



# Photometric Test Report



## EclDisplay CRMXVW

**PROFILE LENS 50°**

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

## CONTENTS

Table of contents	2
Testing process	3
Color temperature Full On	4
Color temperature Warm White	9
Color temperature Cold White	14

## 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:

990 lm

Peak candela output:

2193 cd

Light quality:

CRI: 96,5

Color temperature:

4124 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 50°

Target:

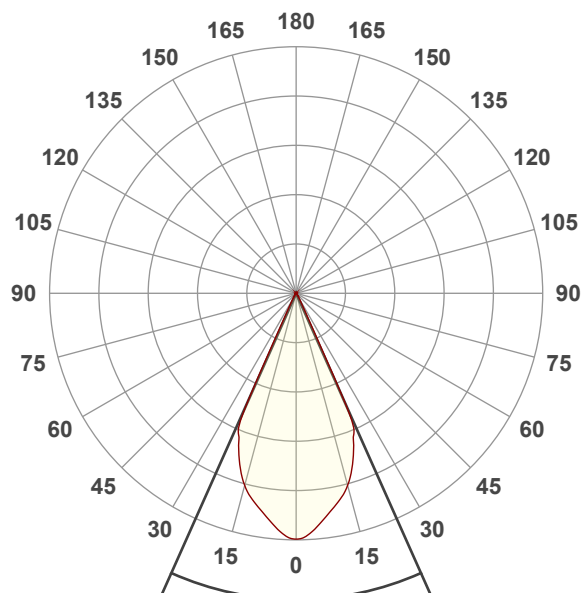
Full On

Operator:

Giacomo Matteo

Date and time:

18/06/2024 15:19:08

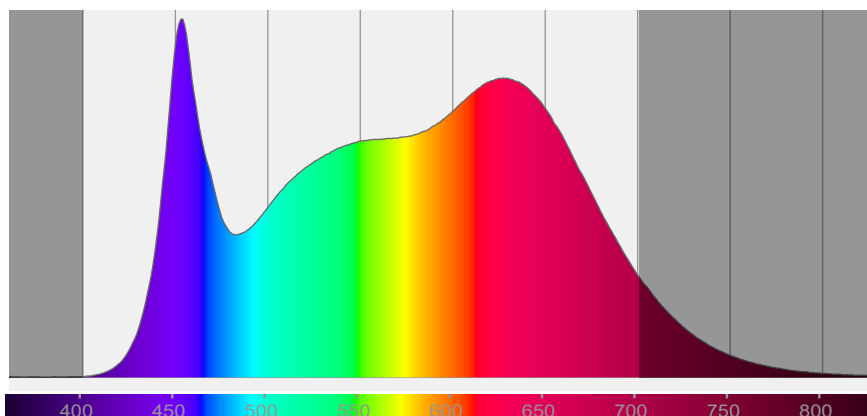


Beam angle 50%: 48,1°

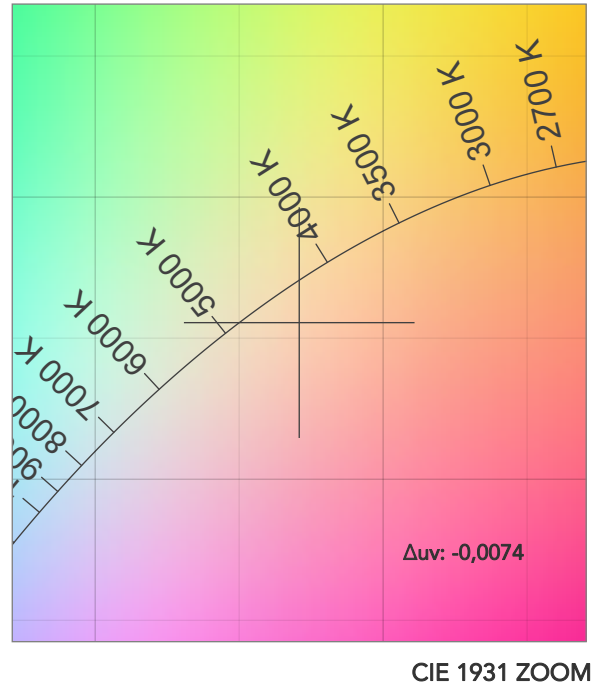
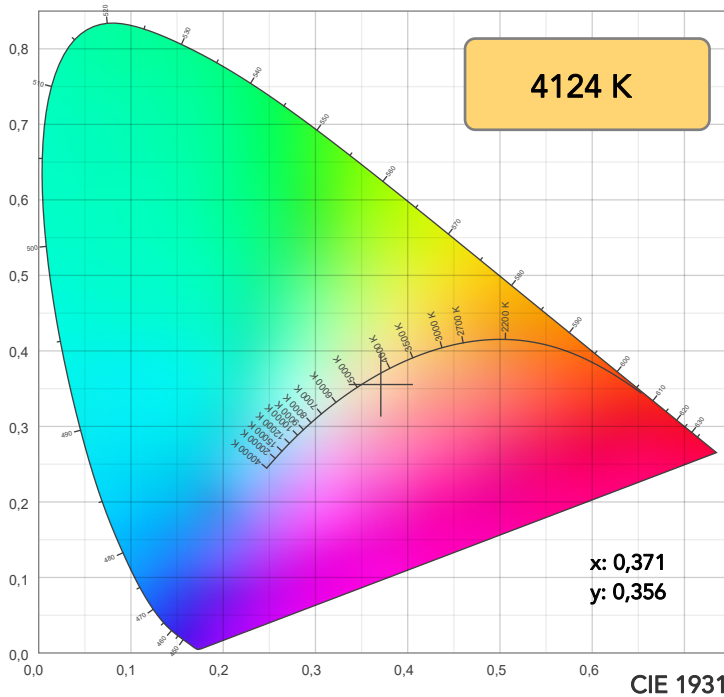
Field angle 10%: 52,5°

Cut off angle 2.5%: 56,2°

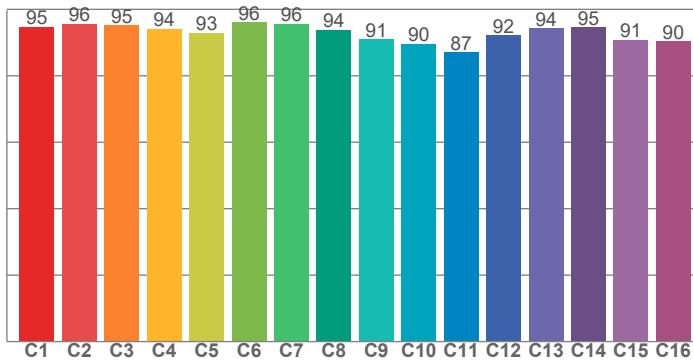
**Spectra**



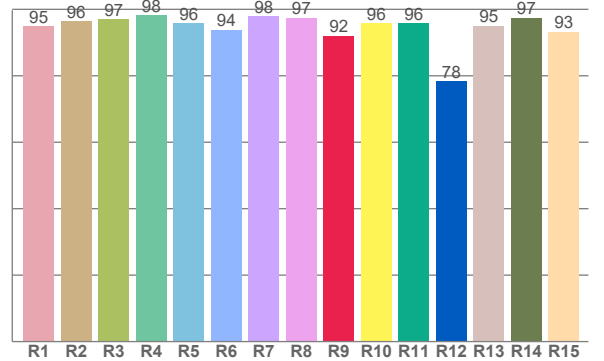
# COLOR DETAILS



**TM30: 92,8**



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



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
95,0	96,5	97,0	98,1	95,9	93,8	97,8	97,5	92,0	95,8	95,7	78,4	95,1	97,5	93,2

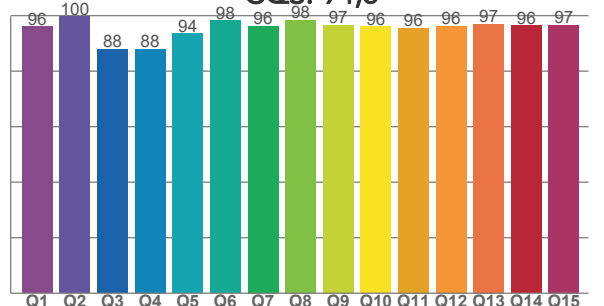
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,8	95,6	95,1	94,1	92,9	96,1	95,6	93,8	91,0	89,5	87,0	92,2	94,3	94,6	90,7	90,4

CQS Q values

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

**CQS: 94,5**



## COLOR PARAMETERS

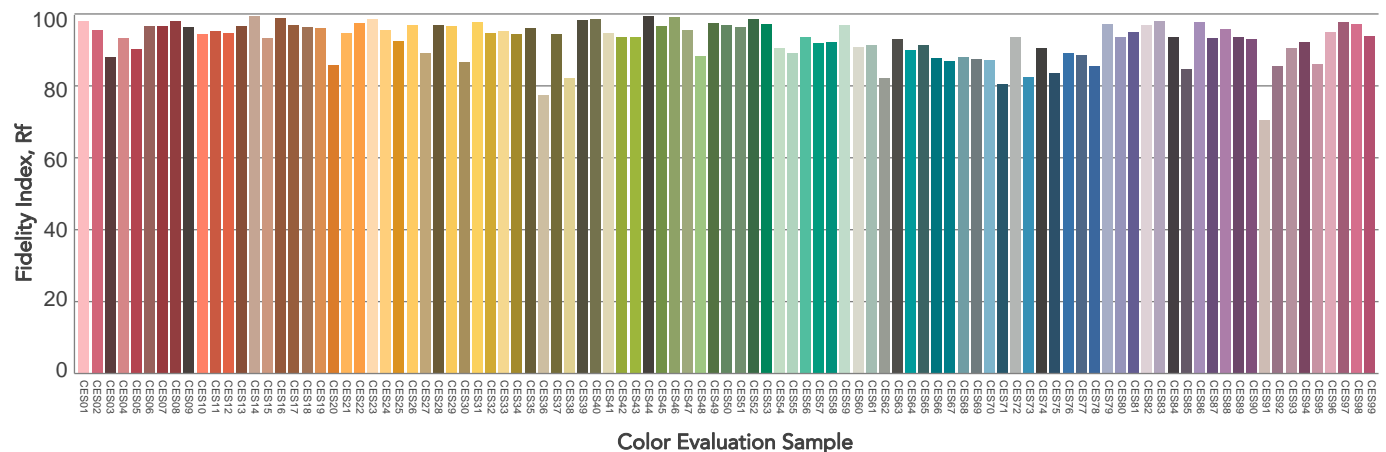
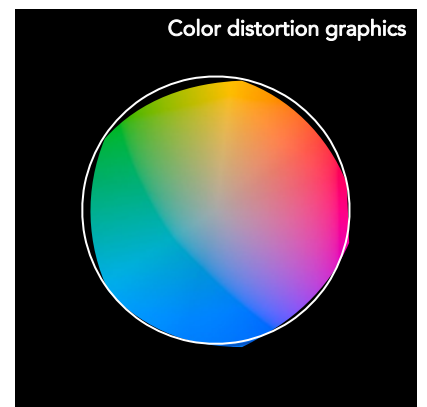
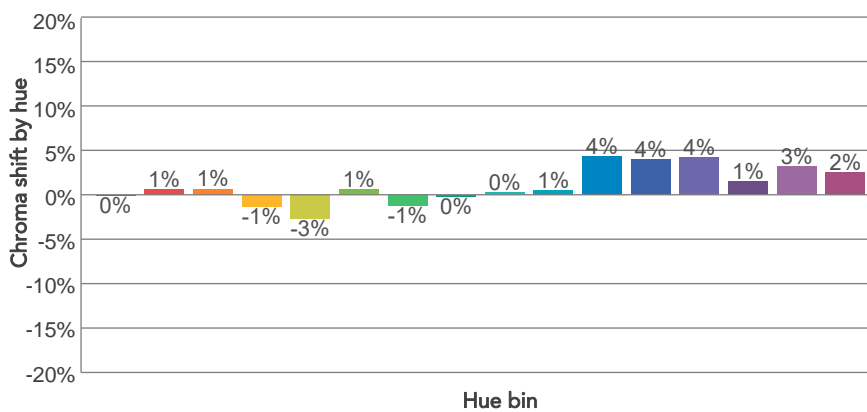
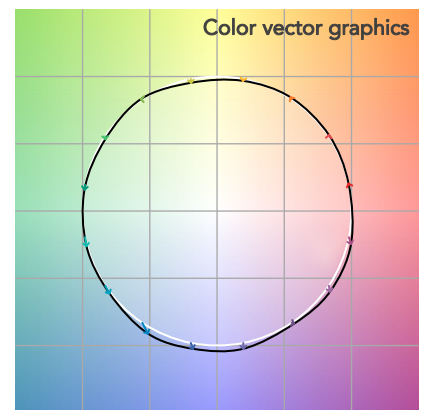
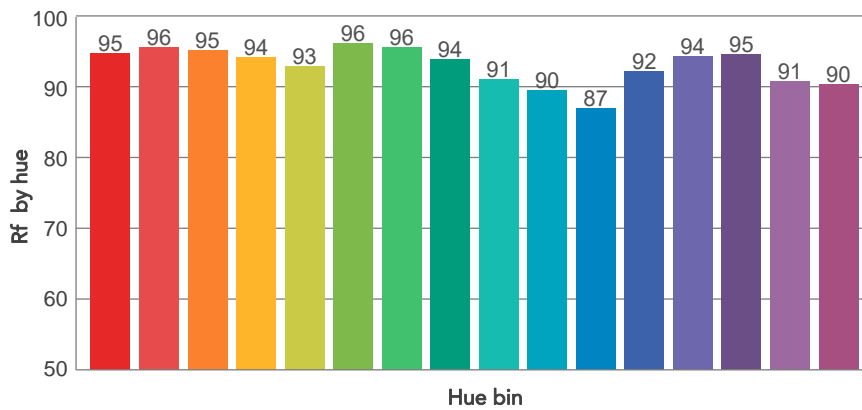
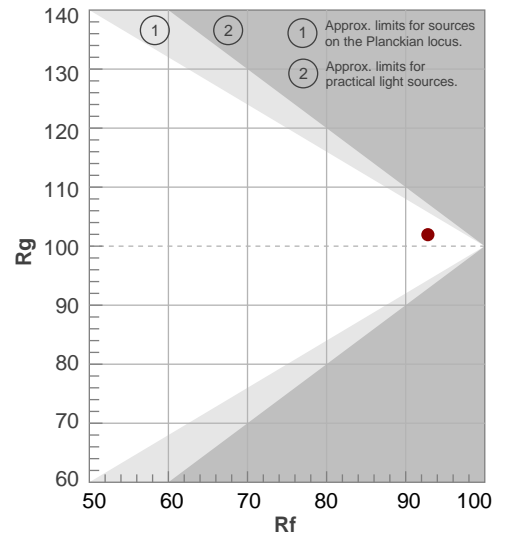
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
4124 K	96,5	92,0	92,8	101,9	94,5	98	0,371	0,356	-0,0074

# TM30 DETAILS

**Rf 92,8**  
Fidelity index Rf

**Rg 101,9**  
Gammut index

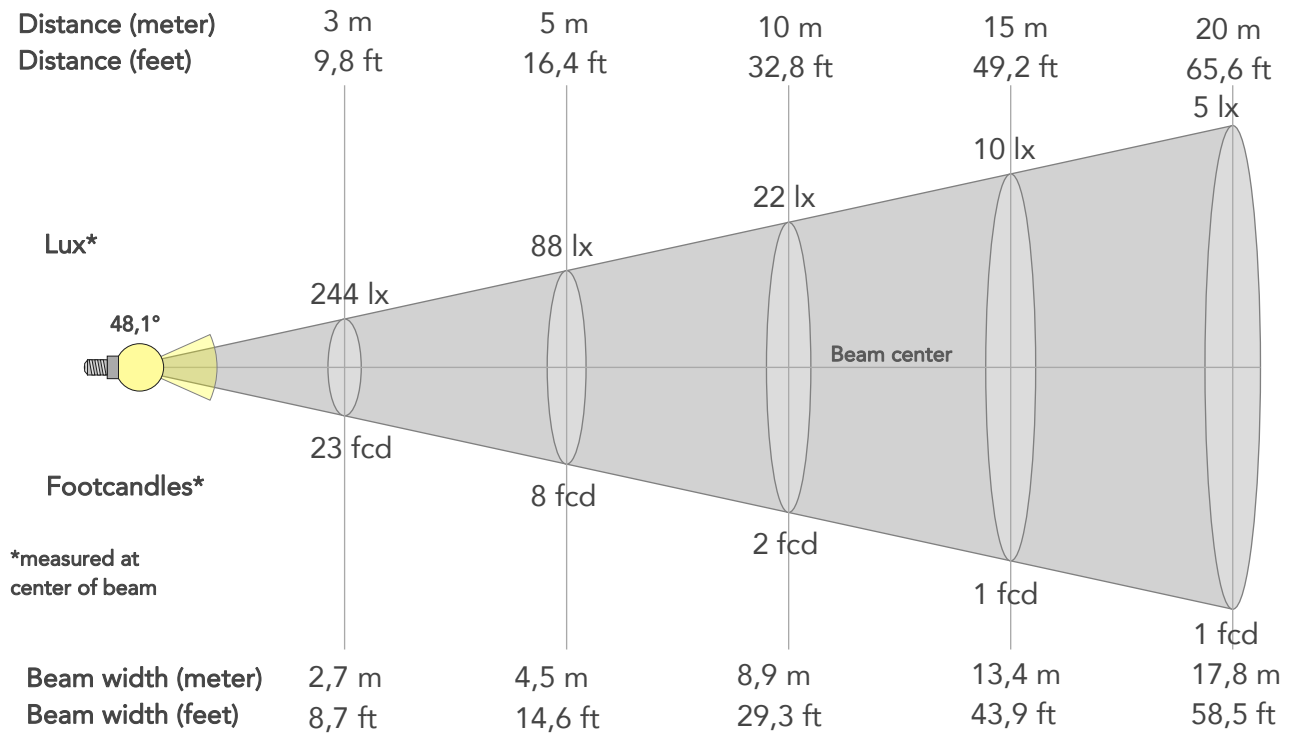
		Graphic shifts (%)	
Hue Bin	R <sub>f</sub>	Chroma	Hue
1	95	0%	1%
2	96	1%	1%
3	95	1%	2%
4	94	-1%	0%
5	93	-3%	0%
6	96	1%	1%
7	96	-1%	2%
8	94	0%	4%
9	91	0%	7%
10	90	1%	7%
11	87	4%	8%
12	92	4%	2%
13	94	4%	-1%
14	95	1%	1%
15	91	3%	-3%
16	90	2%	-5%



# BEAM DETAILS



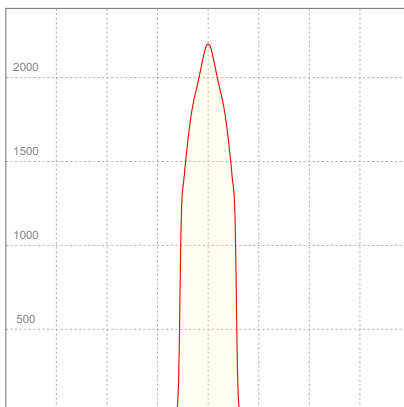
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
48,1°	52,5°	56,2°	99,8%	99,8%



## 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	2193lx	548lx	244lx	137lx	88lx	39lx	22lx	10lx	5lx	4lx	2lx	1lx	1lx
Footcand.	204fcd	51fcd	23fcd	13fcd	8fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,9m	1,8m	2,7m	3,6m	4,5m	6,7m	8,9m	13,4m	17,8m	22,3m	26,8m	35,7m	44,6m
Beam wid.	2,9ft	5,9ft	8,7ft	11,7ft	14,6ft	22ft	29,3ft	43,9ft	58,5ft	73,2ft	87,8ft	117,1ft	146,3ft

## LINEAR DISTRIBUTION DIAGRAM

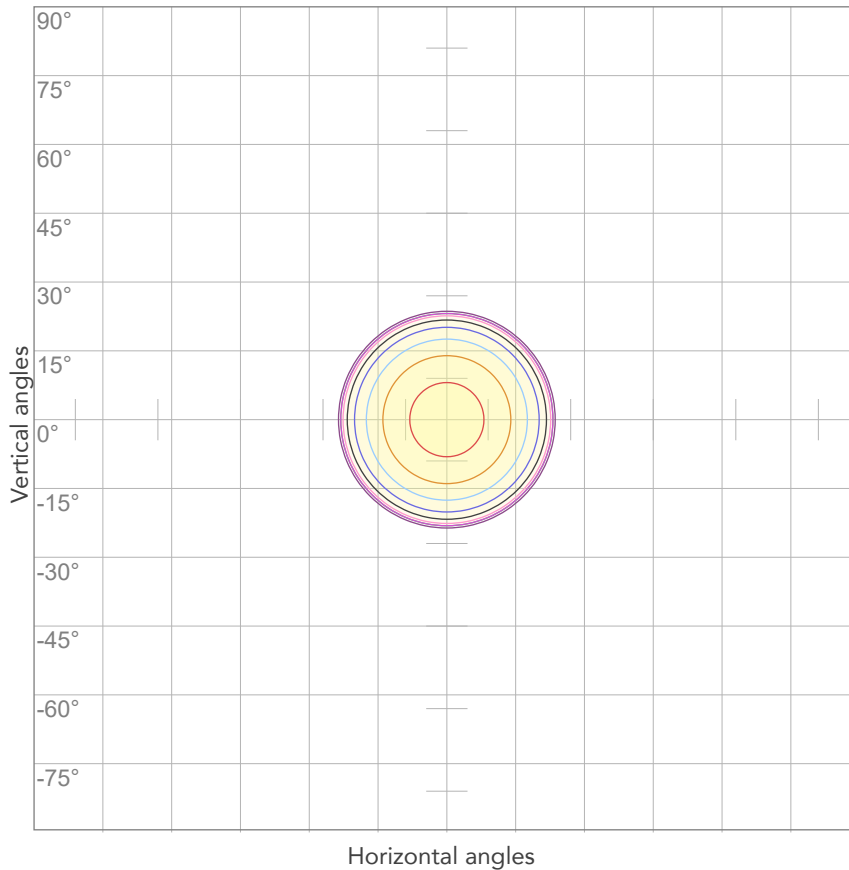


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,147A	31,6W	0,95	31lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



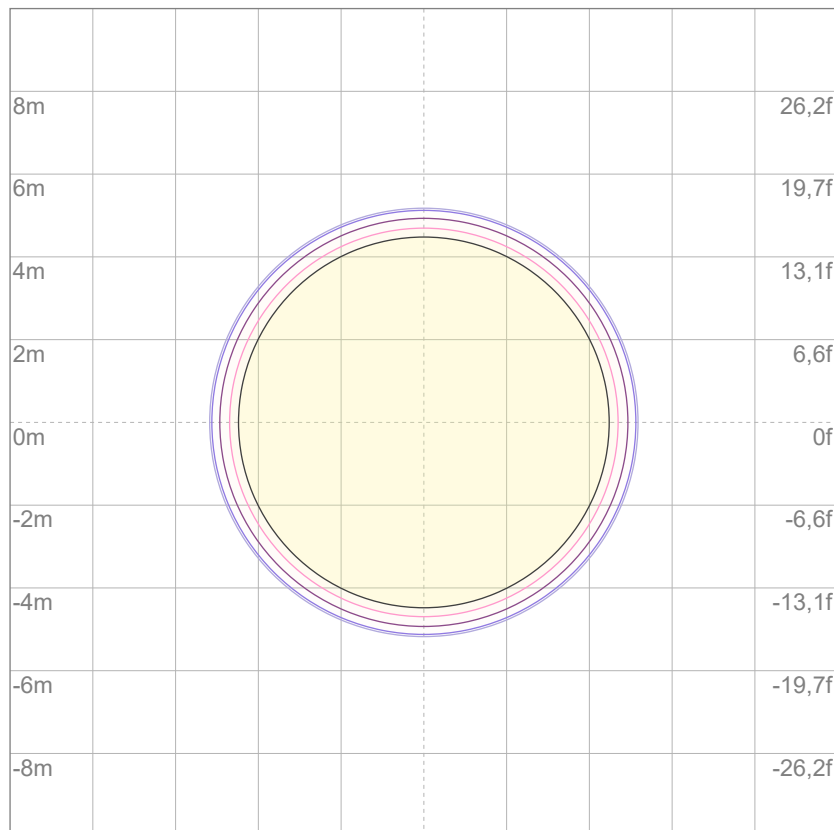
10%	219 cd
20%	439 cd
30%	658 cd
40%	877 cd
50%	1097 cd
60%	1316 cd
70%	1535 cd
80%	1755 cd

### Conditions:

Number of c-planes: 2

Candela at center: 2193 cd

## ISO LUX DIAGRAM



3%	0,658 lx
5%	1,10 lx
10%	2,19 lx
30%	6,58 lx
50%	11,0 lx

### Conditions:

Number of c-planes: 2

Lux at center: 21,9 lx

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





Total lumen output:

767 lm

Peak candela output:

1703 cd

Light quality:

CRI: 96,2

Color temperature:

2667 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 50°

Target:

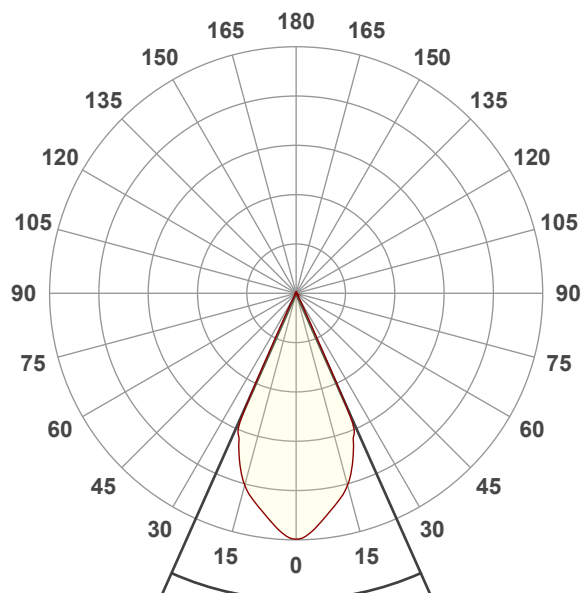
Warm White

Operator:

Giacomo Matteo

Date and time:

18/06/2024 15:20:48

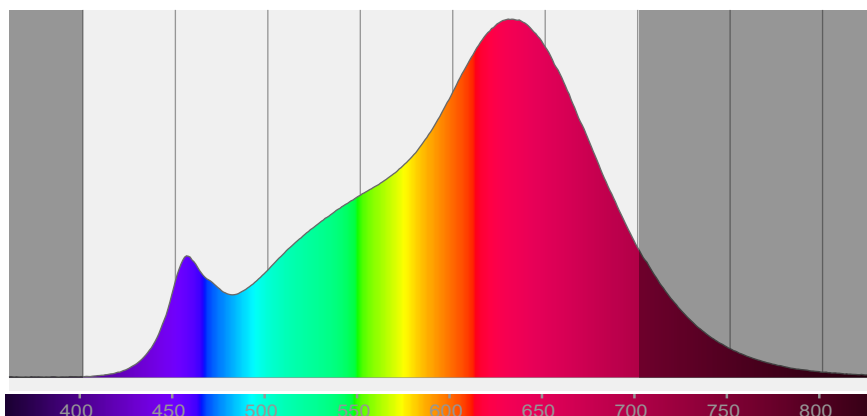


Beam angle 50%: 48°

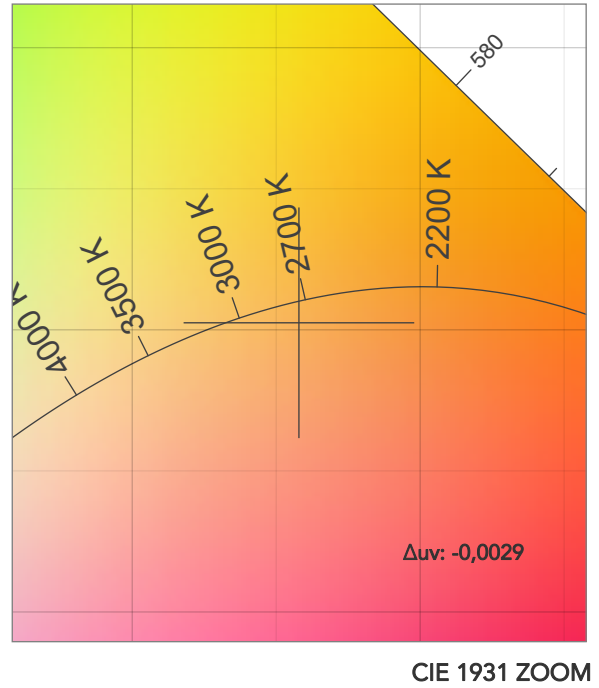
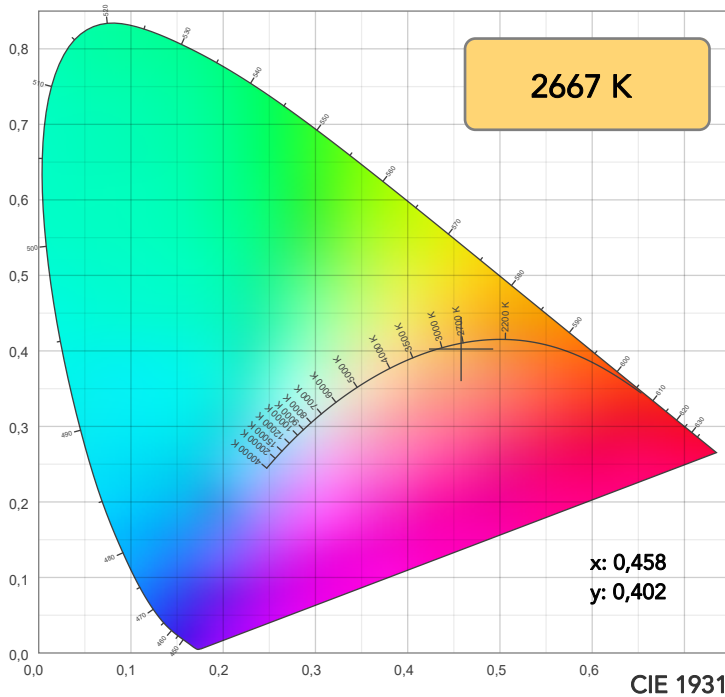
Field angle 10%: 52,4°

Cut off angle 2.5%: 56,2°

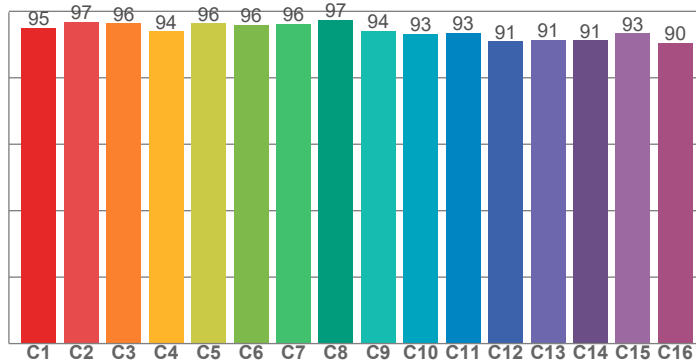
**Spectra**



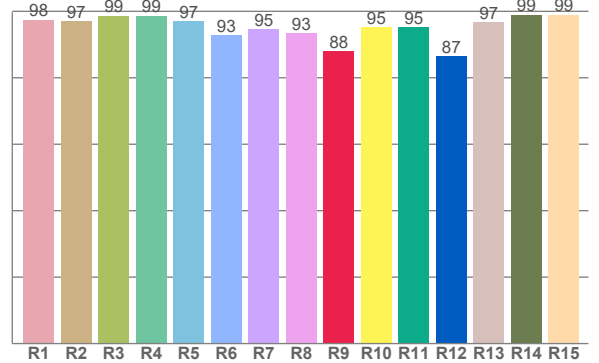
## COLOR DETAILS



TM30: 94,3



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
97,5	96,9	98,6	98,7	97,0	92,9	94,5	93,5	88,0	95,3	95,3	86,6	96,7	99,0	98,9

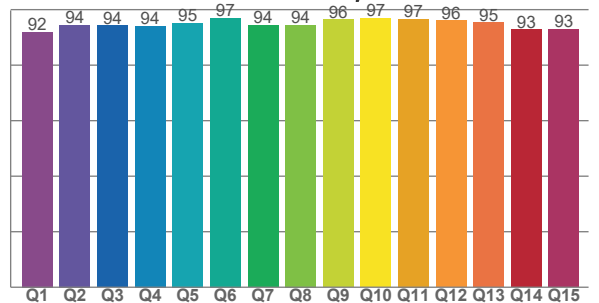
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,0	96,8	96,4	94,0	96,4	95,9	96,3	97,4	94,1	93,3	93,5	91,0	91,4	91,3	93,3	90,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,0	94,5	94,3	94,0	95,1	97,0	94,4	94,5	96,4	96,9	96,5	96,1	95,3	92,8	92,9

CQS: 94,4



## COLOR PARAMETERS

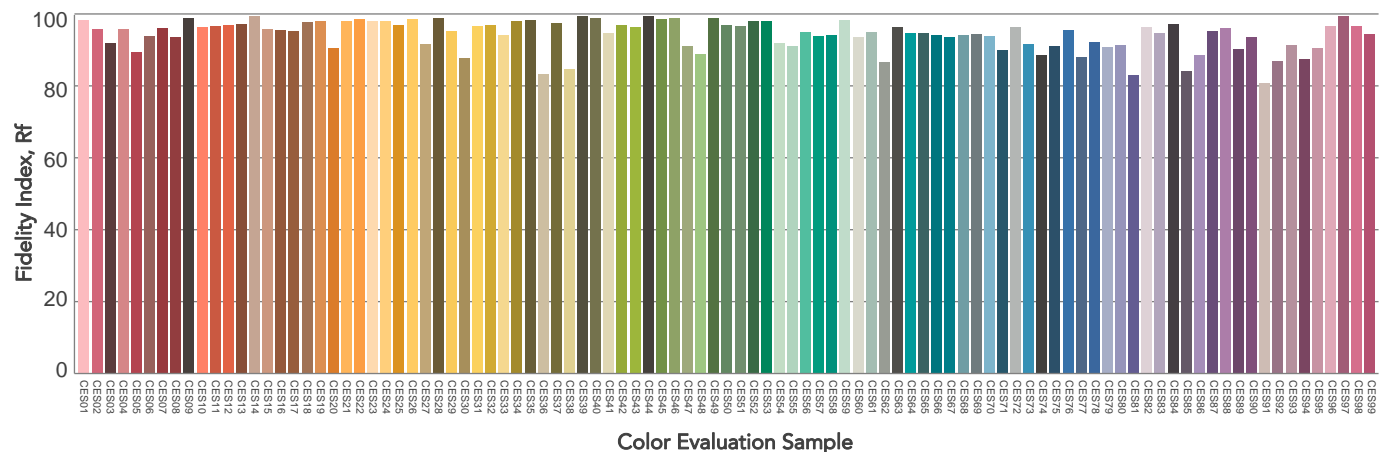
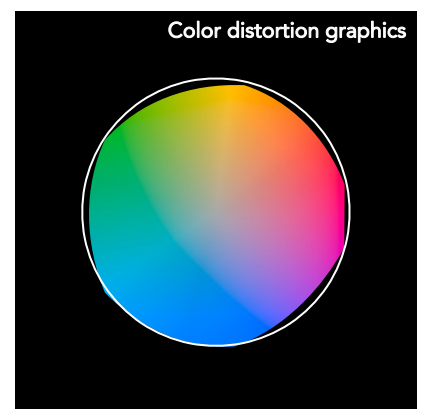
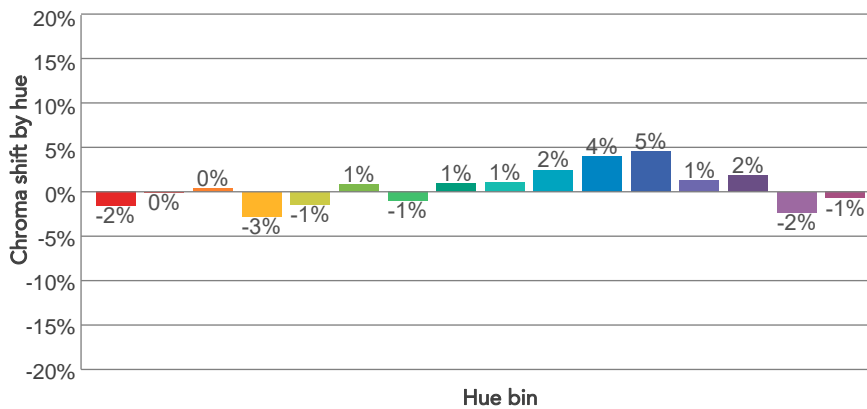
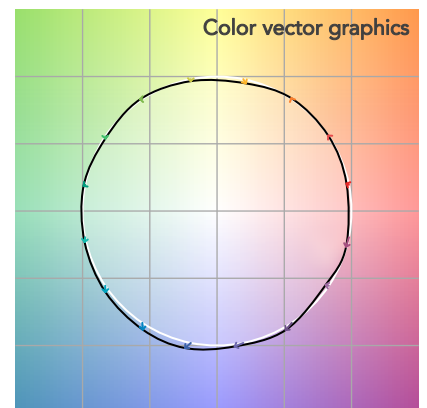
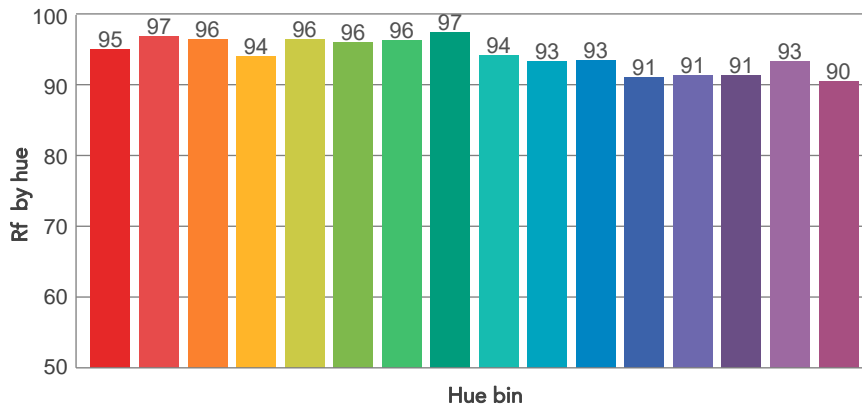
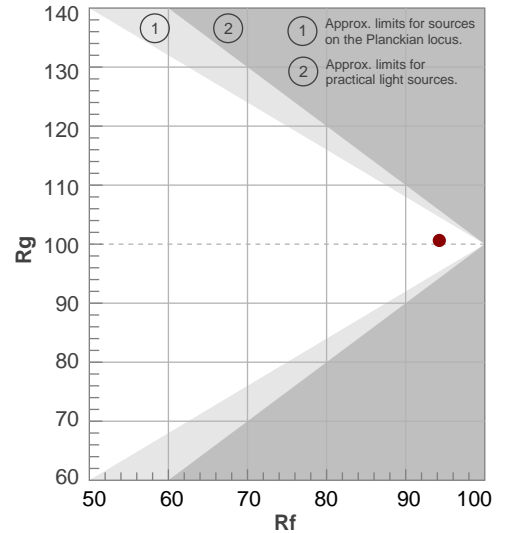
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2667 K	96,2	88,0	94,3	100,6	94,4	96	0,458	0,402	-0,0029

# TM30 DETAILS

**Rf 94,3**  
Fidelity index Rf

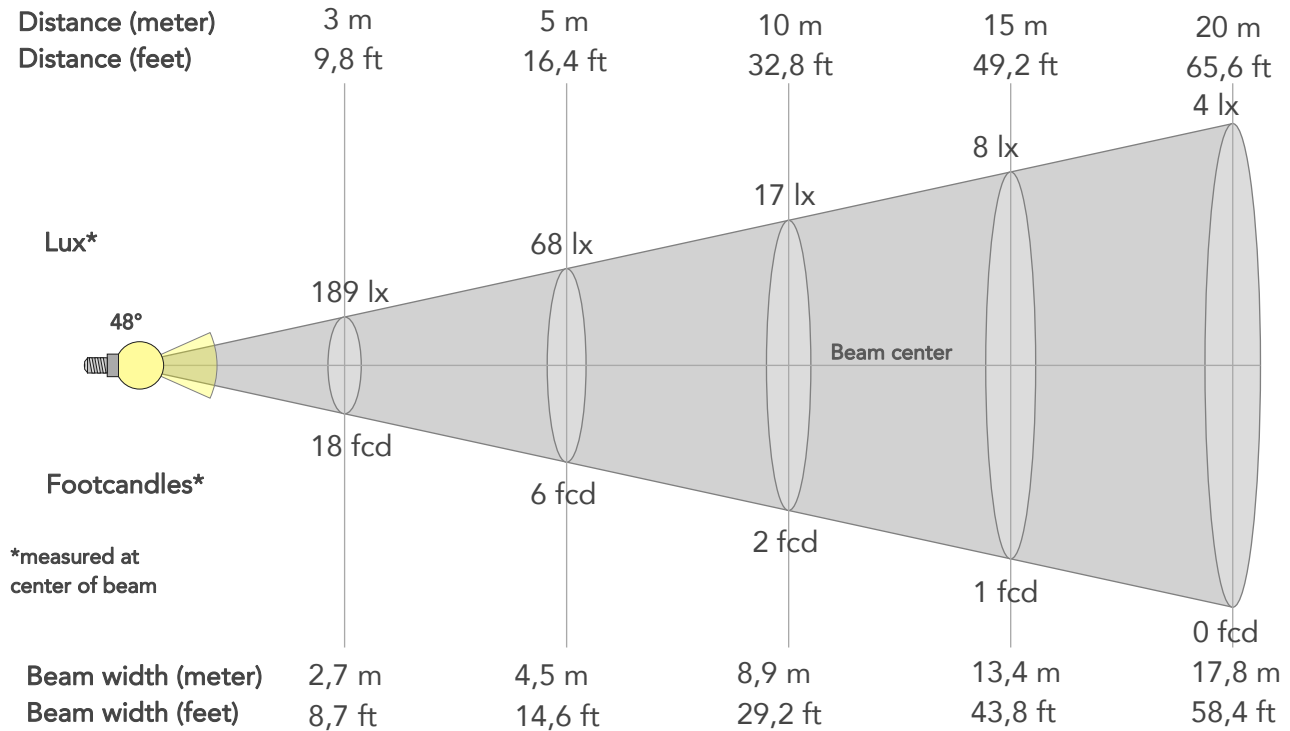
**Rg 100,6**  
Gammut index

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



# BEAM DETAILS

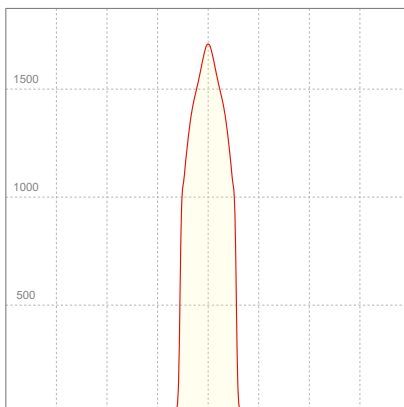
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
48°	52,4°	56,2°	99,8%	99,7%



## 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	1703lx	426lx	189lx	106lx	68lx	30lx	17lx	8lx	4lx	3lx	2lx	1lx	1lx
Footcand.	158fcd	40fcd	18fcd	10fcd	6fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,9m	1,8m	2,7m	3,6m	4,5m	6,7m	8,9m	13,4m	17,8m	22,3m	26,7m	35,6m	44,5m
Beam wid.	2,9ft	5,9ft	8,7ft	11,7ft	14,6ft	21,9ft	29,2ft	43,8ft	58,4ft	73ft	87,7ft	116,9ft	146,1ft

## LINEAR DISTRIBUTION DIAGRAM

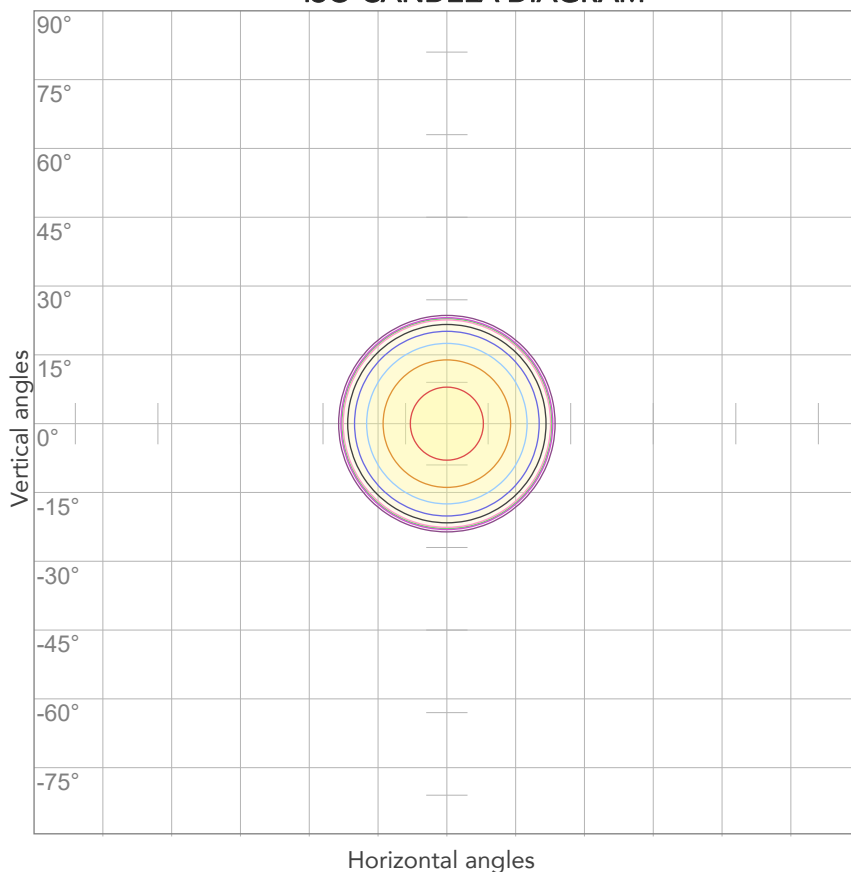


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,145A	31,0W	0,95	25lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



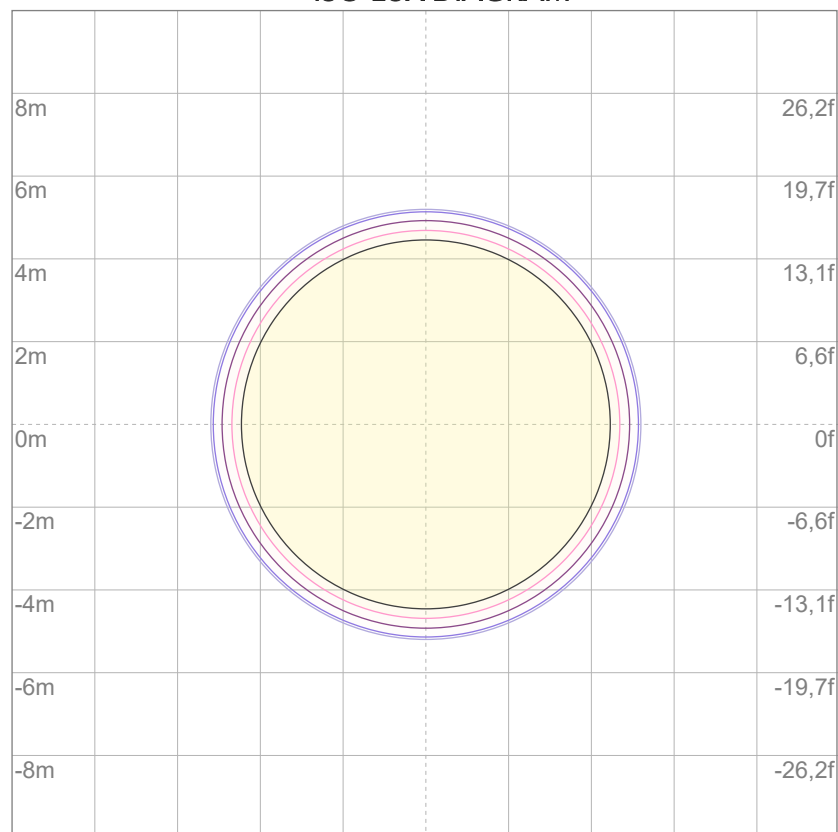
10%	170 cd
20%	341 cd
30%	511 cd
40%	681 cd
50%	852 cd
60%	1022 cd
70%	1192 cd
80%	1362 cd

### Conditions:

Number of c-planes: 2

Candela at center: 1703 cd

## ISO LUX DIAGRAM



3%	0,511 lx
5%	0,852 lx
10%	1,70 lx
30%	5,11 lx
50%	8,52 lx

### Conditions:

Number of c-planes: 2

Lux at center: 17,0 lx

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



Total lumen output:

1077 lm

Peak candela output:

2393 cd

Light quality:

CRI: 95,8

Color temperature:

6132 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 50°

Target:

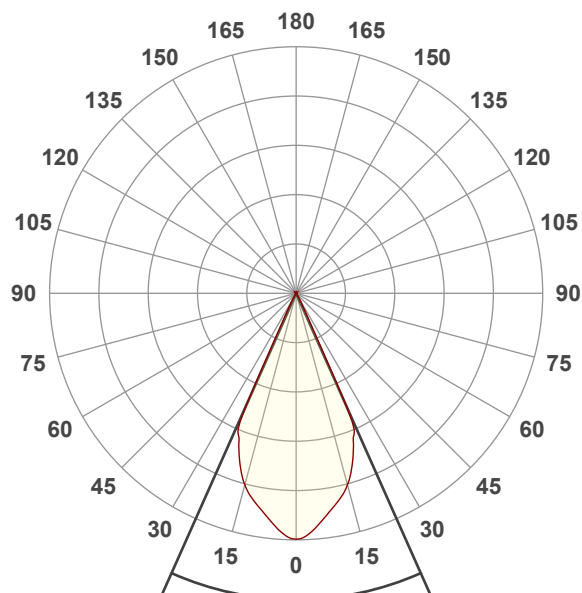
Cold White

Operator:

Giacomo Matteo

Date and time:

18/06/2024 15:22:00

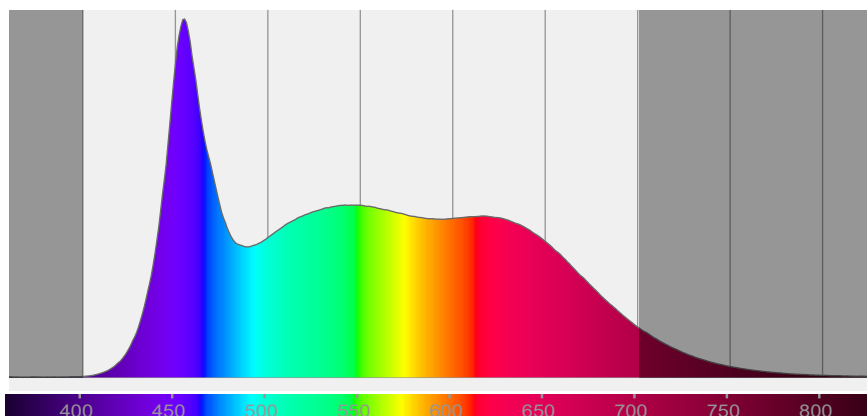


Beam angle 50%: 48°

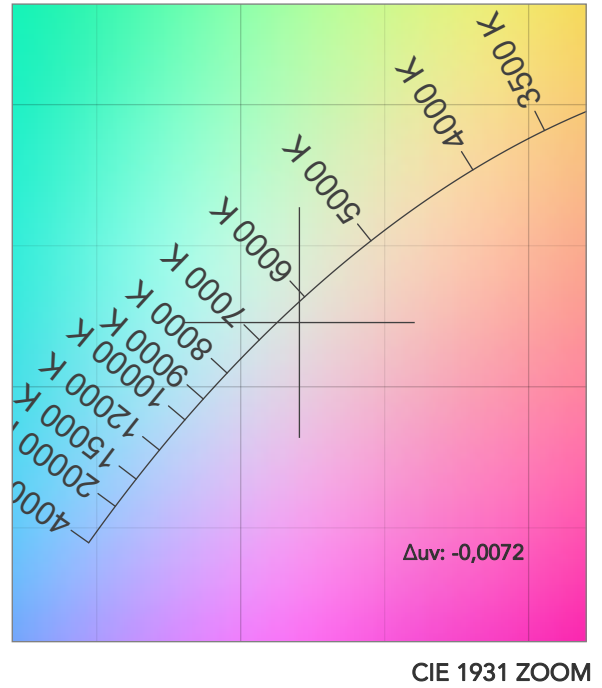
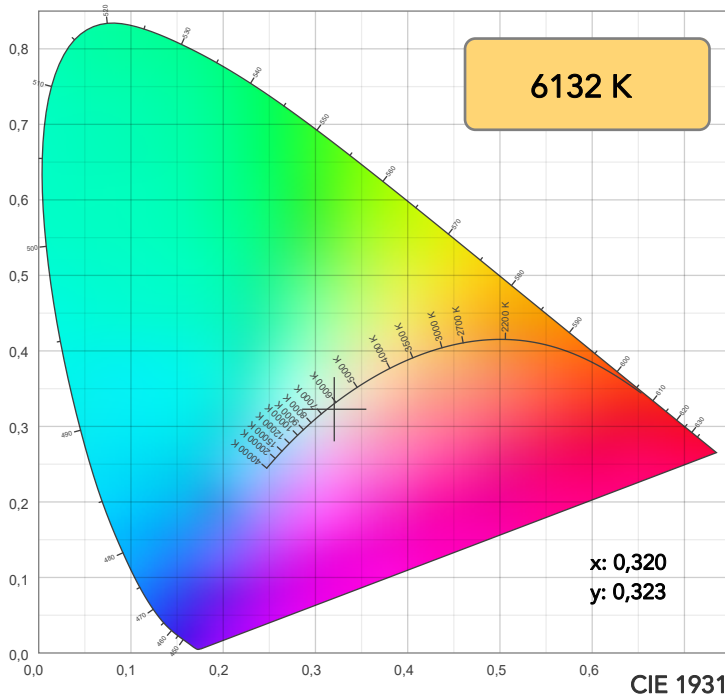
Field angle 10%: 52,4°

Cut off angle 2.5%: 56,2°

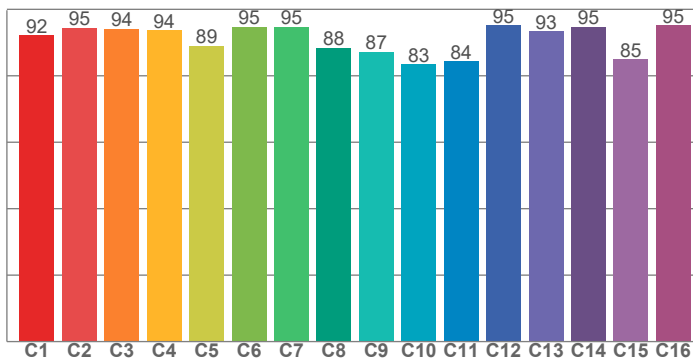
**Spectra**



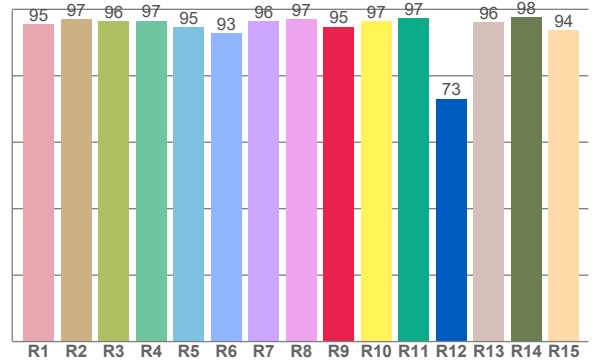
## COLOR DETAILS



**TM30: 90,9**



**CRI: 95,8 (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
95,4	97,0	96,5	96,5	94,7	92,8	96,4	96,9	94,8	96,5	97,3	73,0	96,2	97,6	93,7

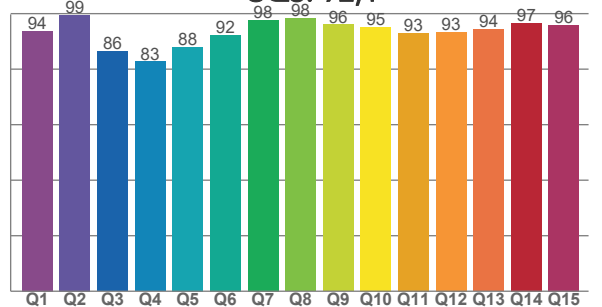
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,1	94,5	94,1	93,7	88,9	94,7	94,8	88,4	87,1	83,4	84,3	95,2	93,4	94,7	84,9	95,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,8	99,5	86,4	82,8	87,9	92,2	97,6	98,3	96,1	95,1	93,0	93,4	94,3	96,7	95,9

**CQS: 92,1**



## COLOR PARAMETERS

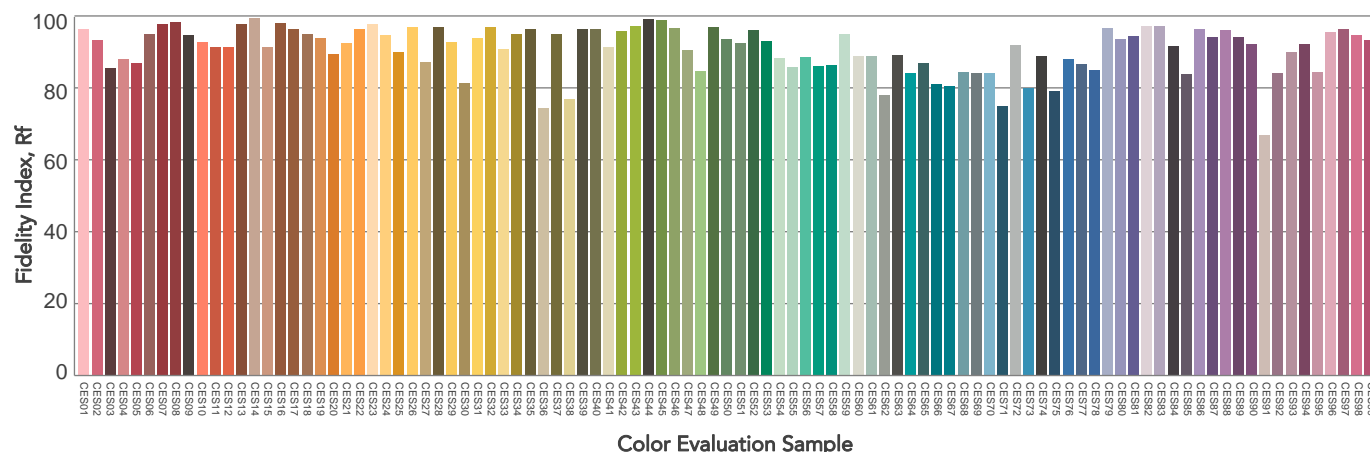
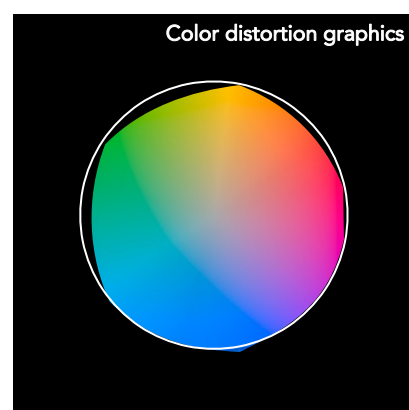
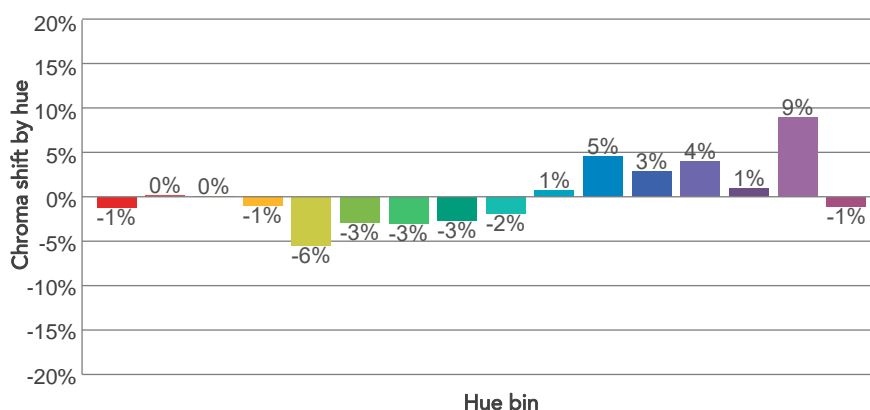
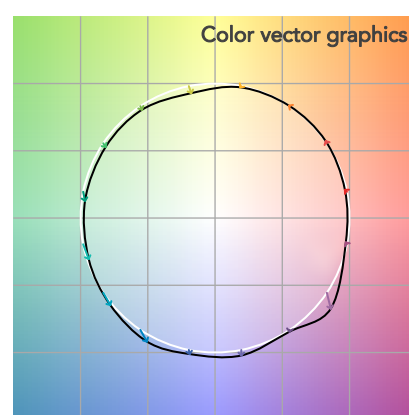
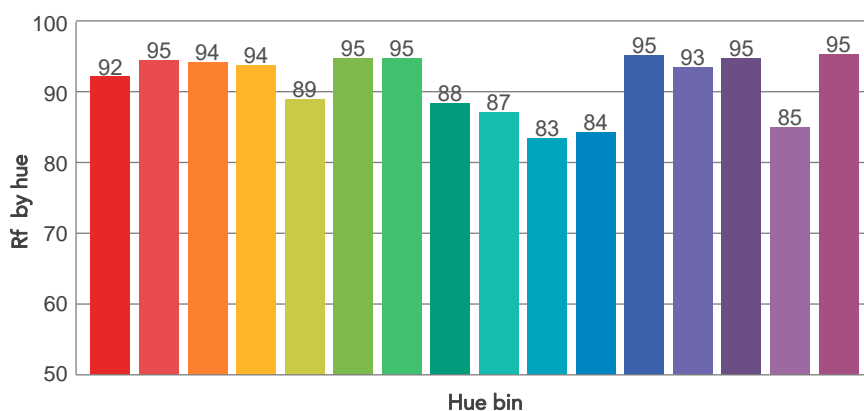
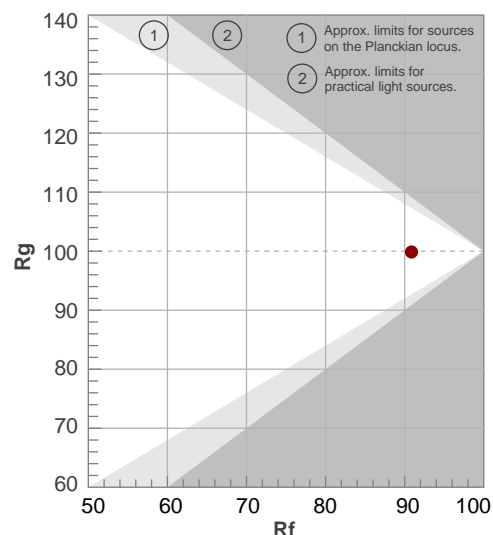
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
6132 K	95,8	94,8	90,9	99,9	92,1	96	0,320	0,323	-0,0072

## TM30 DETAILS

**Rf 90,9**  
Fidelity index Rf

**Rg 99,9**  
Gammut index

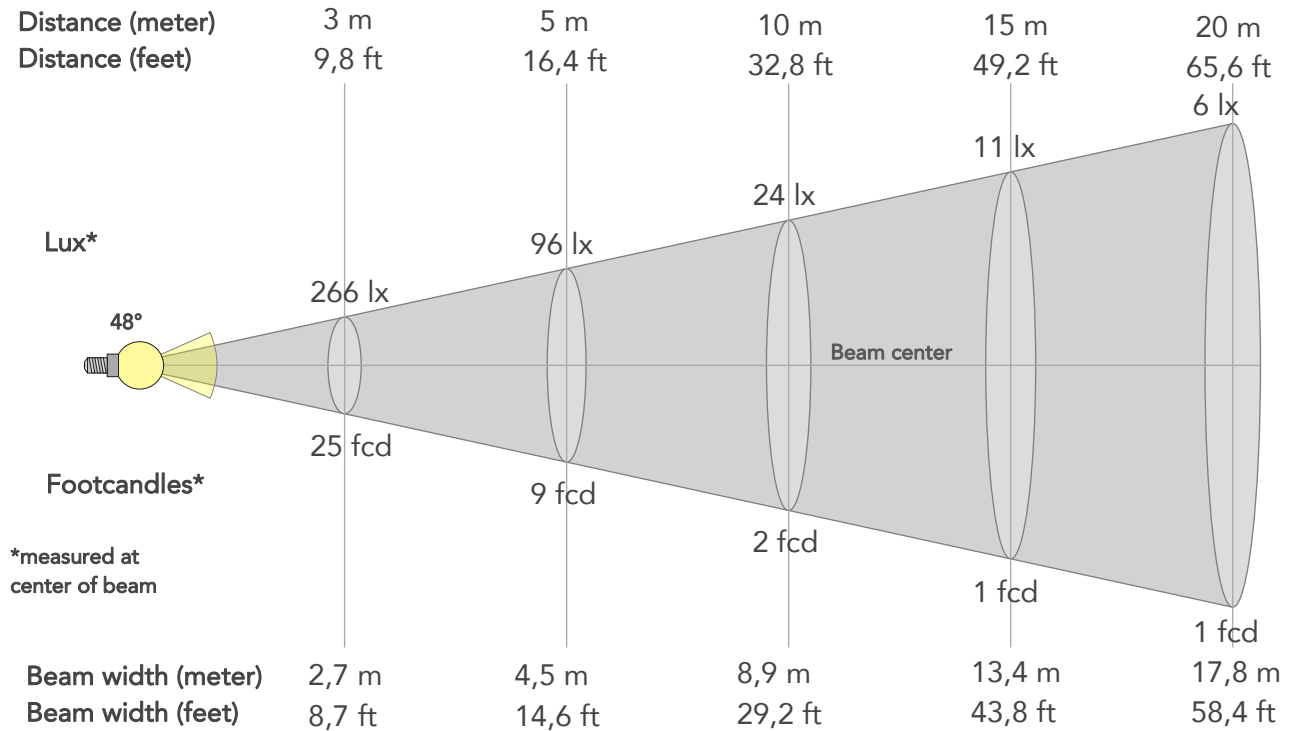
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	-1%	2%
2	95	0%	2%
3	94	0%	1%
4	94	-1%	0%
5	89	-6%	-1%
6	95	-3%	0%
7	95	-3%	1%
8	88	-3%	6%
9	87	-2%	12%
10	83	1%	10%
11	84	5%	9%
12	95	3%	1%
13	93	4%	-1%
14	95	1%	-1%
15	85	9%	-8%
16	95	-1%	1%





# BEAM DETAILS

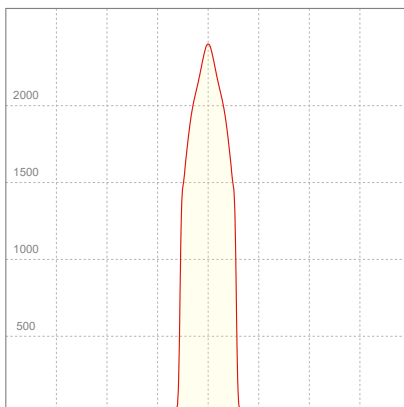
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
48°	52,4°	56,2°	99,8%	99,7%



## 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	2393lx	598lx	266lx	150lx	96lx	43lx	24lx	11lx	6lx	4lx	3lx	1lx	1lx
Footcand.	222fcd	56fcd	25fcd	14fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,9m	1,8m	2,7m	3,6m	4,5m	6,7m	8,9m	13,4m	17,8m	22,3m	26,7m	35,6m	44,5m
Beam wid.	2,9ft	5,9ft	8,7ft	11,7ft	14,6ft	21,9ft	29,2ft	43,8ft	58,4ft	73ft	87,6ft	116,9ft	146,1ft

## LINEAR DISTRIBUTION DIAGRAM

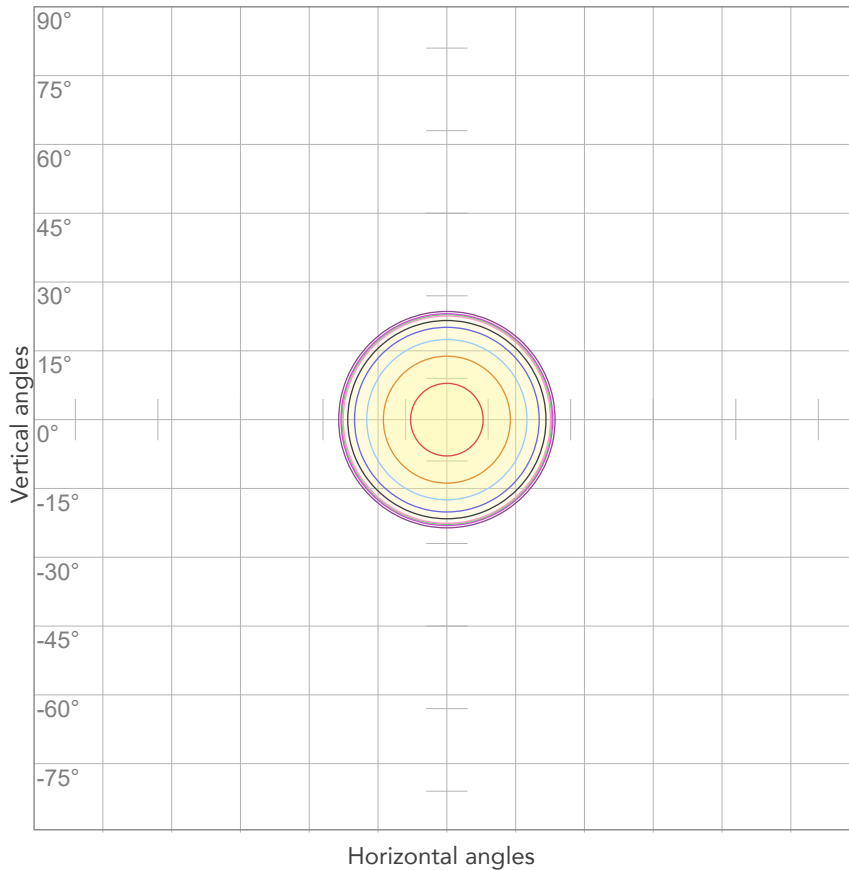


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
227V	0,147A	31,5W	0,95	34lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



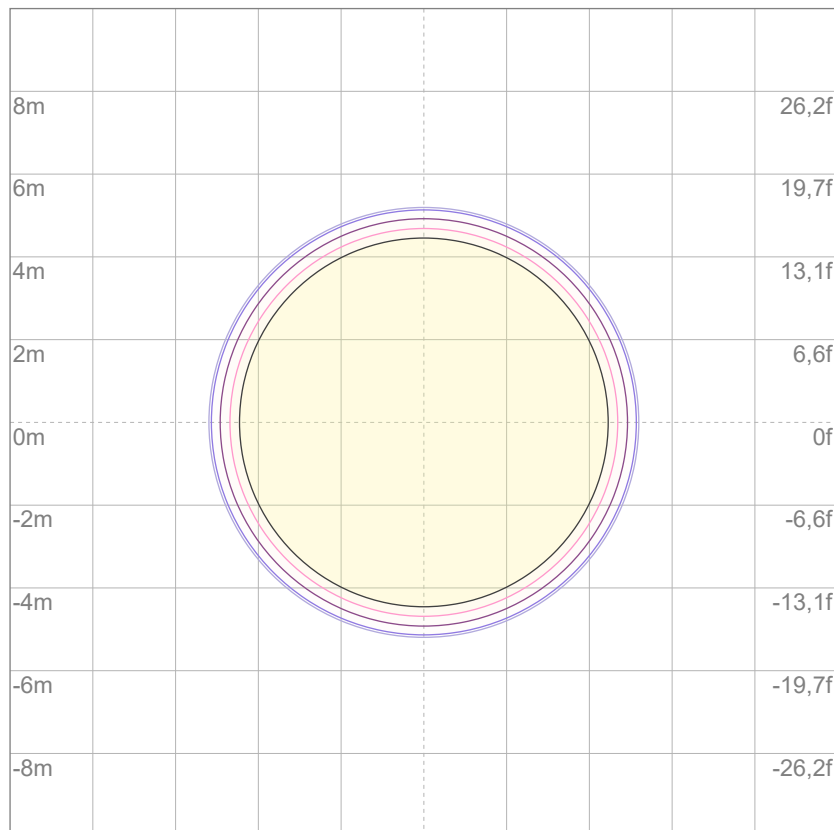
10%	239 cd
20%	479 cd
30%	718 cd
40%	957 cd
50%	1197 cd
60%	1436 cd
70%	1675 cd
80%	1914 cd

### Conditions:

Number of c-planes: 2

Candela at center: 2393 cd

## ISO LUX DIAGRAM



3%	0,718 lx
5%	1,20 lx
10%	2,39 lx
30%	7,18 lx
50%	12,0 lx

### Conditions:

Number of c-planes: 2

Lux at center: 23,9 lx

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