



# Photometric Test Report



## EclDisplay CRMXVW

PROFILE LENS 18°

35W Variable White LED Spotlight with  
Wireless CRMX and wired control,  
without lens

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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:

964 lm

Peak candela output:

16271 cd

Light quality:

CRI: 96,4

Color temperature:

4320 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 18°

Target:

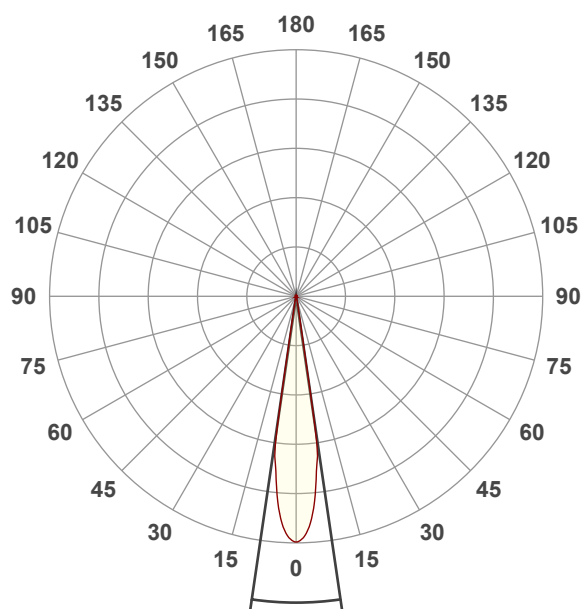
Full On

Operator:

Giacomo Matteo

Date and time:

18/06/2024 14:57:00

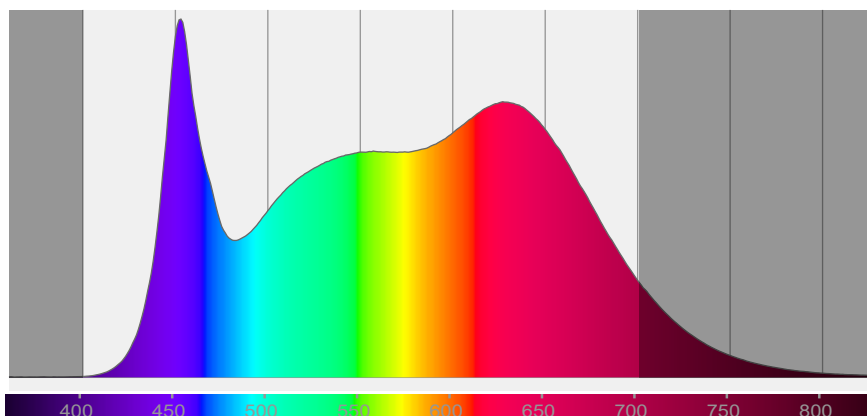


Beam angle 50%: 16,7°

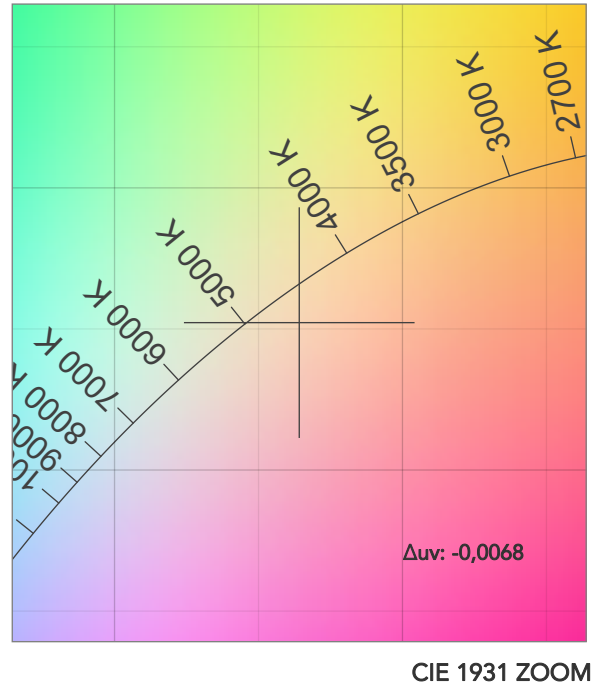
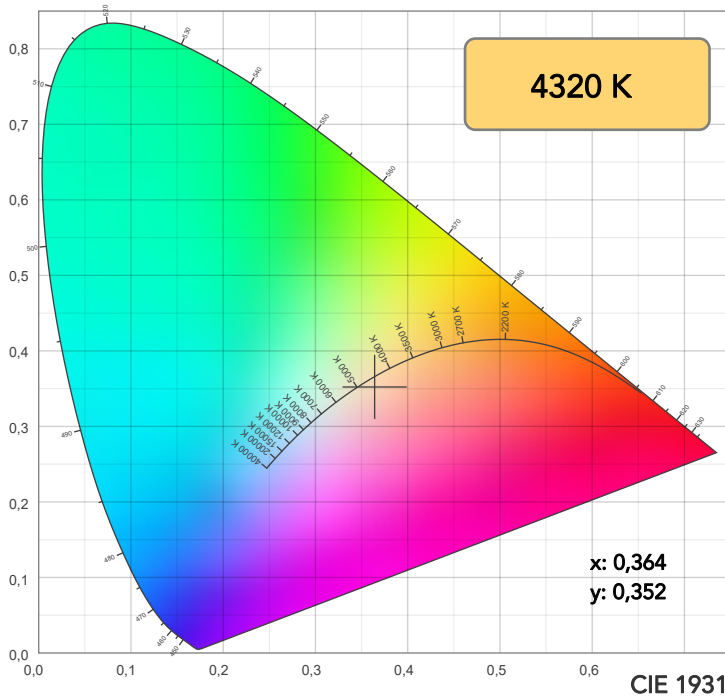
Field angle 10%: 19°

Cut off angle 2.5%: 21,1°

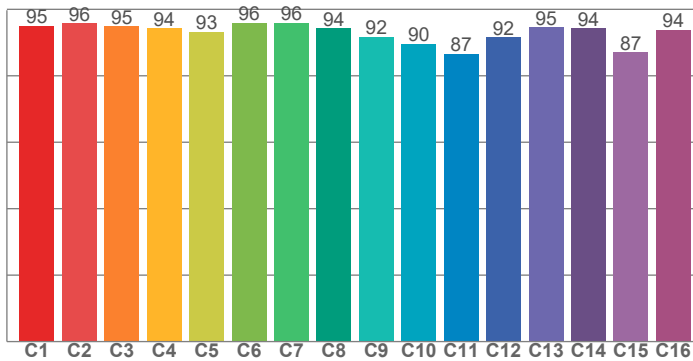
**Spectra**



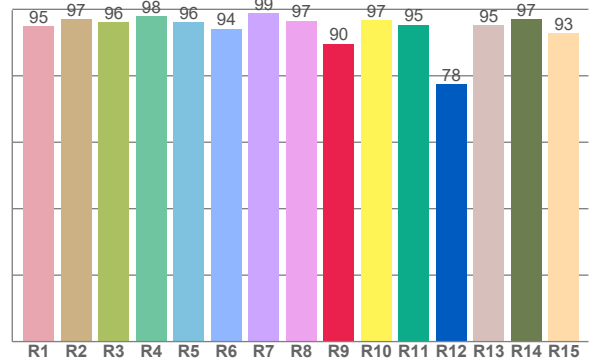
## COLOR DETAILS



TM30: 93,0



CRI: 96,4 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
95,0	97,0	96,2	97,8	96,0	94,2	98,7	96,5	89,6	96,6	95,3	77,6	95,3	97,0	92,9

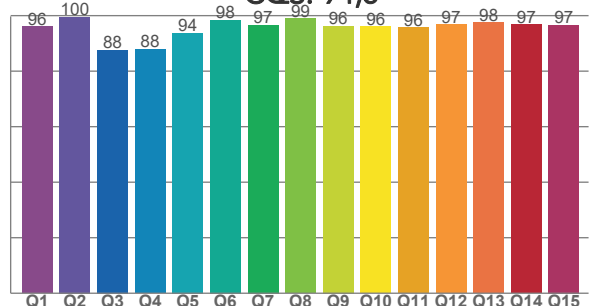
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,0	95,8	94,9	94,3	93,2	95,9	95,9	94,3	91,8	89,6	86,7	91,6	94,6	94,3	87,1	93,7

CQS Q values

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

CQS: 94,5



## COLOR PARAMETERS

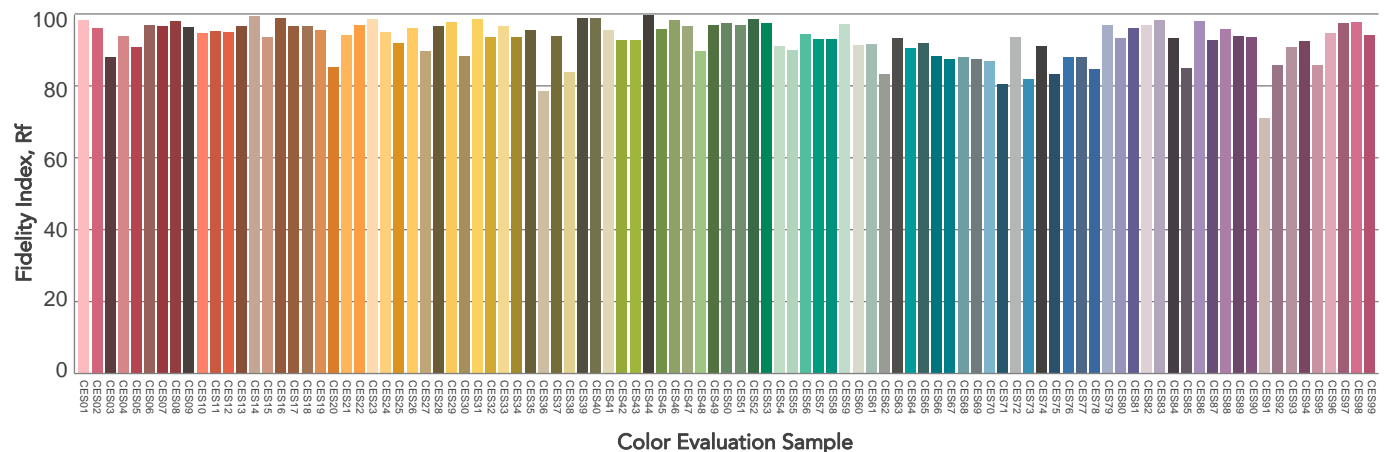
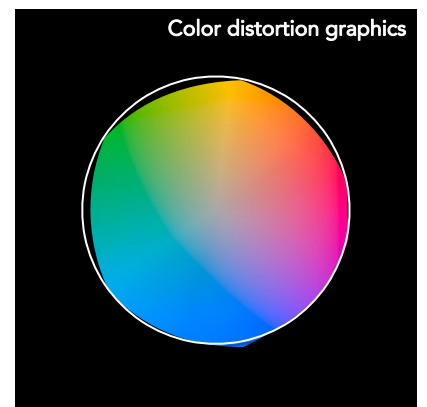
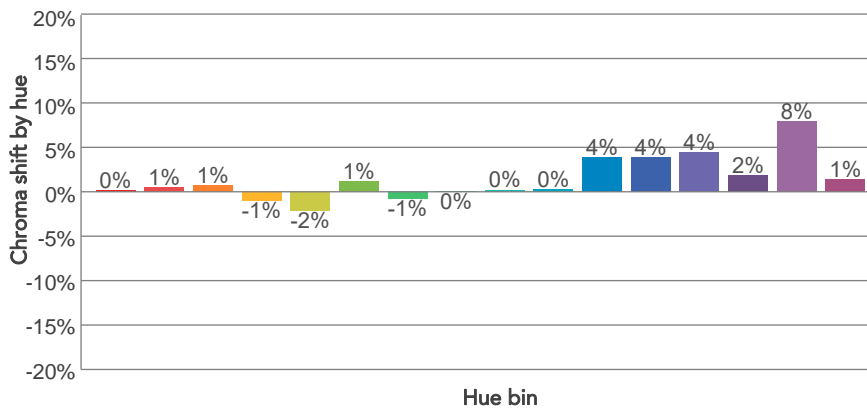
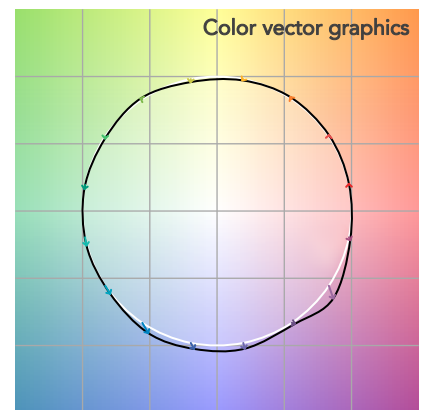
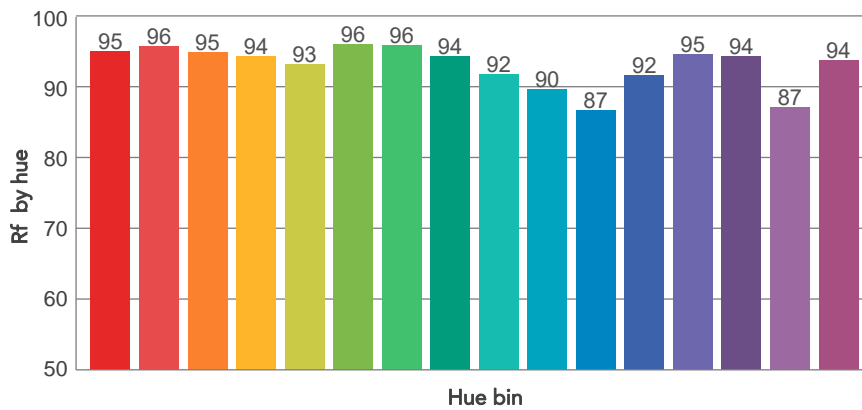
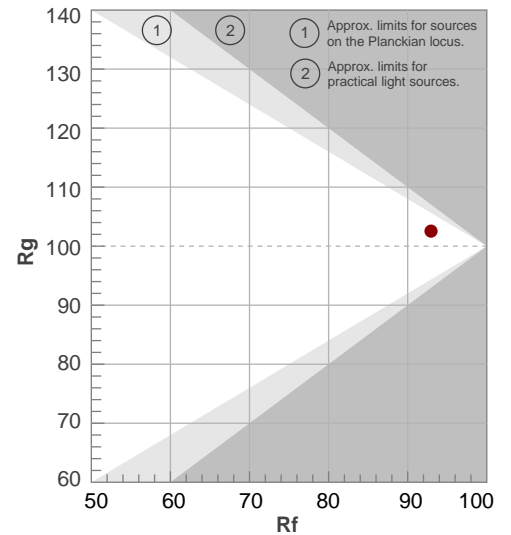
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4320 K	96,4	89,6	93,0	102,5	94,5	98	0,364	0,352	-0,0068

# TM30 DETAILS

**Rf 93,0**  
Fidelity index Rf

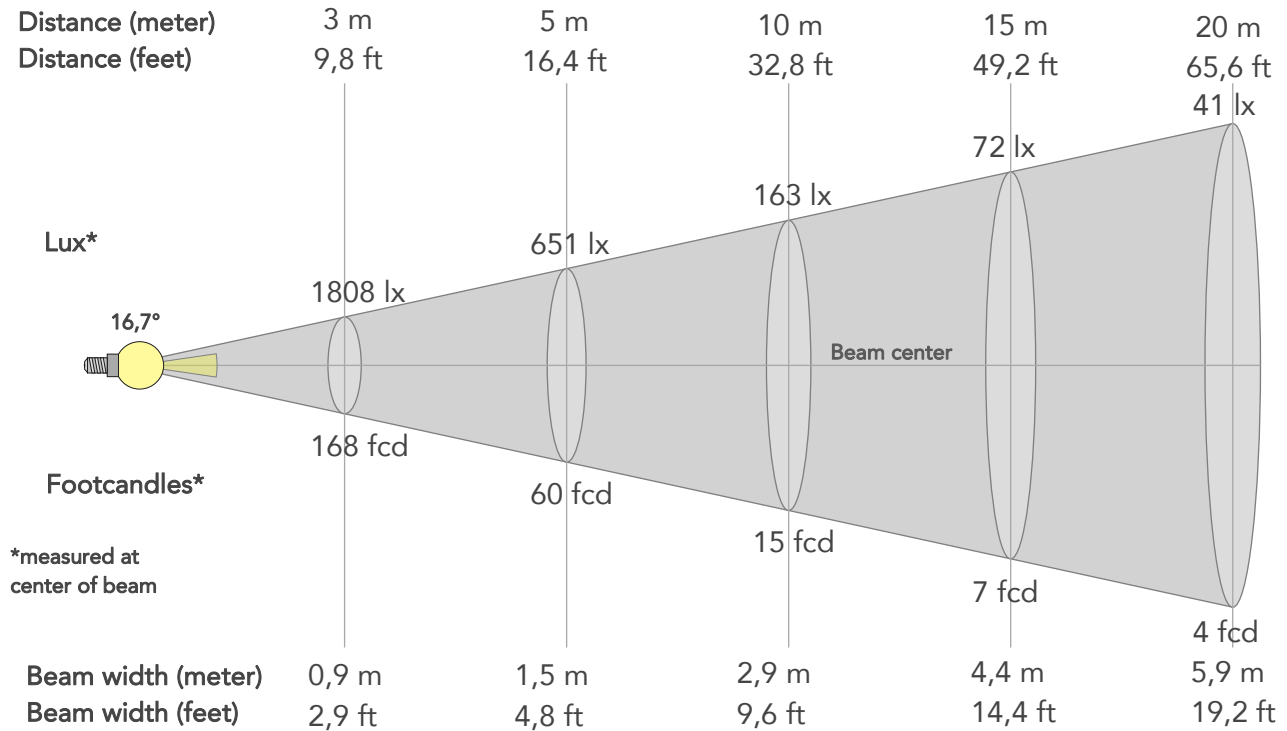
**Rg 102,5**  
Gammut index

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



# BEAM DETAILS

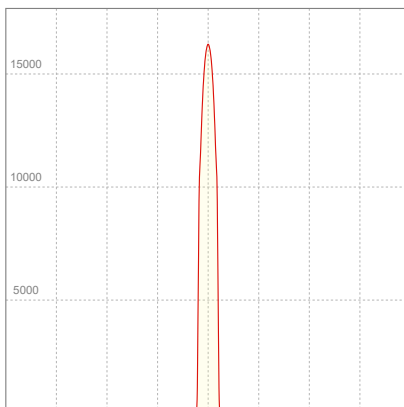
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16,7°	19°	21,1°	99,2%	99,1%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	16271lx	4068lx	1808lx	1017lx	651lx	289lx	163lx	72lx	41lx	26lx	18lx	10lx	7lx
Footcand.	1512fcd	378fcd	168fcd	94fcd	60fcd	27fcd	15fcd	7fcd	4fcd	2fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,2m	2,9m	4,4m	5,9m	7,3m	8,8m	11,7m	14,6m
Beam wid.	1ft	1,9ft	2,9ft	3,8ft	4,8ft	7,2ft	9,6ft	14,4ft	19,2ft	24ft	28,8ft	38,4ft	48ft

## LINEAR DISTRIBUTION DIAGRAM

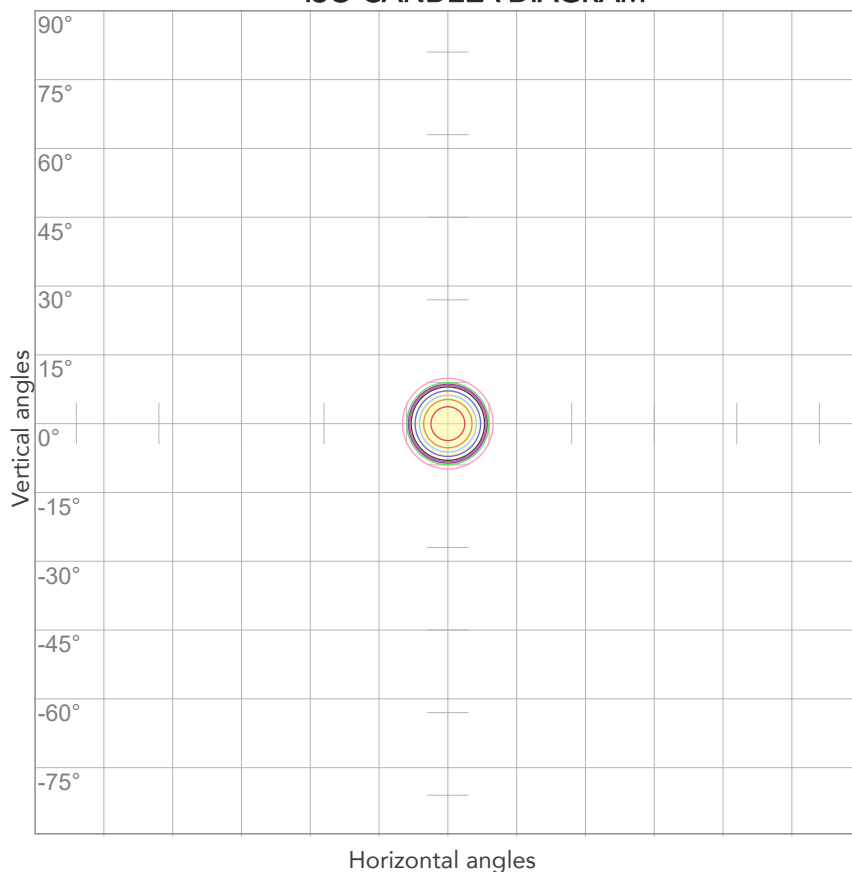


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
227V	0,149A	32,1W	0,95	30lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



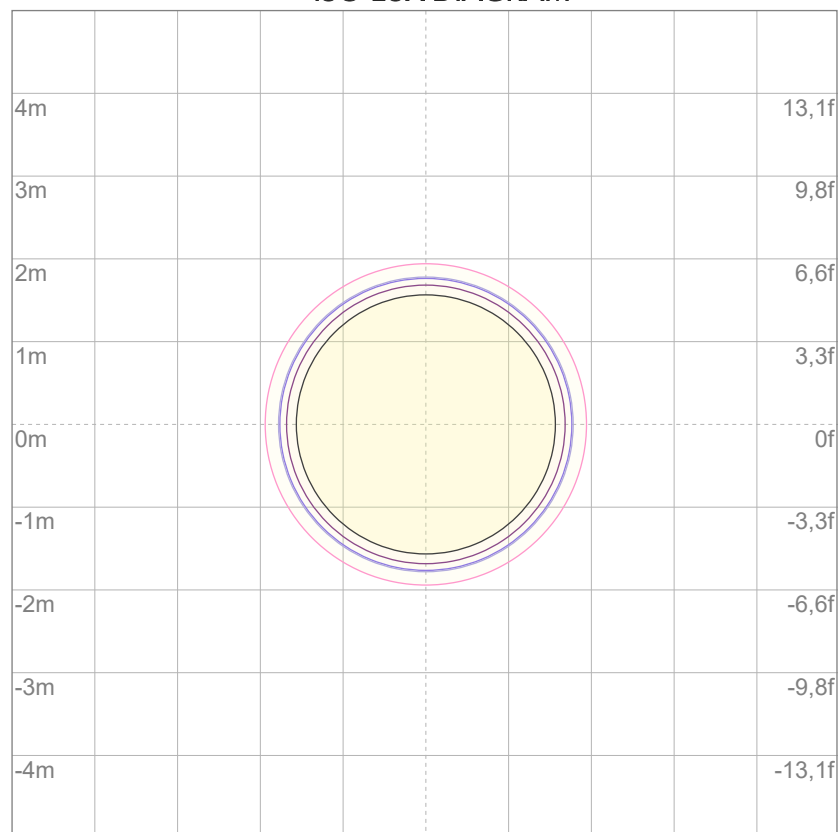
10%	1627 cd
20%	3254 cd
30%	4881 cd
40%	6508 cd
50%	8135 cd
60%	9763 cd
70%	11390 cd
80%	13017 cd

### Conditions:

Number of c-planes: 2

Candela at center: 16271 cd

## ISO LUX DIAGRAM



3%	4,88 lx
5%	8,14 lx
10%	16,3 lx
30%	48,8 lx
50%	81,4 lx

### Conditions:

Number of c-planes: 2

Lux at center: 163 lx

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





Total lumen output:

760 lm

Peak candela output:

12772 cd

Light quality:

CRI: 96,7

Color temperature:

2747 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 18°

Target:

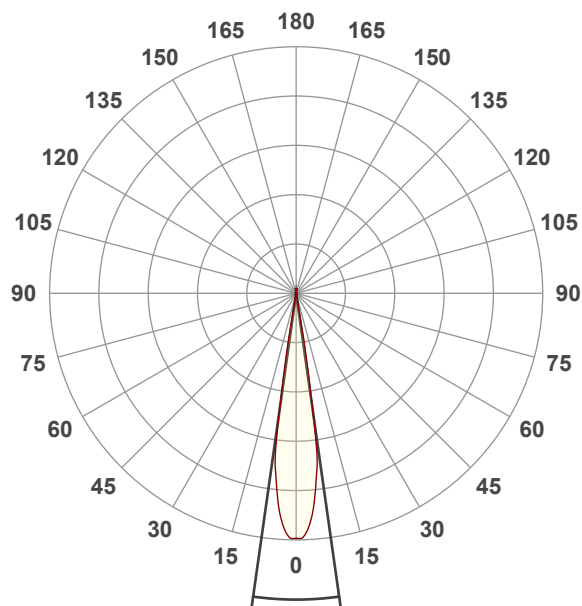
Warm White

Operator:

Giacomo Matteo

Date and time:

18/06/2024 14:55:39

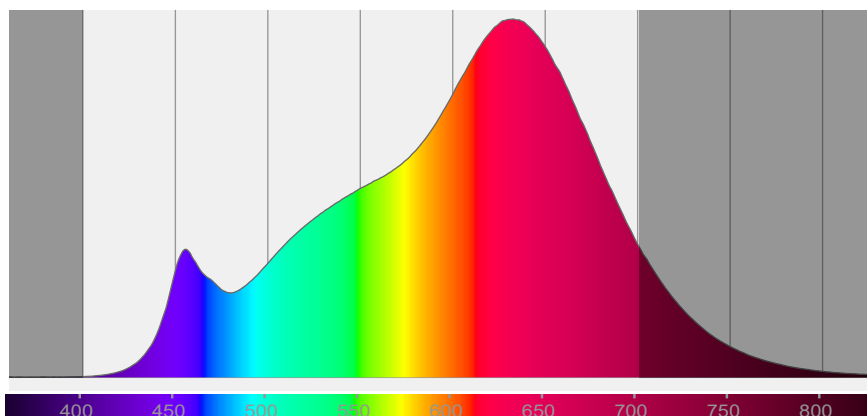


Beam angle 50%: 16,1°

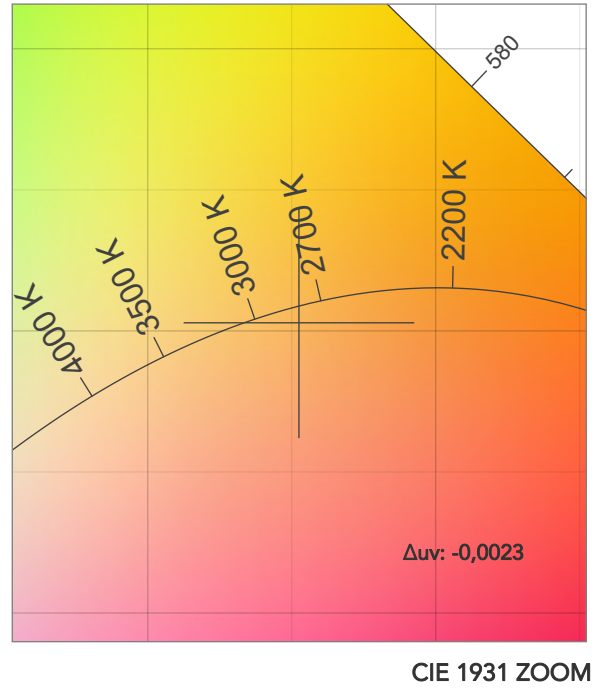
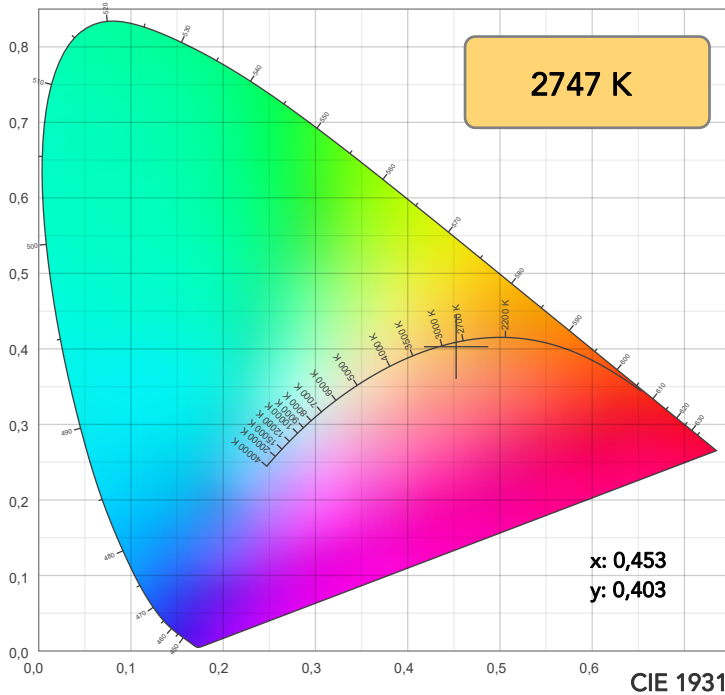
Field angle 10%: 19,9°

Cut off angle 2.5%: 20,8°

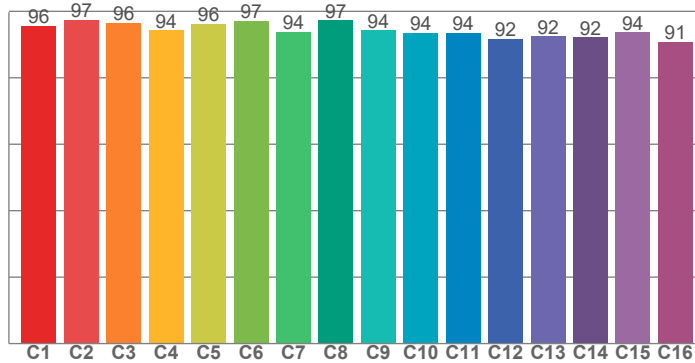
**Spectra**



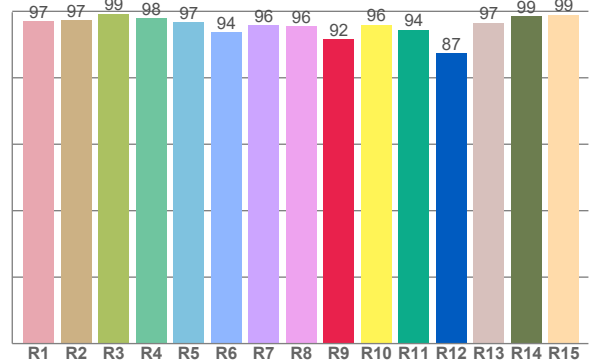
# COLOR DETAILS



TM30: 94,6



CRI: 96,7 (R1-R8)



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

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

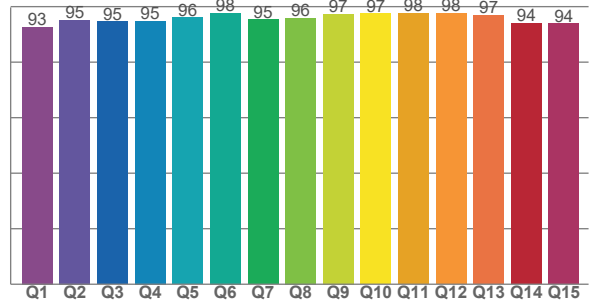
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,6	97,3	96,5	94,3	96,2	97,1	93,8	97,2	94,3	93,5	93,6	91,8	92,4	92,2	93,7	90,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,7	95,1	94,6	94,8	96,1	97,8	95,3	95,9	97,3	97,5	97,6	97,6	96,9	94,0	93,9

CQS: 95,3



## COLOR PARAMETERS

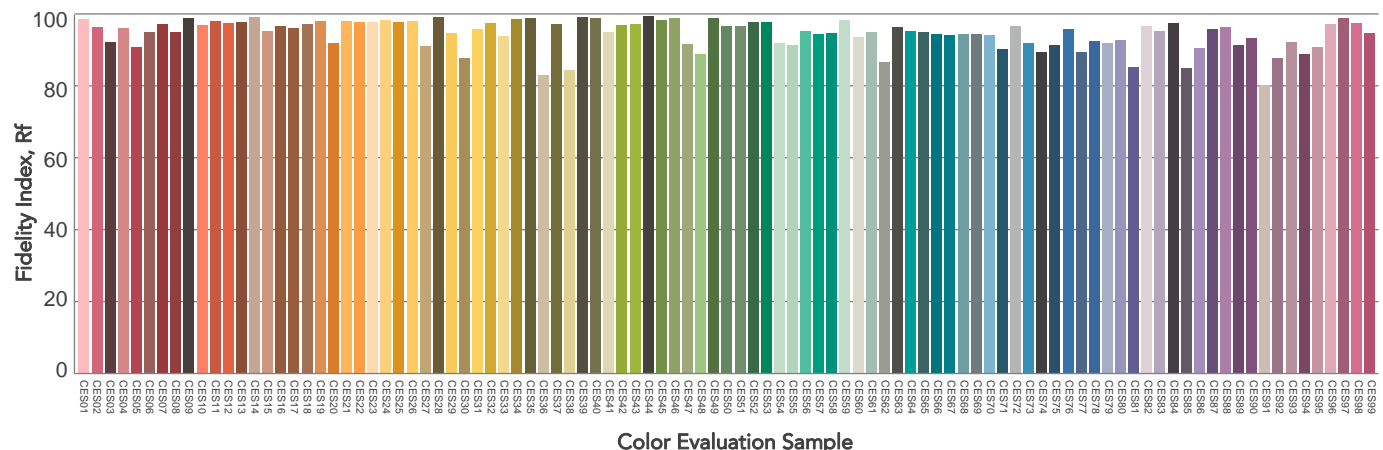
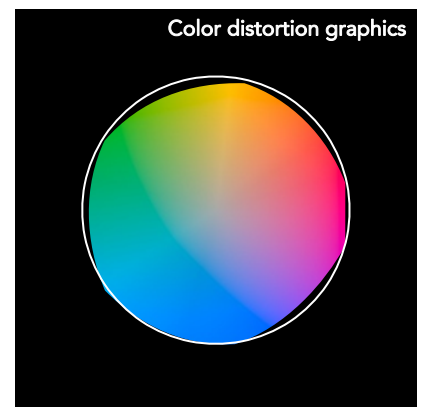
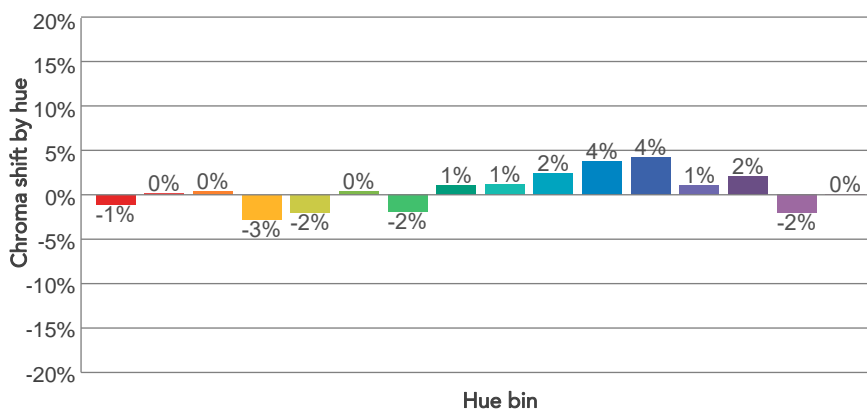
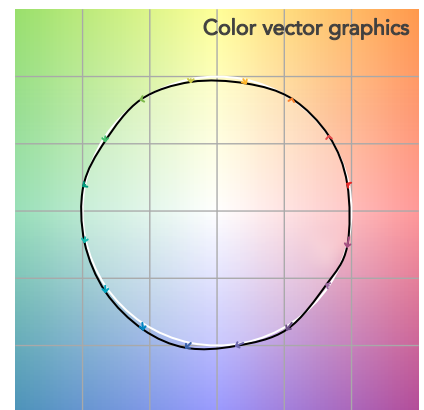
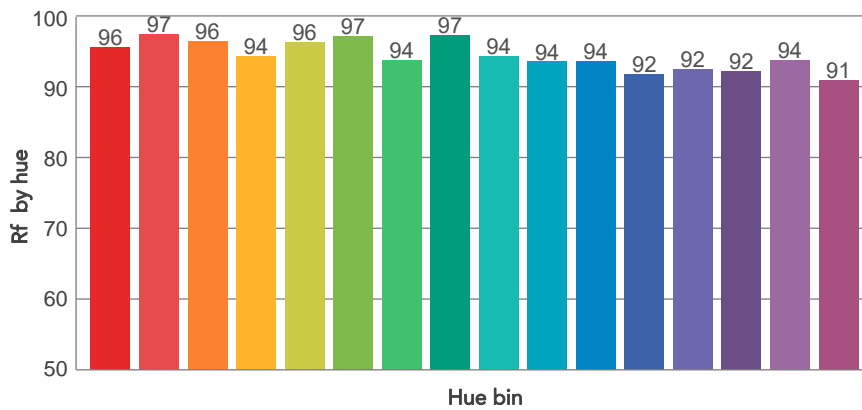
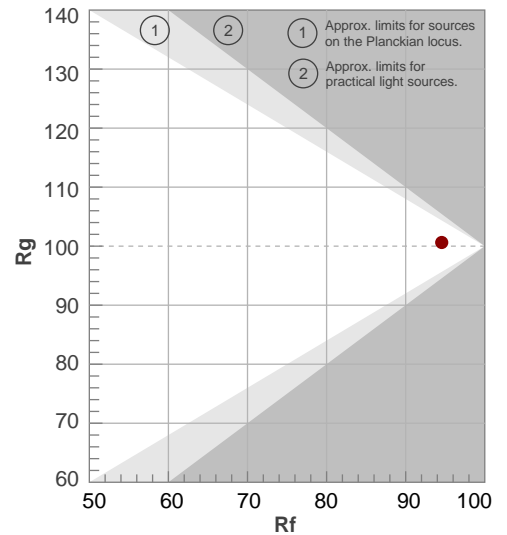
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2747 K	96,7	91,6	94,6	100,6	95,3	97	0,453	0,403	-0,0023

# TM30 DETAILS

**Rf 94,6**  
Fidelity index Rf

**Rg 100,6**  
Gammut index

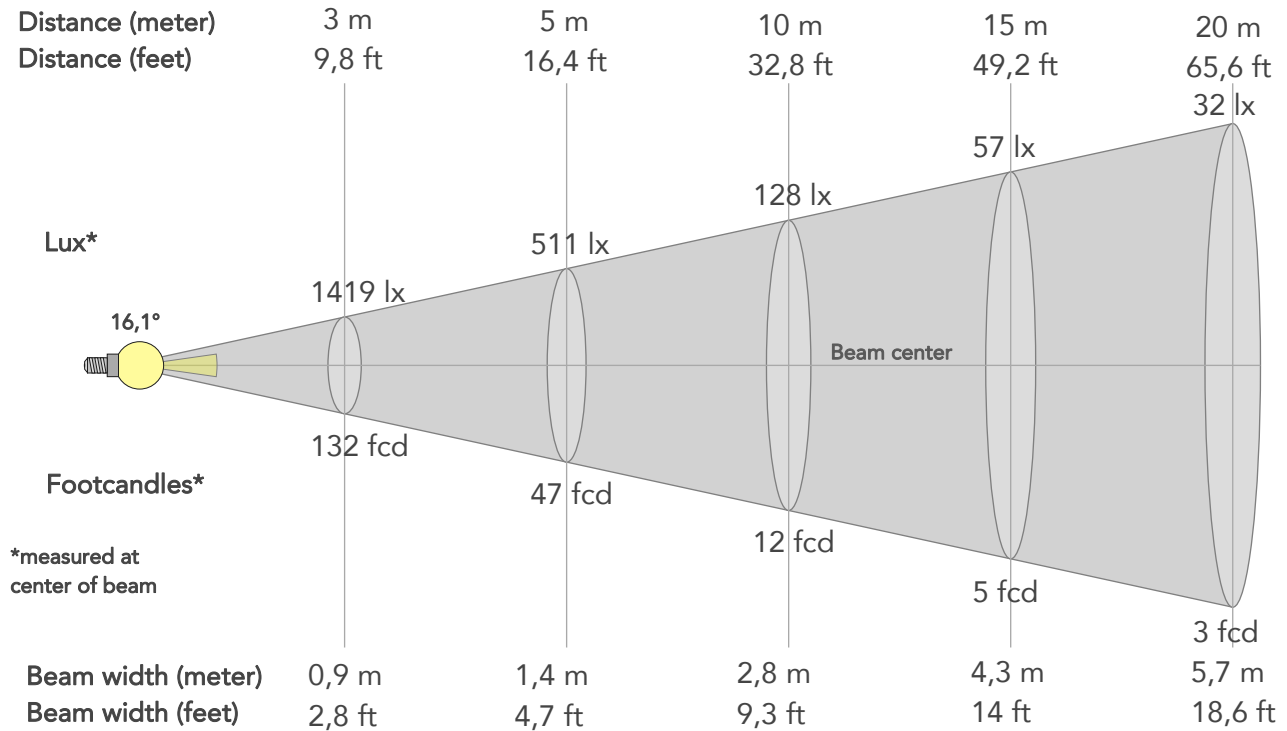
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	96	-1%	1%
2	97	0%	0%
3	96	0%	0%
4	94	-3%	-2%
5	96	-2%	0%
6	97	0%	1%
7	94	-2%	3%
8	97	1%	1%
9	94	1%	3%
10	94	2%	4%
11	94	4%	3%
12	92	4%	-3%
13	92	1%	-6%
14	92	2%	-6%
15	94	-2%	0%
16	91	0%	-7%



# BEAM DETAILS



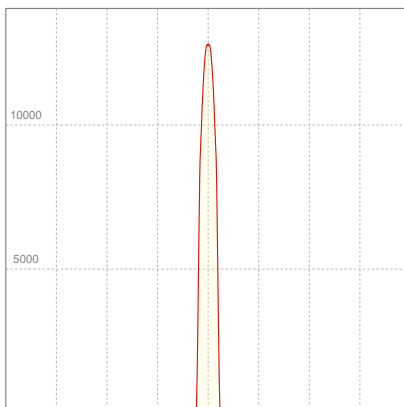
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16,1°	19,9°	20,8°	99,2%	98,9%



## 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	12772lx	3193lx	1419lx	798lx	511lx	227lx	128lx	57lx	32lx	20lx	14lx	8lx	5lx
Footcand.	1187fcd	297fcd	132fcd	74fcd	47fcd	21fcd	12fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	0,3m	0,6m	0,9m	1,1m	1,4m	2,1m	2,8m	4,3m	5,7m	7,1m	8,5m	11,3m	14,2m
Beam wid.	0,9ft	1,9ft	2,8ft	3,7ft	4,7ft	7ft	9,3ft	14ft	18,6ft	23,3ft	27,9ft	37,2ft	46,5ft

## LINEAR DISTRIBUTION DIAGRAM

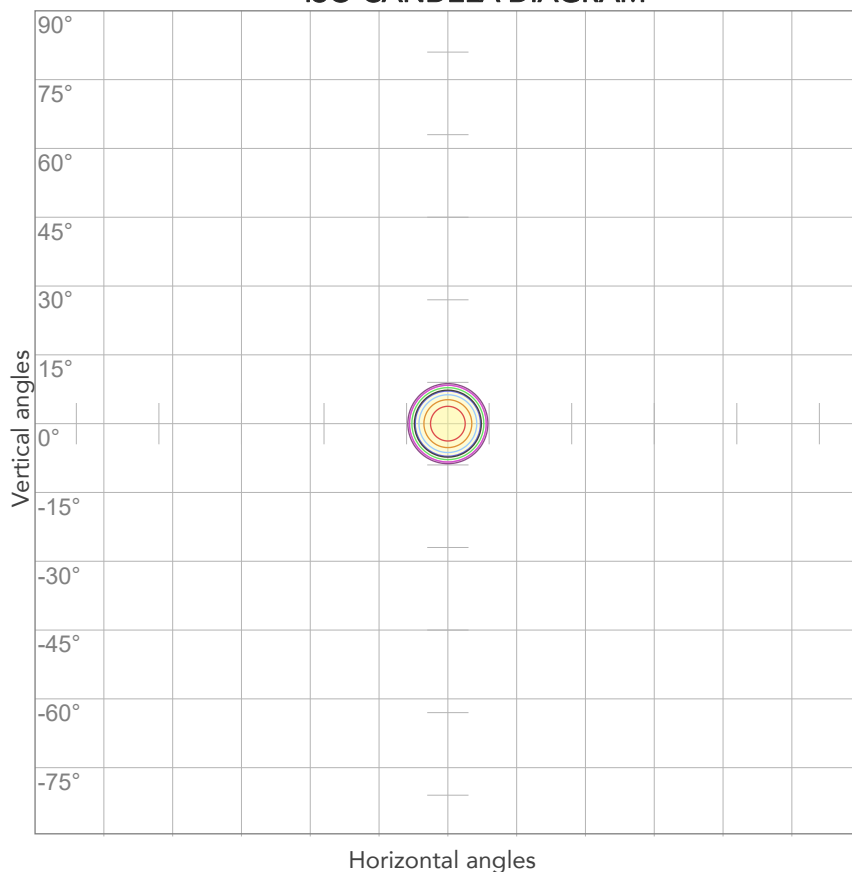


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
227V	0,148A	31,7W	0,95	24lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



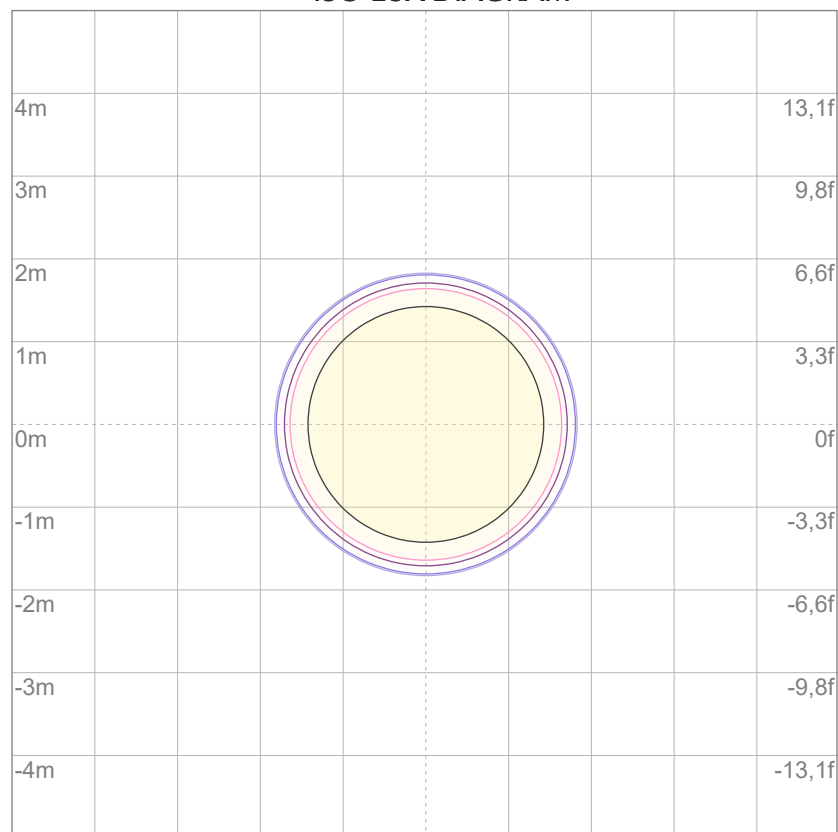
10%	1277 cd
20%	2554 cd
30%	3832 cd
40%	5109 cd
50%	6386 cd
60%	7663 cd
70%	8941 cd
80%	10218 cd

### Conditions:

Number of c-planes: 2

Candela at center: 12772 cd

## ISO LUX DIAGRAM



3%	3,83 lx
5%	6,39 lx
10%	12,8 lx
30%	38,3 lx
50%	63,9 lx

### Conditions:

Number of c-planes: 2

Lux at center: 128 lx

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



Total lumen output:

1071 lm

Peak candela output:

18077 cd

Light quality:

CRI: 96,1

Color temperature:

6504 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 18°

Target:

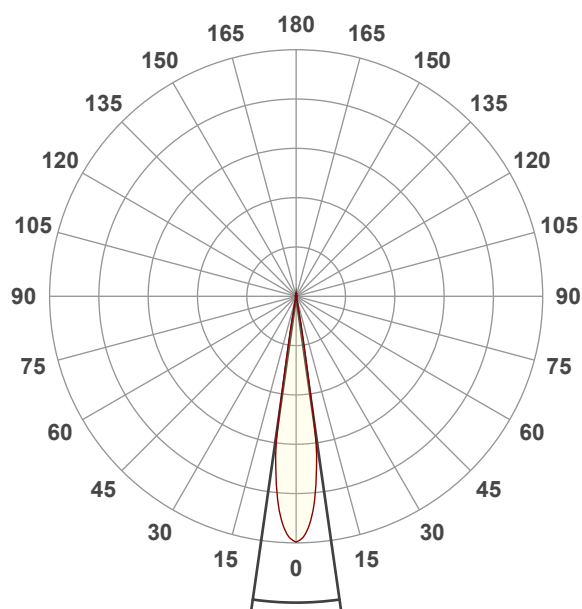
Cold White

Operator:

Giacomo Matteo

Date and time:

18/06/2024 14:53:58

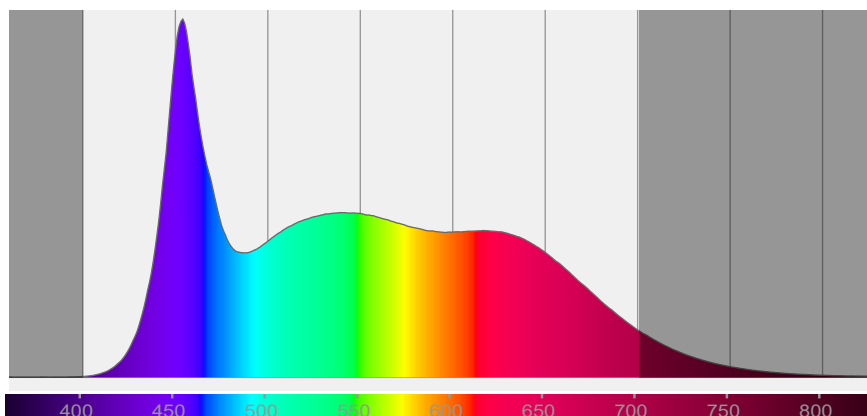


Beam angle 50%: 16,3°

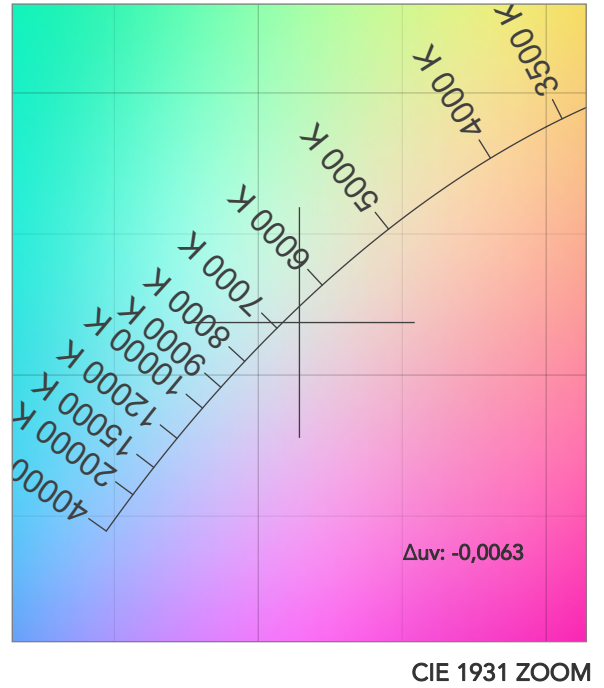
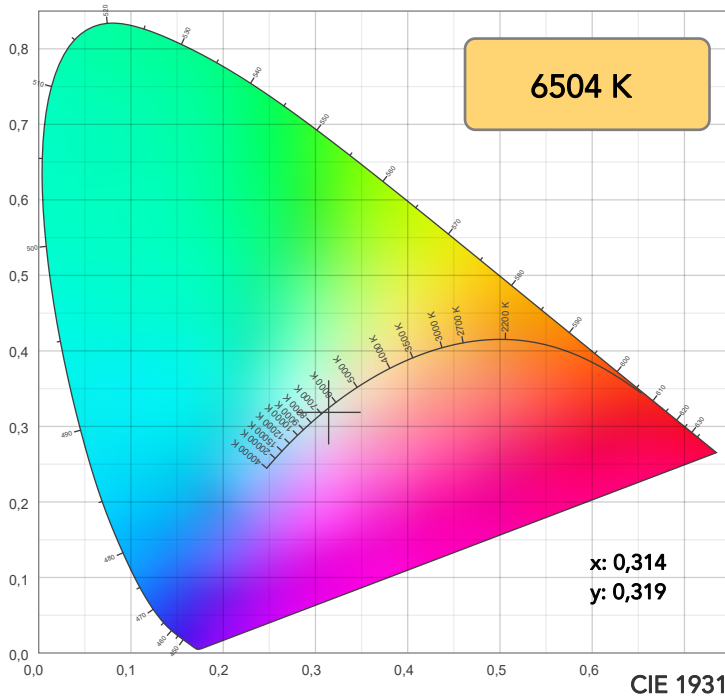
Field angle 10%: 20,1°

Cut off angle 2.5%: 21,3°

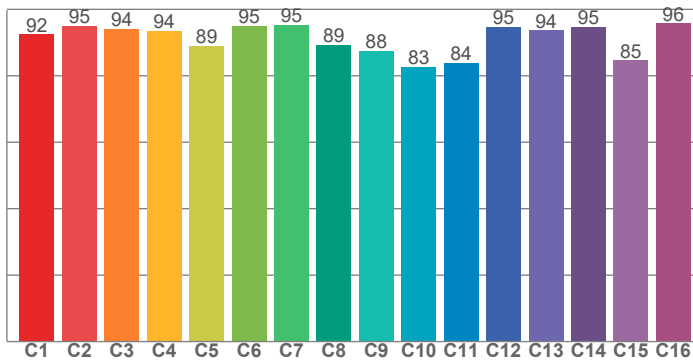
**Spectra**



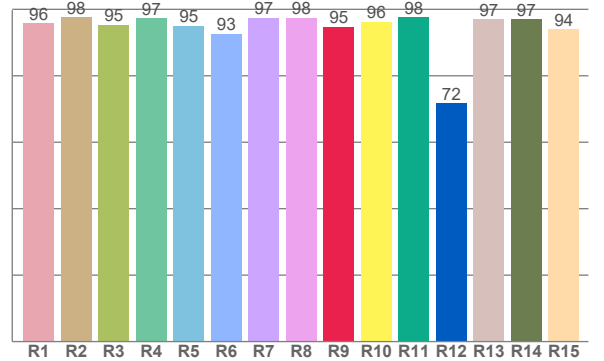
# COLOR DETAILS



TM30: 90,9



CRI: 96,1 (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
95,9	97,7	95,4	97,2	95,0	92,7	97,5	97,5	94,8	96,2	97,5	71,7	97,0	97,0	94,0

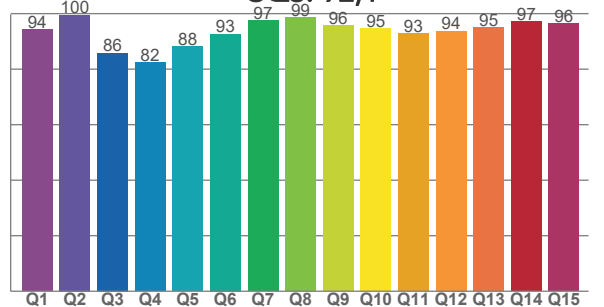
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,5	95,0	94,1	93,6	88,9	94,9	95,3	89,2	87,5	82,7	83,9	94,7	93,7	94,6	84,6	95,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,3	99,6	85,8	82,4	88,1	92,6	97,5	98,6	95,7	94,7	92,9	93,7	94,9	97,2	96,4

CQS: 92,1



## 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	$\Delta uv$
6504 K	96,1	94,8	90,9	99,9	92,1	96	0,314	0,319	-0,0063

## TM30 DETAILS

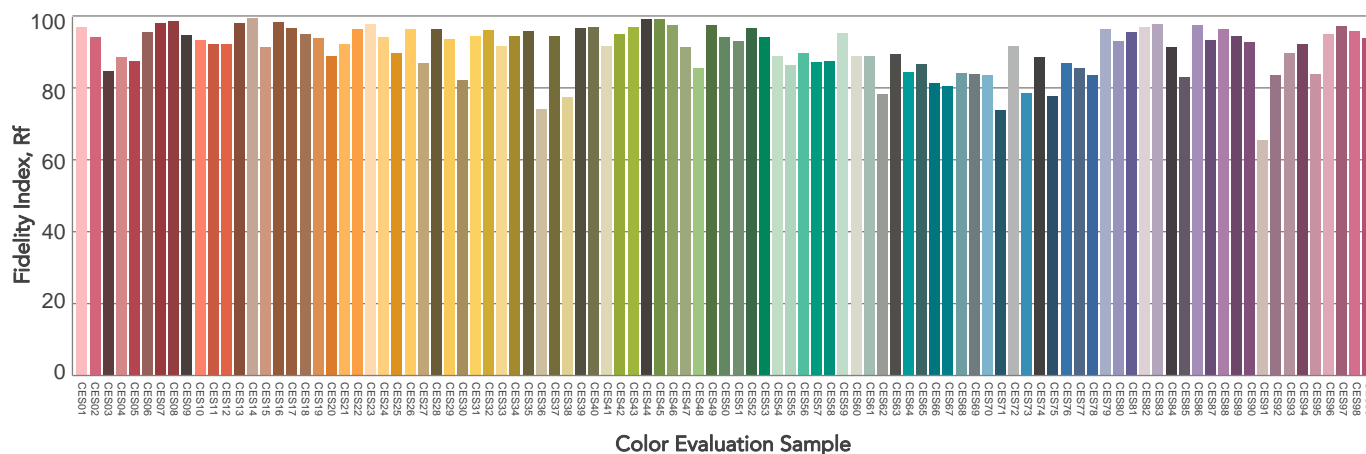
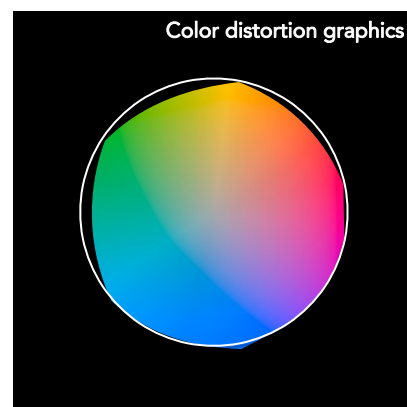
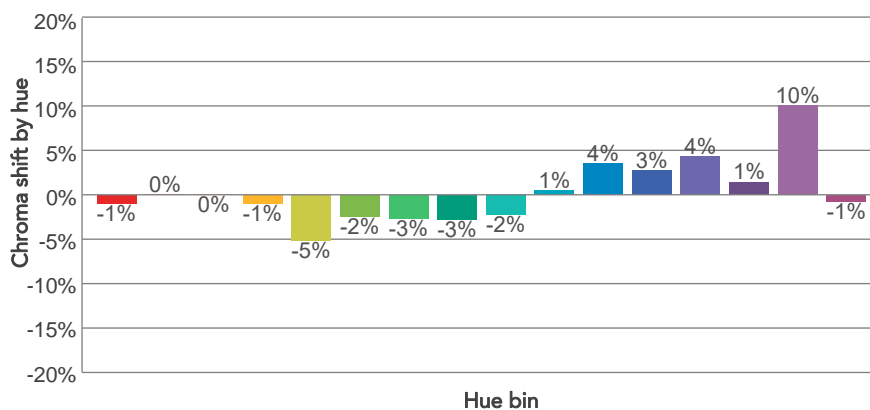
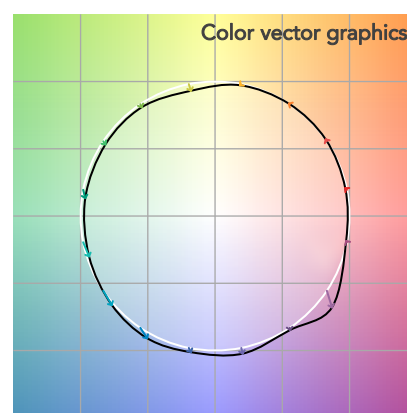
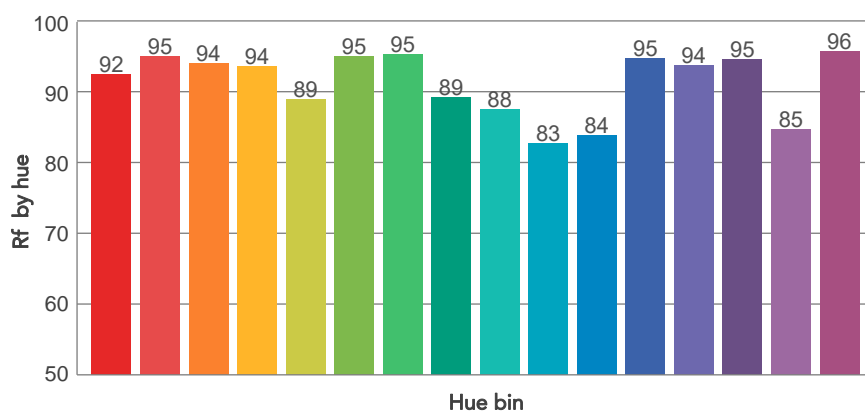
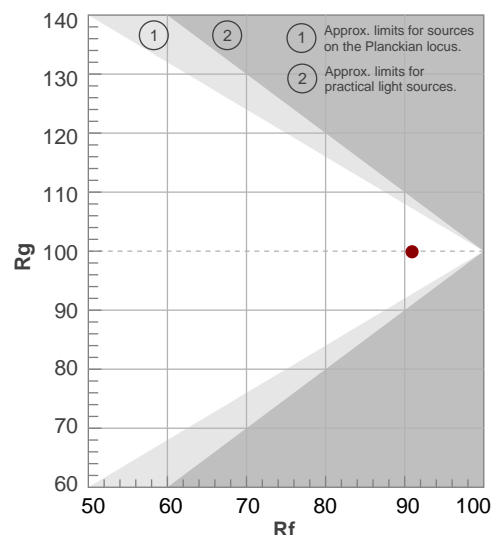
Rf 90,9

Fidelity index  $R_f$

Rg 99,9

## Gammut index

		Graphic shifts (%)	
Hue Bin	$R_f$	Chroma	Hue
1	92	-1%	1%
2	95	0%	2%
3	94	0%	1%
4	94	-1%	1%
5	89	-5%	-1%
6	95	-2%	0%
7	95	-3%	1%
8	89	-3%	6%
9	88	-2%	11%
10	83	1%	12%
11	84	4%	9%
12	95	3%	2%
13	94	4%	0%
14	95	1%	-1%
15	85	10%	-8%
16	96	-1%	1%

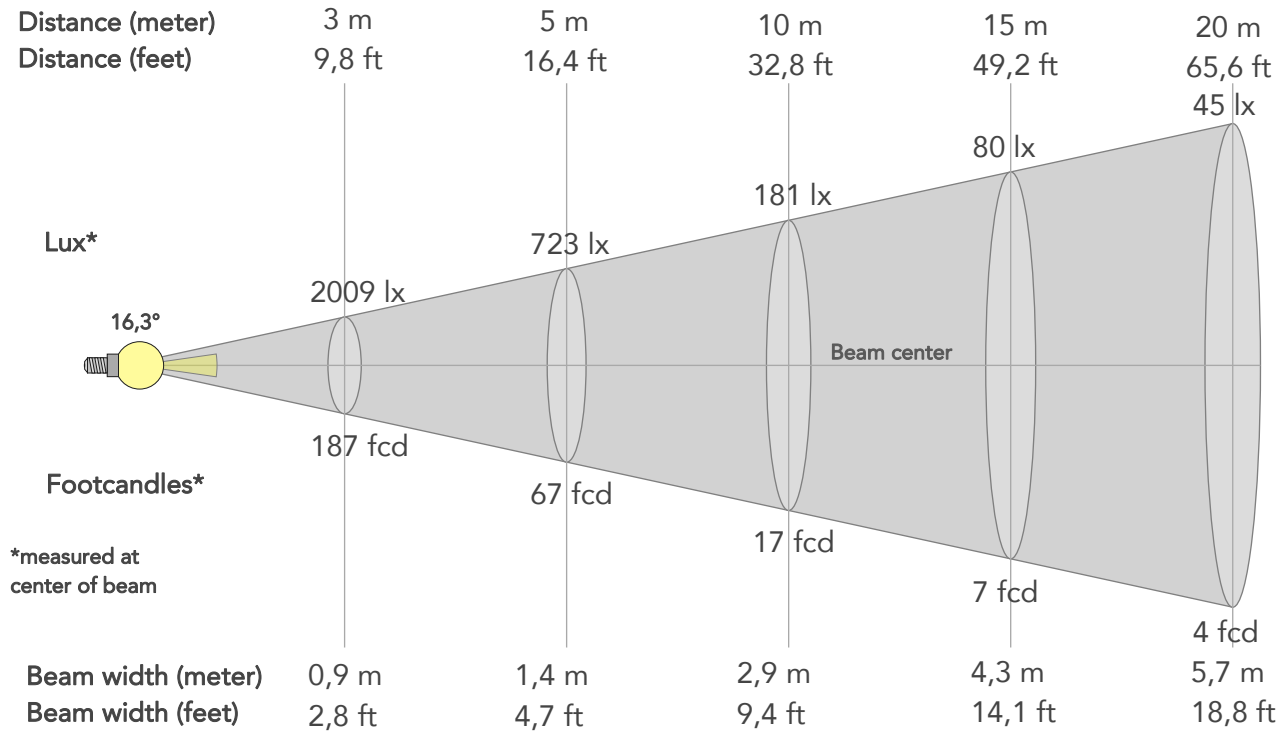




# BEAM DETAILS



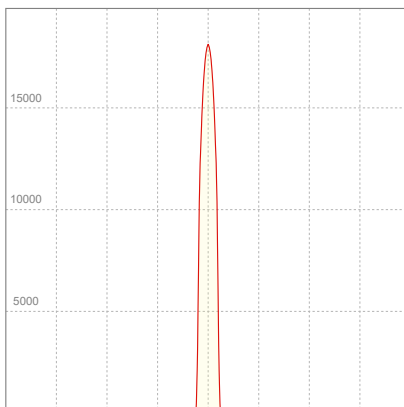
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16,3°	20,1°	21,3°	99,6%	99,3%



## BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	18077lx	4519lx	2009lx	1130lx	723lx	321lx	181lx	80lx	45lx	29lx	20lx	11lx	7lx
Footcand.	1679fcd	420fcd	187fcd	105fcd	67fcd	30fcd	17fcd	7fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,6m	0,9m	1,1m	1,4m	2,1m	2,9m	4,3m	5,7m	7,2m	8,6m	11,4m	14,3m
Beam wid.	0,9ft	1,9ft	2,8ft	3,7ft	4,7ft	7ft	9,4ft	14,1ft	18,8ft	23,5ft	28,2ft	37,5ft	46,9ft

## LINEAR DISTRIBUTION DIAGRAM

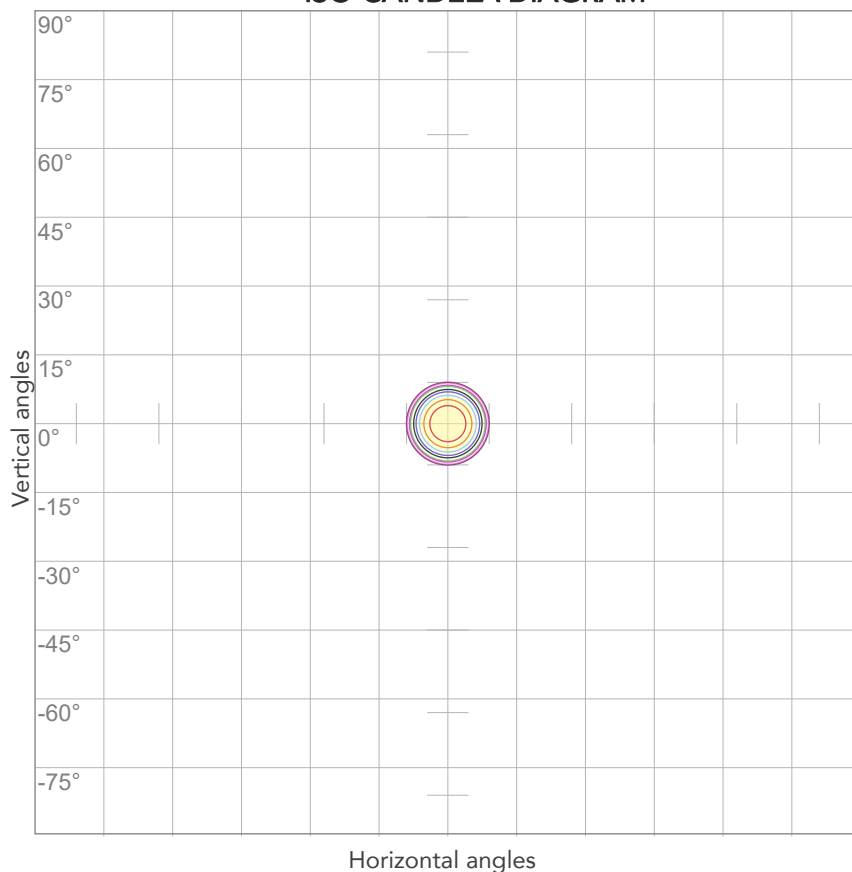


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
227V	0,149A	32,1W	0,95	33lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



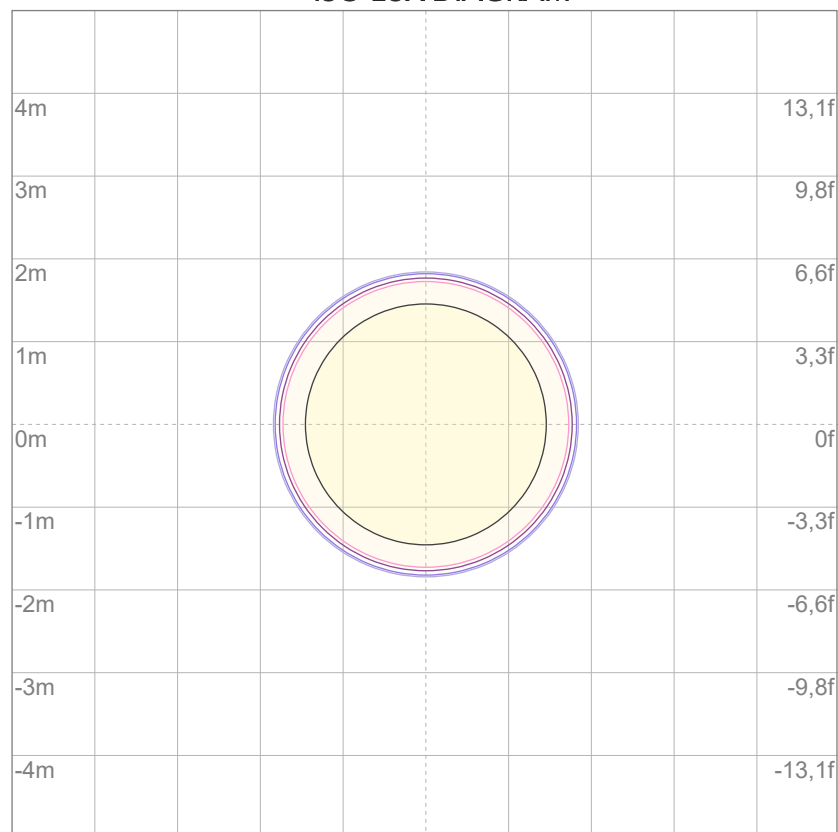
10%	1808 cd
20%	3615 cd
30%	5423 cd
40%	7231 cd
50%	9039 cd
60%	10846 cd
70%	12654 cd
80%	14462 cd

### Conditions:

Number of c-planes: 2

Candela at center: 18077 cd

## ISO LUX DIAGRAM



3%	5,42 lx
5%	9,04 lx
10%	18,1 lx
30%	54,2 lx
50%	90,4 lx

### Conditions:

Number of c-planes: 2

Lux at center: 181 lx

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