



# Photometric Test Report



## **EclDisplay CRMXVW**

**ZOOMABLE PROFILE LENS 20-40°**

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	
Max Zoom	4
Min Zoom	9
Color temperature Warm White	
Max Zoom	14
Min Zoom	19
Color temperature Cold White	
Max Zoom	24
Min Zoom	29

## 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:

1087 lm

Peak candela output:

4010 cd

Light quality:

CRI: 96,8

Color temperature:

4288 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 2040 Max Zoom

Target:

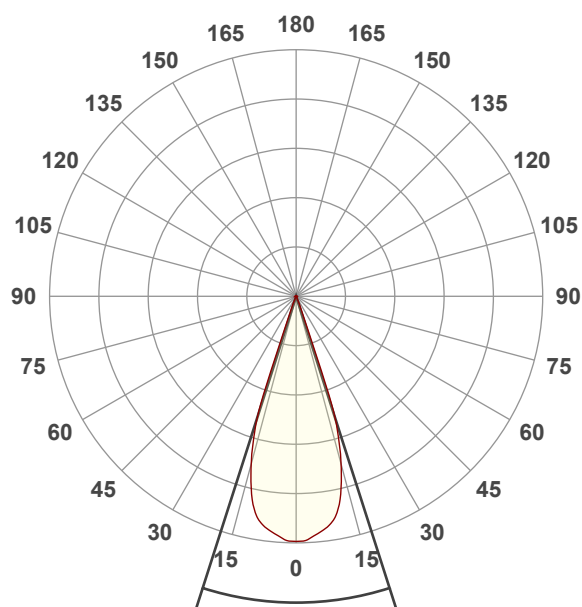
Full On

Operator:

Giacomo Matteo

Date and time:

17/06/2024 12:54:25

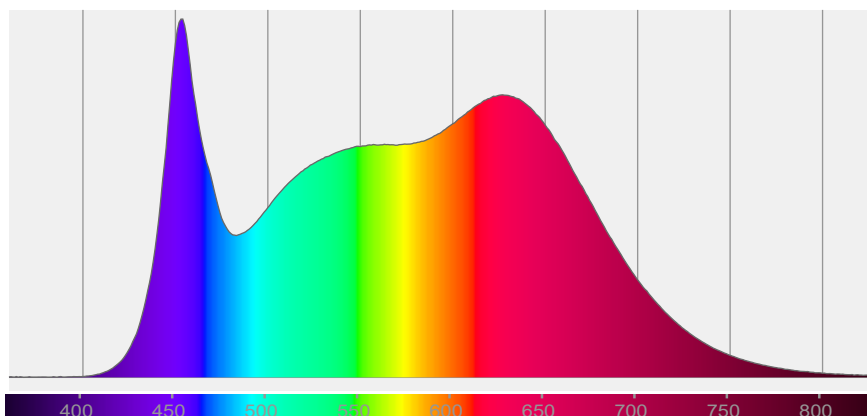


Beam angle 50%: 35,5°

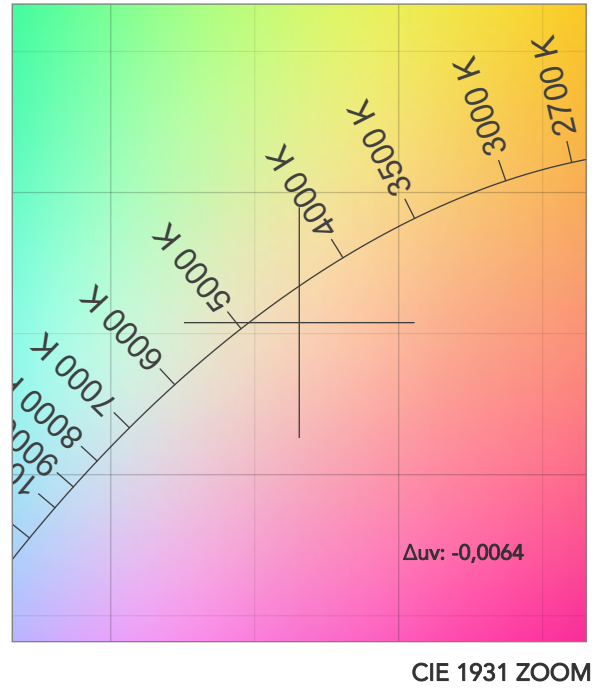
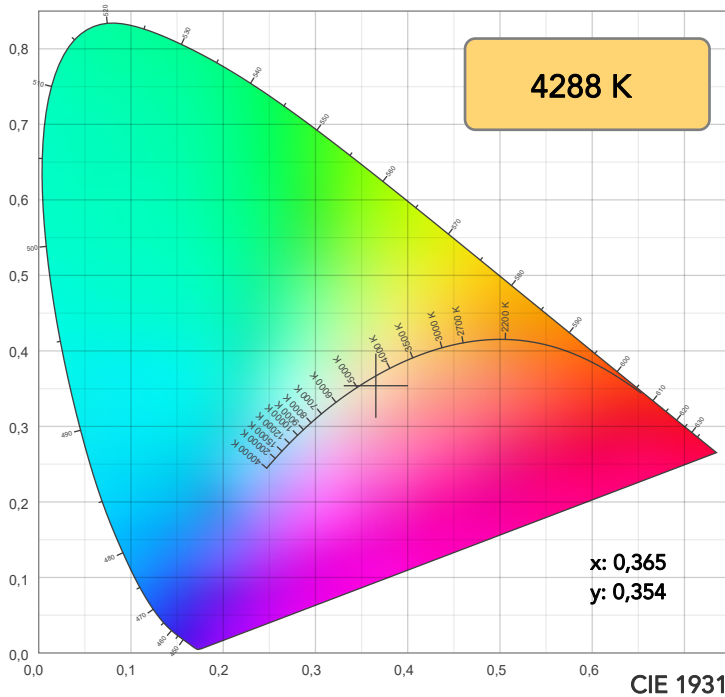
Field angle 10%: 40,2°

Cut off angle 2.5%: 43,3°

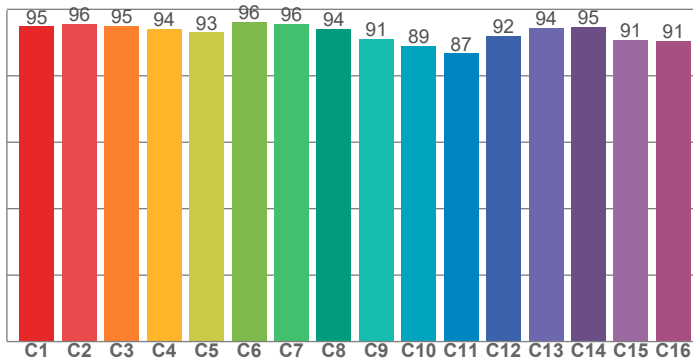
**Spectra**



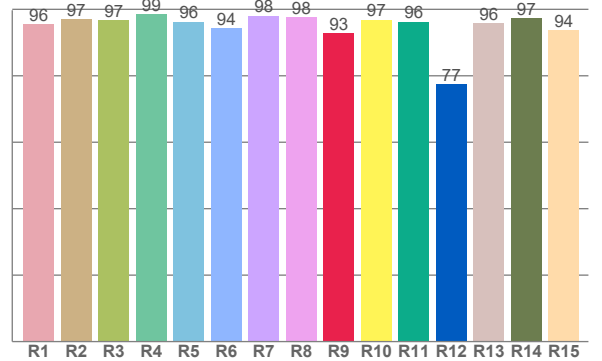
## COLOR DETAILS



TM30: 92,8



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
95,5	97,1	96,7	98,5	96,3	94,3	98,1	97,6	92,7	96,9	96,2	77,4	95,7	97,3	93,7

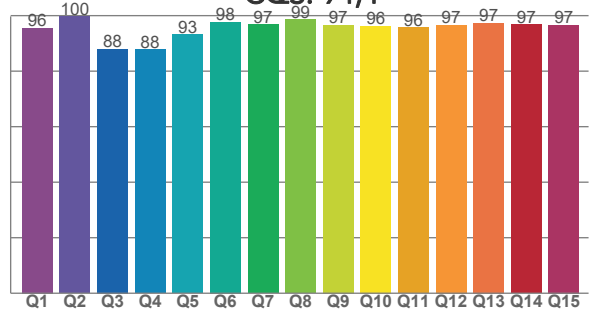
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,9	95,7	95,0	94,1	93,0	96,2	95,7	94,1	91,2	89,1	86,8	92,0	94,4	94,8	90,9	90,5

CQS Q values

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

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
4288 K	96,8	92,7	92,8	101,7	94,4	98	0,365	0,354	-0,0064

## TM30 DETAILS

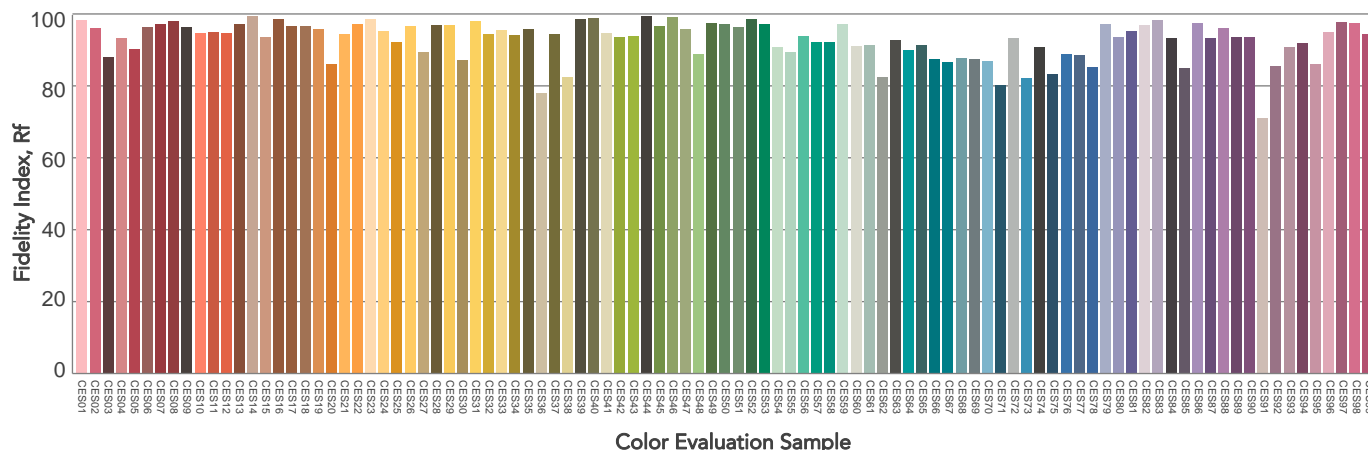
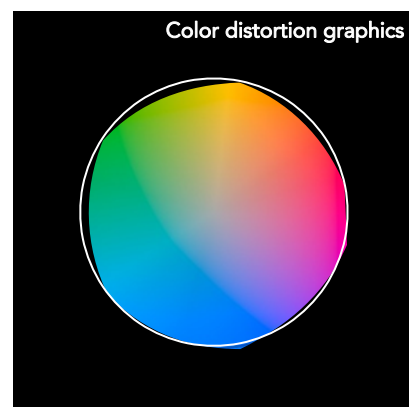
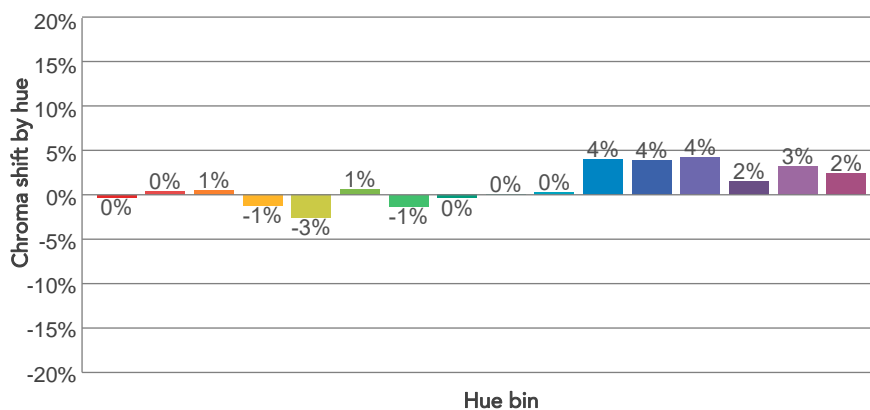
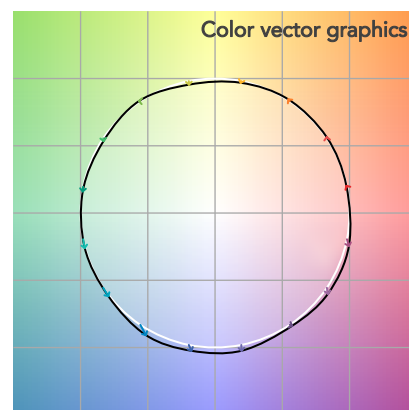
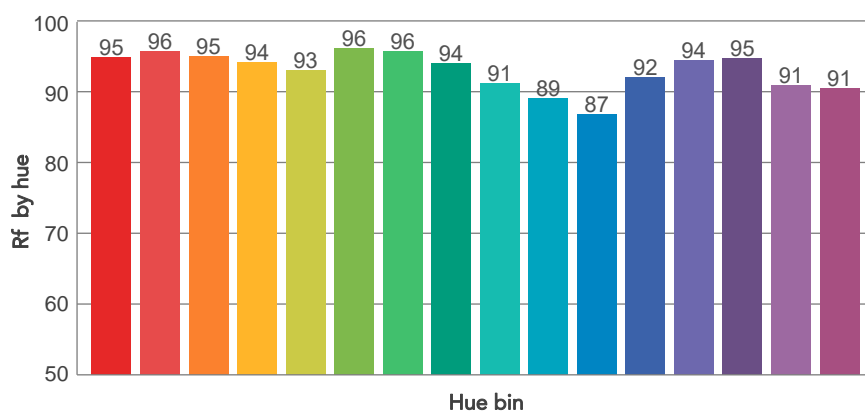
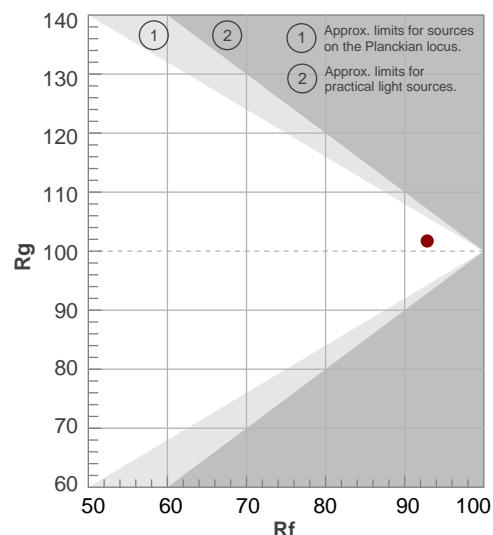
**Rf 92,8**

Fidelity index Rf

**Rg 101,7**

Gammut index

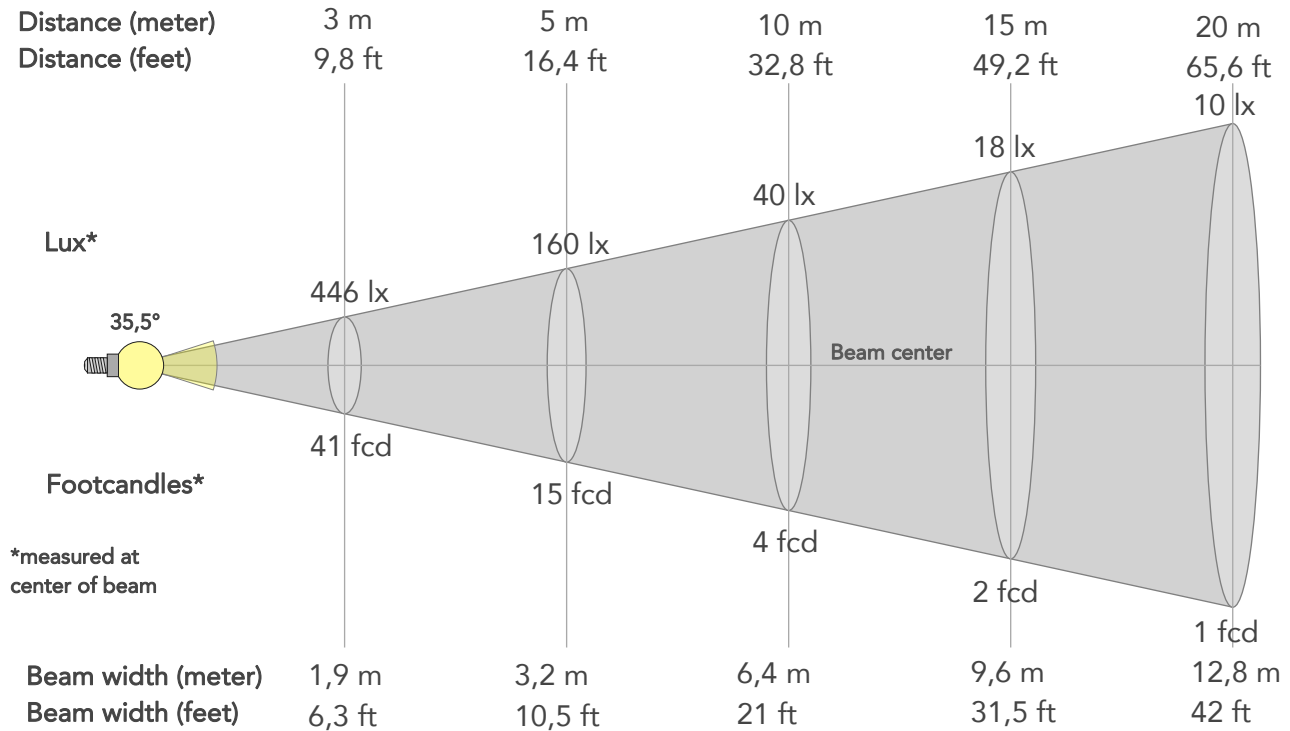
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	0%	1%
2	96	0%	1%
3	95	1%	2%
4	94	-1%	0%
5	93	-3%	0%
6	96	1%	1%
7	96	-1%	2%
8	94	0%	3%
9	91	0%	7%
10	89	0%	7%
11	87	4%	8%
12	92	4%	3%
13	94	4%	-1%
14	95	2%	1%
15	91	3%	-3%
16	91	2%	-5%



# BEAM DETAILS



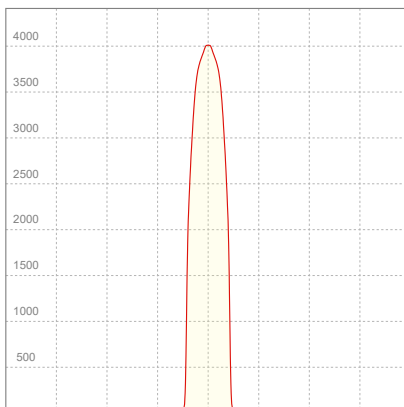
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
35,5°	40,2°	43,3°	99,8%	99,7%



## 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	4010lx	1003lx	446lx	251lx	160lx	71lx	40lx	18lx	10lx	6lx	4lx	3lx	2lx
Footcand.	373fcd	93fcd	41fcd	23fcd	15fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,3m	1,9m	2,6m	3,2m	4,8m	6,4m	9,6m	12,8m	16m	19,2m	25,6m	32m
Beam wid.	2,1ft	4,2ft	6,3ft	8,4ft	10,5ft	15,8ft	21ft	31,5ft	42ft	52,5ft	63ft	84ft	105,1ft

## LINEAR DISTRIBUTION DIAGRAM

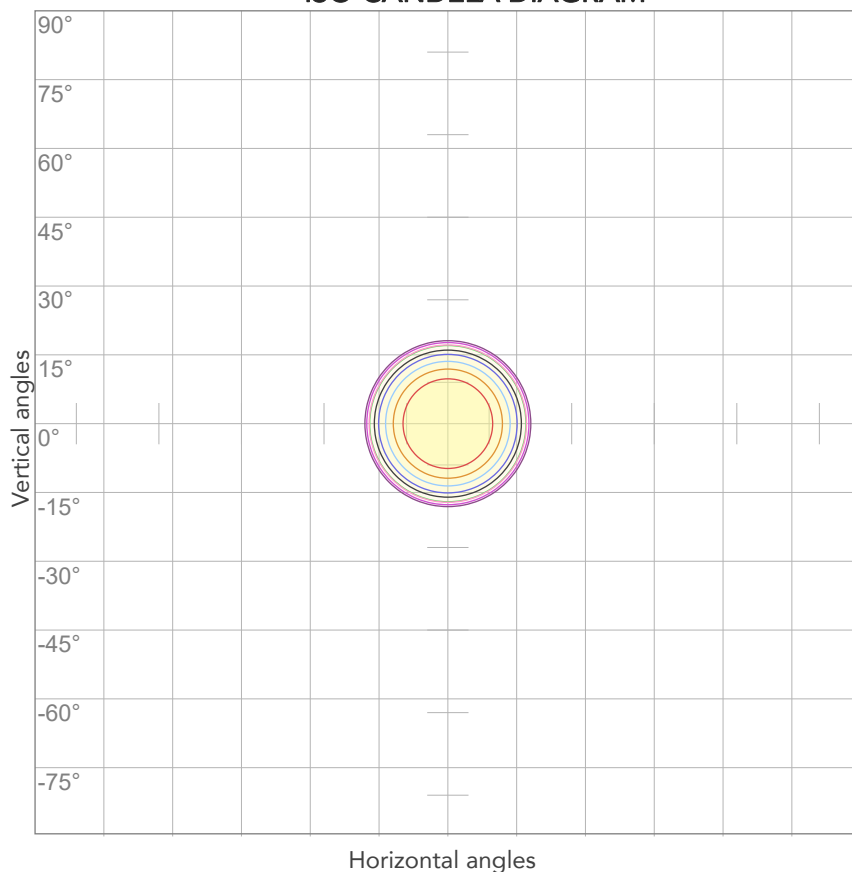


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,147A	31,6W	0,95	34lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



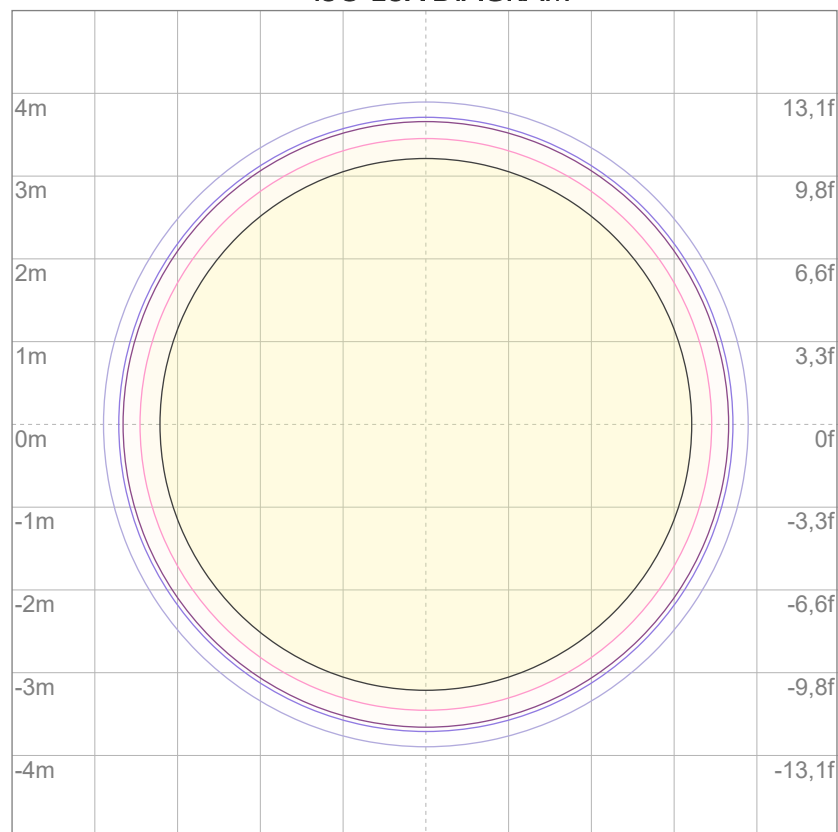
10%	401 cd
20%	802 cd
30%	1203 cd
40%	1604 cd
50%	2005 cd
60%	2406 cd
70%	2807 cd
80%	3208 cd

### Conditions:

Number of c-planes: 2

Candela at center: 4010 cd

## ISO LUX DIAGRAM



3%	1,20 lx
5%	2,01 lx
10%	4,01 lx
30%	12,0 lx
50%	20,1 lx

### Conditions:

Number of c-planes: 2

Lux at center: 40,1 lx

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





Total lumen output:

1124 lm

Peak candela output:

15055 cd

Light quality:

CRI: 97,1

Color temperature:

4225 K

PRODUCT NAME:

ECLDISPLAY VW

MEASURAMENT CONDITIONS:

Beam angle:

Profile 2040 Min Zoom

Target:

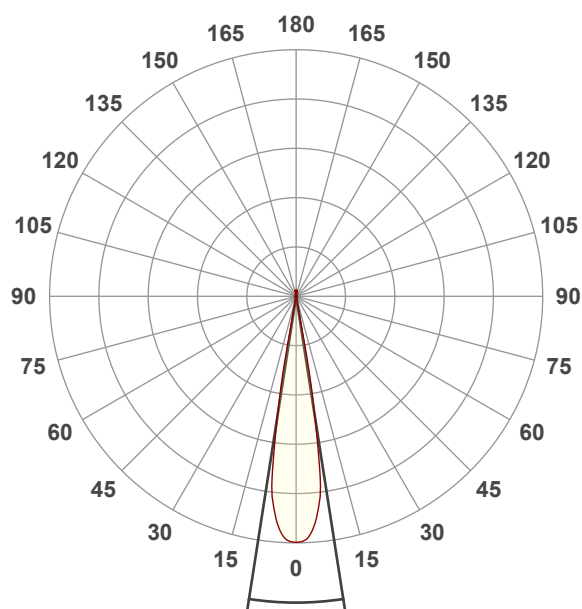
Full On

Operator:

Giacomo Matteo

Date and time:

17/06/2024 14:13:20

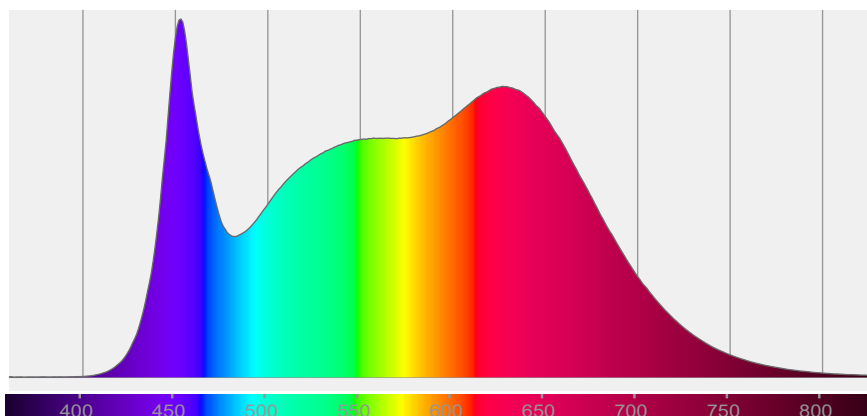


Beam angle 50%: 17,7°

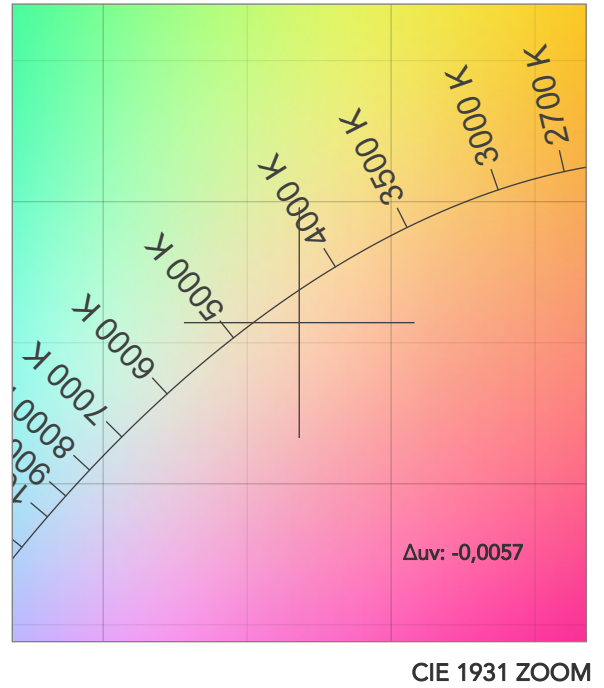
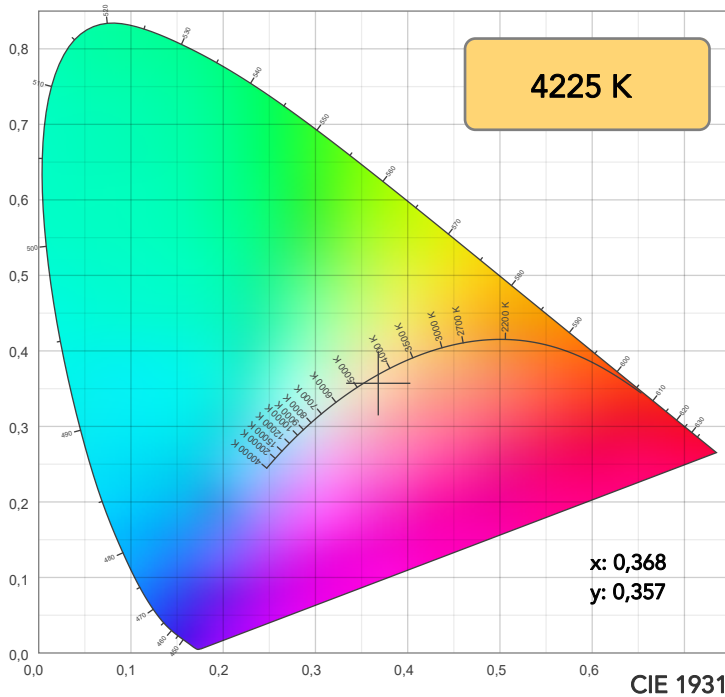
Field angle 10%: 22°

Cut off angle 2.5%: 22,8°

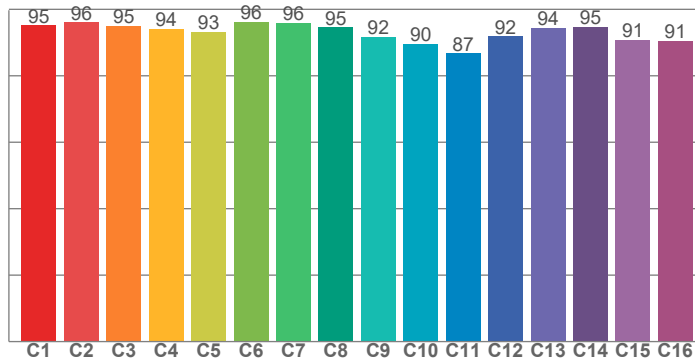
Spectra



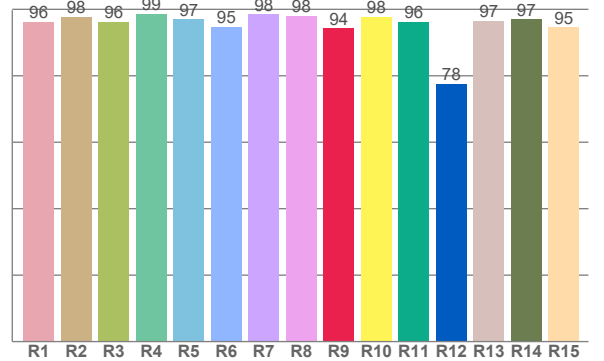
# COLOR DETAILS



TM30: 93,0



CRI: 97,1 (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
96,2	97,7	96,2	98,7	97,0	94,7	98,4	98,1	94,4	97,7	96,2	77,6	96,5	97,1	94,6

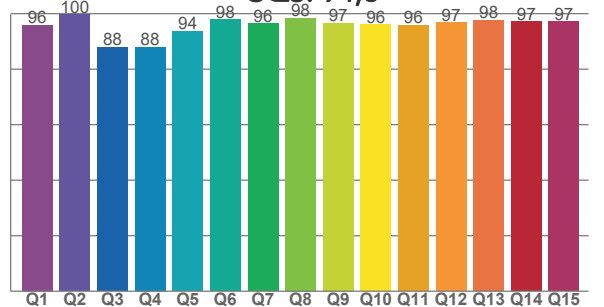
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,1	96,1	95,0	94,2	93,1	96,2	95,9	94,6	91,6	89,6	86,8	91,9	94,4	94,8	90,9	90,6

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	97,9	96,4	98,5	96,7	96,1	95,8	96,8	97,6	97,1	97,1

CQS: 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	$\Delta uv$
4225 K	97,1	94,4	93,0	101,7	94,6	98	0,368	0,357	-0,0057

## TM30 DETAILS

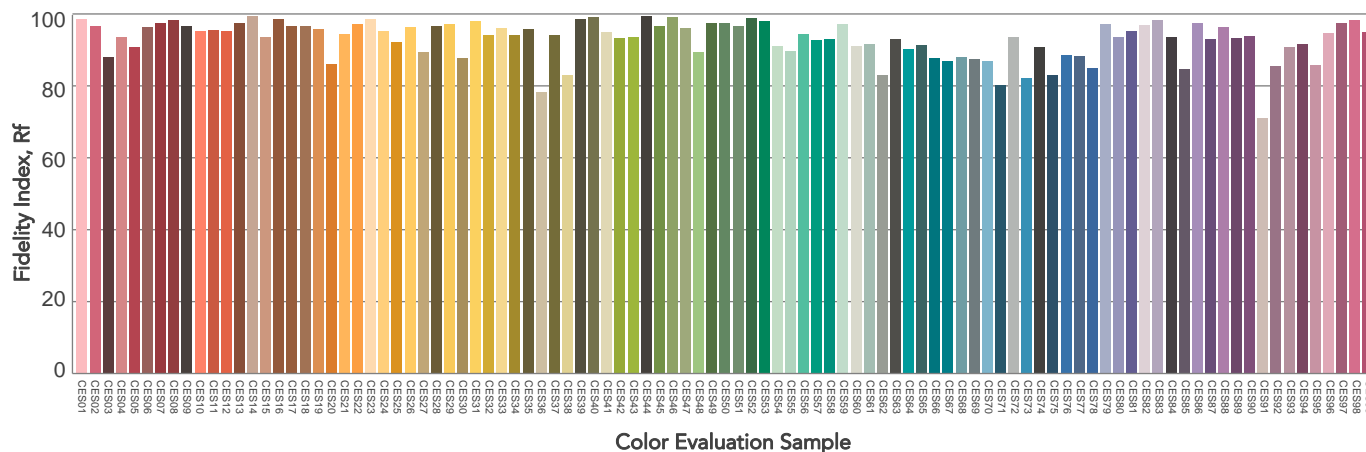
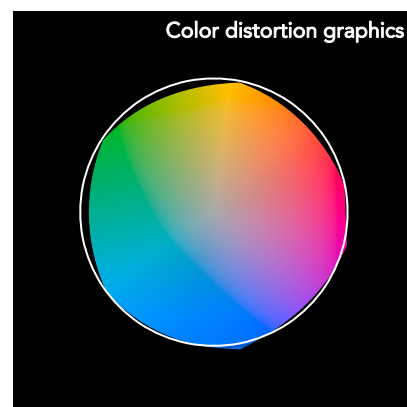
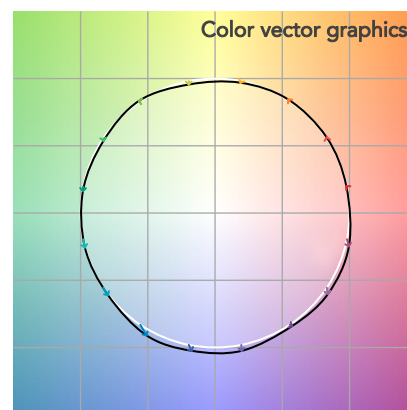
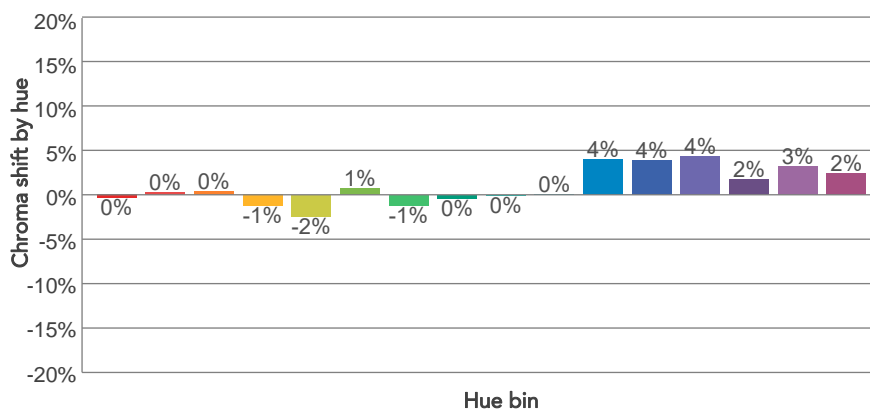
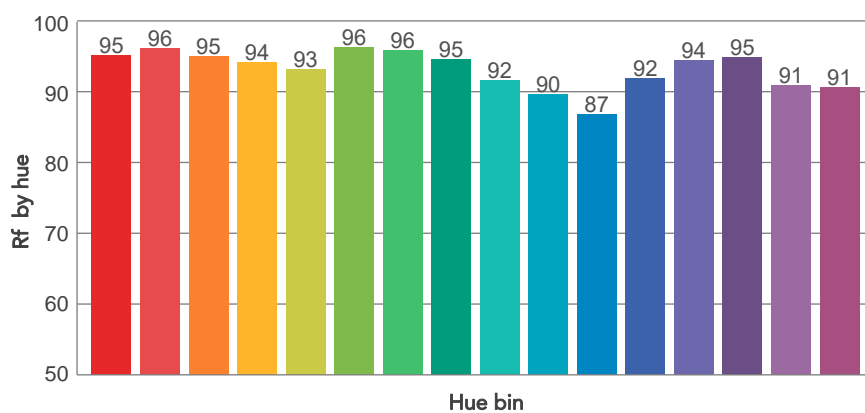
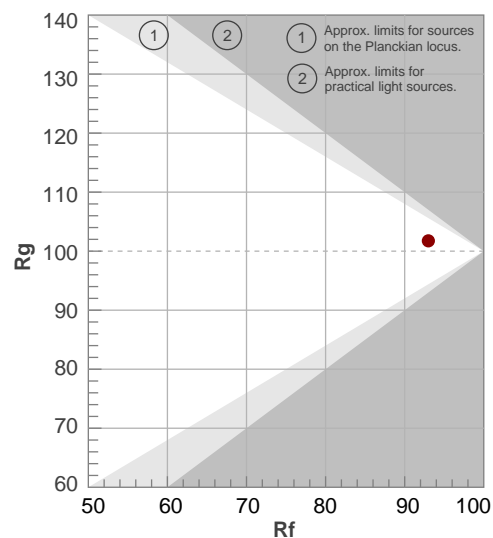
Rf 93,0

Fidelity index  $R_f$

Rg 101,7

## Gammut index

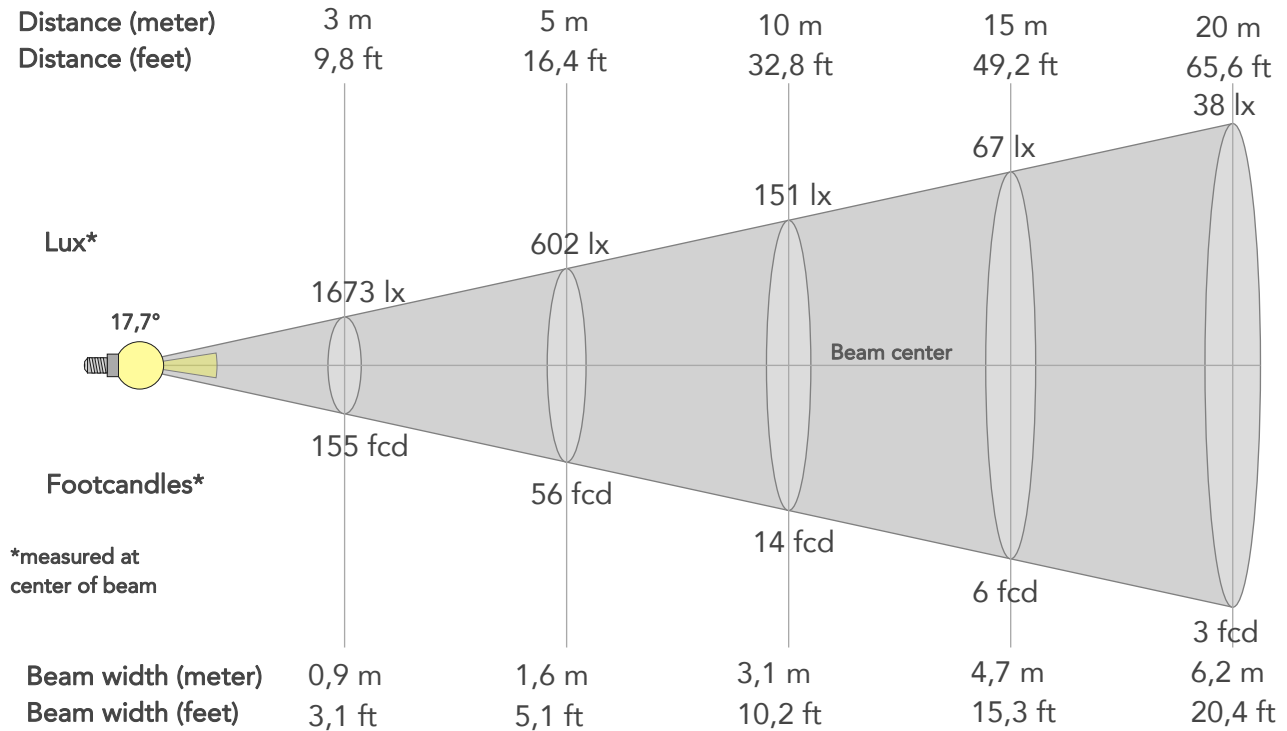
		Graphic shifts (%)	
Hue Bin	$R_f$	Chroma	Hue
1	95	0%	1%
2	96	0%	1%
3	95	0%	2%
4	94	-1%	0%
5	93	-2%	1%
6	96	1%	1%
7	96	-1%	1%
8	95	0%	3%
9	92	0%	6%
10	90	0%	7%
11	87	4%	8%
12	92	4%	3%
13	94	4%	-1%
14	95	2%	1%
15	91	3%	-3%
16	91	2%	-5%



# BEAM DETAILS



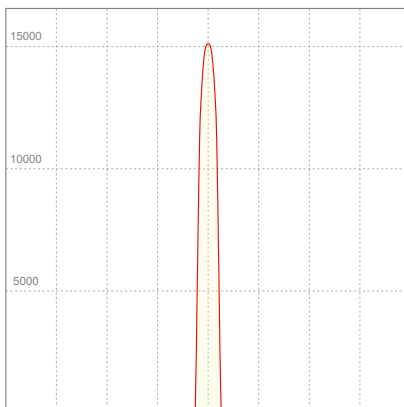
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,7°	22°	22,8°	99,4%	99,3%



## 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	15055lx	3764lx	1673lx	941lx	602lx	268lx	151lx	67lx	38lx	24lx	17lx	9lx	6lx
Footcand.	1399fcd	350fcd	155fcd	87fcd	56fcd	25fcd	14fcd	6fcd	3fcd	2fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,6m	2,3m	3,1m	4,7m	6,2m	7,8m	9,3m	12,5m	15,6m
Beam wid.	1ft	2,1ft	3,1ft	4,1ft	5,1ft	7,7ft	10,2ft	15,3ft	20,4ft	25,5ft	30,7ft	40,9ft	51,1ft

## LINEAR DISTRIBUTION DIAGRAM

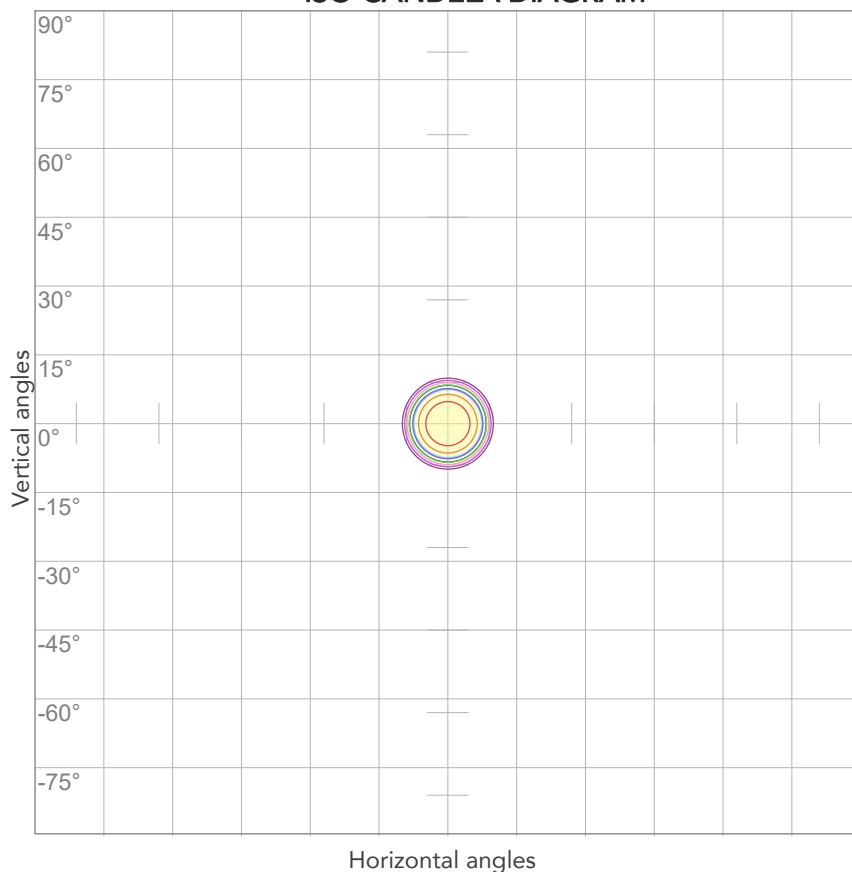


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
229V	0,148A	32,0W	0,95	35lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



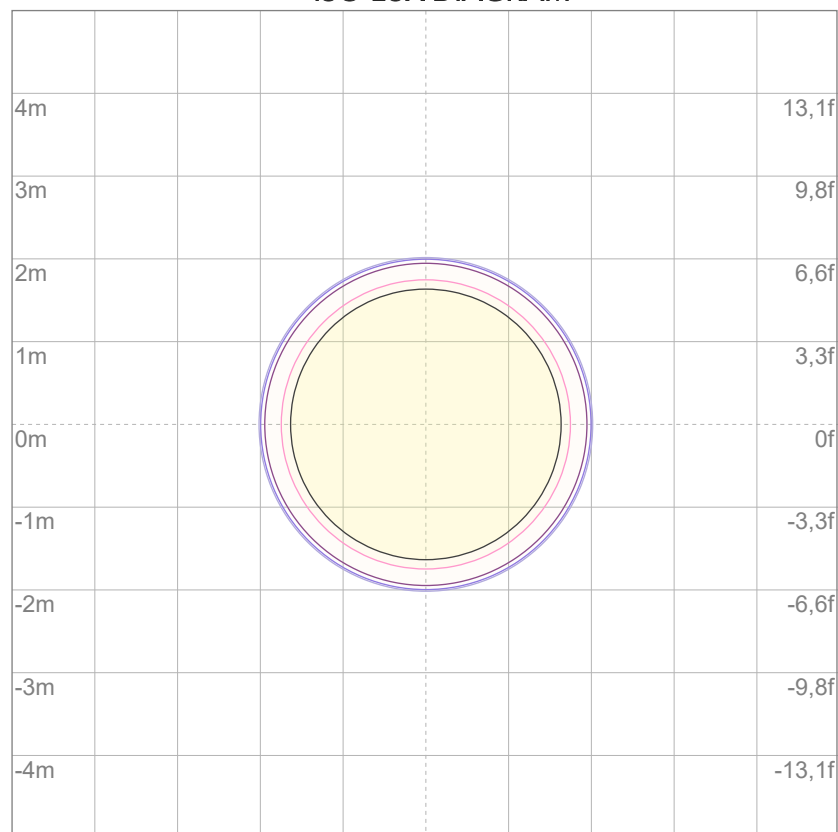
10%	1506 cd
20%	3011 cd
30%	4517 cd
40%	6022 cd
50%	7528 cd
60%	9033 cd
70%	10539 cd
80%	12044 cd

### Conditions:

Number of c-planes: 2

Candela at center: 15055 cd

## ISO LUX DIAGRAM



3%	4,52 lx
5%	7,53 lx
10%	15,1 lx
30%	45,2 lx
50%	75,3 lx

### Conditions:

Number of c-planes: 2

Lux at center: 151 lx

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



Total lumen output:

844 lm

Peak candela output:

3119 cd

Light quality:

CRI: 96,5

Color temperature:

2751 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 2040 Max Zoom

Target:

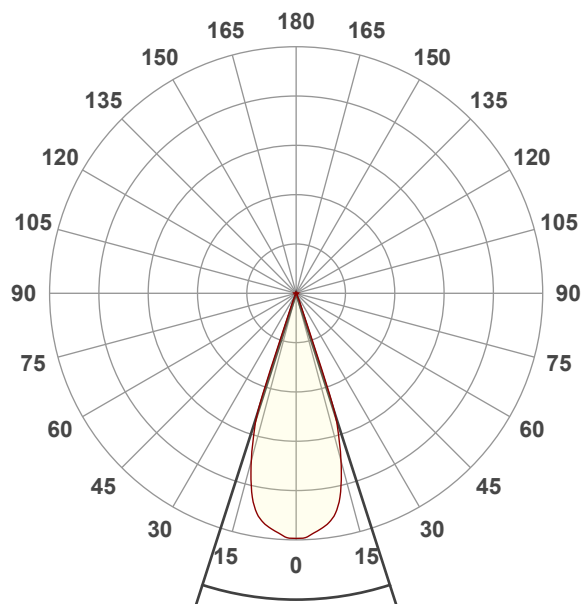
Warm White

Operator:

Giacomo Matteo

Date and time:

17/06/2024 12:57:34

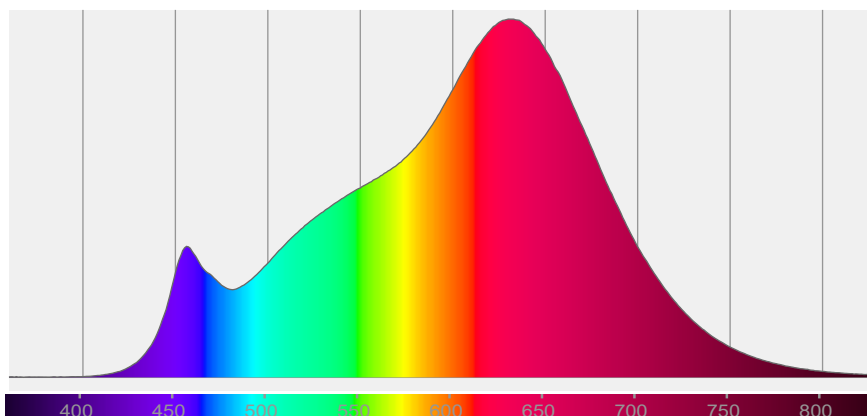


Beam angle 50%: 35,6°

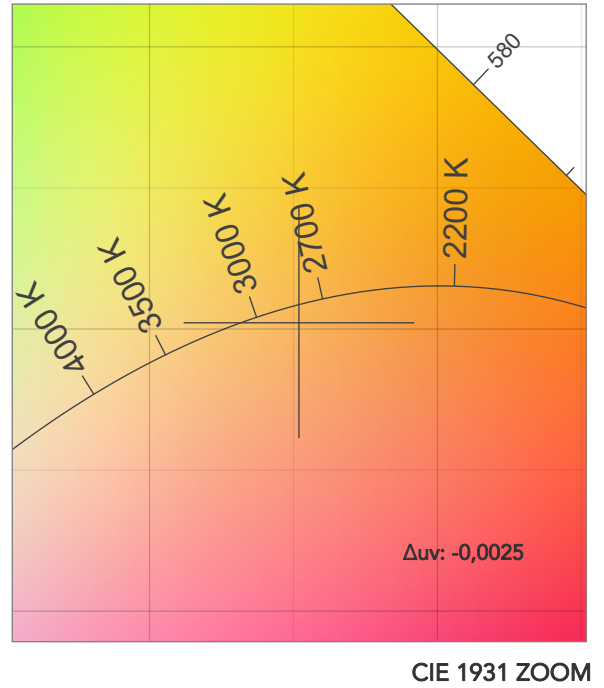
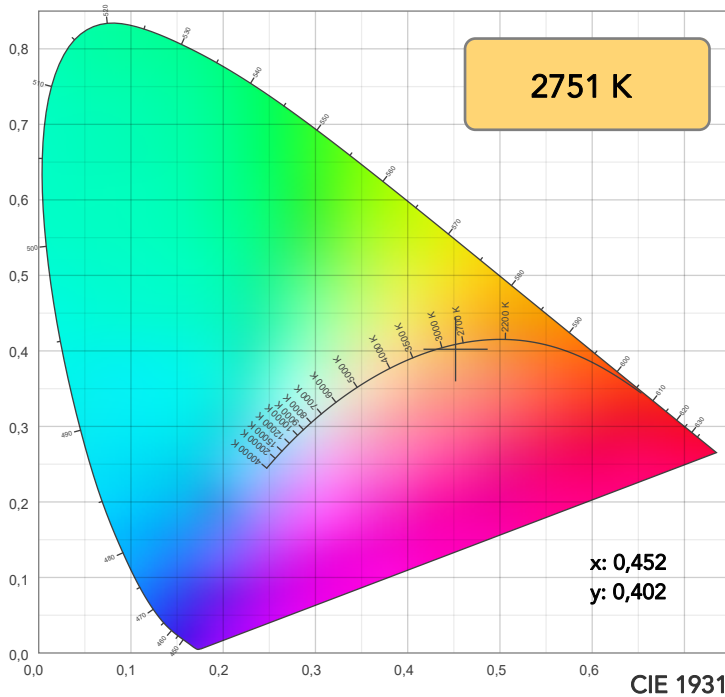
Field angle 10%: 40,1°

Cut off angle 2.5%: 43,2°

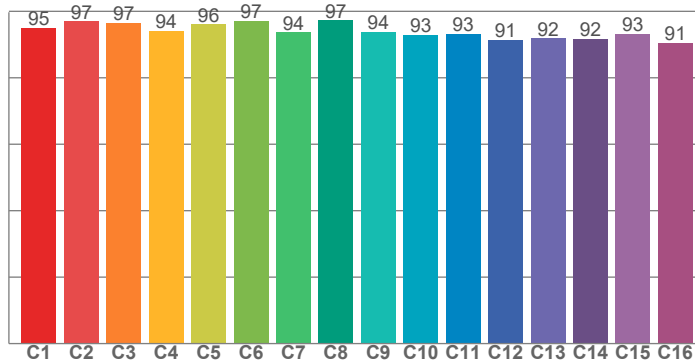
**Spectra**



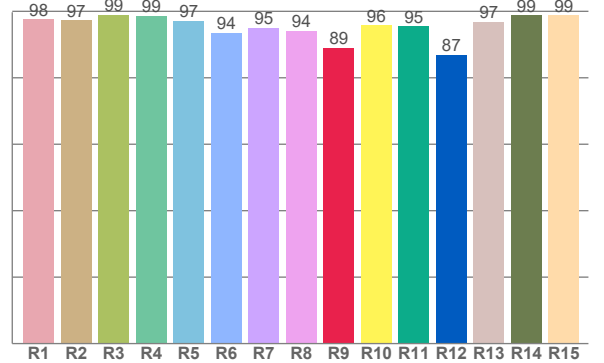
# COLOR DETAILS



**TM30: 94,2**



**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
97,5	97,2	99,0	98,6	97,2	93,5	95,1	94,1	89,0	95,9	95,5	86,9	96,9	98,9	98,9

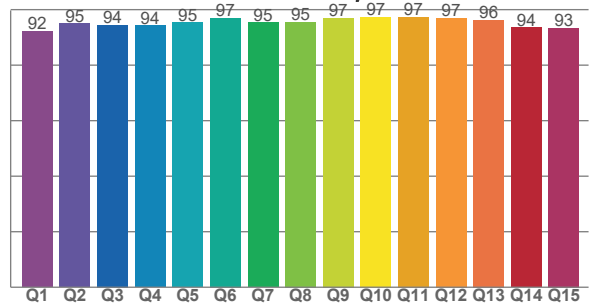
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,0	97,0	96,5	94,1	96,1	97,1	93,6	97,3	93,7	92,9	93,2	91,5	91,9	91,7	93,3	90,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,2	95,0	94,5	94,2	95,3	97,0	95,4	95,5	97,1	97,4	97,3	97,0	96,2	93,6	93,4

**CQS: 94,9**



## COLOR PARAMETERS

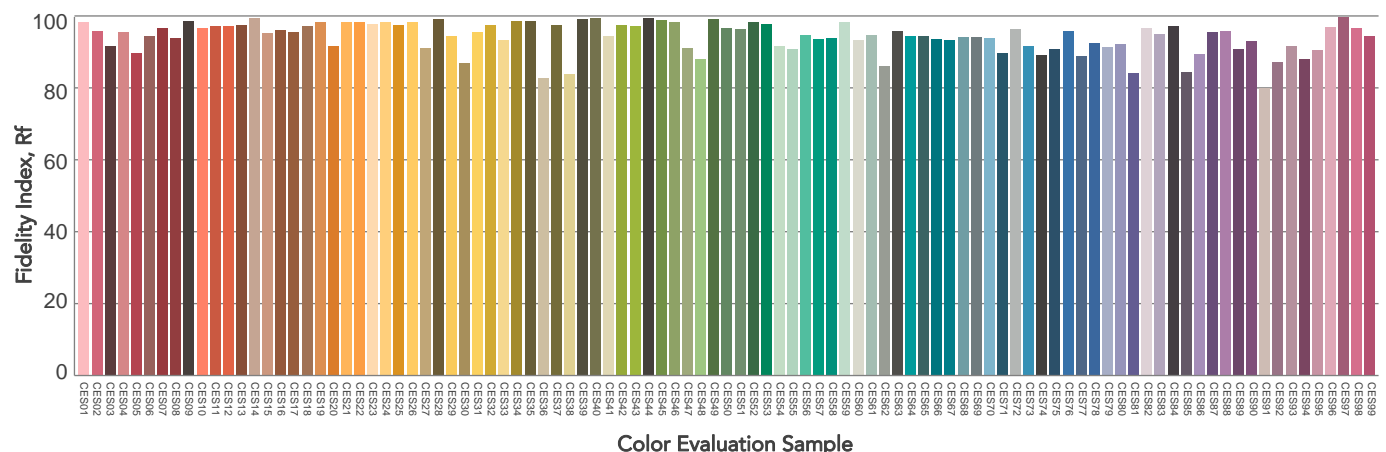
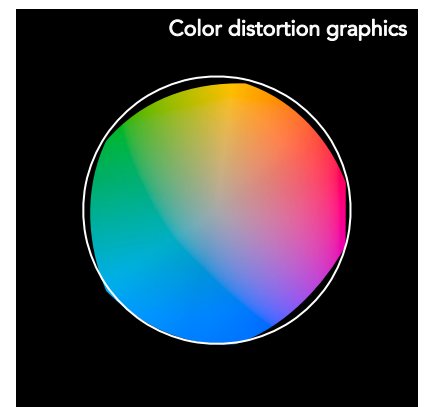
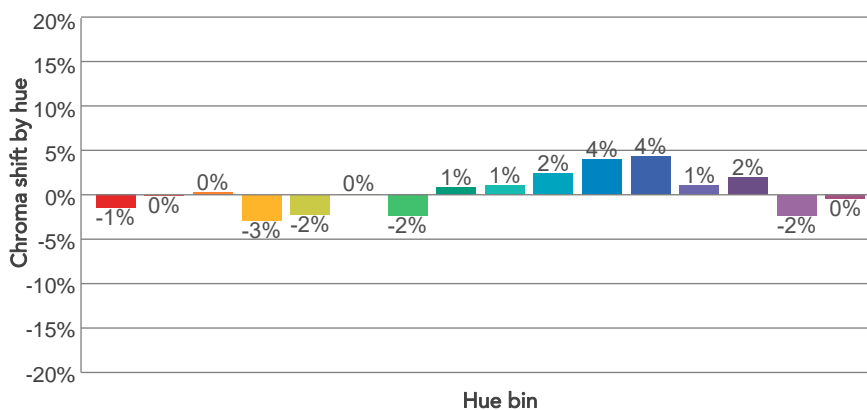
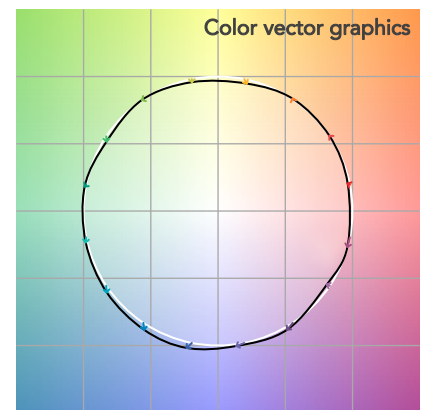
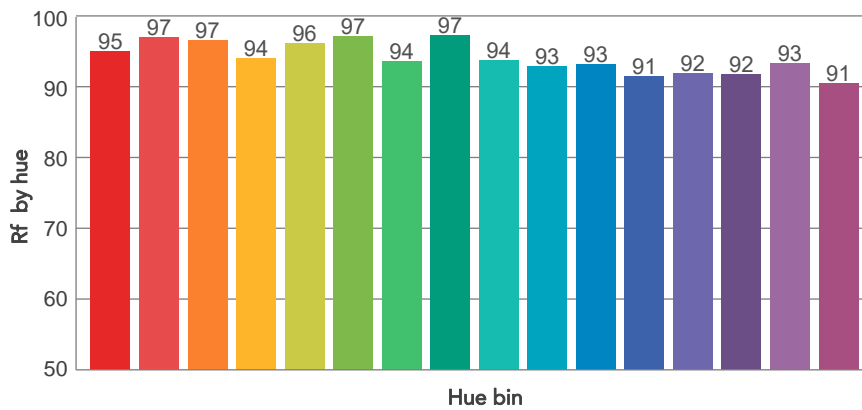
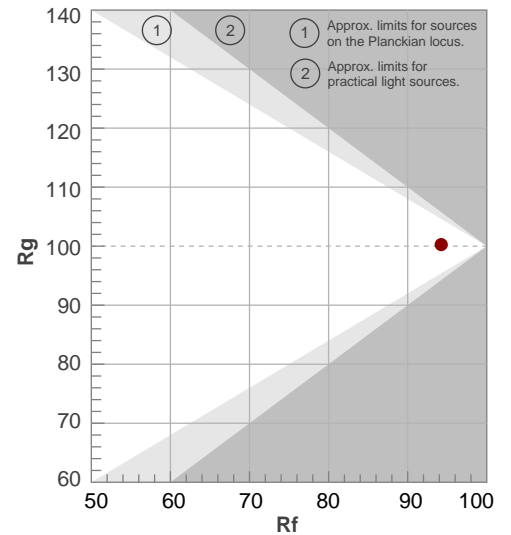
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2751 K	96,5	89,0	94,2	100,3	94,9	97	0,452	0,402	-0,0025

# TM30 DETAILS

**Rf 94,2**  
Fidelity index Rf

**Rg 100,3**  
Gammut index

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

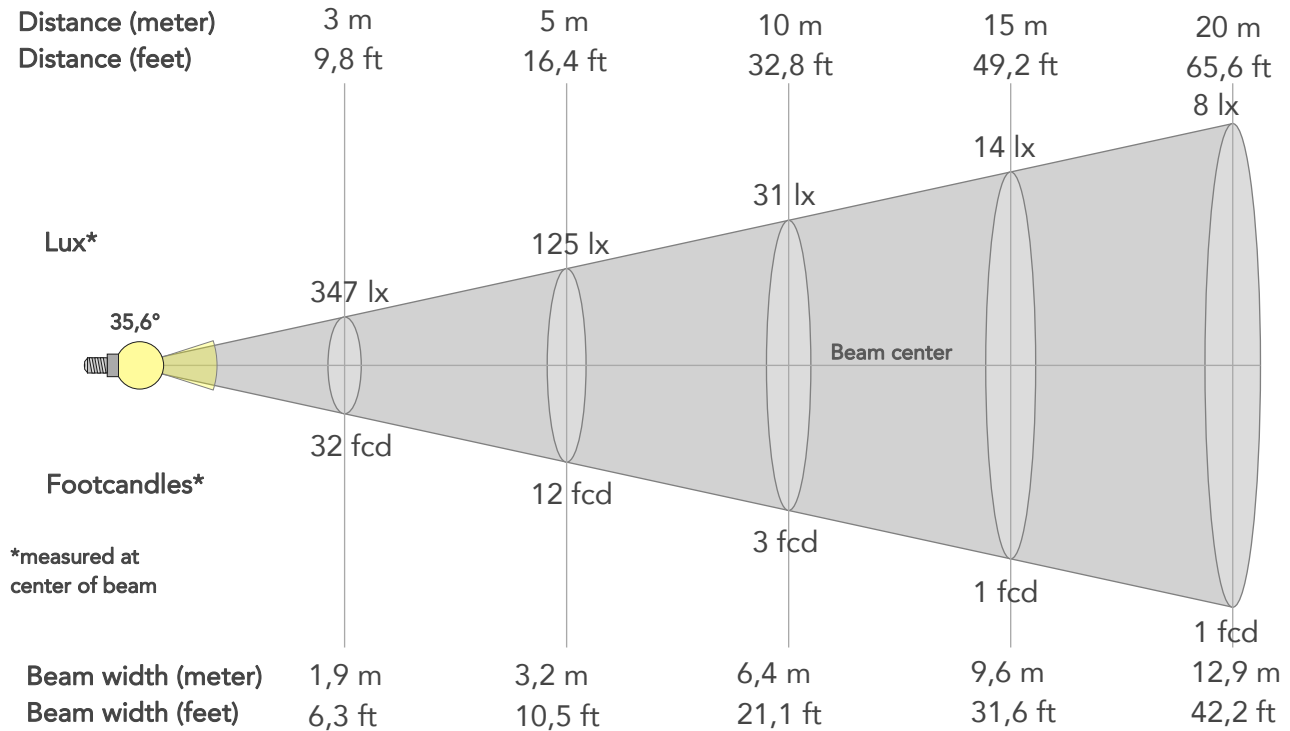




# BEAM DETAILS



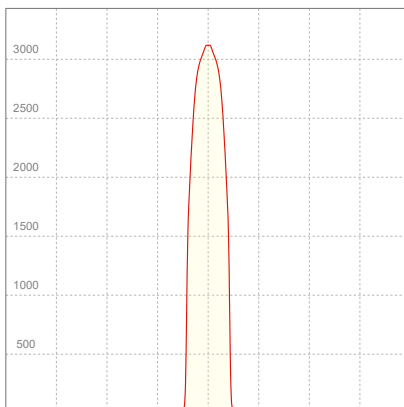
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
35,6°	40,1°	43,2°	99,8%	99,7%



## 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	3119lx	780lx	347lx	195lx	125lx	55lx	31lx	14lx	8lx	5lx	3lx	2lx	1lx
Footcand.	290fcd	72fcd	32fcd	18fcd	12fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,3m	1,9m	2,6m	3,2m	4,8m	6,4m	9,6m	12,9m	16,1m	19,3m	25,7m	32,1m
Beam wid.	2,1ft	4,2ft	6,3ft	8,4ft	10,5ft	15,8ft	21,1ft	31,6ft	42,2ft	52,7ft	63,2ft	84,3ft	105,4ft

## LINEAR DISTRIBUTION DIAGRAM

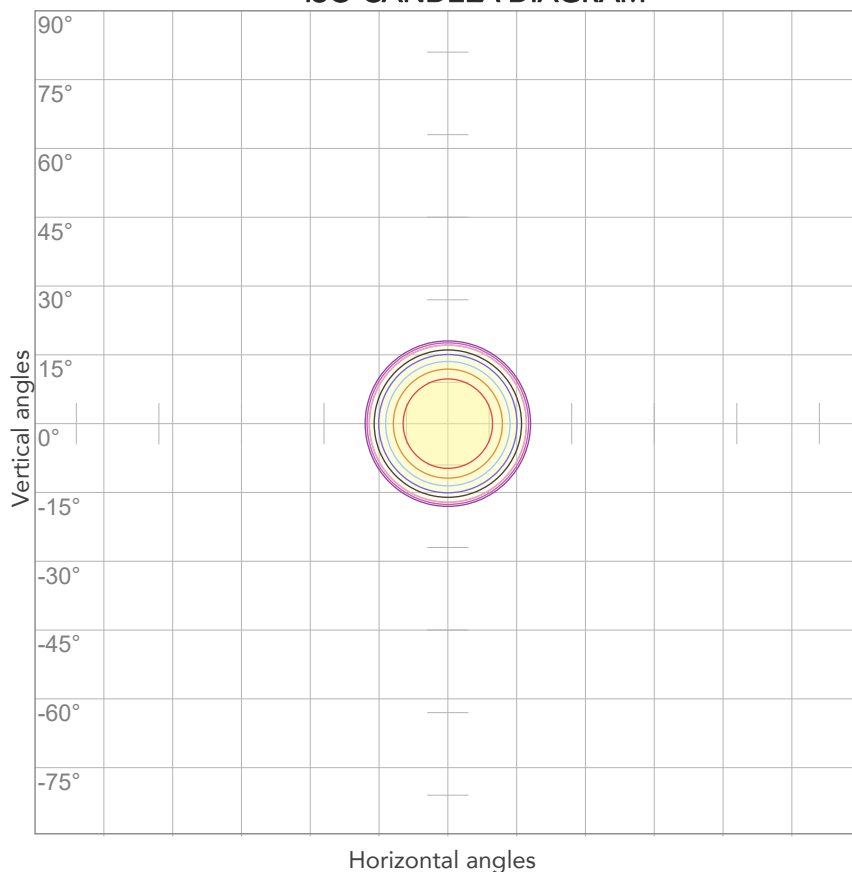


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
226V	0,145A	31,1W	0,95	27lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



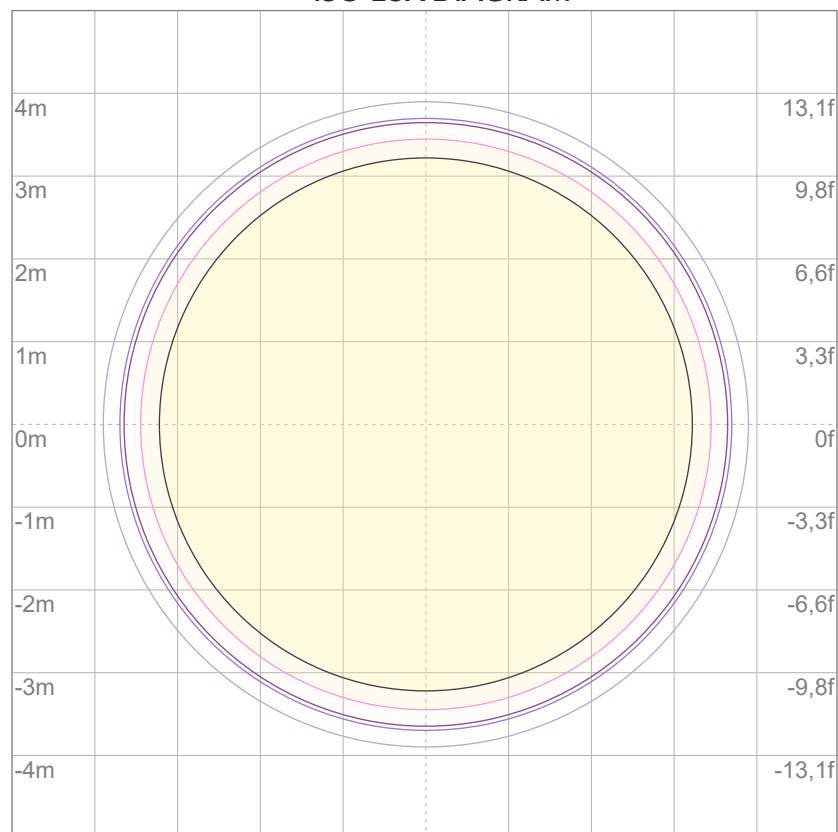
10%	312 cd
20%	624 cd
30%	936 cd
40%	1248 cd
50%	1560 cd
60%	1872 cd
70%	2183 cd
80%	2495 cd

### Conditions:

Number of c-planes: 2

Candela at center: 3119 cd

## ISO LUX DIAGRAM



3%	0,936 lx
5%	1,56 lx
10%	3,12 lx
30%	9,36 lx
50%	15,6 lx

### Conditions:

Number of c-planes: 2

Lux at center: 31,2 lx

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



Total lumen output:

876 lm

Peak candela output:

11905 cd

Light quality:

CRI: 96,9

Color temperature:

2731 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 2040 Min Zoom

Target:

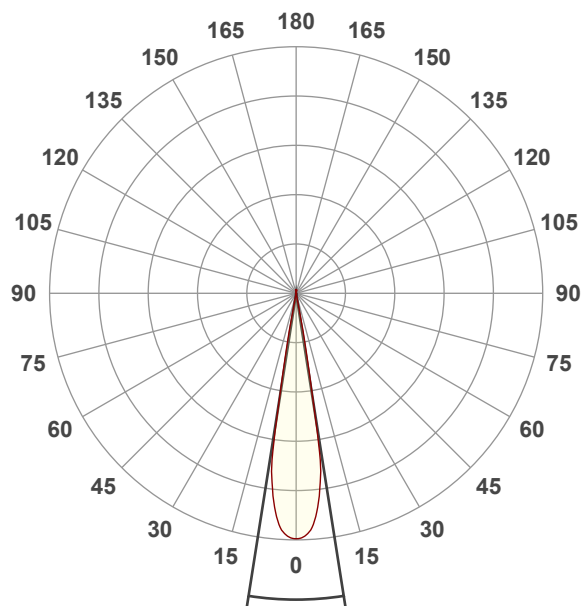
Warm White

Operator:

Giacomo Matteo

Date and time:

17/06/2024 14:09:39

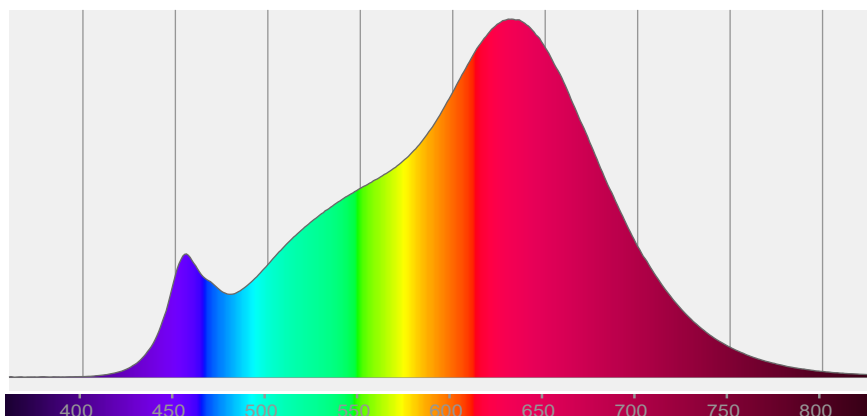


Beam angle 50%: 17,9°

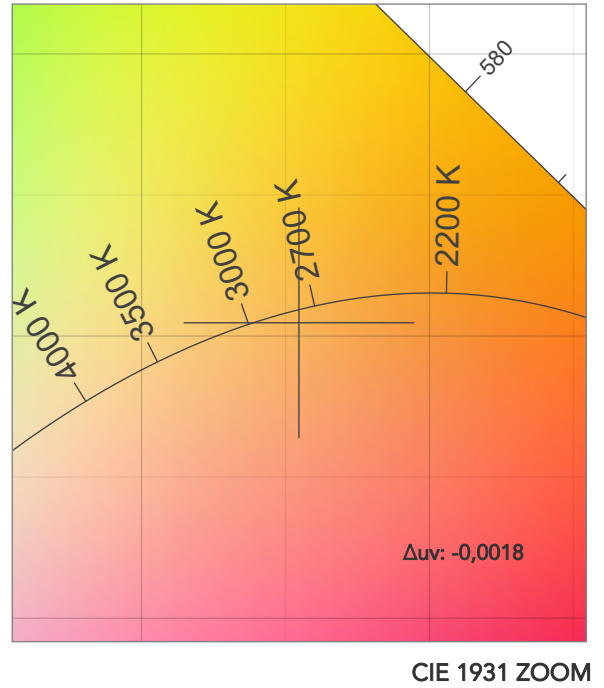
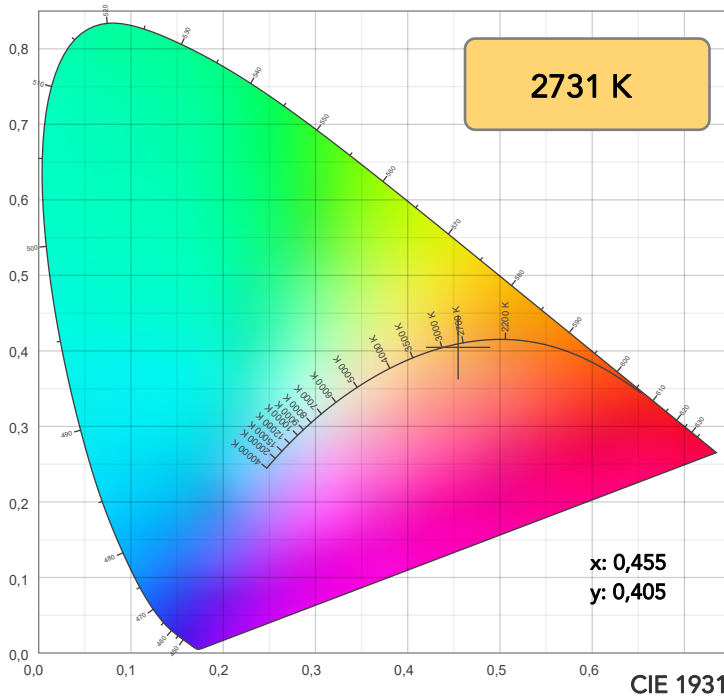
Field angle 10%: 21,5°

Cut off angle 2.5%: 22,5°

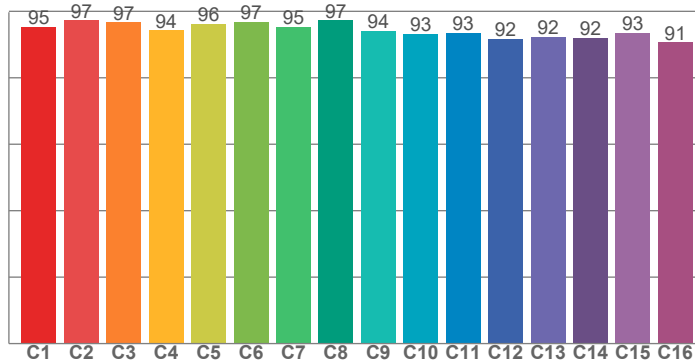
**Spectra**



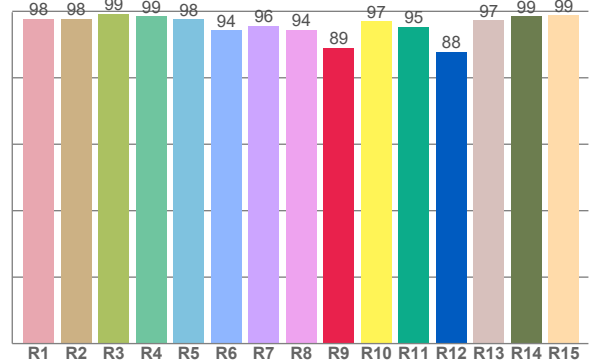
# COLOR DETAILS



TM30: 94,4



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
97,8	97,8	99,3	98,5	97,5	94,3	95,6	94,5	89,0	97,1	95,4	87,9	97,3	98,5	98,8

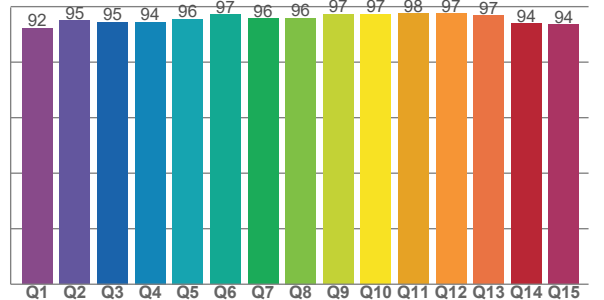
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

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

CQS: 95,1



## COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2731 K	96,9	89,0	94,4	100,2	95,1	97	0,455	0,405	-0,0018

## TM30 DETAILS

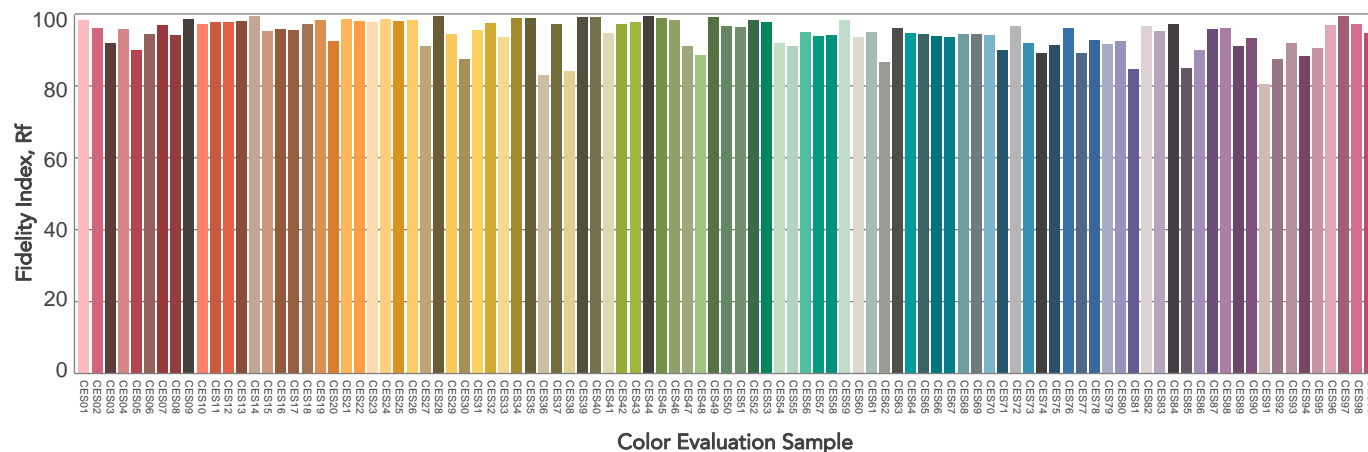
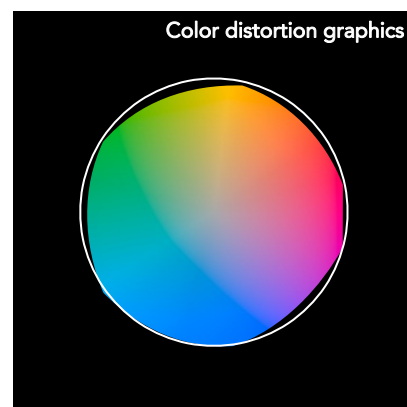
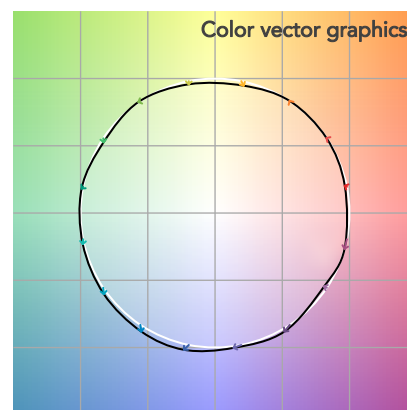
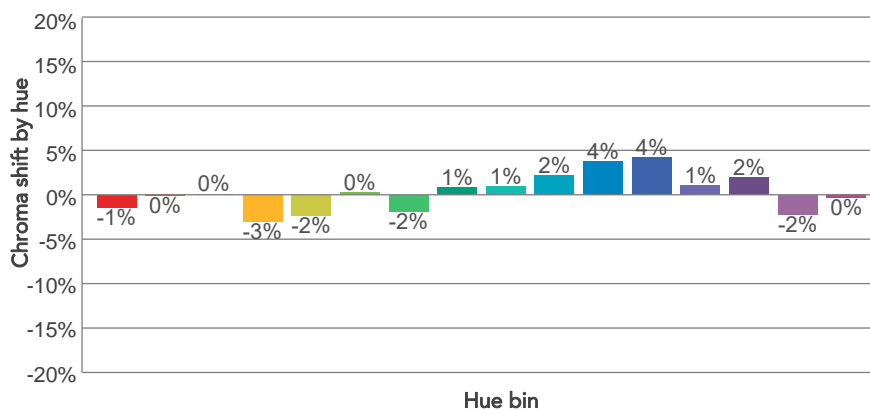
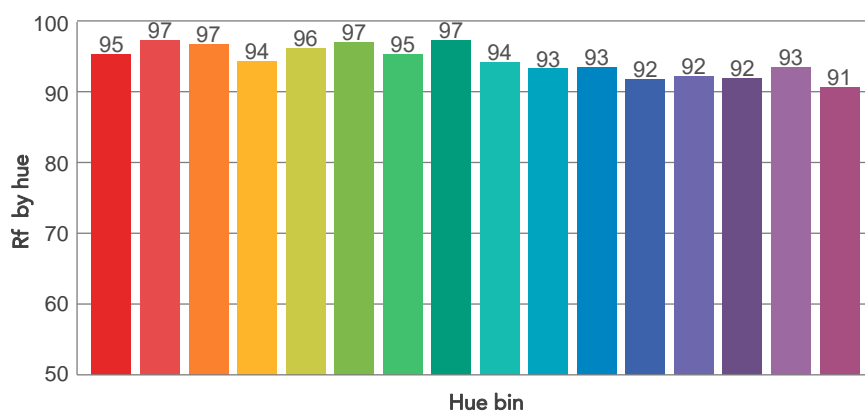
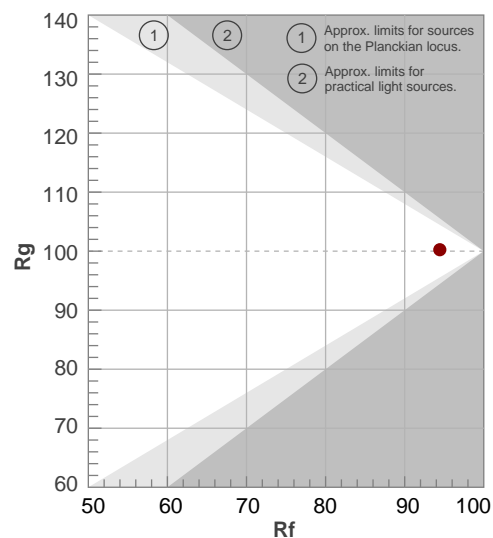
Rf 94,4

Fidelity index  $R_f$

Rg 100,2

## Gammut index

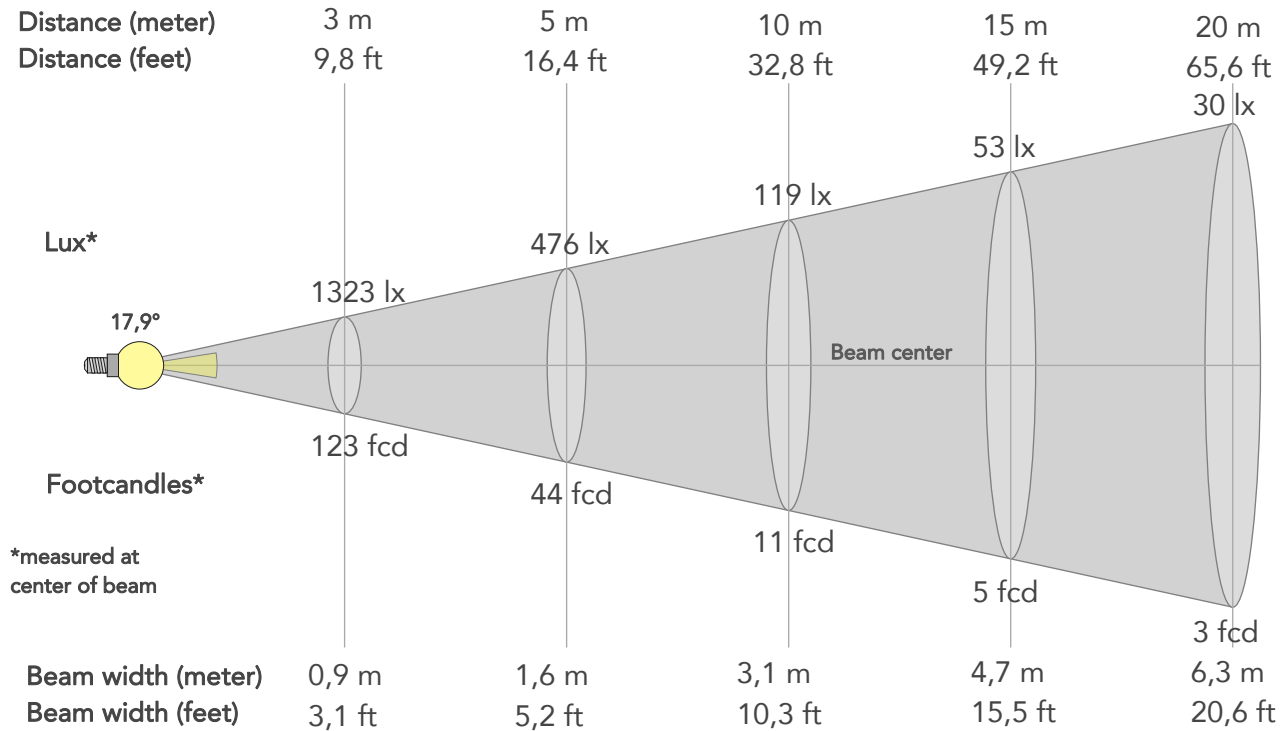
		Graphic shifts (%)	
Hue Bin	$R_f$	Chroma	Hue
1	95	-1%	1%
2	97	0%	0%
3	97	0%	0%
4	94	-3%	-2%
5	96	-2%	1%
6	97	0%	2%
7	95	-2%	2%
8	97	1%	2%
9	94	1%	3%
10	93	2%	4%
11	93	4%	3%
12	92	4%	-3%
13	92	1%	-6%
14	92	2%	-6%
15	93	-2%	0%
16	91	0%	-7%



# BEAM DETAILS



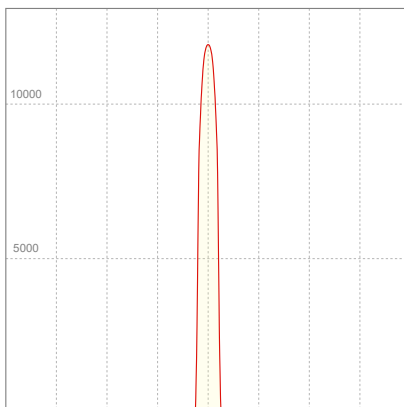
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,9°	21,5°	22,5°	99,3%	99,0%



## 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	11905lx	2976lx	1323lx	744lx	476lx	212lx	119lx	53lx	30lx	19lx	13lx	7lx	5lx
Footcand.	1106fcd	277fcd	123fcd	69fcd	44fcd	20fcd	11fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	0,3m	0,6m	0,9m	1,3m	1,6m	2,4m	3,1m	4,7m	6,3m	7,9m	9,4m	12,6m	15,7m
Beam wid.	1ft	2,1ft	3,1ft	4,1ft	5,2ft	7,7ft	10,3ft	15,5ft	20,6ft	25,8ft	30,9ft	41,3ft	51,6ft

## LINEAR DISTRIBUTION DIAGRAM

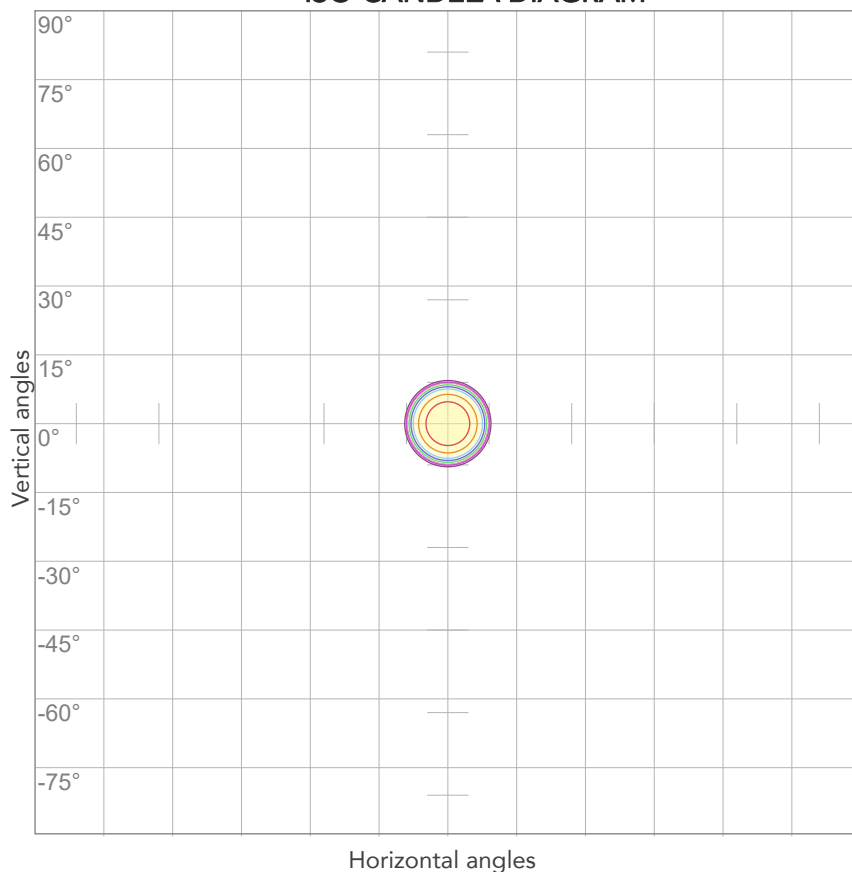


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
230V	0,145A	31,6W	0,95	28lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



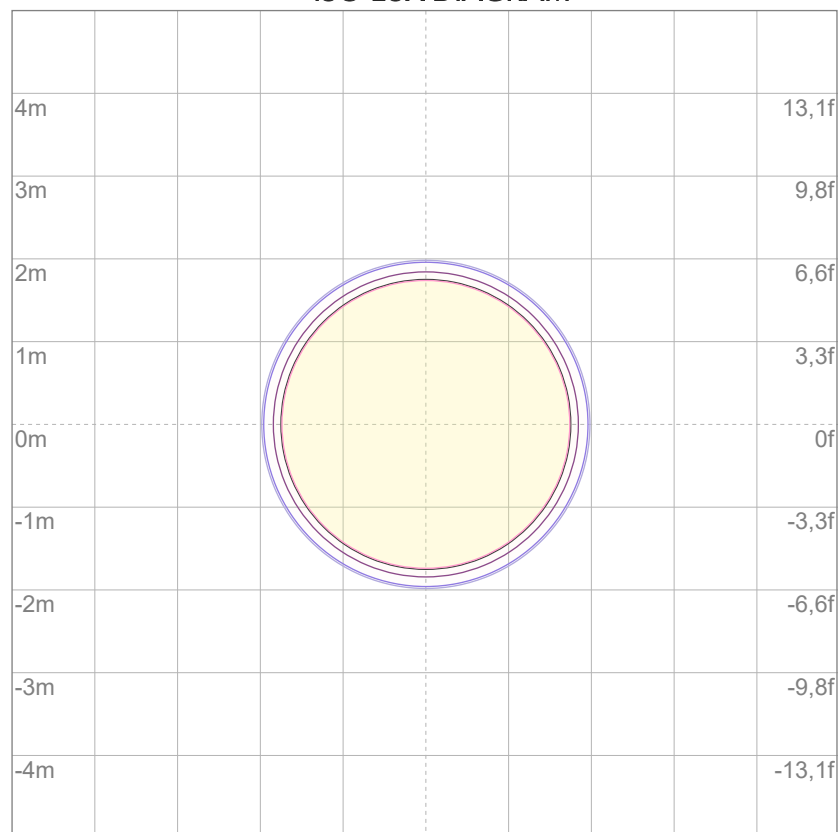
10%	1190 cd
20%	2381 cd
30%	3571 cd
40%	4762 cd
50%	5952 cd
60%	7143 cd
70%	8333 cd
80%	9524 cd

### Conditions:

Number of c-planes: 2

Candela at center: 11905 cd

## ISO LUX DIAGRAM



3%	3,57 lx
5%	5,95 lx
10%	11,9 lx
30%	35,7 lx
50%	59,5 lx

### Conditions:

Number of c-planes: 2

Lux at center: 119 lx

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



Total lumen output:

1191 lm

Peak candela output:

4401 cd

Light quality:

CRI: 95,9

Color temperature:

6398 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 2040 Max Zoom

Target:

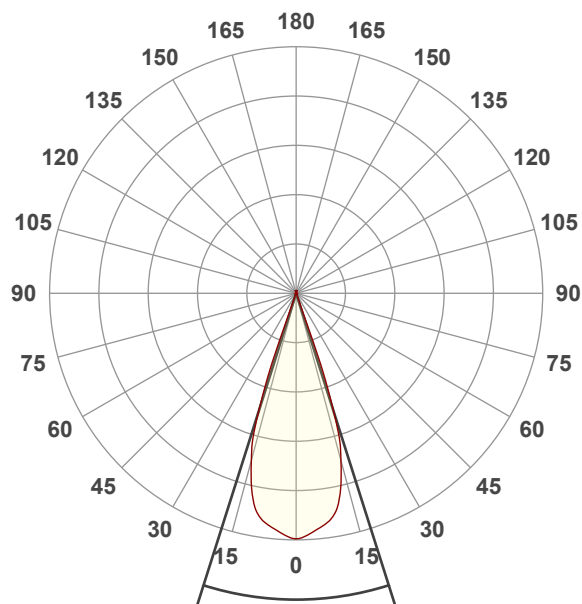
Cold White

Operator:

Giacomo Matteo

Date and time:

17/06/2024 12:55:48

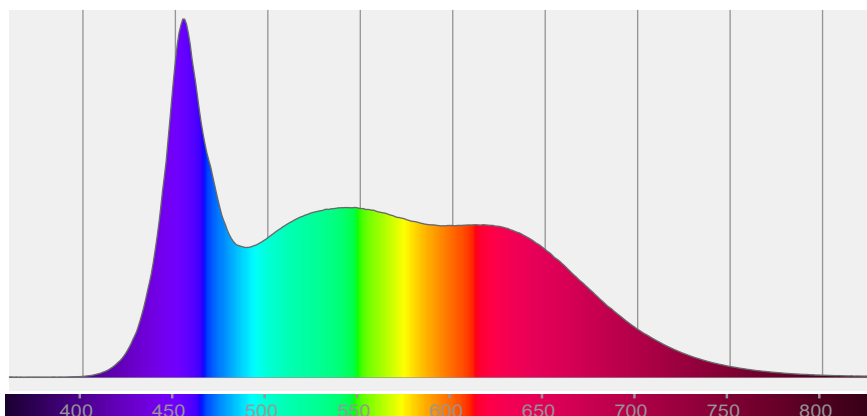


Beam angle 50%: 35,2°

Field angle 10%: 40,8°

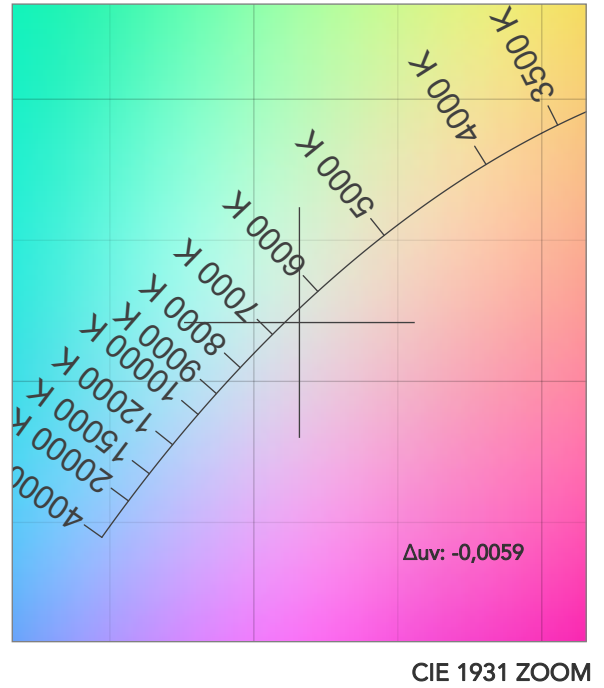
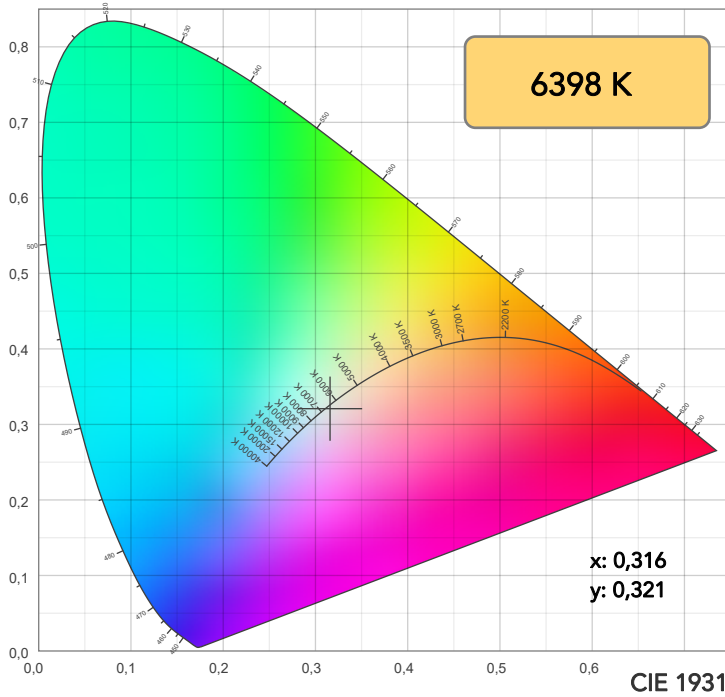
Cut off angle 2.5%: 41,7°

**Spectra**

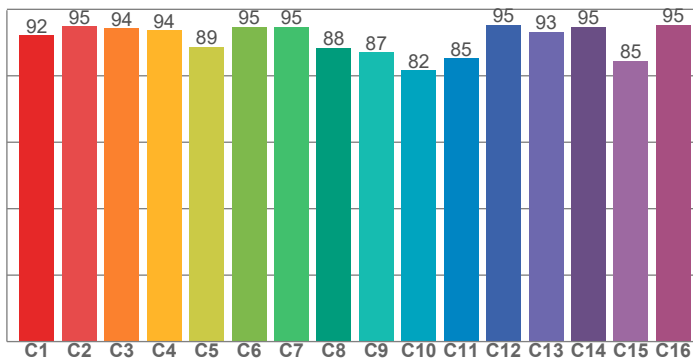




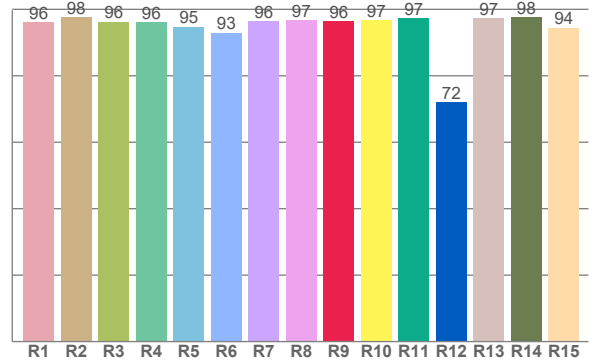
# COLOR DETAILS



**TM30: 90,8**



**CRI: 95,9 (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
96,1	97,7	96,3	96,1	94,8	92,9	96,5	96,8	96,4	96,7	97,3	72,0	97,3	97,6	94,4

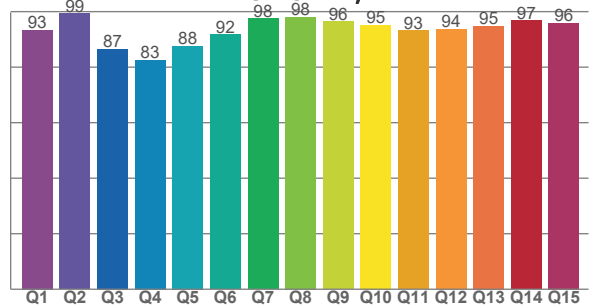
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,1	94,9	94,2	93,7	88,7	94,7	94,6	88,5	87,0	81,7	85,2	95,2	93,3	94,7	84,5	95,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,3	99,4	86,6	82,7	87,7	91,7	97,6	98,1	96,4	95,3	93,2	93,8	94,8	96,8	95,9

**CQS: 92,1**



## COLOR PARAMETERS

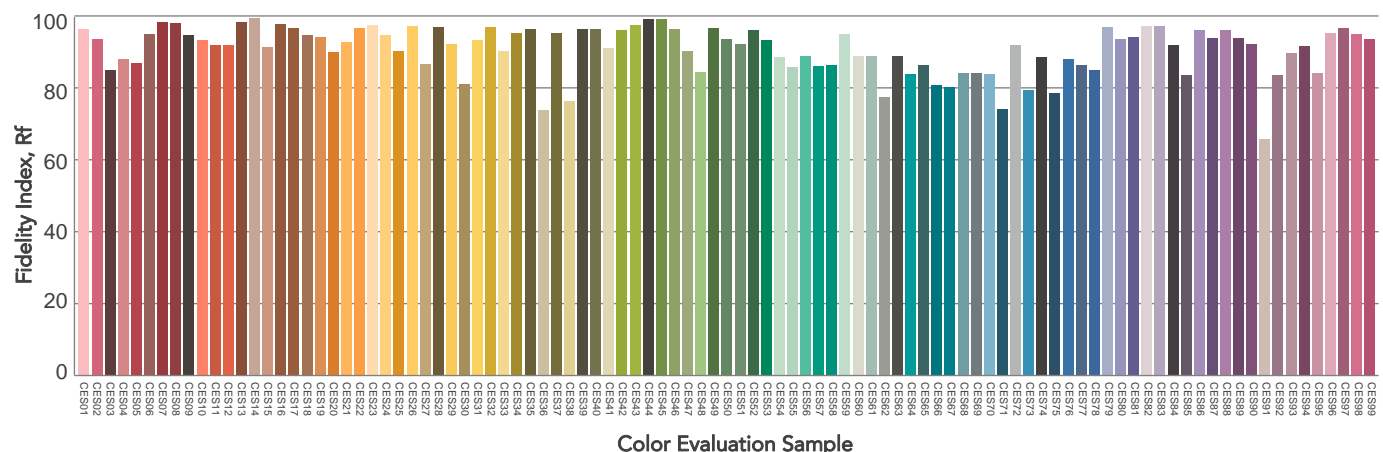
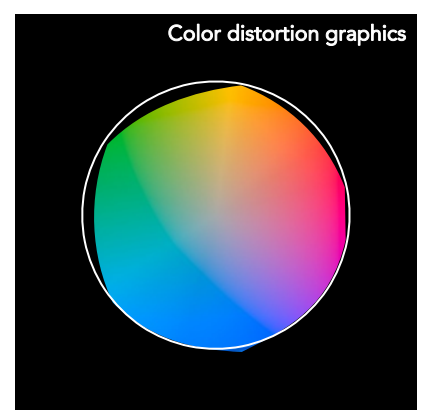
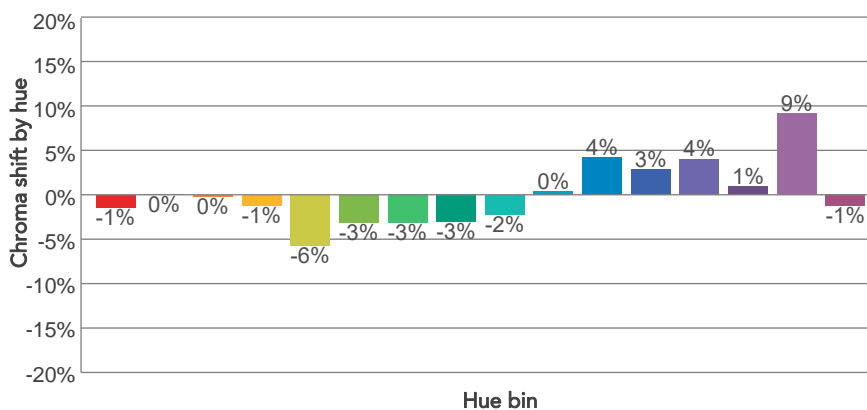
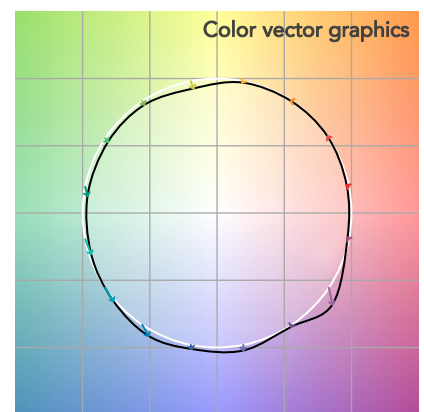
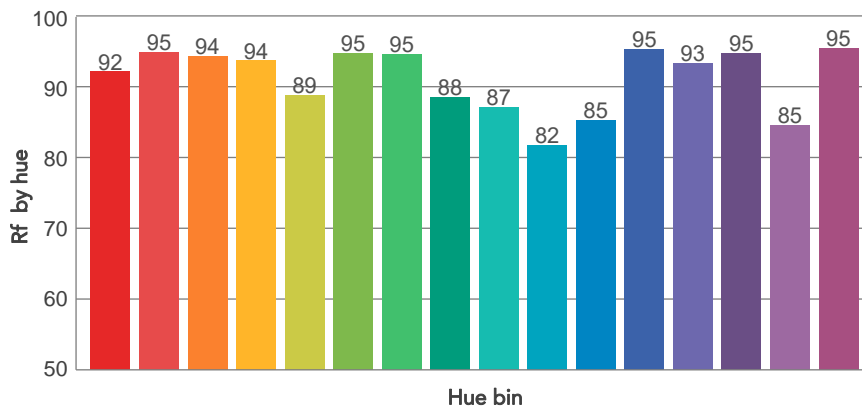
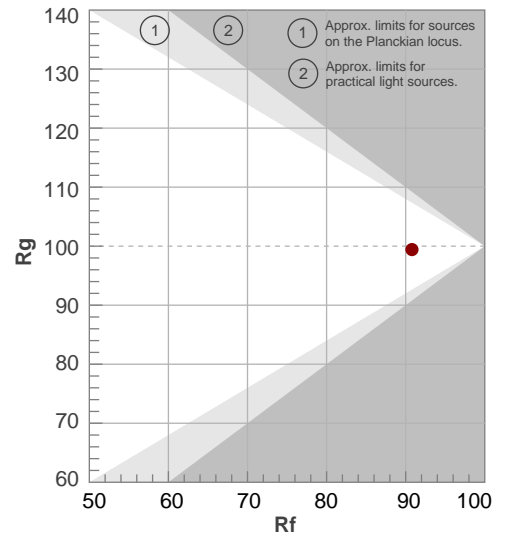
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
6398 K	95,9	96,4	90,8	99,4	92,1	96	0,316	0,321	-0,0059

# TM30 DETAILS

**Rf 90,8**  
Fidelity index Rf

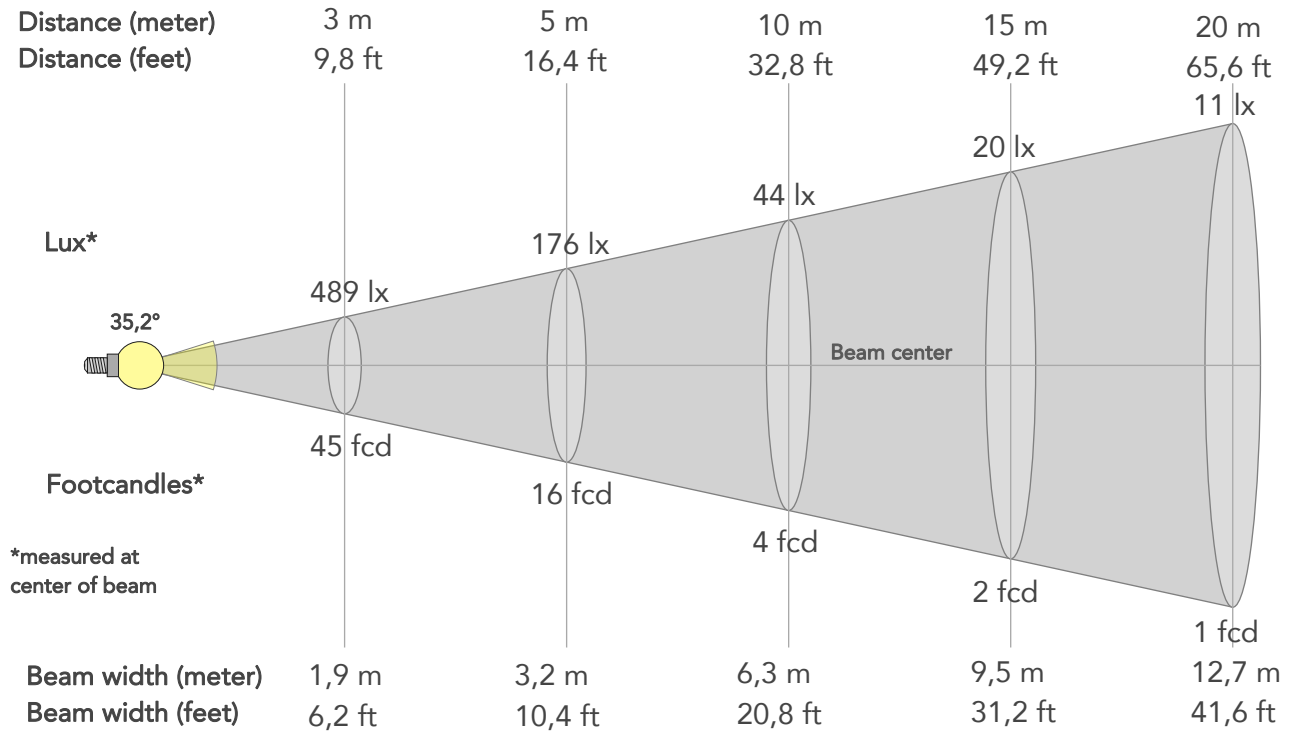
**Rg 99,4**  
Gammut index

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	82	0%	12%
11	85	4%	8%
12	95	3%	1%
13	93	4%	-1%
14	95	1%	-1%
15	85	9%	-9%
16	95	-1%	1%



# BEAM DETAILS

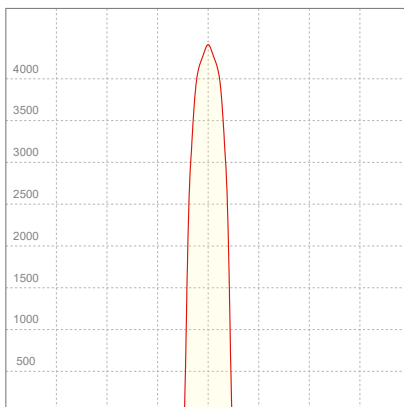
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
35,2°	40,8°	41,7°	99,7%	99,6%



## 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	4401lx	1100lx	489lx	275lx	176lx	78lx	44lx	20lx	11lx	7lx	5lx	3lx	2lx
Footcand.	409fcd	102fcd	45fcd	26fcd	16fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,3m	1,9m	2,5m	3,2m	4,8m	6,3m	9,5m	12,7m	15,9m	19m	25,4m	31,7m
Beam wid.	2,1ft	4,2ft	6,2ft	8,3ft	10,4ft	15,6ft	20,8ft	31,2ft	41,6ft	52ft	62,4ft	83,2ft	104,1ft

## LINEAR DISTRIBUTION DIAGRAM

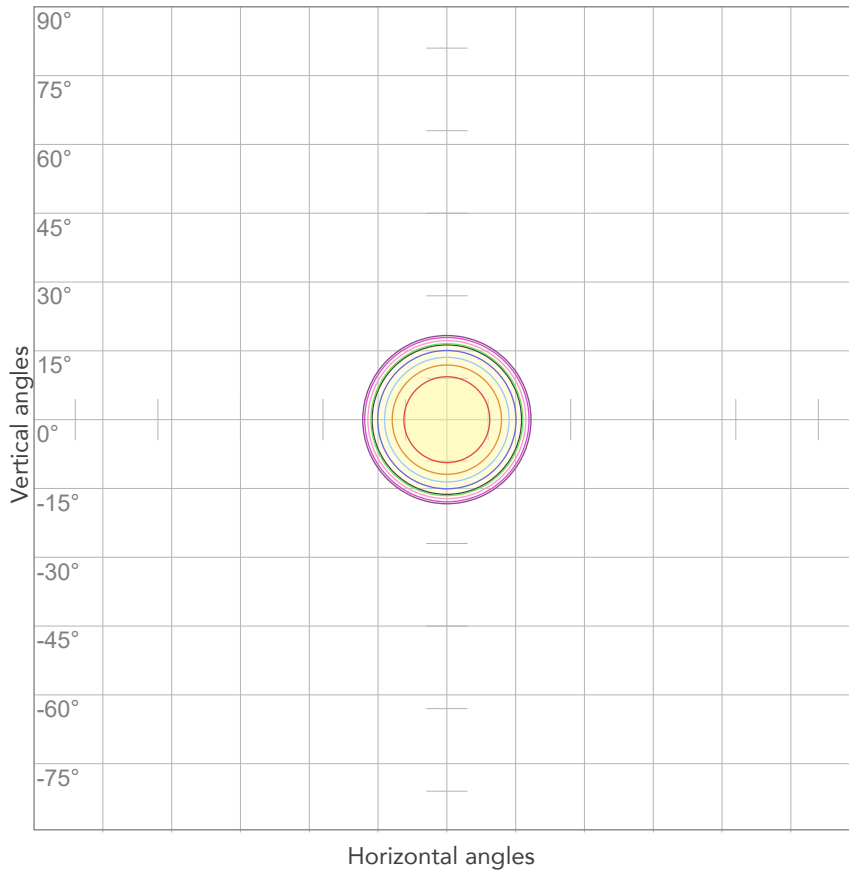


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
227V	0,146A	31,5W	0,95	38lm/W

# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



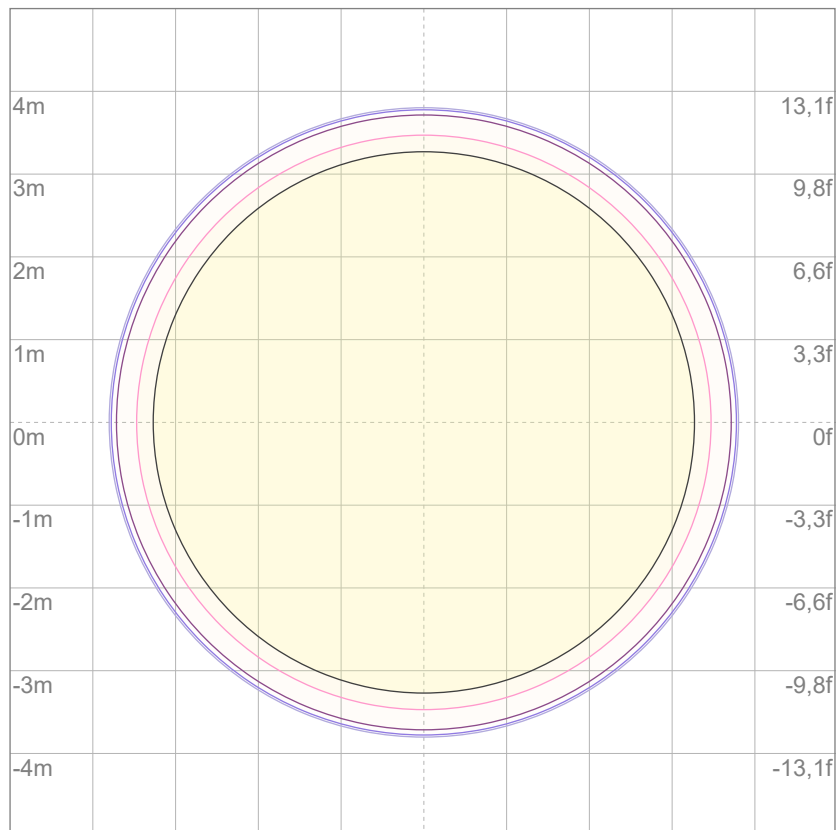
10%	440 cd
20%	880 cd
30%	1320 cd
40%	1761 cd
50%	2201 cd
60%	2641 cd
70%	3081 cd
80%	3521 cd

### Conditions:

Number of c-planes: 2

Candela at center: 4401 cd

## ISO LUX DIAGRAM



3%	1,32 lx
5%	2,20 lx
10%	4,40 lx
30%	13,2 lx
50%	22,0 lx

### Conditions:

Number of c-planes: 2

Lux at center: 44,0 lx

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



Total lumen output:

1241 lm

Peak candela output:

16806 cd

Light quality:

CRI: 96,2

Color temperature:

6237 K

**PRODUCT NAME:**

ECLDISPLAY VW

**MEASURAMENT CONDITIONS:**

Beam angle:

Profile 2040 Min Zoom

Target:

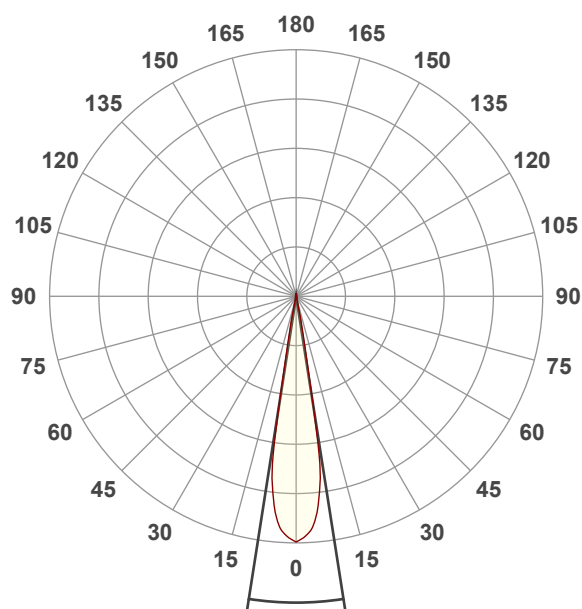
Cold White

Operator:

Giacomo Matteo

Date and time:

17/06/2024 14:12:00

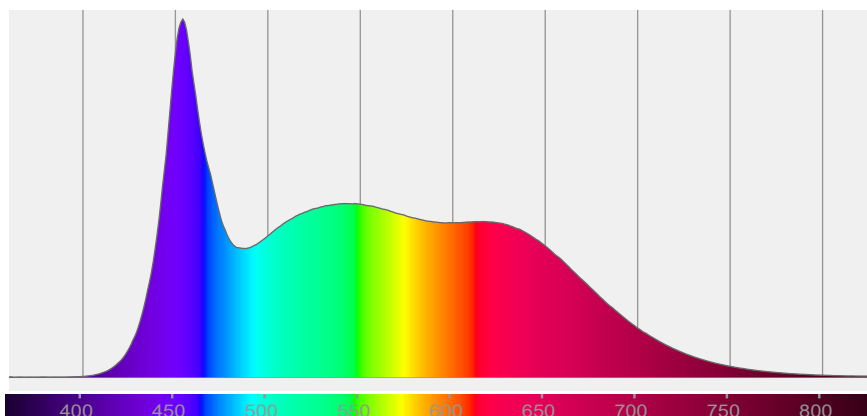


Beam angle 50%: 17,8°

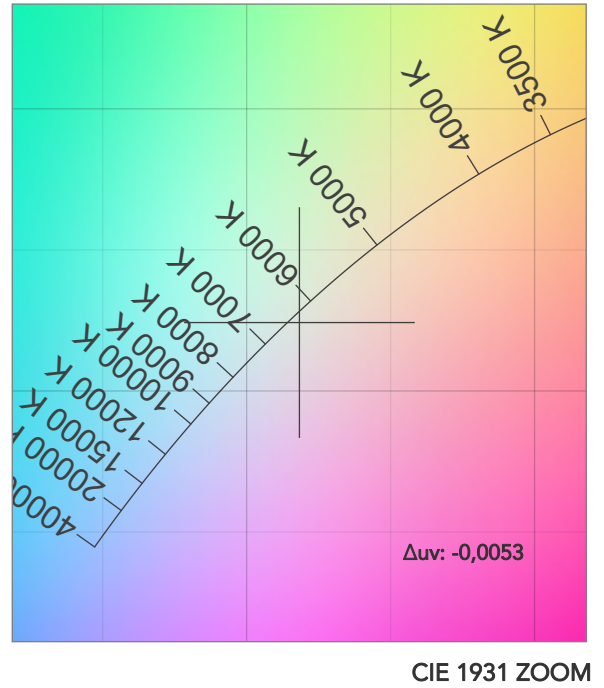
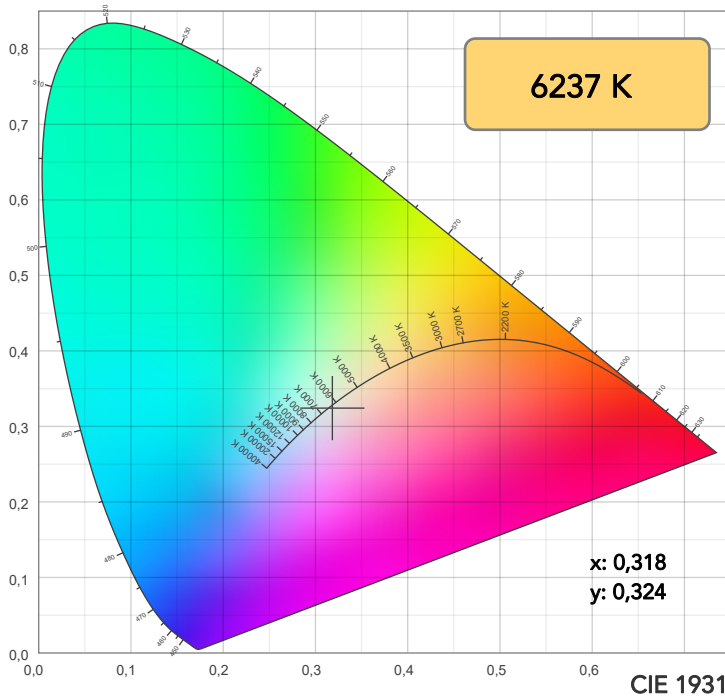
Field angle 10%: 22,2°

Cut off angle 2.5%: 23,9°

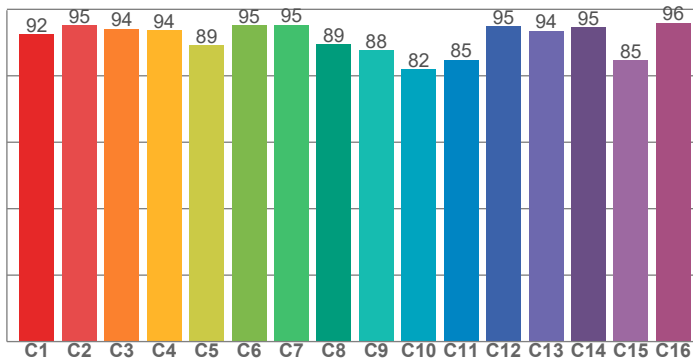
**Spectra**



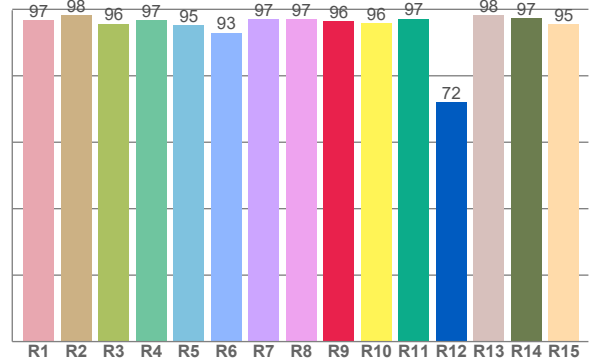
# COLOR DETAILS



**TM30: 91,1**



**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
96,7	98,2	95,6	96,7	95,2	93,0	97,1	97,1	96,4	95,8	97,1	72,1	98,2	97,3	95,4

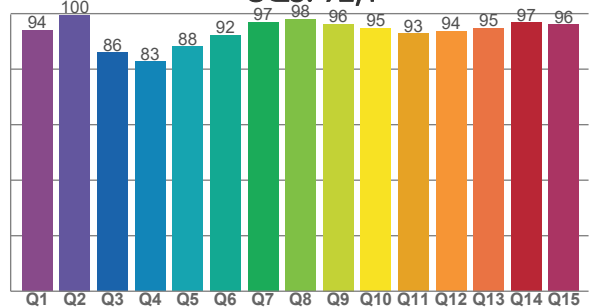
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,4	95,2	94,0	93,6	89,2	95,1	95,3	89,5	87,7	81,9	84,8	94,9	93,5	94,6	84,7	95,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,0	99,5	86,0	82,7	88,1	92,3	97,0	98,0	96,2	94,7	92,9	93,6	94,9	96,8	96,1

**CQS: 92,1**



## COLOR PARAMETERS

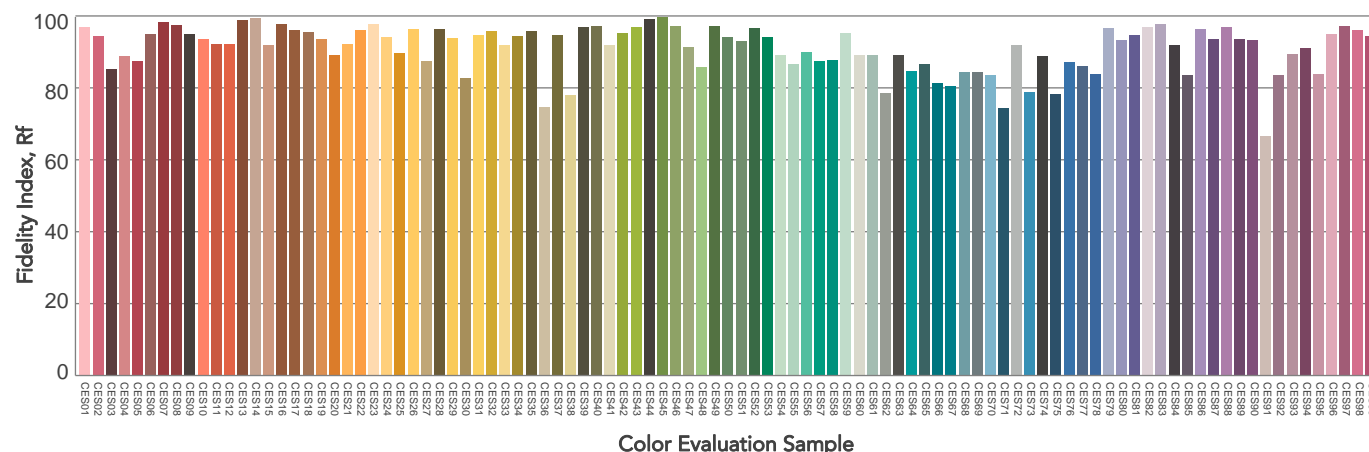
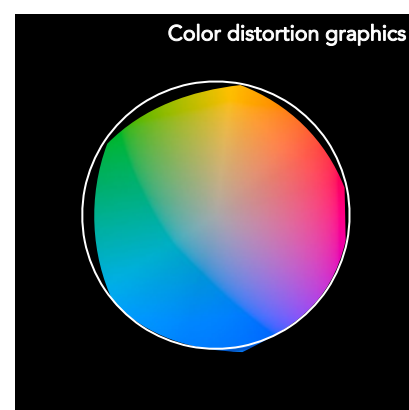
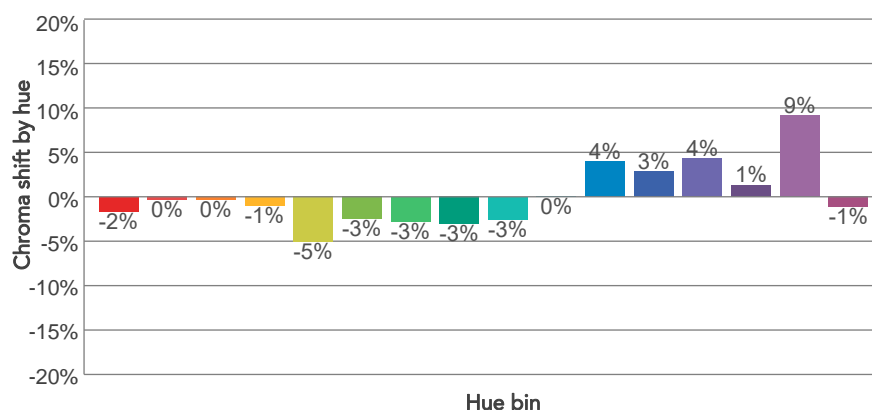
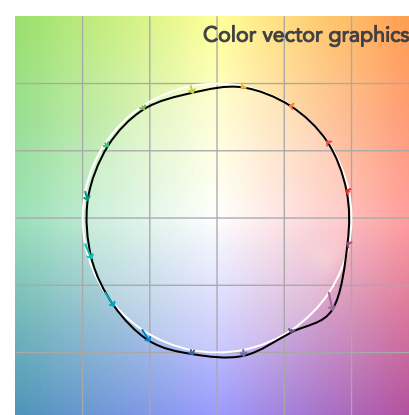
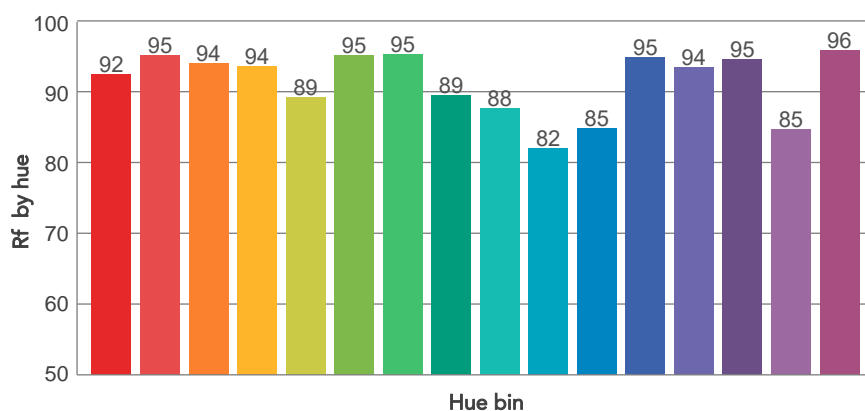
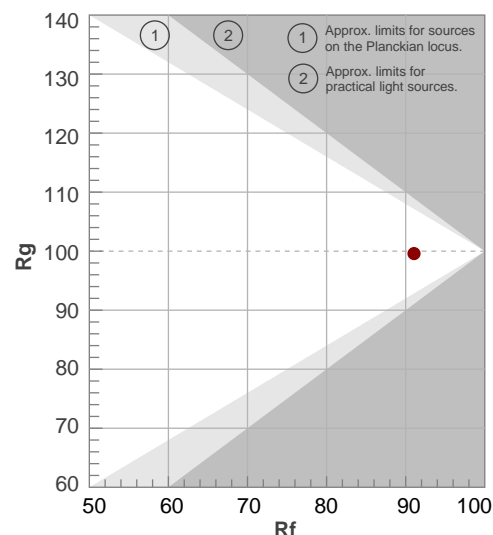
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
6237 K	96,2	96,4	91,1	99,6	92,1	96	0,318	0,324	-0,0053

# TM30 DETAILS

**Rf 91,1**  
Fidelity index Rf

**Rg 99,6**  
Gammut index

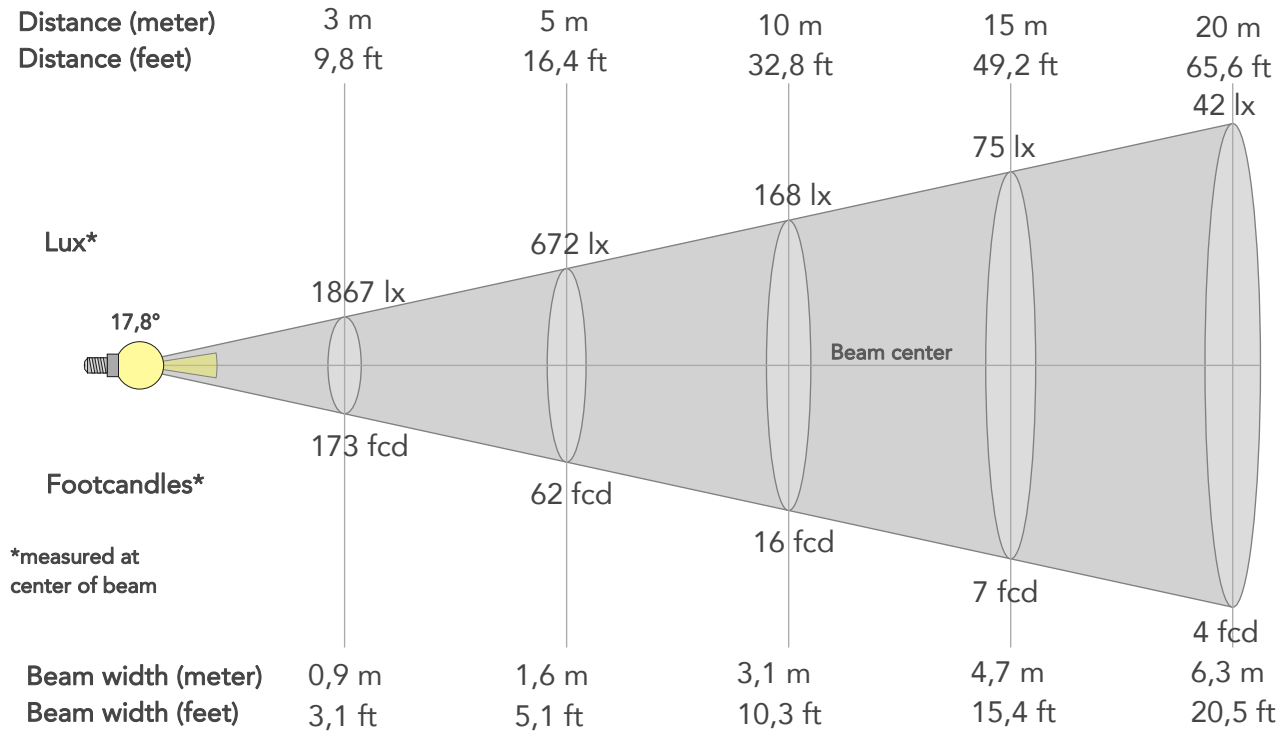
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	92	-2%	1%
2	95	0%	2%
3	94	0%	1%
4	94	-1%	1%
5	89	-5%	0%
6	95	-3%	0%
7	95	-3%	1%
8	89	-3%	5%
9	88	-3%	11%
10	82	0%	11%
11	85	4%	9%
12	95	3%	2%
13	94	4%	-1%
14	95	1%	-1%
15	85	9%	-9%
16	96	-1%	0%



# BEAM DETAILS



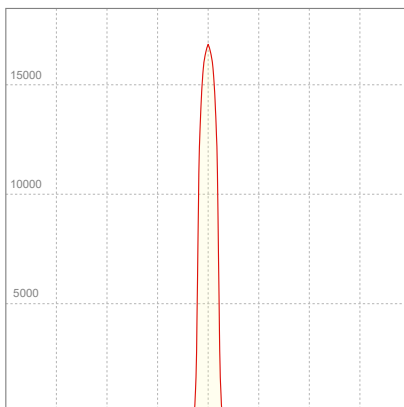
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,8°	22,2°	23,9°	99,5%	99,3%



## 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	16806lx	4201lx	1867lx	1050lx	672lx	299lx	168lx	75lx	42lx	27lx	19lx	11lx	7lx
Footcand.	1561fcd	390fcd	173fcd	98fcd	62fcd	28fcd	16fcd	7fcd	4fcd	2fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,6m	0,9m	1,3m	1,6m	2,3m	3,1m	4,7m	6,3m	7,8m	9,4m	12,5m	15,6m
Beam wid.	1ft	2,1ft	3,1ft	4,1ft	5,1ft	7,7ft	10,3ft	15,4ft	20,5ft	25,6ft	30,8ft	41ft	51,3ft

## LINEAR DISTRIBUTION DIAGRAM



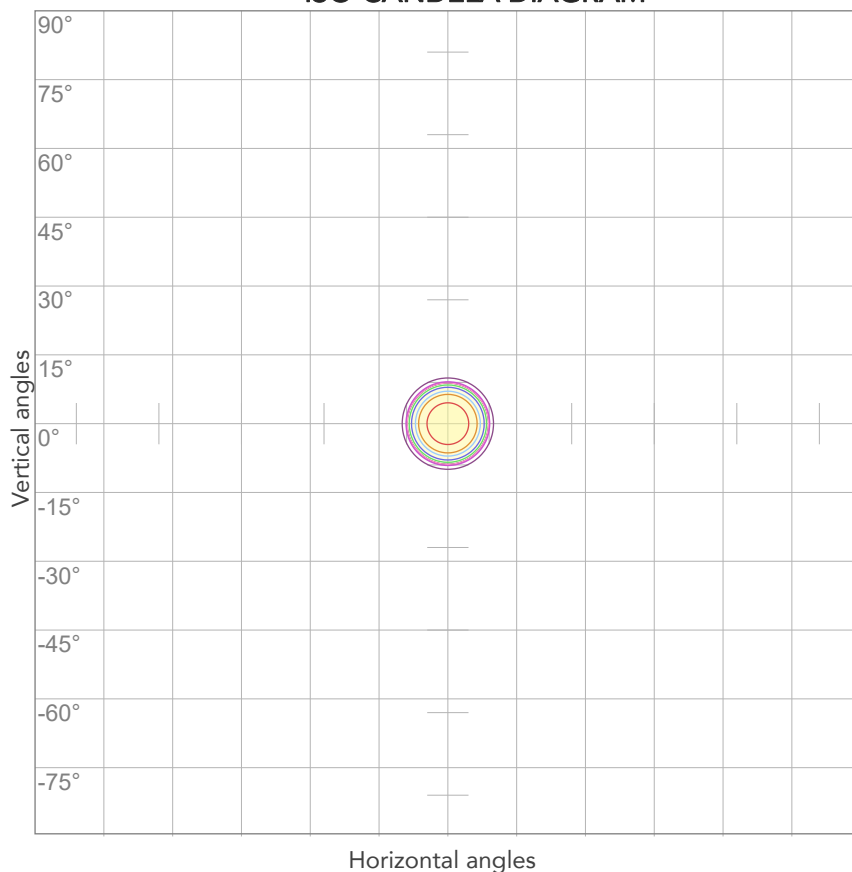
## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
229V	0,147A	31,8W	0,95	39lm/W



# ISO DIAGRAMS

## ISO CANDELA DIAGRAM



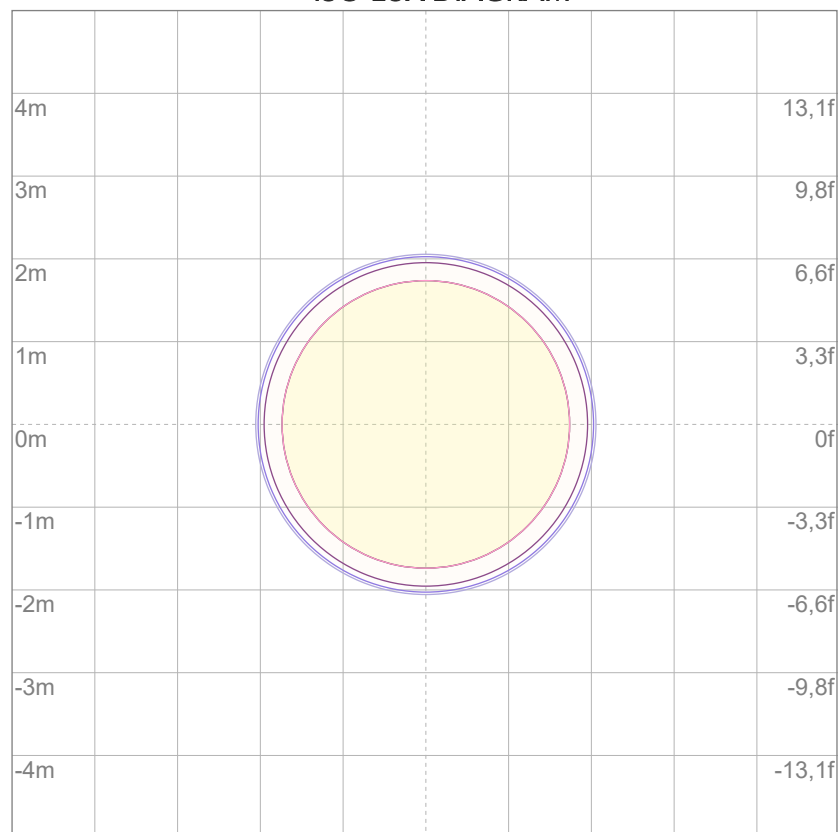
10%	1681 cd
20%	3361 cd
30%	5042 cd
40%	6722 cd
50%	8403 cd
60%	10084 cd
70%	11764 cd
80%	13445 cd

### Conditions:

Number of c-planes: 2

Candela at center: 16806 cd

## ISO LUX DIAGRAM



3%	5,04 lx
5%	8,40 lx
10%	16,8 lx
30%	50,4 lx
50%	84,0 lx

### Conditions:

Number of c-planes: 2

Lux at center: 168 lx

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