



# Photometric Test Report



## **EclDisplay CRMXW**

**ZOOMABLE PROFILE LENS 10-20°**

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:

1157 lm

Peak candela output:

15565 cd

Light quality:

CRI: 96,9

Color temperature:

4244 K

PRODUCT NAME:

ECLDISPLAY VW

MEASURAMENT CONDITIONS:

Beam angle:

Profile 1020 Max Zoom

Target:

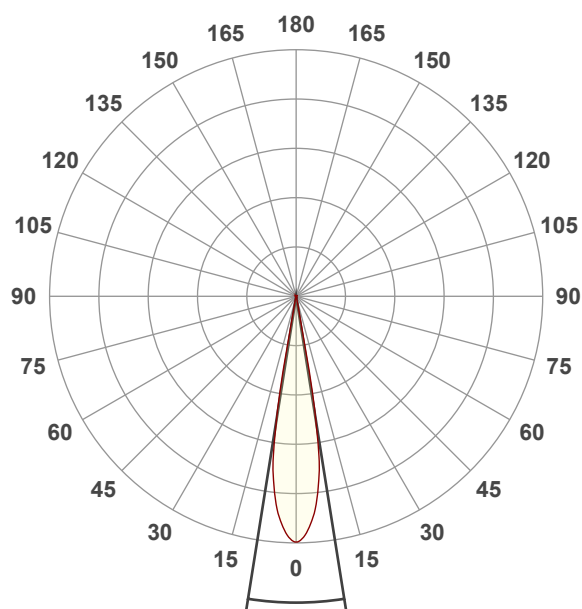
Full On

Operator:

Giacomo Matteo

Date and time:

17/06/2024 16:33:51

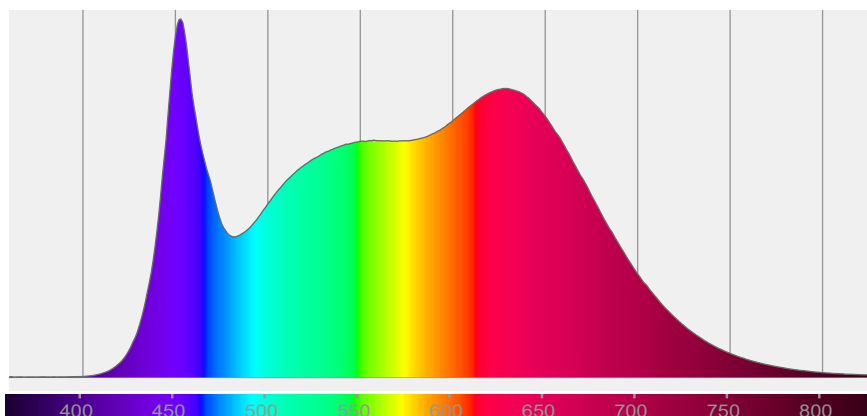


Beam angle 50%: 18,1°

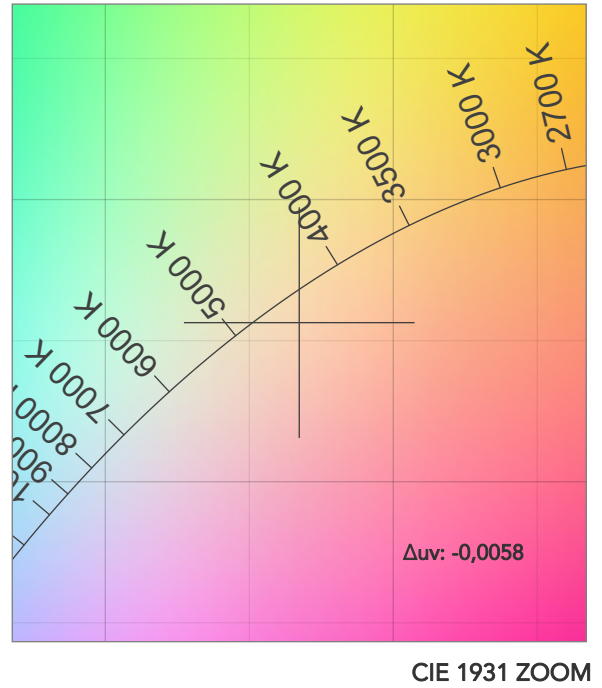
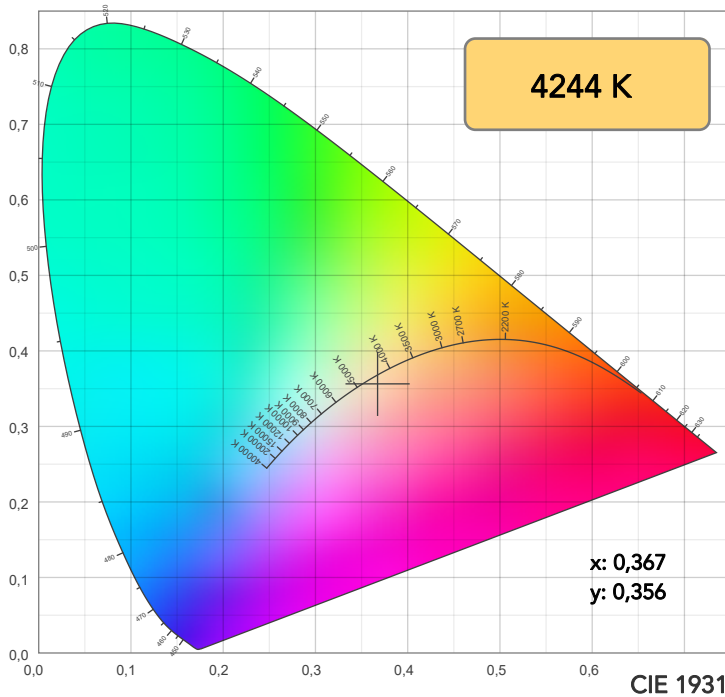
Field angle 10%: 21,8°

Cut off angle 2.5%: 23,7°

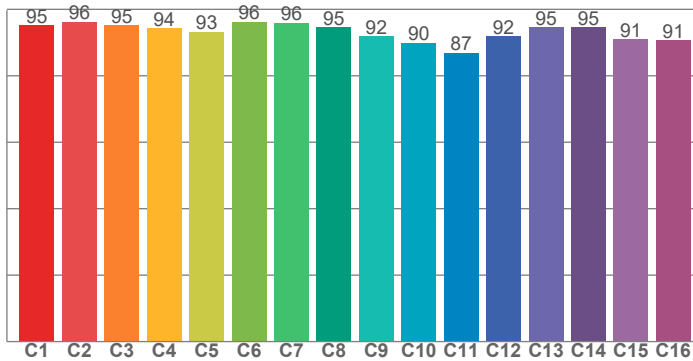
Spectra



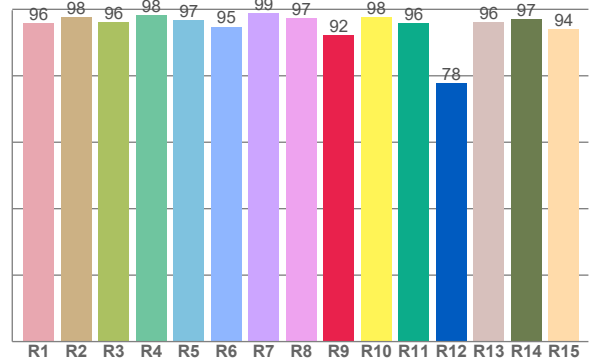
## COLOR DETAILS



**TM30: 93,1**



**CRI: 96,9 (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
95,8	97,6	96,2	98,3	96,7	94,7	98,8	97,4	92,3	97,5	95,8	77,8	96,1	97,0	94,0

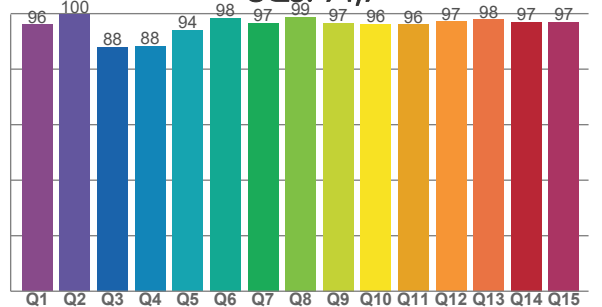
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

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

**CQS: 94,7**



## COLOR PARAMETERS

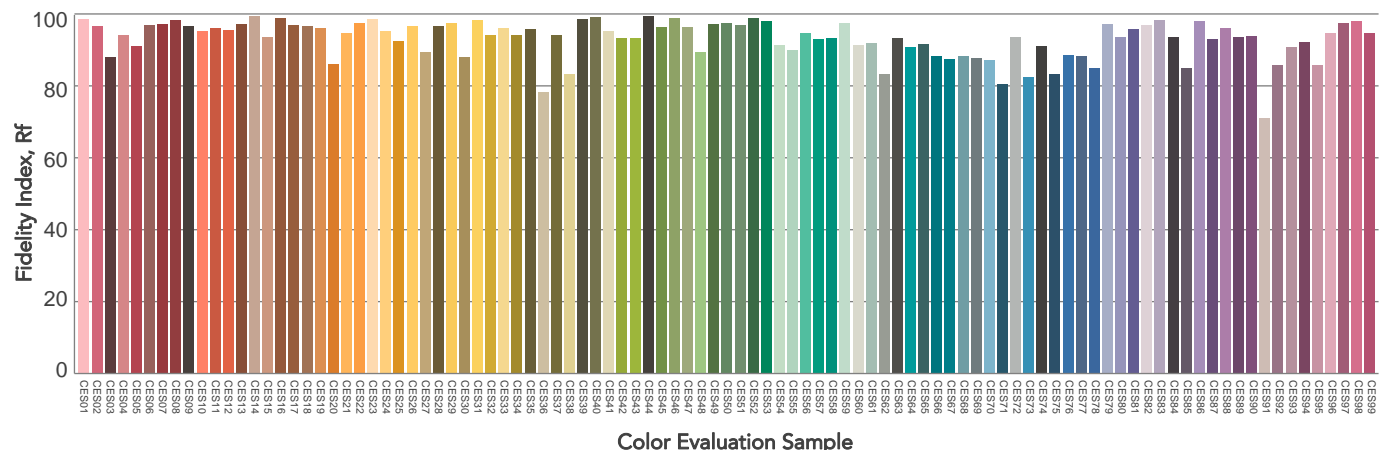
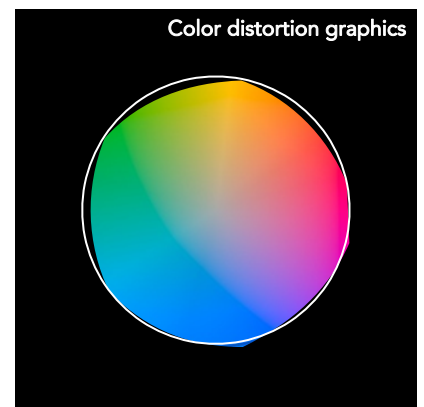
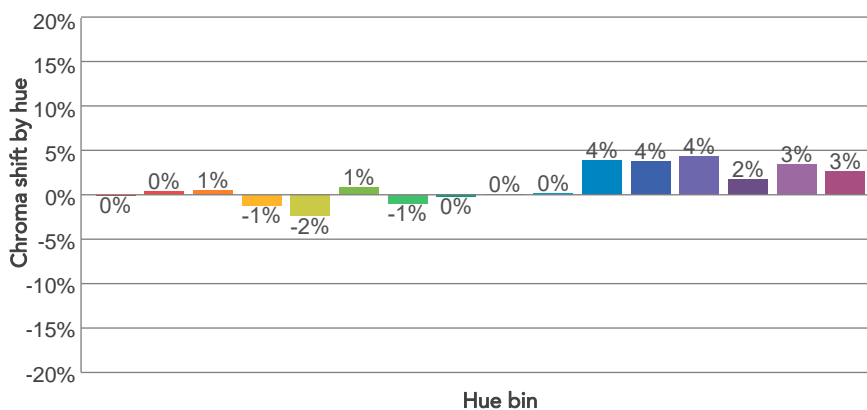
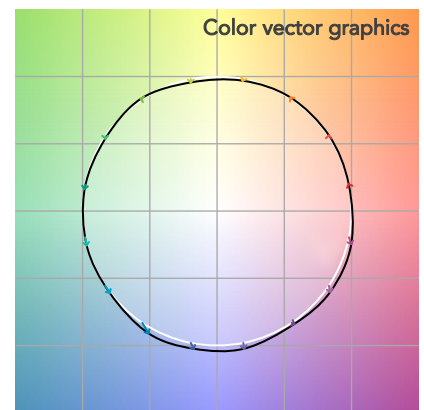
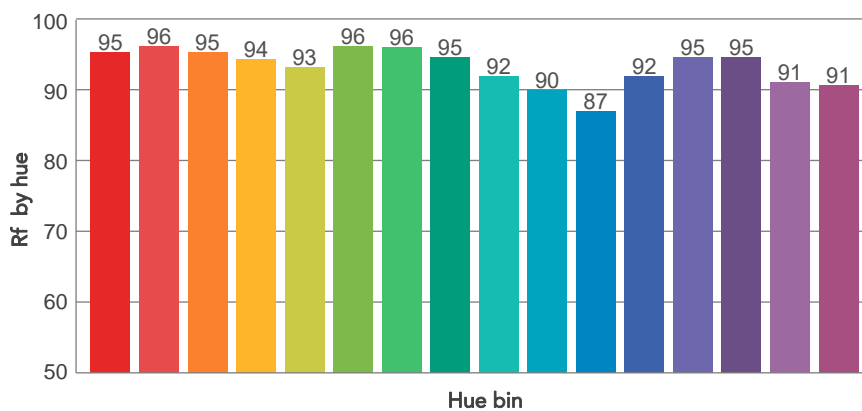
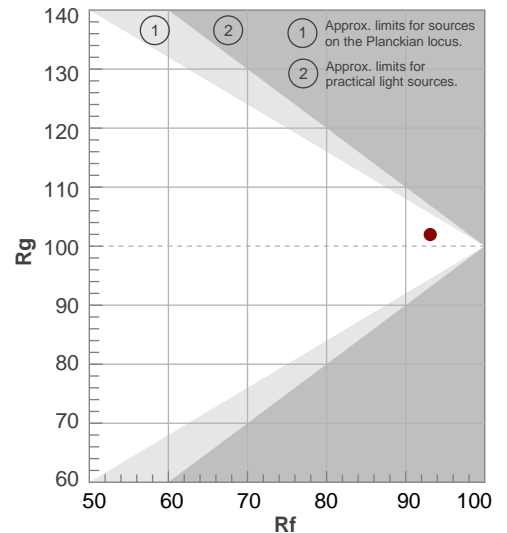
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
4244 K	96,9	92,3	93,1	102,0	94,7	98	0,367	0,356	-0,0058

# TM30 DETAILS

**Rf 93,1**  
Fidelity index Rf

**Rg 102,0**  
Gammut index

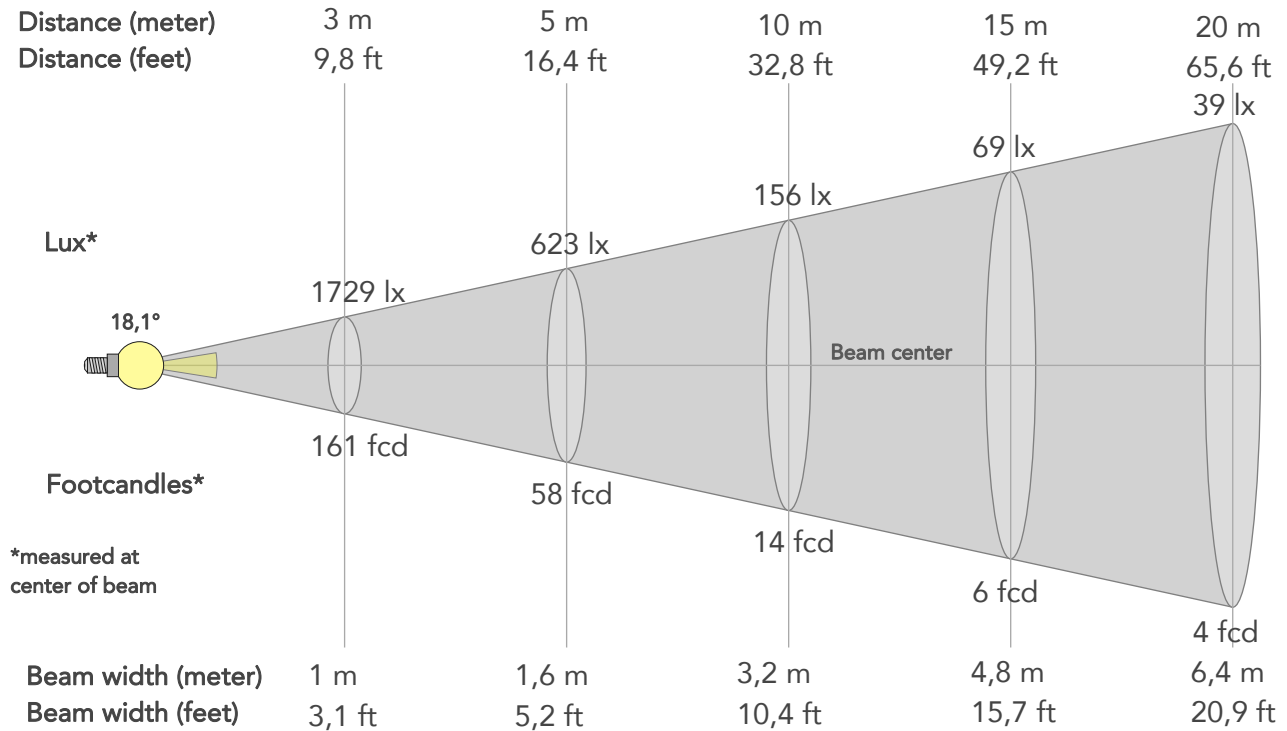
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	0%	1%
2	96	0%	1%
3	95	1%	2%
4	94	-1%	0%
5	93	-2%	1%
6	96	1%	1%
7	96	-1%	1%
8	95	0%	3%
9	92	0%	6%
10	90	0%	6%
11	87	4%	8%
12	92	4%	3%
13	95	4%	0%
14	95	2%	1%
15	91	3%	-3%
16	91	3%	-5%



# BEAM DETAILS



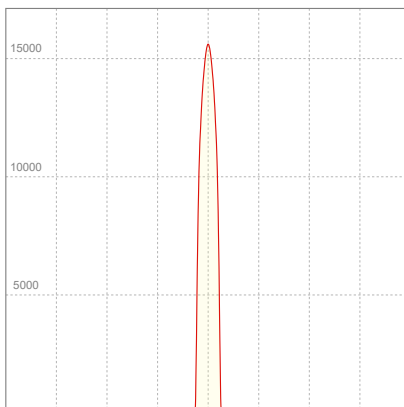
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,1°	21,8°	23,7°	99,6%	99,5%



## 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	15565lx	3891lx	1729lx	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.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,4m	8m	9,5m	12,7m	15,9m
Beam wid.	1ft	2,1ft	3,1ft	4,2ft	5,2ft	7,8ft	10,4ft	15,7ft	20,9ft	26,1ft	31,3ft	41,7ft	52,2ft

## LINEAR DISTRIBUTION DIAGRAM

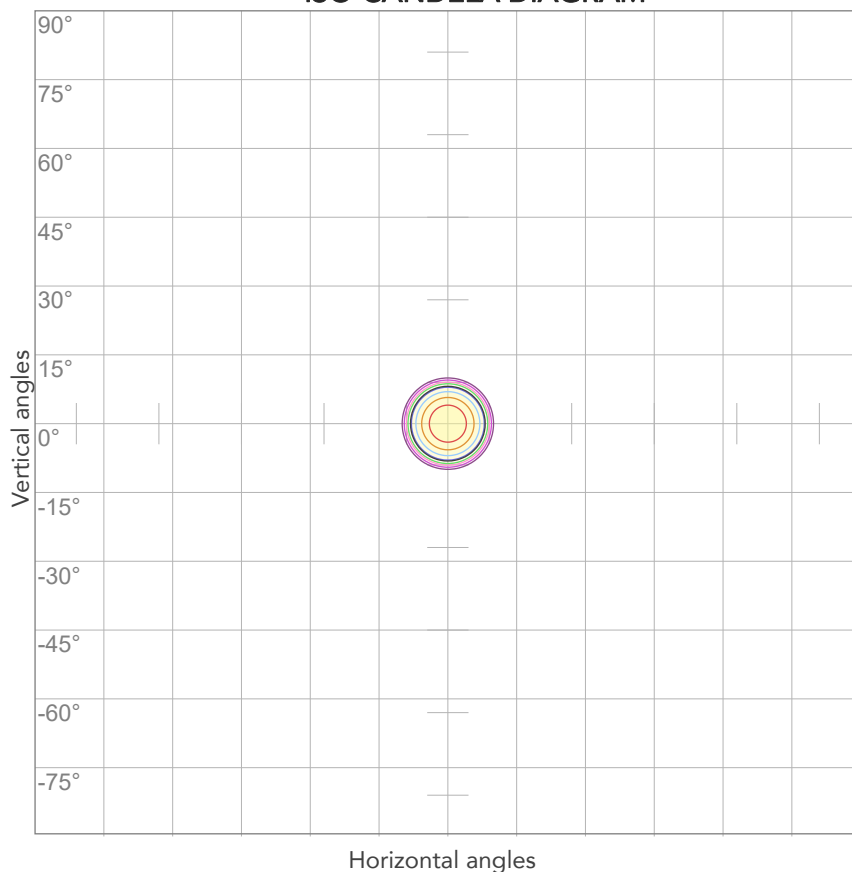


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
228V	0,148A	32,1W	0,95	36lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



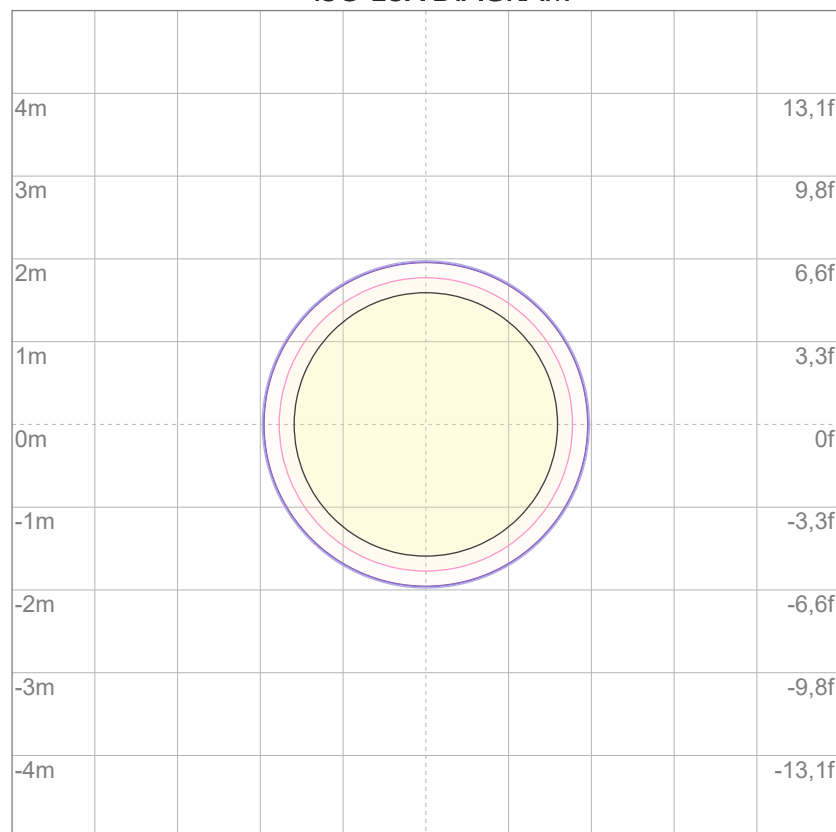
10%	1556 cd
20%	3113 cd
30%	4669 cd
40%	6226 cd
50%	7782 cd
60%	9339 cd
70%	10895 cd
80%	12452 cd

### Conditions:

Number of c-planes: 2

Candela at center: 15565 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: 2

Lux at center: 156 lx

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





Total lumen output:

1040 lm

Peak candela output:

43901 cd

Light quality:

CRI: 96,5

Color temperature:

4277 K

PRODUCT NAME:

ECLDISPLAY VW

MEASURAMENT CONDITIONS:

Beam angle:

Profile 1020 Min Zoom

Target:

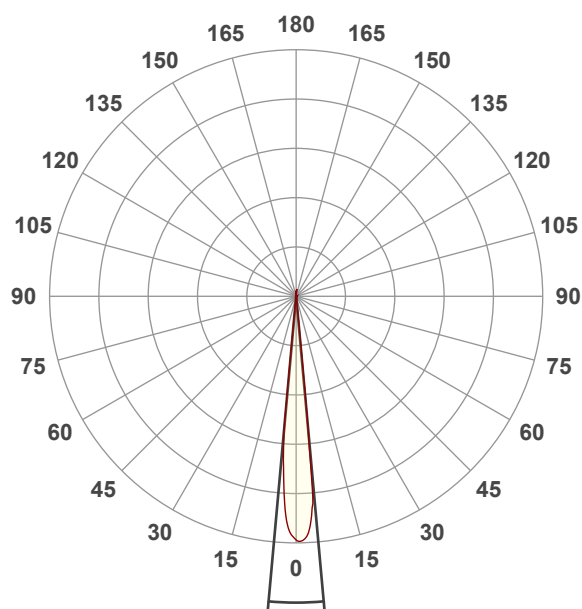
Full On

Operator:

Giacomo Matteo

Date and time:

17/06/2024 16:35:36

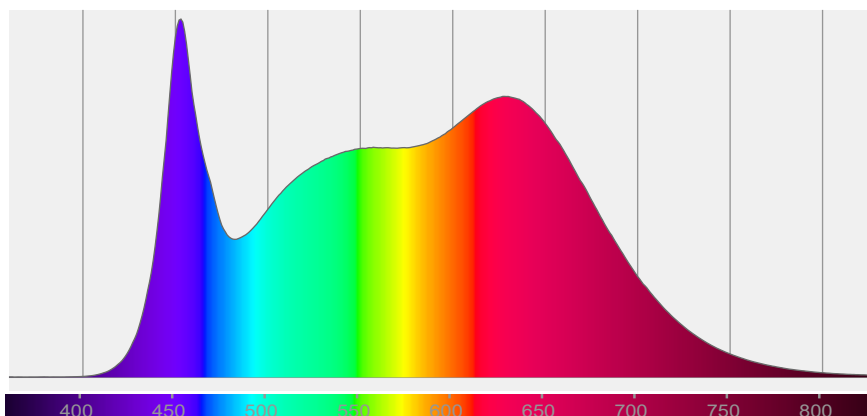


Beam angle 50%: 10,3°

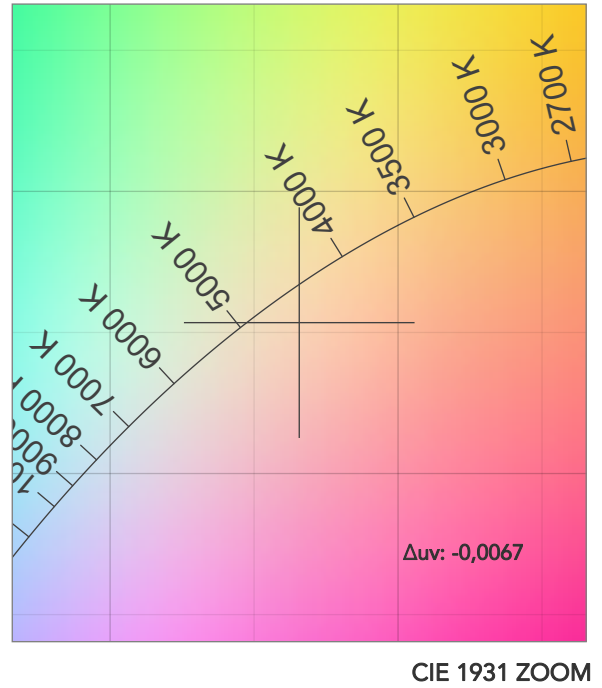
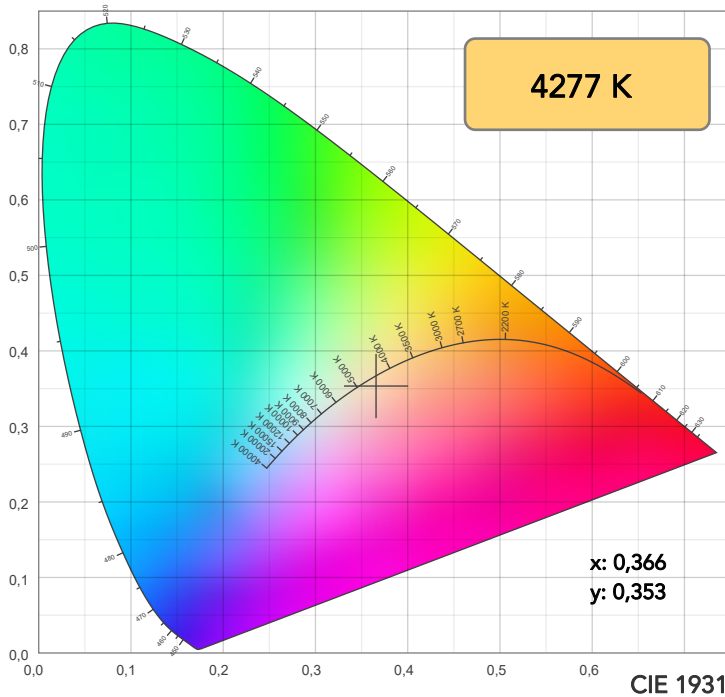
Field angle 10%: 11,3°

Cut off angle 2.5%: 11,5°

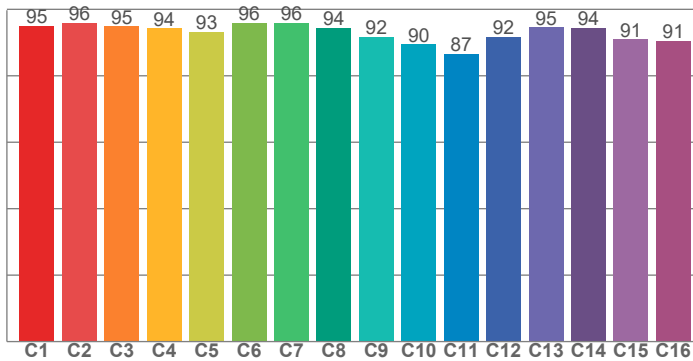
Spectra



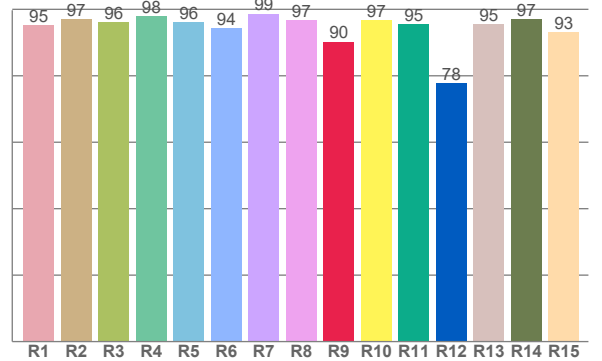
# COLOR DETAILS



TM30: 93,0



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
95,2	97,1	96,2	98,0	96,2	94,3	98,7	96,8	90,3	96,8	95,5	77,8	95,5	97,0	93,1

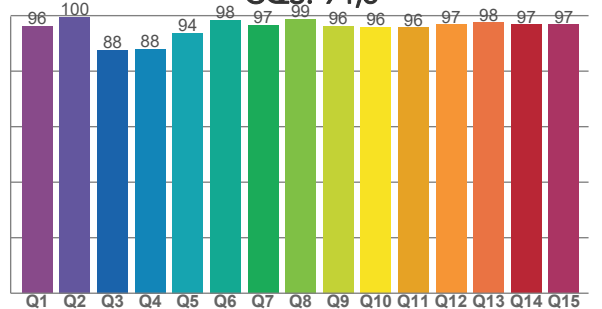
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,0	95,8	94,9	94,2	93,2	96,0	95,9	94,4	91,8	89,5	86,7	91,7	94,6	94,3	91,0	90,5

CQS Q values

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

CQS: 94,5



## COLOR PARAMETERS

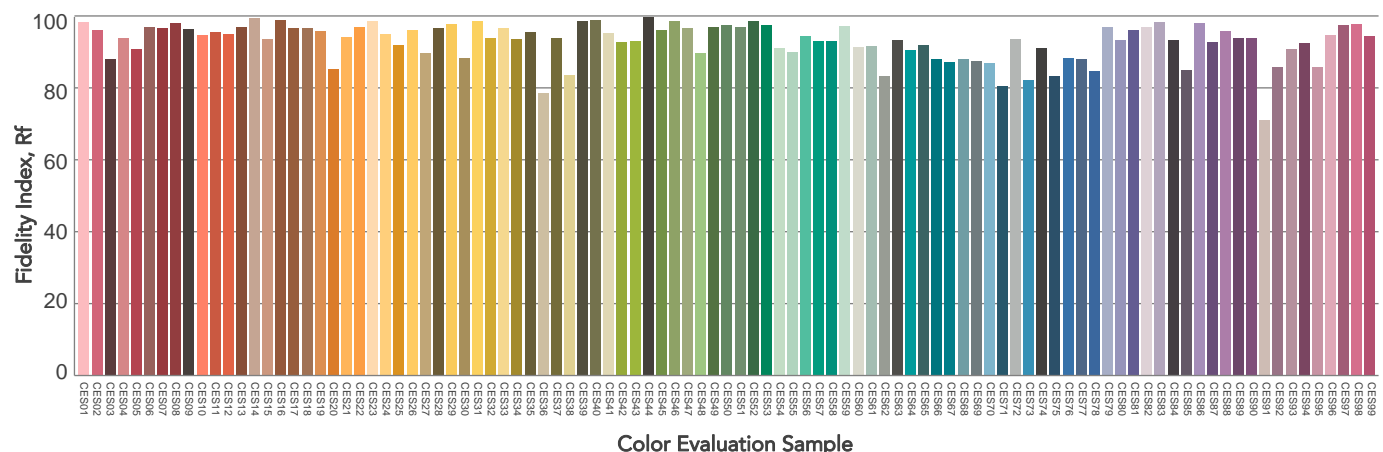
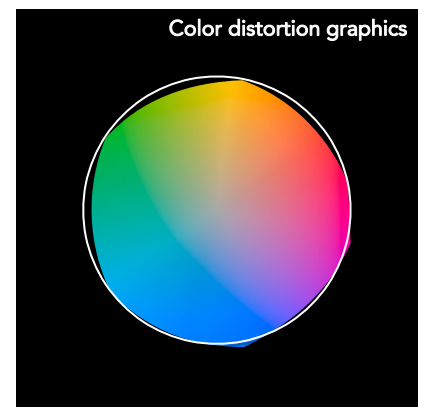
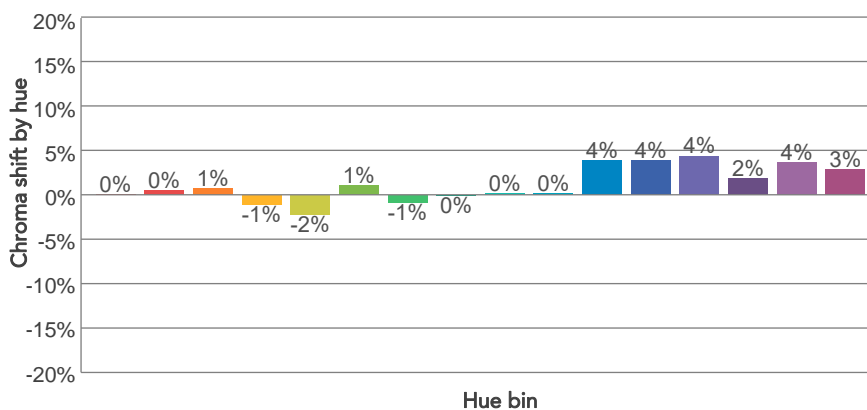
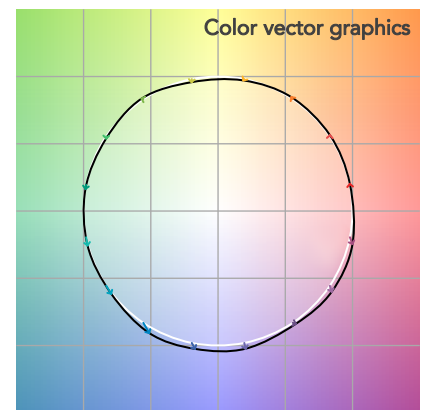
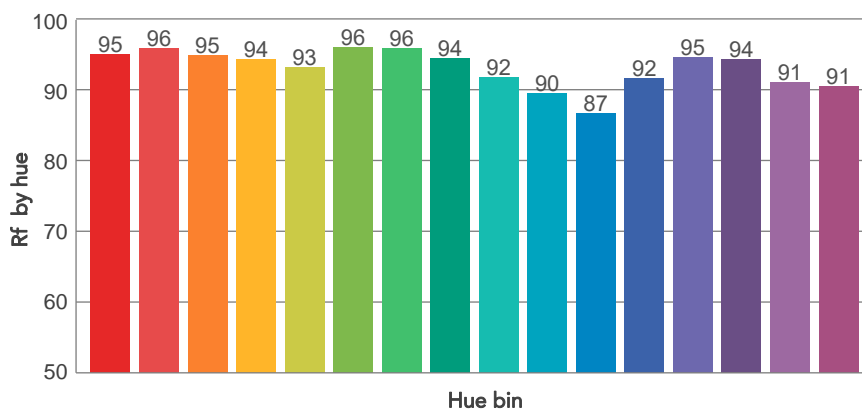
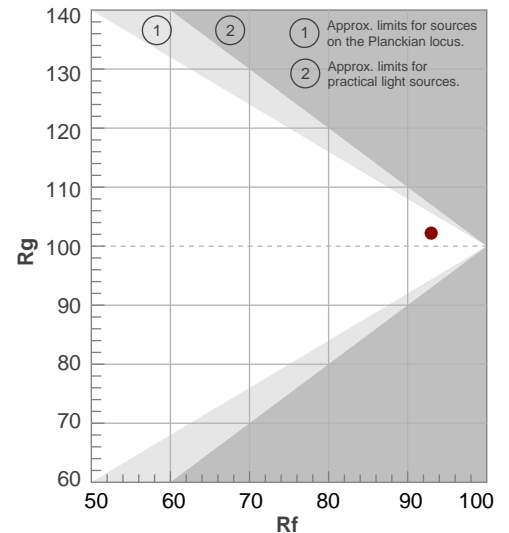
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
4277 K	96,5	90,3	93,0	102,2	94,5	98	0,366	0,353	-0,0067

# TM30 DETAILS

**Rf 93,0**  
Fidelity index Rf

**Rg 102,2**  
Gammut index

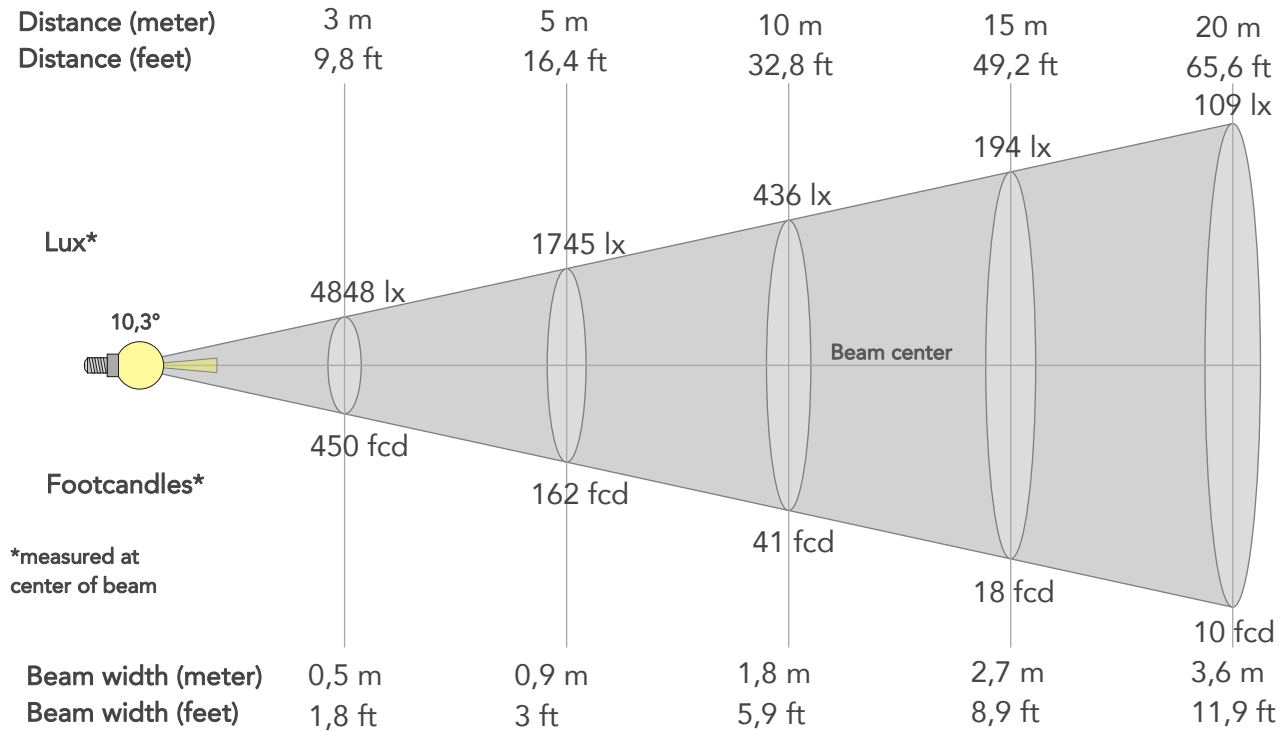
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	0%	1%
2	96	0%	1%
3	95	1%	2%
4	94	-1%	0%
5	93	-2%	1%
6	96	1%	1%
7	96	-1%	1%
8	94	0%	3%
9	92	0%	6%
10	90	0%	7%
11	87	4%	8%
12	92	4%	3%
13	95	4%	0%
14	94	2%	1%
15	91	4%	-3%
16	91	3%	-5%



# BEAM DETAILS



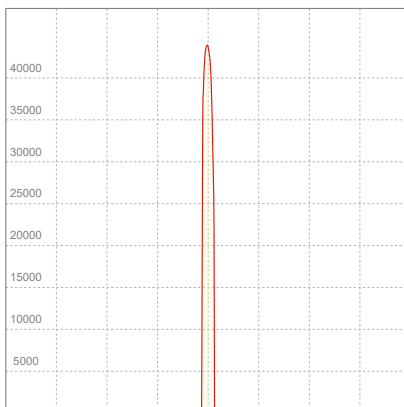
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
10,3°	11,3°	11,5°	99,3%	99,0%



## 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	43631lx	10908lx	4848lx	2727lx	1745lx	776lx	436lx	194lx	109lx	70lx	48lx	27lx	17lx
Footcand.	4053fcd	1013fcd	450fcd	253fcd	162fcd	72fcd	41fcd	18fcd	10fcd	6fcd	5fcd	3fcd	2fcd
Beam wid.	0,2m	0,4m	0,5m	0,7m	0,9m	1,4m	1,8m	2,7m	3,6m	4,5m	5,4m	7,2m	9m
Beam wid.	0,6ft	1,2ft	1,8ft	2,4ft	3ft	4,4ft	5,9ft	8,9ft	11,9ft	14,8ft	17,8ft	23,7ft	29,6ft

## LINEAR DISTRIBUTION DIAGRAM

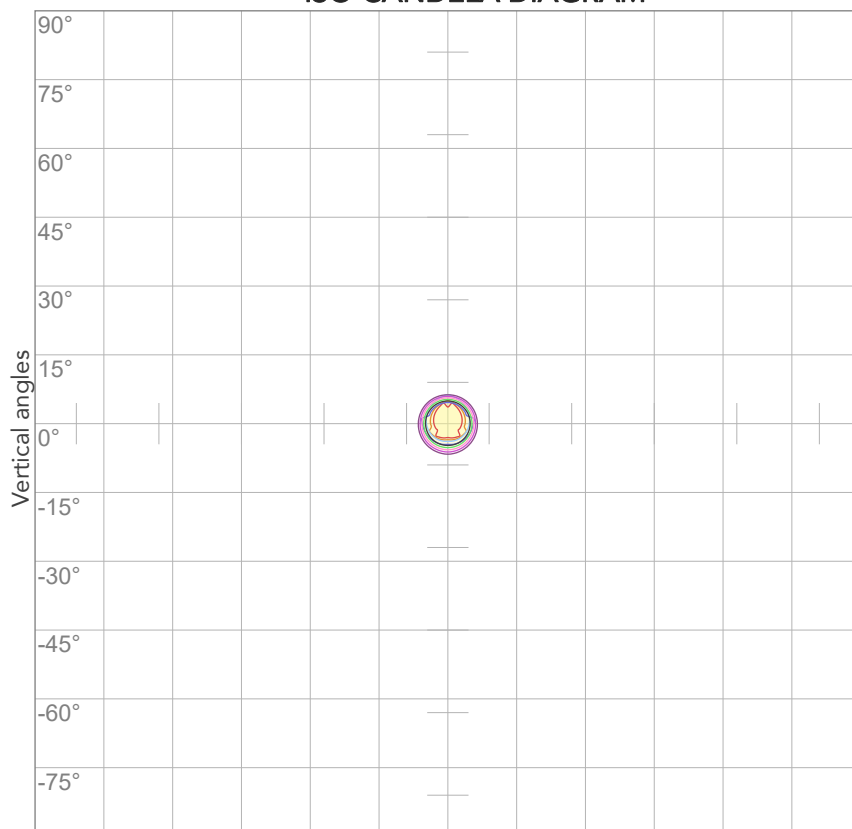


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
228V	0,148A	32,0W	0,95	32lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



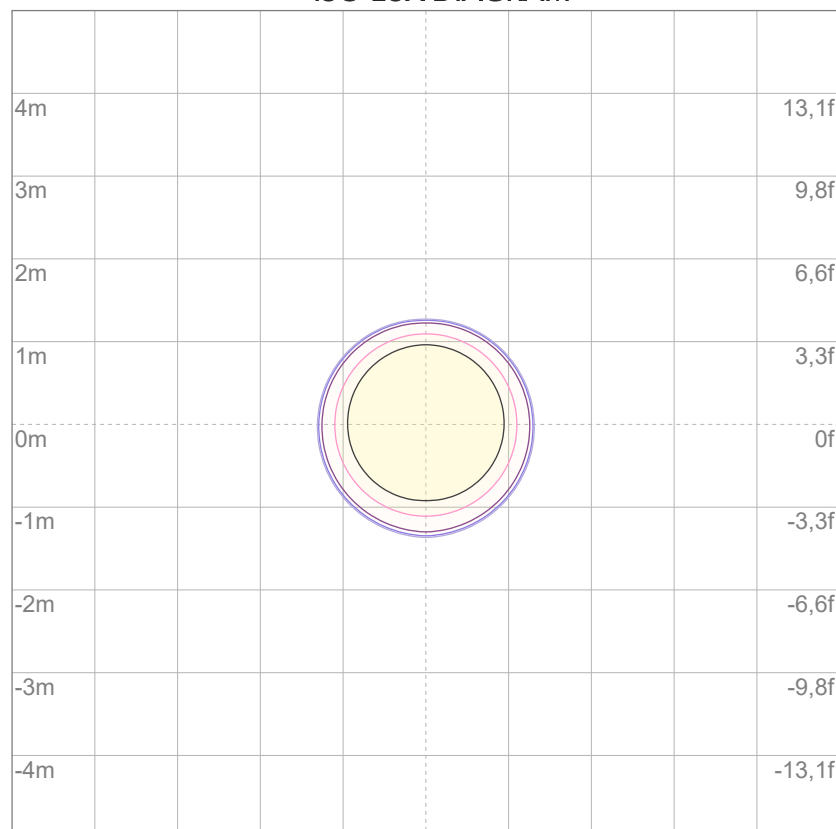
10%	4363 cd
20%	8726 cd
30%	13089 cd
40%	17453 cd
50%	21816 cd
60%	26179 cd
70%	30542 cd
80%	34905 cd

### Conditions:

Number of c-planes: 2

Candela at center: 43631 cd

## ISO LUX DIAGRAM



3%	13,1 lx
5%	21,8 lx
10%	43,6 lx
30%	131 lx
50%	218 lx

### Conditions:

Number of c-planes: 2

Lux at center: 436 lx

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



Total lumen output:

910 lm

Peak candela output:

12349 cd

Light quality:

CRI: 96,8

Color temperature:

2737 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 1020 Max Zoom

Target:

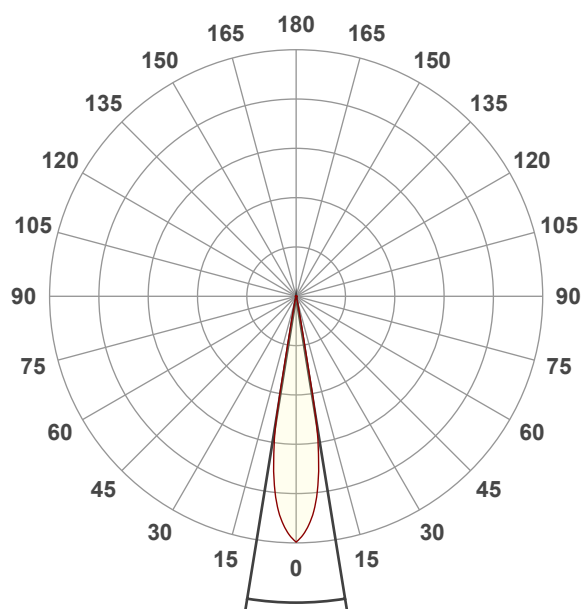
Warm White

Operator:

Giacomo Matteo

Date and time:

17/06/2024 16:31:02

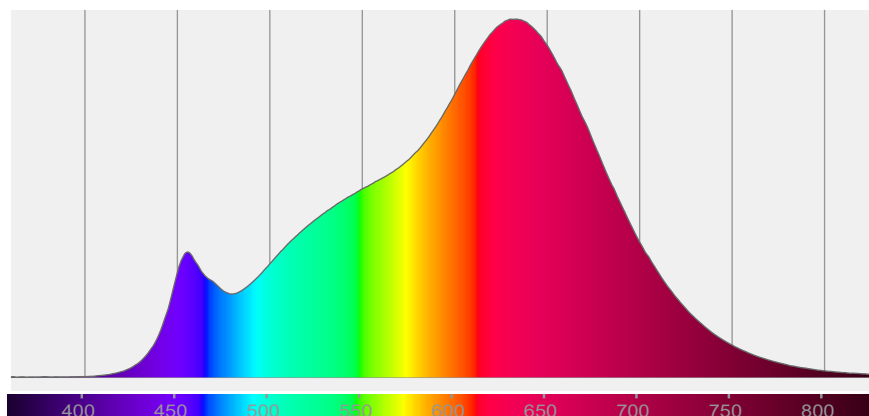


Beam angle 50%: 18,4°

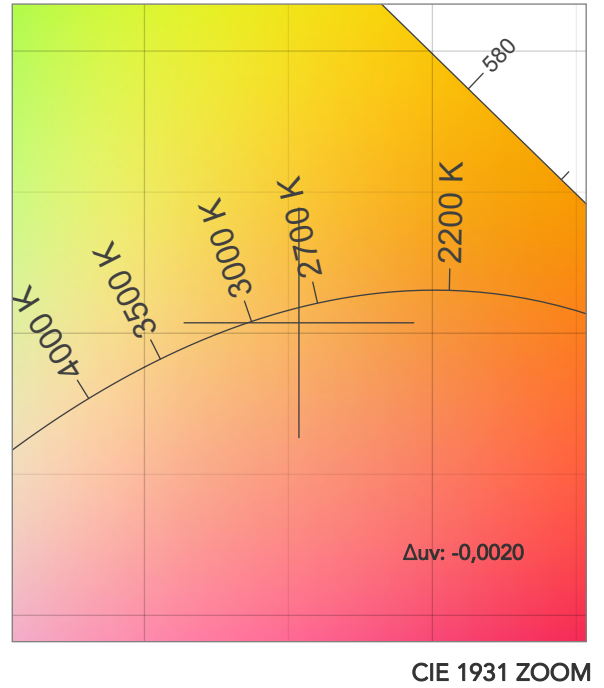
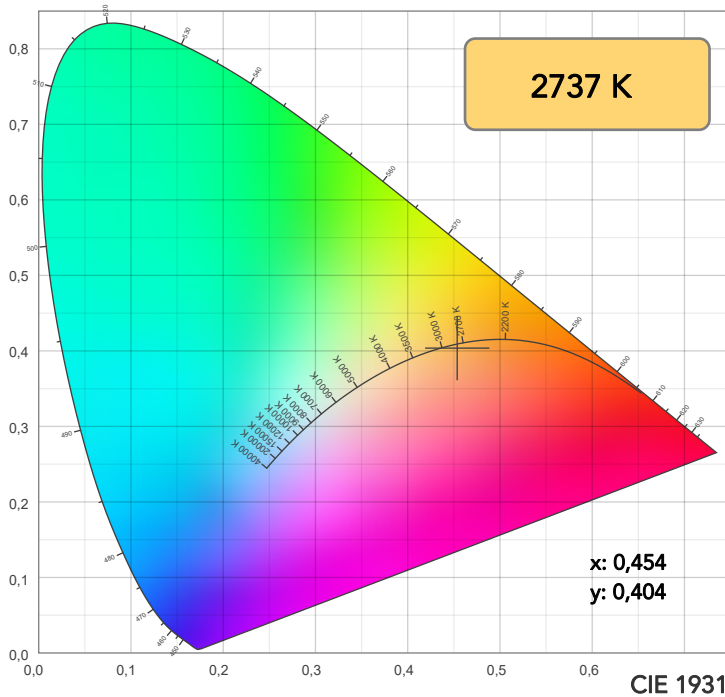
Field angle 10%: 21,5°

Cut off angle 2.5%: 23,9°

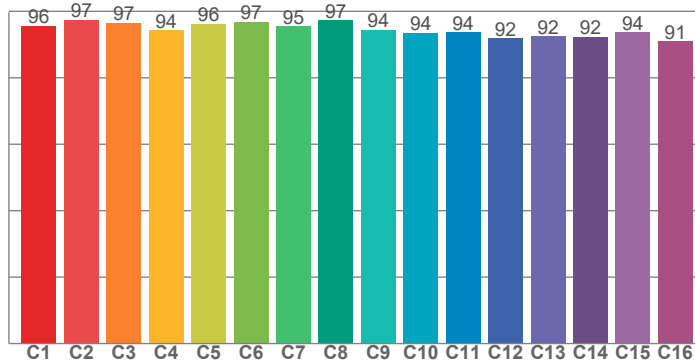
**Spectra**



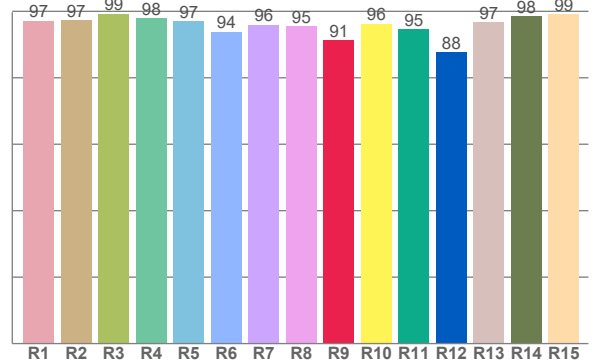
# COLOR DETAILS



TM30: 94,6



CRI: 96,8 (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
97,2	97,4	99,3	97,9	96,9	93,9	96,0	95,4	91,3	96,3	94,6	87,7	96,7	98,5	99,0

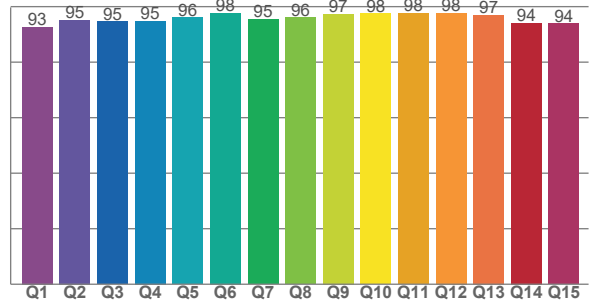
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,6	97,4	96,5	94,3	96,2	96,8	95,5	97,2	94,4	93,6	93,6	91,8	92,5	92,2	93,7	90,9

CQS Q values

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

CQS: 95,3



## COLOR PARAMETERS

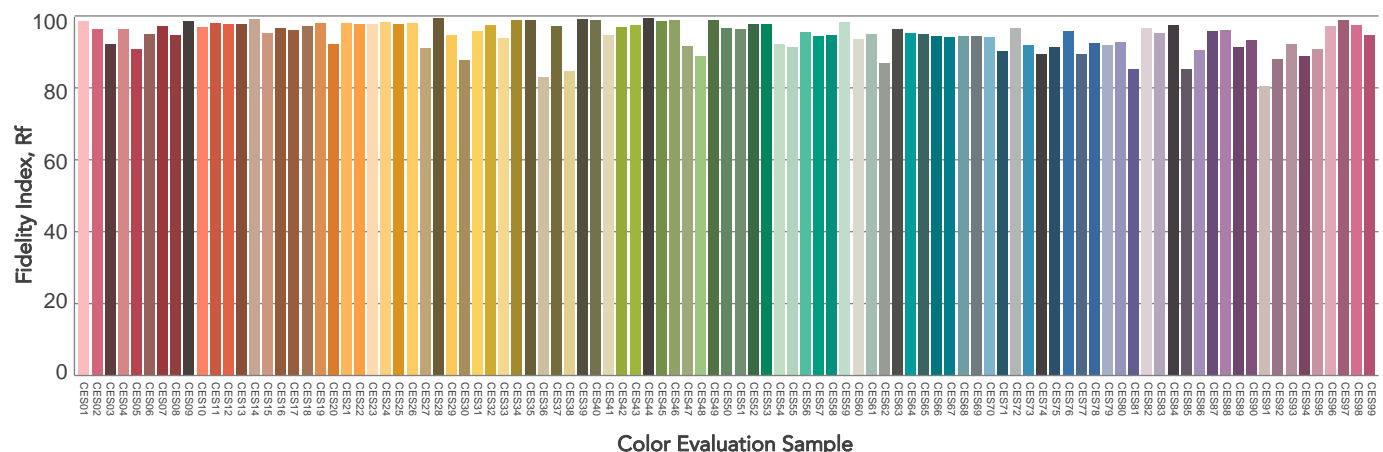
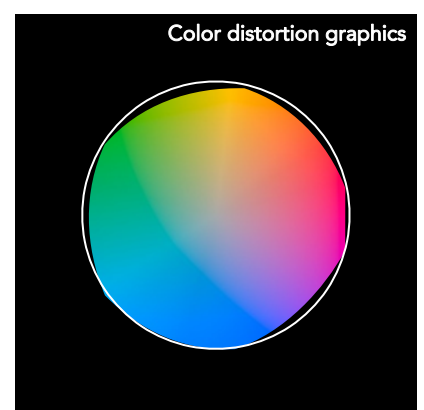
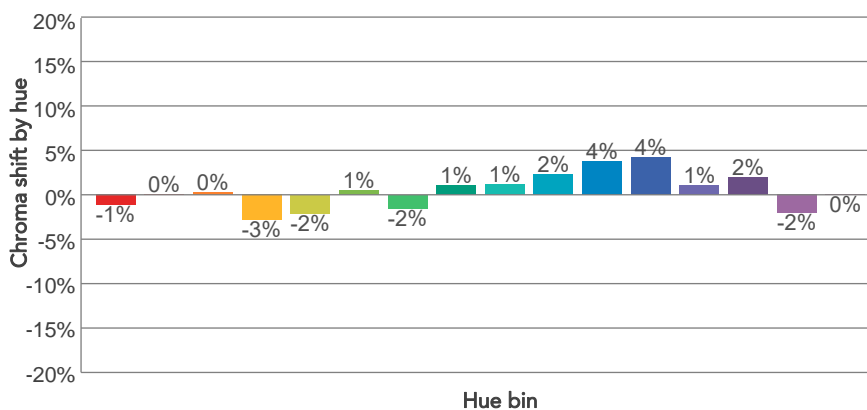
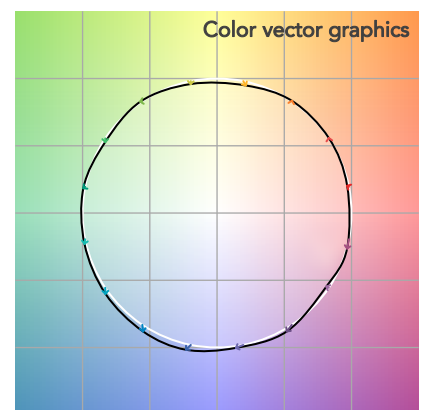
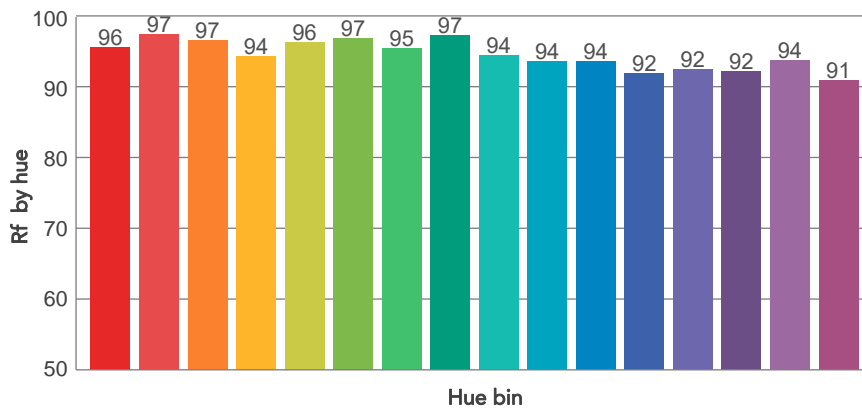
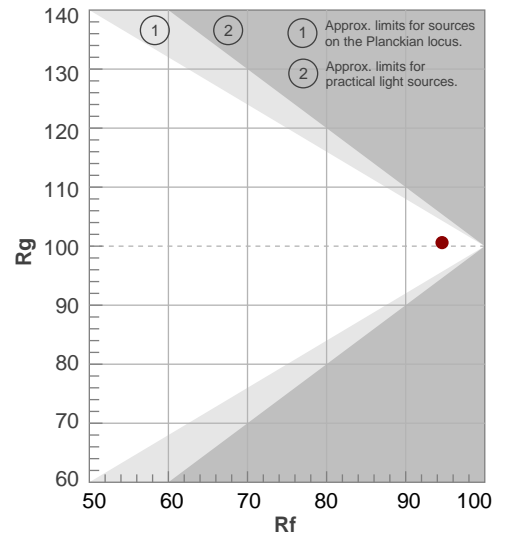
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2737 K	96,8	91,3	94,6	100,6	95,3	97	0,454	0,404	-0,0020

# TM30 DETAILS

**Rf 94,6**  
Fidelity index Rf

**Rg 100,6**  
Gammut index

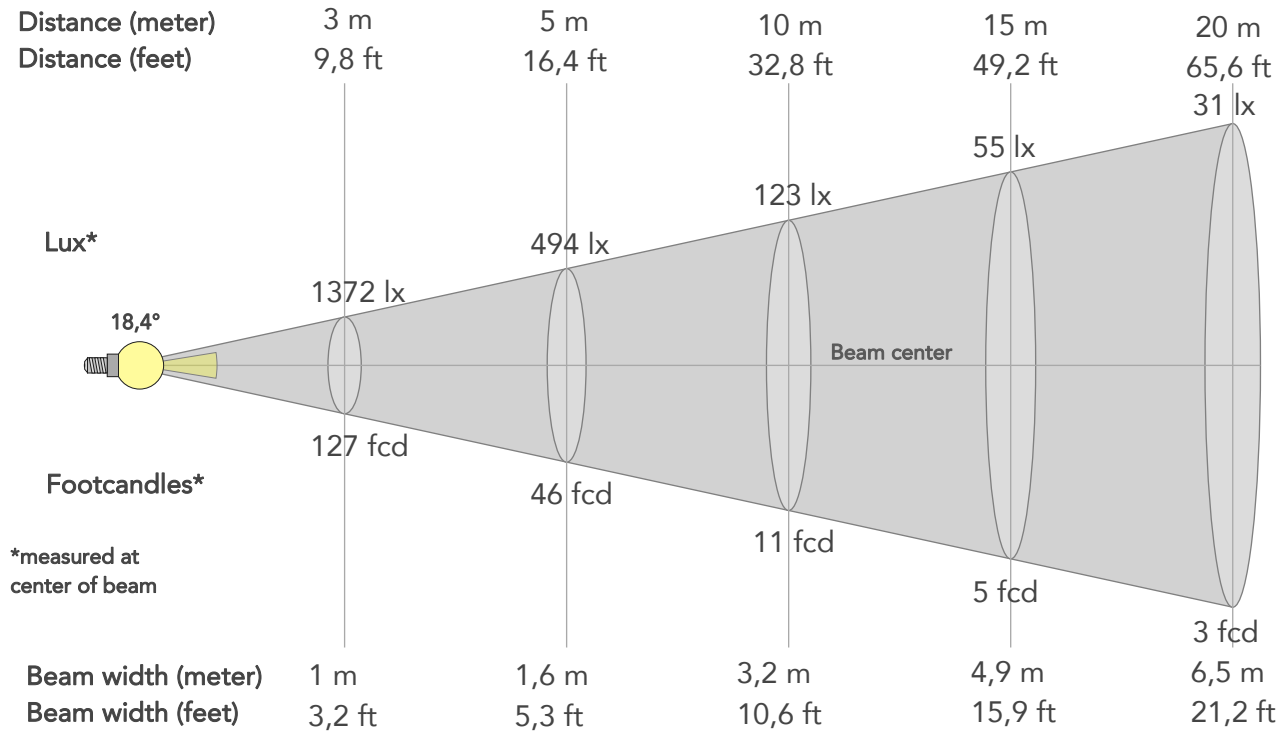
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	96	-1%	1%
2	97	0%	0%
3	97	0%	0%
4	94	-3%	-2%
5	96	-2%	1%
6	97	1%	2%
7	95	-2%	2%
8	97	1%	1%
9	94	1%	3%
10	94	2%	4%
11	94	4%	3%
12	92	4%	-3%
13	92	1%	-6%
14	92	2%	-6%
15	94	-2%	0%
16	91	0%	-7%





# BEAM DETAILS

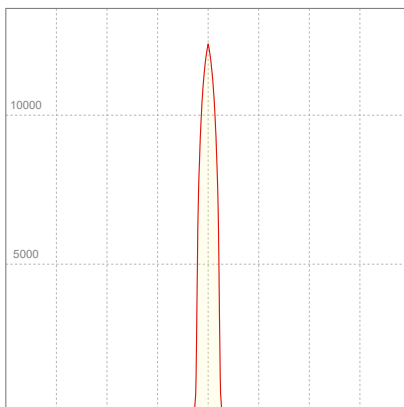
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,4°	21,5°	23,9°	99,2%	99,0%



## 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	12349lx	3087lx	1372lx	772lx	494lx	220lx	123lx	55lx	31lx	20lx	14lx	8lx	5lx
Footcand.	1147fcd	287fcd	127fcd	72fcd	46fcd	20fcd	11fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,9m	6,5m	8,1m	9,7m	12,9m	16,2m
Beam wid.	1,1ft	2,1ft	3,2ft	4,2ft	5,3ft	8ft	10,6ft	15,9ft	21,2ft	26,5ft	31,9ft	42,5ft	53,1ft

## LINEAR DISTRIBUTION DIAGRAM

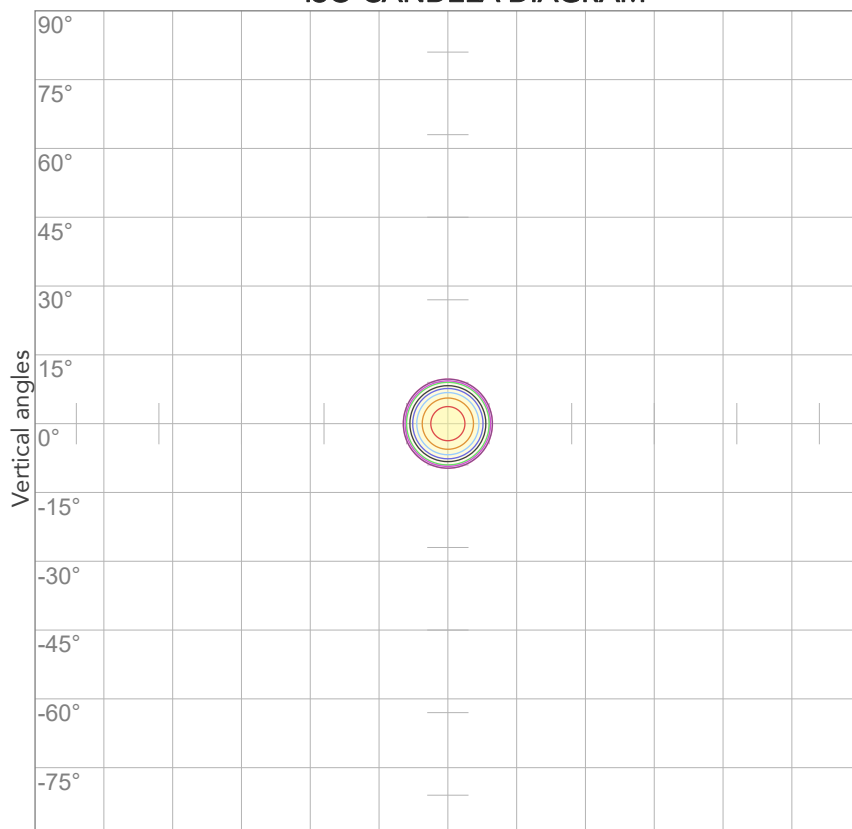


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
228V	0,146A	31,6W	0,95	29lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



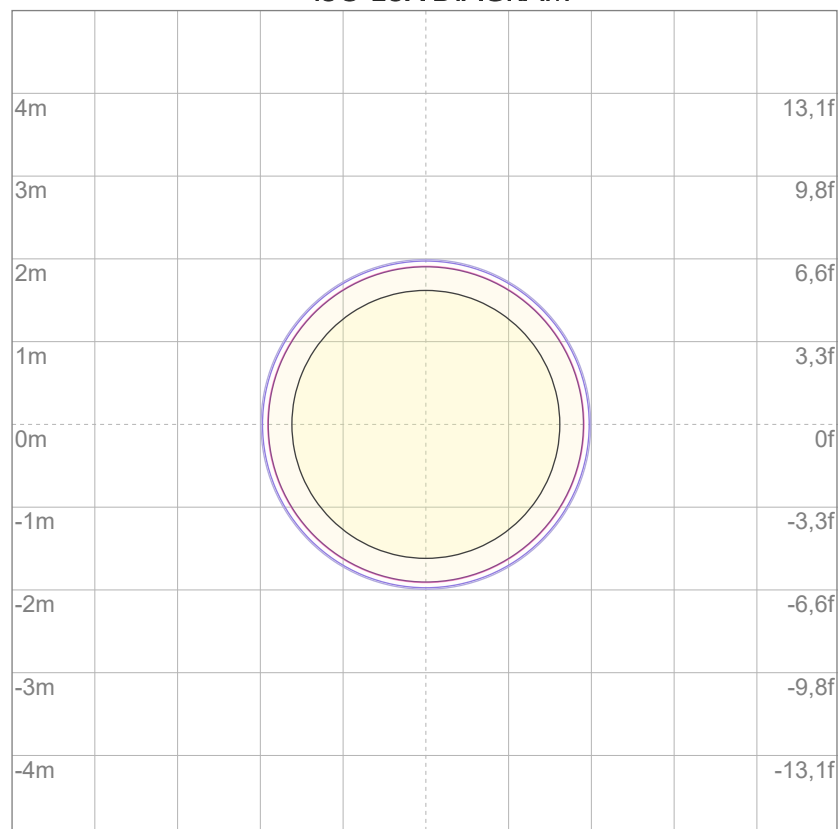
10%	1235 cd
20%	2470 cd
30%	3705 cd
40%	4940 cd
50%	6175 cd
60%	7410 cd
70%	8644 cd
80%	9879 cd

### Conditions:

Number of c-planes: 2

Candela at center: 12349 cd

## ISO LUX DIAGRAM



3%	3,70 lx
5%	6,17 lx
10%	12,3 lx
30%	37,0 lx
50%	61,7 lx

### Conditions:

Number of c-planes: 2

Lux at center: 123 lx

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



Total lumen output:

819 lm

Peak candela output:

34091 cd

Light quality:

CRI: 96,6

Color temperature:

2730 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 1020 Min Zoom

Target:

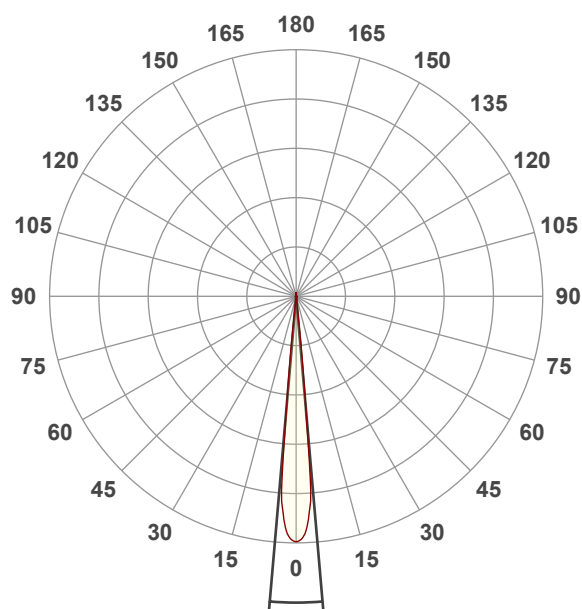
Warm White

Operator:

Giacomo Matteo

Date and time:

17/06/2024 16:37:14

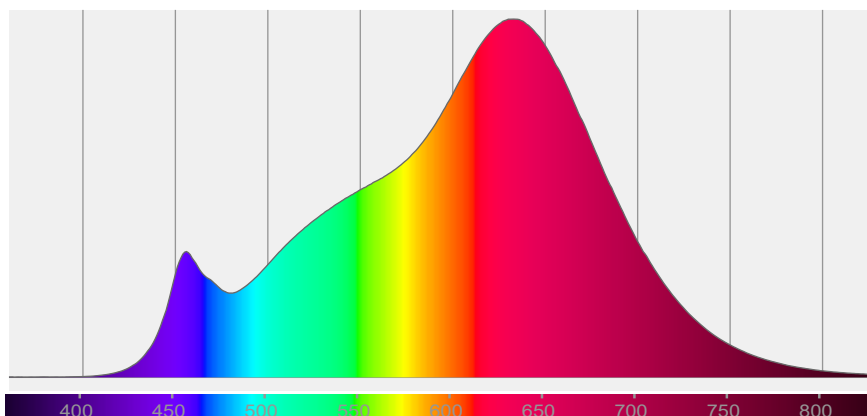


Beam angle 50%: 9,9°

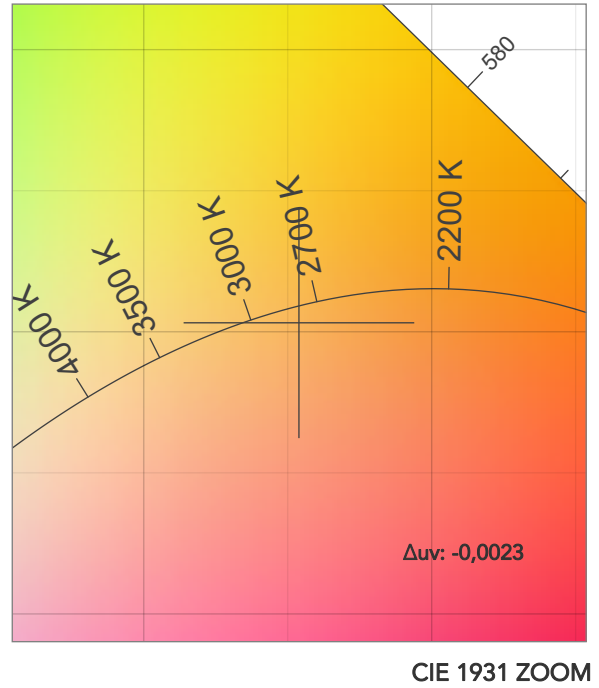
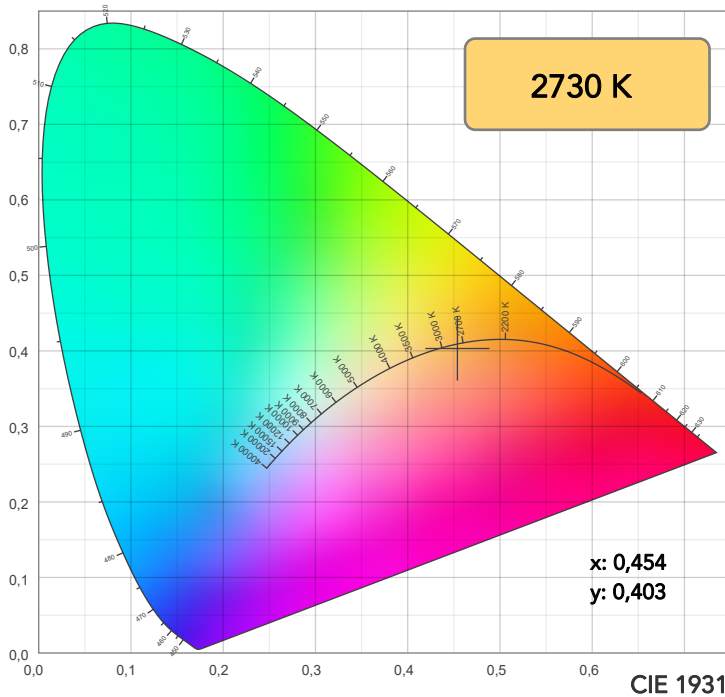
Field angle 10%: 12,1°

Cut off angle 2.5%: 12,7°

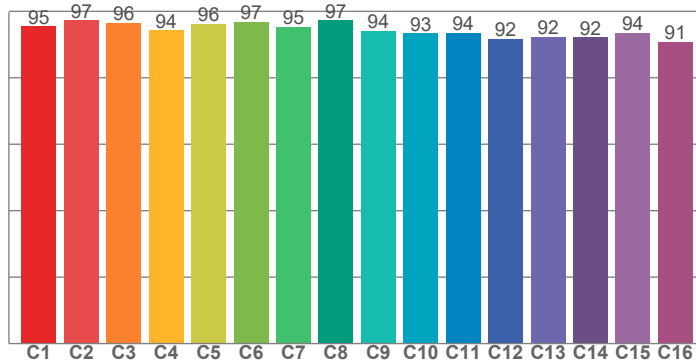
**Spectra**



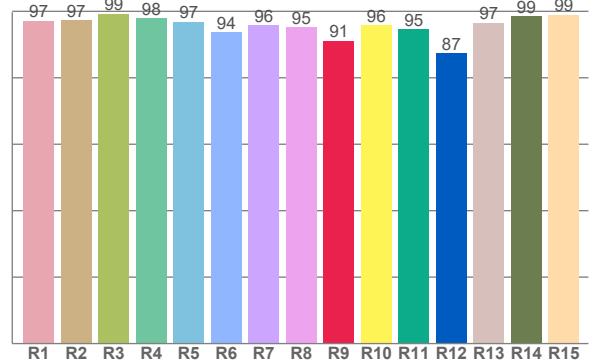
# COLOR DETAILS



**TM30: 94,5**



**CRI: 96,6 (R1-R8)**



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
97,1	97,2	99,2	98,0	96,8	93,6	95,7	95,3	91,1	95,9	94,7	87,4	96,6	98,6	99,0

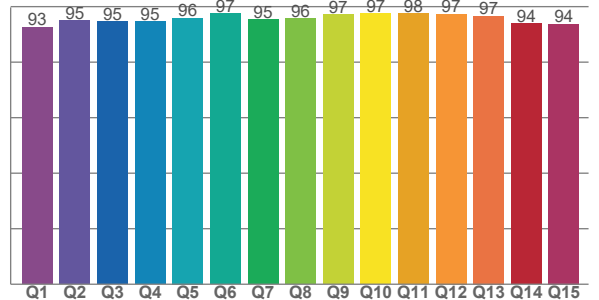
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,5	97,3	96,5	94,2	96,2	96,8	95,4	97,2	94,2	93,4	93,5	91,7	92,3	92,1	93,6	90,9

CQS Q values

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

**CQS: 95,2**



## COLOR PARAMETERS

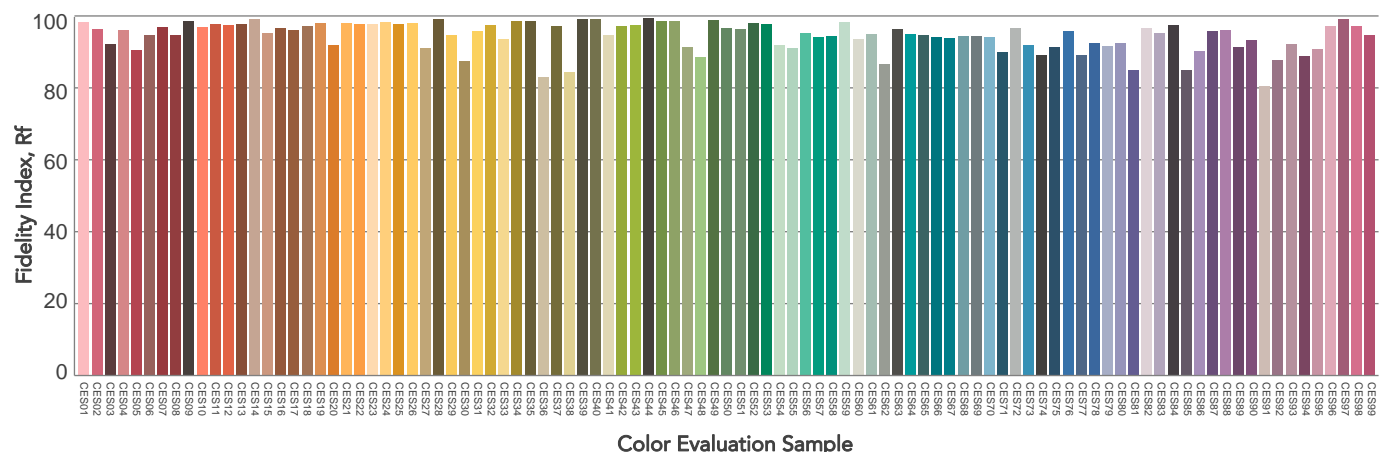
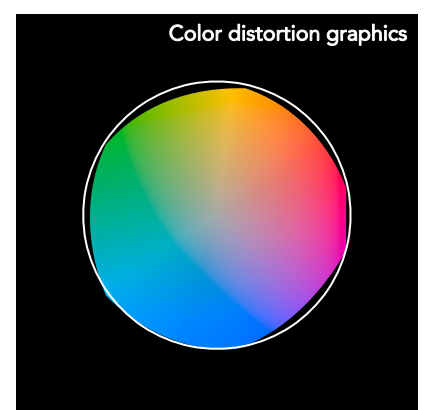
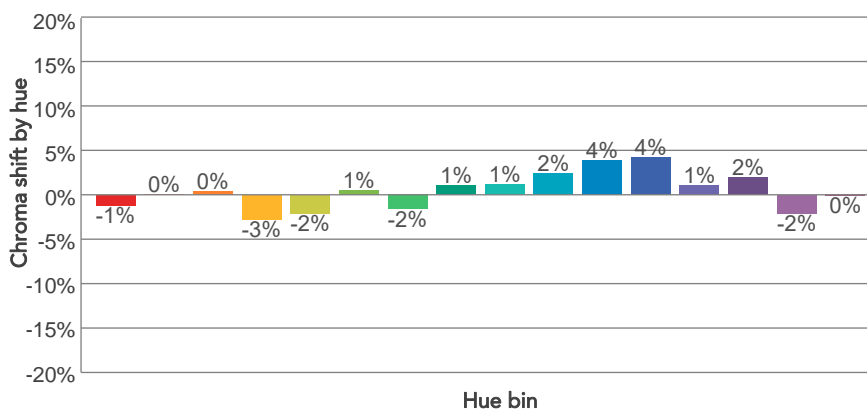
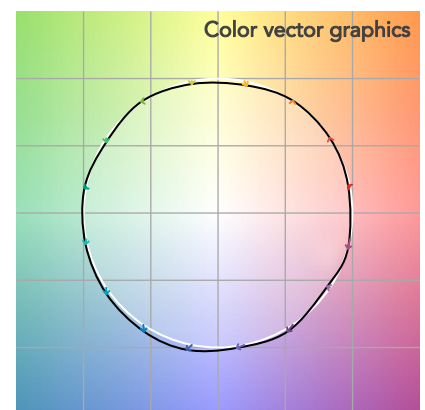
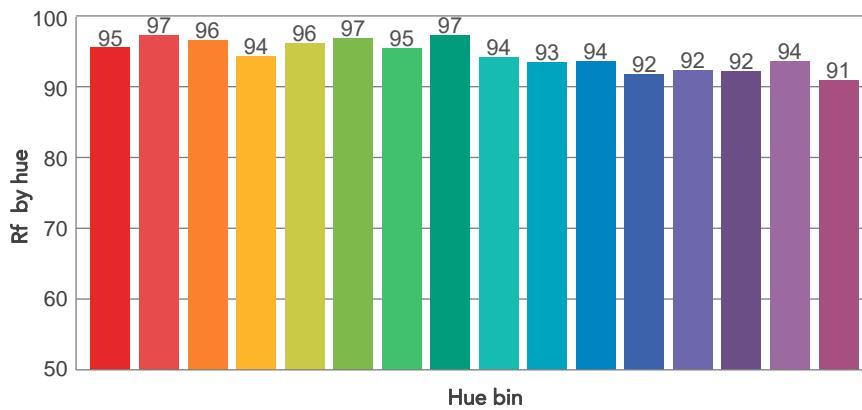
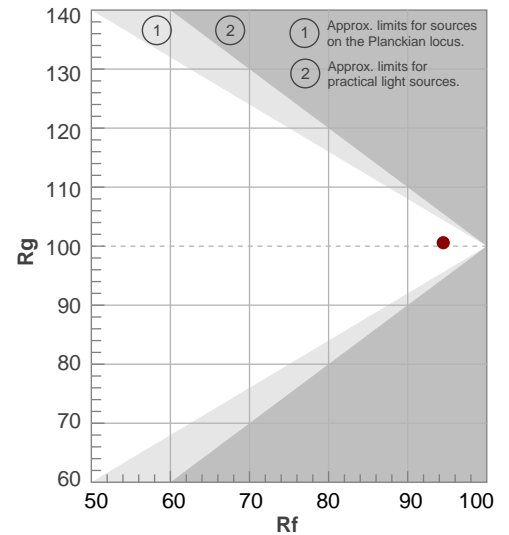
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2730 K	96,6	91,1	94,5	100,6	95,2	97	0,454	0,403	-0,0023

# TM30 DETAILS

**Rf 94,5**  
Fidelity index Rf

**Rg 100,6**  
Gammut index

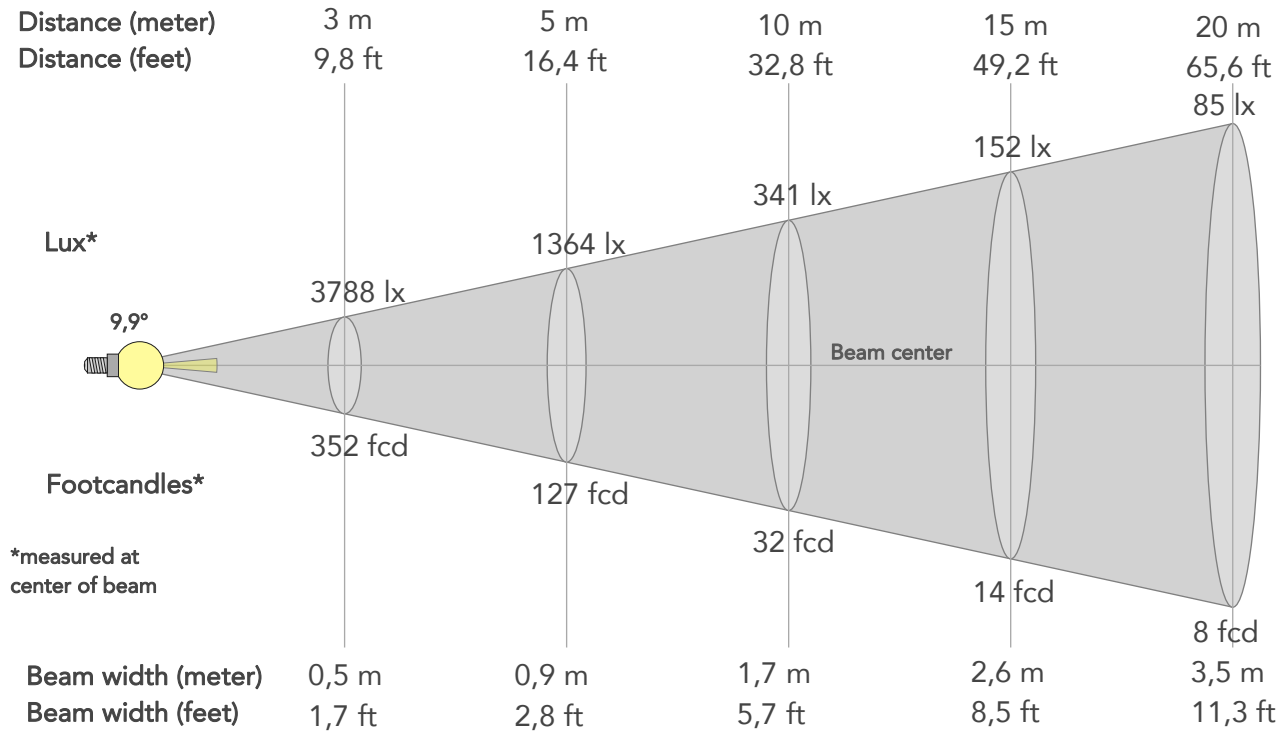
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	97	0%	0%
3	96	0%	0%
4	94	-3%	-2%
5	96	-2%	0%
6	97	1%	1%
7	95	-2%	2%
8	97	1%	1%
9	94	1%	3%
10	93	2%	4%
11	94	4%	3%
12	92	4%	-3%
13	92	1%	-6%
14	92	2%	-6%
15	94	-2%	0%
16	91	0%	-7%



# BEAM DETAILS



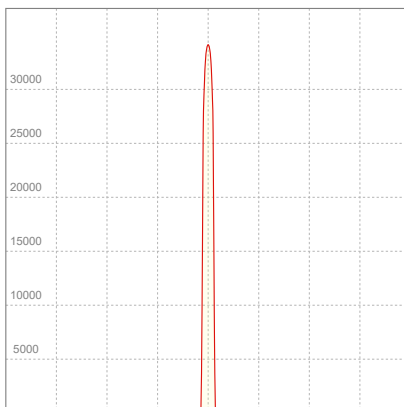
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
9,9°	12,1°	12,7°	98,7%	98,3%



## 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	34091lx	8523lx	3788lx	2131lx	1364lx	606lx	341lx	152lx	85lx	55lx	38lx	21lx	14lx
Footcand.	3167fcd	792fcd	352fcd	198fcd	127fcd	56fcd	32fcd	14fcd	8fcd	5fcd	4fcd	2fcd	1fcd
Beam wid.	0,2m	0,3m	0,5m	0,7m	0,9m	1,3m	1,7m	2,6m	3,5m	4,3m	5,2m	6,9m	8,6m
Beam wid.	0,6ft	1,1ft	1,7ft	2,3ft	2,8ft	4,3ft	5,7ft	8,5ft	11,3ft	14,2ft	17ft	22,7ft	28,4ft

## LINEAR DISTRIBUTION DIAGRAM

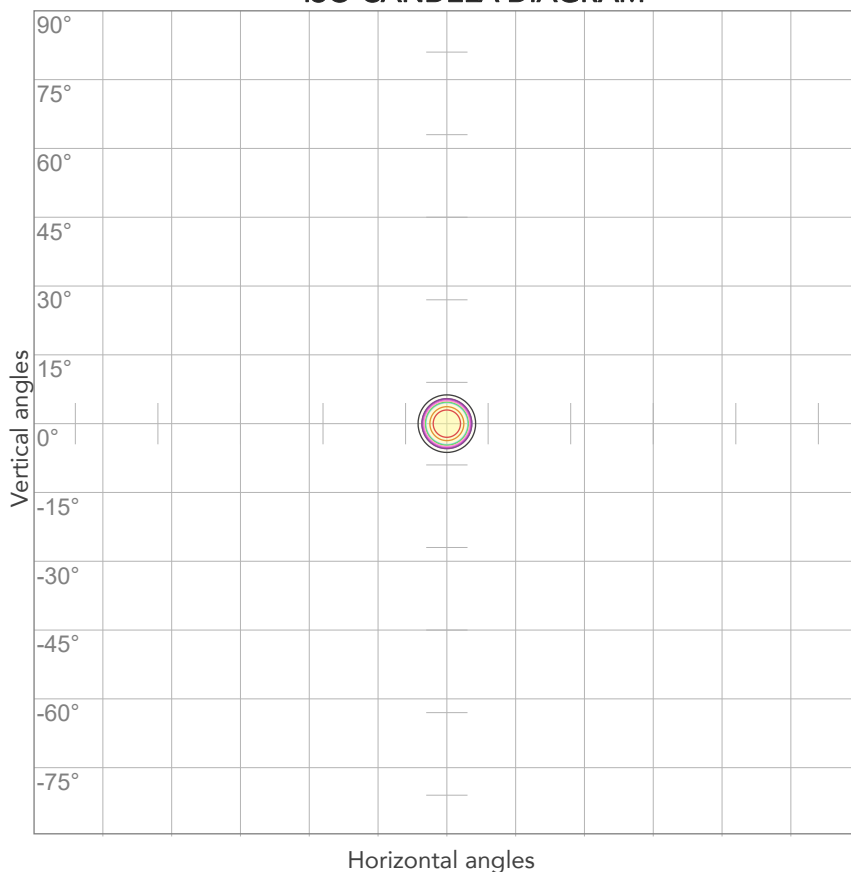


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
228V	0,145A	31,4W	0,95	26lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



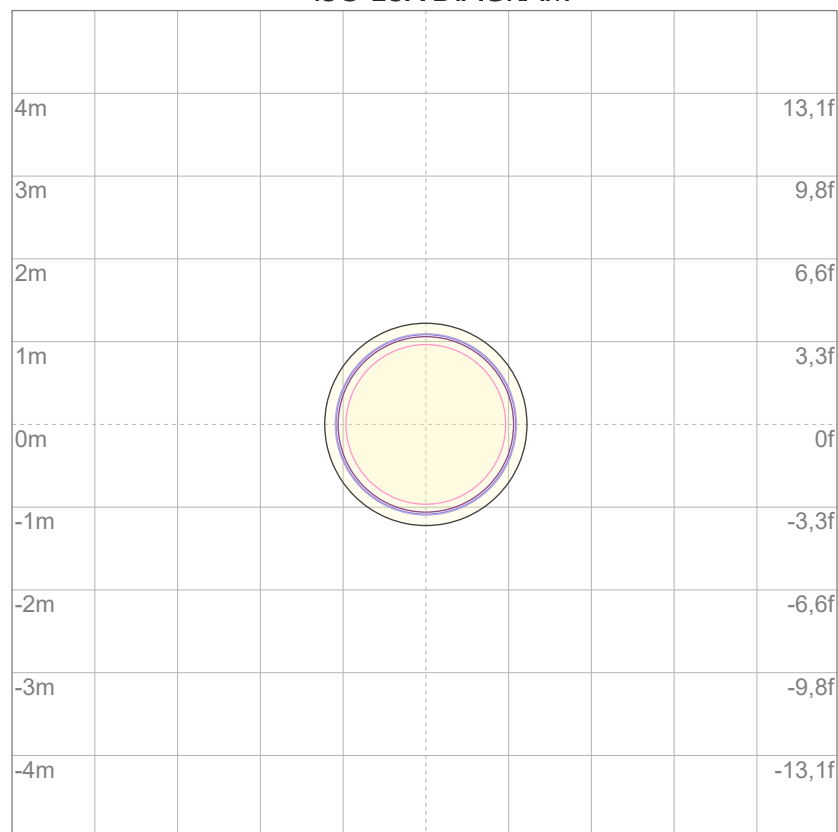
10%	3409 cd
20%	6818 cd
30%	10227 cd
40%	13636 cd
50%	17045 cd
60%	20454 cd
70%	23863 cd
80%	27272 cd

### Conditions:

Number of c-planes: 2

Candela at center: 34091 cd

## ISO LUX DIAGRAM



3%	10,2 lx
5%	17,0 lx
10%	34,1 lx
30%	102 lx
50%	170 lx

### Conditions:

Number of c-planes: 2

Lux at center: 341 lx

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



Total lumen output:

1282 lm

Peak candela output:

17466 cd

Light quality:

CRI: 96,3

Color temperature:

6237 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 1020 Max Zoom

Target:

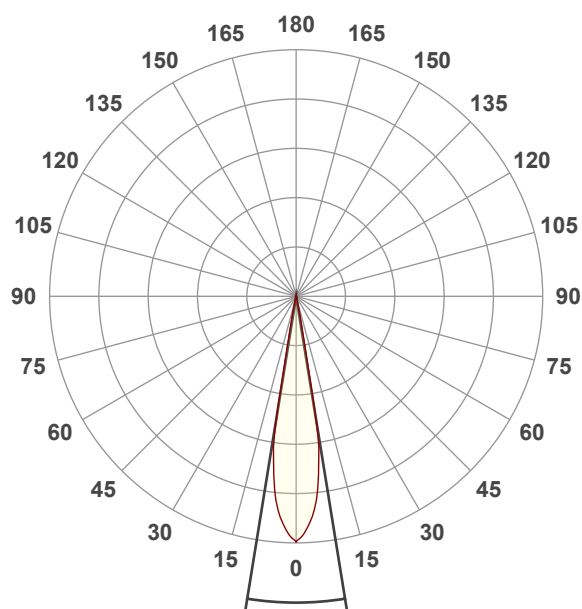
Cold White

Operator:

Giacomo Matteo

Date and time:

17/06/2024 16:32:30

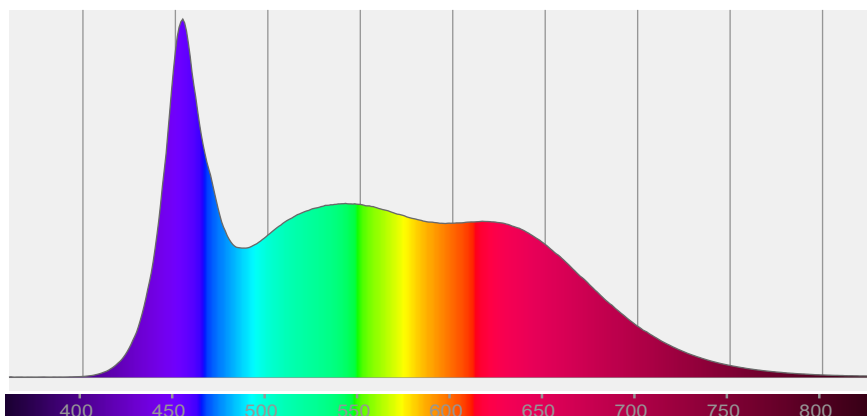


Beam angle 50%: 18,4°

Field angle 10%: 21,8°

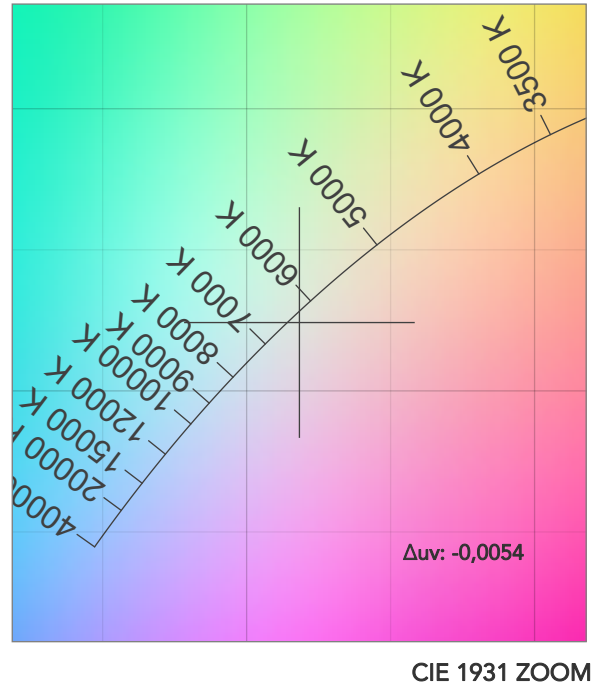
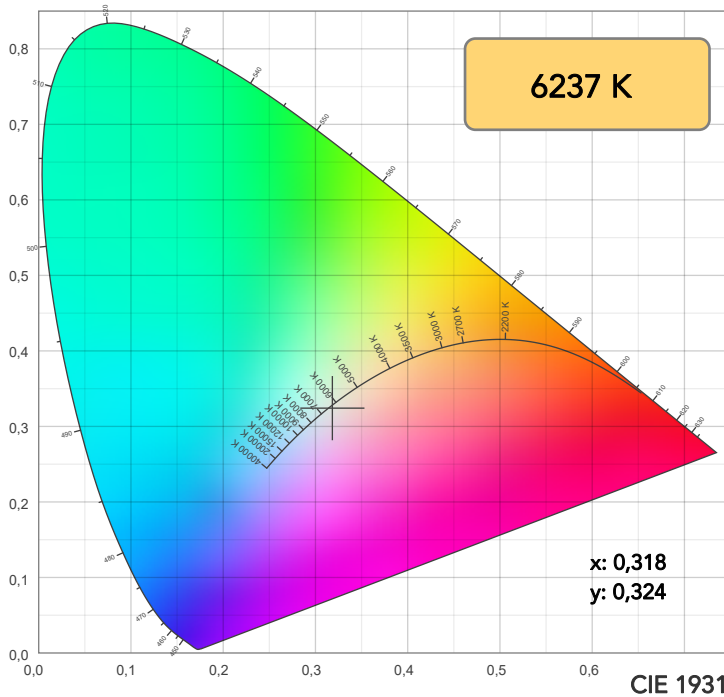
Cut off angle 2.5%: 23,6°

**Spectra**

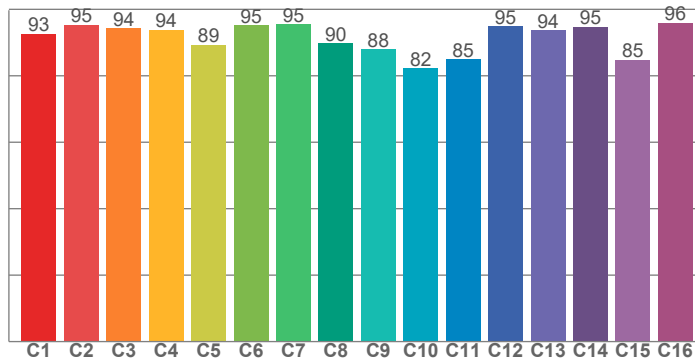




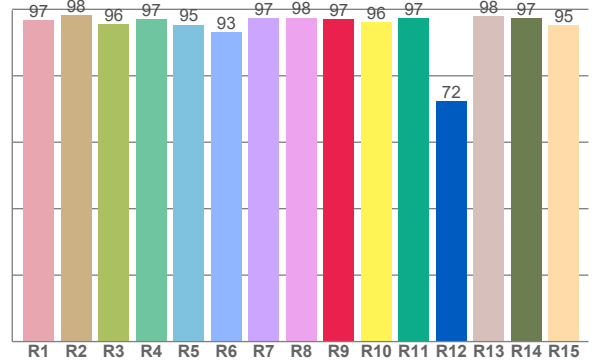
## COLOR DETAILS



**TM30: 91,2**



**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
96,7	98,1	95,6	97,1	95,4	93,1	97,3	97,5	97,0	96,1	97,4	72,3	98,0	97,2	95,2

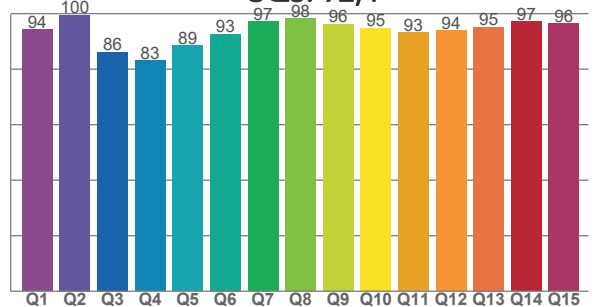
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,7	95,3	94,2	93,8	89,3	95,2	95,5	89,7	87,9	82,3	85,0	94,9	93,7	94,7	84,8	96,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,2	99,6	86,2	83,1	88,5	92,7	97,2	98,2	96,2	94,9	93,2	94,0	95,2	97,1	96,4

**CQS: 92,4**



## COLOR PARAMETERS

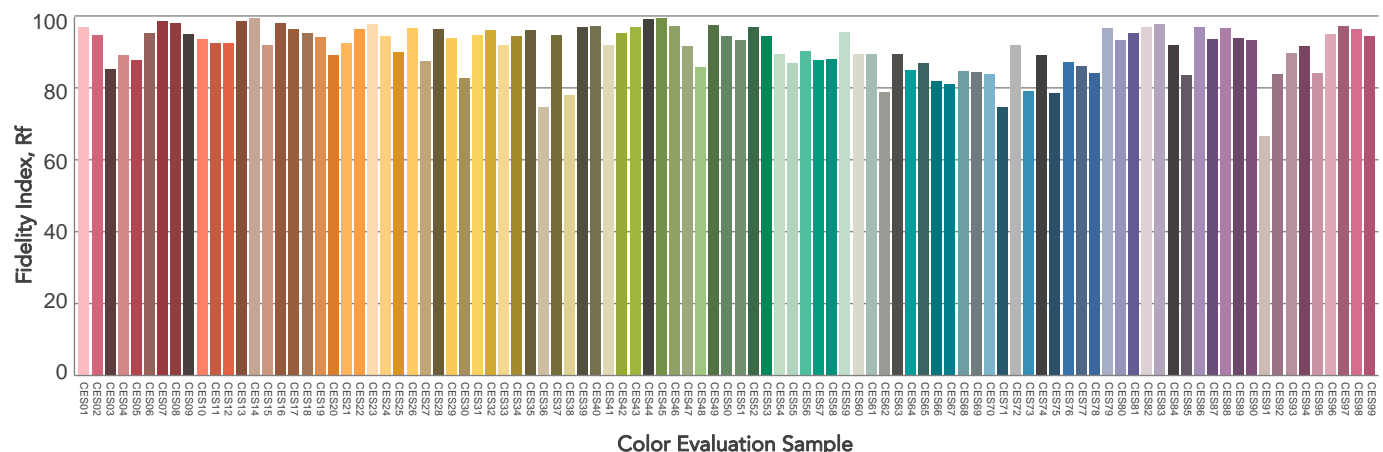
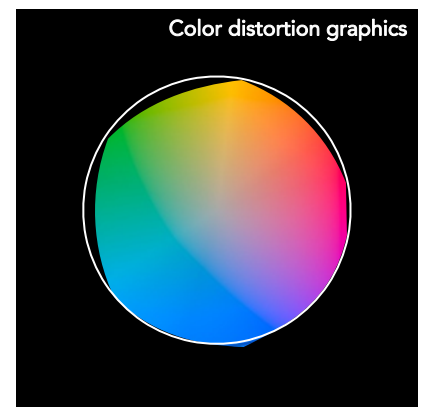
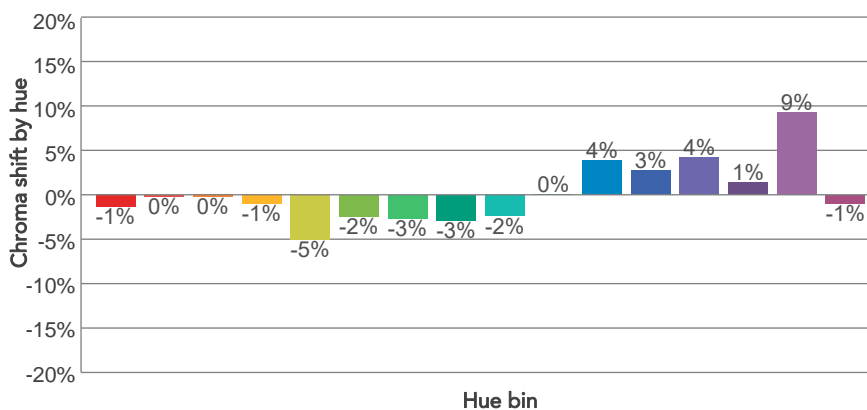
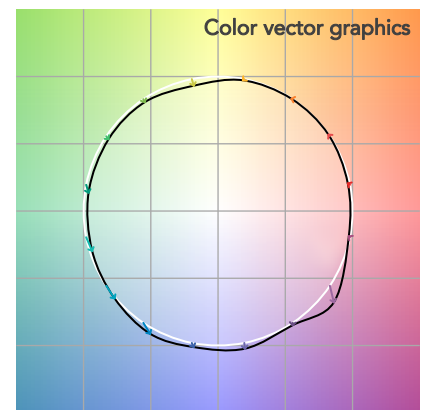
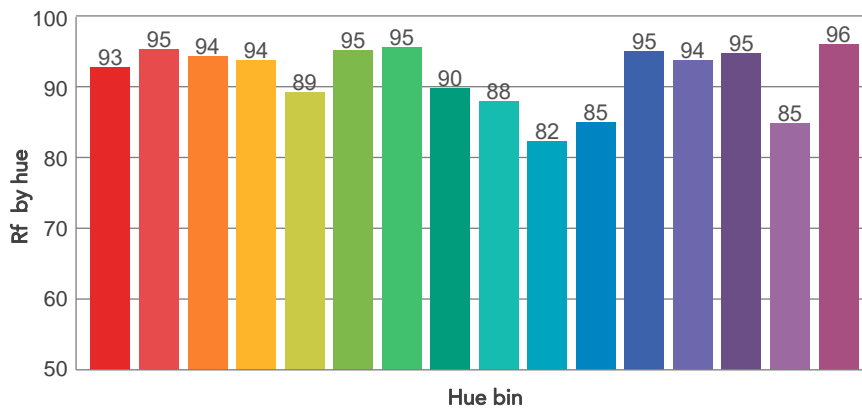
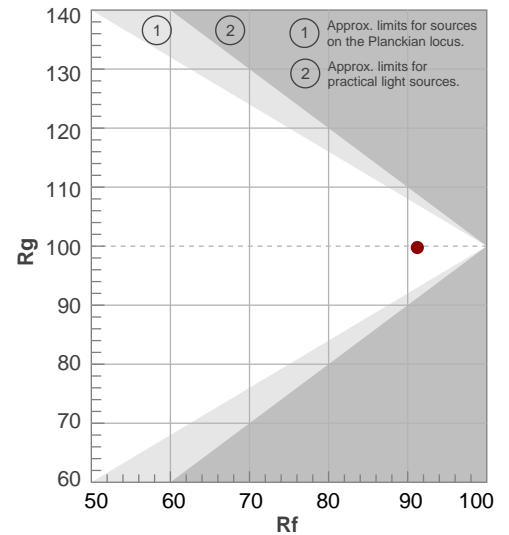
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
6237 K	96,3	97,0	91,2	99,8	92,4	96	0,318	0,324	-0,0054

# TM30 DETAILS

**Rf 91,2**  
Fidelity index Rf

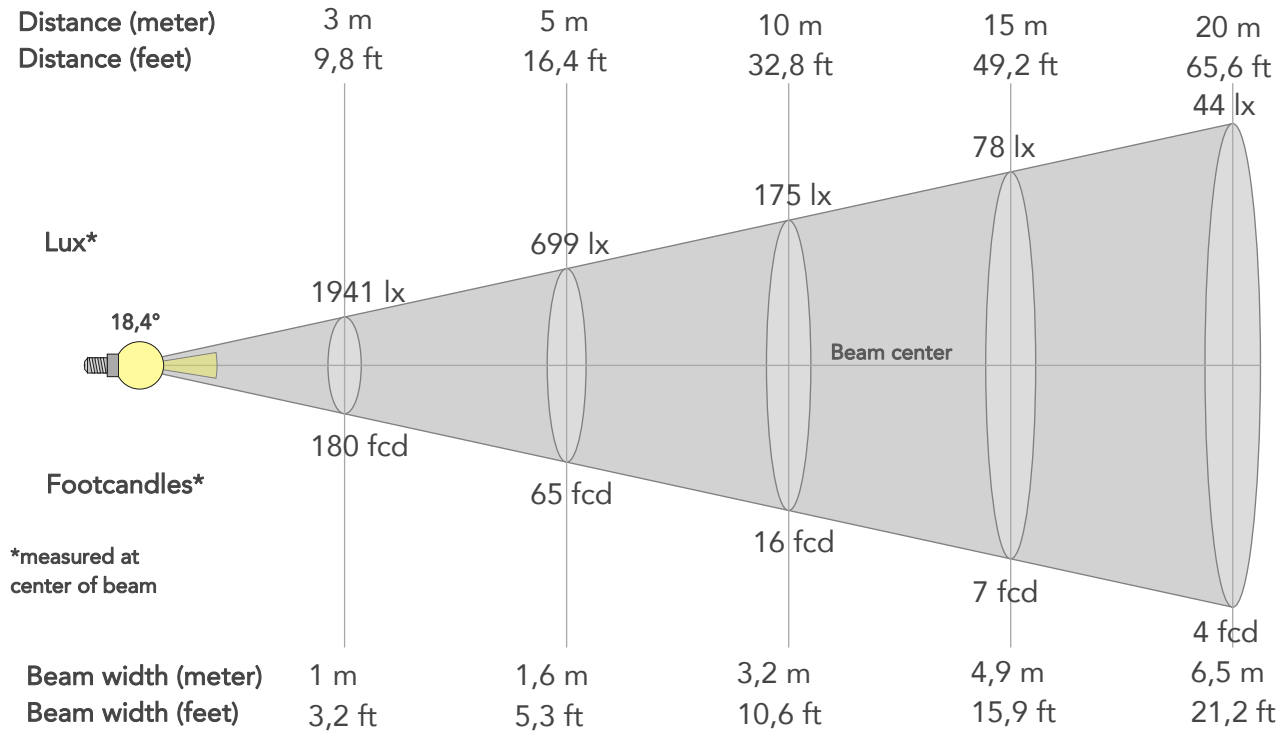
**Rg 99,8**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	93	-1%	1%
2	95	0%	2%
3	94	0%	1%
4	94	-1%	1%
5	89	-5%	0%
6	95	-2%	0%
7	95	-3%	1%
8	90	-3%	5%
9	88	-2%	11%
10	82	0%	11%
11	85	4%	9%
12	95	3%	2%
13	94	4%	0%
14	95	1%	-1%
15	85	9%	-9%
16	96	-1%	1%



# BEAM DETAILS

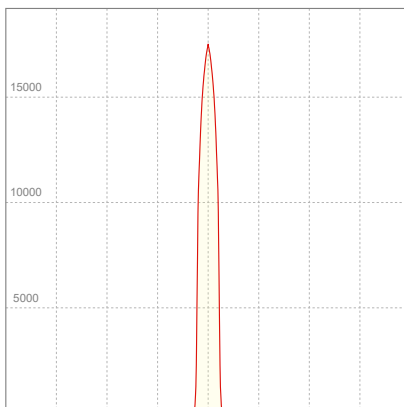
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,4°	21,8°	23,6°	99,6%	99,5%



## 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	17466lx	4366lx	1941lx	1092lx	699lx	310lx	175lx	78lx	44lx	28lx	19lx	11lx	7lx
Footcand.	1623fcd	406fcd	180fcd	101fcd	65fcd	29fcd	16fcd	7fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,9m	6,5m	8,1m	9,7m	12,9m	16,2m
Beam wid.	1,1ft	2,1ft	3,2ft	4,2ft	5,3ft	8ft	10,6ft	15,9ft	21,2ft	26,5ft	31,8ft	42,4ft	53ft

## LINEAR DISTRIBUTION DIAGRAM

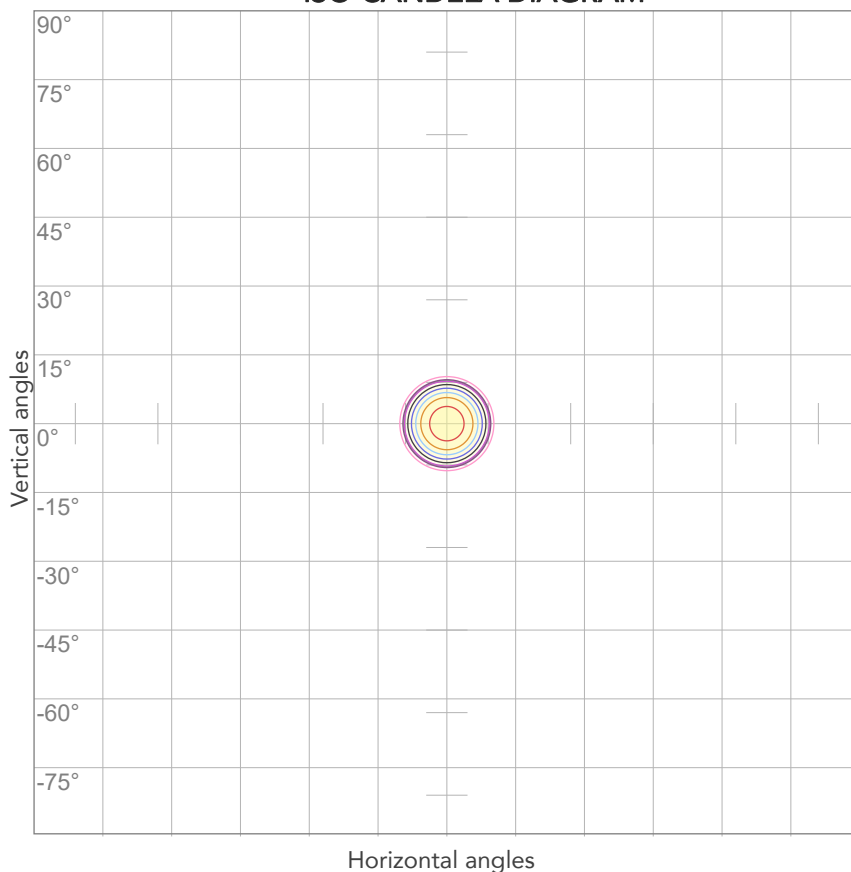


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
228V	0,147A	31,9W	0,95	40lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



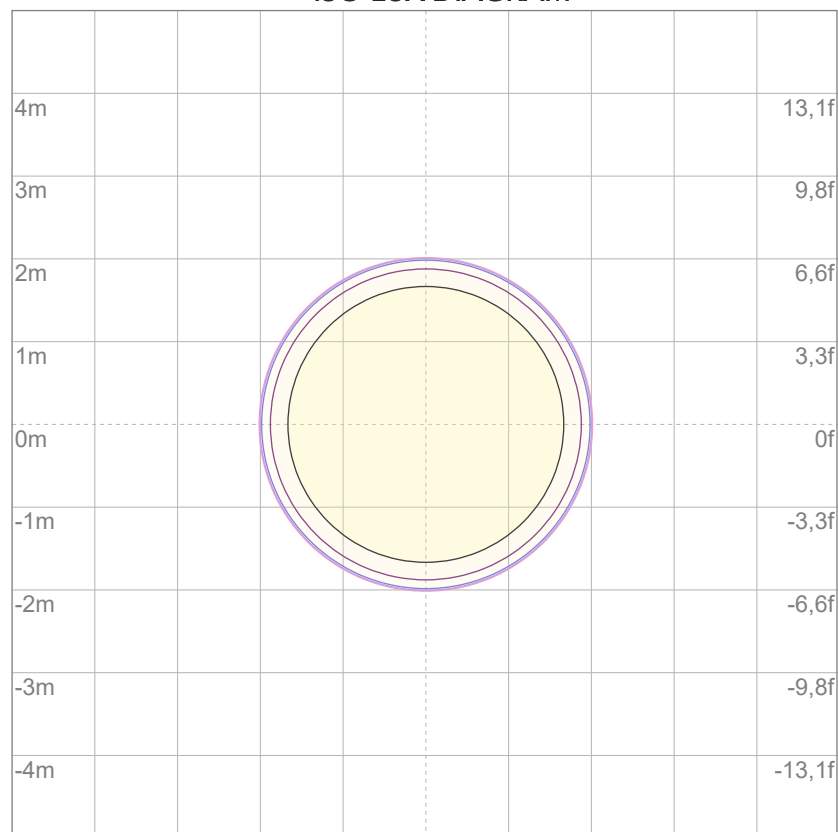
10%	1747 cd
20%	3493 cd
30%	5240 cd
40%	6986 cd
50%	8733 cd
60%	10479 cd
70%	12226 cd
80%	13972 cd

### Conditions:

Number of c-planes: 2

Candela at center: 17466 cd

## ISO LUX DIAGRAM



3%	5,24 lx
5%	8,73 lx
10%	17,5 lx
30%	52,4 lx
50%	87,3 lx

### Conditions:

Number of c-planes: 2

Lux at center: 175 lx

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



Total lumen output:

1144 lm

Peak candela output:

47654 cd

Light quality:

CRI: 96,0

Color temperature:

6438 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 1020 Min Zoom

Target:

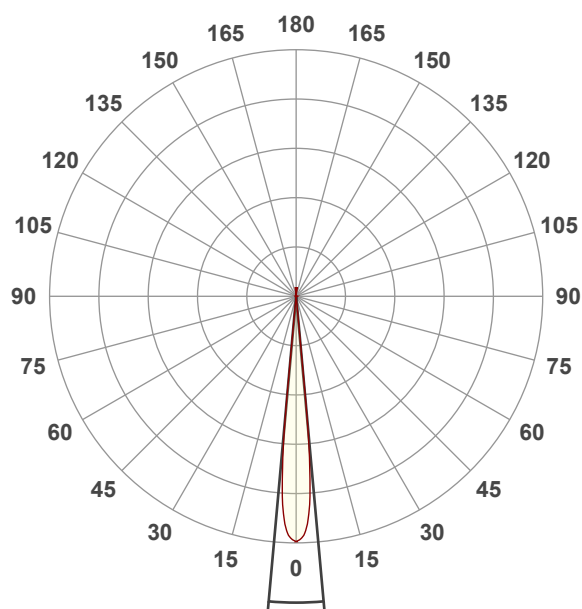
Cold White

Operator:

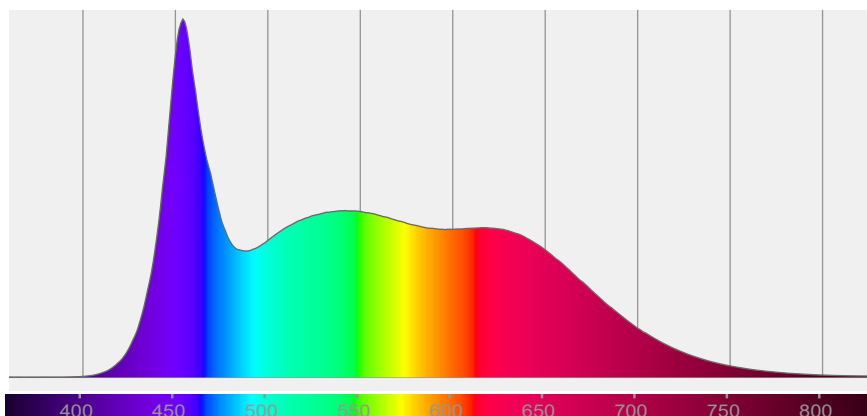
Giacomo Matteo

Date and time:

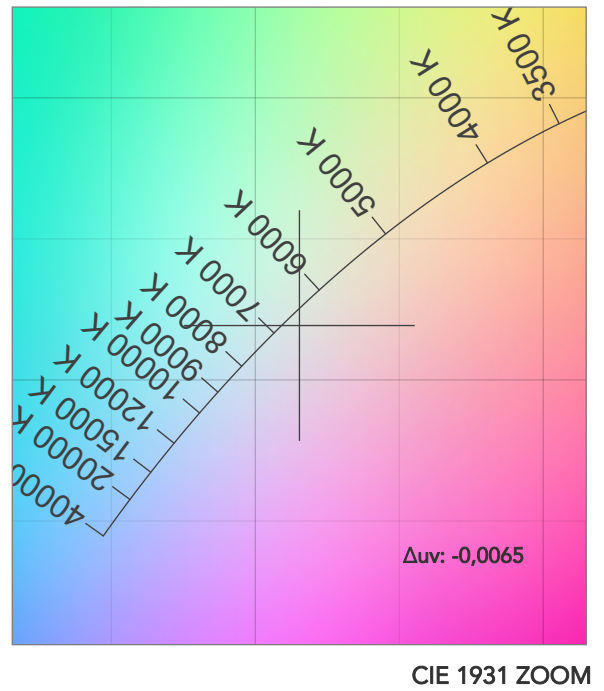
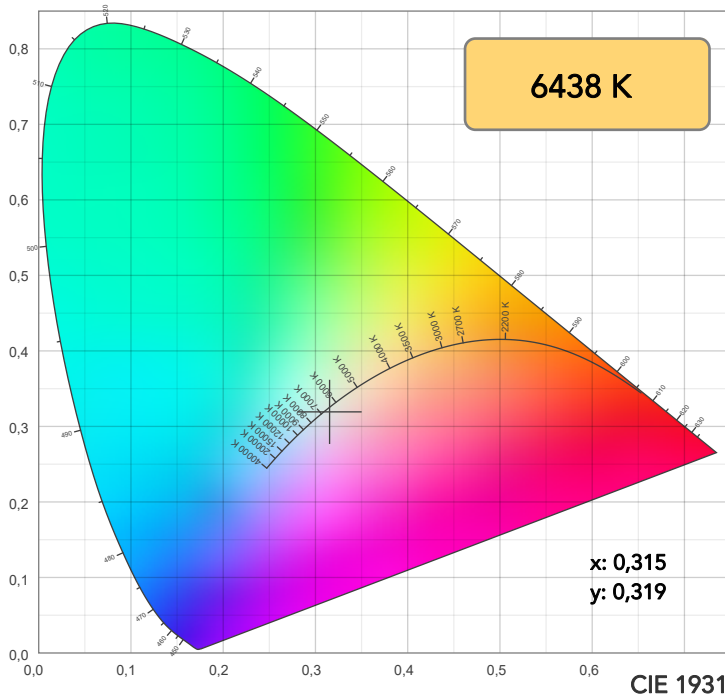
17/06/2024 16:38:25



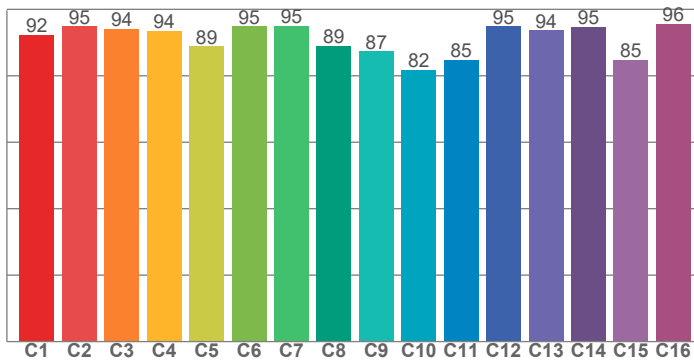
**Spectra**



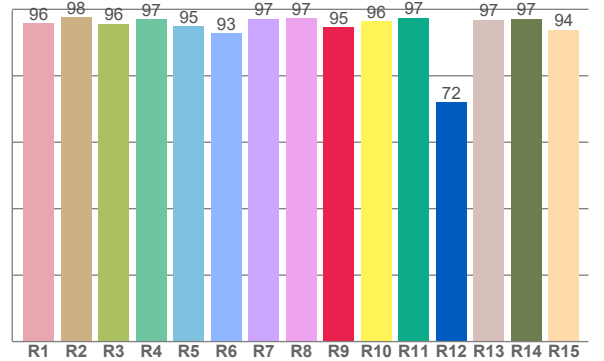
# COLOR DETAILS



**TM30: 90,9**



**CRI: 96,0 (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
95,8	97,5	95,7	97,0	94,9	92,7	97,2	97,3	94,5	96,4	97,5	72,0	96,8	97,2	93,9

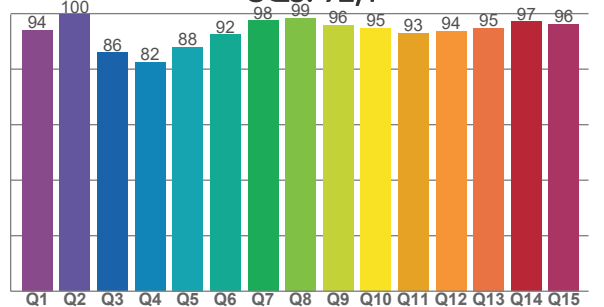
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,4	94,8	94,1	93,6	88,9	94,9	95,1	88,9	87,3	81,7	84,8	94,9	93,7	94,7	84,7	95,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,1	99,6	86,0	82,5	88,0	92,4	97,5	98,5	95,8	94,8	92,9	93,6	94,8	97,1	96,3

**CQS: 92,1**



## COLOR PARAMETERS

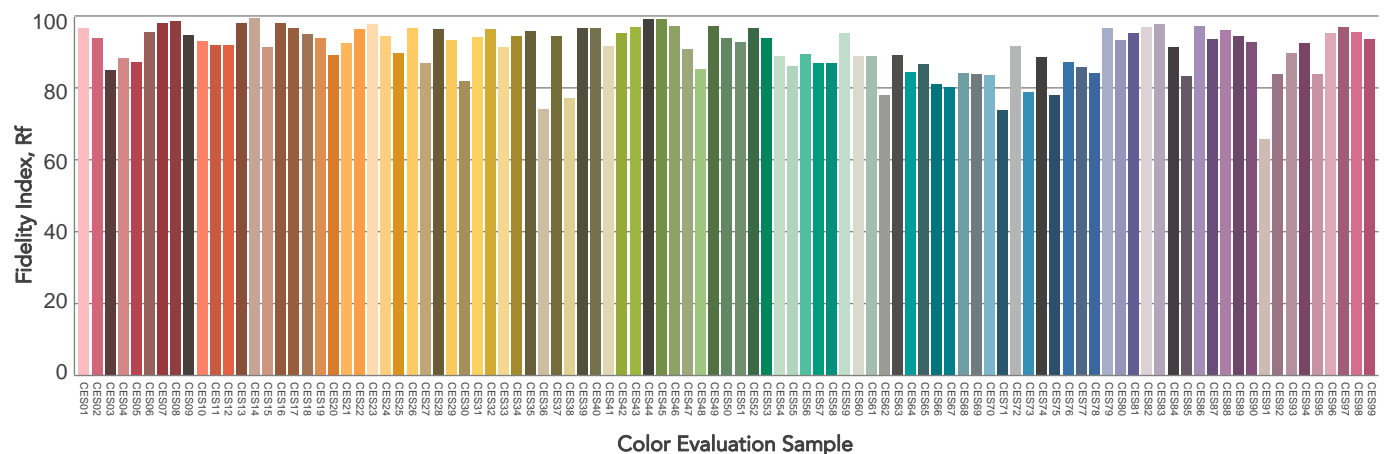
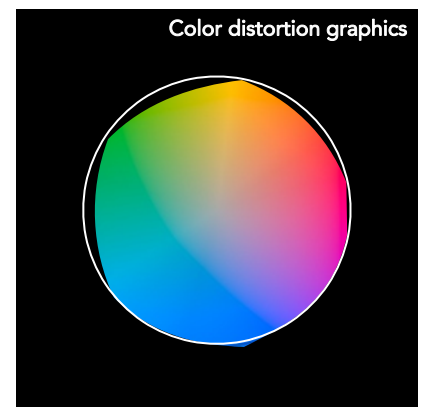
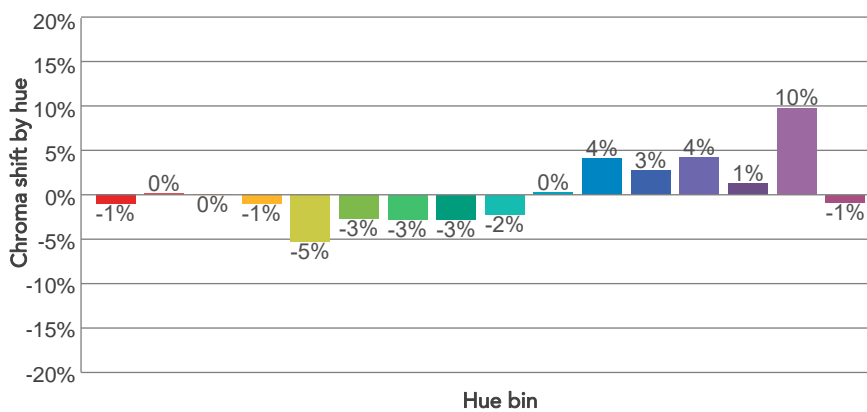
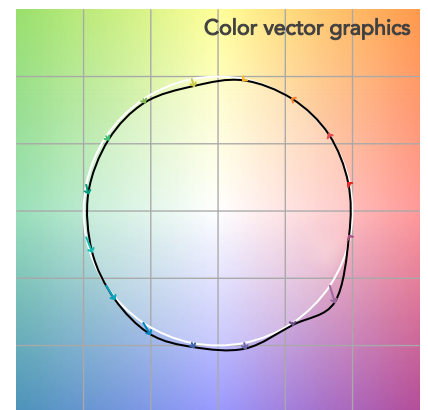
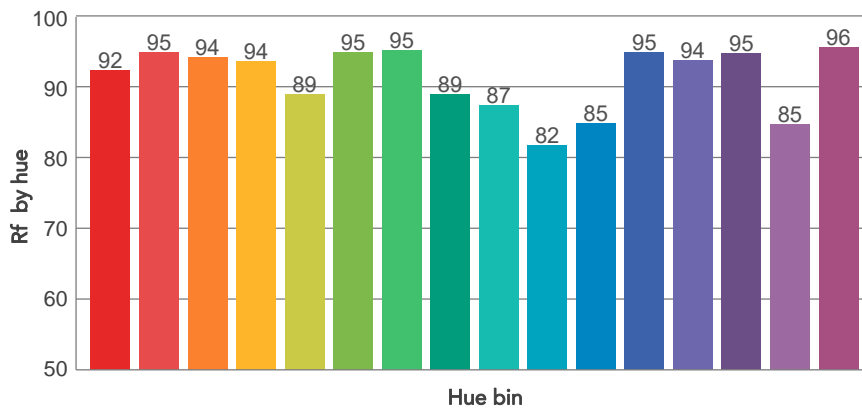
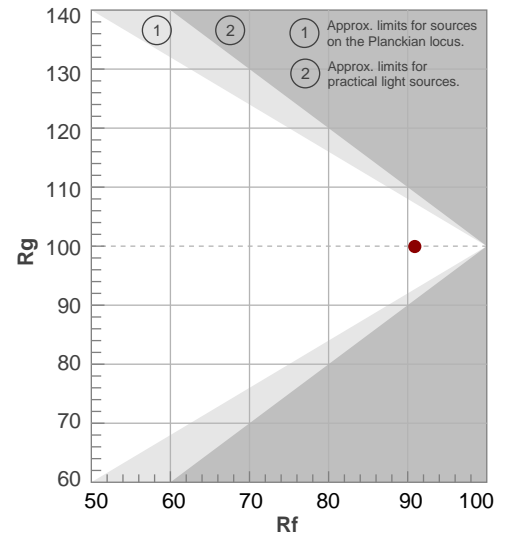
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
6438 K	96,0	94,5	90,9	99,9	92,1	96	0,315	0,319	-0,0065

# TM30 DETAILS

**Rf 90,9**  
Fidelity index Rf

**Rg 99,9**  
Gammut index

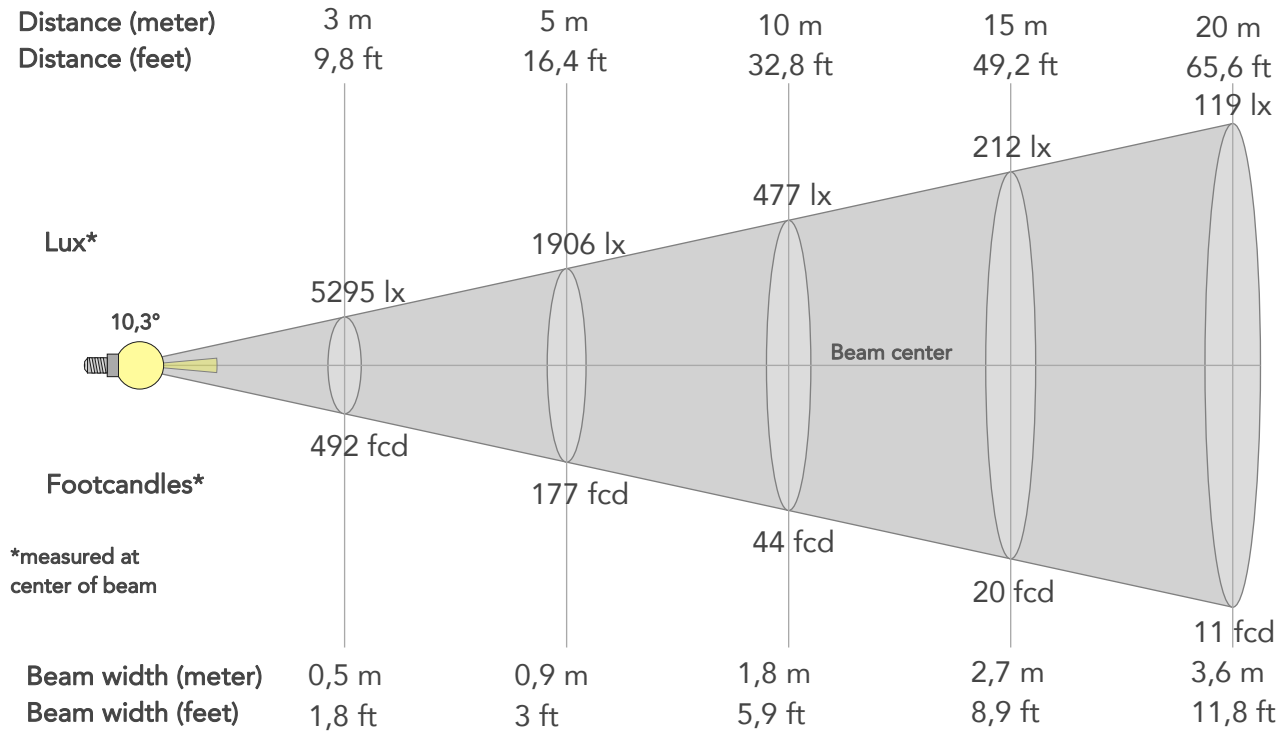
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	-1%	2%
2	95	0%	2%
3	94	0%	1%
4	94	-1%	1%
5	89	-5%	-1%
6	95	-3%	0%
7	95	-3%	1%
8	89	-3%	6%
9	87	-2%	11%
10	82	0%	12%
11	85	4%	9%
12	95	3%	2%
13	94	4%	0%
14	95	1%	-1%
15	85	10%	-8%
16	96	-1%	1%



# BEAM DETAILS



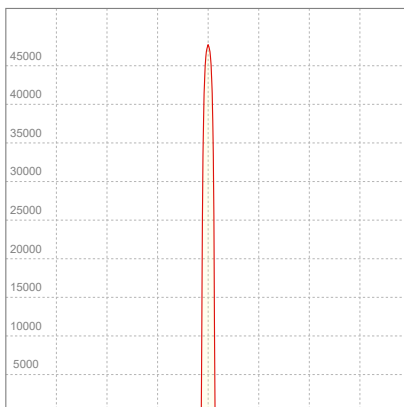
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
10,3°	11,8°	12,1°	98,9%	98,6%



## 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	47654lx	11914lx	5295lx	2978lx	1906lx	847lx	477lx	212lx	119lx	76lx	53lx	30lx	19lx
Footcand.	4427fcd	1107fcd	492fcd	277fcd	177fcd	79fcd	44fcd	20fcd	11fcd	7fcd	5fcd	3fcd	2fcd
Beam wid.	0,2m	0,4m	0,5m	0,7m	0,9m	1,4m	1,8m	2,7m	3,6m	4,5m	5,4m	7,2m	9m
Beam wid.	0,6ft	1,2ft	1,8ft	2,4ft	3ft	4,4ft	5,9ft	8,9ft	11,8ft	14,8ft	17,7ft	23,6ft	29,5ft

## LINEAR DISTRIBUTION DIAGRAM



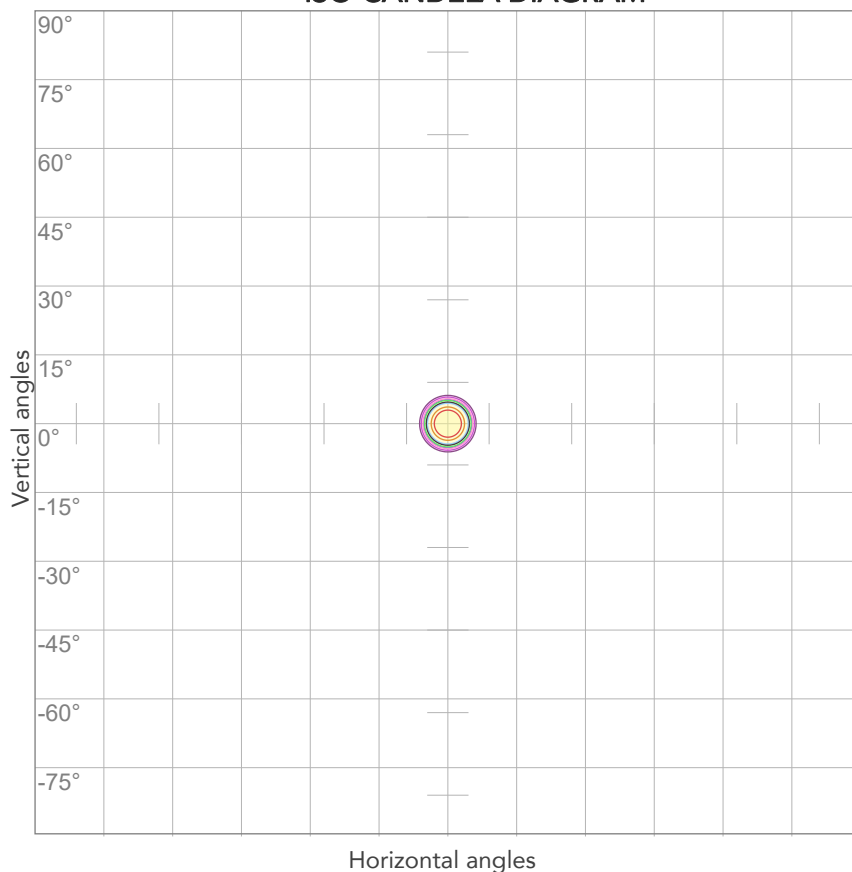
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
228V	0,147A	31,7W	0,95	36lm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



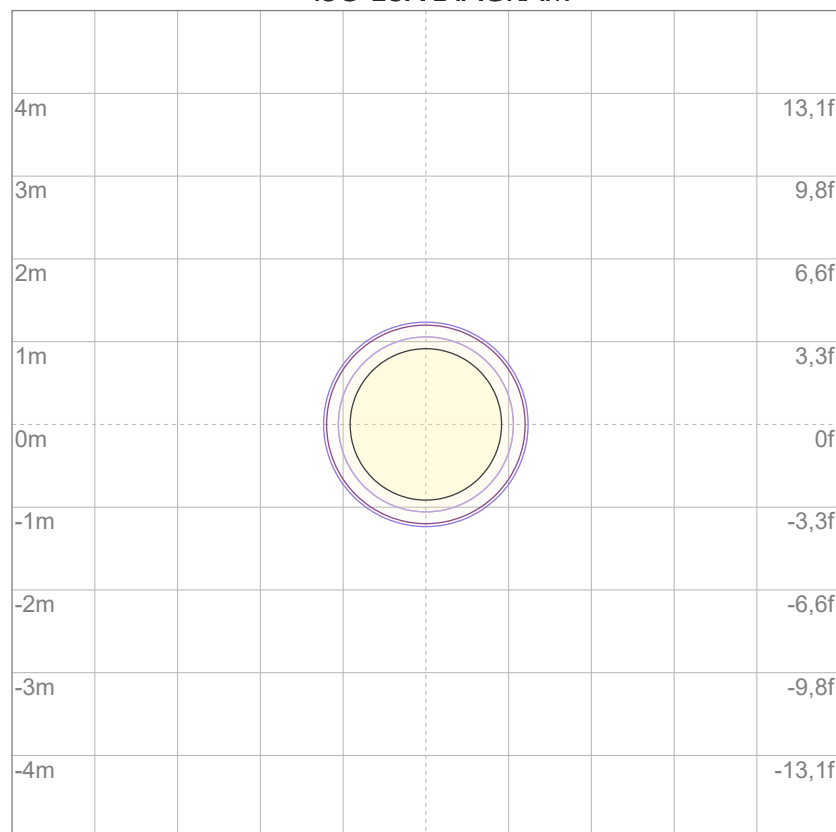
10%	4765 cd
20%	9531 cd
30%	14296 cd
40%	19062 cd
50%	23827 cd
60%	28592 cd
70%	33358 cd
80%	38123 cd

### Conditions:

Number of c-planes: 2

Candela at center: 47654 cd

## ISO LUX DIAGRAM



3%	14,3 lx
5%	23,8 lx
10%	47,7 lx
30%	143 lx
50%	238 lx

### Conditions:

Number of c-planes: 2

Lux at center: 477 lx

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