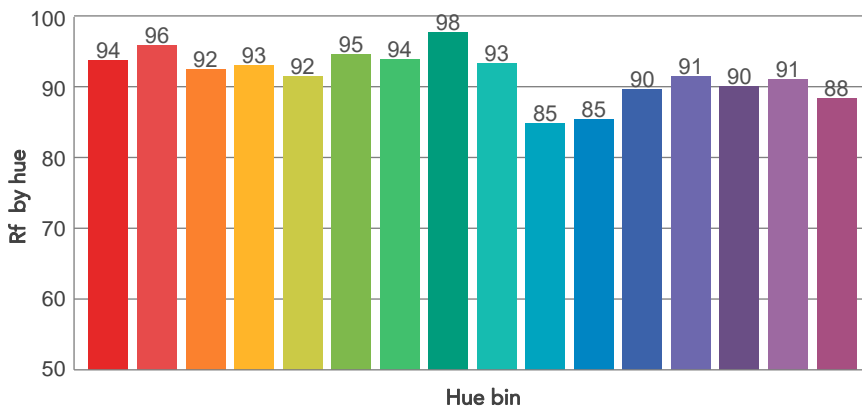
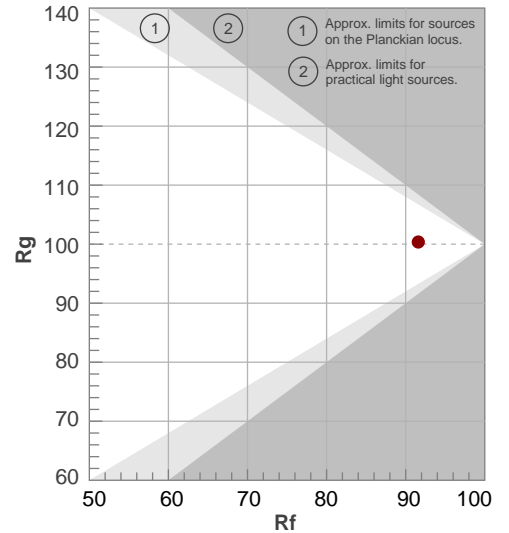
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3248 K	95,5	87,3	91,6	100,4	92,4	90	0,422	0,402	0,0014

# TM30 DETAILS

**Rf 91,6**  
Fidelity index Rf

**Rg 100,4**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-2%	0%
2	96	-2%	1%
3	92	-1%	3%
4	93	-2%	2%
5	92	-2%	3%
6	95	2%	2%
7	94	-2%	1%
8	98	-1%	0%
9	93	-2%	4%
10	85	-2%	9%
11	85	2%	10%
12	90	6%	1%
13	91	3%	-5%
14	90	5%	-5%
15	91	1%	-4%
16	88	1%	-8%

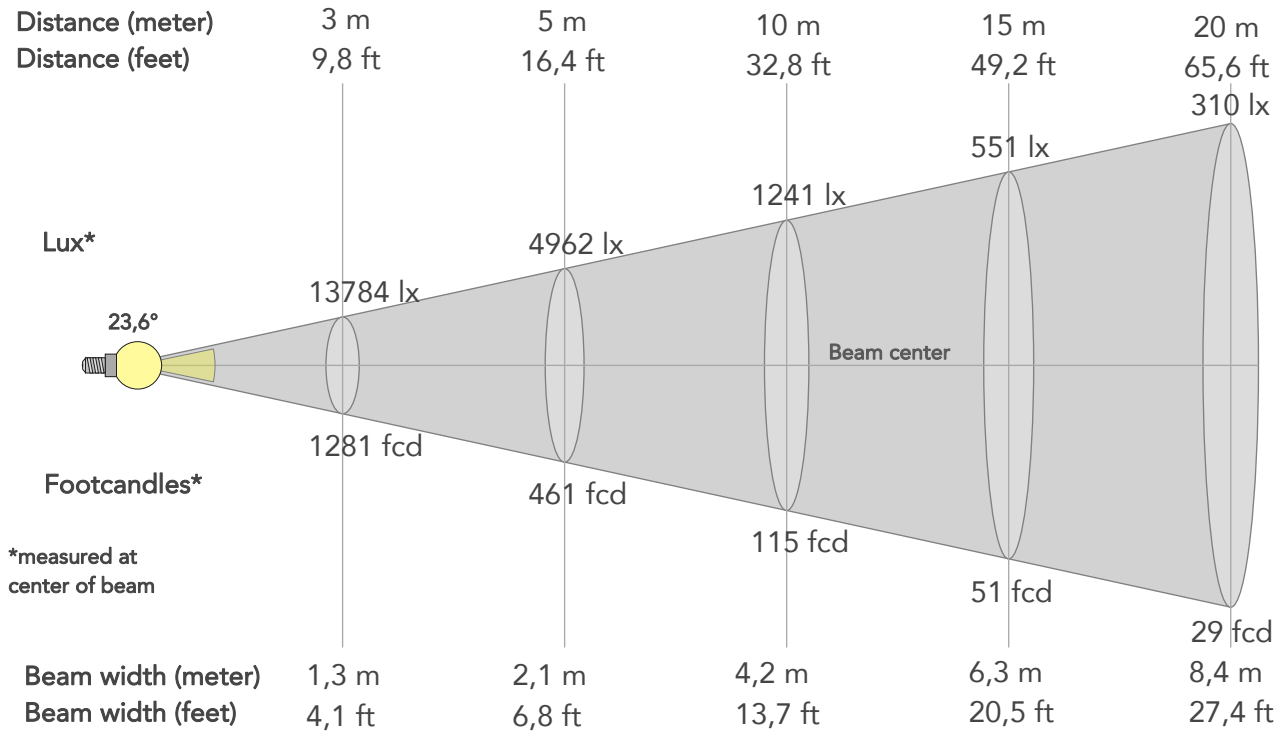




# BEAM DETAILS



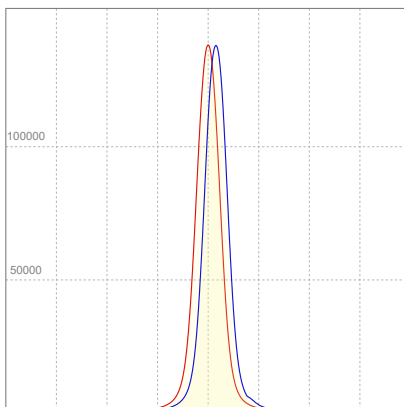
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,6°	44,3°	70,9°	97,5%	92,8%



## 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	124059lx	31015lx	13784lx	7754lx	4962lx	2205lx	1241lx	551lx	310lx	198lx	138lx	78lx	50lx
Footcand.	11525fcd	2881fcd	1281fcd	720fcd	461fcd	205fcd	115fcd	51fcd	29fcd	18fcd	13fcd	7fcd	5fcd
Beam wid.	0,4m	0,8m	1,3m	1,7m	2,1m	3,1m	4,2m	6,3m	8,4m	10,4m	12,5m	16,7m	20,9m
Beam wid.	1,4ft	2,8ft	4,1ft	5,5ft	6,8ft	10,3ft	13,7ft	20,5ft	27,4ft	34,2ft	41,1ft	54,8ft	68,5ft

## LINEAR DISTRIBUTION DIAGRAM

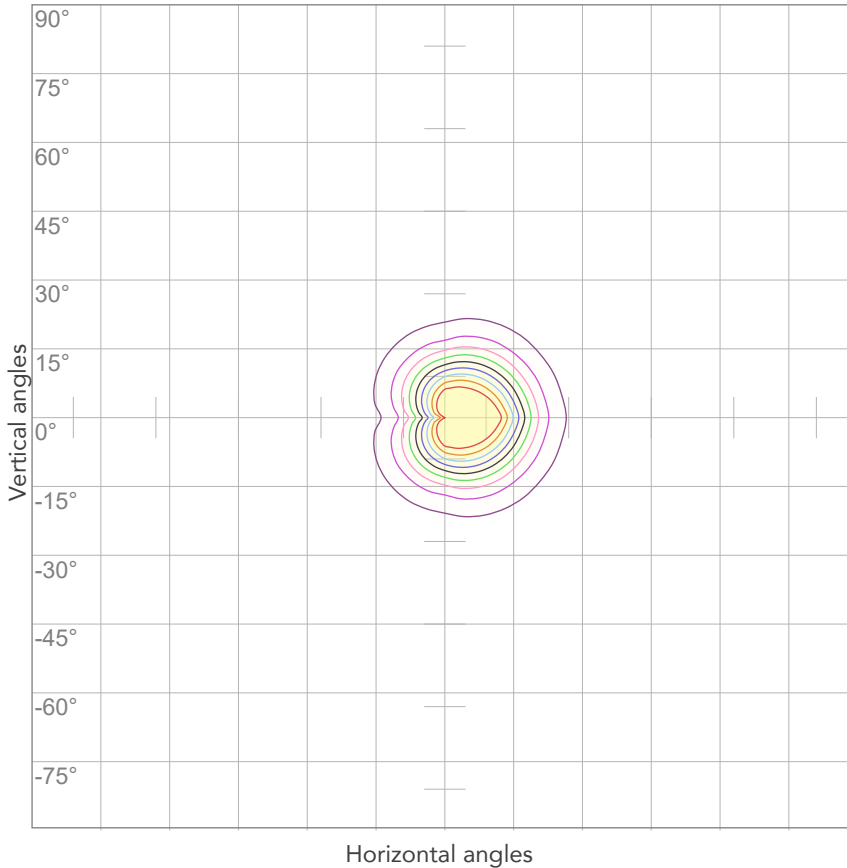


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	2,51A	559W	1,0	64lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



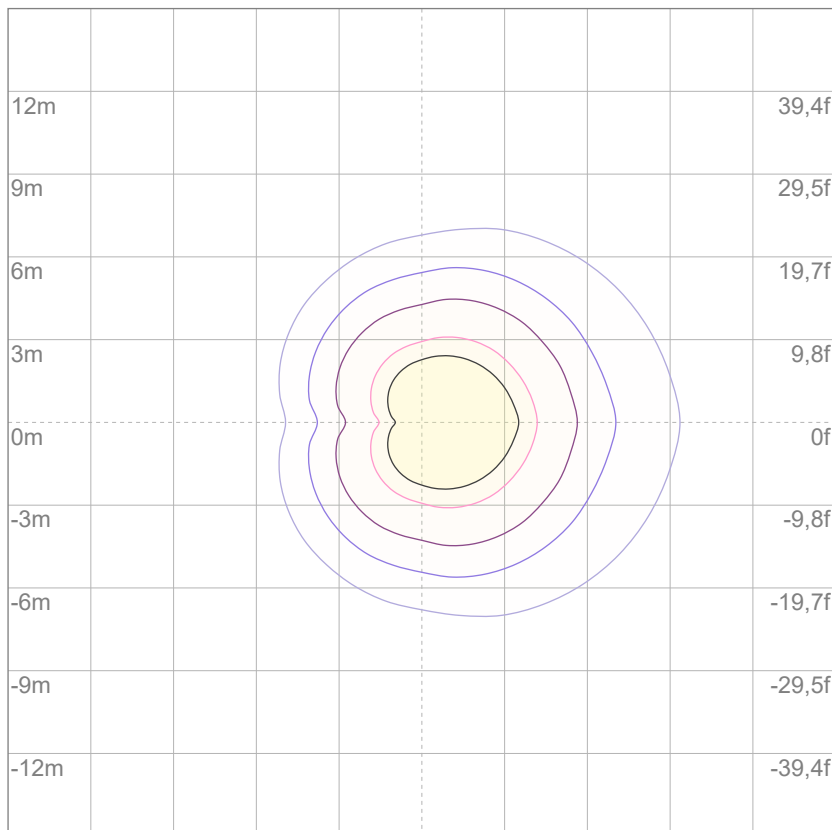
10%	12406 cd
20%	24812 cd
30%	37218 cd
40%	49624 cd
50%	62030 cd
60%	74436 cd
70%	86841 cd
80%	99247 cd

Conditions:

Number of c-planes: 4

Candela at center: 124059 cd

## ISO LUX DIAGRAM



3%	37,2 lx
5%	62,0 lx
10%	124 lx
30%	372 lx
50%	620 lx

Conditions:

Number of c-planes: 4

Lux at center: 1241 lx

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



Total lumen output:

33409 lm

Peak candela output:

130683 cd

Light quality:

CRI: 96,3

Color temperature:

5607 K

**PRODUCT NAME:**

ECLPANELIP HARD 2X1

**MEASURAMENT CONDITIONS:**

Beam angle:

TIR Lens

Target:

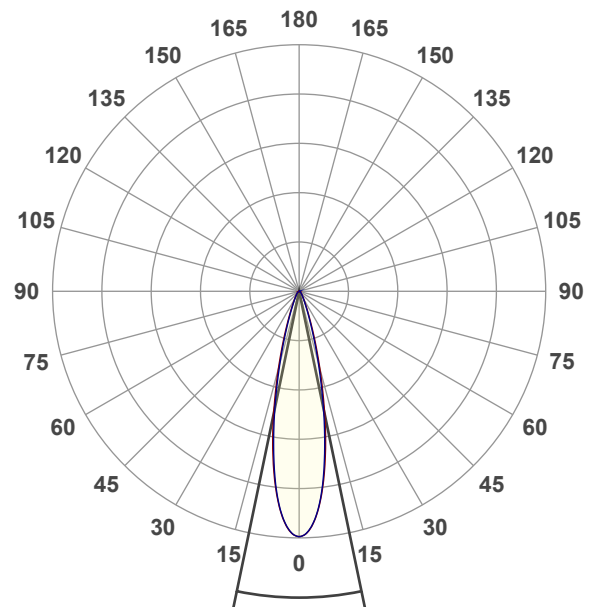
5600K - HQ

Operator:

Salvatore Giglio

Date and time:

06/09/2024 16:18:30

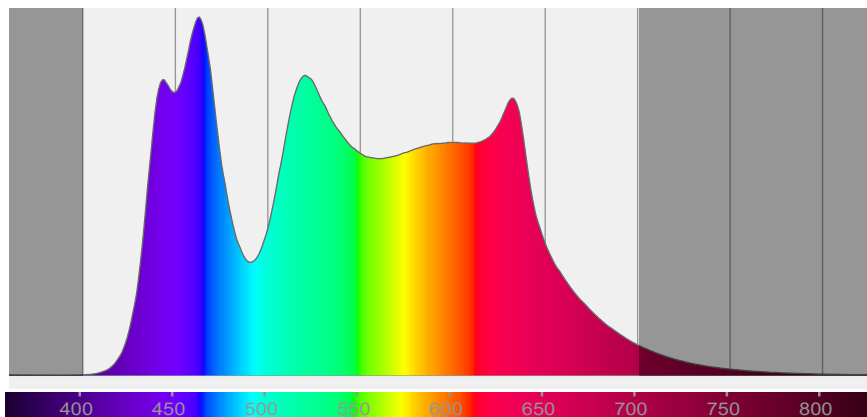


Beam angle 50%: 23,5°

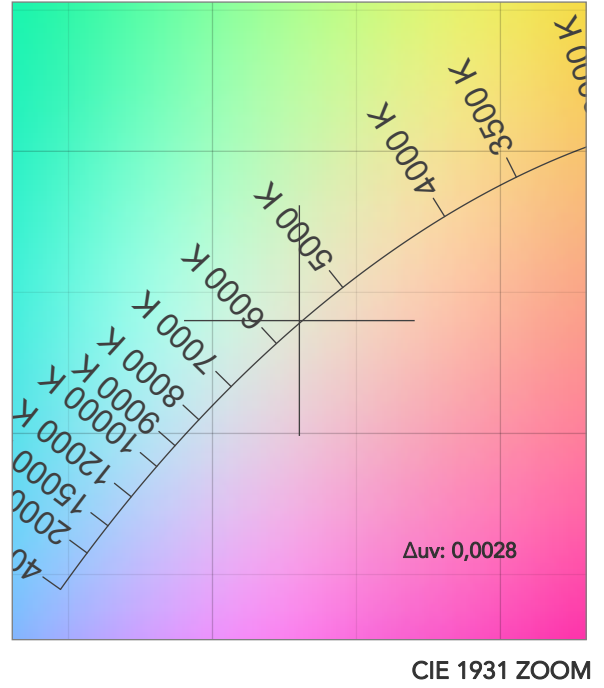
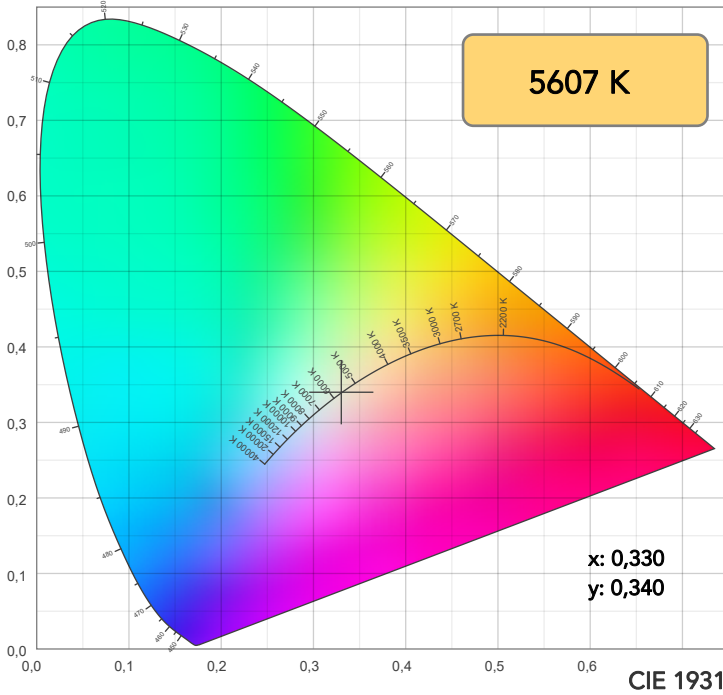
Field angle 10%: 43,8°

Cut off angle 2.5%: 69,4°

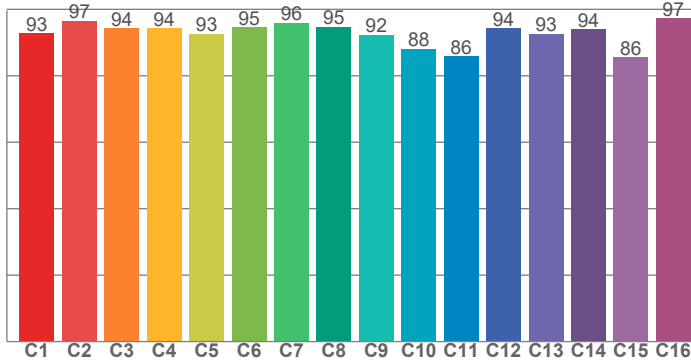
Spectra



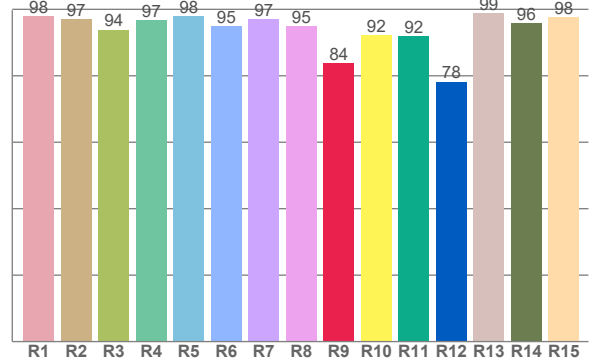
# COLOR DETAILS



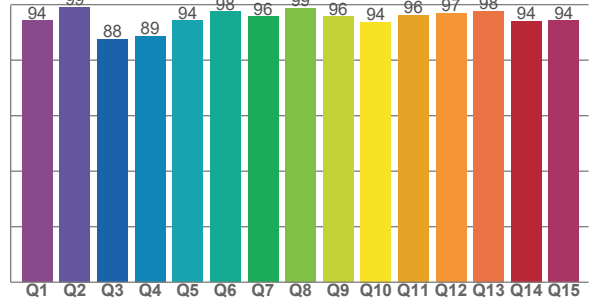
TM30: 92,6



CRI: 96,3 (R1-R8)



CQS: 94,0



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
98,0	97,1	93,9	96,8	97,9	94,8	97,1	94,9	83,7	92,2	91,8	78,2	98,9	95,7	97,6

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,7	96,5	94,3	94,3	92,6	94,5	96,0	94,7	92,3	88,1	85,8	94,2	92,6	93,9	85,6	97,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,3	99,1	87,5	88,6	94,3	97,6	95,8	98,9	95,7	93,7	96,2	96,9	97,7	94,2	94,2

## COLOR PARAMETERS

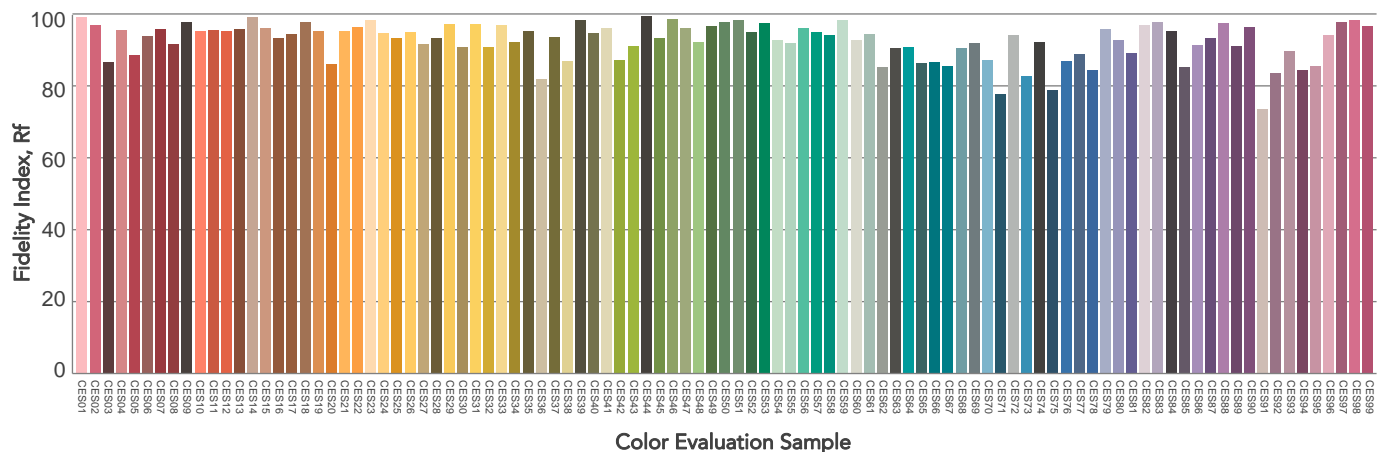
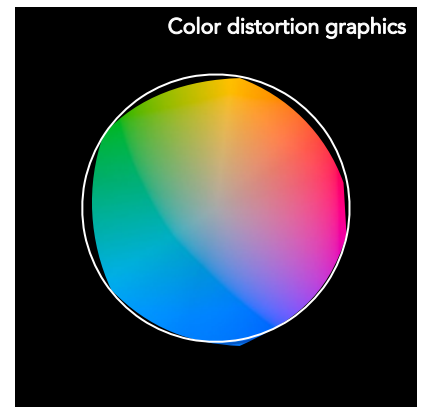
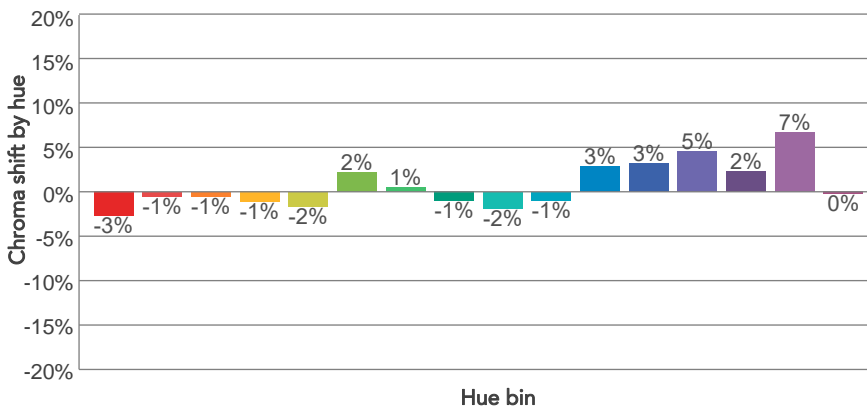
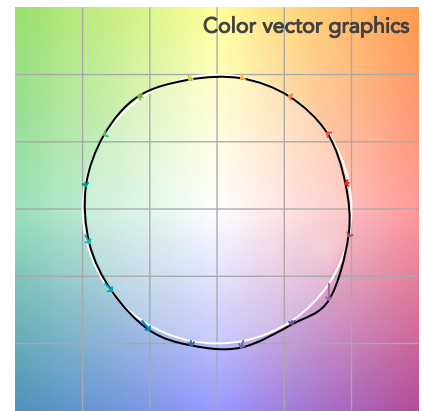
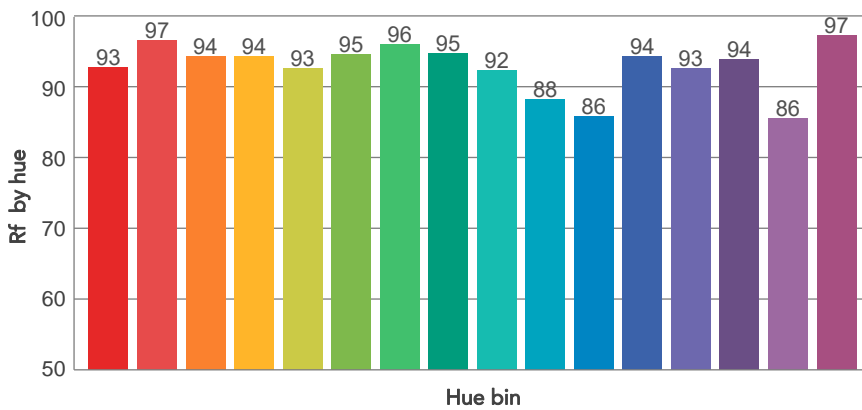
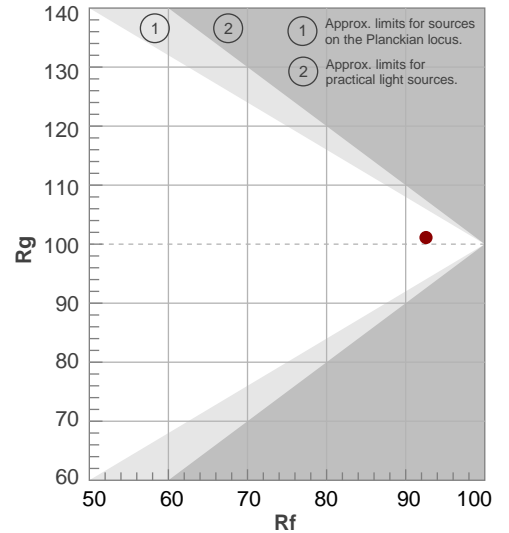
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5607 K	96,3	83,7	92,6	101,1	94,0	95	0,330	0,340	0,0028

# TM30 DETAILS

**Rf 92,6**  
Fidelity index Rf

**Rg 101,1**  
Gammut index

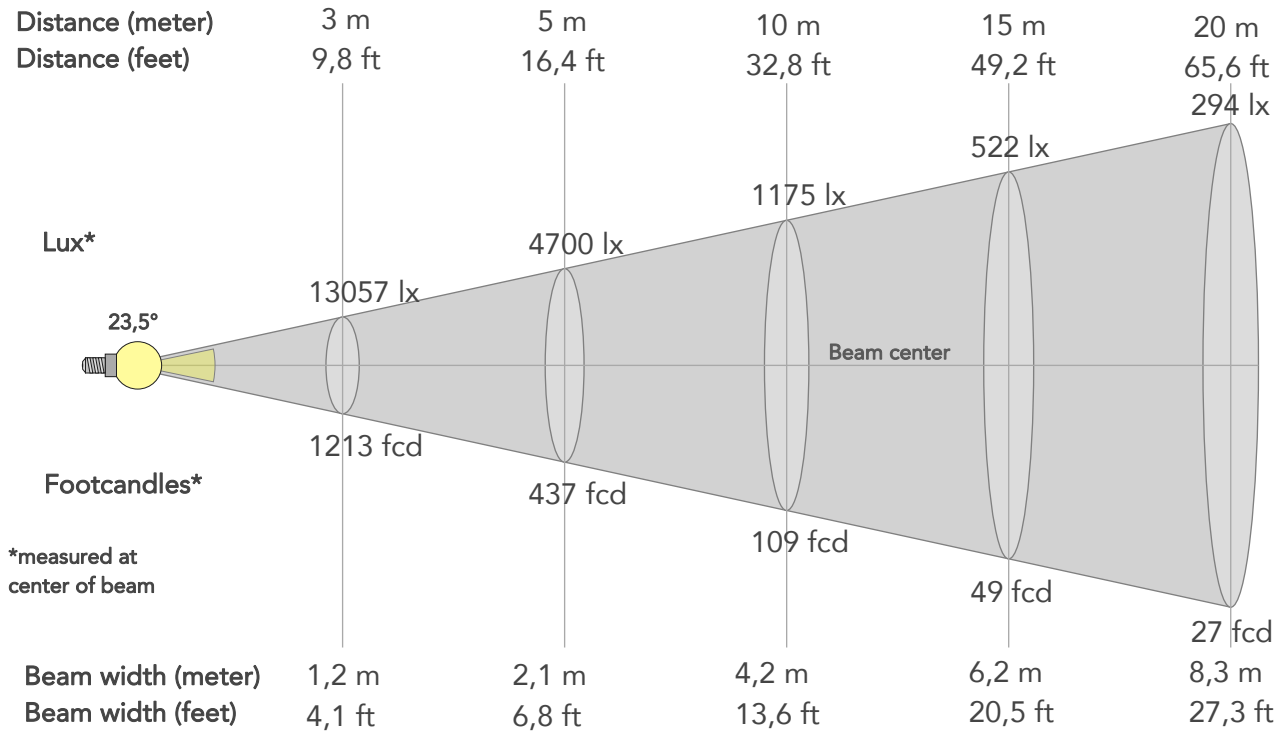
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	-3%	0%
2	97	-1%	2%
3	94	-1%	2%
4	94	-1%	1%
5	93	-2%	2%
6	95	2%	2%
7	96	1%	1%
8	95	-1%	2%
9	92	-2%	6%
10	88	-1%	7%
11	86	3%	8%
12	94	3%	1%
13	93	5%	-3%
14	94	2%	-1%
15	86	7%	-10%
16	97	0%	-1%



# BEAM DETAILS



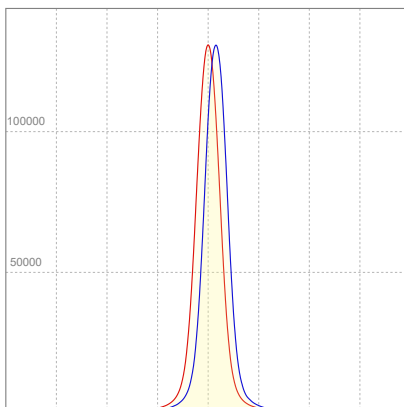
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,5°	43,8°	69,4°	97,4%	92,7%



## 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	117512lx	29378lx	13057lx	7345lx	4700lx	2089lx	1175lx	522lx	294lx	188lx	131lx	73lx	47lx
Footcand.	10917fcd	2729fcd	1213fcd	682fcd	437fcd	194fcd	109fcd	49fcd	27fcd	17fcd	12fcd	7fcd	4fcd
Beam wid.	0,4m	0,8m	1,2m	1,7m	2,1m	3,1m	4,2m	6,2m	8,3m	10,4m	12,5m	16,6m	20,8m
Beam wid.	1,4ft	2,7ft	4,1ft	5,4ft	6,8ft	10,2ft	13,6ft	20,5ft	27,3ft	34,1ft	40,9ft	54,5ft	68,2ft

## LINEAR DISTRIBUTION DIAGRAM

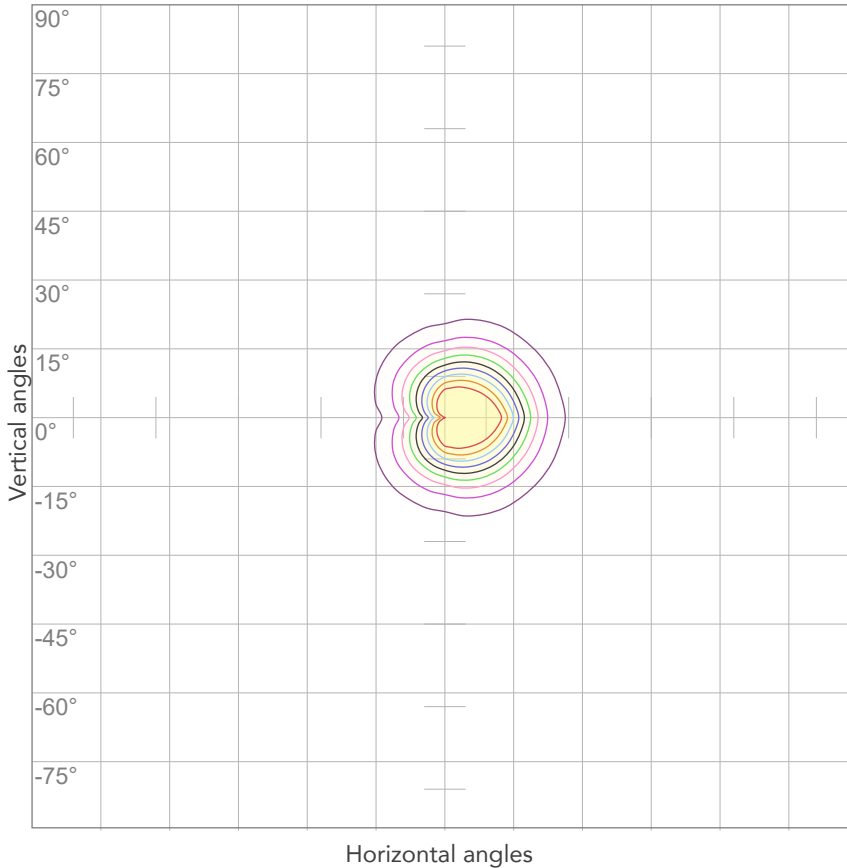


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	2,60A	581W	1,0	58lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



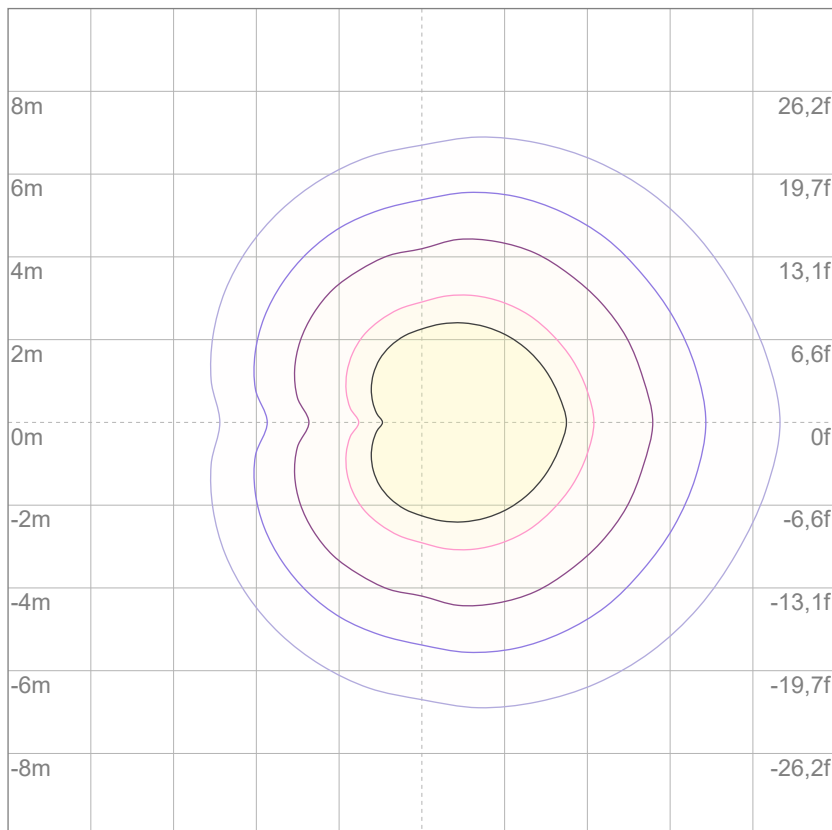
10%	11751 cd
20%	23502 cd
30%	35254 cd
40%	47005 cd
50%	58756 cd
60%	70507 cd
70%	82259 cd
80%	94010 cd

Conditions:

Number of c-planes: 4

Candela at center: 117512 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	35,3 lx
5%	58,8 lx
10%	118 lx
30%	353 lx
50%	588 lx

Conditions:

Number of c-planes: 4

Lux at center: 1175 lx

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



Total lumen output:

27780 lm

Peak candela output:

16146 cd

Light quality:

CRI: 87,2

Color temperature:

3255 K

**PRODUCT NAME:**  
ECLPANELIP HARD 2X1

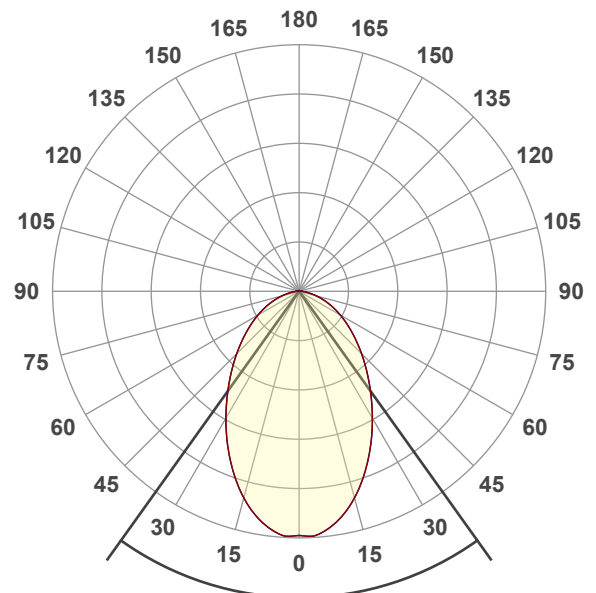
**MEASURAMENT CONDITIONS:**

Beam angle:  
MD Filter

Target:  
3200K - HB

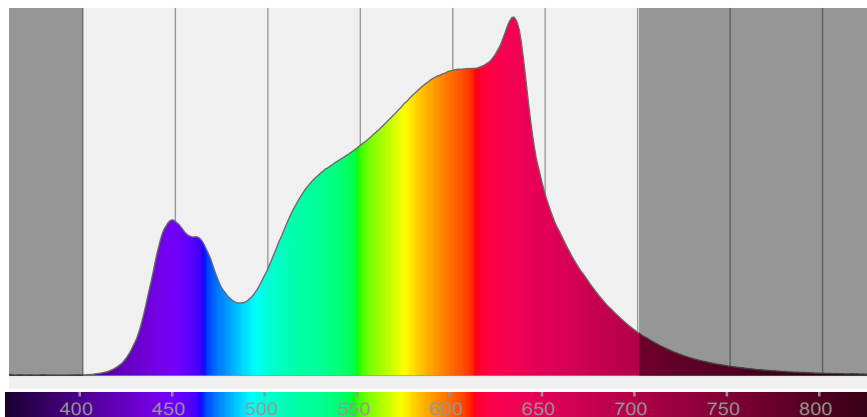
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 15:47:05



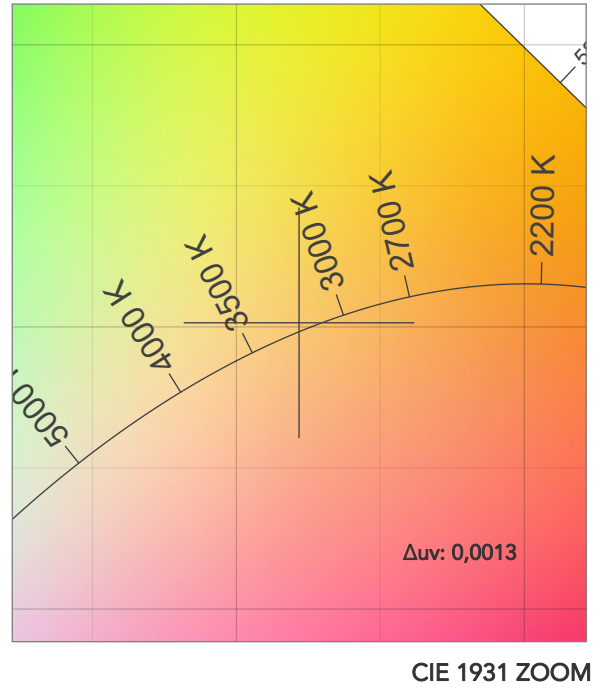
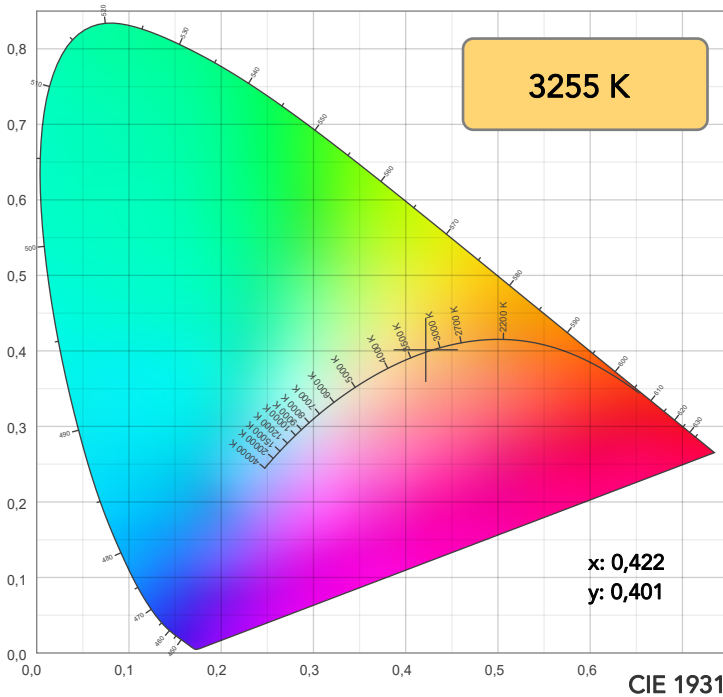
Beam angle 50%: 71,1°  
Field angle 10%: 142,4°  
Cut off angle 2.5%: 167,4°

Spectra

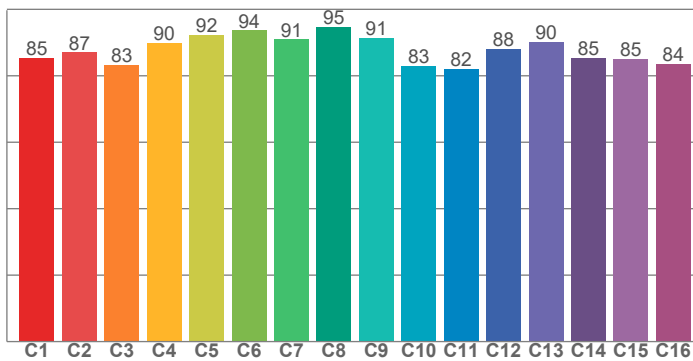




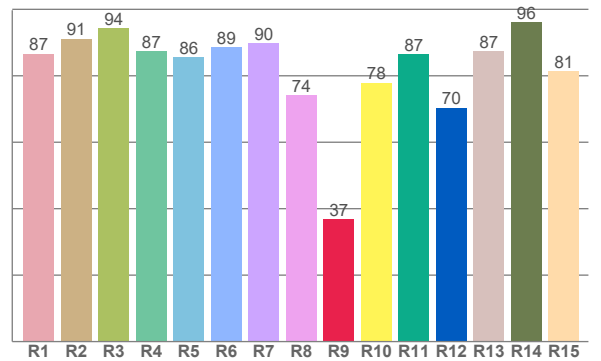
# COLOR DETAILS



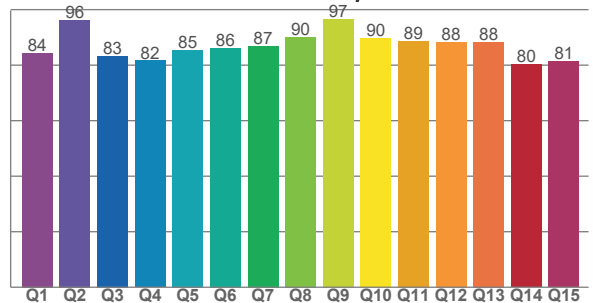
**TM30: 87,7**



**CRI: 87,2 (R1-R8)**



**CQS: 86,3**



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
86,6	91,2	94,3	87,4	85,6	88,6	89,9	74,2	36,8	77,9	86,5	70,4	87,5	96,0	81,3

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
85,4	87,1	83,2	89,9	92,3	93,7	91,0	94,8	91,5	83,1	82,1	88,1	90,3	85,4	85,0	83,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,3	96,3	83,3	81,7	85,4	86,2	86,9	90,1	96,6	89,8	88,7	88,3	88,3	80,3	81,4

## COLOR PARAMETERS

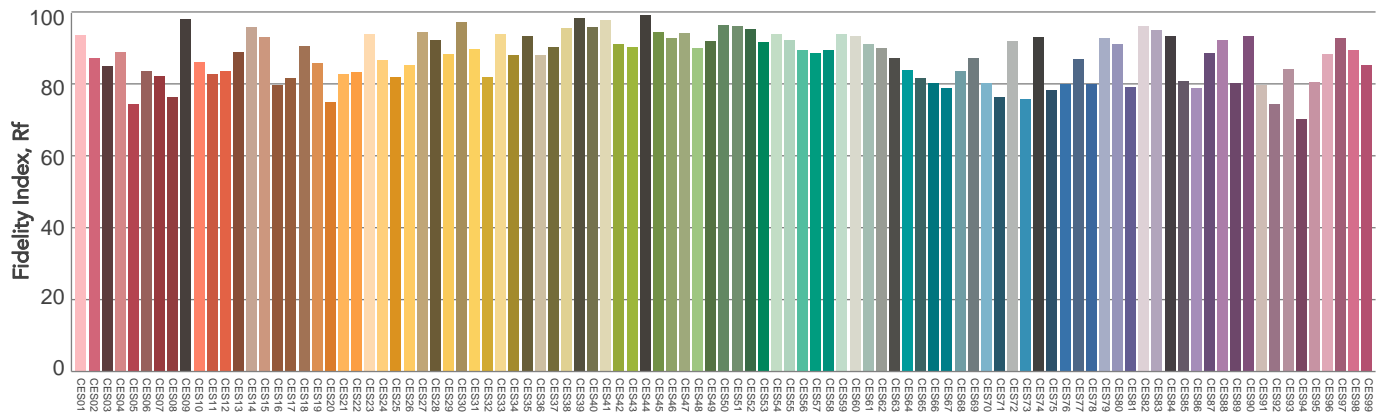
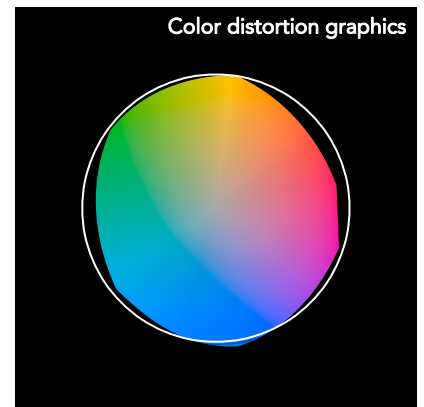
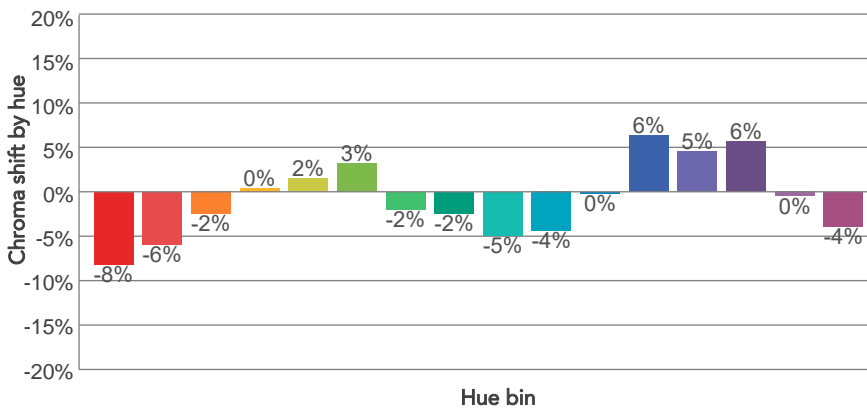
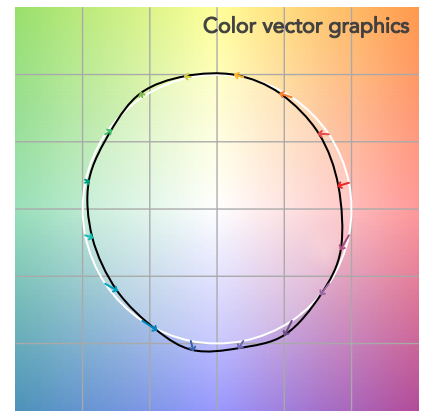
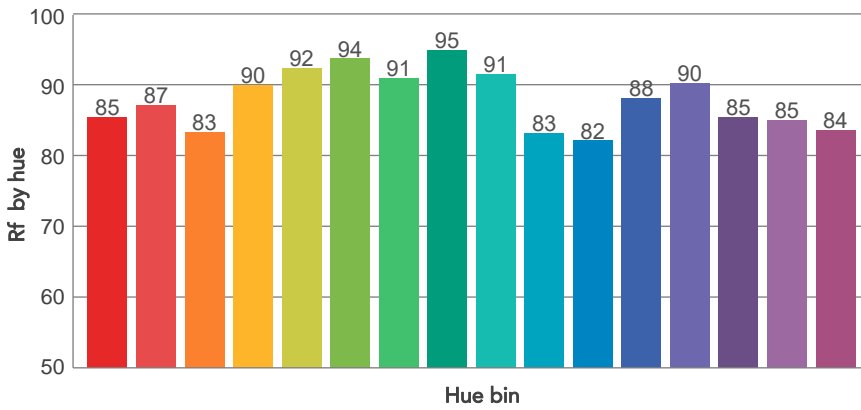
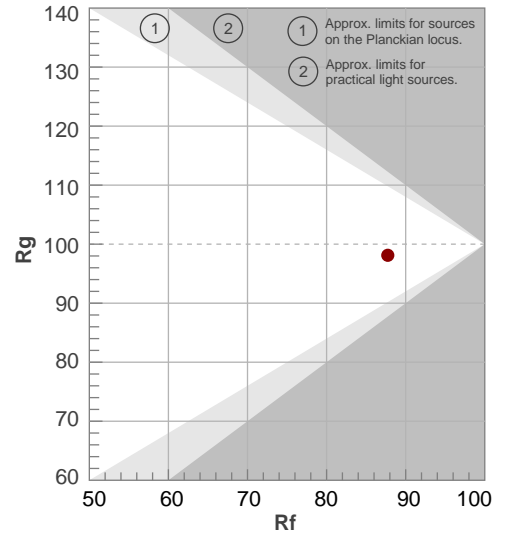
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
3255 K	87,2	36,8	87,7	98,1	86,3	80	0,422	0,401	0,0013

# TM30 DETAILS

**Rf 87,7**  
Fidelity index Rf

**Rg 98,1**  
Gammut index

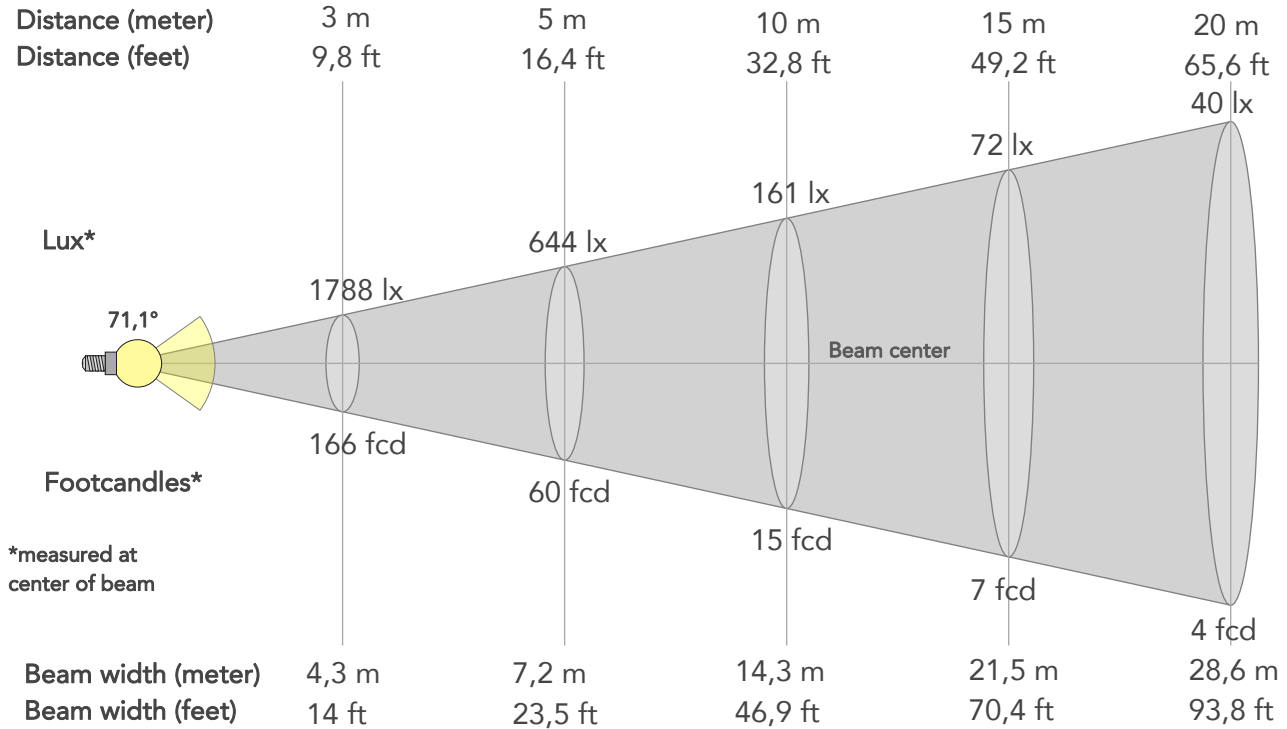
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	85	-8%	-1%
2	87	-6%	5%
3	83	-2%	8%
4	90	0%	6%
5	92	2%	4%
6	94	3%	-1%
7	91	-2%	-5%
8	95	-2%	-2%
9	91	-5%	3%
10	83	-4%	9%
11	82	0%	12%
12	88	6%	3%
13	90	5%	-4%
14	85	6%	-10%
15	85	0%	-10%
16	84	-4%	-11%



# BEAM DETAILS



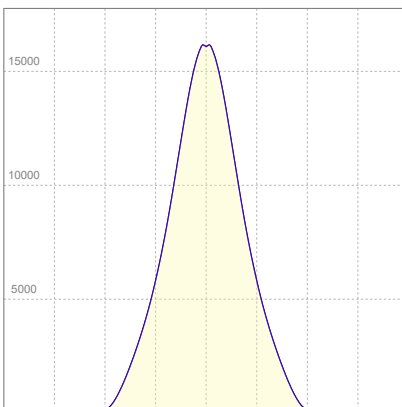
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
71,1°	142,4°	167,4°	85,4%	65,0%



## 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	16091lx	4023lx	1788lx	1006lx	644lx	286lx	161lx	72lx	40lx	26lx	18lx	10lx	6lx
Footcand.	1495fcd	374fcd	166fcd	93fcd	60fcd	27fcd	15fcd	7fcd	4fcd	2fcd	2fcd	1fcd	1fcd
Beam wid.	1,4m	2,9m	4,3m	5,7m	7,2m	10,7m	14,3m	21,5m	28,6m	35,8m	42,9m	57,2m	71,5m
Beam wid.	4,7ft	9,4ft	14ft	18,7ft	23,5ft	35,2ft	46,9ft	70,4ft	93,8ft	117,3ft	140,7ft	187,6ft	234,5ft

## LINEAR DISTRIBUTION DIAGRAM

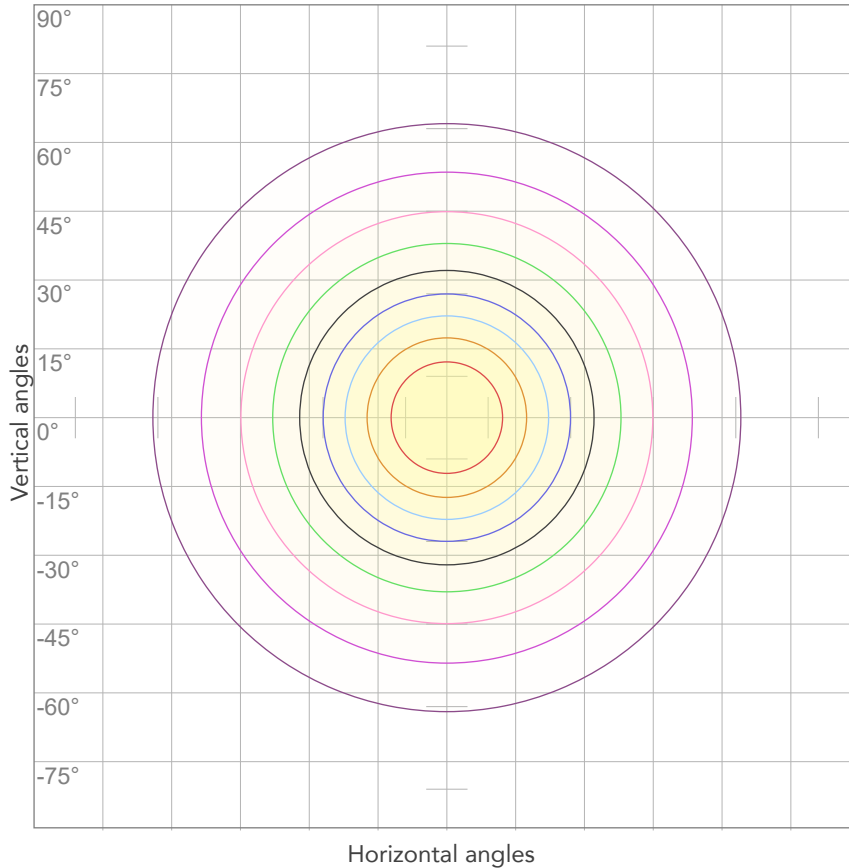


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	2,58A	574W	1,0	48lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



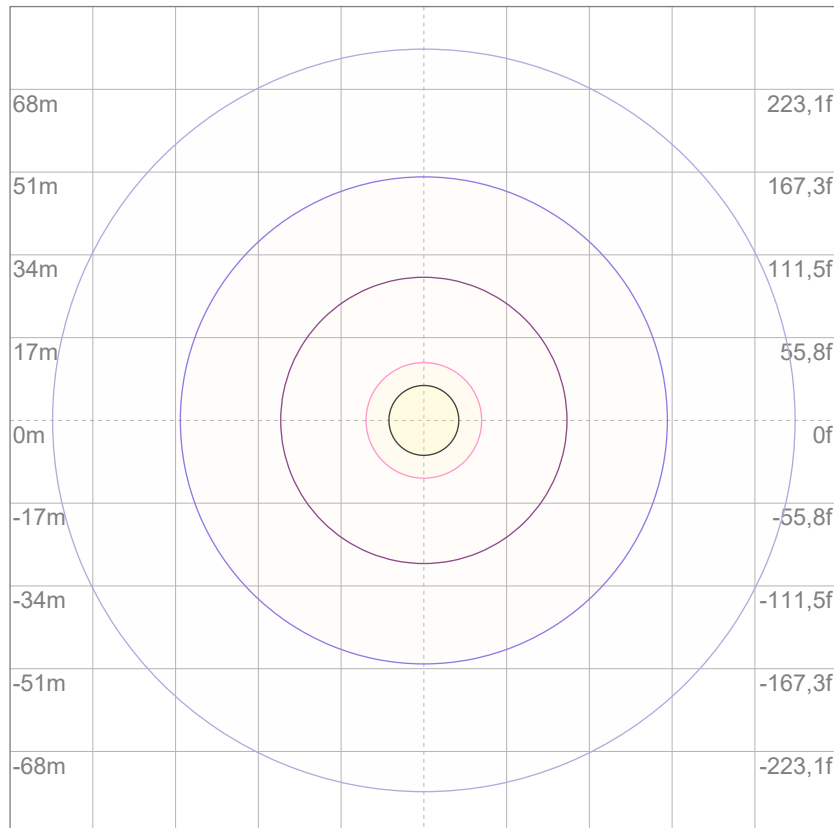
10%	1609 cd
20%	3218 cd
30%	4827 cd
40%	6437 cd
50%	8046 cd
60%	9655 cd
70%	11264 cd
80%	12873 cd

Conditions:

Number of c-planes: 4

Candela at center: 16091 cd

## ISO LUX DIAGRAM



3%	4,83 lx
5%	8,05 lx
10%	16,1 lx
30%	48,3 lx
50%	80,5 lx

Conditions:

Number of c-planes: 4

Lux at center: 161 lx

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



Total lumen output:

28830 lm

Peak candela output:

16490 cd

Light quality:

CRI: 80,3

Color temperature:

5629 K

**PRODUCT NAME:**  
ECLPANELIP HARD 2X1

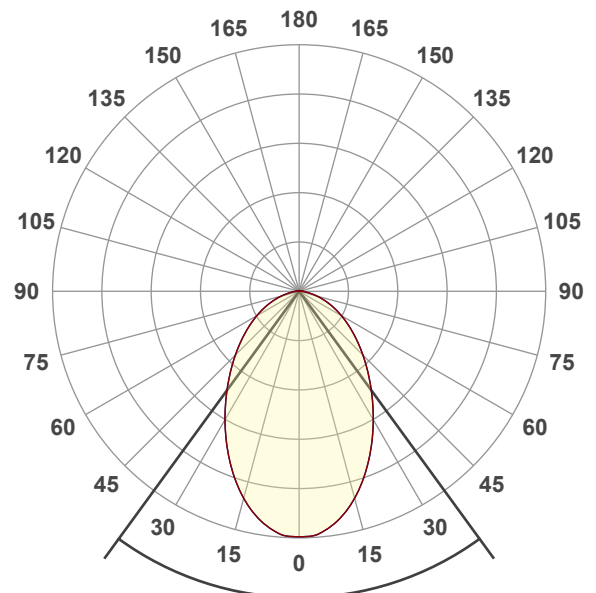
**MEASURAMENT CONDITIONS:**

Beam angle:  
MD Filter

Target:  
5600K - HB

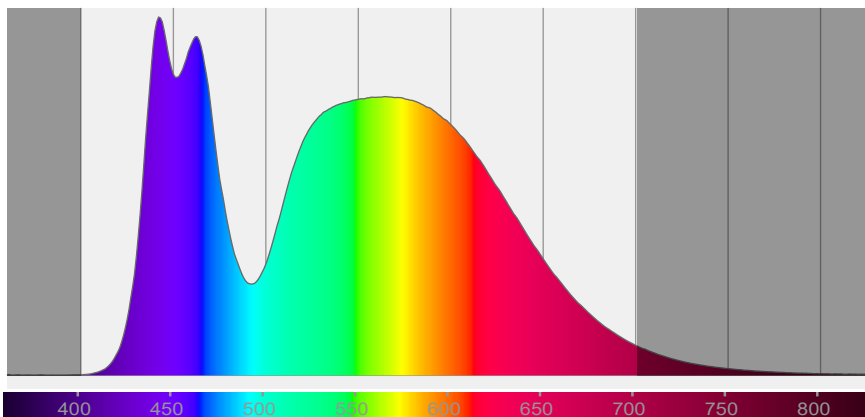
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 15:59:13

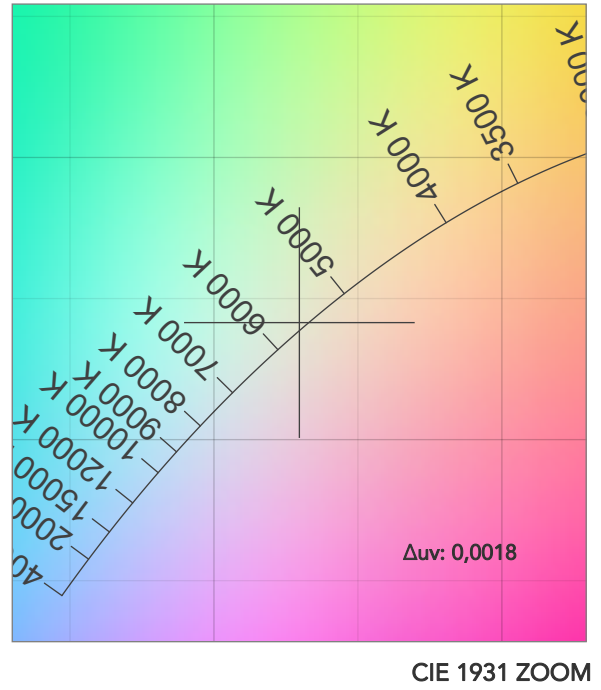
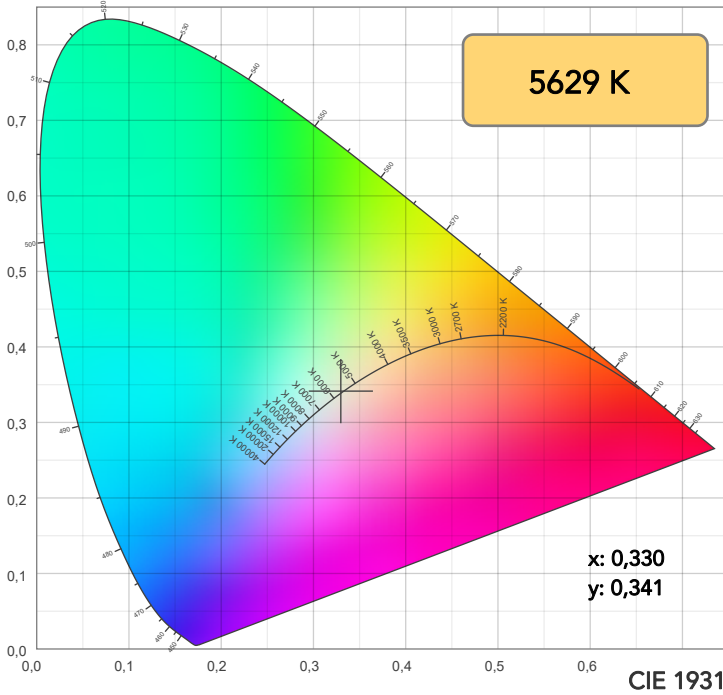


Beam angle 50%: 72,2°  
Field angle 10%: 143,1°  
Cut off angle 2.5%: 167,8°

Spectra

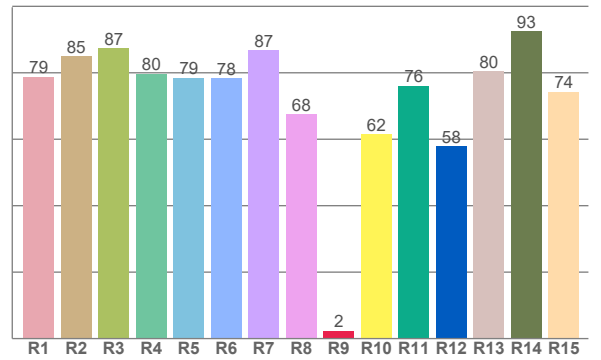
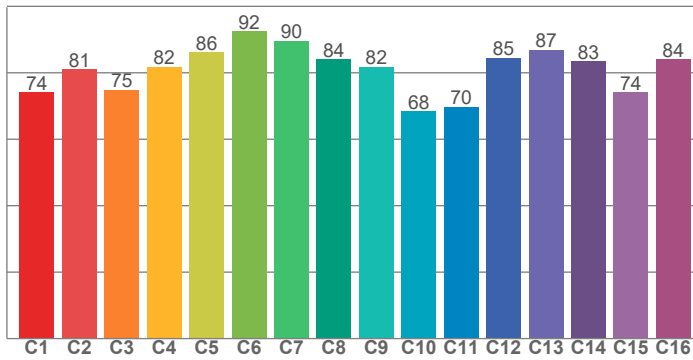


# COLOR DETAILS



TM30: 80,7

CRI: 80,3 (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
78,8	85,1	87,3	79,7	78,5	78,3	86,8	67,5	2,4	61,5	76,1	58,0	80,4	92,6	74,3

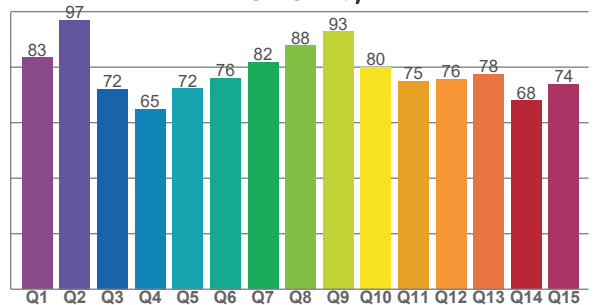
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
74,0	81,1	74,9	81,7	86,1	92,5	89,6	84,0	81,7	68,4	69,8	84,5	86,8	83,5	74,2	84,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,4	96,9	72,1	64,8	72,3	76,1	81,7	87,8	92,8	80,1	75,0	75,8	77,6	67,9	73,8

CQS: 76,9



## COLOR PARAMETERS

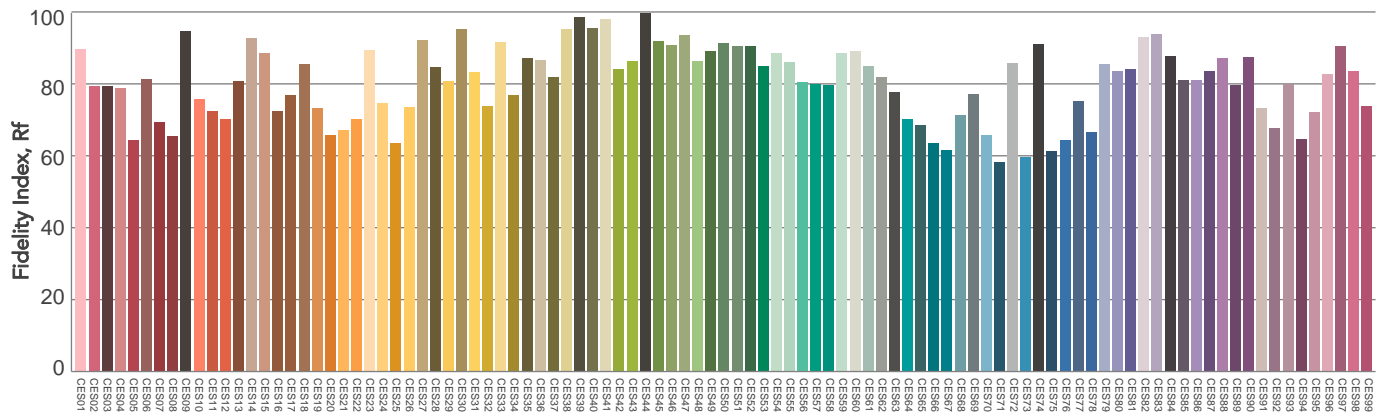
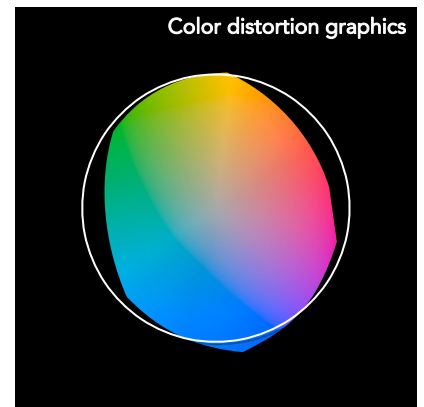
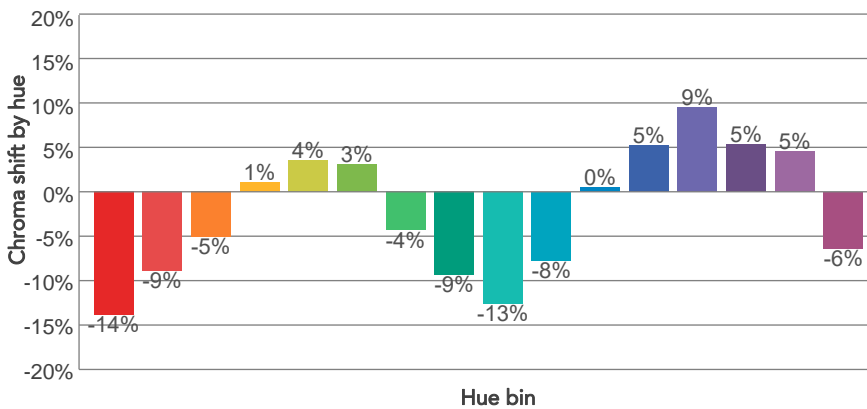
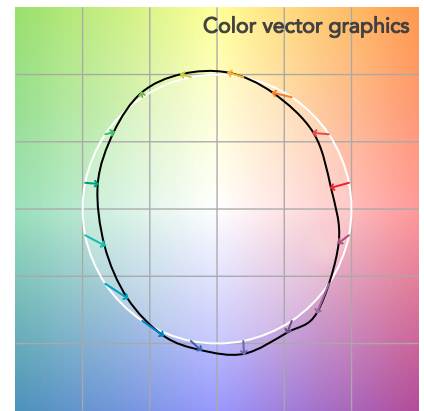
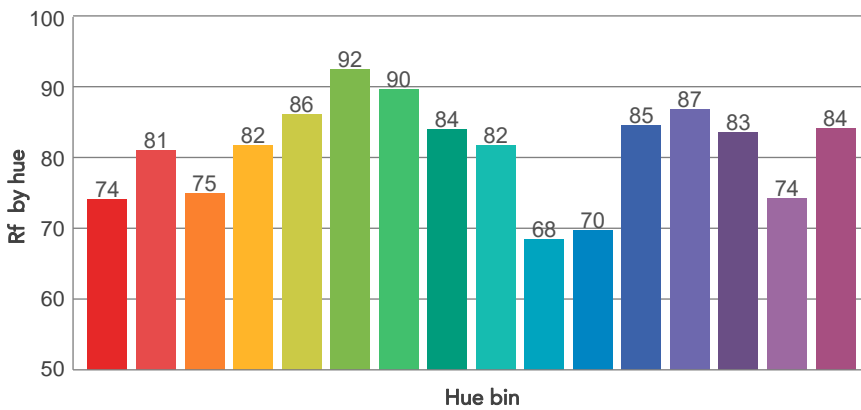
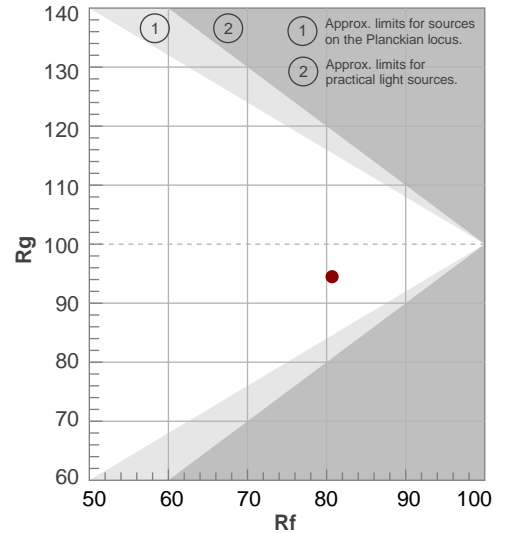
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5629 K	80,3	2,4	80,7	94,5	76,9	66	0,330	0,341	0,0018

# TM30 DETAILS

**Rf 80,7**  
Fidelity index Rf

**Rg 94,5**  
Gammut index

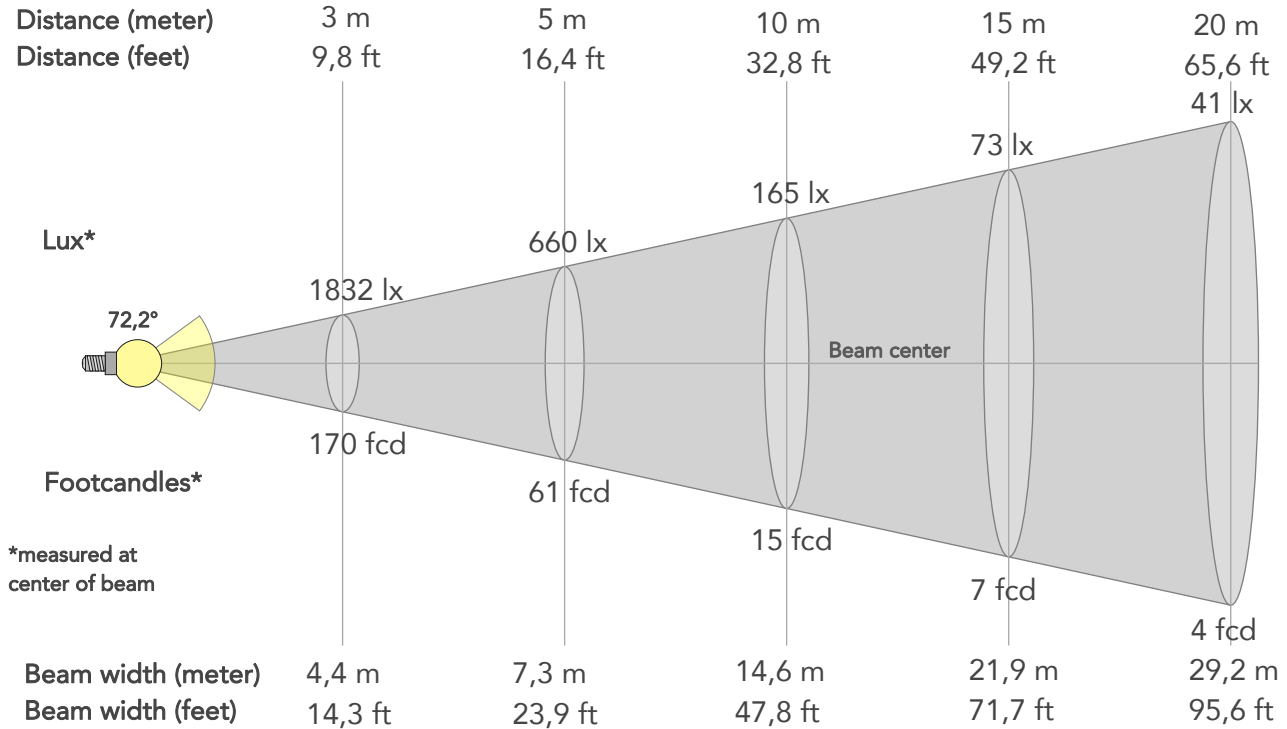
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	74	-14%	-1%
2	81	-9%	7%
3	75	-5%	13%
4	82	1%	11%
5	86	4%	7%
6	92	3%	-1%
7	90	-4%	-5%
8	84	-9%	-1%
9	82	-13%	10%
10	68	-8%	18%
11	70	0%	19%
12	85	5%	9%
13	87	9%	-1%
14	83	5%	-8%
15	74	5%	-23%
16	84	-6%	-7%



# BEAM DETAILS



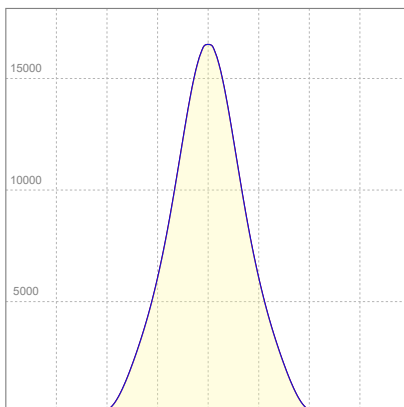
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
72,2°	143,1°	167,8°	85,2%	64,6%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	16490lx	4123lx	1832lx	1031lx	660lx	293lx	165lx	73lx	41lx	26lx	18lx	10lx	7lx
Footcand.	1532fcd	383fcd	170fcd	96fcd	61fcd	27fcd	15fcd	7fcd	4fcd	2fcd	2fcd	1fcd	1fcd
Beam wid.	1,5m	2,9m	4,4m	5,8m	7,3m	10,9m	14,6m	21,9m	29,2m	36,4m	43,7m	58,3m	72,9m
Beam wid.	4,8ft	9,6ft	14,3ft	19,1ft	23,9ft	35,9ft	47,8ft	71,7ft	95,6ft	119,5ft	143,4ft	191,2ft	239,1ft

## LINEAR DISTRIBUTION DIAGRAM



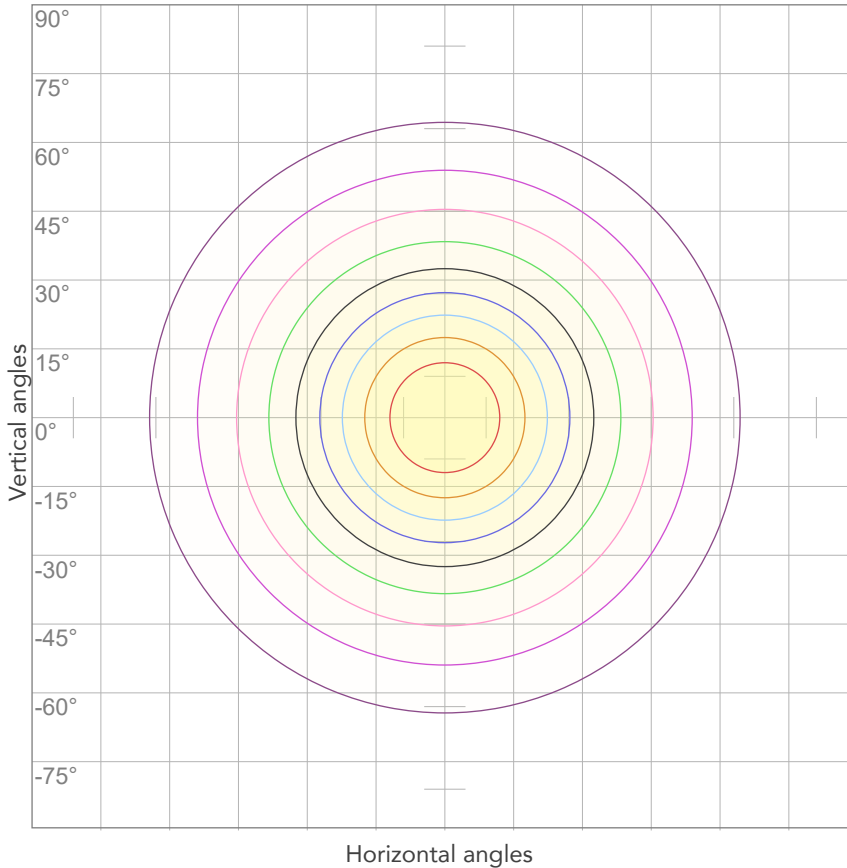
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	2,53A	567W	1,0	51lm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



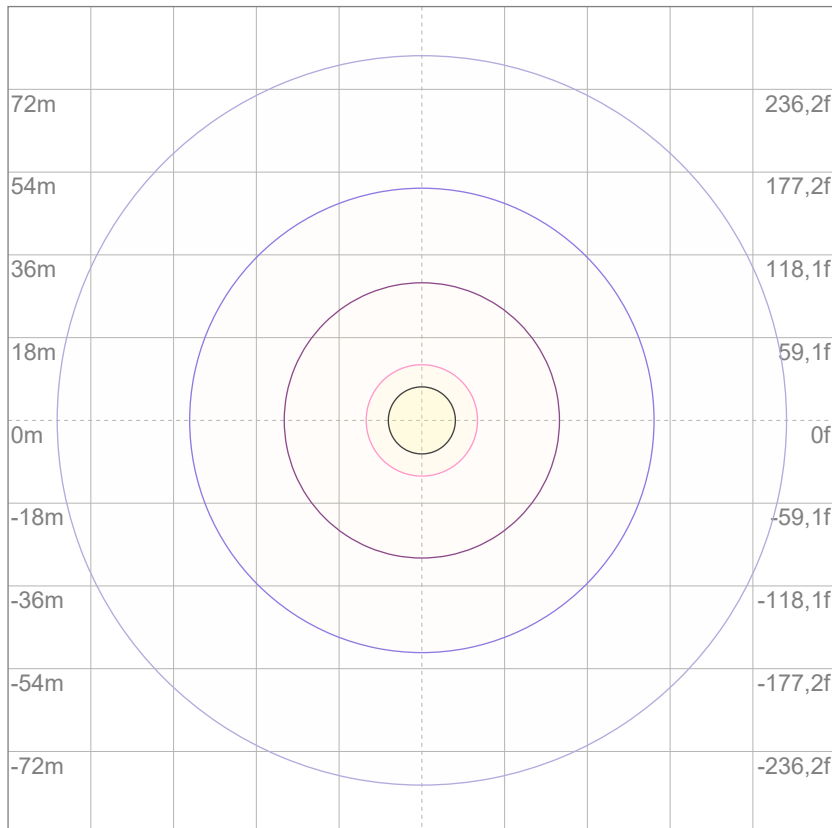
10%	1649 cd
20%	3298 cd
30%	4947 cd
40%	6596 cd
50%	8245 cd
60%	9894 cd
70%	11543 cd
80%	13192 cd

Conditions:

Number of c-planes: 4

Candela at center: 16490 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	4,95 lx
5%	8,25 lx
10%	16,5 lx
30%	49,5 lx
50%	82,5 lx

Conditions:

Number of c-planes: 4

Lux at center: 165 lx

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



Total lumen output:

27012 lm

Peak candela output:

15566 cd

Light quality:

CRI: 95,2

Color temperature:

3240 K

**PRODUCT NAME:**  
ECLPANELIP HARD 2X1

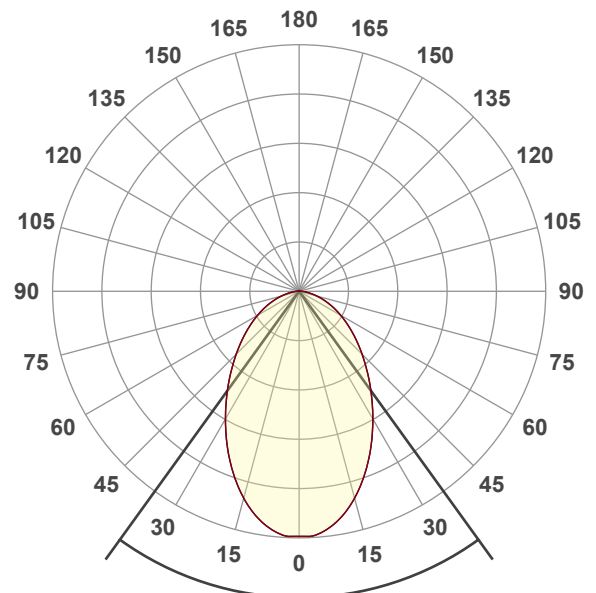
**MEASURAMENT CONDITIONS:**

Beam angle:  
MD Filter

Target:  
3200K - HQ

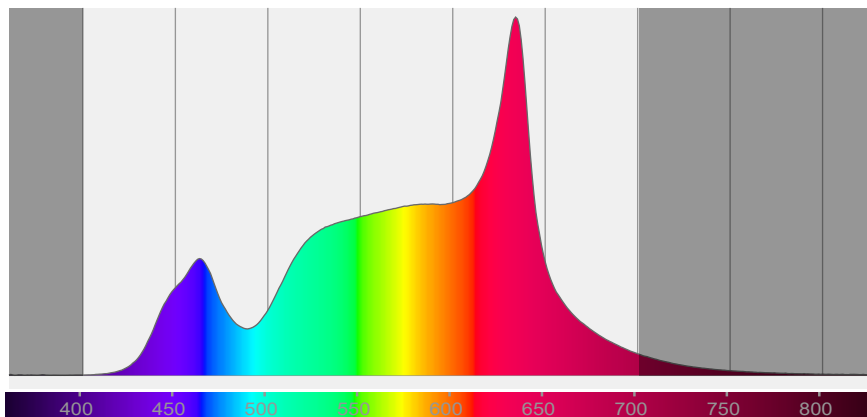
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 16:14:39

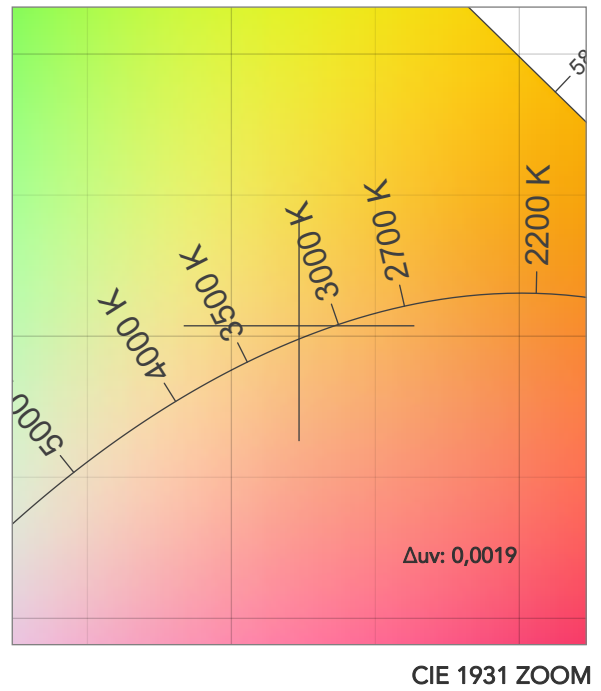
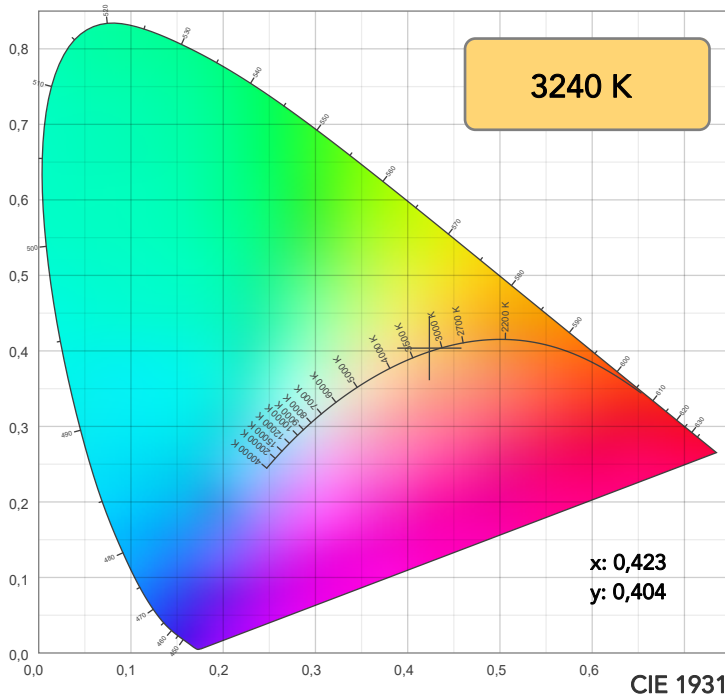


Beam angle 50%: 71,6°  
Field angle 10%: 142,8°  
Cut off angle 2.5%: 168,5°

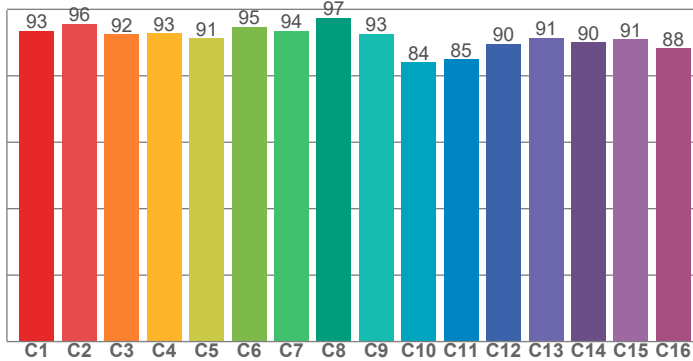
Spectra



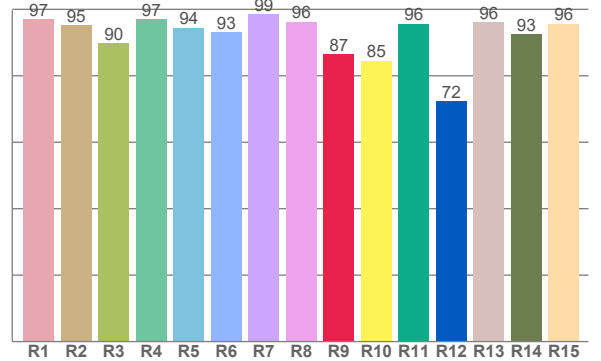
# COLOR DETAILS



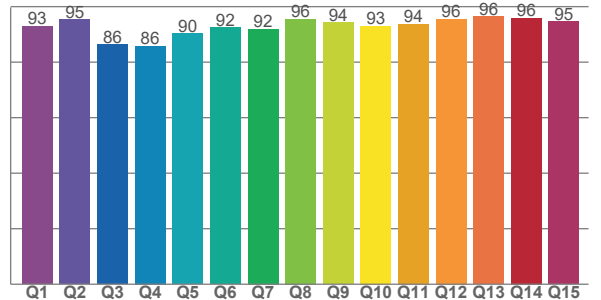
**TM30: 91,4**



**CRI: 95,2 (R1-R8)**



**CQS: 92,2**



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
97,0	95,2	89,8	96,9	94,4	93,2	98,6	96,3	86,5	84,6	95,7	72,3	96,2	92,6	95,6

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,5	95,7	92,5	92,8	91,2	94,8	93,5	97,4	92,7	84,0	85,0	89,6	91,5	90,1	90,9	88,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,9	95,3	86,4	85,9	90,3	92,4	92,0	95,6	94,2	93,1	93,8	95,5	96,4	95,9	94,6

## COLOR PARAMETERS

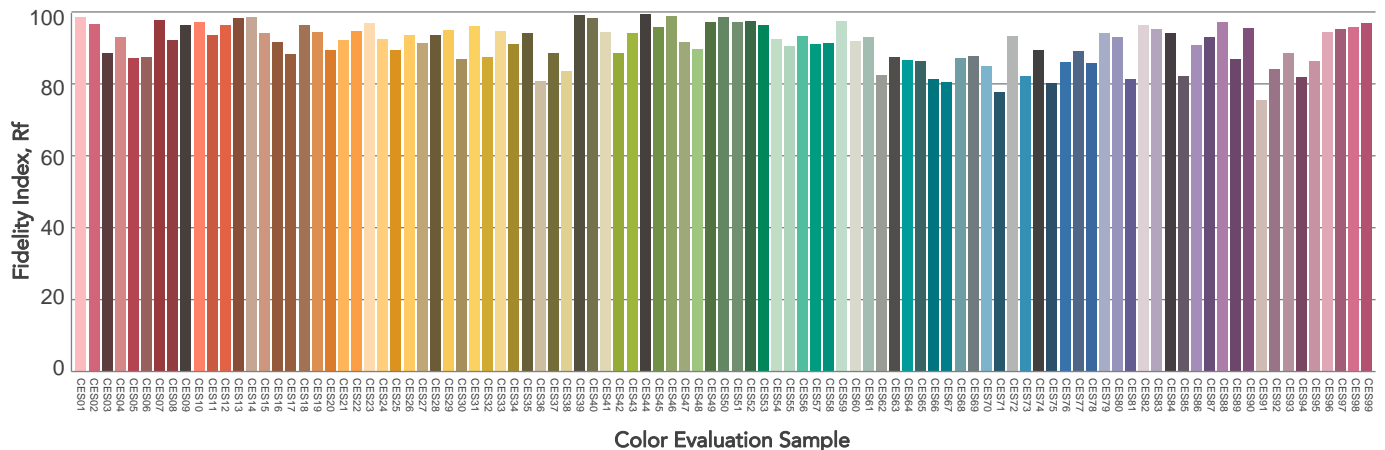
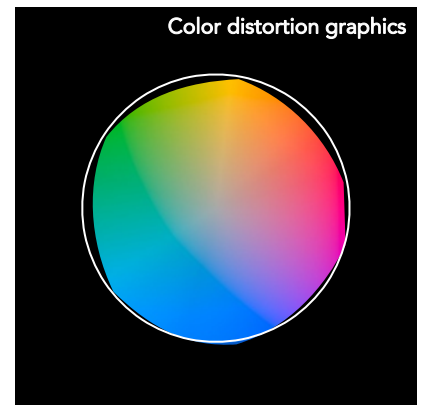
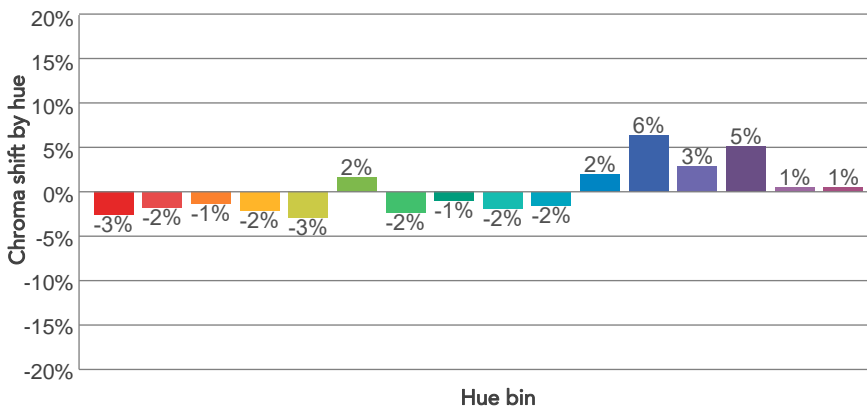
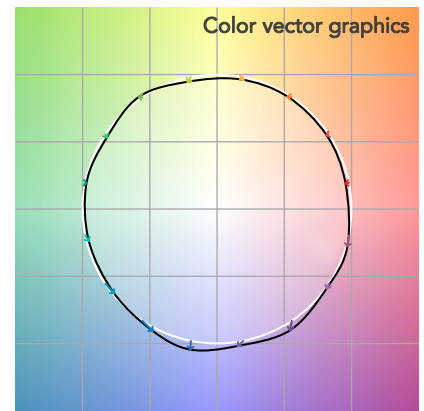
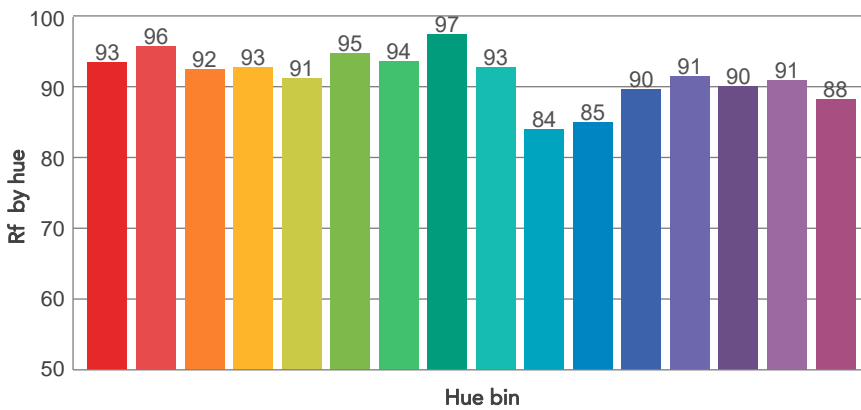
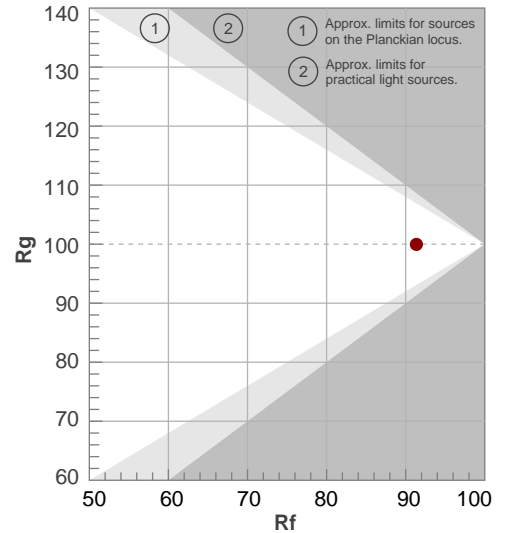
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3240 K	95,2	86,5	91,4	100,0	92,2	90	0,423	0,404	0,0019

# TM30 DETAILS

**Rf 91,4**  
Fidelity index Rf

**Rg 100,0**  
Gammut index

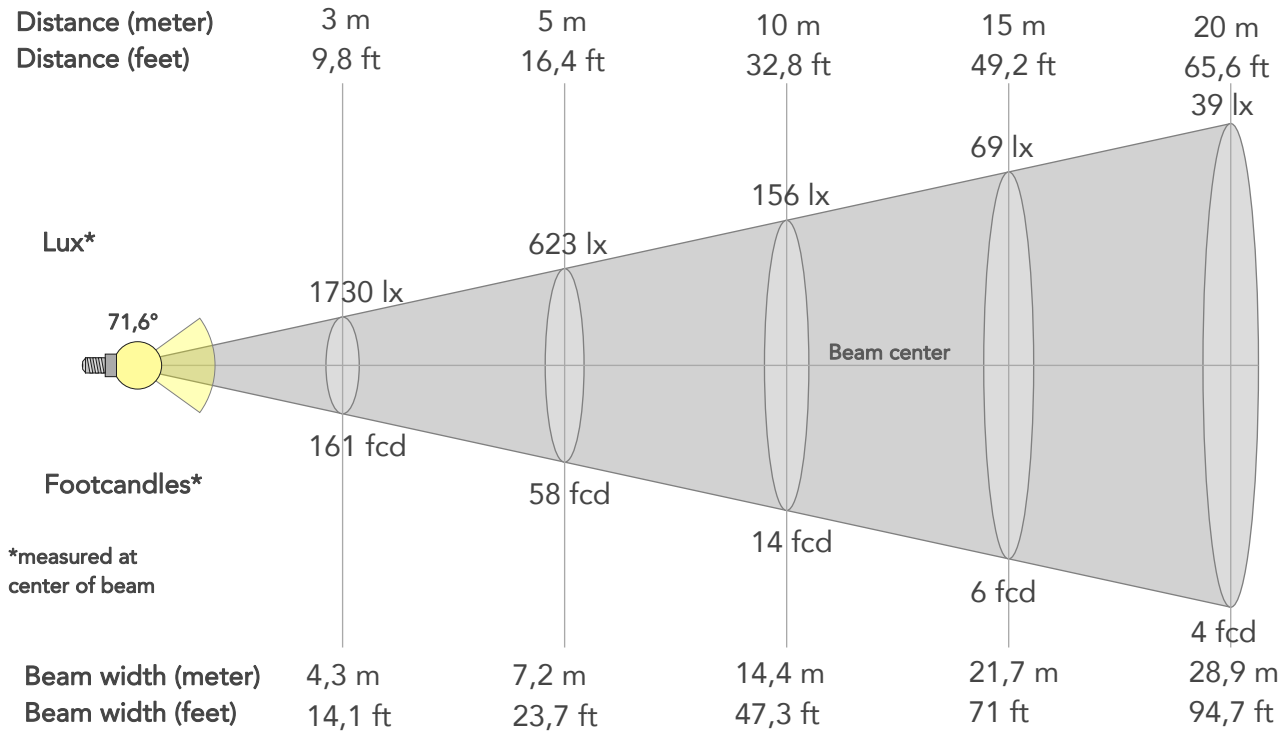
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	-3%	0%
2	96	-2%	1%
3	92	-1%	3%
4	93	-2%	2%
5	91	-3%	3%
6	95	2%	2%
7	94	-2%	1%
8	97	-1%	0%
9	93	-2%	5%
10	84	-2%	9%
11	85	2%	10%
12	90	6%	1%
13	91	3%	-5%
14	90	5%	-5%
15	91	1%	-4%
16	88	1%	-8%



# BEAM DETAILS



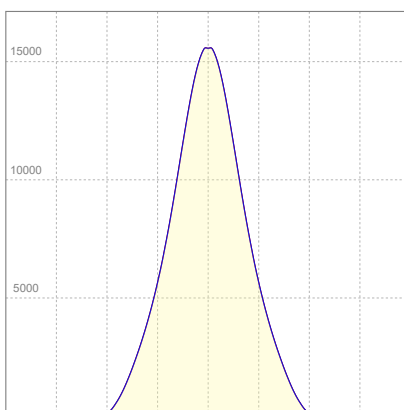
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
71,6°	142,8°	168,5°	85,2%	64,8%



## 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	1556lx	3892lx	1730lx	973lx	623lx	277lx	156lx	69lx	39lx	25lx	17lx	10lx	6lx
Footcand.	1446fcd	362fcd	161fcd	90fcd	58fcd	26fcd	14fcd	6fcd	4fcd	2fcd	2fcd	1fcd	1fcd
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

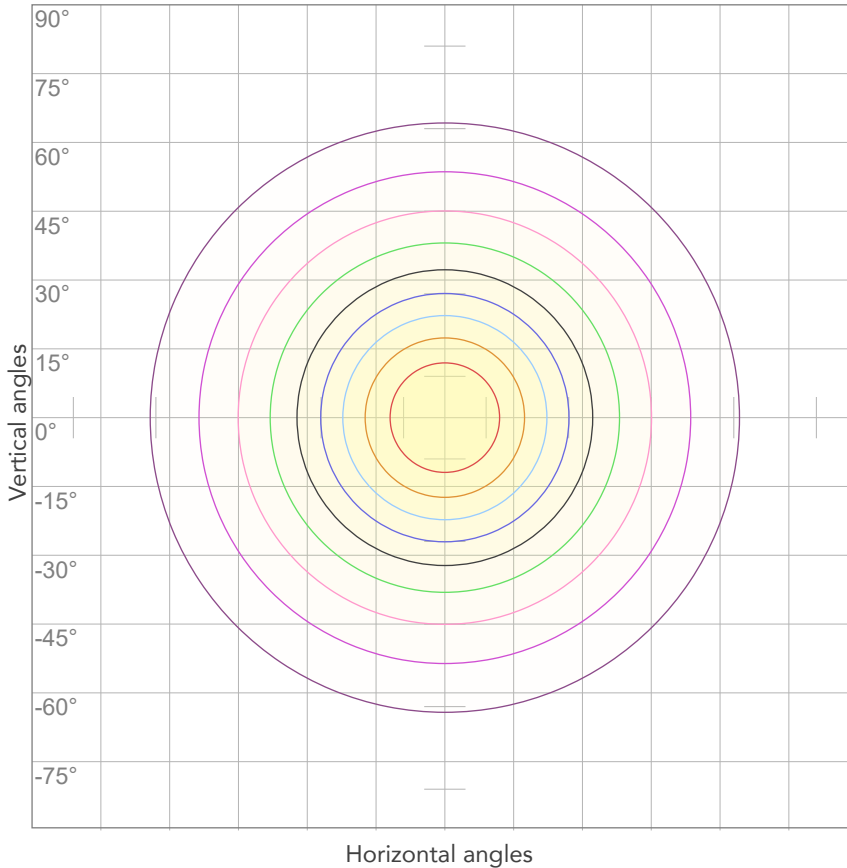


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	2,50A	560W	1,0	48lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



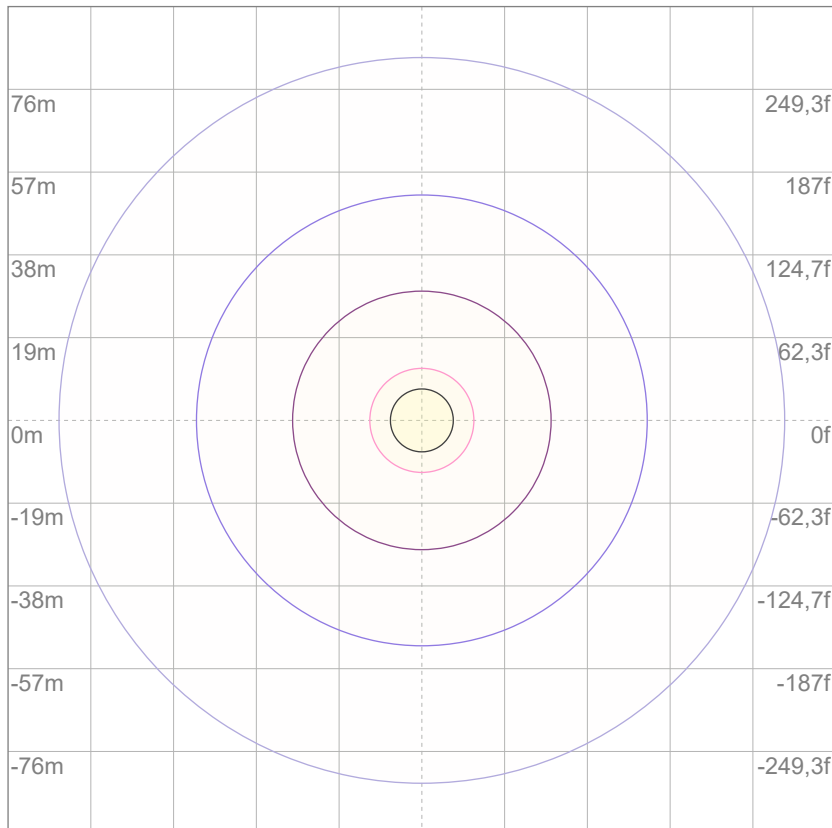
10%	1557 cd
20%	3113 cd
30%	4670 cd
40%	6227 cd
50%	7783 cd
60%	9340 cd
70%	10896 cd
80%	12453 cd

Conditions:

Number of c-planes: 4

Candela at center: 15566 cd

## ISO LUX DIAGRAM



3%	4,67 lx
5%	7,78 lx
10%	15,6 lx
30%	46,7 lx
50%	77,8 lx

Conditions:

Number of c-planes: 4

Lux at center: 156 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:

24895 lm

Peak candela output:

14131 cd

Light quality:

CRI: 96,2

Color temperature:

5640 K

**PRODUCT NAME:**

ECLPANELIP HARD 2X1

**MEASURAMENT CONDITIONS:**

Beam angle:

MD Filter

Target:

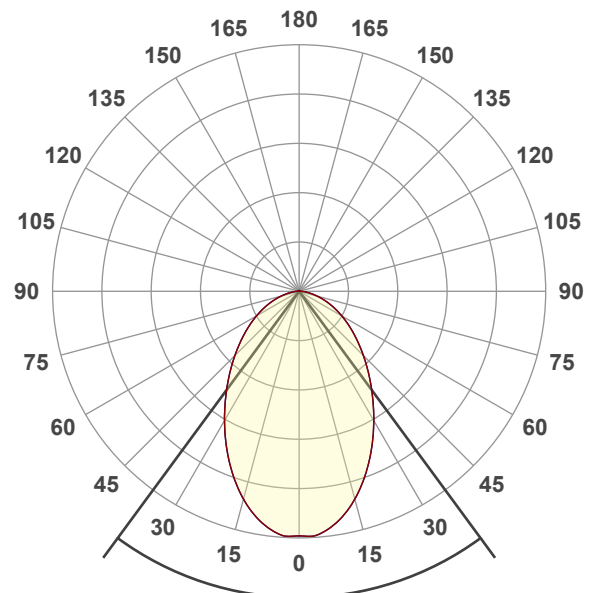
5600K - HQ

Operator:

Salvatore Giglio

Date and time:

09/09/2024 16:02:01

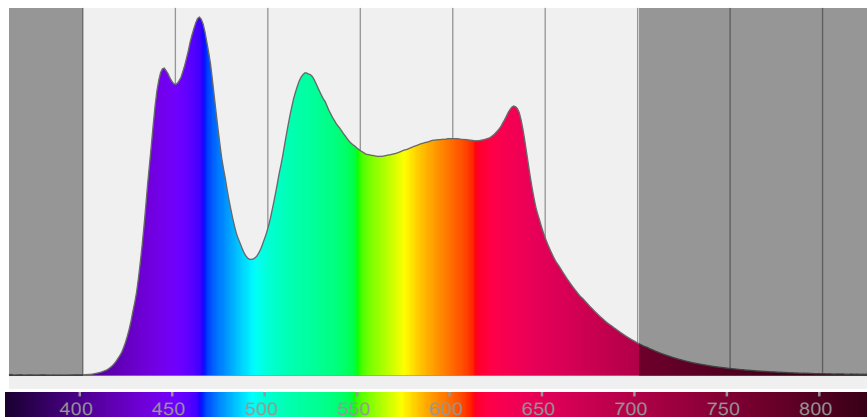


Beam angle 50%: 72,6°

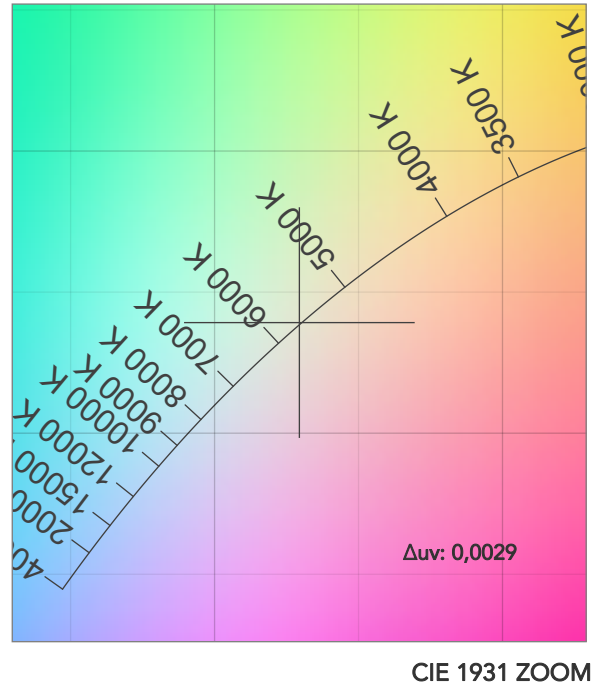
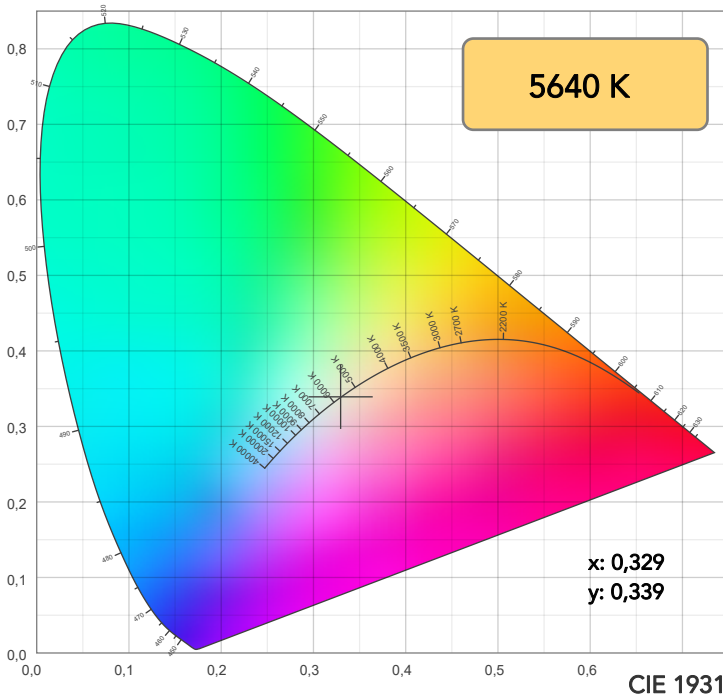
Field angle 10%: 143,5°

Cut off angle 2.5%: 168,5°

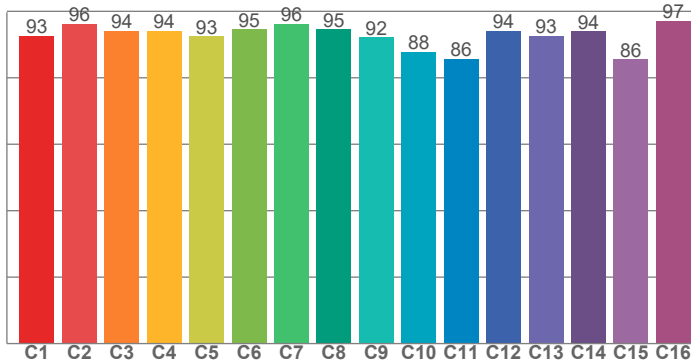
Spectra



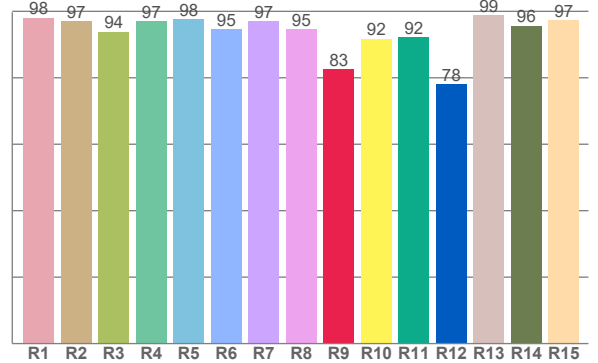
# COLOR DETAILS



**TM30: 92,5**



**CRI: 96,2 (R1-R8)**



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
98,0	97,0	93,8	97,0	97,7	94,6	97,0	94,5	82,7	91,8	92,3	78,0	98,9	95,7	97,3

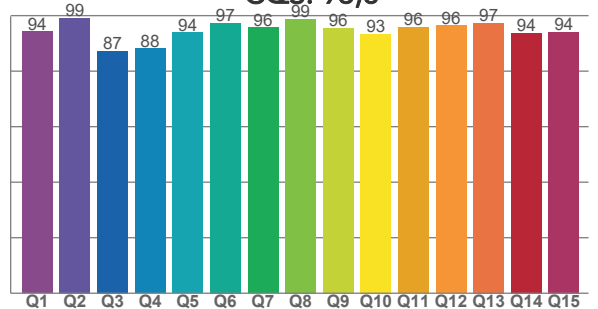
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,5	96,3	94,1	94,1	92,5	94,6	96,2	94,6	92,1	87,8	85,6	94,2	92,7	94,0	85,5	97,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,3	99,1	87,3	88,2	93,9	97,3	95,7	98,7	95,6	93,4	95,8	96,5	97,4	93,8	94,0

**CQS: 93,8**



## 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
5640 K	96,2	82,7	92,5	101,0	93,8	95	0,329	0,339	0,0029

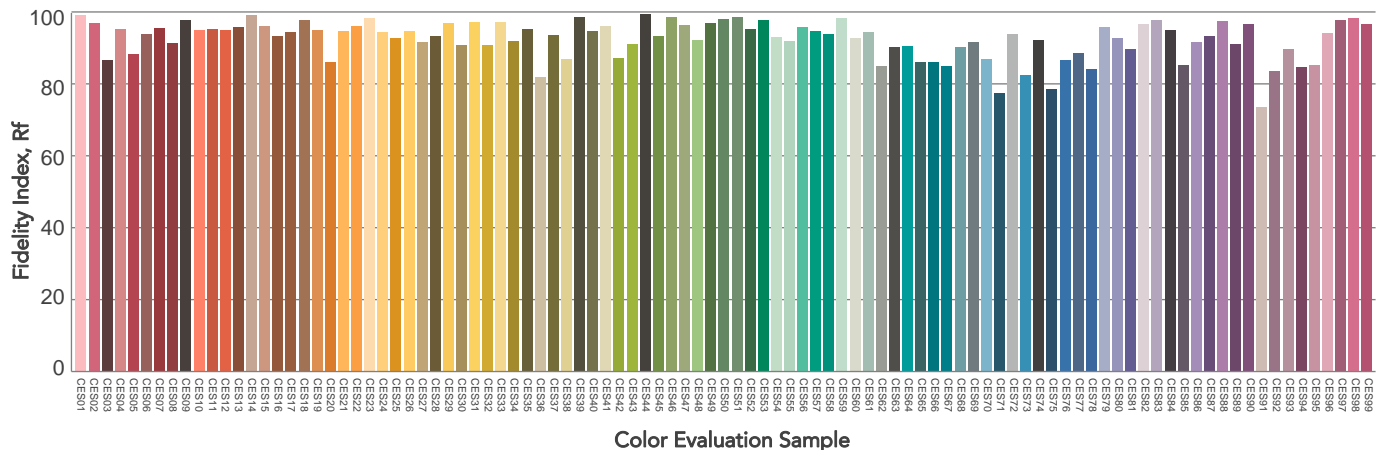
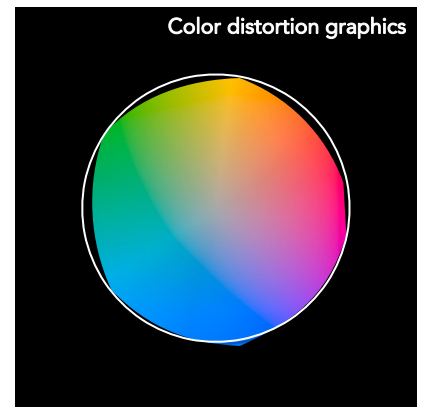
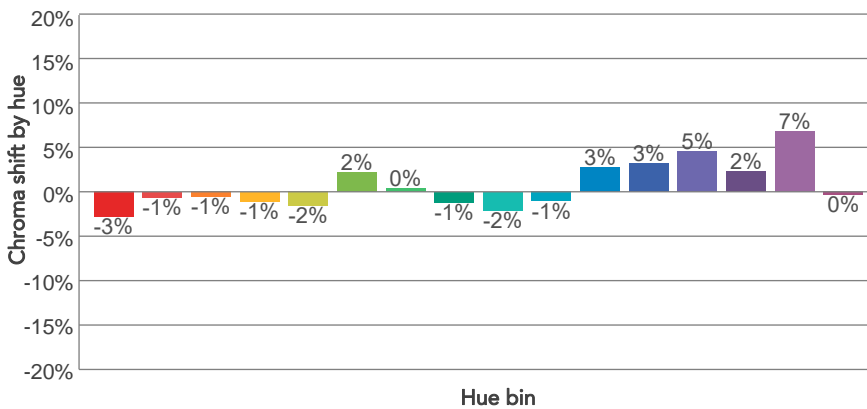
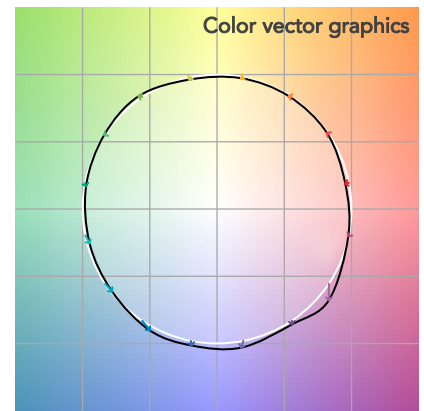
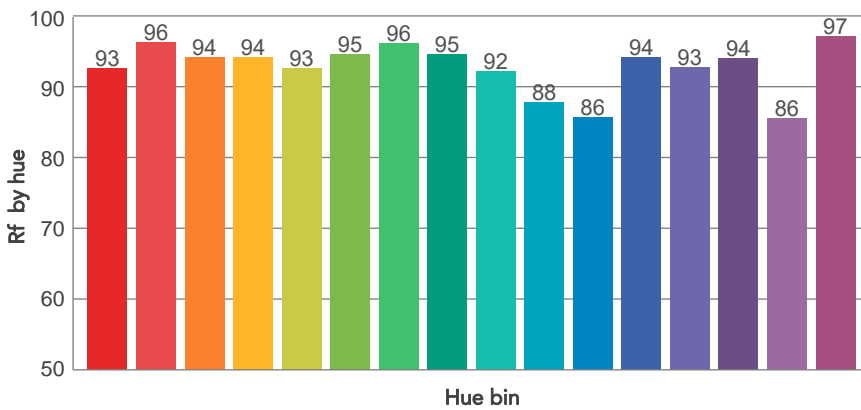
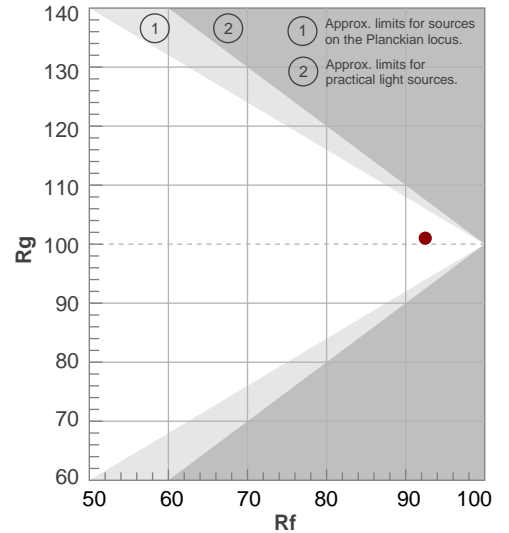


# TM30 DETAILS

**Rf 92,5**  
Fidelity index Rf

**Rg 101,0**  
Gammut index

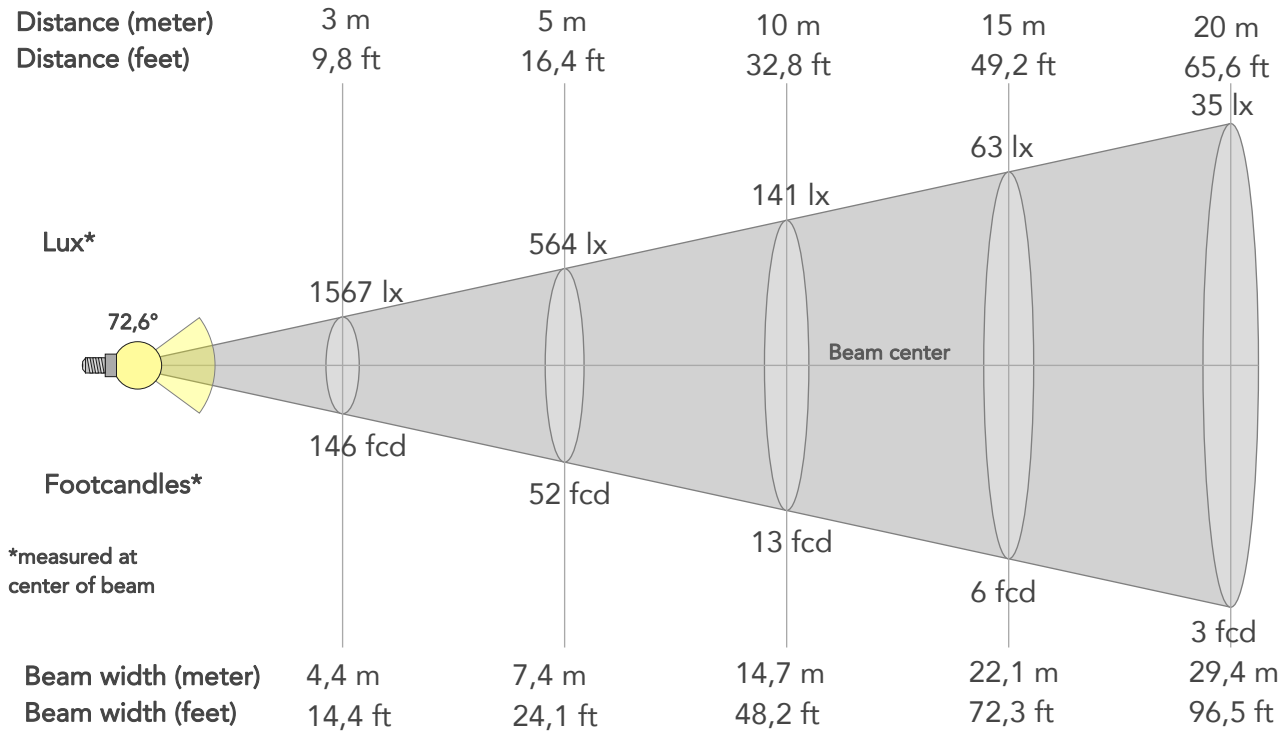
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	-3%	0%
2	96	-1%	2%
3	94	-1%	2%
4	94	-1%	1%
5	93	-2%	2%
6	95	2%	2%
7	96	0%	1%
8	95	-1%	2%
9	92	-2%	6%
10	88	-1%	8%
11	86	3%	8%
12	94	3%	1%
13	93	5%	-2%
14	94	2%	-1%
15	86	7%	-10%
16	97	0%	-1%



# BEAM DETAILS



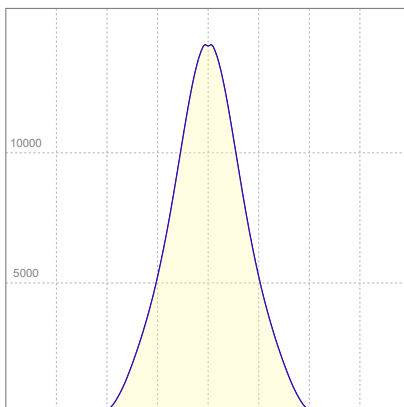
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
72,6°	143,5°	168,5°	85,1%	64,5%



## 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	14105lx	3526lx	1567lx	882lx	564lx	251lx	141lx	63lx	35lx	23lx	16lx	9lx	6lx
Footcand.	1310fcd	328fcd	146fcd	82fcd	52fcd	23fcd	13fcd	6fcd	3fcd	2fcd	1fcd	1fcd	1fcd
Beam wid.	1,5m	2,9m	4,4m	5,9m	7,4m	11m	14,7m	22,1m	29,4m	36,8m	44,1m	58,8m	73,5m
Beam wid.	4,9ft	9,7ft	14,4ft	19,3ft	24,1ft	36,2ft	48,2ft	72,3ft	96,5ft	120,6ft	144,7ft	192,9ft	241,1ft

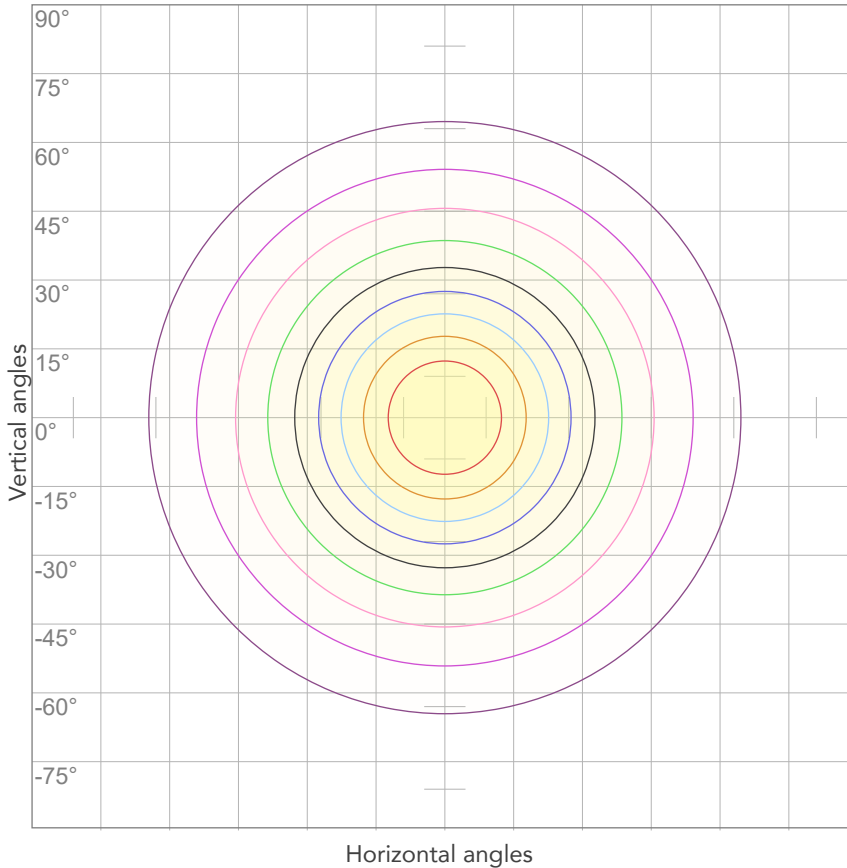
## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	2,63A	587W	1,0	42lm/W

## ISO CANDELA DIAGRAM



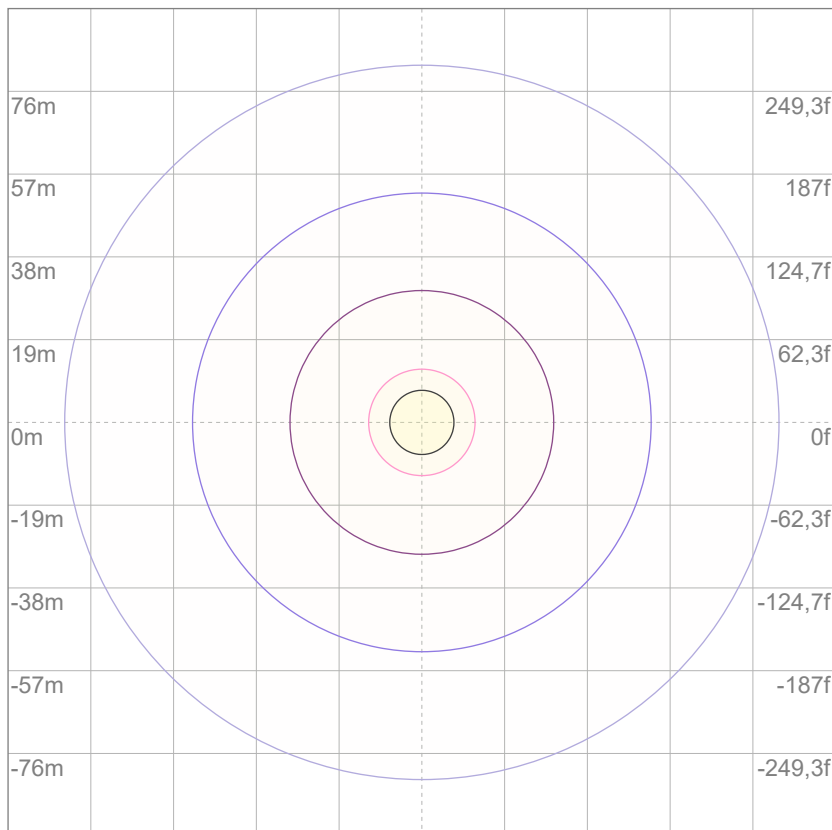
10%	1410 cd
20%	2821 cd
30%	4231 cd
40%	5642 cd
50%	7052 cd
60%	8463 cd
70%	9873 cd
80%	11284 cd

Conditions:

Number of c-planes: 4

Candela at center: 14105 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	4,23 lx
5%	7,05 lx
10%	14,1 lx
30%	42,3 lx
50%	70,5 lx

Conditions:

Number of c-planes: 4

Lux at center: 141 lx

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



Total lumen output:

20408 lm

Peak candela output:

7144 cd

Light quality:

CRI: 90,2

Color temperature:

3257 K

**PRODUCT NAME:**  
ECLPANELIP HARD 2X1

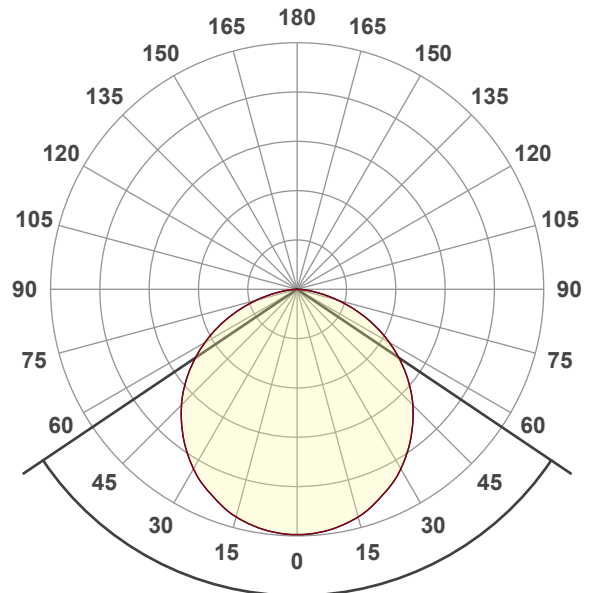
**MEASURAMENT CONDITIONS:**

Beam angle:  
HD Filter

Target:  
3200K - HB

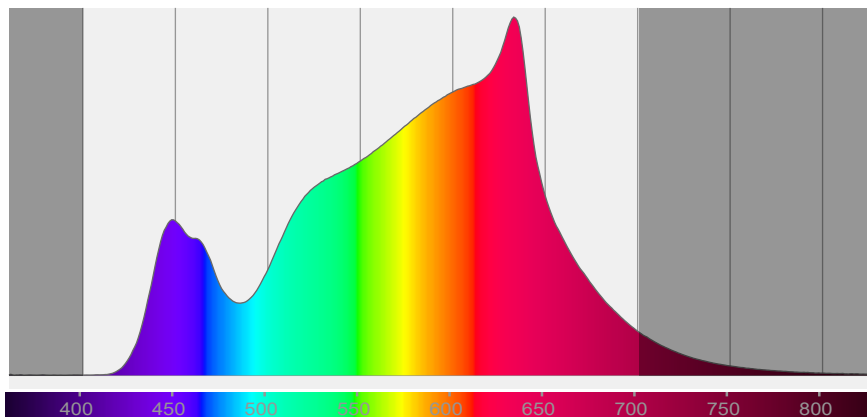
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 16:44:03

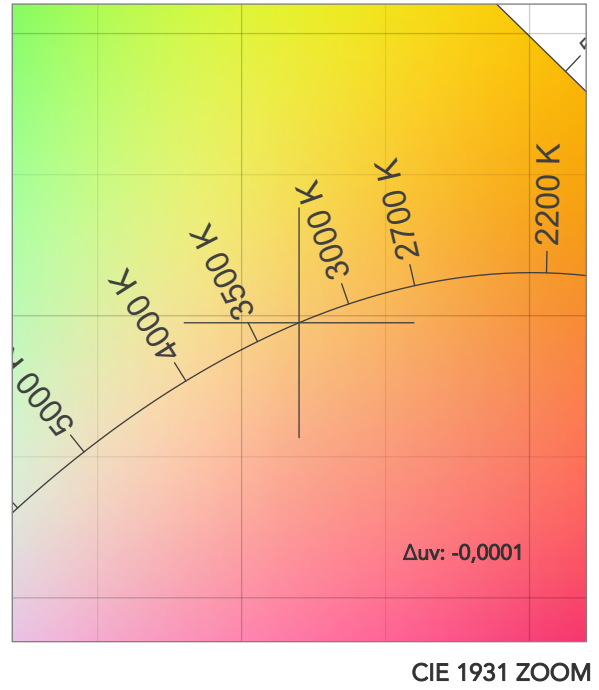
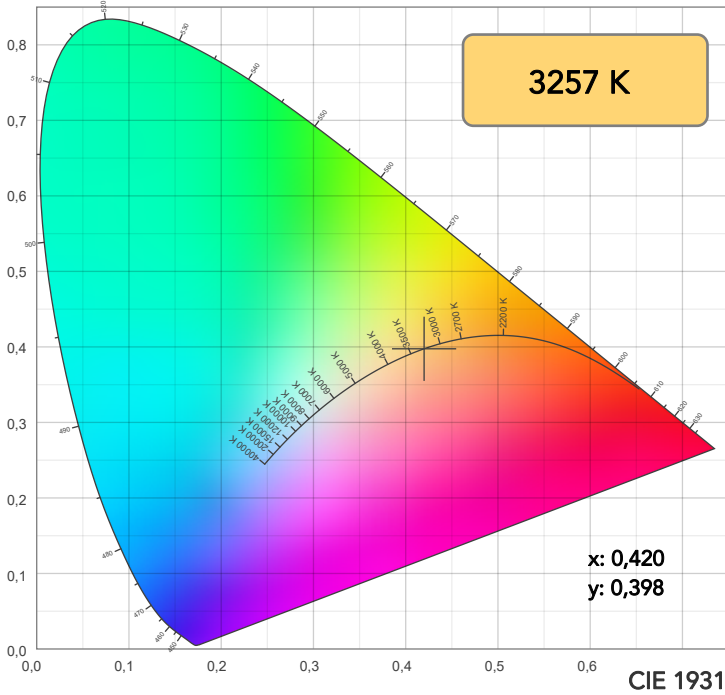


Beam angle 50%: 112,1°  
Field angle 10%: 159°  
Cut off angle 2.5%: 171,7°

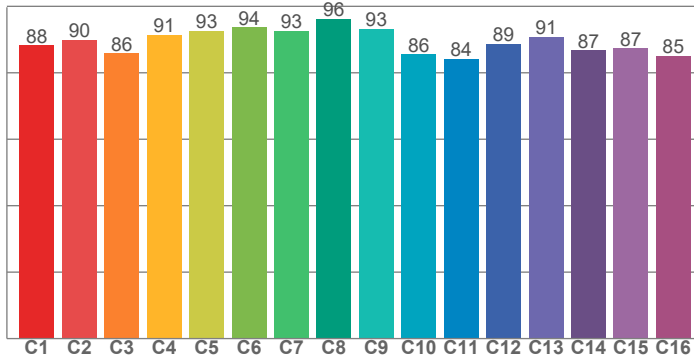
**Spectra**



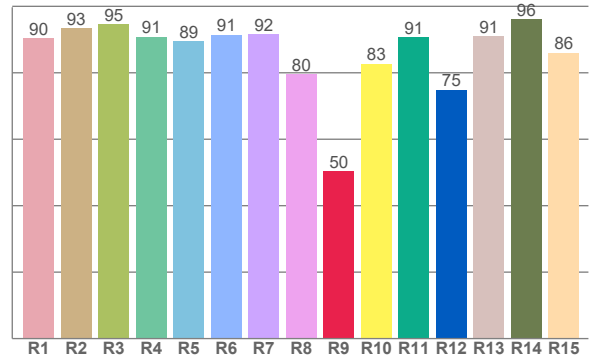
# COLOR DETAILS



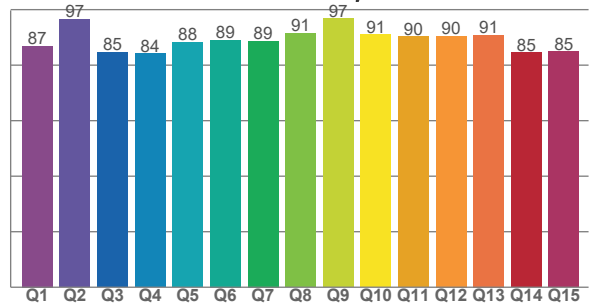
**TM30: 89,4**



**CRI: 90,2 (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
90,4	93,4	94,6	90,8	89,5	91,5	91,5	79,7	50,4	82,7	90,8	74,8	91,0	96,1	86,0

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
88,3	89,8	85,9	91,4	92,6	93,7	92,6	96,2	93,2	85,6	84,2	88,7	90,8	86,7	87,3	85,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
86,9	96,5	84,6	84,2	88,2	89,1	88,7	91,5	96,8	91,0	90,3	90,4	90,8	84,5	84,9

## COLOR PARAMETERS

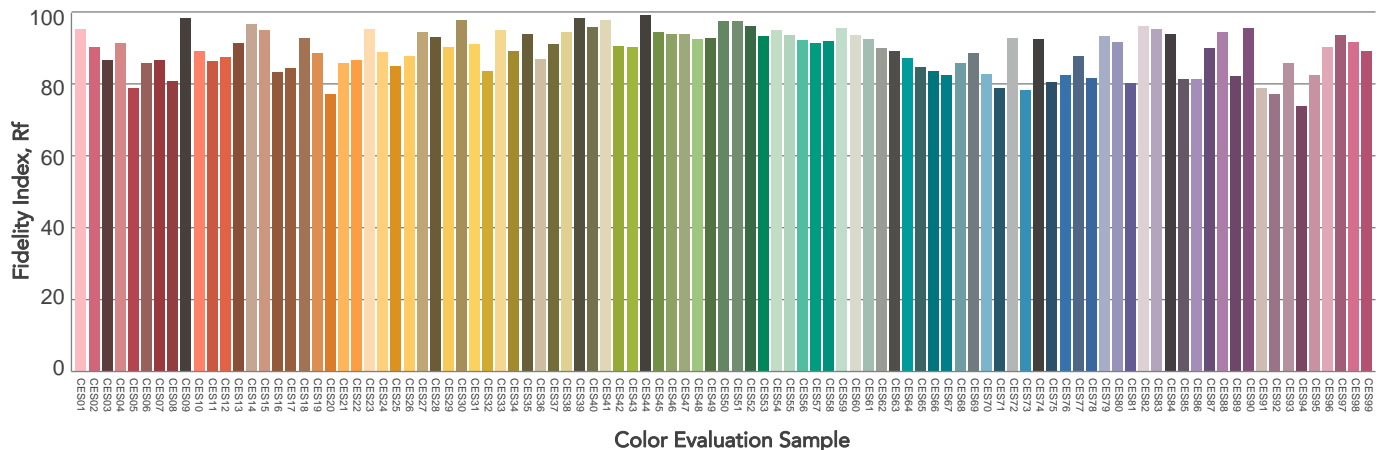
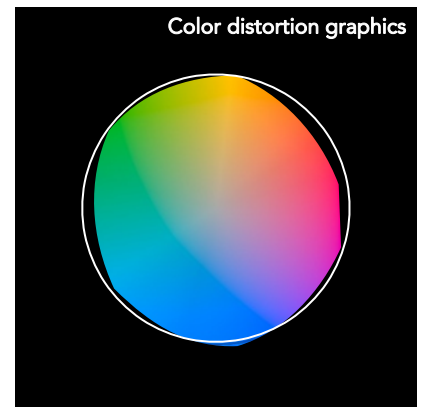
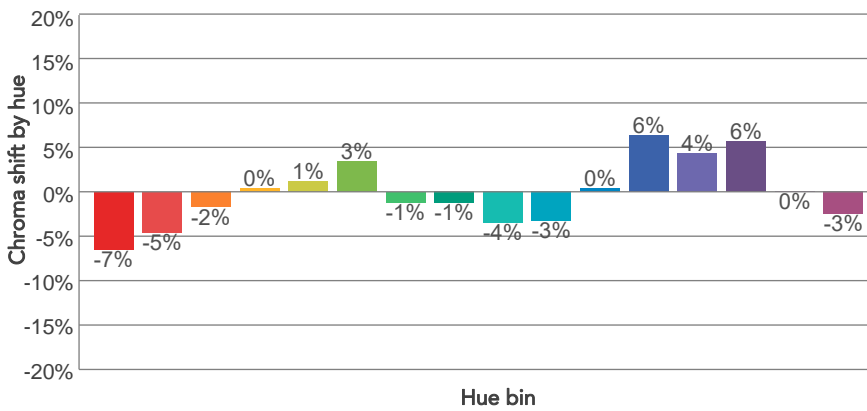
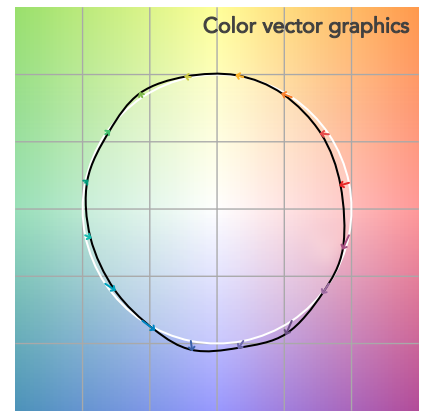
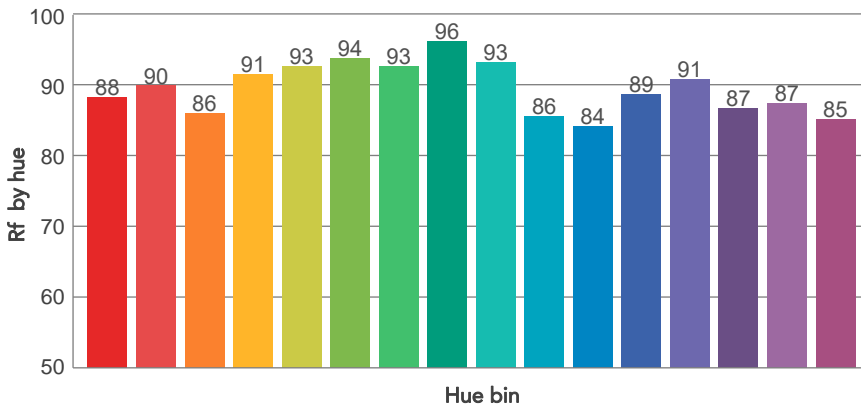
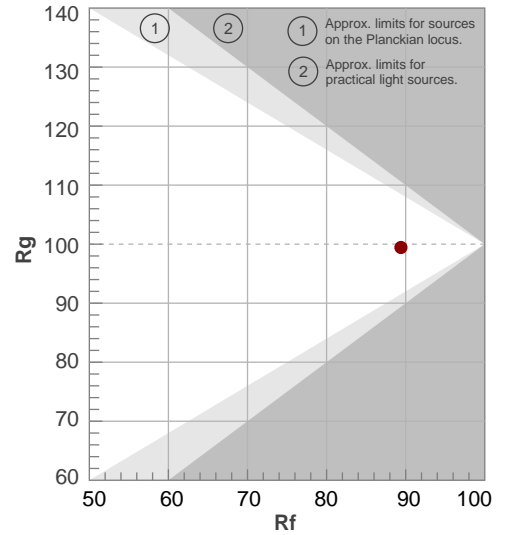
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3257 K	90,2	50,4	89,4	99,4	88,5	84	0,420	0,398	-0,0001

# TM30 DETAILS

**Rf 89,4**  
Fidelity index Rf

**Rg 99,4**  
Gammut index

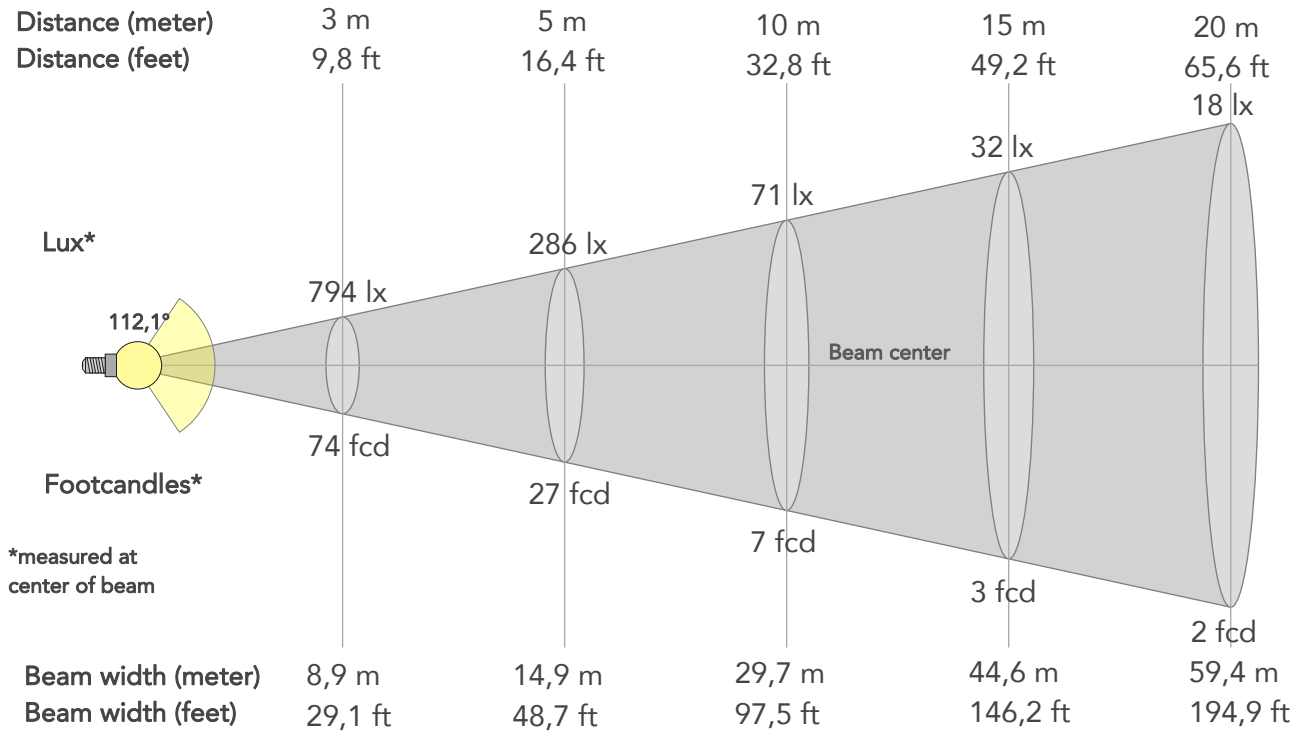
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	88	-7%	-1%
2	90	-5%	4%
3	86	-2%	7%
4	91	0%	5%
5	93	1%	4%
6	94	3%	0%
7	93	-1%	-4%
8	96	-1%	-2%
9	93	-4%	2%
10	86	-3%	8%
11	84	0%	11%
12	89	6%	2%
13	91	4%	-4%
14	87	6%	-9%
15	87	0%	-8%
16	85	-3%	-10%



# BEAM DETAILS



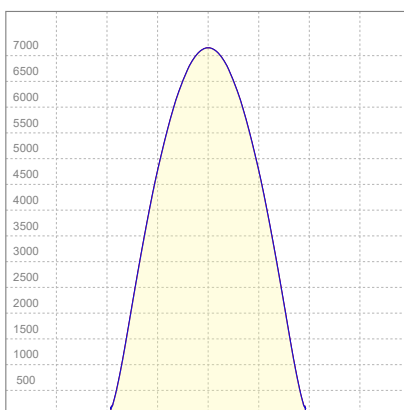
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
112,1°	159°	171,7°	78,7%	53,6%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	7144lx	1786lx	794lx	446lx	286lx	127lx	71lx	32lx	18lx	11lx	8lx	4lx	3lx
Footcand.	664fcd	166fcd	74fcd	41fcd	27fcd	12fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	3m	5,9m	8,9m	11,9m	14,9m	22,3m	29,7m	44,6m	59,4m	74,3m	89,1m	118,8m	148,6m
Beam wid.	9,8ft	19,6ft	29,1ft	38,9ft	48,7ft	73,1ft	97,5ft	146,2ft	194,9ft	243,6ft	292,4ft	389,8ft	487,3ft

## LINEAR DISTRIBUTION DIAGRAM

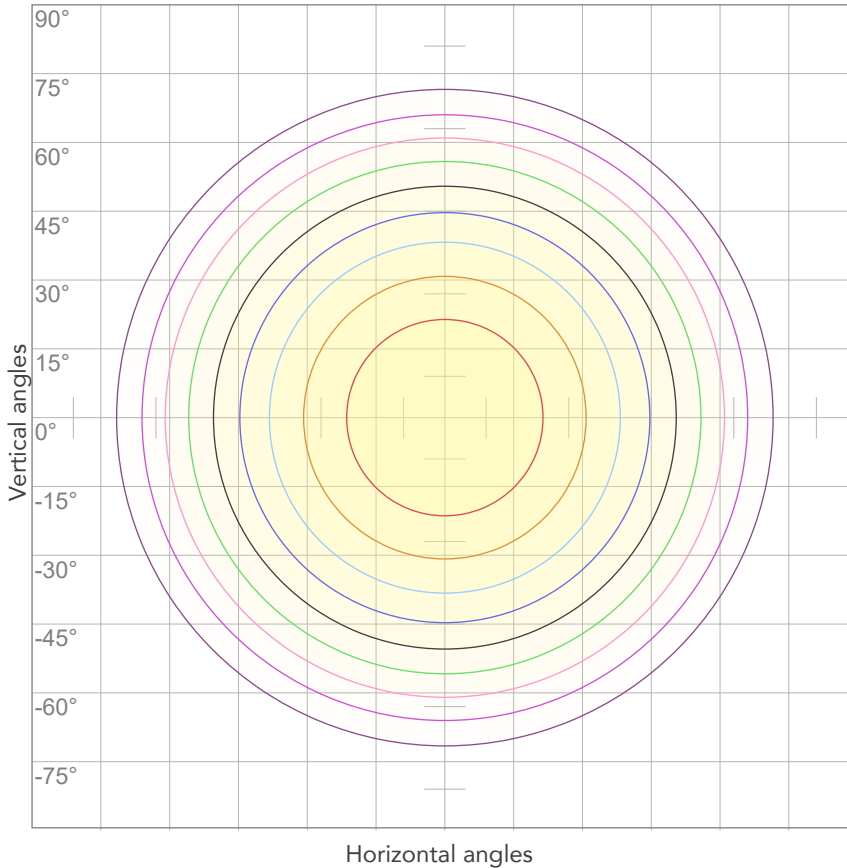


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	2,57A	573W	1,0	36lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



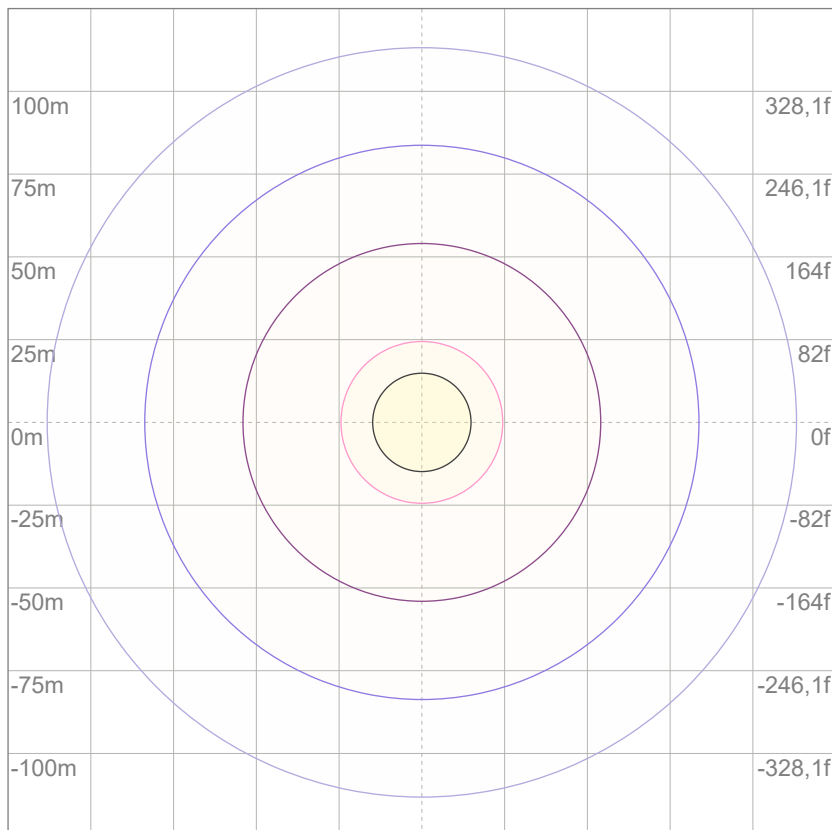
10%	714 cd
20%	1429 cd
30%	2143 cd
40%	2857 cd
50%	3572 cd
60%	4286 cd
70%	5001 cd
80%	5715 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 7144 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	2,14 lx
5%	3,57 lx
10%	7,14 lx
30%	21,4 lx
50%	35,7 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 71,4 lx

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





Total lumen output:

21371 lm

Peak candela output:

7467 cd

Light quality:

CRI: 82,8

Color temperature:

5648 K

**PRODUCT NAME:**

ECLPANELIP HARD 2X1

**MEASURAMENT CONDITIONS:**

Beam angle:

HD Filter

Target:

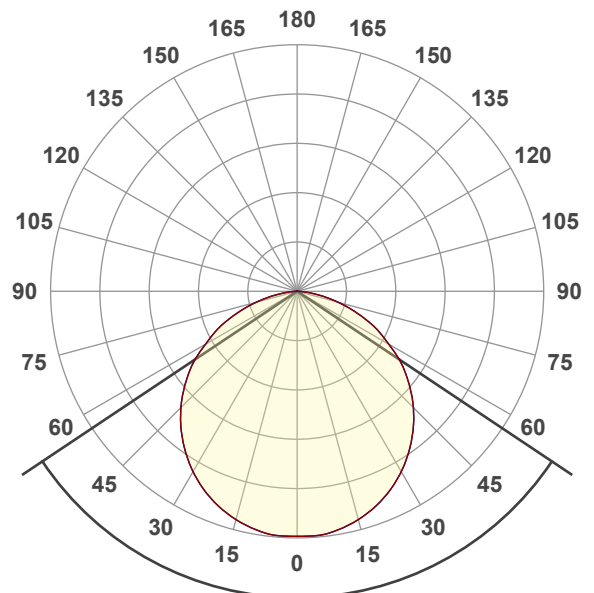
5600K - HB

Operator:

Salvatore Giglio

Date and time:

09/09/2024 16:42:26

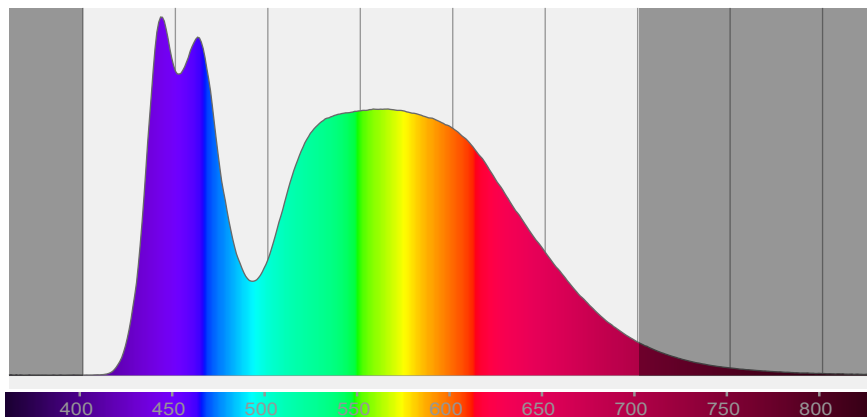


Beam angle 50%: 112,5°

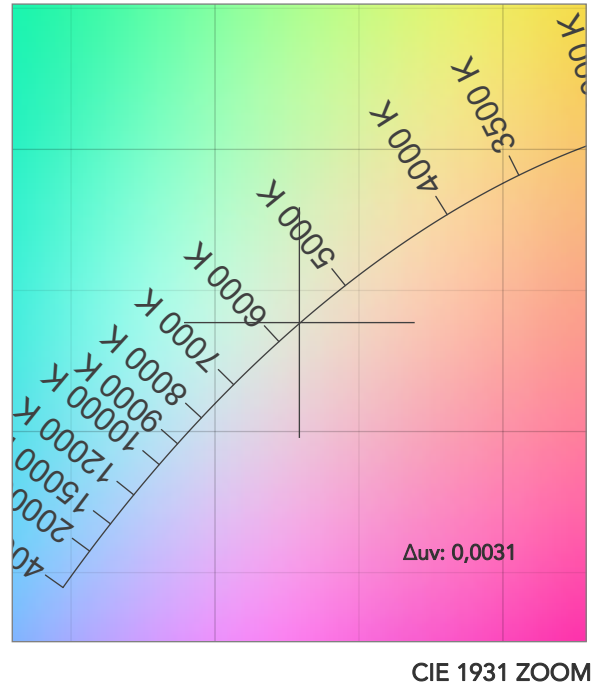
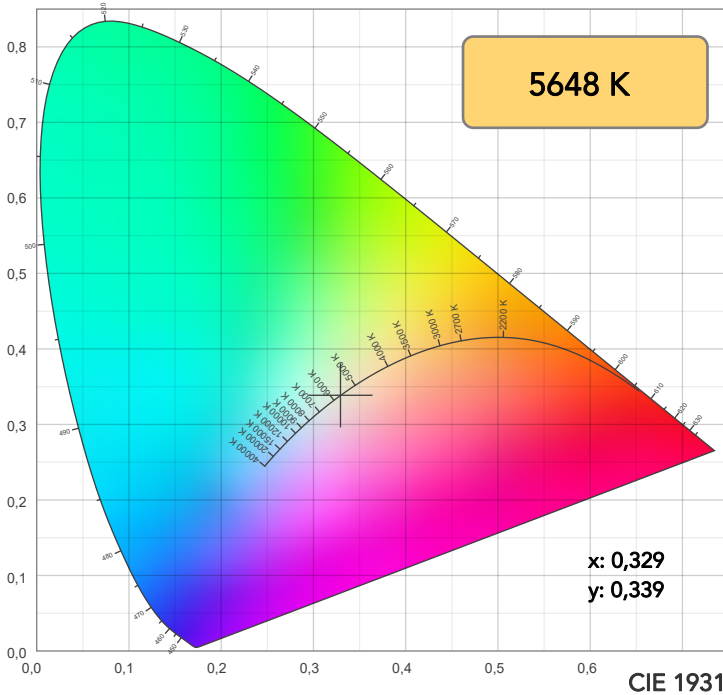
Field angle 10%: 159°

Cut off angle 2.5%: 171,1°

**Spectra**

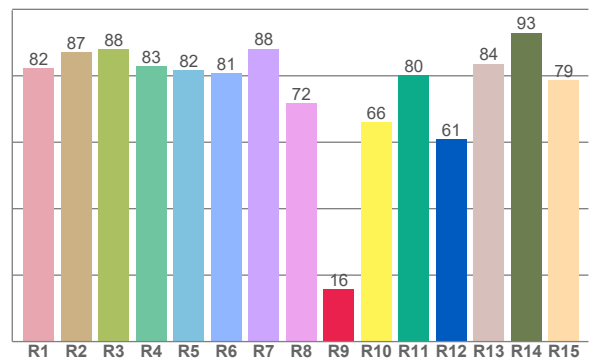
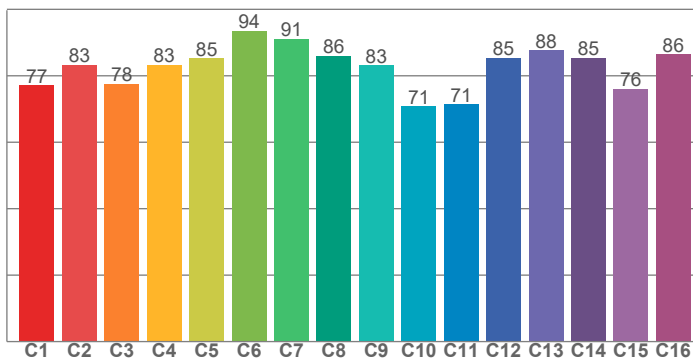


# COLOR DETAILS



TM30: 82,4

CRI: 82,8 (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
82,3	87,0	87,9	82,9	81,7	80,7	88,2	71,8	15,7	66,1	80,1	60,9	83,6	92,9	78,6

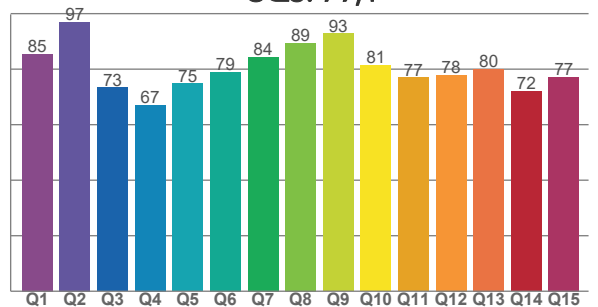
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77,1	83,2	77,5	83,3	85,2	93,6	91,1	86,0	83,1	70,8	71,3	85,4	87,6	85,4	76,1	86,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85,4	97,0	73,4	67,2	74,8	79,0	84,4	89,5	92,8	81,4	77,0	78,0	80,0	72,0	77,2

CQS: 79,1



## COLOR PARAMETERS

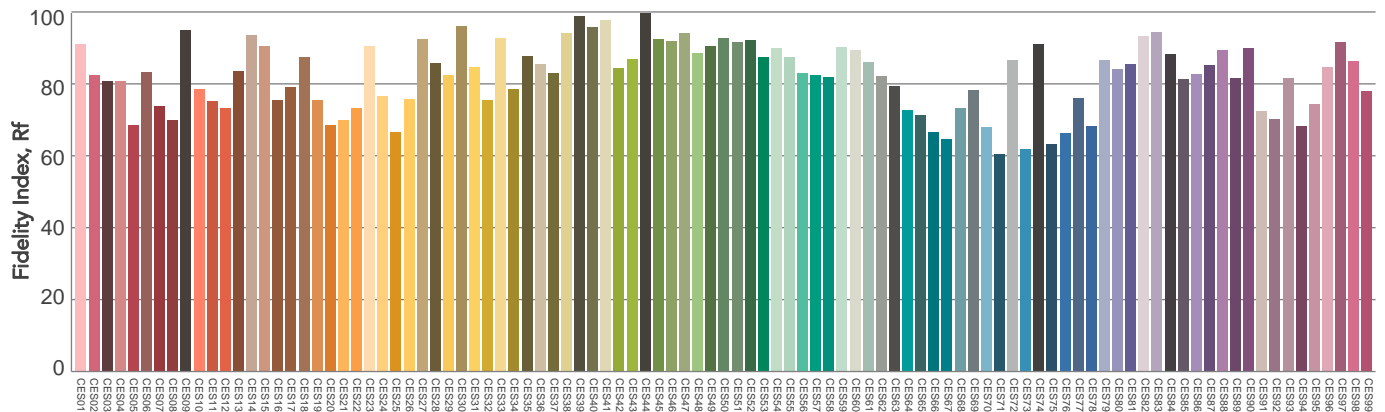
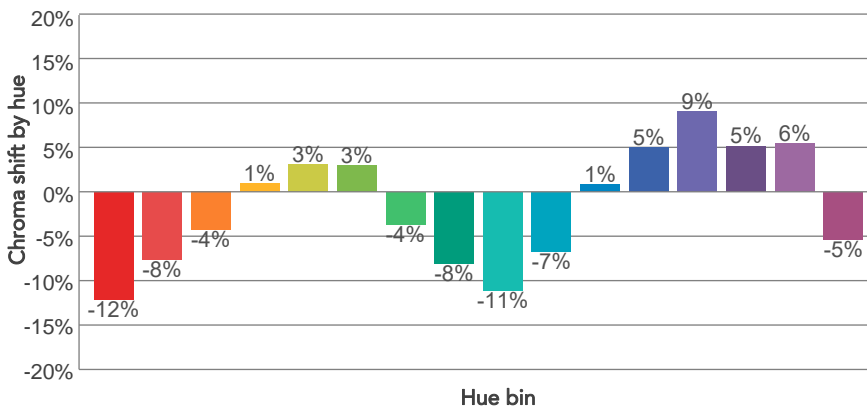
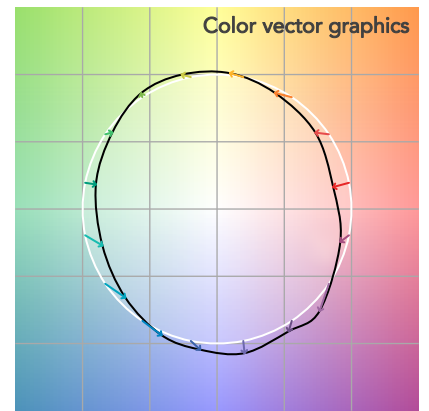
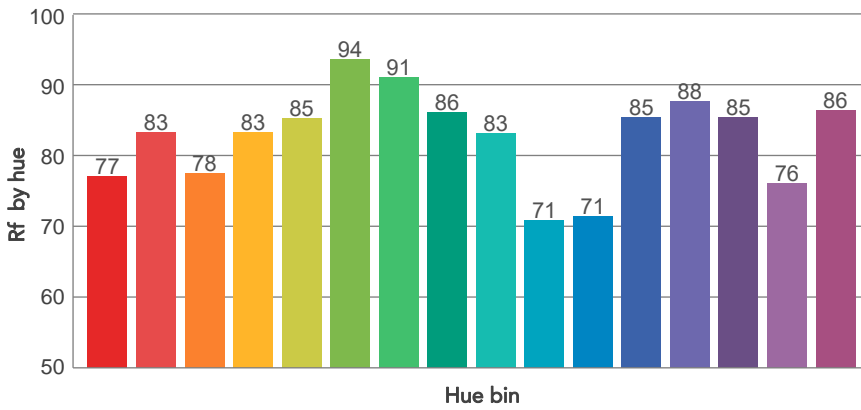
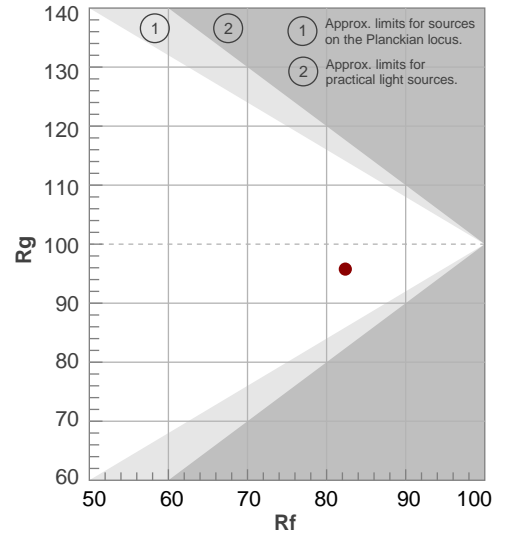
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
5648 K	82,8	15,7	82,4	95,8	79,1	72	0,329	0,339	0,0031

# TM30 DETAILS

**Rf 82,4**  
Fidelity index Rf

**Rg 95,8**  
Gammut index

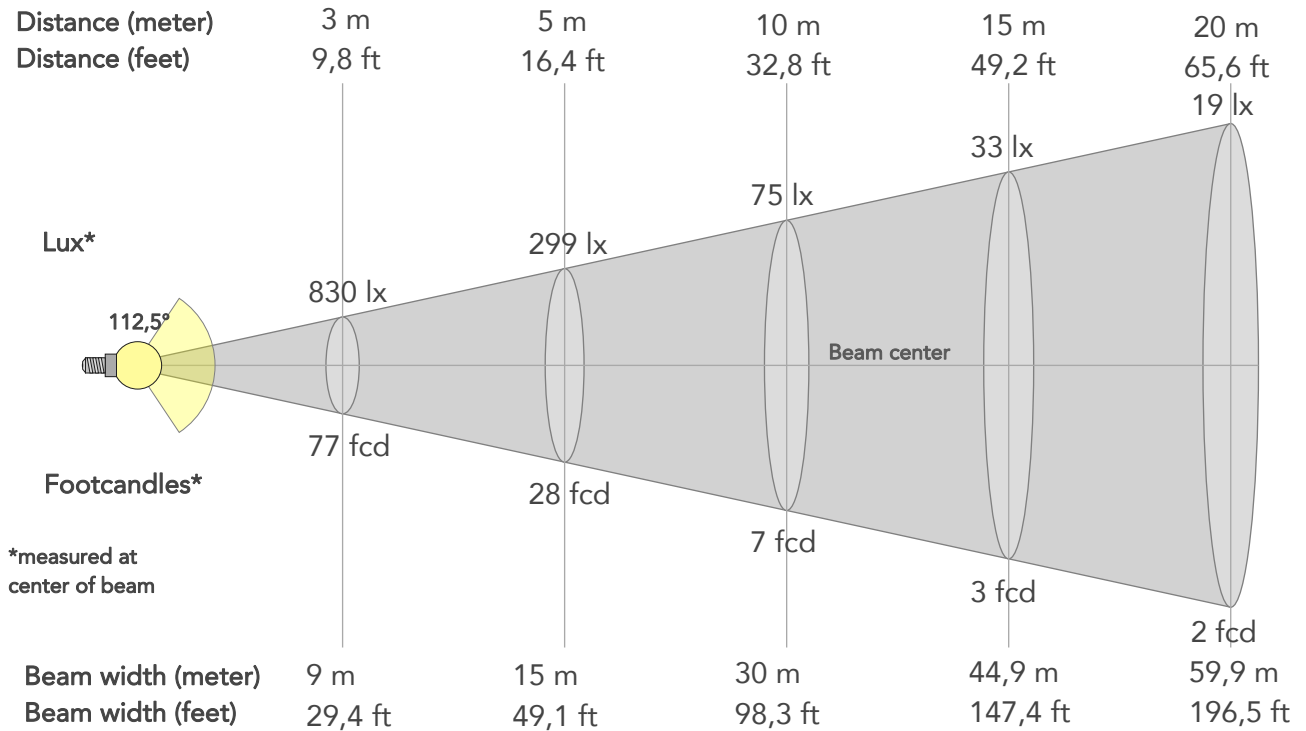
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	77	-12%	-1%
2	83	-8%	7%
3	78	-4%	12%
4	83	1%	10%
5	85	3%	6%
6	94	3%	-1%
7	91	-4%	-4%
8	86	-8%	0%
9	83	-11%	10%
10	71	-7%	17%
11	71	1%	18%
12	85	5%	8%
13	88	9%	-1%
14	85	5%	-6%
15	76	6%	-21%
16	86	-5%	-6%



# BEAM DETAILS



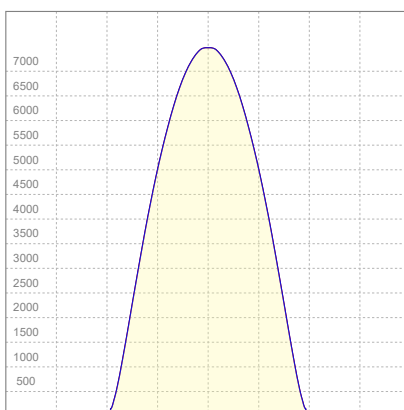
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
112,5°	159°	171,1°	79,2%	53,7%



## 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	7467lx	1867lx	830lx	467lx	299lx	133lx	75lx	33lx	19lx	12lx	8lx	5lx	3lx
Footcand.	694fcd	173fcd	77fcd	43fcd	28fcd	12fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	3m	6m	9m	12m	15m	22,5m	30m	44,9m	59,9m	74,9m	89,9m	119,8m	149,8m
Beam wid.	9,9ft	19,8ft	29,4ft	39,2ft	49,1ft	73,7ft	98,3ft	147,4ft	196,5ft	245,6ft	294,8ft	393ft	491,3ft

## LINEAR DISTRIBUTION DIAGRAM

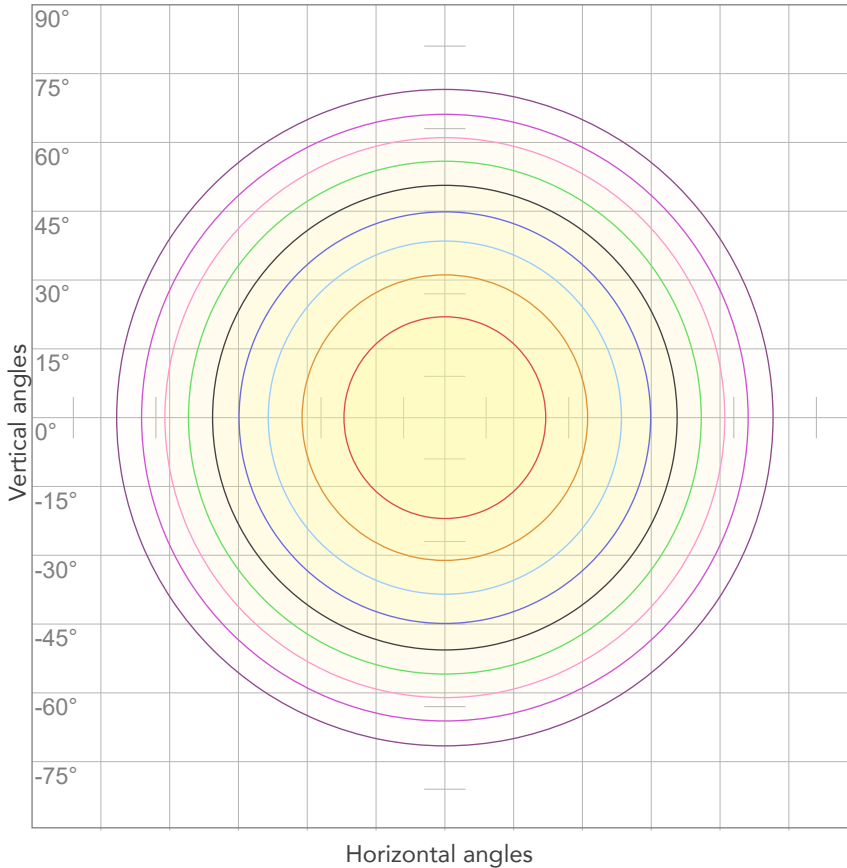


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	2,58A	576W	1,0	37lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



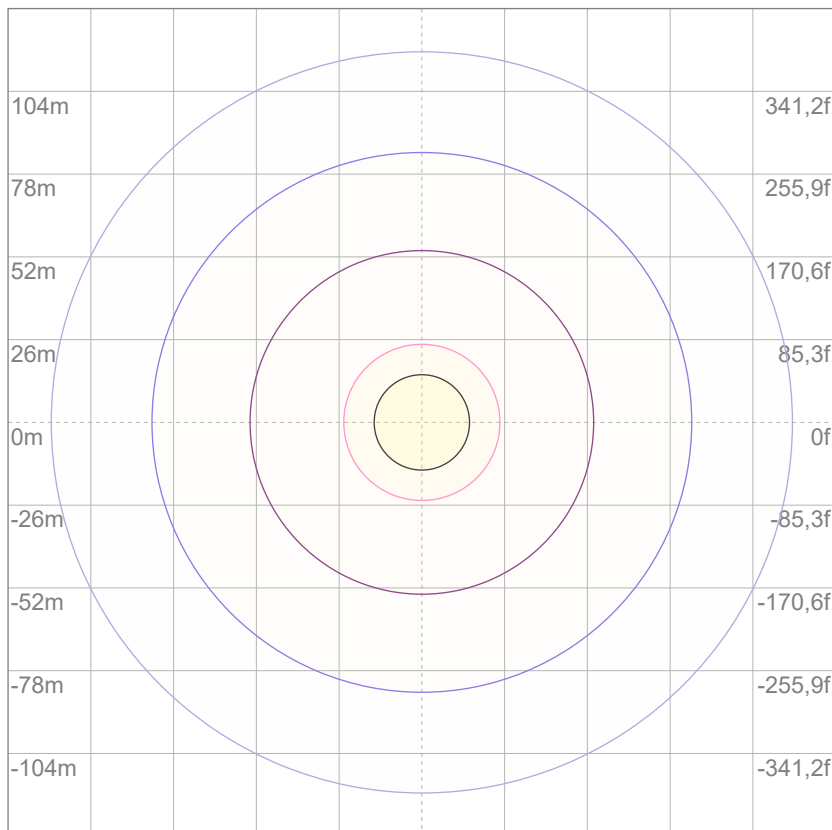
10%	747 cd
20%	1493 cd
30%	2240 cd
40%	2987 cd
50%	3734 cd
60%	4480 cd
70%	5227 cd
80%	5974 cd

Conditions:

Number of c-planes: 4

Candela at center: 7467 cd

## ISO LUX DIAGRAM



3%	2,24 lx
5%	3,73 lx
10%	7,47 lx
30%	22,4 lx
50%	37,3 lx

Conditions:

Number of c-planes: 4

Lux at center: 74,7 lx

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



Total lumen output:

19834 lm

Peak candela output:

6937 cd

Light quality:

CRI: 97,0

Color temperature:

3258 K

**PRODUCT NAME:**  
ECLPANELIP HARD 2X1

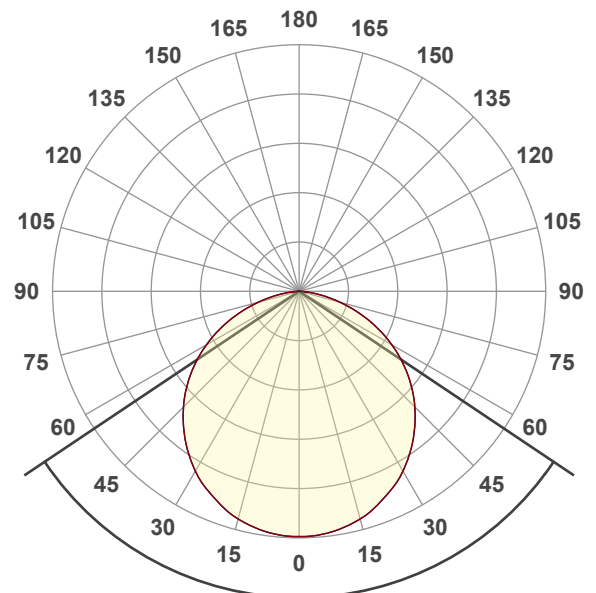
**MEASURAMENT CONDITIONS:**

Beam angle:  
HD Filter

Target:  
3200K - HQ

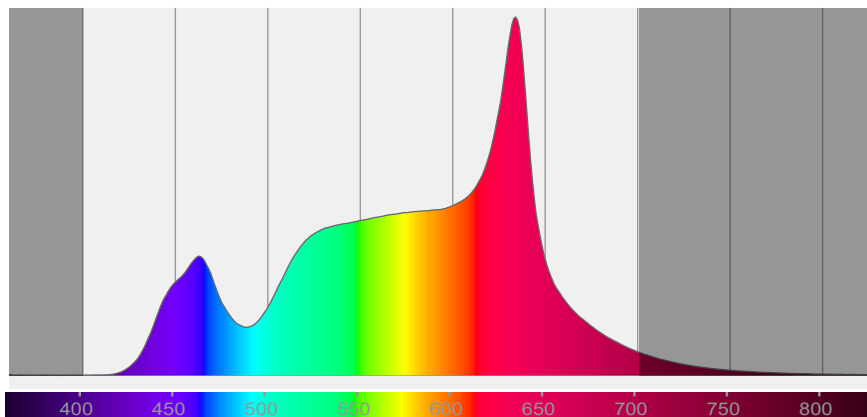
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 16:22:50

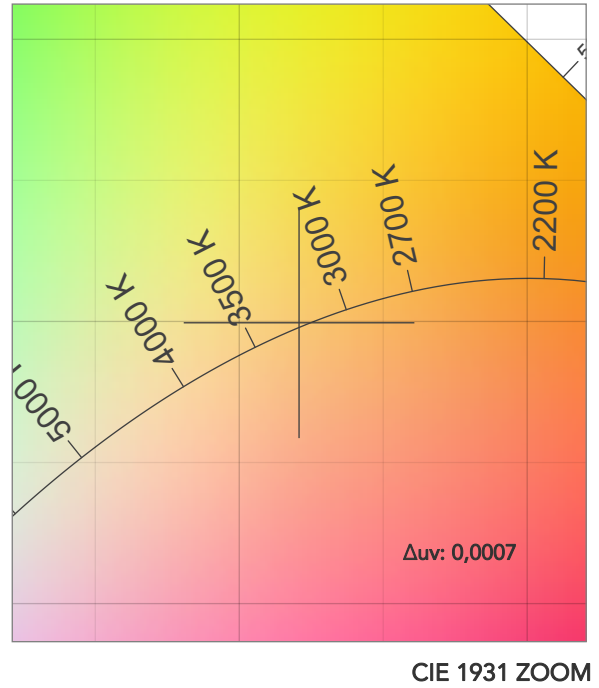
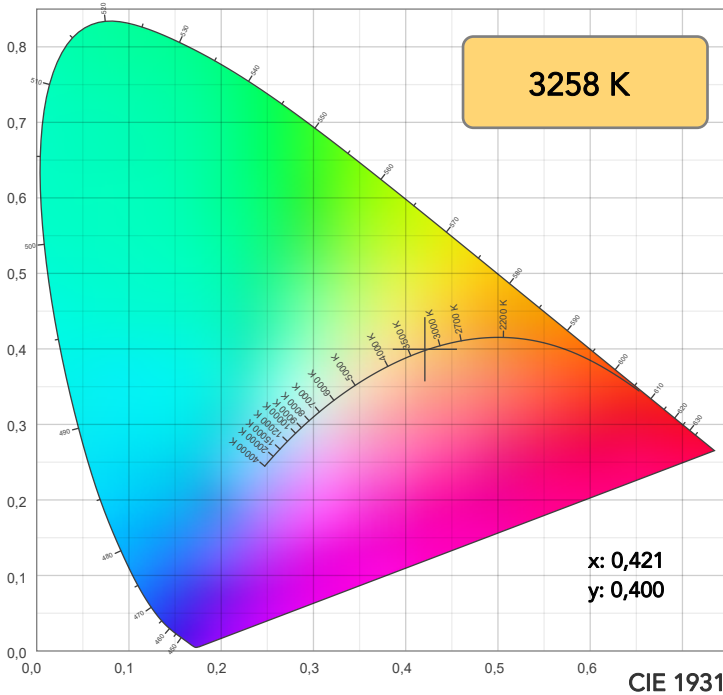


Beam angle 50%: 112,4°  
Field angle 10%: 159,1°  
Cut off angle 2.5%: 171,2°

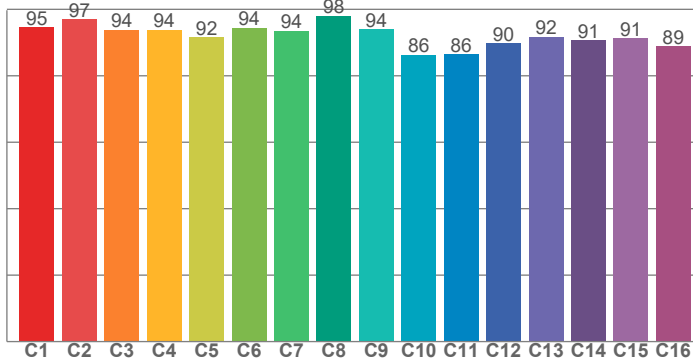
Spectra



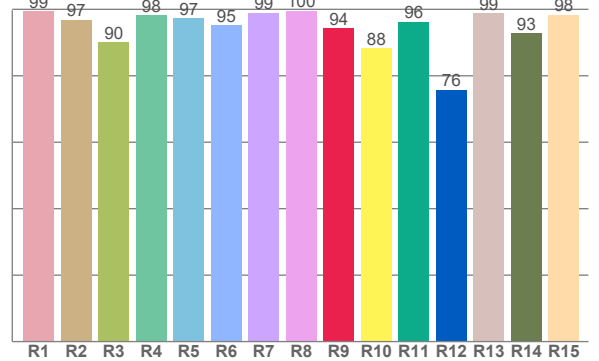
# COLOR DETAILS



TM30: 92,2



CRI: 97,0 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
99,4	96,9	90,2	98,2	97,3	95,3	99,0	99,6	94,4	88,4	96,2	75,8	98,9	92,7	98,4

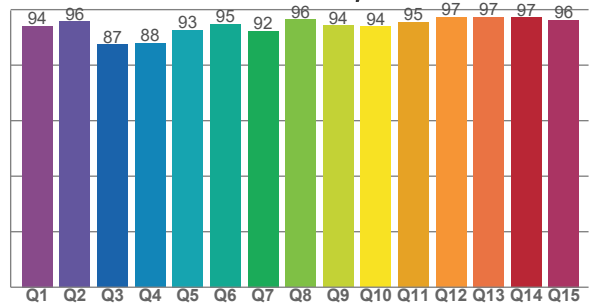
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,6	97,0	93,8	93,7	91,6	94,3	93,6	98,0	93,9	86,3	86,5	89,8	91,7	90,6	91,2	88,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,1	95,6	87,4	87,9	92,7	94,8	92,3	96,4	94,3	93,9	95,5	97,3	97,3	97,1	96,2

CQS: 93,3



## COLOR PARAMETERS

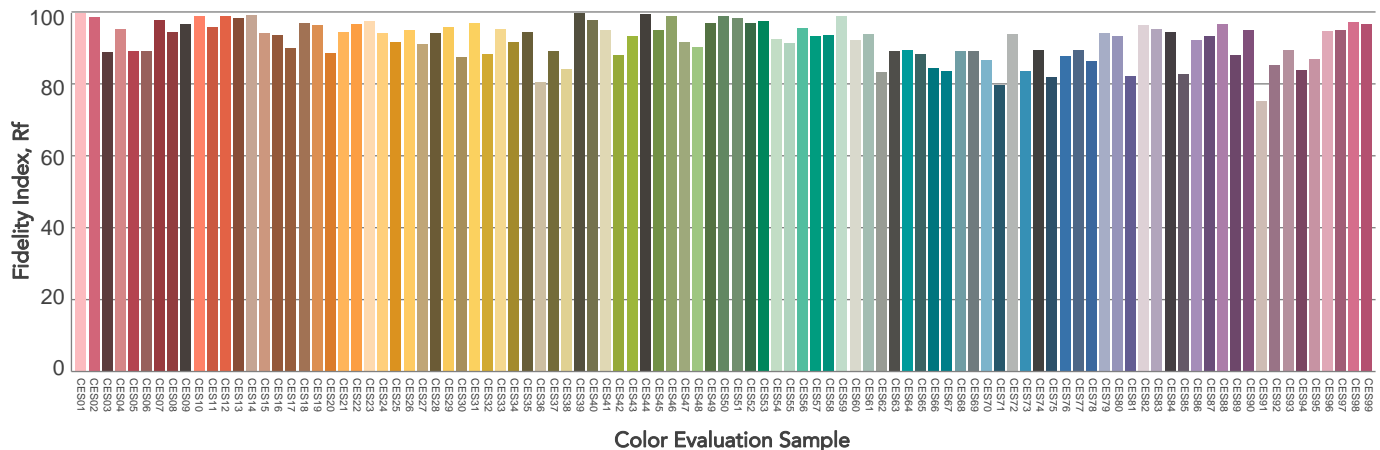
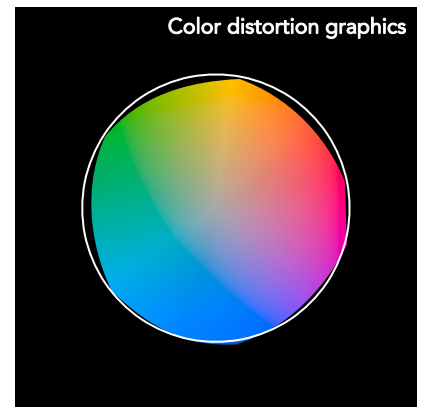
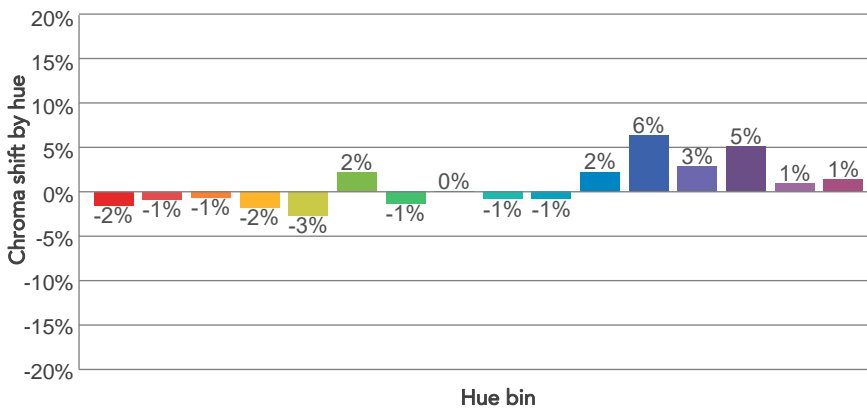
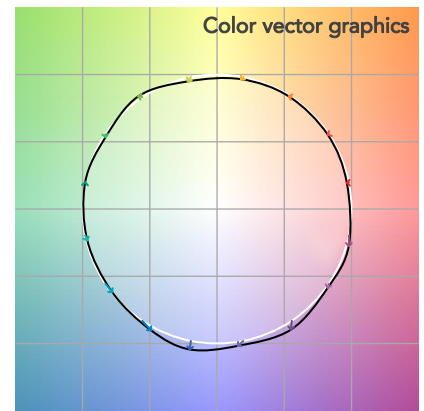
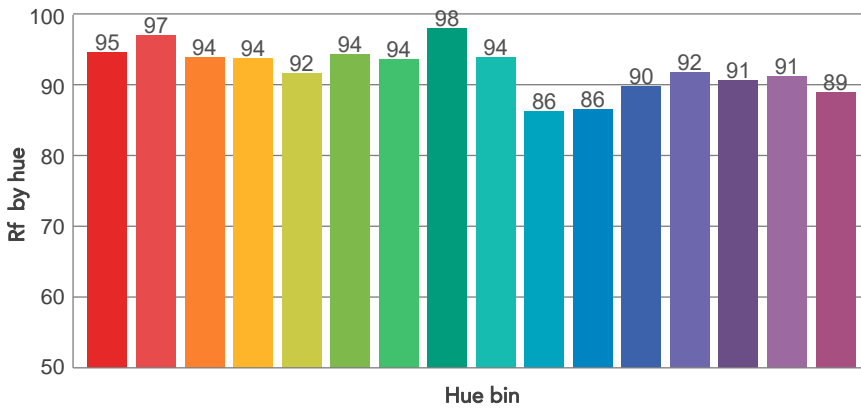
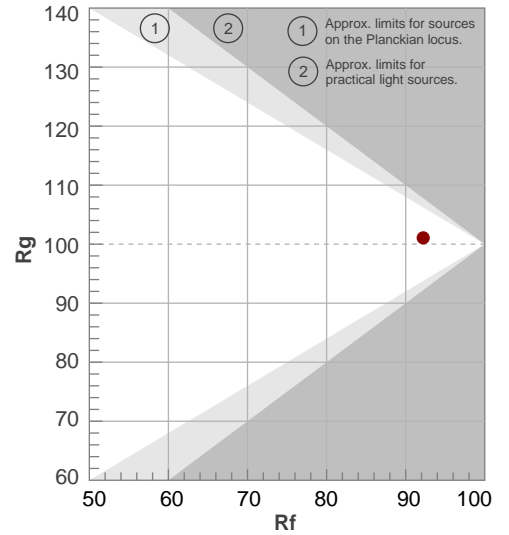
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3258 K	97,0	94,4	92,2	101,1	93,3	91	0,421	0,400	0,0007

# TM30 DETAILS

**Rf 92,2**  
Fidelity index Rf

**Rg 101,1**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	0%
2	97	-1%	0%
3	94	-1%	2%
4	94	-2%	1%
5	92	-3%	3%
6	94	2%	2%
7	94	-1%	2%
8	98	0%	0%
9	94	-1%	4%
10	86	-1%	8%
11	86	2%	9%
12	90	6%	0%
13	92	3%	-5%
14	91	5%	-4%
15	91	1%	-3%
16	89	1%	-8%

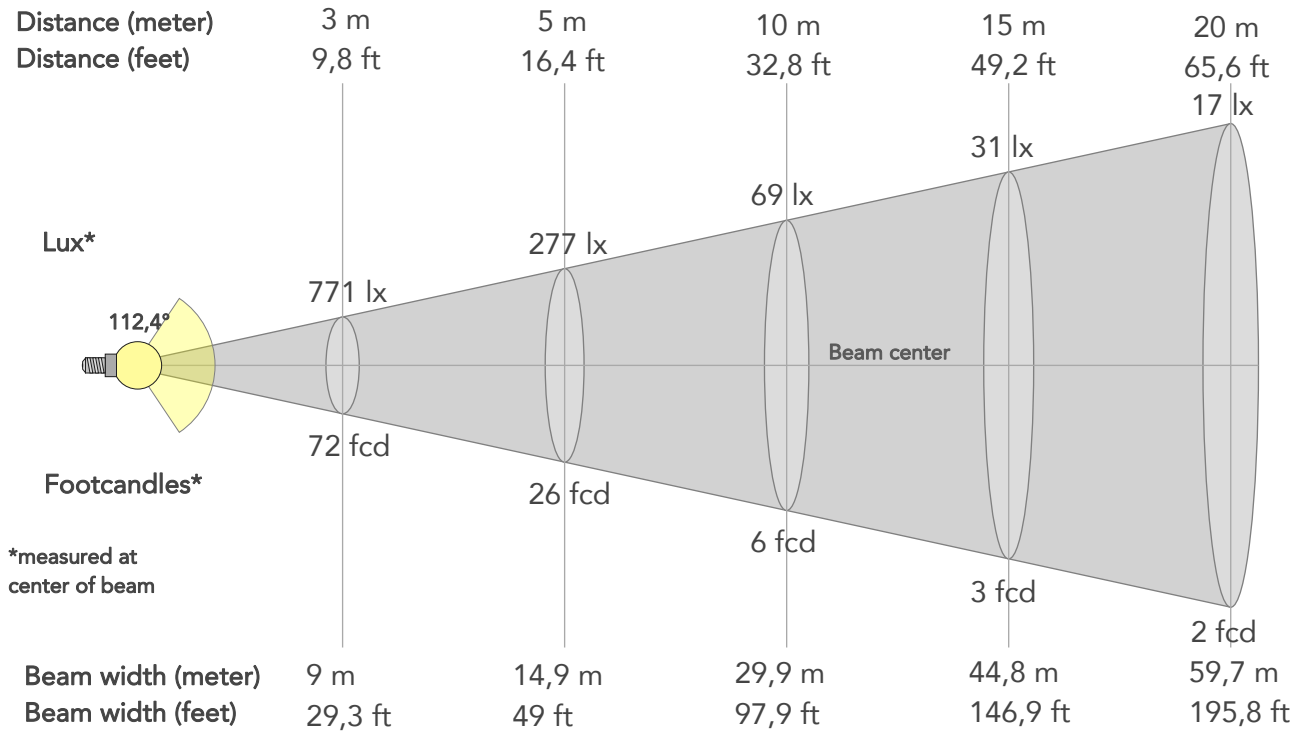




# BEAM DETAILS



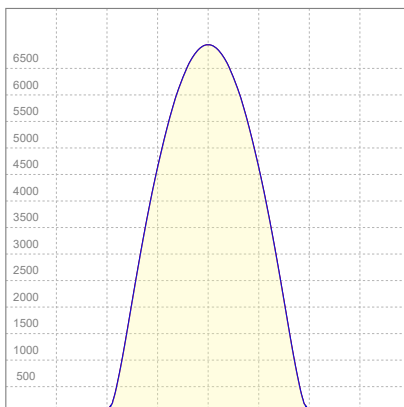
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
112,4°	159,1°	171,2°	78,8%	53,6%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	6937lx	1734lx	771lx	434lx	277lx	123lx	69lx	31lx	17lx	11lx	8lx	4lx	3lx
Footcand.	644fcd	161fcd	72fcd	40fcd	26fcd	11fcd	6fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	3m	6m	9m	11,9m	14,9m	22,4m	29,9m	44,8m	59,7m	74,6m	89,6m	119,4m	149,3m
Beam wid.	9,9ft	19,7ft	29,3ft	39,1ft	49ft	73,4ft	97,9ft	146,9ft	195,8ft	244,8ft	293,8ft	391,7ft	489,6ft

## LINEAR DISTRIBUTION DIAGRAM

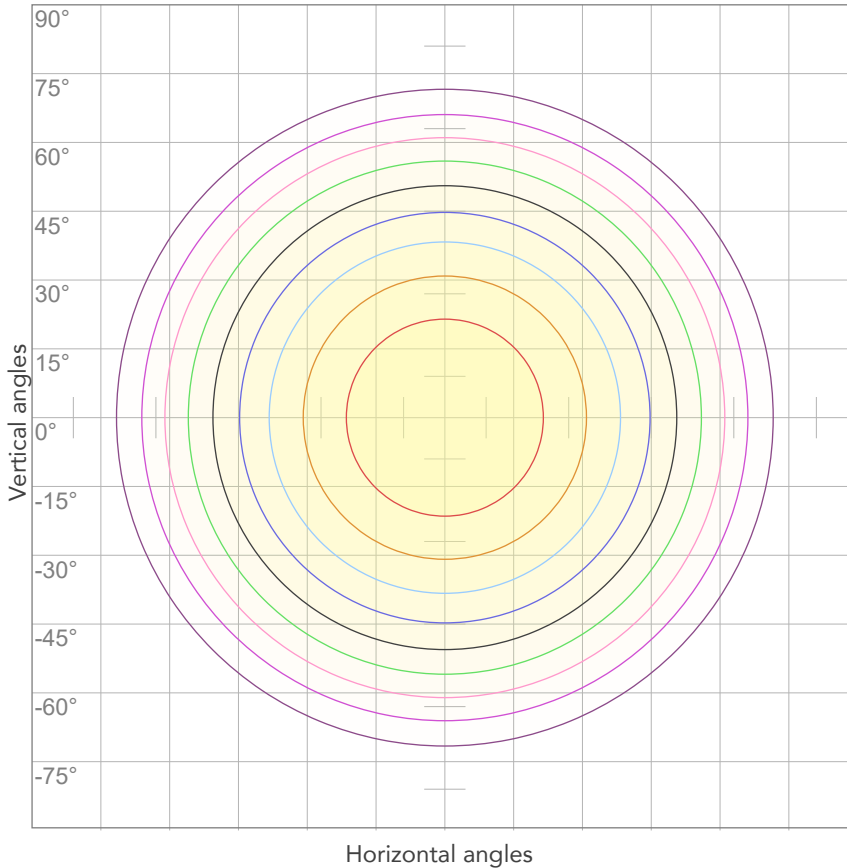


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	2,48A	555W	1,0	36lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



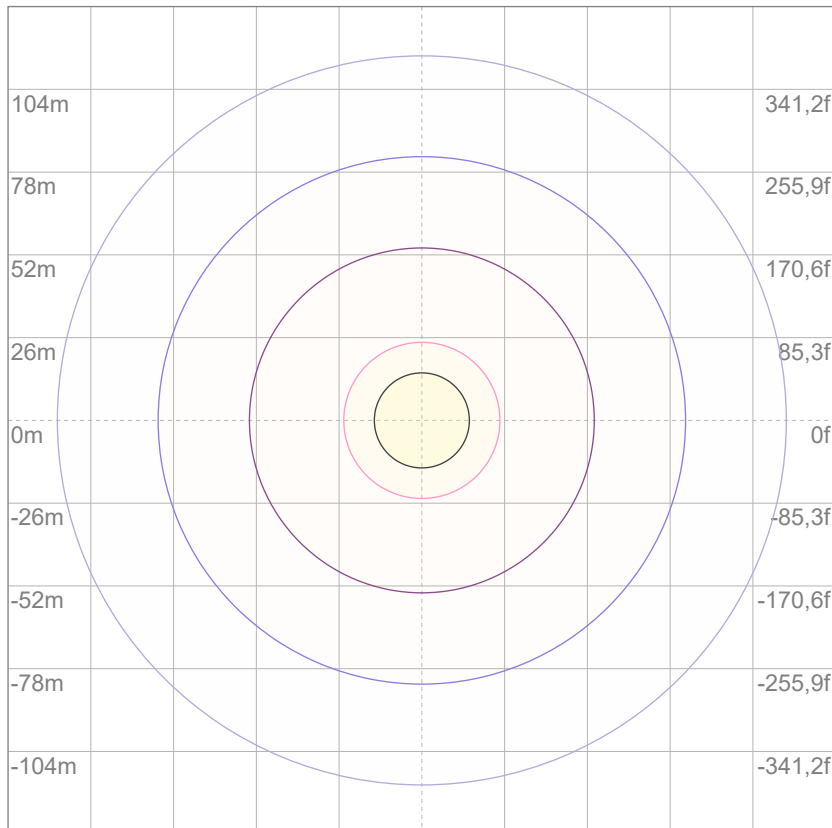
10%	694 cd
20%	1387 cd
30%	2081 cd
40%	2775 cd
50%	3468 cd
60%	4162 cd
70%	4856 cd
80%	5549 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 6937 cd

## ISO LUX DIAGRAM



3%	2,08 lx
5%	3,47 lx
10%	6,94 lx
30%	20,8 lx
50%	34,7 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 69,4 lx

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



Total lumen output:

18520 lm

Peak candela output:

6474 cd

Light quality:

CRI: 96,7

Color temperature:

5616 K

**PRODUCT NAME:**

ECLPANELIP HARD 2X1

**MEASURAMENT CONDITIONS:**

Beam angle:

HD Filter

Target:

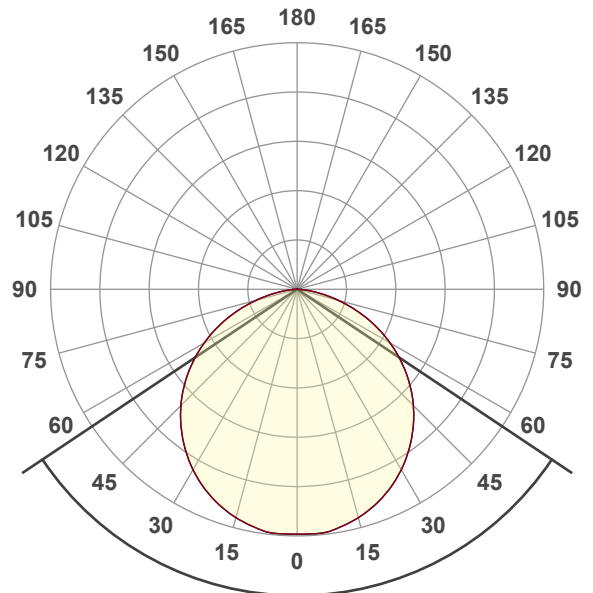
5600K - HQ

Operator:

Salvatore Giglio

Date and time:

09/09/2024 16:31:52

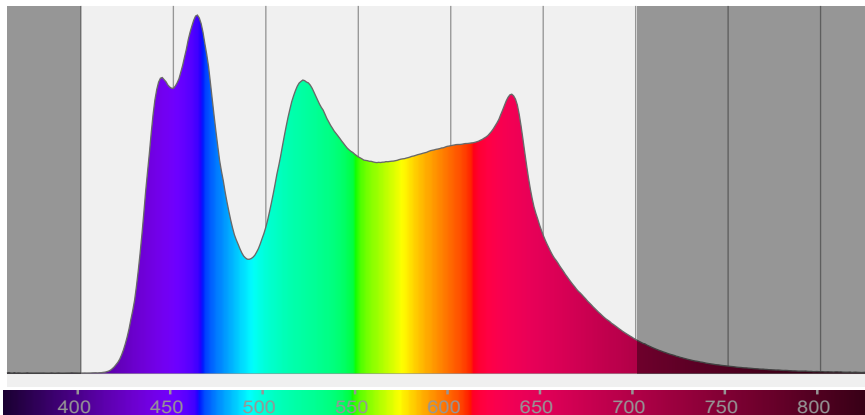


Beam angle 50%: 112,5°

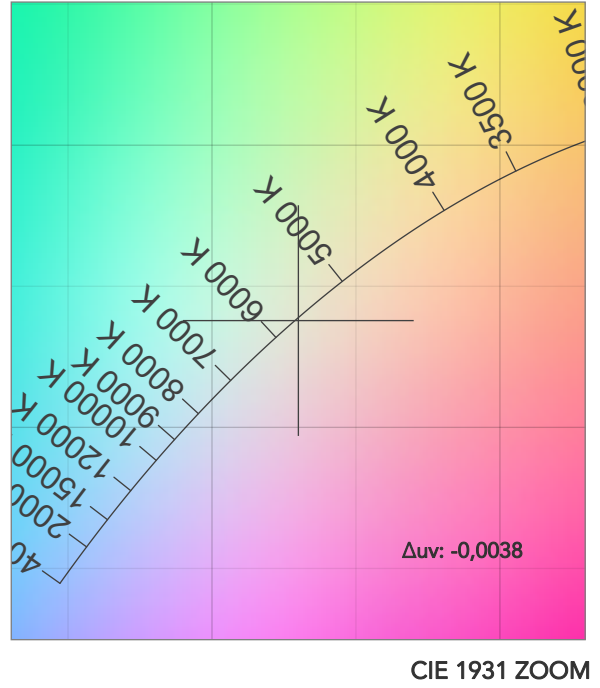
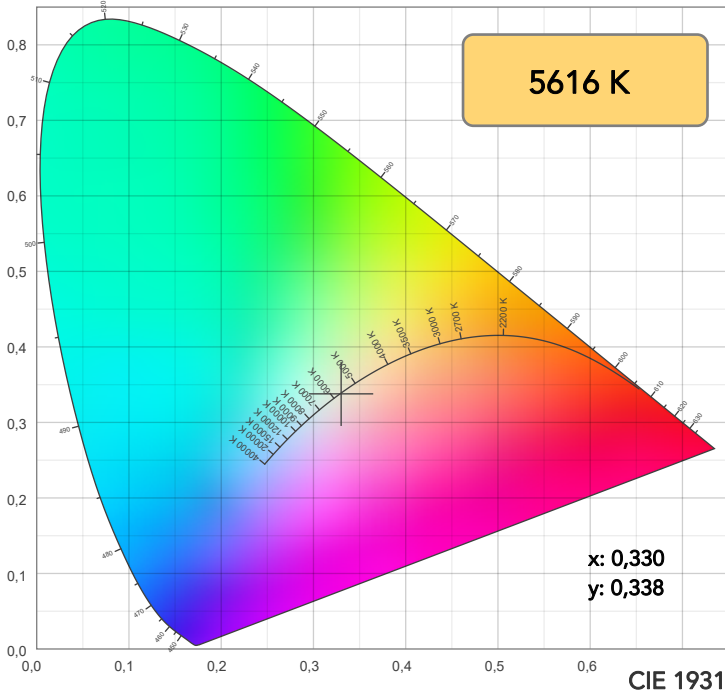
Field angle 10%: 159,1°

Cut off angle 2.5%: 171,1°

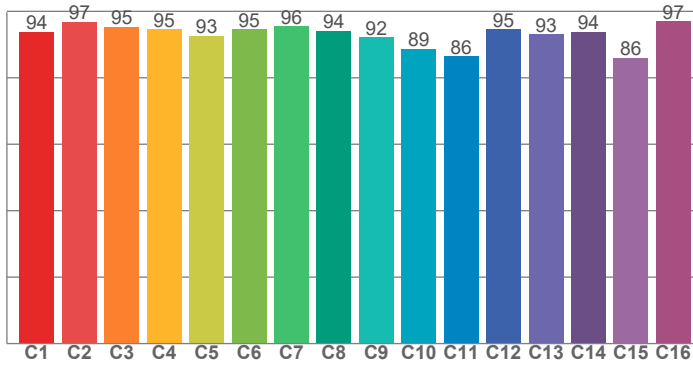
**Spectra**



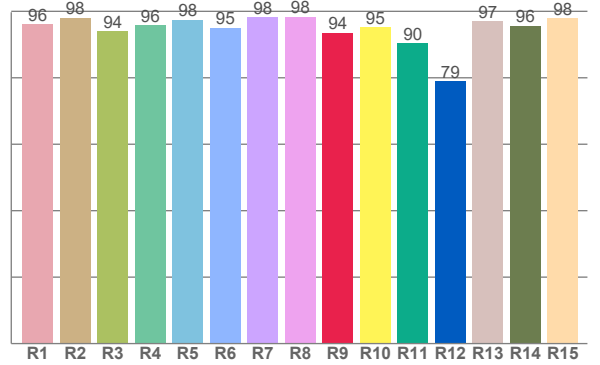
# COLOR DETAILS



TM30: 92,8



CRI: 96,7 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
96,2	98,0	94,0	95,8	97,5	95,1	98,3	98,4	93,6	95,1	90,4	79,0	97,0	95,6	98,0

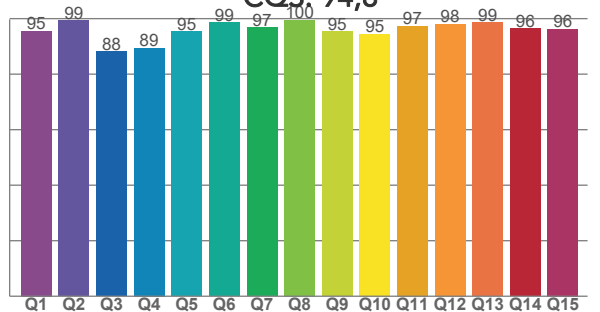
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,8	96,9	95,3	94,6	92,6	94,5	95,5	94,1	92,2	88,7	86,4	94,6	93,1	93,9	86,0	97,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,5	99,2	88,1	89,5	95,3	98,6	96,8	99,6	95,3	94,5	97,3	98,1	98,5	96,4	96,3

CQS: 94,8



## COLOR PARAMETERS

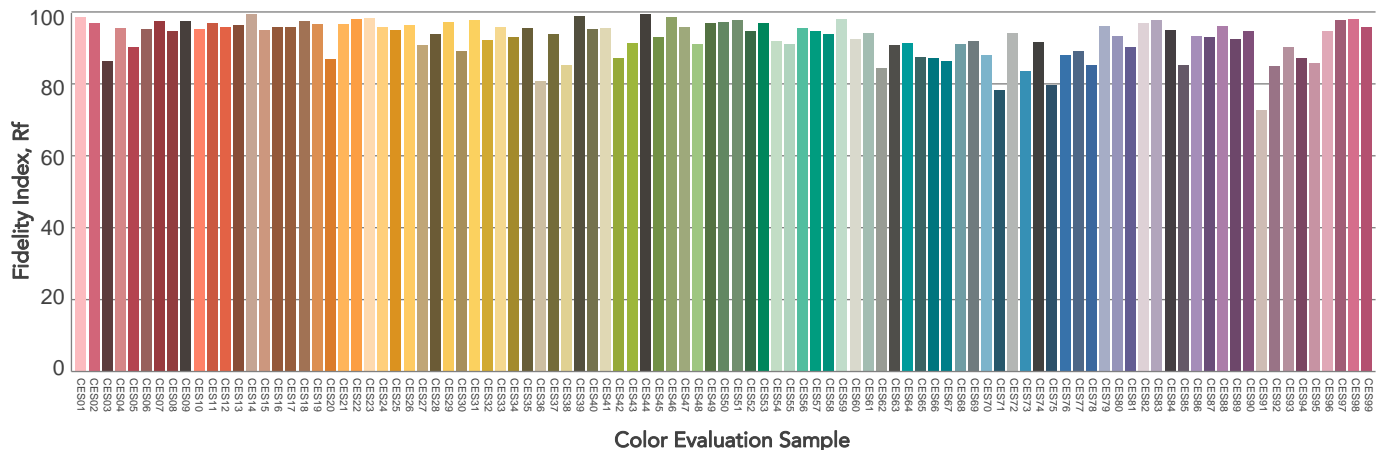
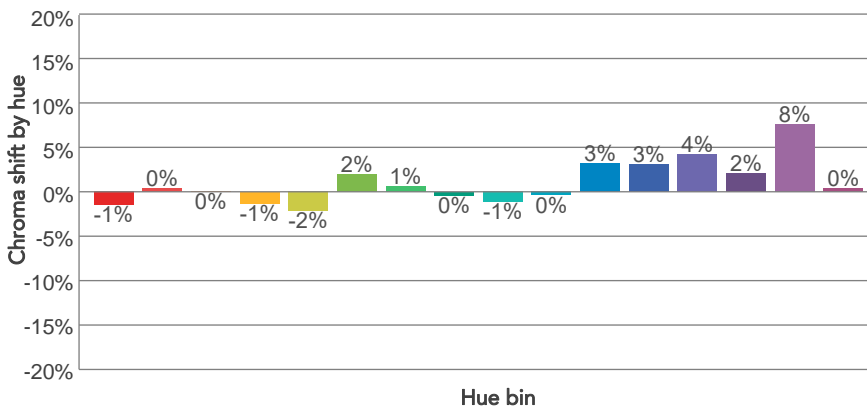
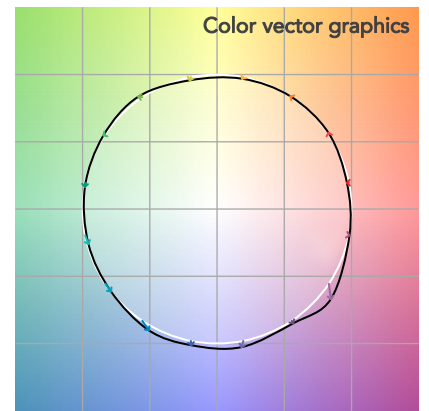
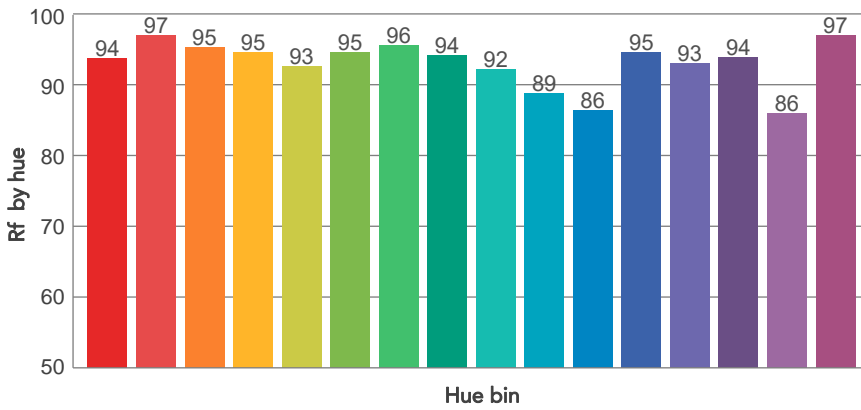
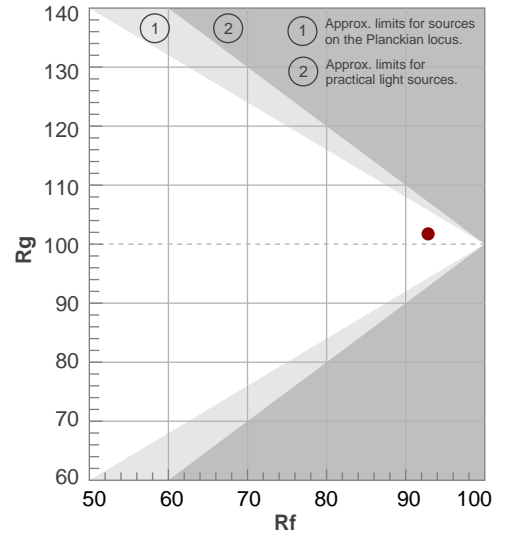
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5616 K	96,7	93,6	92,8	101,7	94,8	96	0,330	0,338	-0,0038

# TM30 DETAILS

**Rf 92,8**  
Fidelity index Rf

**Rg 101,7**  
Gammut index

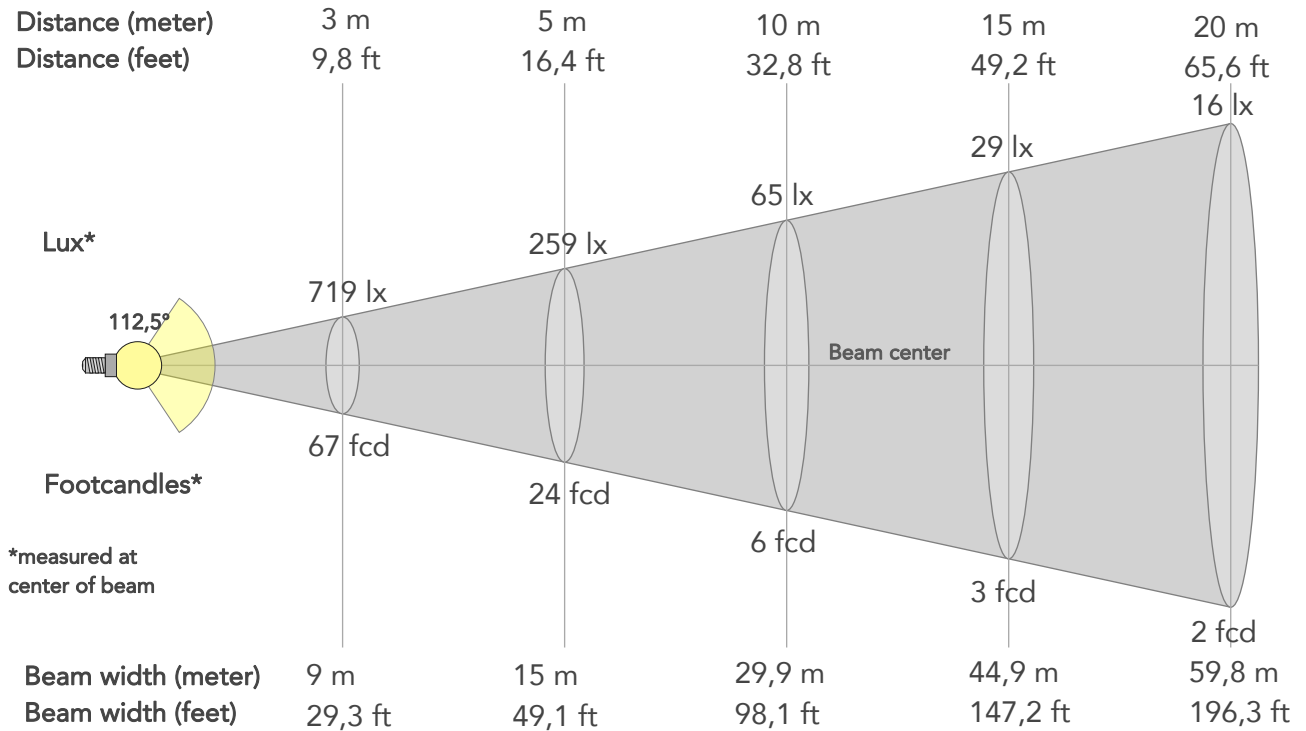
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-1%	0%
2	97	0%	1%
3	95	0%	1%
4	95	-1%	1%
5	93	-2%	1%
6	95	2%	2%
7	96	1%	1%
8	94	0%	3%
9	92	-1%	7%
10	89	0%	7%
11	86	3%	8%
12	95	3%	1%
13	93	4%	-2%
14	94	2%	0%
15	86	8%	-9%
16	97	0%	0%



# BEAM DETAILS



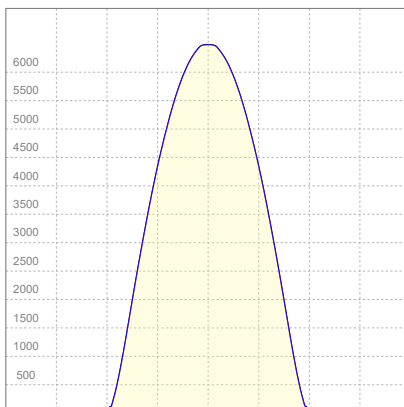
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
112,5°	159,1°	171,1°	79,0%	53,8%



## 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	6474lx	1619lx	719lx	405lx	259lx	115lx	65lx	29lx	16lx	10lx	7lx	4lx	3lx
Footcand.	601fcd	150fcd	67fcd	38fcd	24fcd	11fcd	6fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	3m	6m	9m	12m	15m	22,4m	29,9m	44,9m	59,8m	74,8m	89,8m	119,7m	149,6m
Beam wid.	9,9ft	19,7ft	29,3ft	39,2ft	49,1ft	73,6ft	98,1ft	147,2ft	196,3ft	245,3ft	294,4ft	392,5ft	490,7ft

## LINEAR DISTRIBUTION DIAGRAM

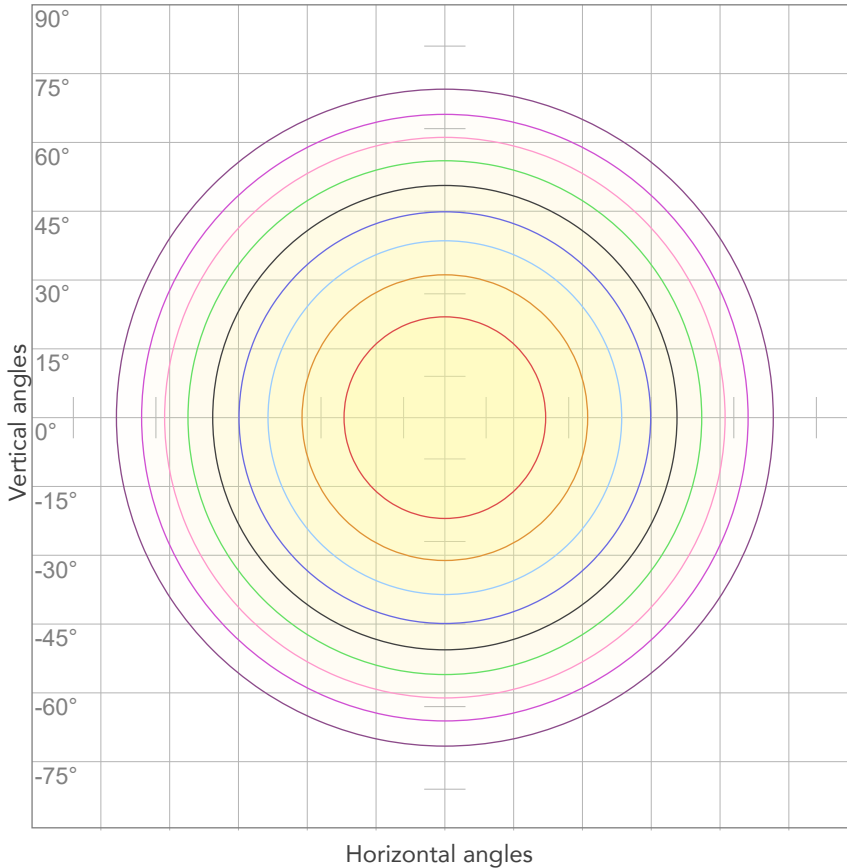


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	2,58A	577W	1,0	32lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



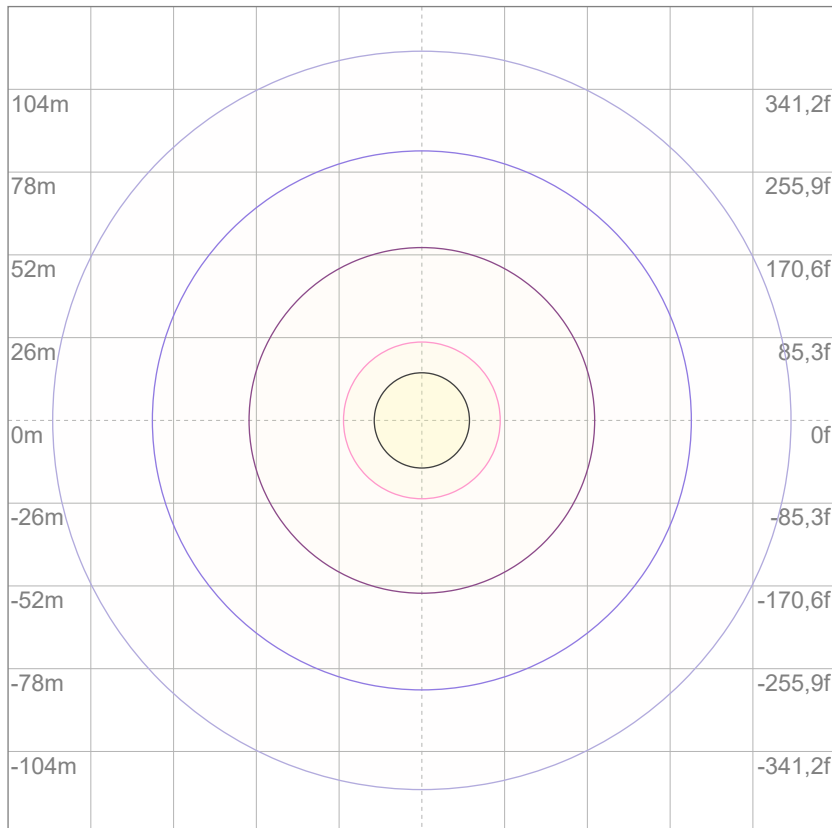
10%	647 cd
20%	1295 cd
30%	1942 cd
40%	2590 cd
50%	3237 cd
60%	3885 cd
70%	4532 cd
80%	5179 cd

Conditions:

Number of c-planes: 4

Candela at center: 6474 cd

## ISO LUX DIAGRAM



3%	1,94 lx
5%	3,24 lx
10%	6,47 lx
30%	19,4 lx
50%	32,4 lx

Conditions:

Number of c-planes: 4

Lux at center: 64,7 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:

32265 lm

Peak candela output:

53833 cd

Light quality:

CRI: 88,3

Color temperature:

3235 K

**PRODUCT NAME:**

ECLPANELIP HARD 2X1

**MEASUREMENT CONDITIONS:**

Beam angle:

LD Filter

Target:

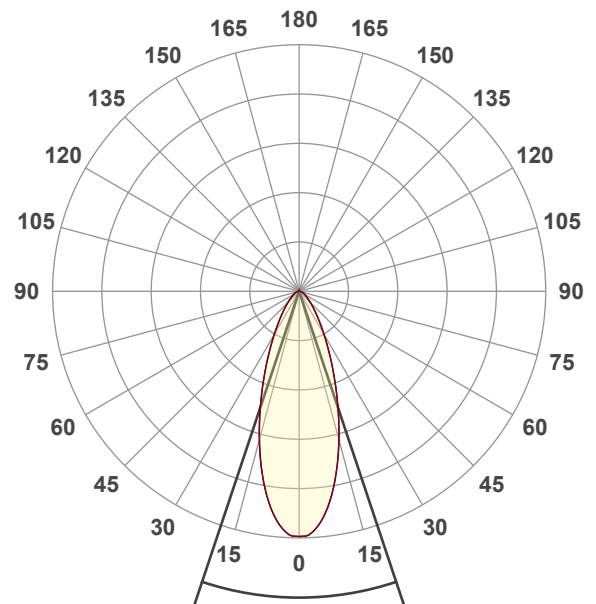
3200K - HB

Operator:

Salvatore Giglio

Date and time:

09/09/2024 15:30:07

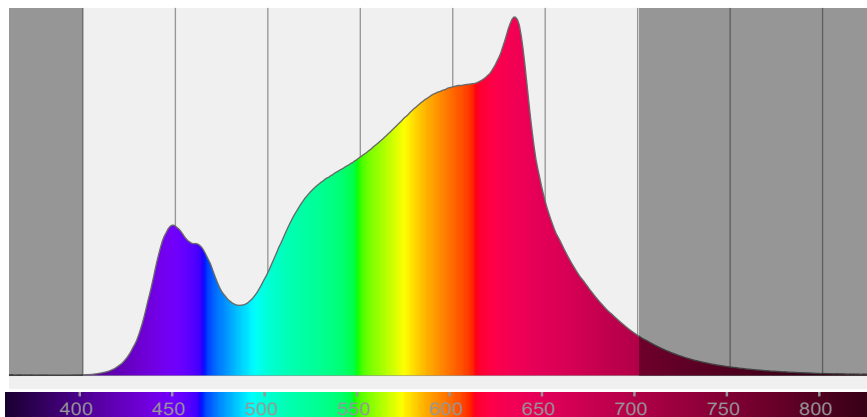


Beam angle 50%: 36,9°

Field angle 10%: 77,9°

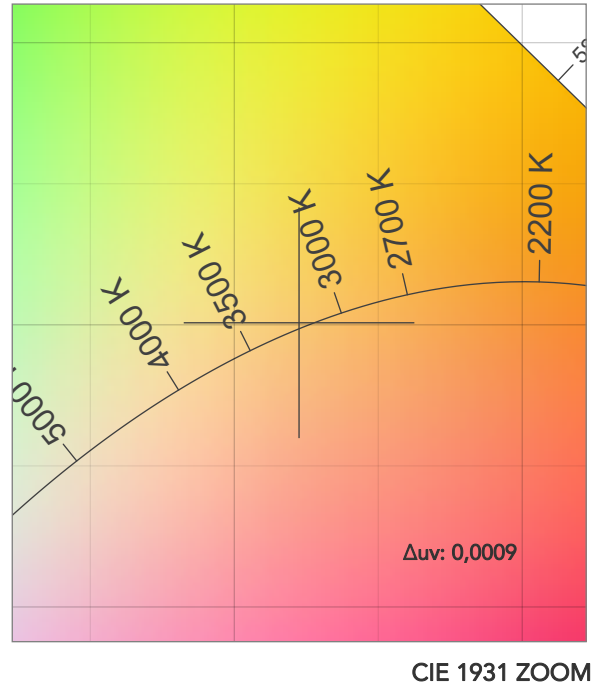
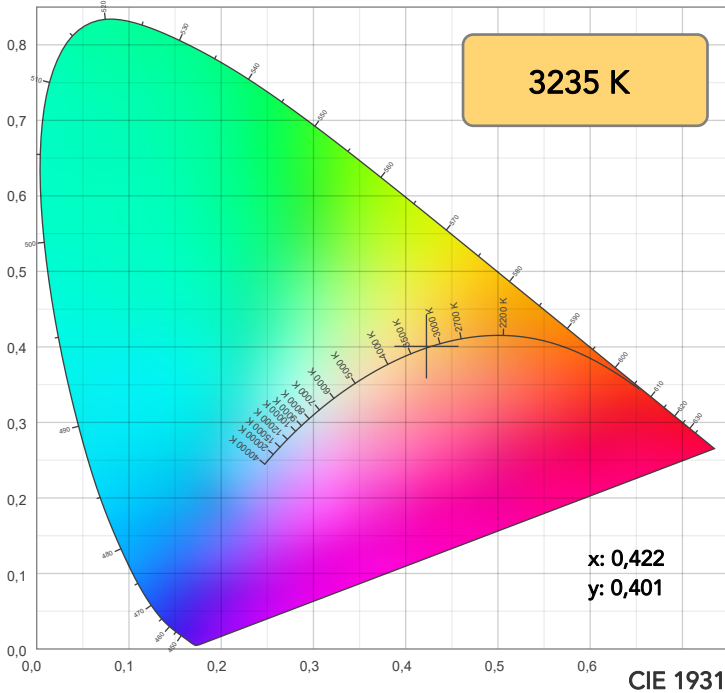
Cut off angle 2.5%: 121,9°

Spectra



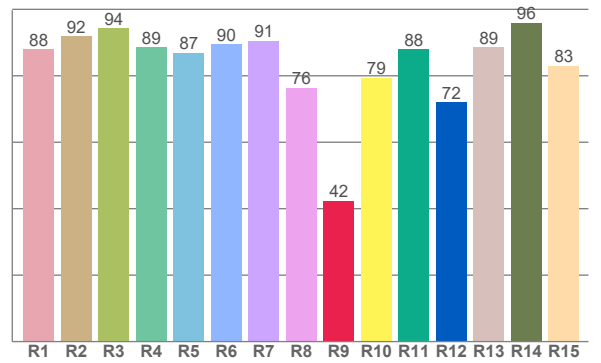
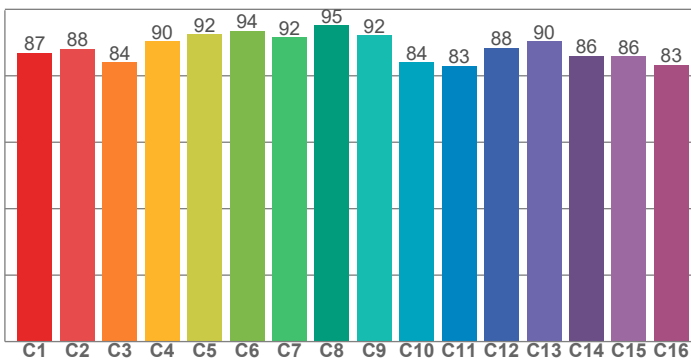


# COLOR DETAILS



**TM30: 88,3**

**CRI: 88,3 (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
87,9	91,9	94,3	88,5	86,9	89,5	90,5	76,4	42,4	79,4	87,9	72,0	88,6	96,0	83,0

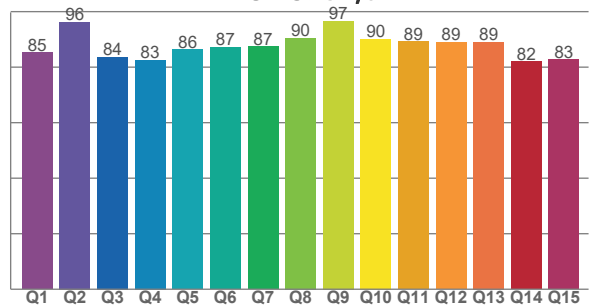
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
86,8	88,1	84,1	90,4	92,4	93,6	91,5	95,2	92,1	84,1	82,9	88,4	90,3	85,9	85,8	83,3

CQS Q values

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

**CQS: 87,0**



## COLOR PARAMETERS

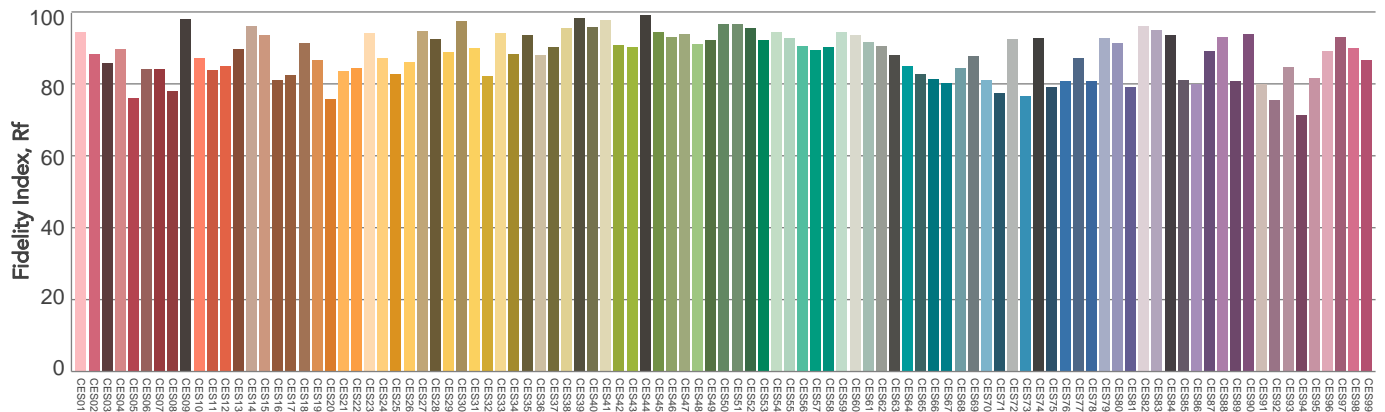
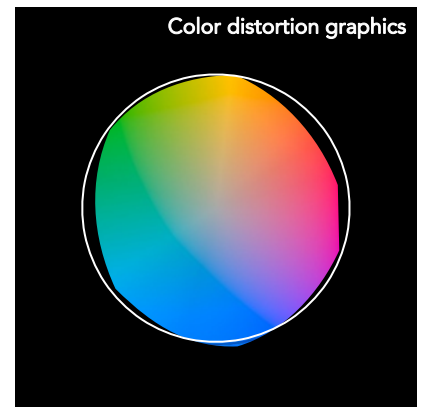
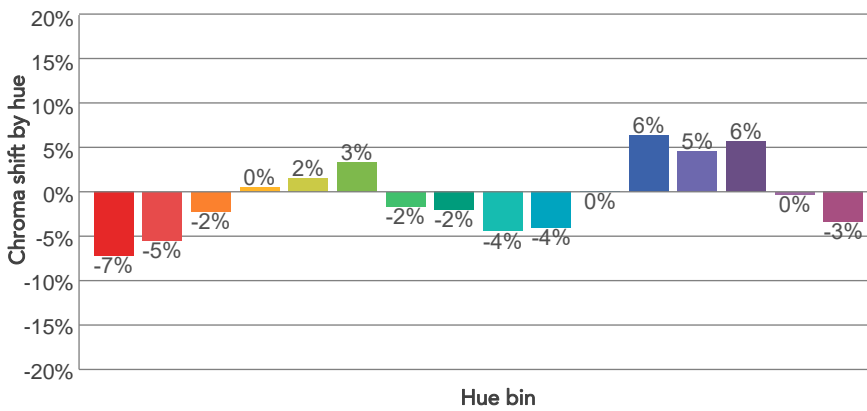
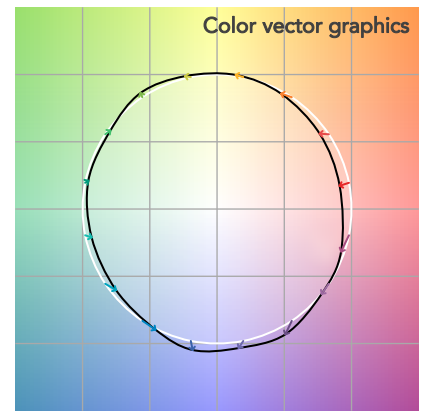
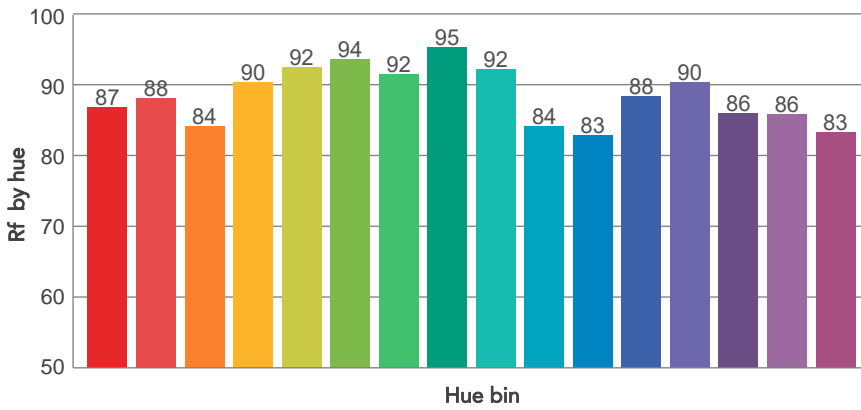
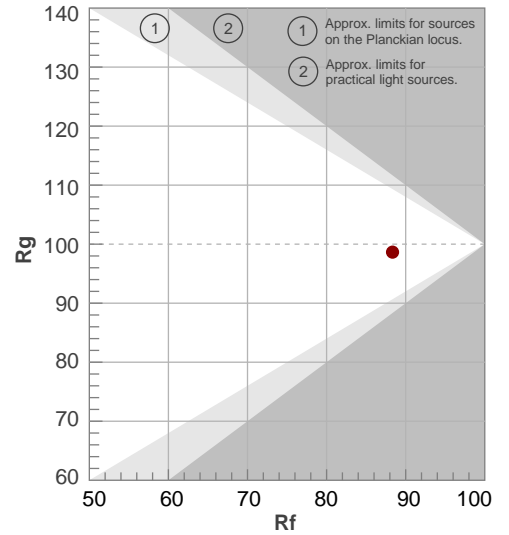
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
3235 K	88,3	42,4	88,3	98,6	87,0	81	0,422	0,401	0,0009

# TM30 DETAILS

**Rf 88,3**  
Fidelity index Rf

**Rg 98,6**  
Gammut index

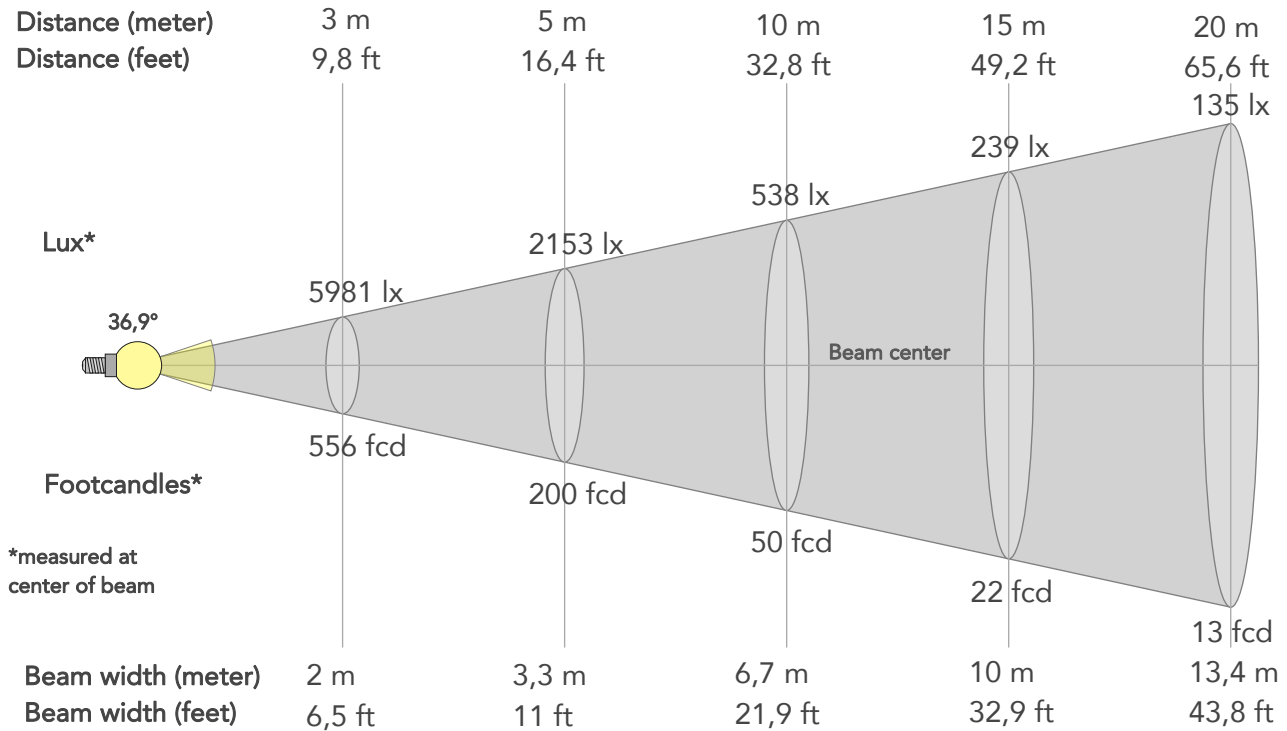
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	87	-7%	-1%
2	88	-5%	4%
3	84	-2%	8%
4	90	0%	6%
5	92	2%	4%
6	94	3%	-1%
7	92	-2%	-4%
8	95	-2%	-2%
9	92	-4%	2%
10	84	-4%	8%
11	83	0%	12%
12	88	6%	3%
13	90	5%	-4%
14	86	6%	-10%
15	86	0%	-9%
16	83	-3%	-13%



# BEAM DETAILS



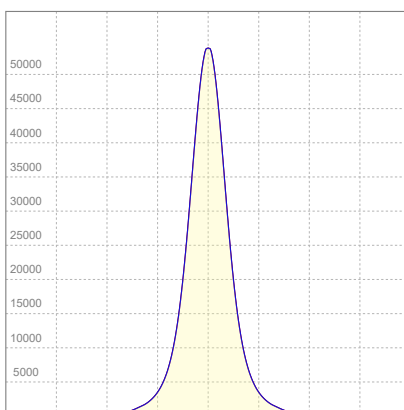
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
36,9°	77,9°	121,9°	94,7%	85,7%



## 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	53833lx	13458lx	5981lx	3365lx	2153lx	957lx	538lx	239lx	135lx	86lx	60lx	34lx	22lx
Footcand.	5001fcd	1250fcd	556fcd	313fcd	200fcd	89fcd	50fcd	22fcd	13fcd	8fcd	6fcd	3fcd	2fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,3m	5m	6,7m	10m	13,4m	16,7m	20m	26,7m	33,4m
Beam wid.	2,2ft	4,4ft	6,5ft	8,8ft	11ft	16,4ft	21,9ft	32,9ft	43,8ft	54,8ft	65,7ft	87,6ft	109,6ft

## LINEAR DISTRIBUTION DIAGRAM

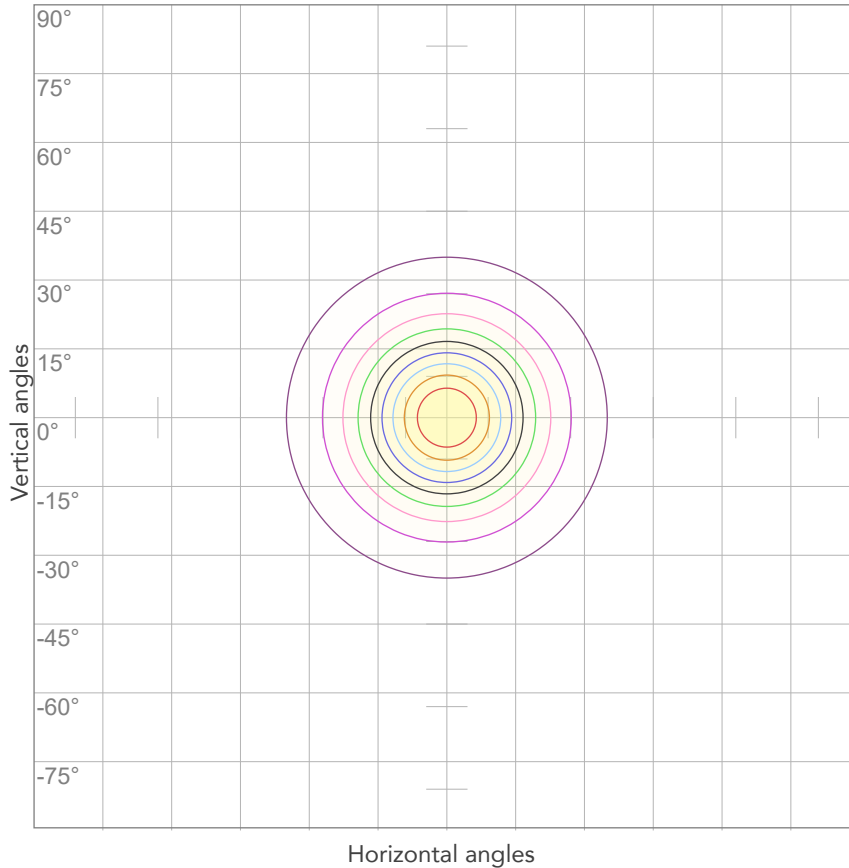


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	2,59A	578W	1,0	56lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



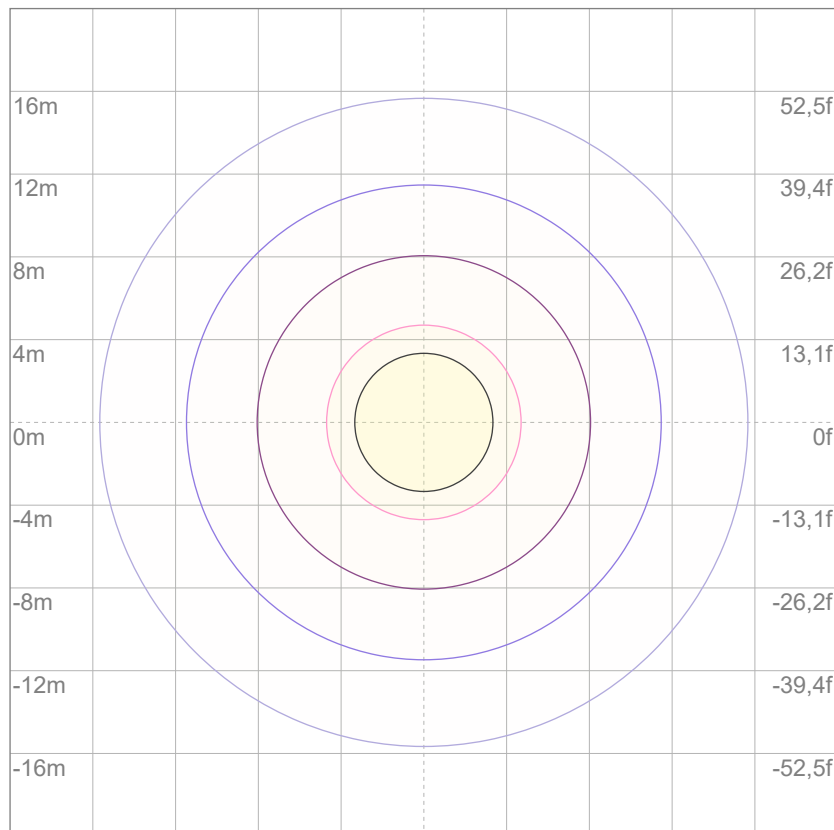
10%	5383 cd
20%	10767 cd
30%	16150 cd
40%	21533 cd
50%	26916 cd
60%	32300 cd
70%	37683 cd
80%	43066 cd

**Conditions:**

Number of c-planes: 4

Candela at center: 53833 cd

## ISO LUX DIAGRAM



3%	16,1 lx
5%	26,9 lx
10%	53,8 lx
30%	161 lx
50%	269 lx

**Conditions:**

Number of c-planes: 4

Lux at center: 538 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:

33928 lm

Peak candela output:

55082 cd

Light quality:

CRI: 80,8

Color temperature:

5615 K

**PRODUCT NAME:**

ECLPANELIP HARD 2X1

**MEASURAMENT CONDITIONS:**

Beam angle:

LD Filter

Target:

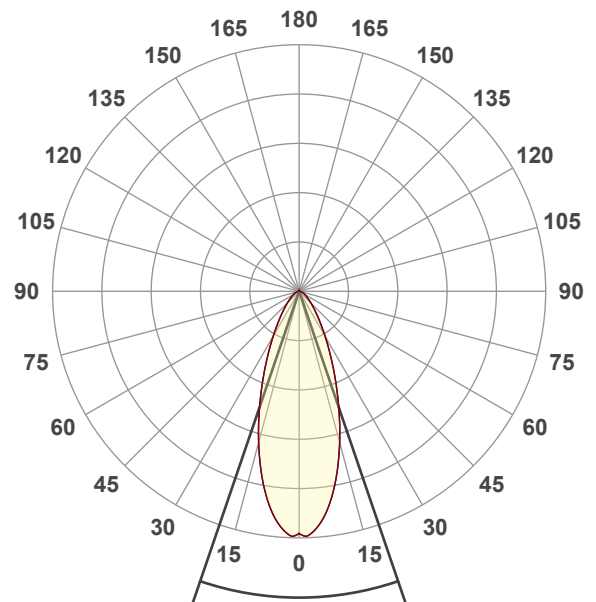
5600K - HB

Operator:

Salvatore Giglio

Date and time:

09/09/2024 15:26:42

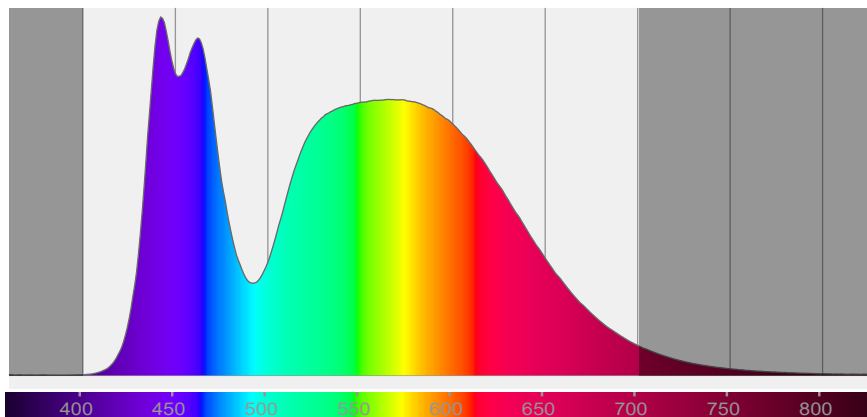


Beam angle 50%: 37,7°

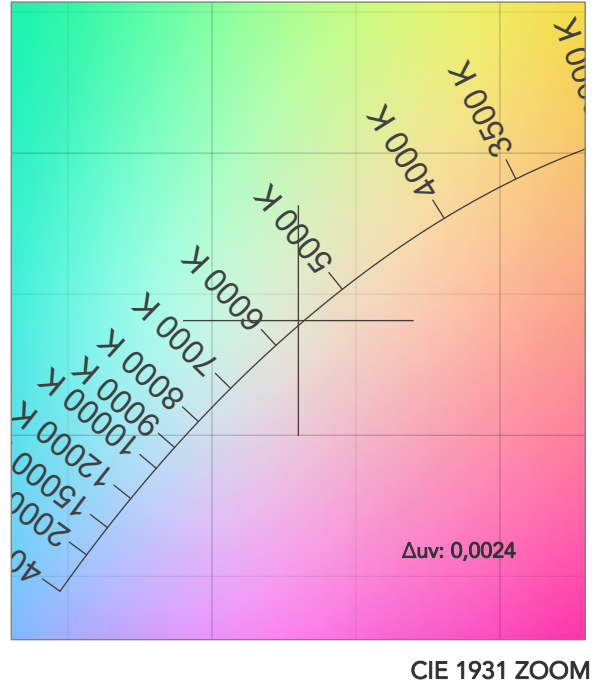
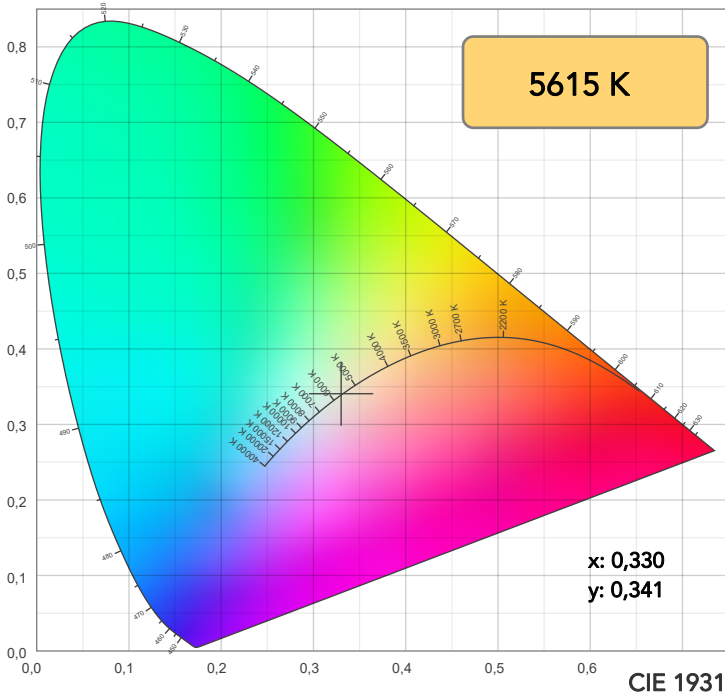
Field angle 10%: 79,2°

Cut off angle 2.5%: 122,2°

Spectra

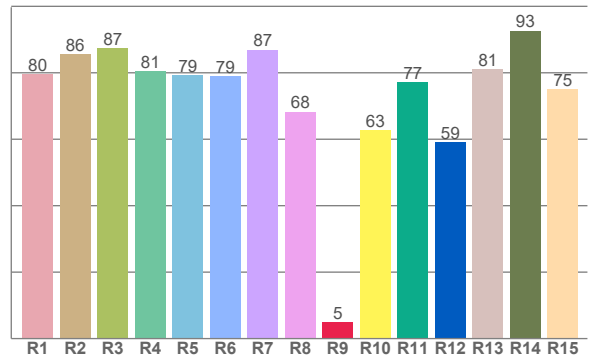
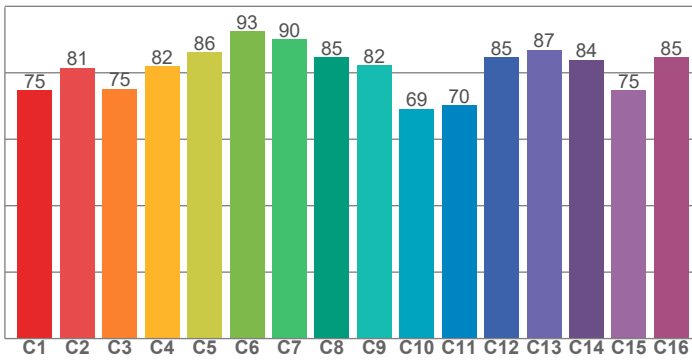


# COLOR DETAILS



TM30: 81,0

CRI: 80,8 (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
79,6	85,5	87,5	80,5	79,3	78,9	86,9	68,3	4,9	62,6	77,2	59,0	81,1	92,7	75,1

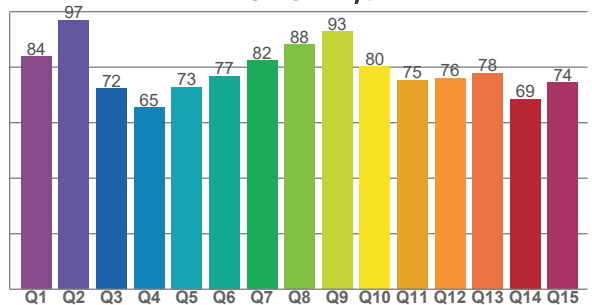
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
74,7	81,4	75,2	81,9	86,2	92,5	90,0	84,6	82,3	69,1	70,1	84,6	86,9	83,9	74,7	84,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,8	96,9	72,3	65,4	72,9	76,9	82,4	88,2	92,8	80,3	75,3	76,0	77,9	68,6	74,4

CQS: 77,3



## COLOR PARAMETERS

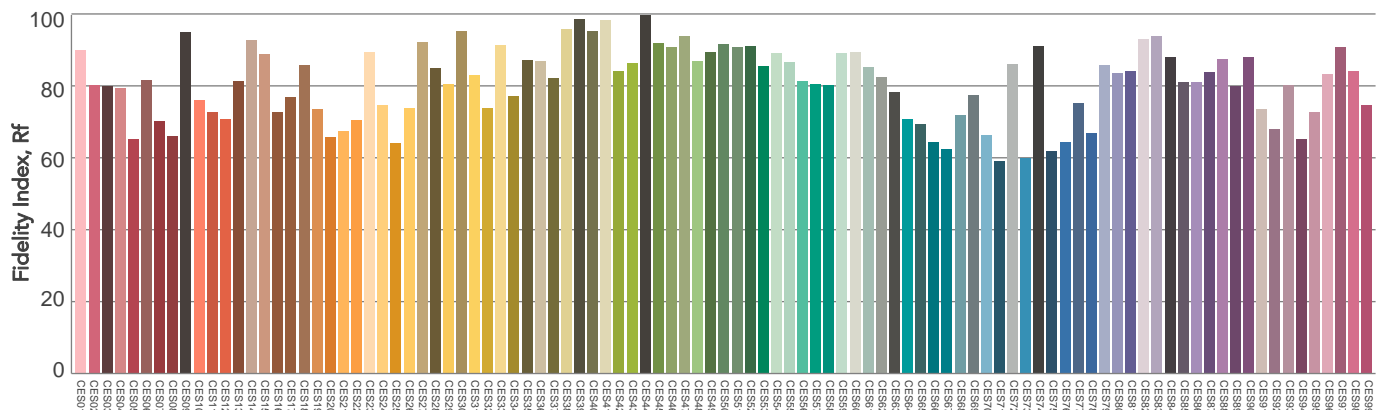
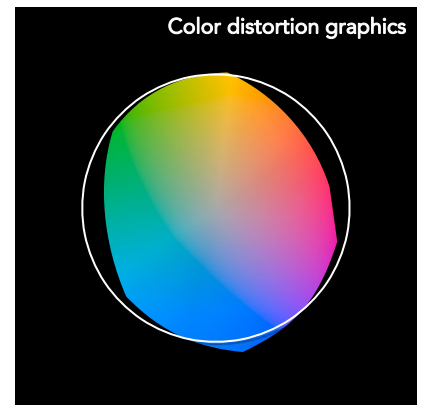
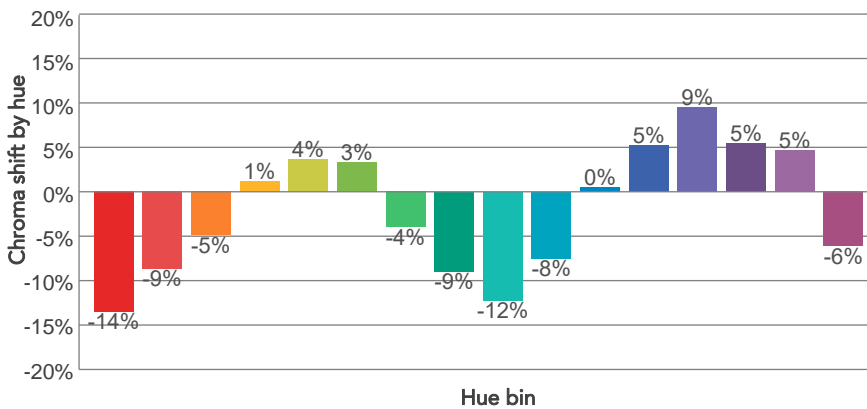
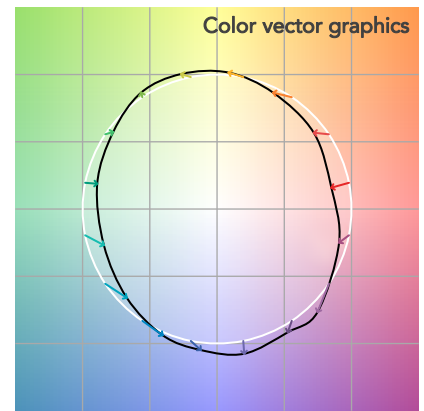
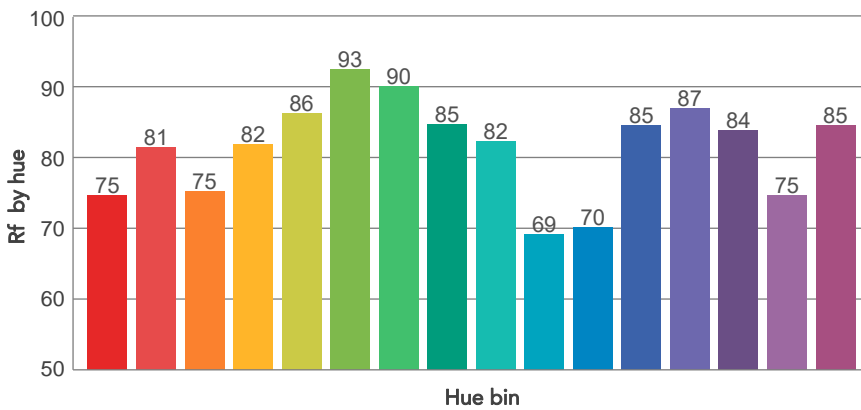
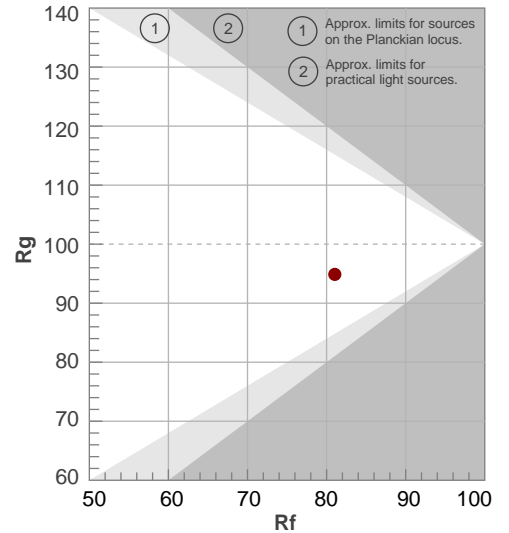
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5615 K	80,8	4,9	81,0	94,9	77,3	67	0,330	0,341	0,0024

# TM30 DETAILS

**Rf 81,0**  
Fidelity index Rf

**Rg 94,9**  
Gammut index

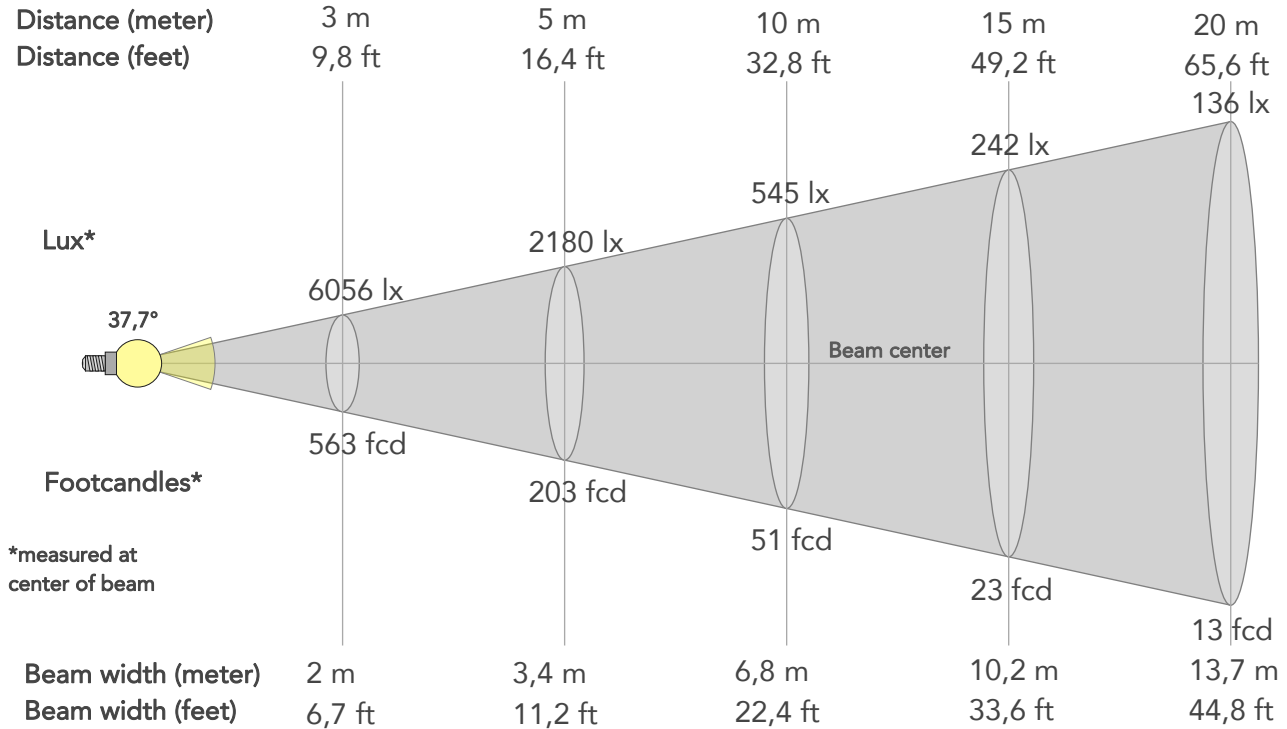
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-14%	-1%
2	81	-9%	7%
3	75	-5%	13%
4	82	1%	11%
5	86	4%	7%
6	93	3%	-1%
7	90	-4%	-5%
8	85	-9%	-1%
9	82	-12%	10%
10	69	-8%	18%
11	70	0%	19%
12	85	5%	9%
13	87	9%	-1%
14	84	5%	-7%
15	75	5%	-22%
16	85	-6%	-7%



# BEAM DETAILS



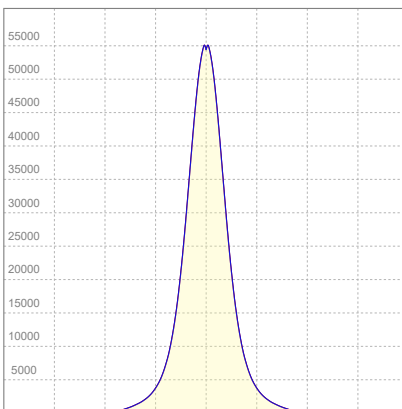
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37,7°	79,2°	122,2°	94,8%	85,8%



## 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	54502lx	13626lx	6056lx	3406lx	2180lx	969lx	545lx	242lx	136lx	87lx	61lx	34lx	22lx
Footcand.	5063fcd	1266fcd	563fcd	316fcd	203fcd	90fcd	51fcd	23fcd	13fcd	8fcd	6fcd	3fcd	2fcd
Beam wid.	0,7m	1,4m	2m	2,7m	3,4m	5,1m	6,8m	10,2m	13,7m	17,1m	20,5m	27,3m	34,1m
Beam wid.	2,3ft	4,5ft	6,7ft	8,9ft	11,2ft	16,8ft	22,4ft	33,6ft	44,8ft	56ft	67,2ft	89,6ft	112ft

## LINEAR DISTRIBUTION DIAGRAM



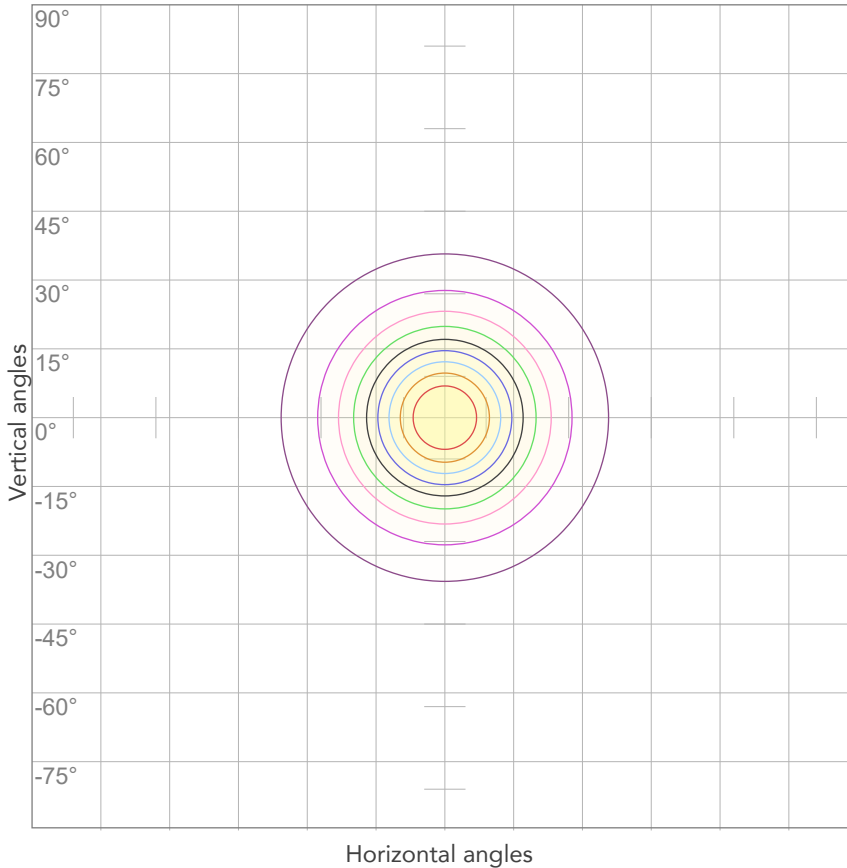
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	2,56A	572W	1,0	59lm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



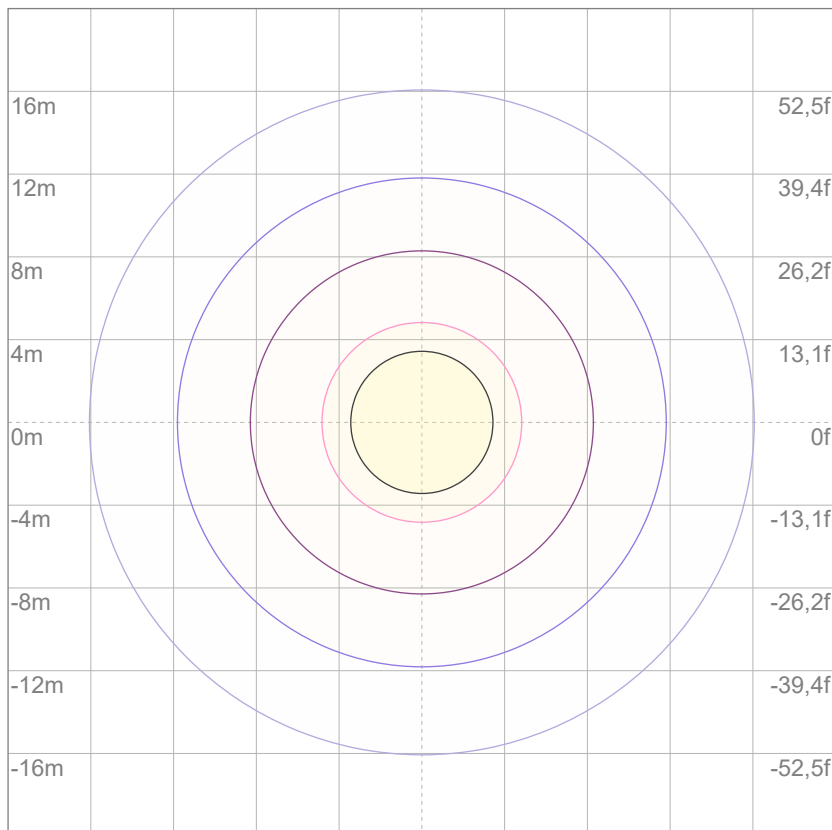
10%	5450 cd
20%	10900 cd
30%	16351 cd
40%	21801 cd
50%	27251 cd
60%	32701 cd
70%	38151 cd
80%	43602 cd

Conditions:

Number of c-planes: 4

Candela at center: 54502 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	16,4 lx
5%	27,3 lx
10%	54,5 lx
30%	164 lx
50%	273 lx

Conditions:

Number of c-planes: 4

Lux at center: 545 lx

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



Total lumen output:

31447 lm

Peak candela output:

51743 cd

Light quality:

CRI: 95,3

Color temperature:

3240 K

**PRODUCT NAME:**

ECLPANELIP HARD 2X1

**MEASUREMENT CONDITIONS:**

Beam angle:

LD Filter

Target:

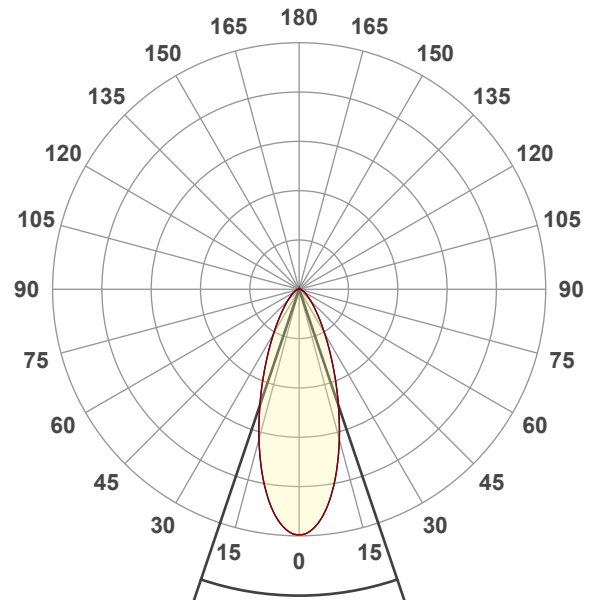
3200K - HQ

Operator:

Salvatore Giglio

Date and time:

09/09/2024 14:49:08

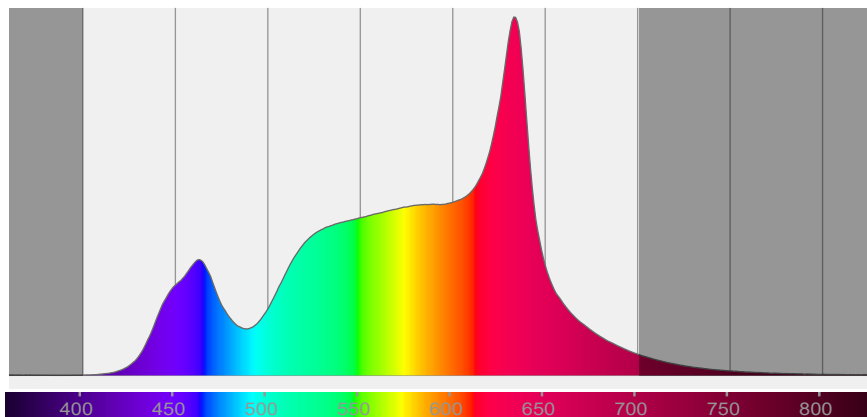


Beam angle 50%: 37,4°

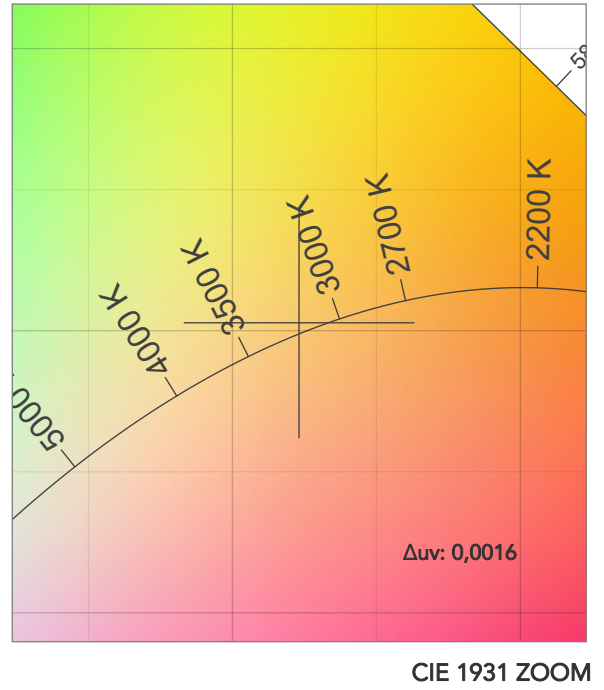
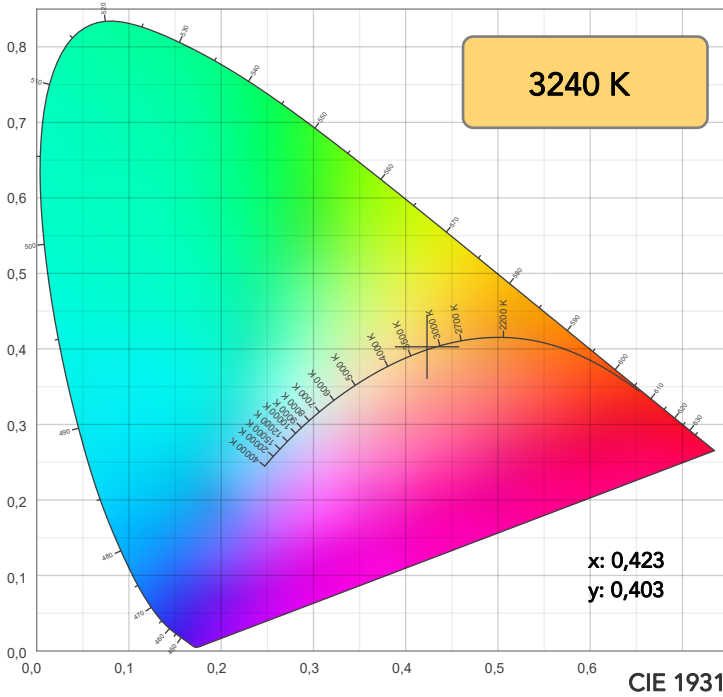
Field angle 10%: 78,7°

Cut off angle 2.5%: 121,6°

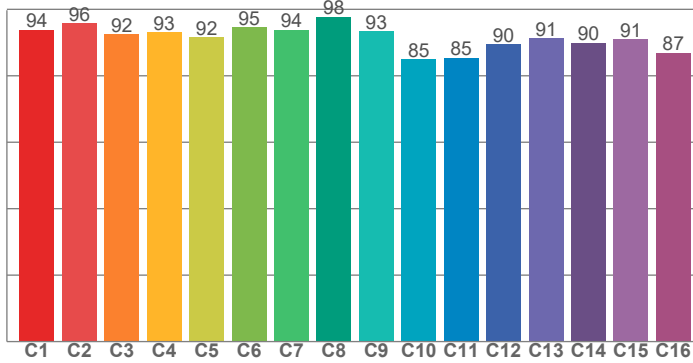
Spectra



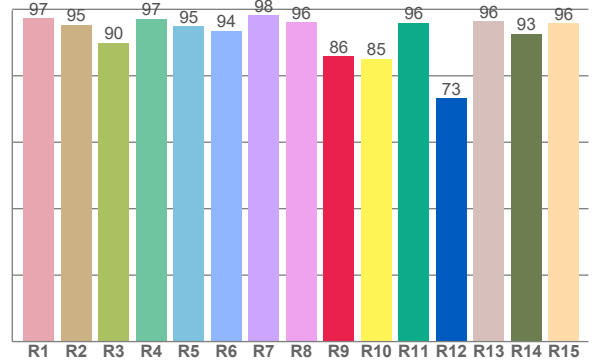
# COLOR DETAILS



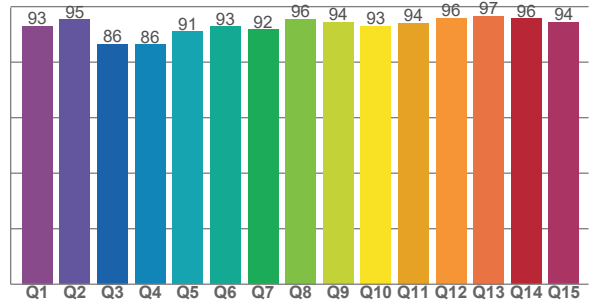
**TM30: 91,5**



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



**CQS: 92,3**



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	95,4	90,0	97,2	94,9	93,6	98,3	96,0	85,9	85,1	96,0	73,2	96,5	92,7	95,8

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,8	95,8	92,4	93,1	91,5	94,5	93,8	97,8	93,3	84,9	85,4	89,5	91,3	89,9	91,0	86,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,0	95,4	86,5	86,4	90,9	92,9	91,8	95,6	94,4	93,1	94,0	95,8	96,7	95,7	94,3

## COLOR PARAMETERS

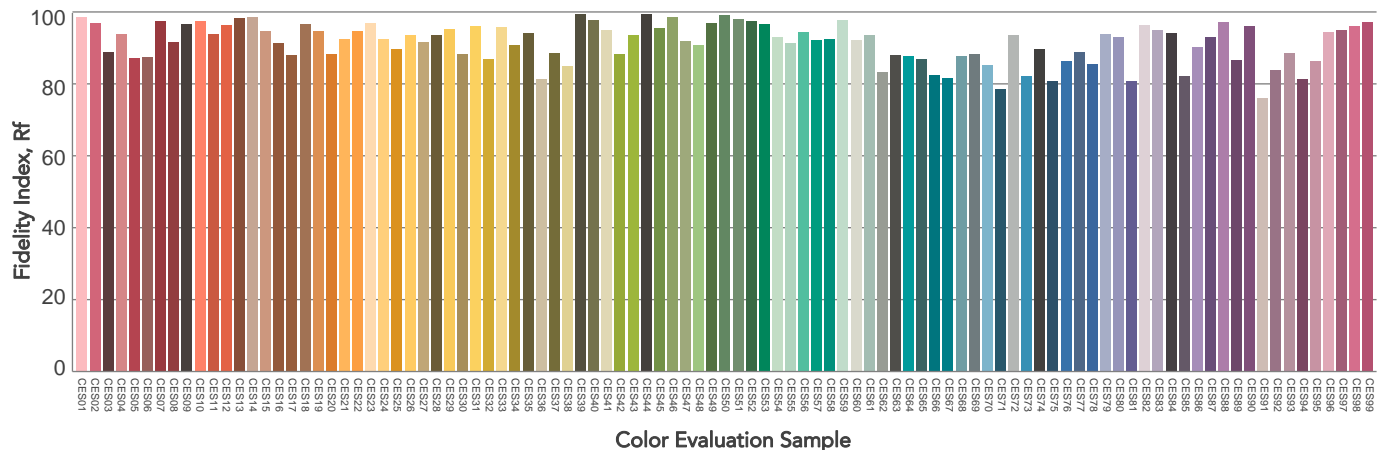
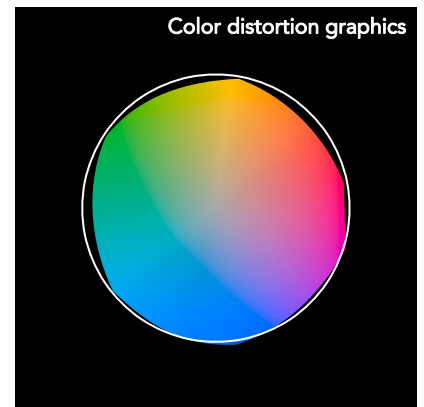
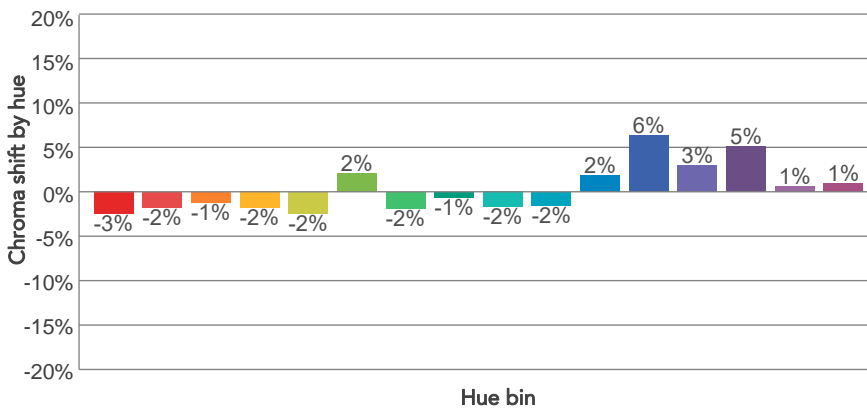
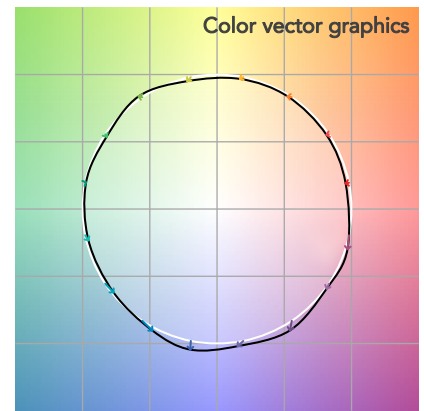
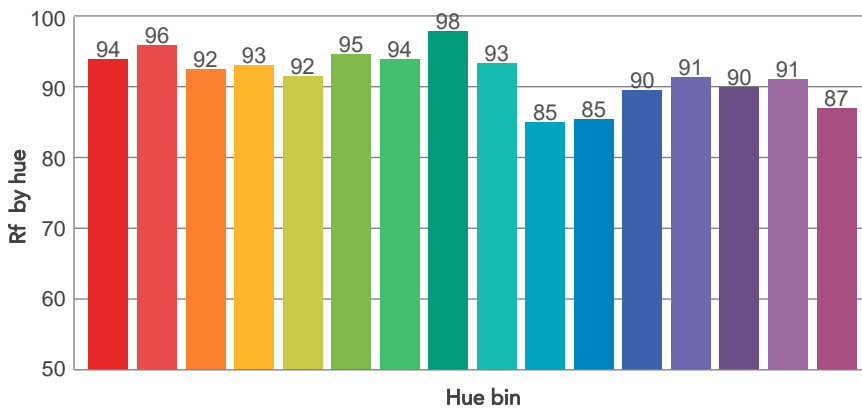
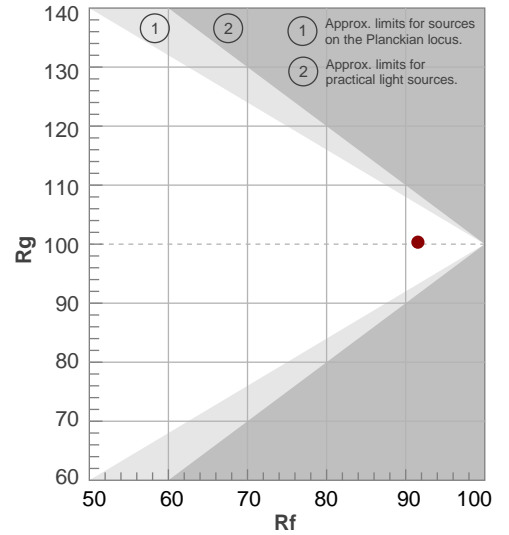
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3240 K	95,3	85,9	91,5	100,3	92,3	90	0,423	0,403	0,0016

# TM30 DETAILS

**Rf 91,5**  
Fidelity index Rf

**Rg 100,3**  
Gammut index

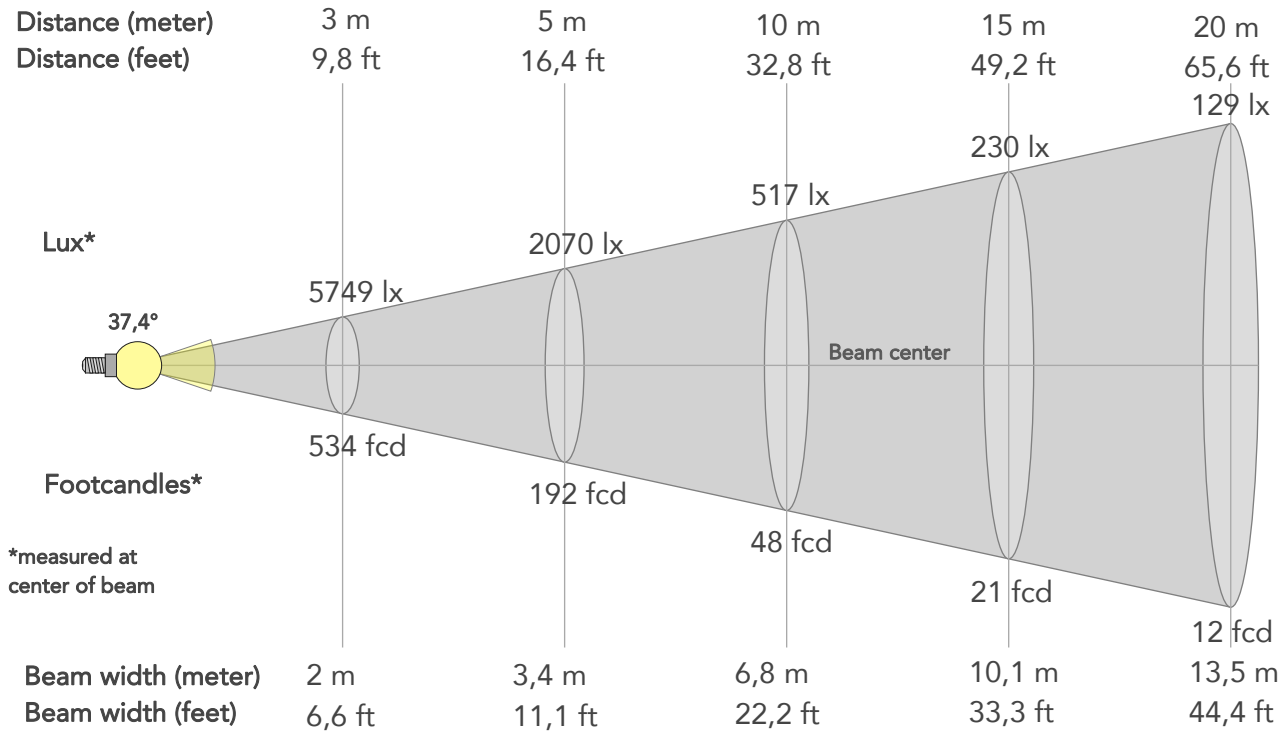
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-3%	0%
2	96	-2%	1%
3	92	-1%	3%
4	93	-2%	2%
5	92	-2%	3%
6	95	2%	2%
7	94	-2%	1%
8	98	-1%	0%
9	93	-2%	4%
10	85	-2%	9%
11	85	2%	10%
12	90	6%	1%
13	91	3%	-5%
14	90	5%	-5%
15	91	1%	-4%
16	87	1%	-10%



# BEAM DETAILS



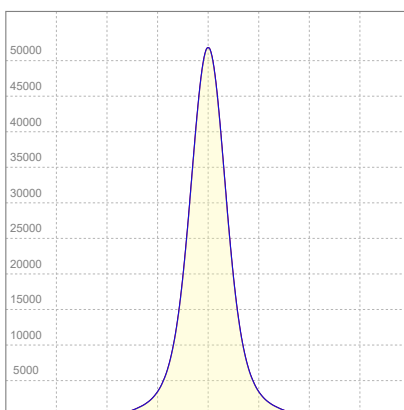
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37,4°	78,7°	121,6°	94,9%	85,9%



## 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	51743lx	12936lx	5749lx	3234lx	2070lx	920lx	517lx	230lx	129lx	83lx	57lx	32lx	21lx
Footcand.	4807fcd	1202fcd	534fcd	300fcd	192fcd	85fcd	48fcd	21fcd	12fcd	8fcd	5fcd	3fcd	2fcd
Beam wid.	0,7m	1,4m	2m	2,7m	3,4m	5,1m	6,8m	10,1m	13,5m	16,9m	20,3m	27,1m	33,8m
Beam wid.	2,2ft	4,5ft	6,6ft	8,9ft	11,1ft	16,6ft	22,2ft	33,3ft	44,4ft	55,5ft	66,6ft	88,8ft	111ft

## LINEAR DISTRIBUTION DIAGRAM

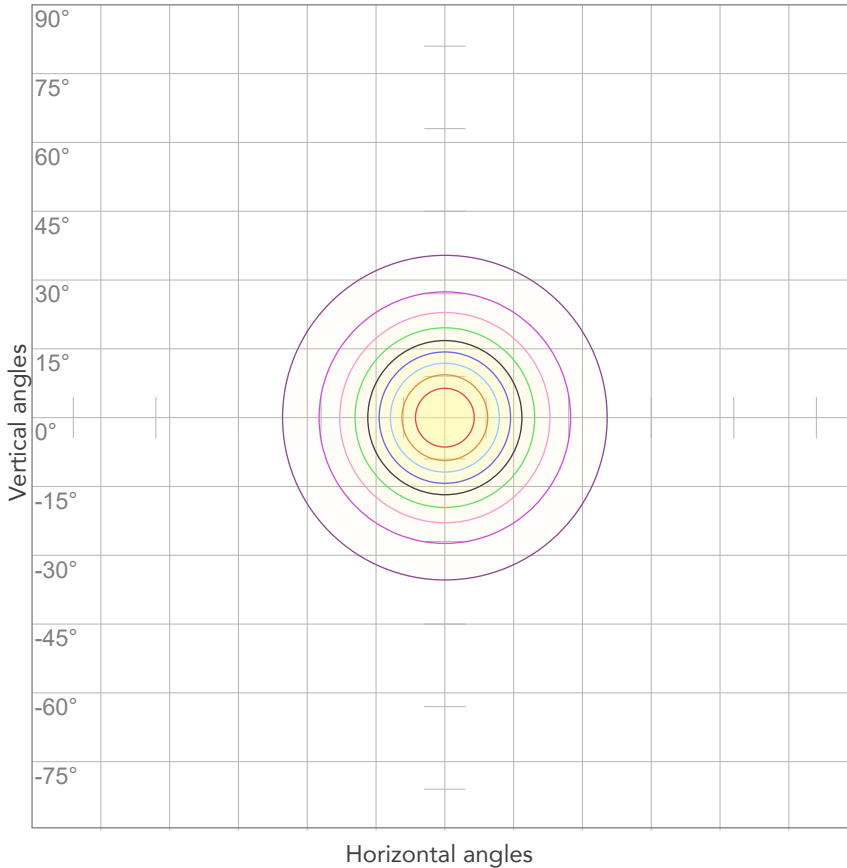


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
224V	2,45A	548W	1,0	57lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



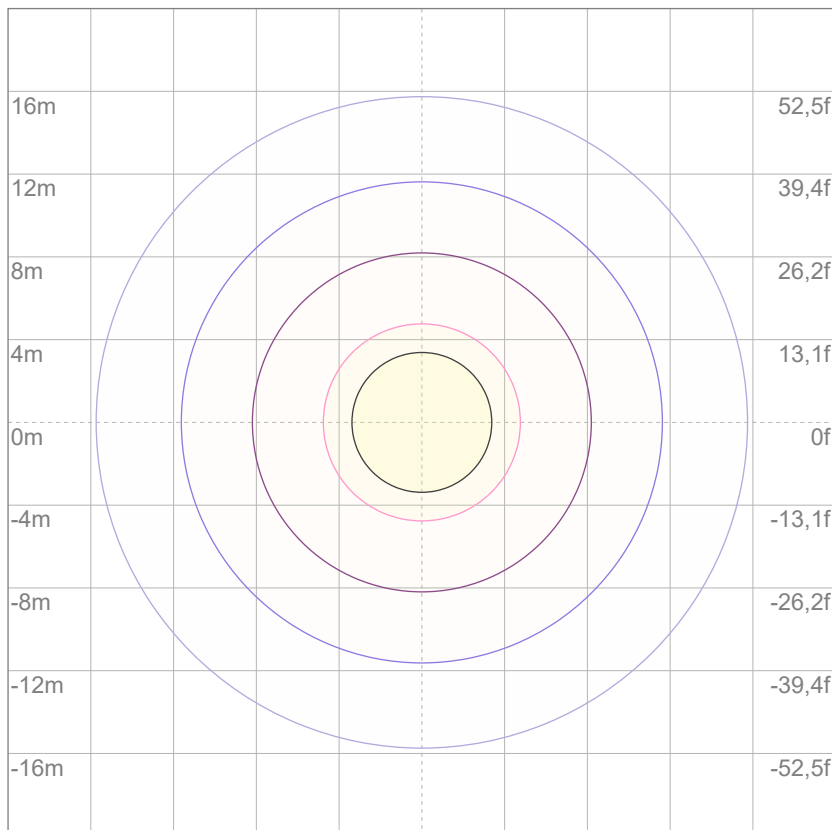
10%	5174 cd
20%	10349 cd
30%	15523 cd
40%	20697 cd
50%	25872 cd
60%	31046 cd
70%	36220 cd
80%	41395 cd

Conditions:

Number of c-planes: 4

Candela at center: 51743 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	15,5 lx
5%	25,9 lx
10%	51,7 lx
30%	155 lx
50%	259 lx

Conditions:

Number of c-planes: 4

Lux at center: 517 lx

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



Total lumen output:

29135 lm

Peak candela output:

48421 cd

Light quality:

CRI: 96,3

Color temperature:

5615 K

**PRODUCT NAME:**  
ECLPANELIP HARD 2X1

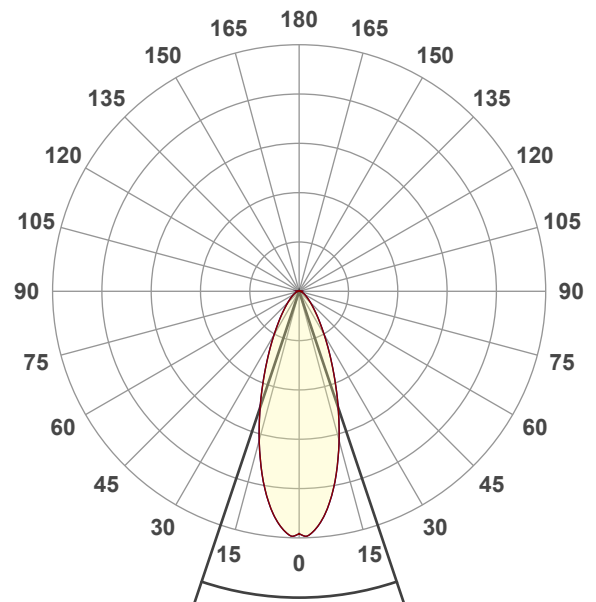
**MEASURAMENT CONDITIONS:**

Beam angle:  
LD Filter

Target:  
5600K - HQ

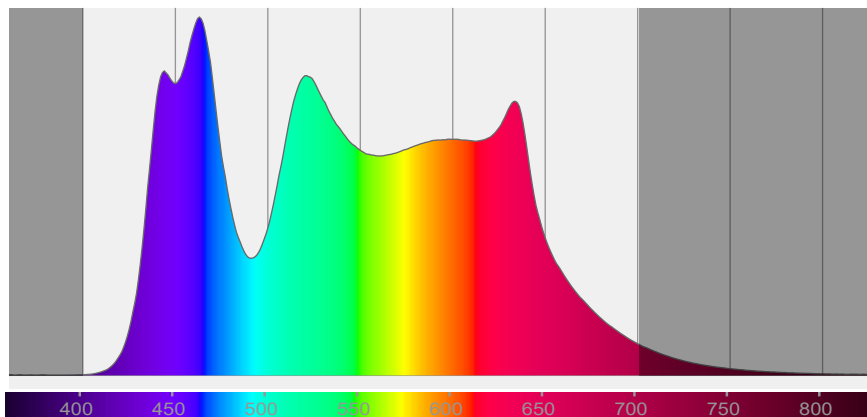
Operator:  
Salvatore Giglio

Date and time:  
09/09/2024 15:16:41

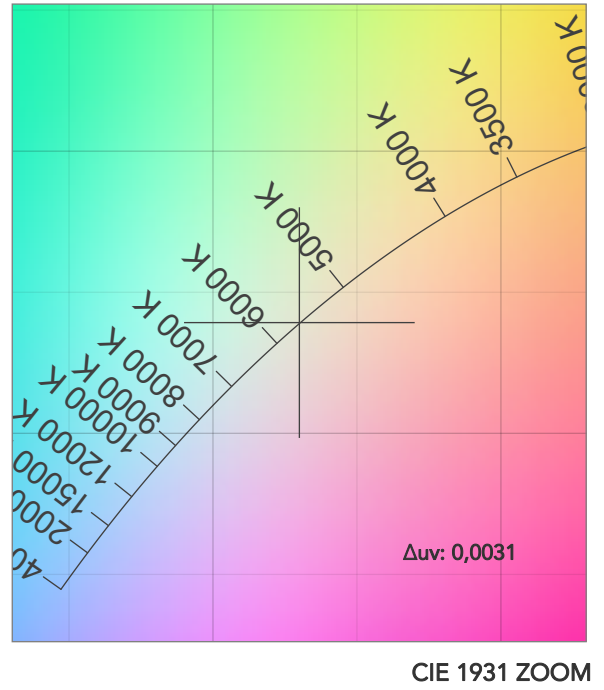
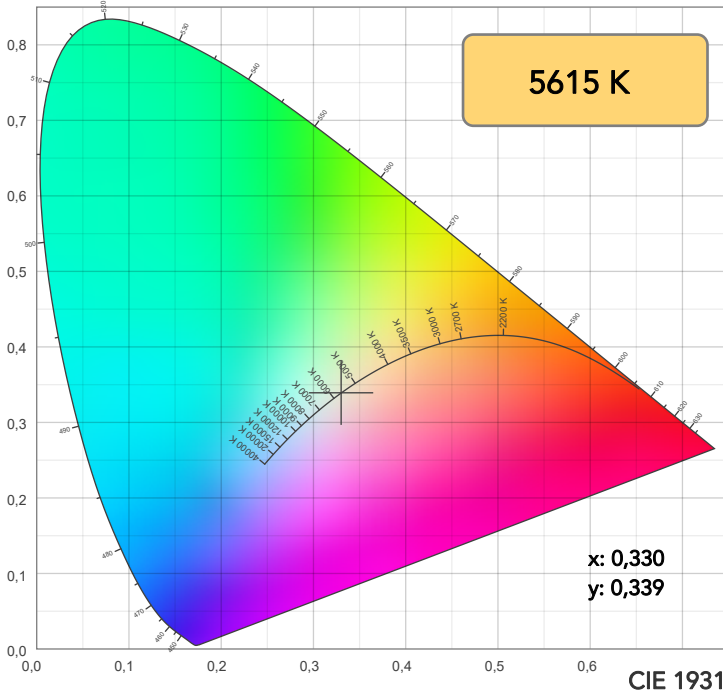


Beam angle 50%: 37,1°  
Field angle 10%: 78,1°  
Cut off angle 2.5%: 121,2°

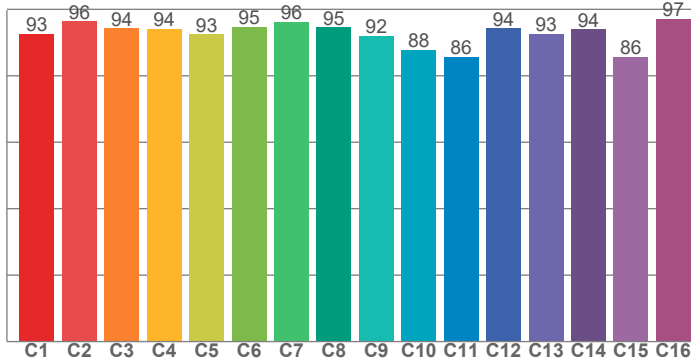
Spectra



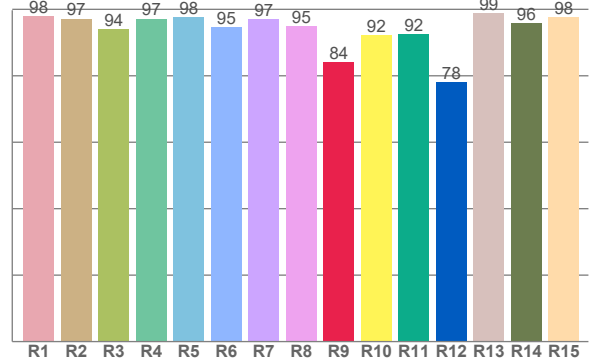
# COLOR DETAILS



TM30: 92,5



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
97,9	97,2	93,9	97,2	97,7	94,7	97,1	95,0	84,2	92,2	92,5	78,1	98,8	95,7	97,7

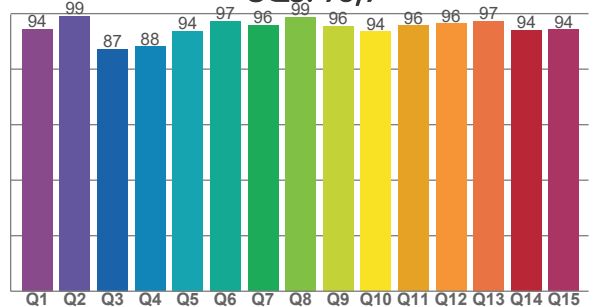
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,7	96,3	94,2	94,1	92,5	94,7	96,2	94,5	92,0	87,8	85,7	94,2	92,7	94,0	85,6	97,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,4	99,1	87,3	88,1	93,8	97,4	95,8	98,8	95,5	93,5	95,7	96,5	97,3	94,2	94,3

CQS: 93,9



## COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
5615 K	96,3	84,2	92,5	101,0	93,9	95	0,330	0,339	0,0031

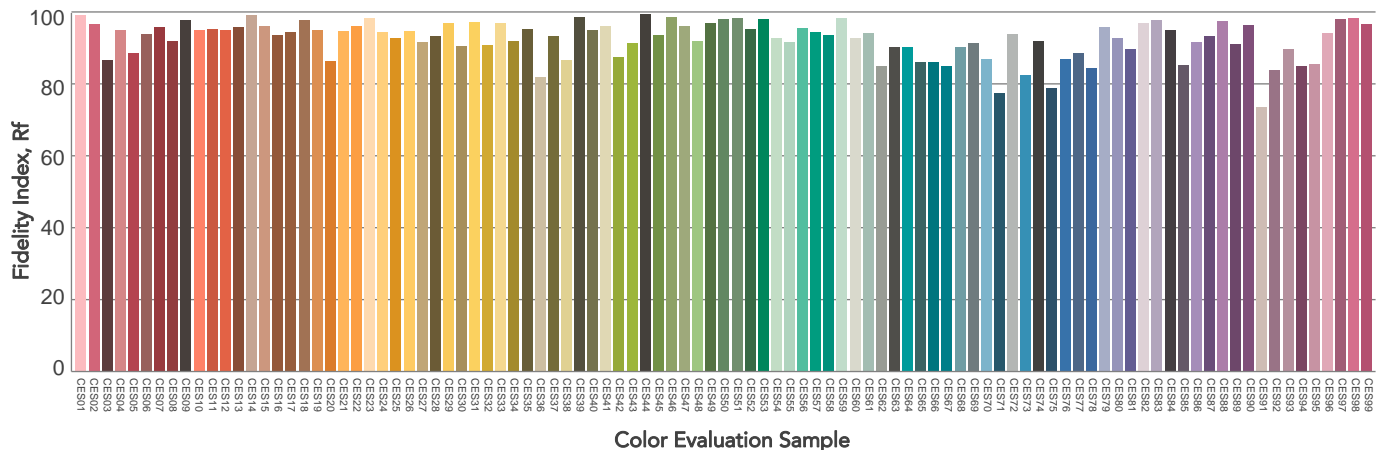
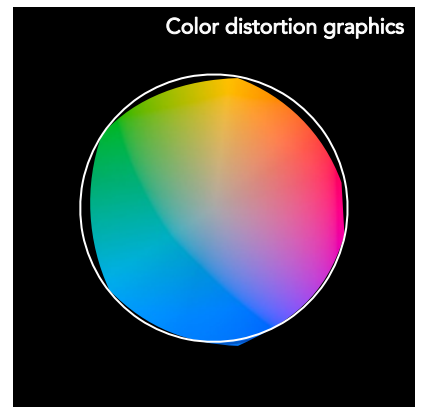
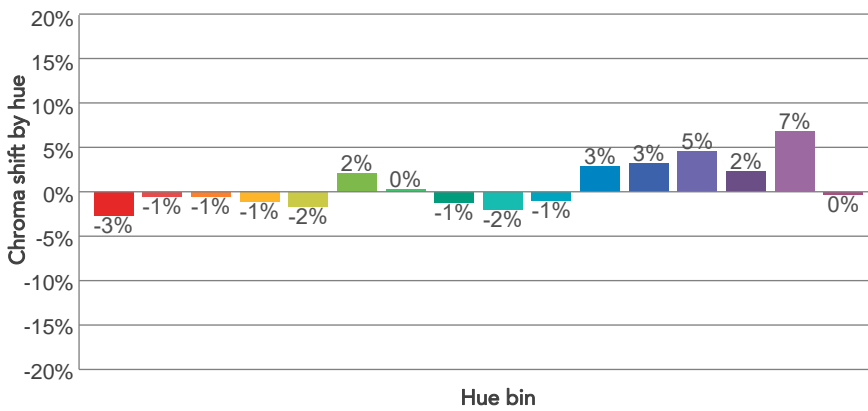
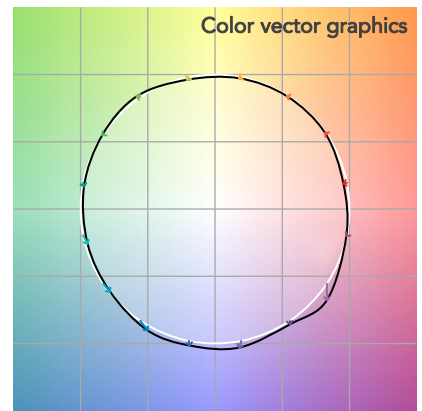
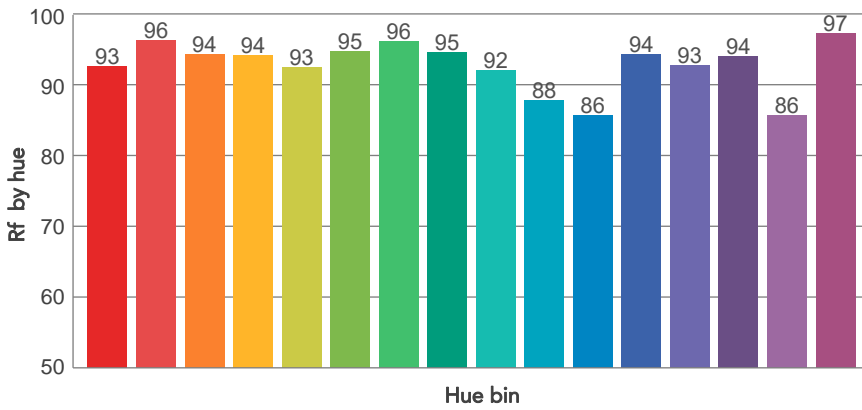
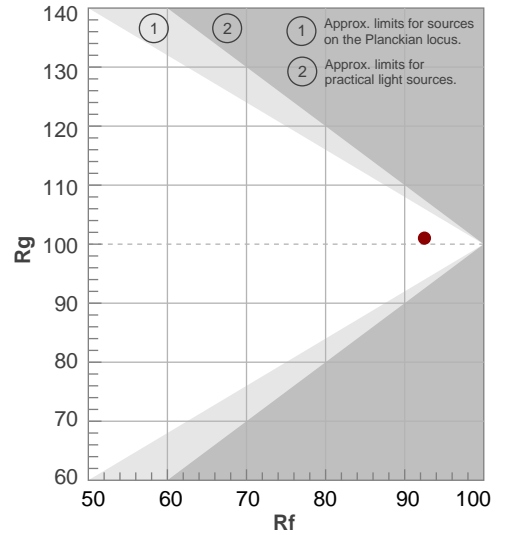


# TM30 DETAILS

**Rf 92,5**  
Fidelity index Rf

**Rg 101,0**  
Gammut index

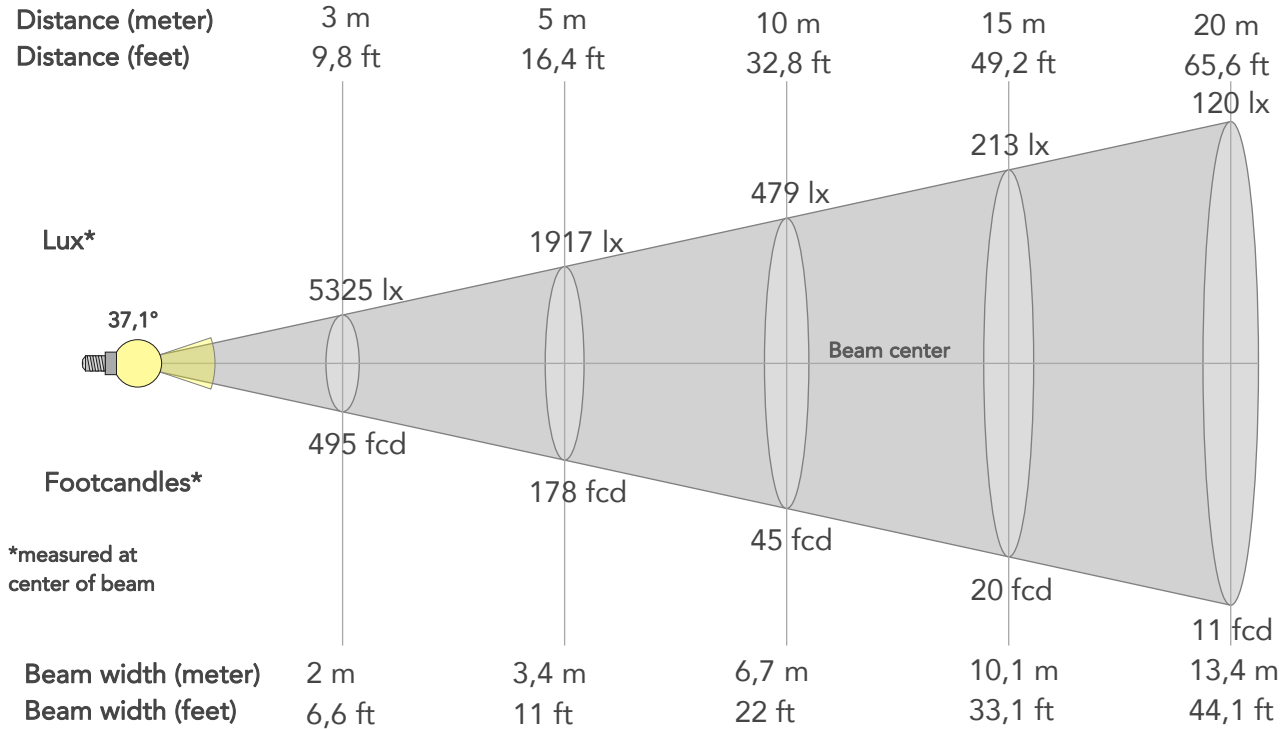
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	-3%	0%
2	96	-1%	2%
3	94	-1%	2%
4	94	-1%	1%
5	93	-2%	2%
6	95	2%	2%
7	96	0%	1%
8	95	-1%	3%
9	92	-2%	7%
10	88	-1%	8%
11	86	3%	8%
12	94	3%	1%
13	93	5%	-2%
14	94	2%	-1%
15	86	7%	-10%
16	97	0%	-1%



# BEAM DETAILS



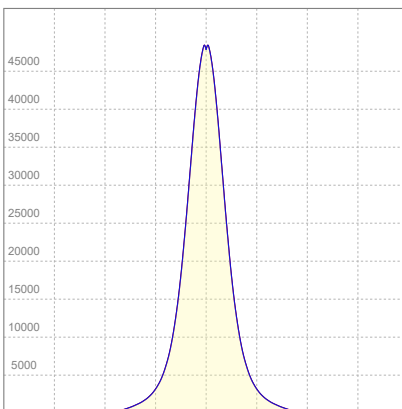
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37,1°	78,1°	121,2°	94,9%	85,9%



## 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	47929lx	11982lx	5325lx	2996lx	1917lx	852lx	479lx	213lx	120lx	77lx	53lx	30lx	19lx
Footcand.	4453fcd	1113fcd	495fcd	278fcd	178fcd	79fcd	45fcd	20fcd	11fcd	7fcd	5fcd	3fcd	2fcd
Beam wid.	0,7m	1,3m	2m	2,7m	3,4m	5m	6,7m	10,1m	13,4m	16,8m	20,2m	26,9m	33,6m
Beam wid.	2,2ft	4,4ft	6,6ft	8,8ft	11ft	16,5ft	22ft	33,1ft	44,1ft	55,1ft	66,1ft	88,2ft	110,2ft

## LINEAR DISTRIBUTION DIAGRAM

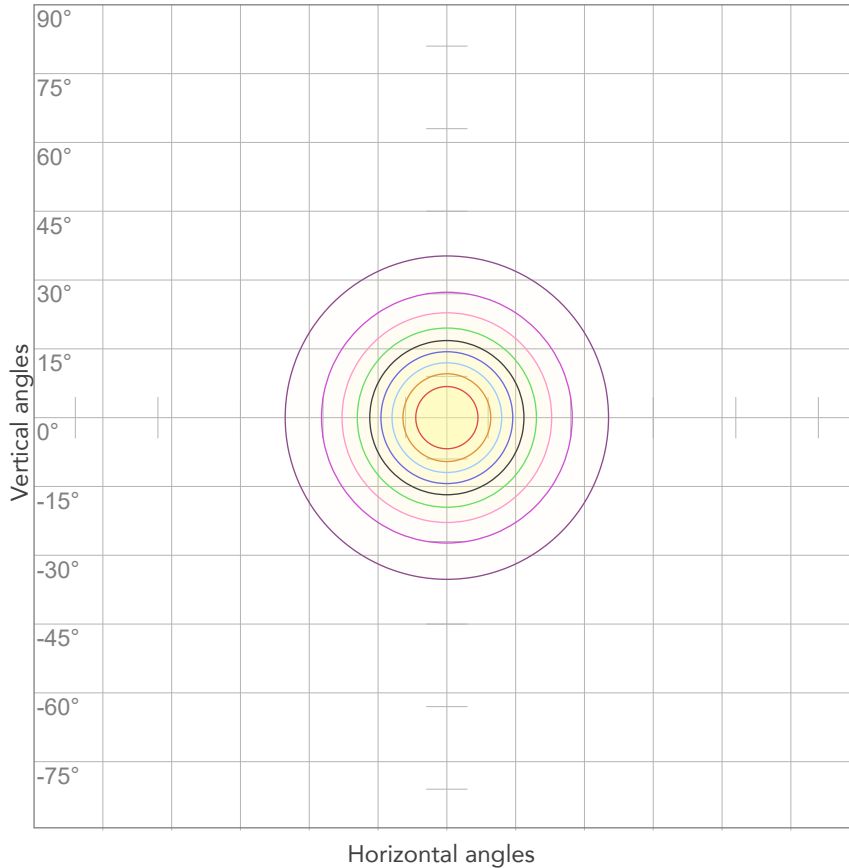


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
223V	2,65A	590W	1,0	49lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



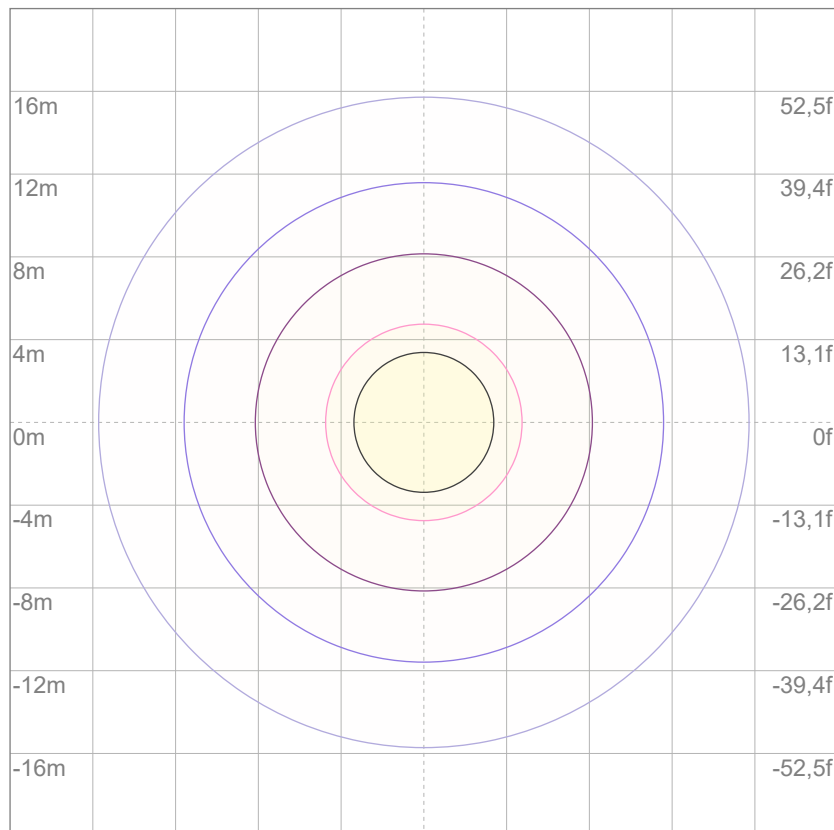
10%	4793 cd
20%	9586 cd
30%	14379 cd
40%	19172 cd
50%	23965 cd
60%	28758 cd
70%	33550 cd
80%	38343 cd

Conditions:

Number of c-planes: 4

Candela at center: 47929 cd

## ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	14,4 lx
5%	24,0 lx
10%	47,9 lx
30%	144 lx
50%	240 lx

Conditions:

Number of c-planes: 4

Lux at center: 479 lx

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