

# Photometric Test Report



## ARCSHINEM18VW

18 x 4 W IP66 Variable White  
architectural linear fixture, 100 cm



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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:

3728 lm

Peak candela output:

39057 cd

Light quality:

CRI: 84,9

Color temperature:

4358 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8°

Target:

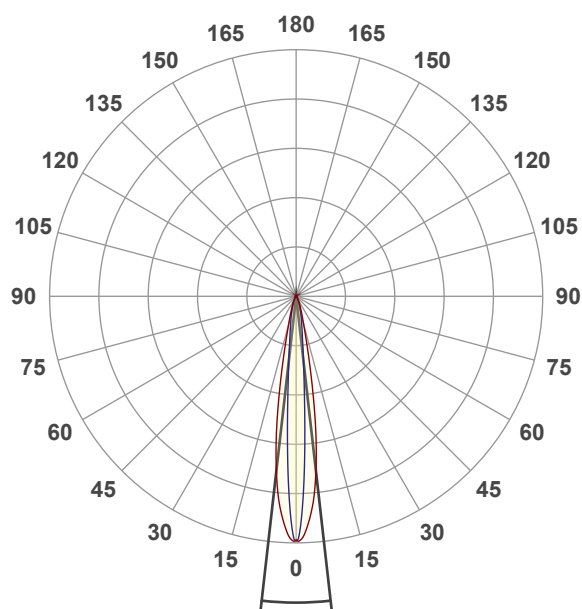
Full on

Operator:

Paolo Carvone

Date and time:

08/09/2022 15:12:37

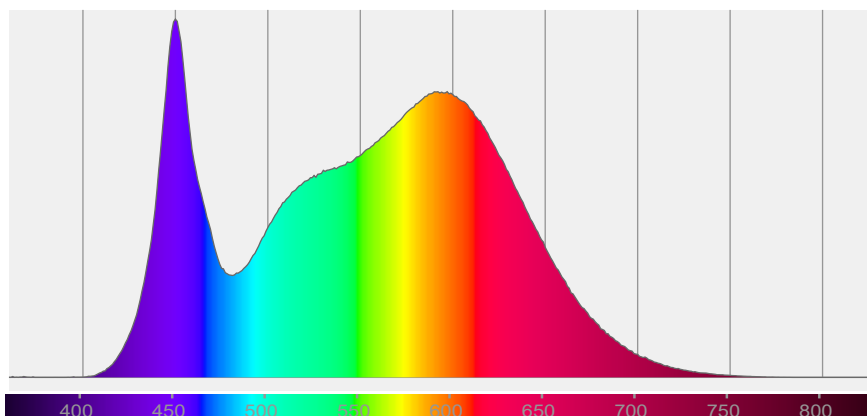


Beam angle 50%: 12,9°

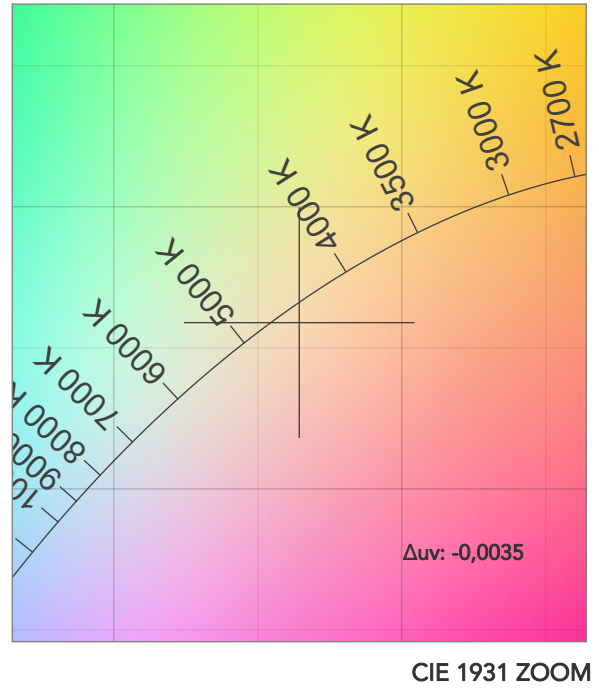
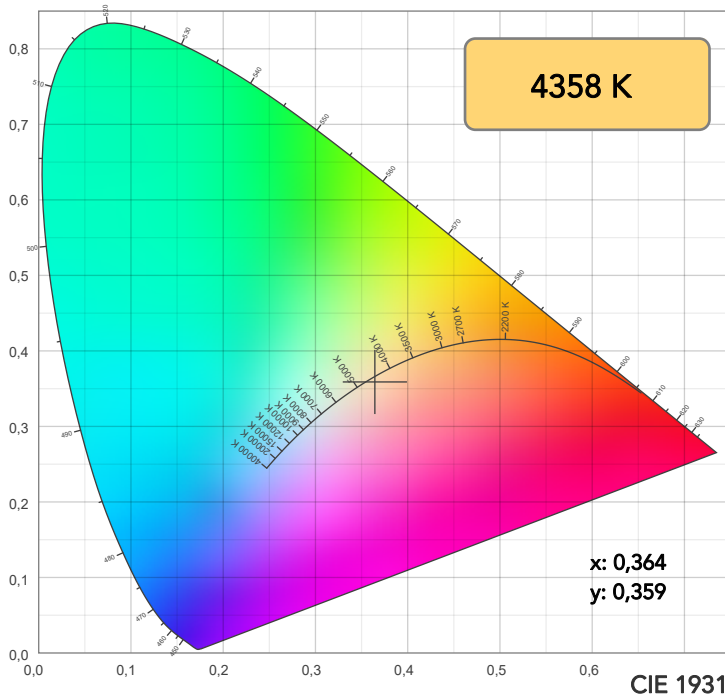
Field angle 10%: 28,4°

Cut off angle 2.5%: 50,5°

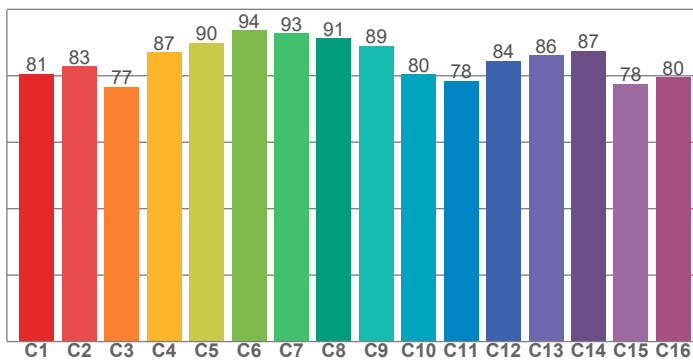
**Spectra**



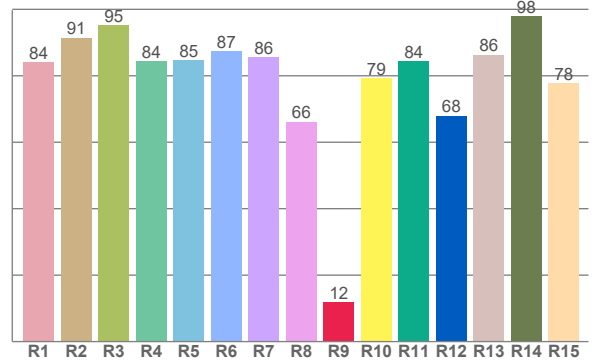




TM30: 84,5



CRI: 84,9 (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
84,1	91,4	95,3	84,4	84,6	87,4	85,5	66,2	11,7	79,2	84,4	68,0	86,3	97,9	77,7

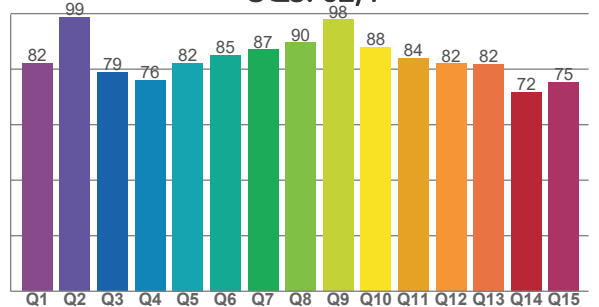
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
80,6	82,8	76,7	87,1	89,9	93,7	92,8	91,3	88,9	80,4	78,4	84,4	86,1	87,4	77,6	79,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82,1	98,7	78,9	76,1	82,1	85,2	87,0	89,5	97,8	88,0	84,0	82,0	81,8	71,7	75,5

CQS: 82,4



## 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	$\Delta uv$
4358 K	84,9	11,7	84,5	97,0	82,4	68	0,364	0,359	-0,0035

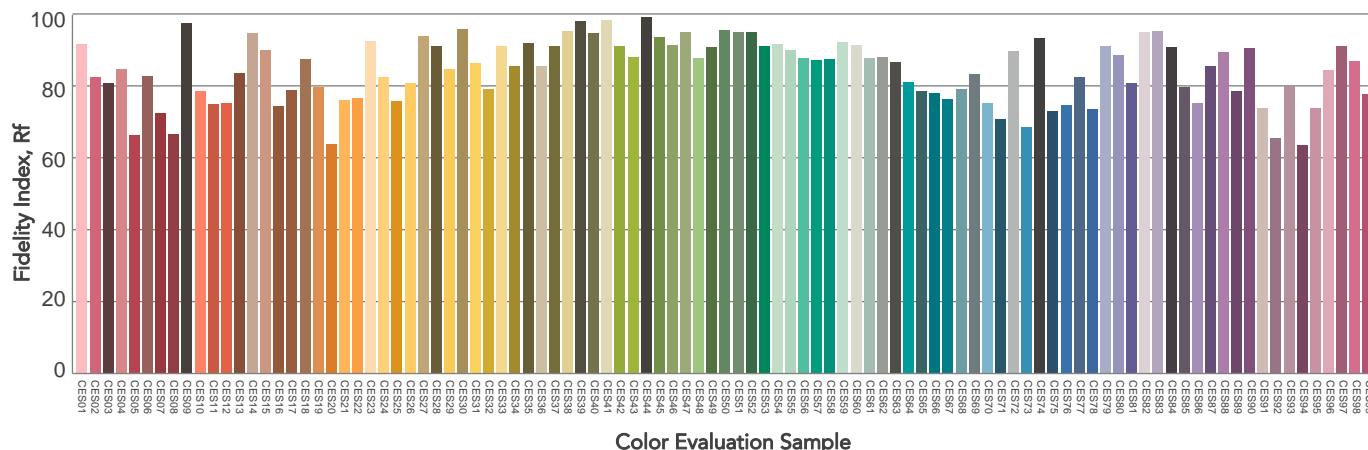
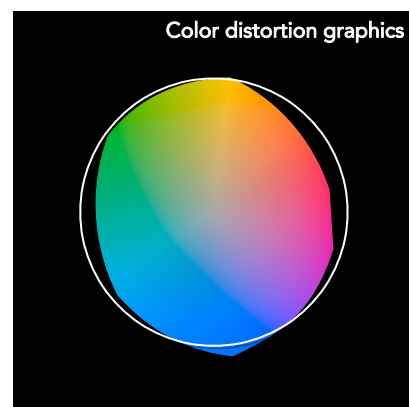
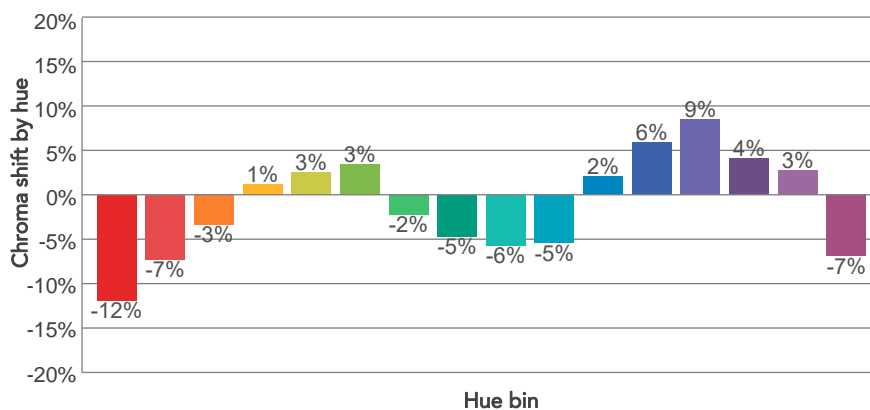
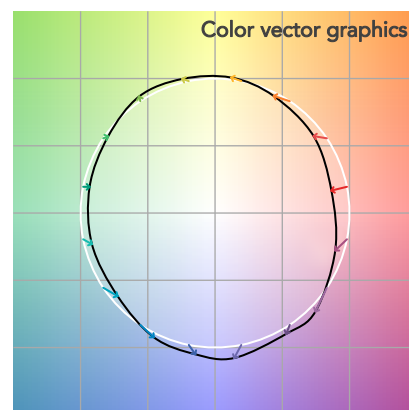
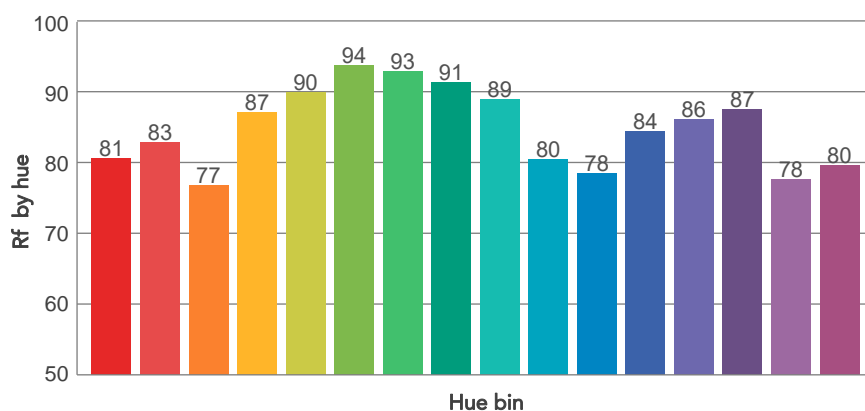
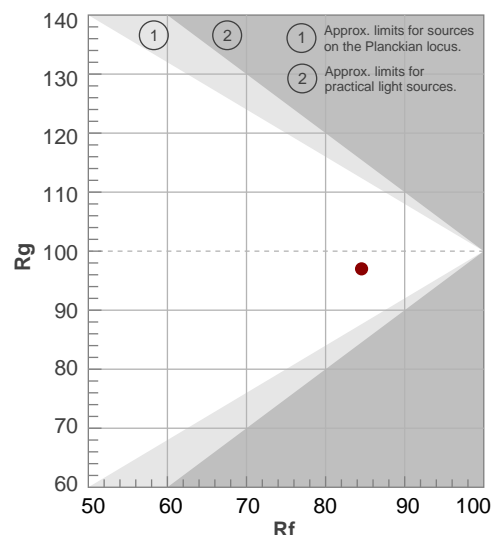


# TM30 DETAILS

**Rf 84,5**  
Fidelity index Rf

**Rg 97,0**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	81	-12%	0%
2	83	-7%	7%
3	77	-3%	12%
4	87	1%	8%
5	90	3%	4%
6	94	3%	-1%
7	93	-2%	-3%
8	91	-5%	-1%
9	89	-6%	5%
10	80	-5%	11%
11	78	2%	13%
12	84	6%	6%
13	86	9%	-7%
14	87	4%	-6%
15	78	3%	-19%
16	80	-7%	-10%

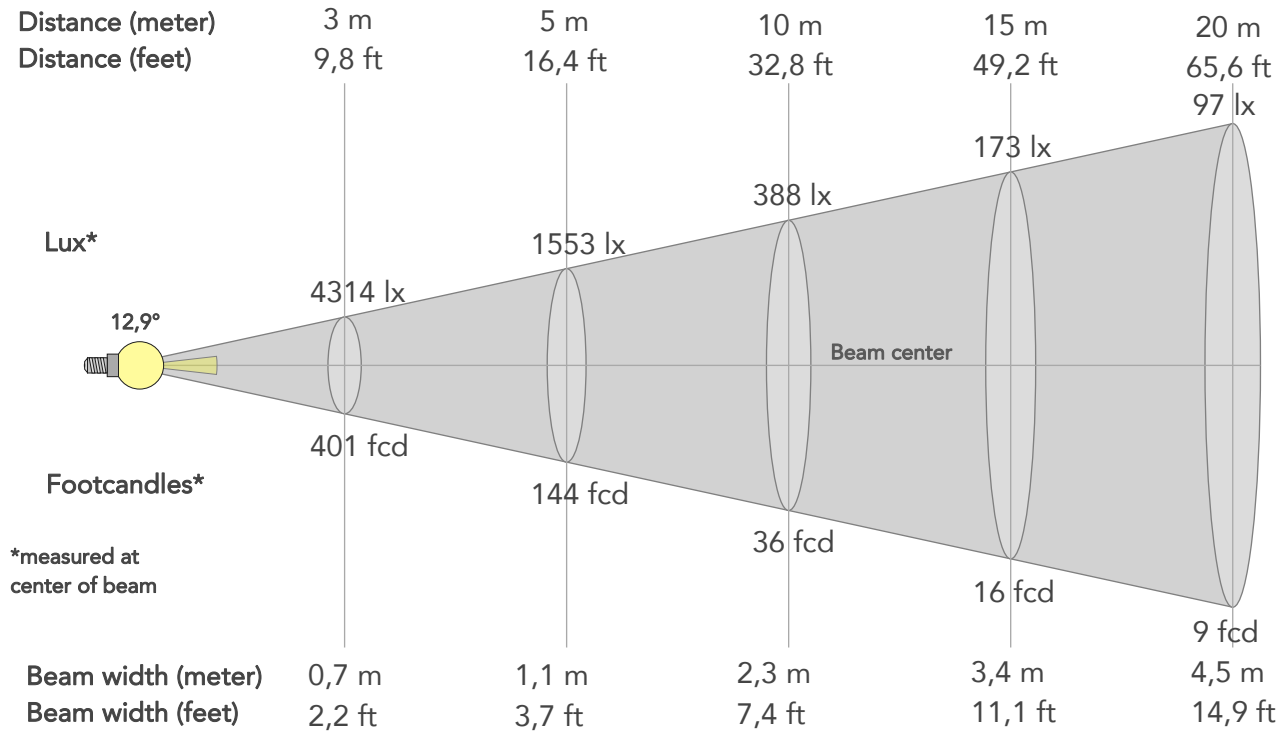




## BEAM DETAILS



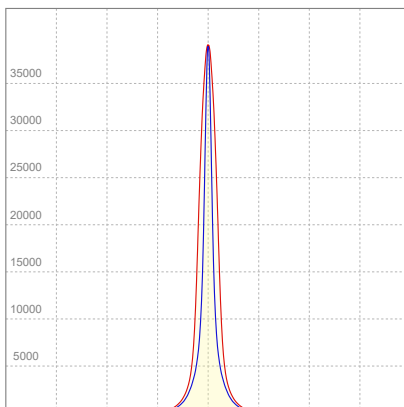
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
12,9°	28,4°	50,5°	100,0%	99,4%



### 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	38829lx	9707lx	4314lx	2427lx	1553lx	690lx	388lx	173lx	97lx	62lx	43lx	24lx	16lx
Footcand.	3607fcd	902fcd	401fcd	225fcd	144fcd	64fcd	36fcd	16fcd	9fcd	6fcd	4fcd	2fcd	1fcd
Beam wid.	0,2m	0,5m	0,7m	0,9m	1,1m	1,7m	2,3m	3,4m	4,5m	5,7m	6,8m	9,1m	11,3m
Beam wid.	0,7ft	1,5ft	2,2ft	3ft	3,7ft	5,6ft	7,4ft	11,1ft	14,9ft	18,6ft	22,3ft	29,7ft	37,1ft

### LINEAR DISTRIBUTION DIAGRAM

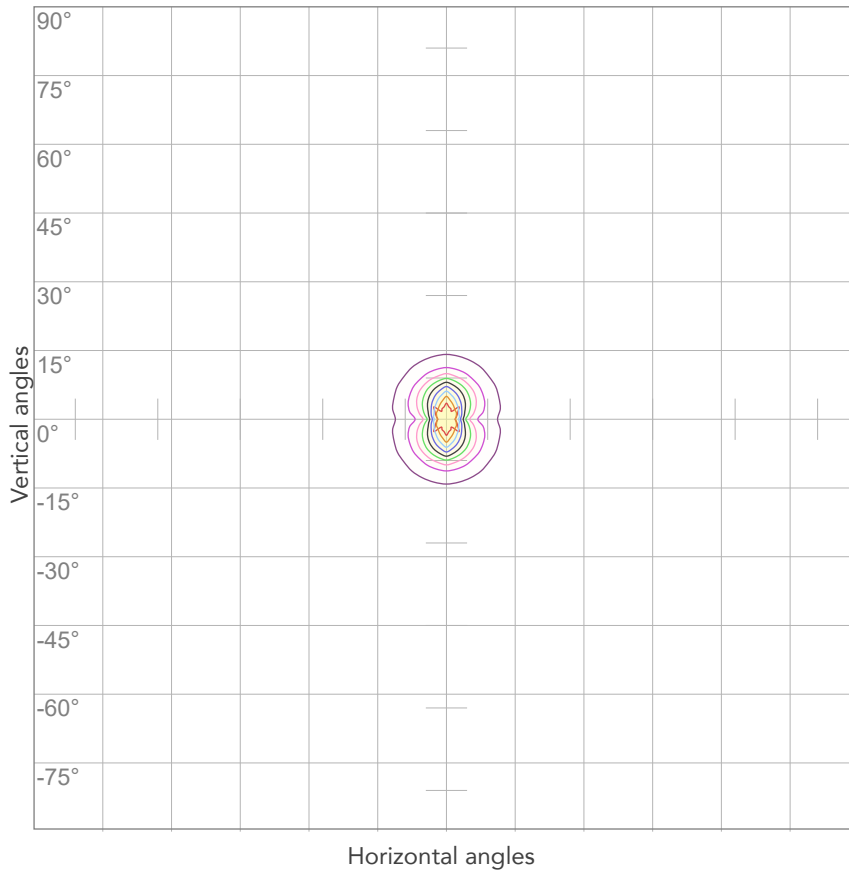


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,358A	75,5W	49lm/W



## ISO CANDELA DIAGRAM



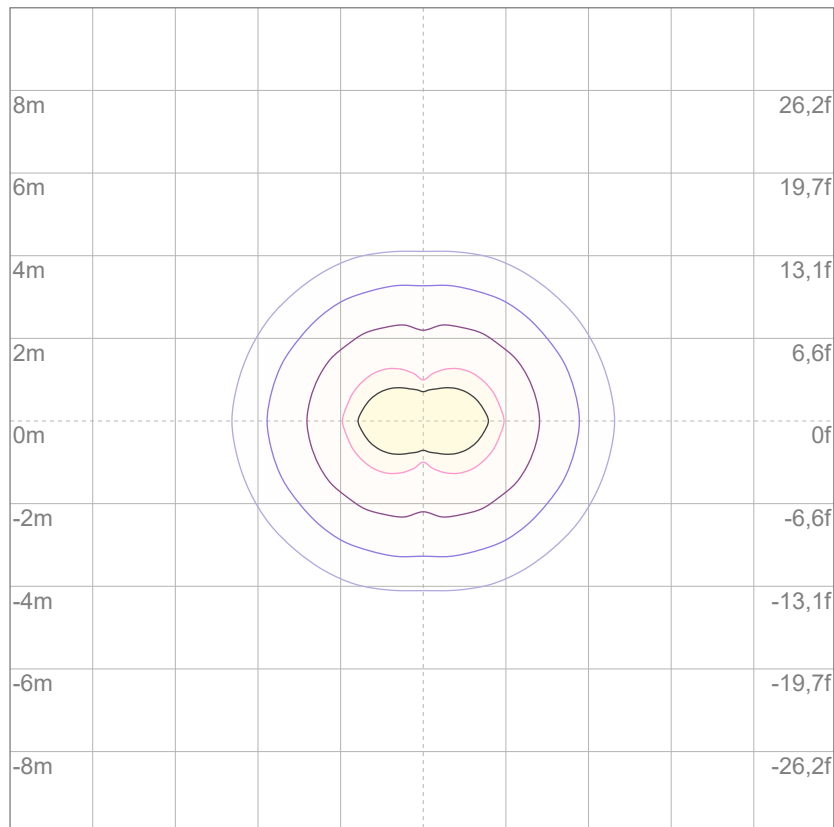
10%	3883 cd
20%	7766 cd
30%	11649 cd
40%	15531 cd
50%	19414 cd
60%	23297 cd
70%	27180 cd
80%	31063 cd

### Conditions:

Number of c-planes: 4

Candela at center: 38829 cd

## ISO LUX DIAGRAM



3%	11,6 lx
5%	19,4 lx
10%	38,8 lx
30%	116 lx
50%	194 lx

### Conditions:

Number of c-planes: 4

Lux at center: 388 lx

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



Total lumen output:

3728 lm

Peak candela output:

9451 cd

Light quality:

CRI: 85,3

Color temperature:

4398 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8° + Filter 20°

Target:

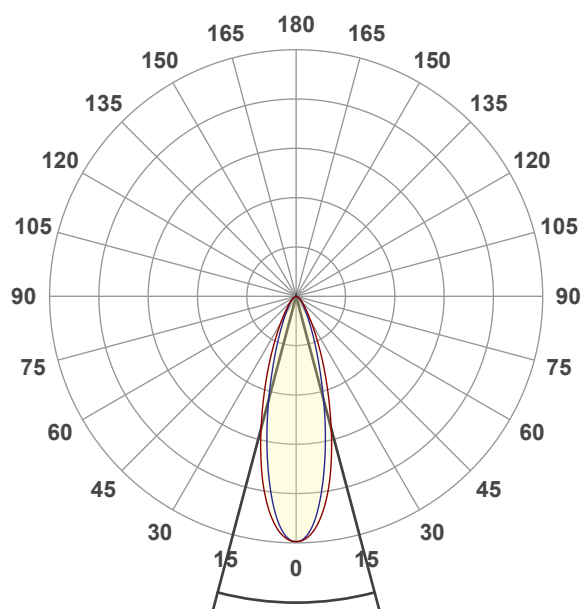
Full on

Operator:

Paolo Carvone

Date and time:

08/09/2022 15:21:52

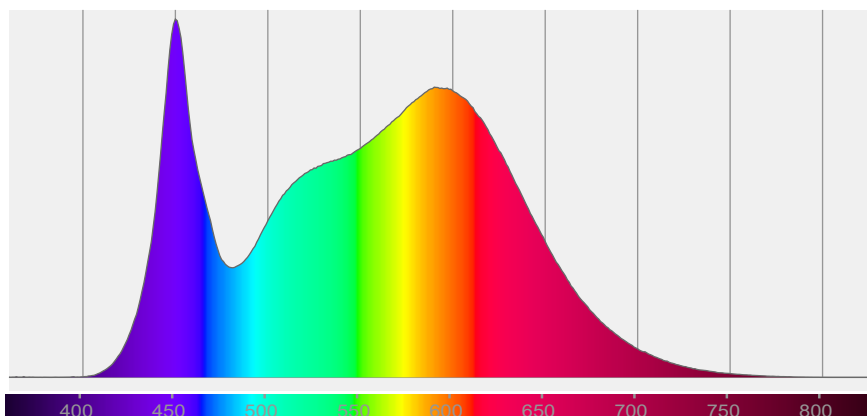


Beam angle 50%: 29,7°

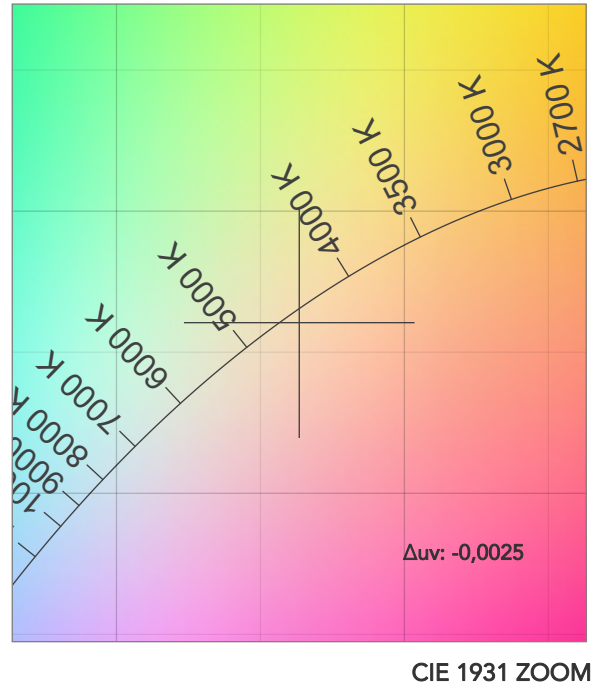
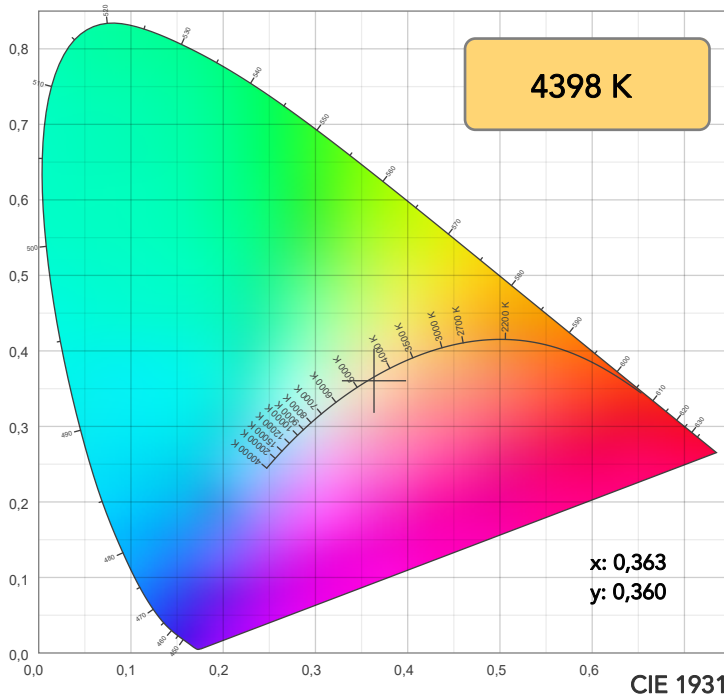
Field angle 10%: 61,2°

Cut off angle 2.5%: 98,3°

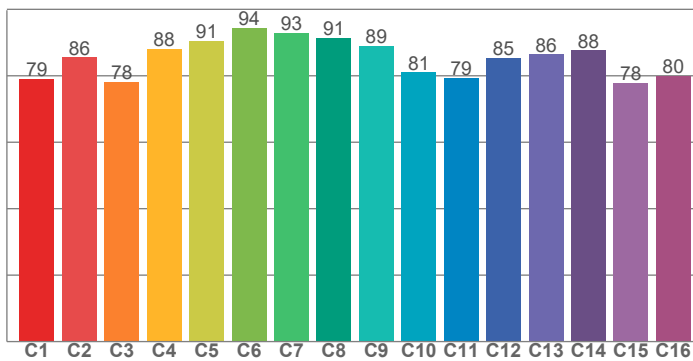
**Spectra**



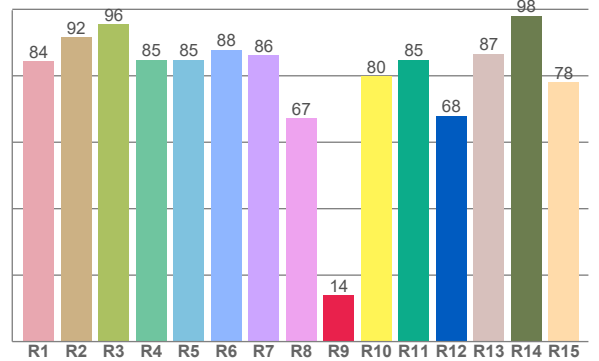




TM30: 85,2



CRI: 85,3 (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
84,4	91,7	95,6	84,8	84,8	87,8	86,2	67,1	13,9	79,8	84,8	68,0	86,7	98,0	78,0

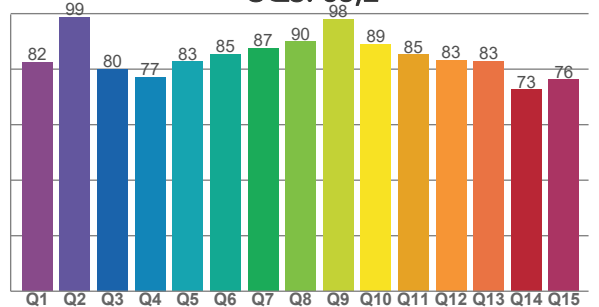
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
79,0	85,6	78,2	88,2	90,5	94,4	93,0	91,4	89,0	81,0	79,3	85,4	86,4	87,7	77,9	80,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82,4	98,7	80,1	77,1	82,7	85,5	87,5	89,9	98,0	89,0	85,2	83,3	82,9	72,6	76,2

CQS: 83,2



## 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
4398 K	85,3	13,9	85,2	96,7	83,2	70	0,363	0,360	-0,0025

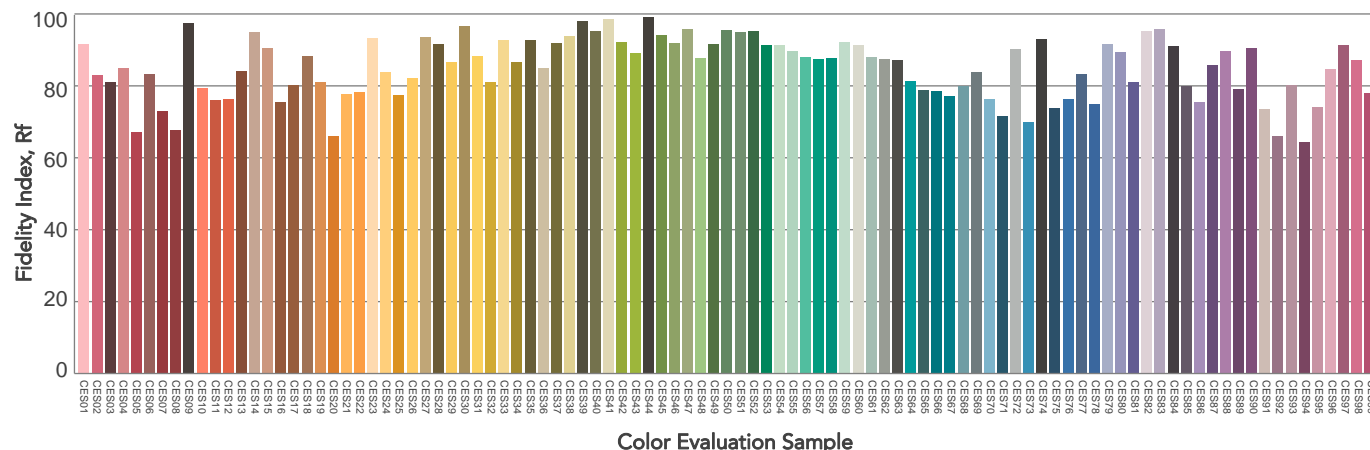
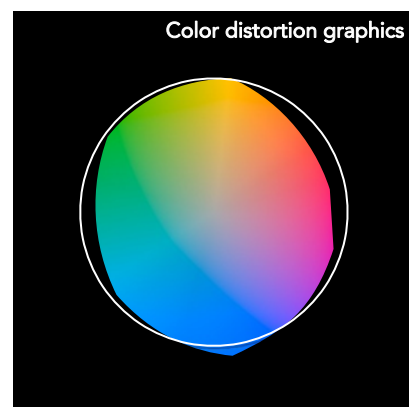
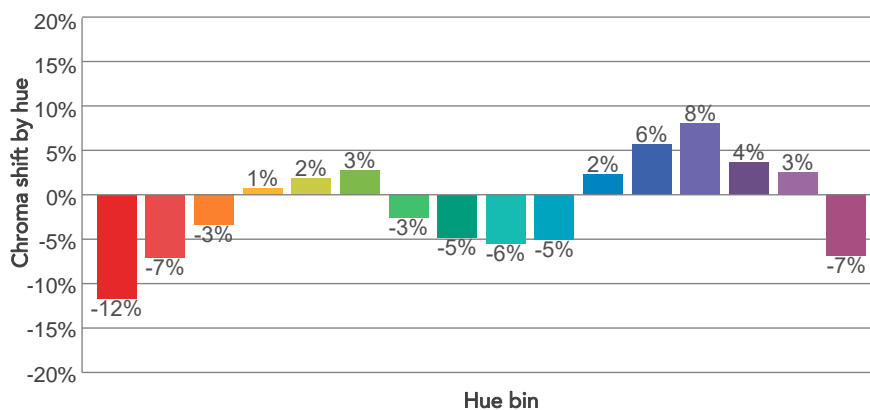
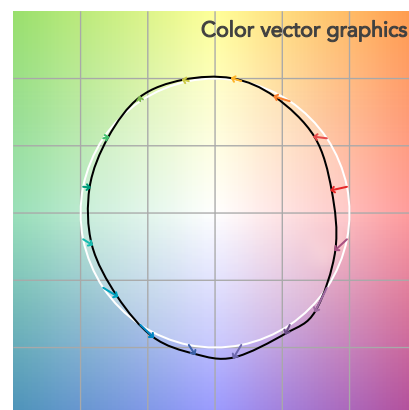
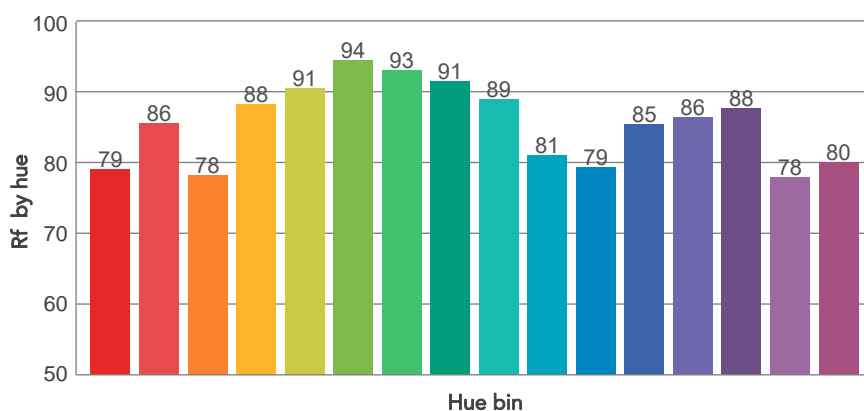
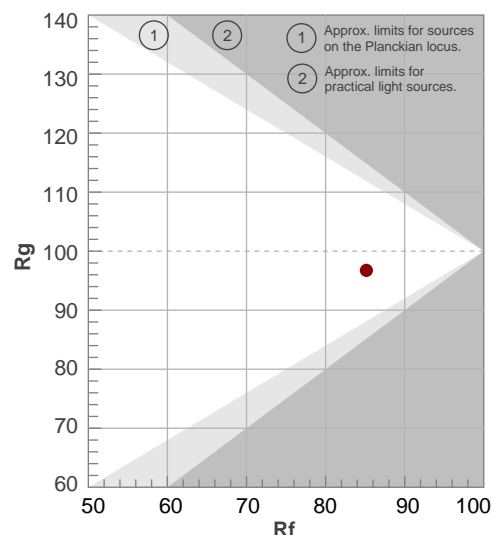


# TM30 DETAILS

**Rf 85,2**  
Fidelity index Rf

**Rg 96,7**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	79	-12%	0%
2	86	-7%	6%
3	78	-3%	11%
4	88	1%	7%
5	91	2%	4%
6	94	3%	-1%
7	93	-3%	-3%
8	91	-5%	0%
9	89	-6%	5%
10	81	-5%	11%
11	79	2%	13%
12	85	6%	5%
13	86	8%	-7%
14	88	4%	-6%
15	78	3%	-19%
16	80	-7%	-10%

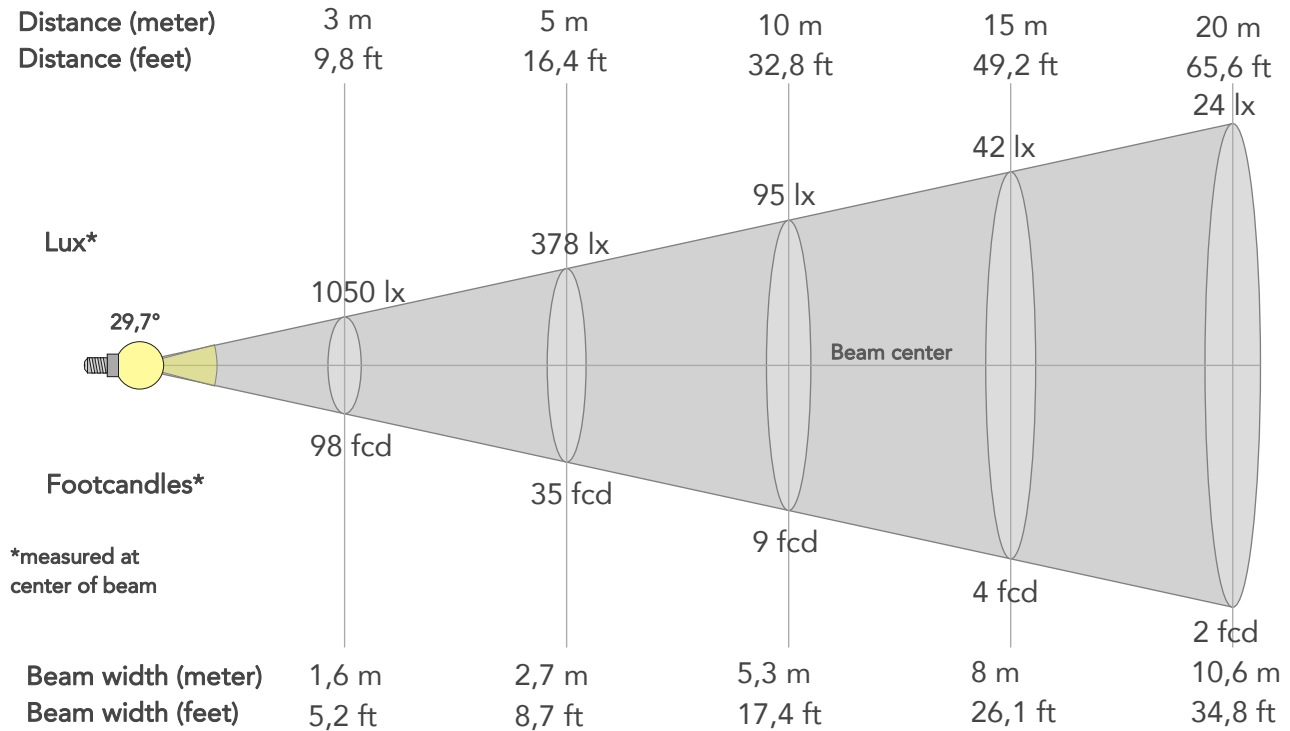




## BEAM DETAILS



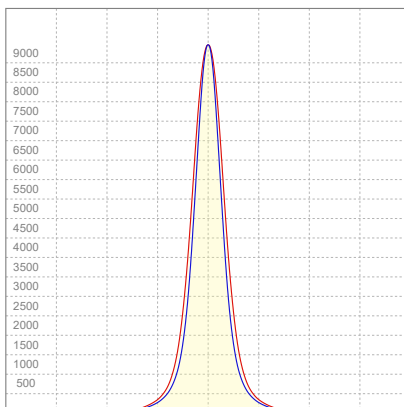
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
29,7°	61,2°	98,3°	97,8%	91,0%



### 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	9451lx	2363lx	1050lx	591lx	378lx	168lx	95lx	42lx	24lx	15lx	11lx	6lx	4lx
Footcand.	878fcd	219fcd	98fcd	55fcd	35fcd	16fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	0,5m	1,1m	1,6m	2,1m	2,7m	4m	5,3m	8m	10,6m	13,3m	15,9m	21,2m	26,5m
Beam wid.	1,7ft	3,5ft	5,2ft	6,9ft	8,7ft	13ft	17,4ft	26,1ft	34,8ft	43,5ft	52,2ft	69,6ft	86,9ft

### LINEAR DISTRIBUTION DIAGRAM

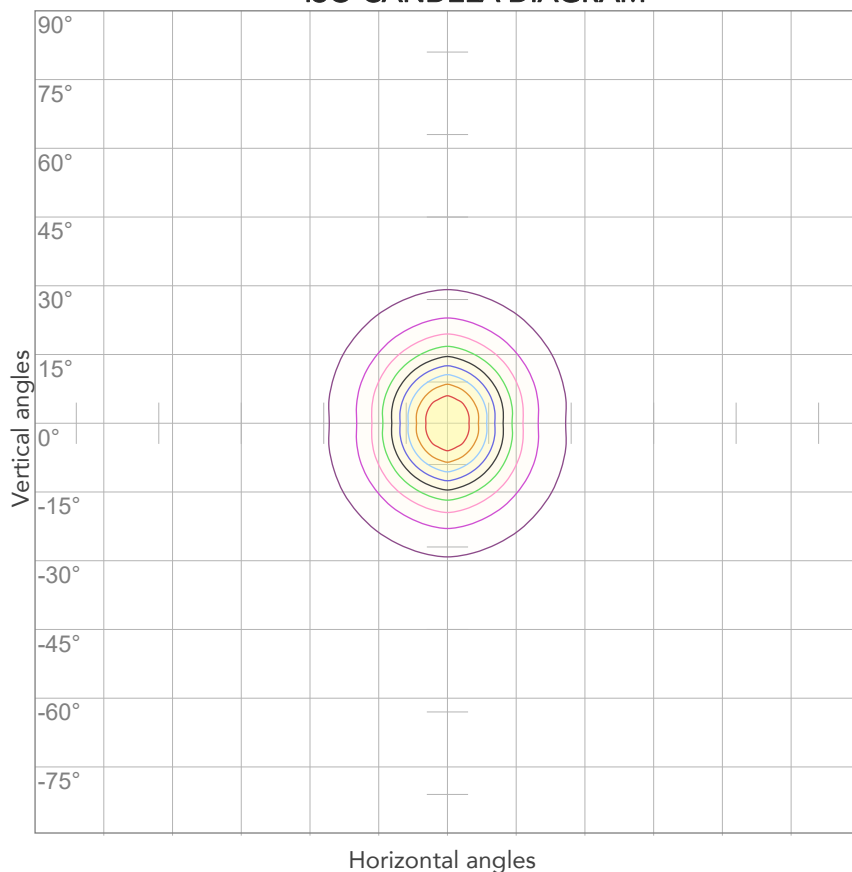


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,358A	75,2W	50lm/W



## ISO CANDELA DIAGRAM



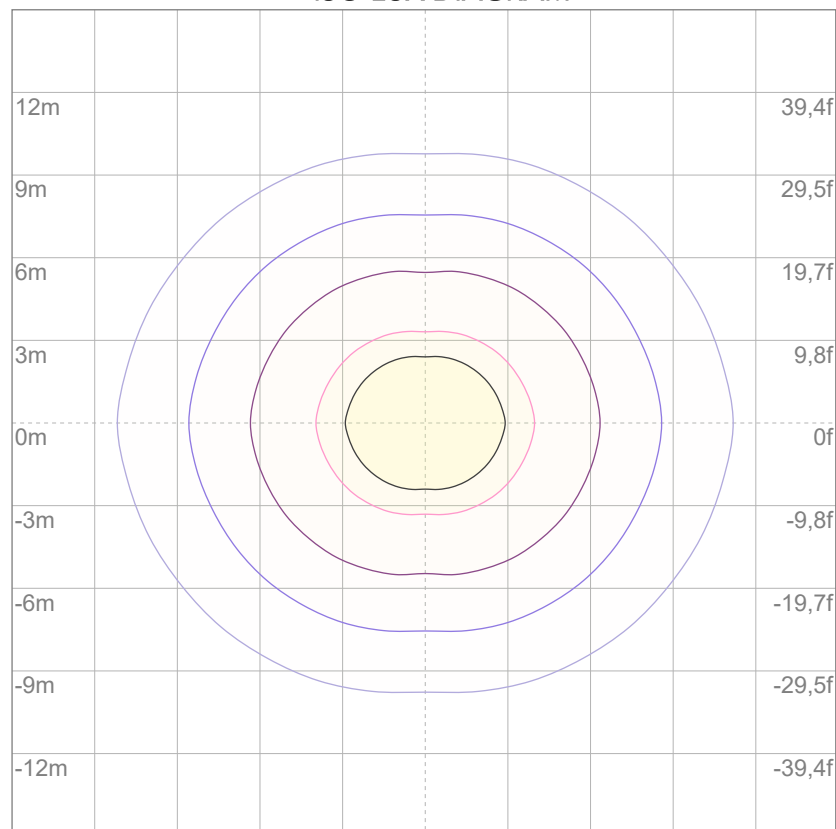
10%	945 cd
20%	1890 cd
30%	2835 cd
40%	3780 cd
50%	4725 cd
60%	5670 cd
70%	6615 cd
80%	7561 cd

### Conditions:

Number of c-planes: 4

Candela at center: 9451 cd

## ISO LUX DIAGRAM



3%	2,84 lx
5%	4,73 lx
10%	9,45 lx
30%	28,4 lx
50%	47,3 lx

### Conditions:

Number of c-planes: 4

Lux at center: 94,5 lx

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



Total lumen output:

3649 lm

Peak candela output:

3903 cd

Light quality:

CRI: 85,4

Color temperature:

4414 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8° + Filter 40°

Target:

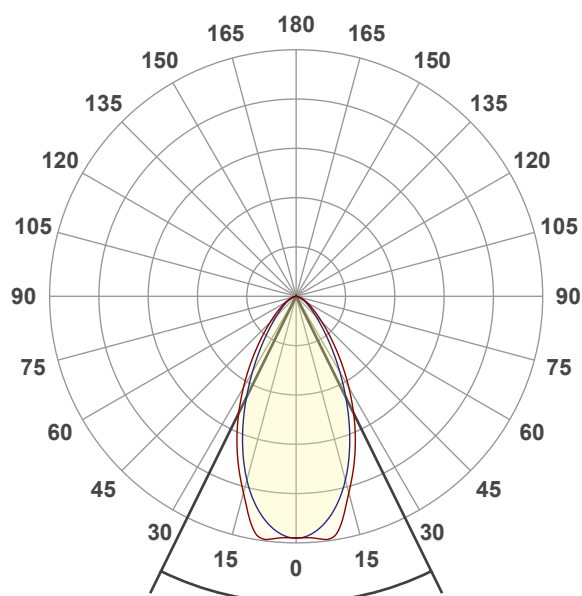
Full on

Operator:

Paolo Carvone

Date and time:

08/09/2022 15:28:07

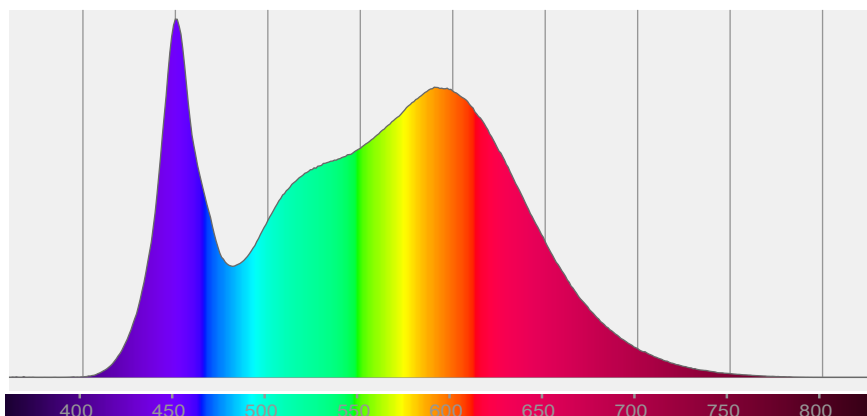


Beam angle 50%: 52,4°

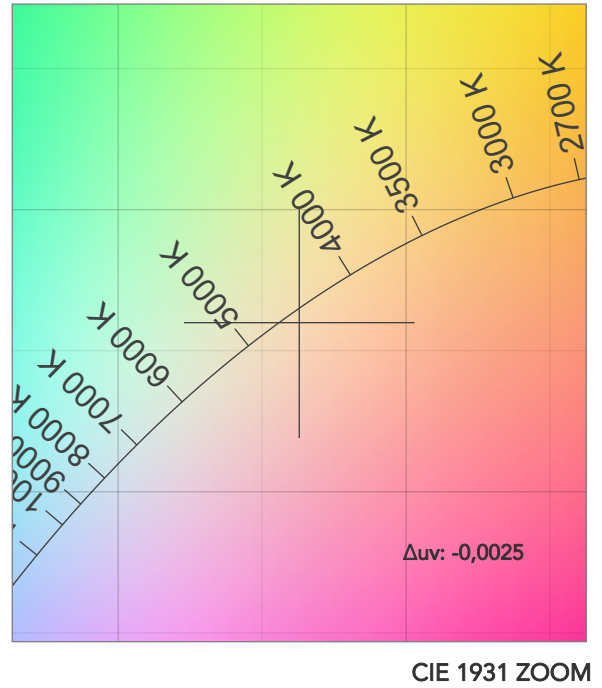
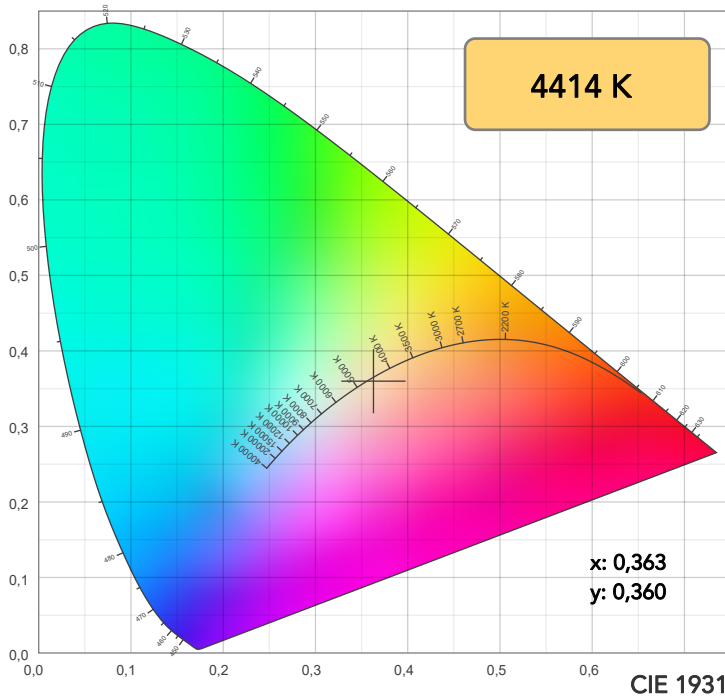
Field angle 10%: 97,4°

Cut off angle 2.5%: 134,5°

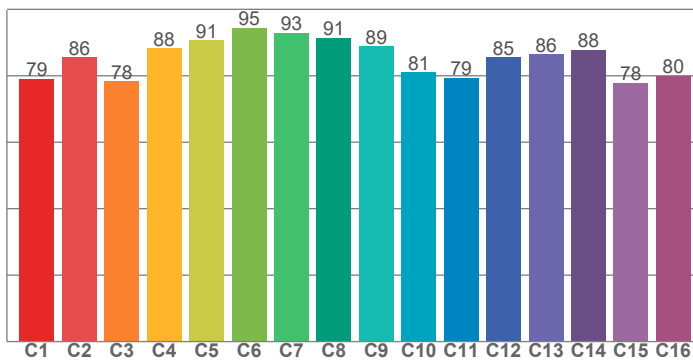
**Spectra**



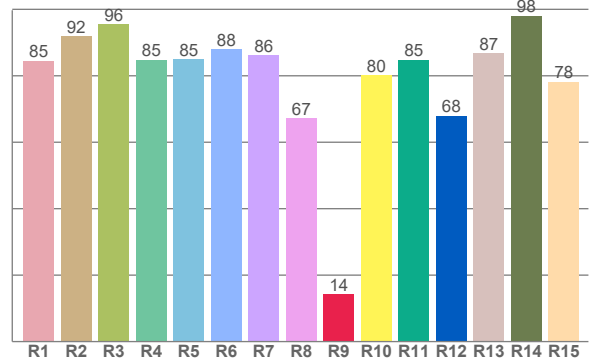




TM30: 85,2



CRI: 85,4 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
84,5	91,8	95,6	84,8	84,9	87,9	86,2	67,3	14,3	80,1	84,8	68,0	86,8	98,1	78,2

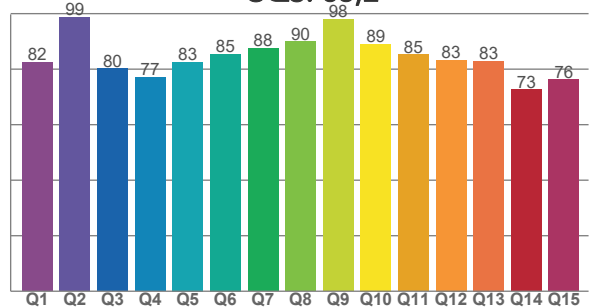
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
79,0	85,6	78,3	88,3	90,6	94,5	93,0	91,4	88,9	81,0	79,4	85,5	86,4	87,7	77,9	80,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82,5	98,7	80,2	77,1	82,6	85,4	87,5	90,0	98,0	89,1	85,2	83,4	82,9	72,7	76,3

CQS: 83,2



## 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	$\Delta uv$
4414 K	85,4	14,3	85,2	96,7	83,2	70	0,363	0,360	-0,0025

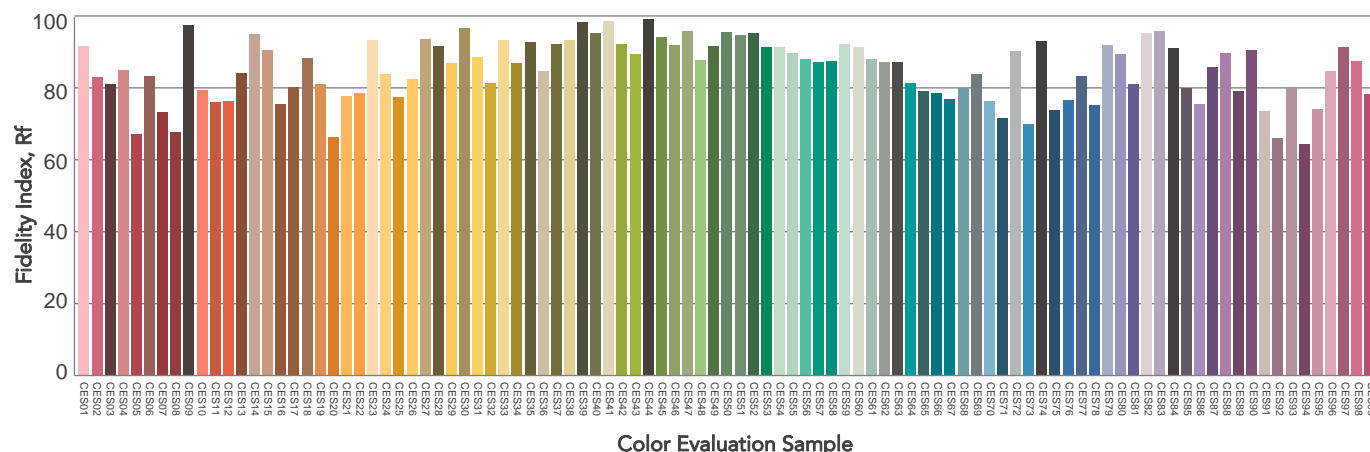
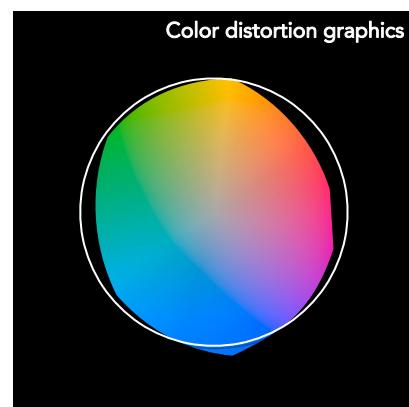
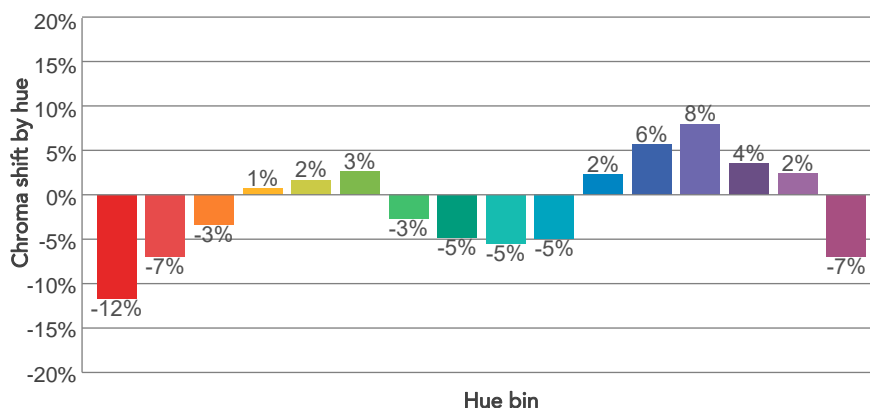
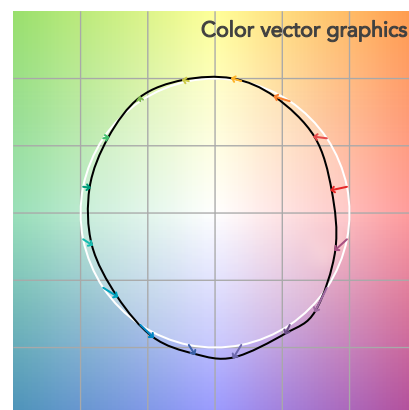
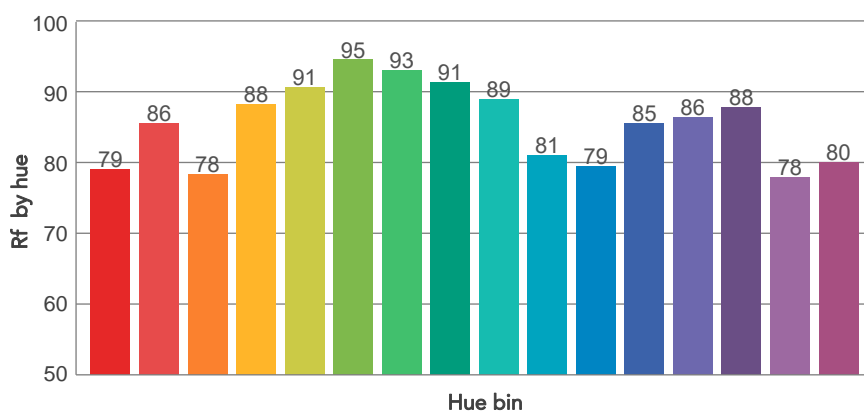
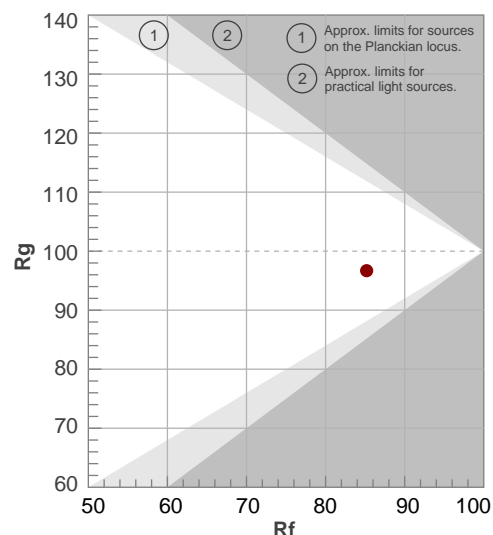


# TM30 DETAILS

**Rf 85,2**  
Fidelity index Rf

**Rg 96,7**  
Gammut index

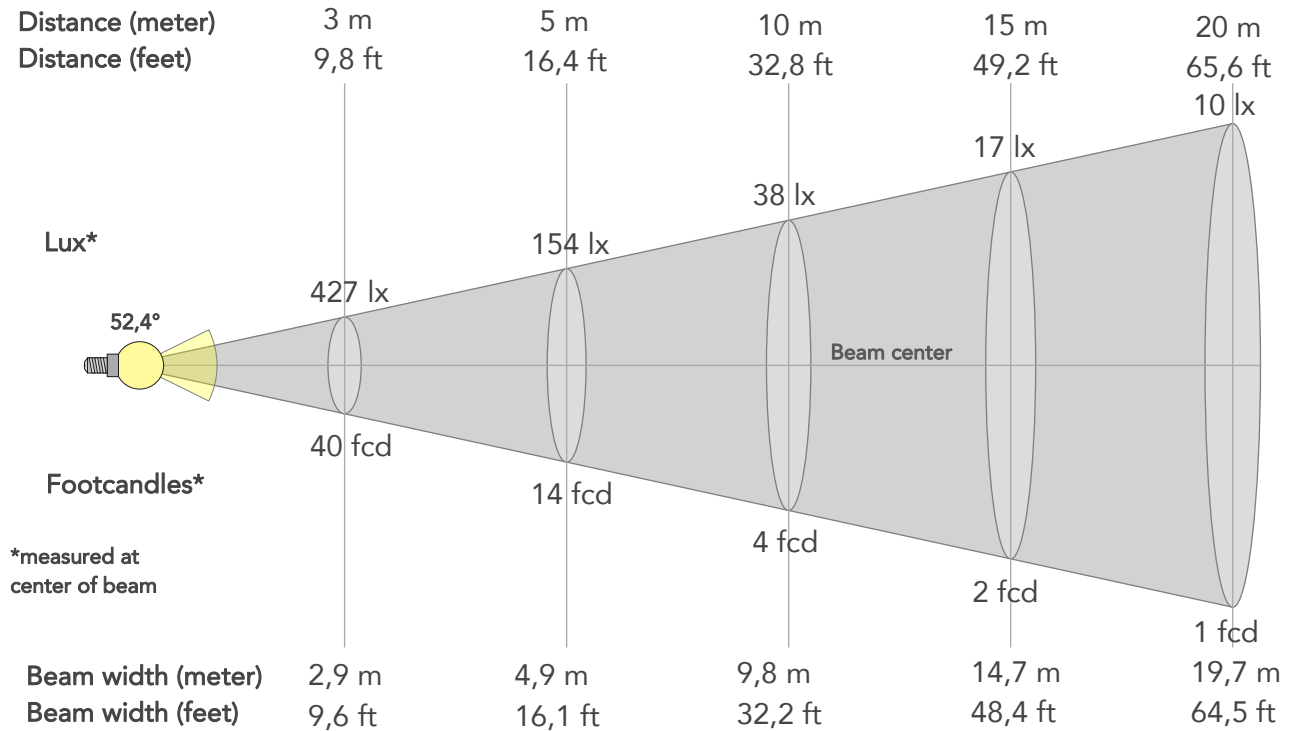
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	79	-12%	0%
2	86	-7%	6%
3	78	-3%	11%
4	88	1%	7%
5	91	2%	4%
6	95	3%	-1%
7	93	-3%	-3%
8	91	-5%	0%
9	89	-5%	5%
10	81	-5%	11%
11	79	2%	13%
12	85	6%	5%
13	86	8%	-7%
14	88	4%	-6%
15	78	2%	-19%
16	80	-7%	-9%





## BEAM DETAILS

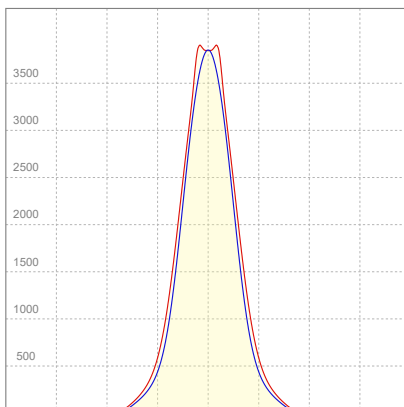
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
52,4°	97,4°	134,5°	95,7%	84,6%



### 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	3847lx	962lx	427lx	240lx	154lx	68lx	38lx	17lx	10lx	6lx	4lx	2lx	2lx
Footcand.	357fcd	89fcd	40fcd	22fcd	14fcd	6fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	1m	2m	2,9m	3,9m	4,9m	7,4m	9,8m	14,7m	19,7m	24,6m	29,5m	39,3m	49,2m
Beam wid.	3,2ft	6,5ft	9,6ft	12,9ft	16,1ft	24,2ft	32,2ft	48,4ft	64,5ft	80,6ft	96,7ft	129ft	161,2ft

### LINEAR DISTRIBUTION DIAGRAM

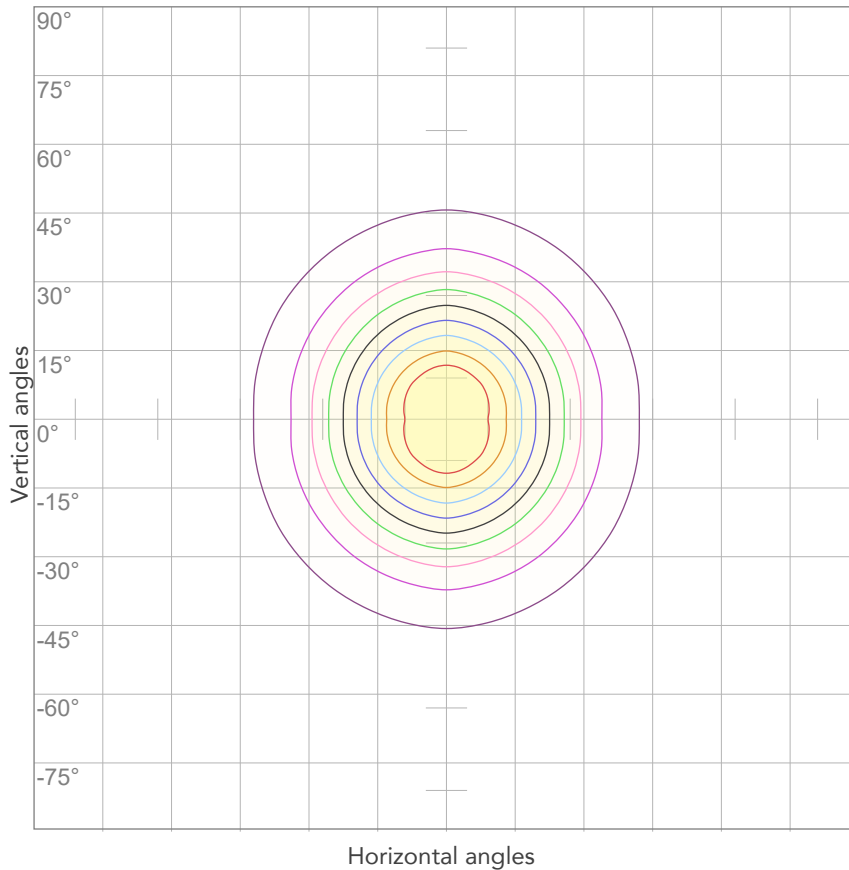


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,355A	74,7W	49lm/W



## ISO CANDELA DIAGRAM



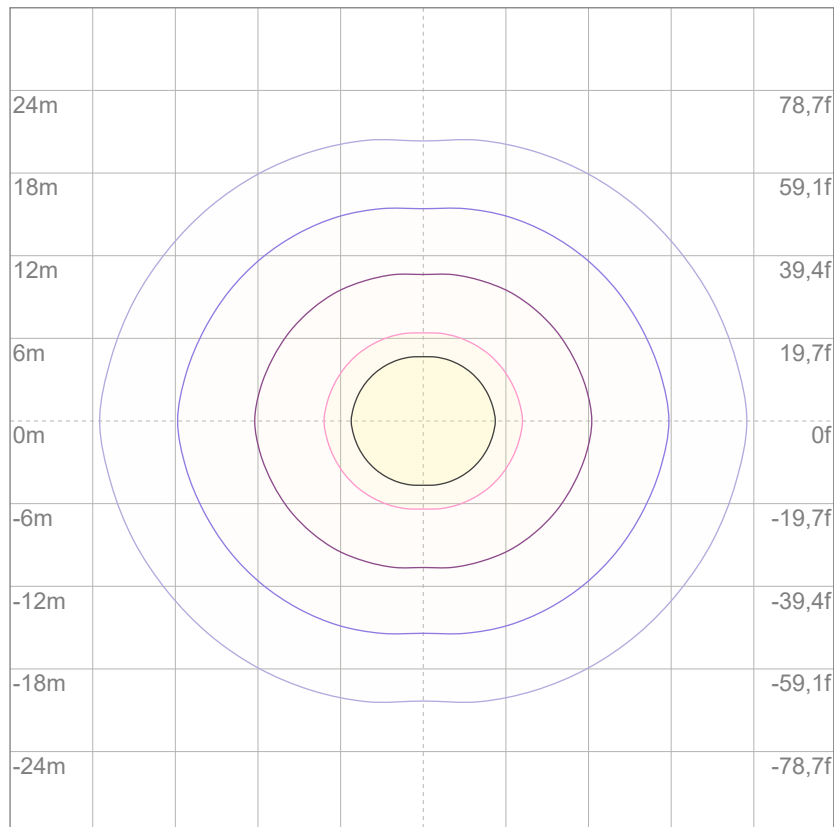
10%	385 cd
20%	769 cd
30%	1154 cd
40%	1539 cd
50%	1924 cd
60%	2308 cd
70%	2693 cd
80%	3078 cd

### Conditions:

Number of c-planes: 4

Candela at center: 3847 cd

## ISO LUX DIAGRAM



3%	1,15 lx
5%	1,92 lx
10%	3,85 lx
30%	11,5 lx
50%	19,2 lx

### Conditions:

Number of c-planes: 4

Lux at center: 38,5 lx

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



Total lumen output:

3627 lm

Peak candela output:

2943 cd

Light quality:

CRI: 85,5

Color temperature:

4432 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8° + Filter 60°

Target:

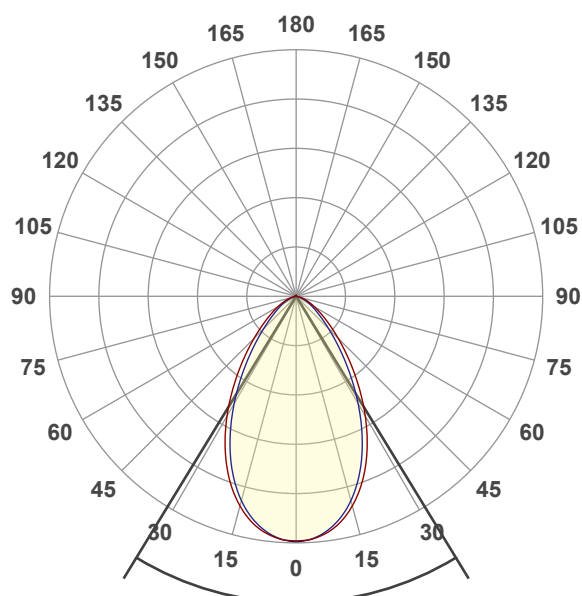
Full on

Operator:

Paolo Carvone

Date and time:

08/09/2022 15:31:56

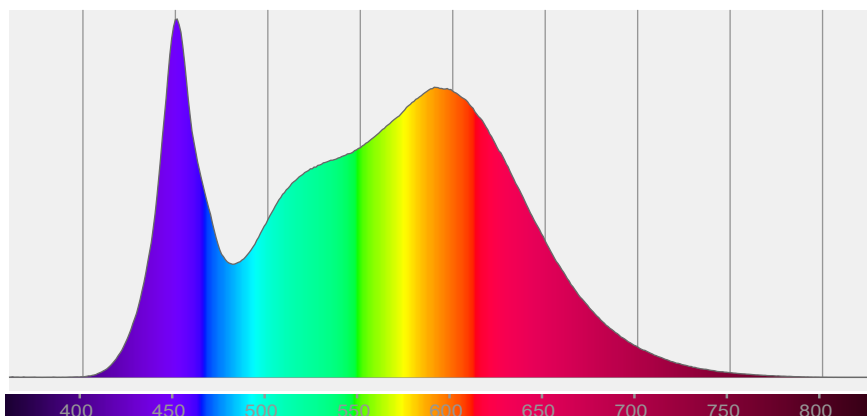


Beam angle 50%: 62,9°

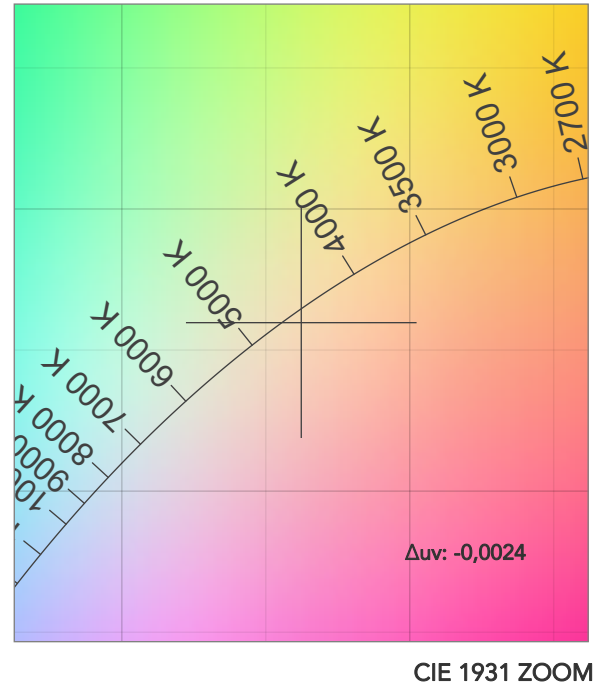
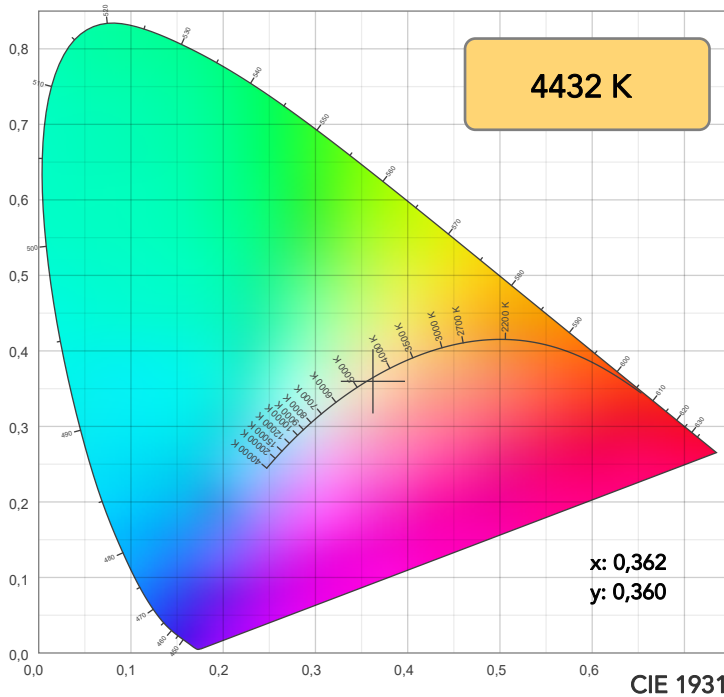
Field angle 10%: 112°

Cut off angle 2.5%: 143,8°

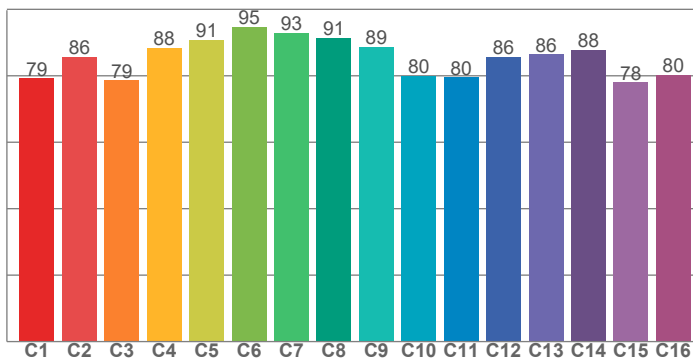
**Spectra**



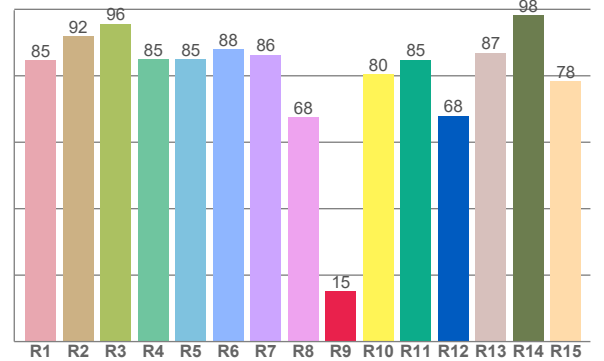




TM30: 85,3



CRI: 85,5 (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
84,7	92,0	95,7	84,9	85,0	88,1	86,3	67,6	15,1	80,4	84,9	68,0	87,0	98,1	78,4

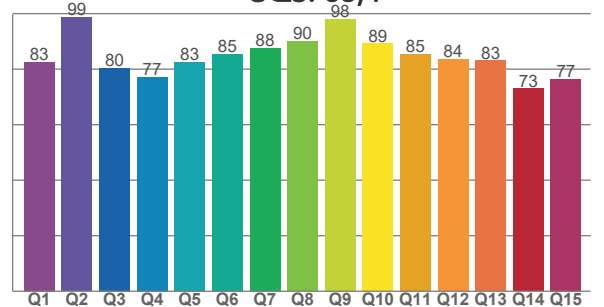
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
79,2	85,7	78,6	88,5	90,8	94,6	93,0	91,4	88,7	80,0	79,6	85,7	86,5	87,8	78,0	80,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82,6	98,7	80,4	77,2	82,6	85,5	87,6	90,1	98,0	89,3	85,4	83,6	83,1	73,0	76,5

CQS: 83,4



## 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
4432 K	85,5	15,1	85,3	96,7	83,4	71	0,362	0,360	-0,0024

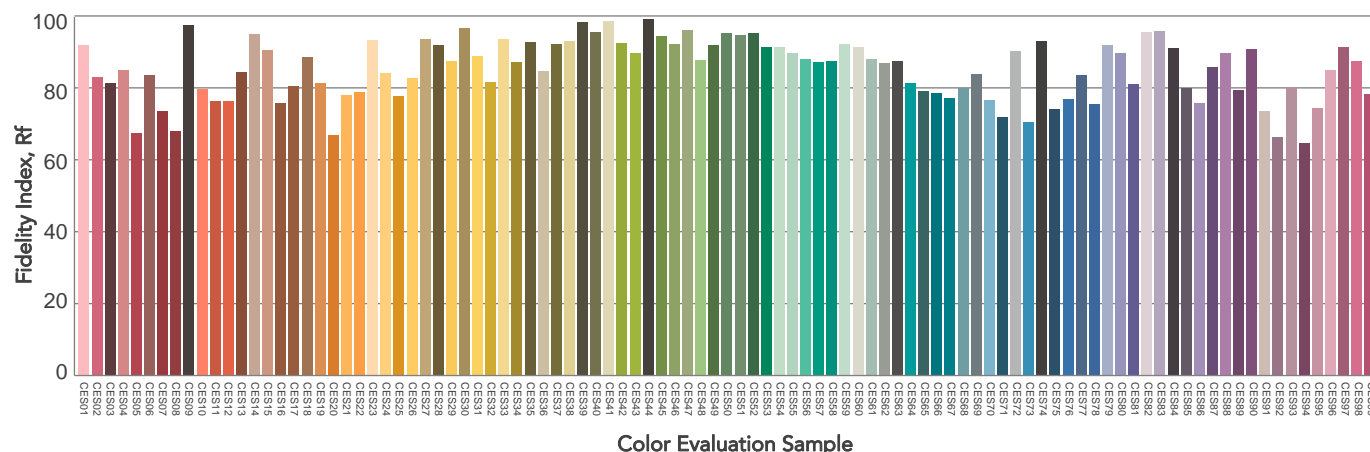
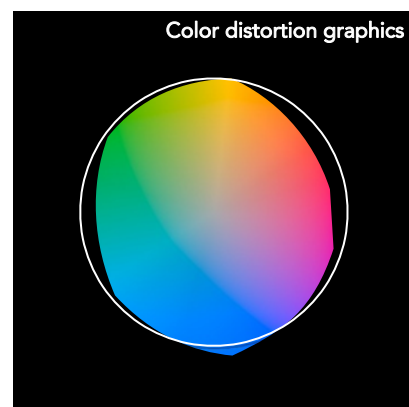
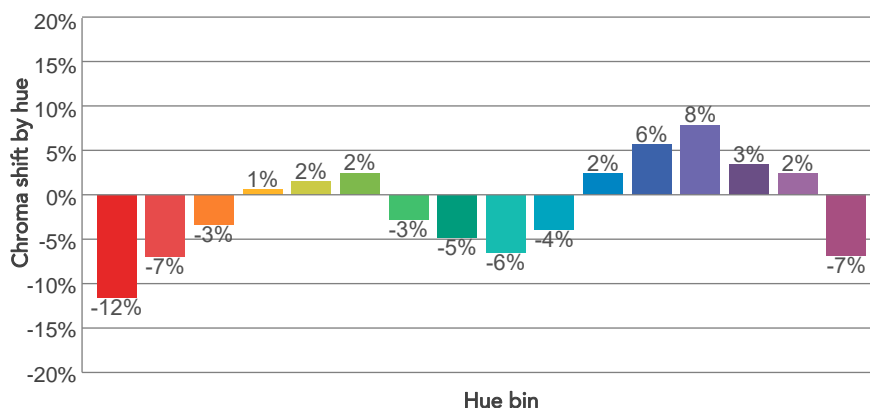
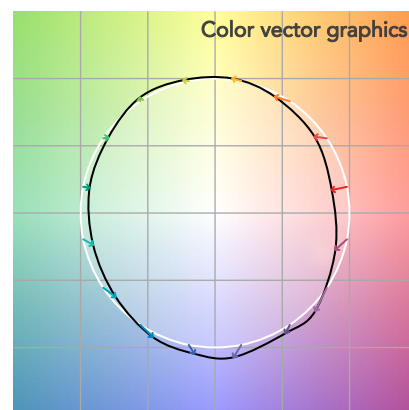
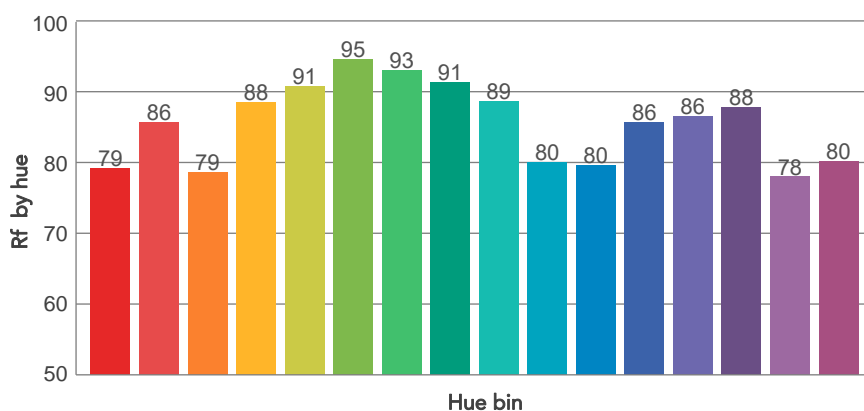
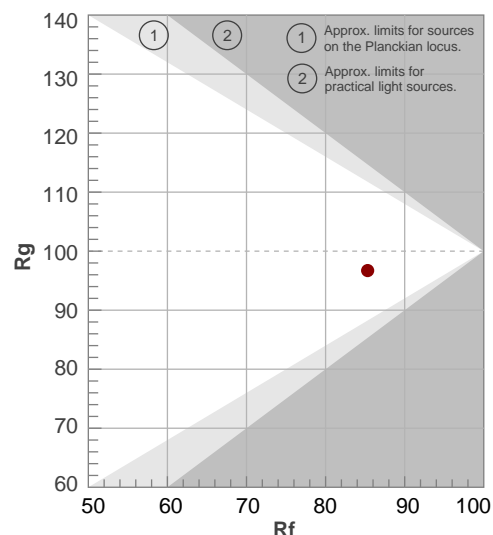


# TM30 DETAILS

**Rf 85,3**  
Fidelity index Rf

**Rg 96,7**  
Gammut index

		Graphic shifts (%)	
Hue Bin	R <sub>f</sub>	Chroma	Hue
1	79	-12%	0%
2	86	-7%	6%
3	79	-3%	11%
4	88	1%	7%
5	91	2%	4%
6	95	2%	-1%
7	93	-3%	-3%
8	91	-5%	0%
9	89	-6%	6%
10	80	-4%	11%
11	80	2%	13%
12	86	6%	5%
13	86	8%	-7%
14	88	3%	-6%
15	78	2%	-19%
16	80	-7%	-9%

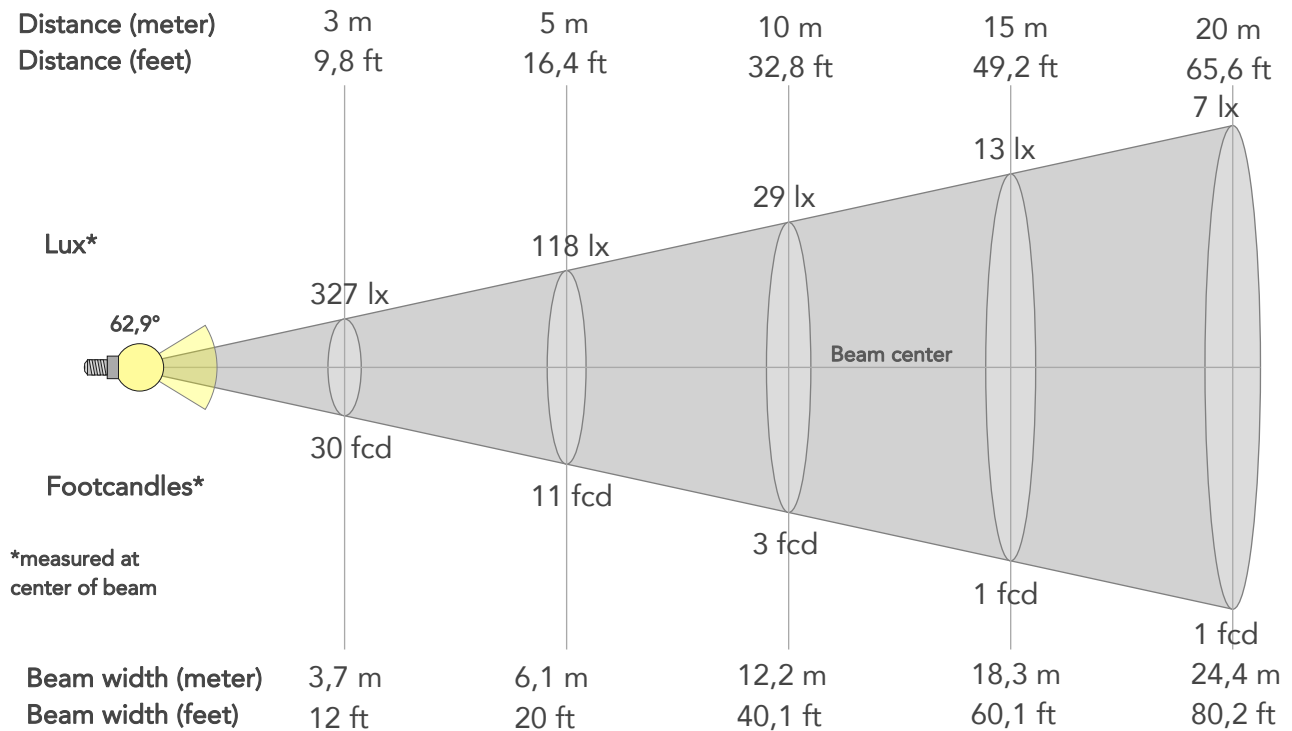




# BEAM DETAILS



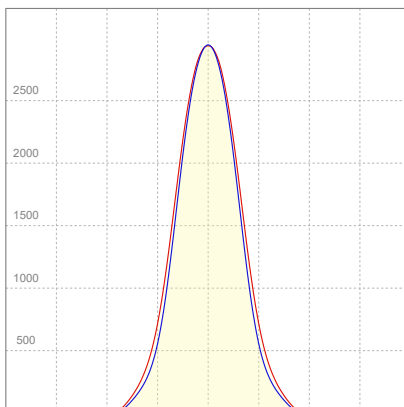
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
62,9°	112°	143,8°	94,3%	80,4%



## 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	2940lx	735lx	327lx	184lx	118lx	52lx	29lx	13lx	7lx	5lx	3lx	2lx	1lx
Footcand.	273fcd	68fcd	30fcd	17fcd	11fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,2m	2,4m	3,7m	4,9m	6,1m	9,2m	12,2m	18,3m	24,4m	30,6m	36,7m	48,9m	61,1m
Beam wid.	4ft	8,1ft	12ft	16ft	20ft	30,1ft	40,1ft	60,1ft	80,2ft	100,2ft	120,3ft	160,4ft	200,5ft

## LINEAR DISTRIBUTION DIAGRAM

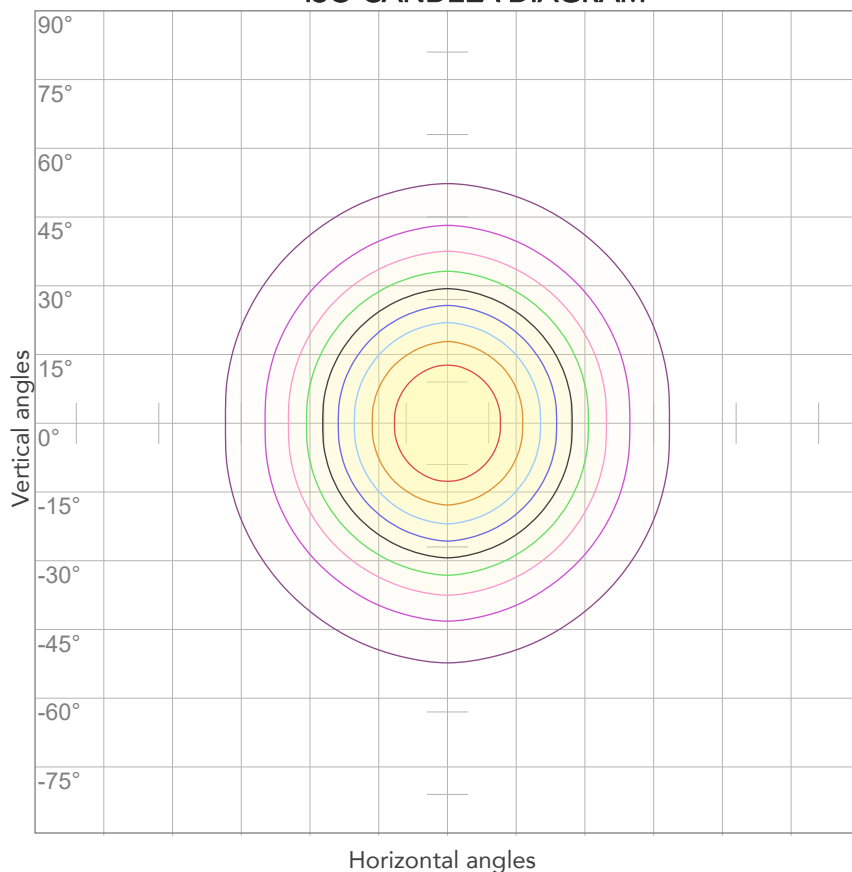


## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,353A	74,4W	49lm/W



## ISO CANDELA DIAGRAM



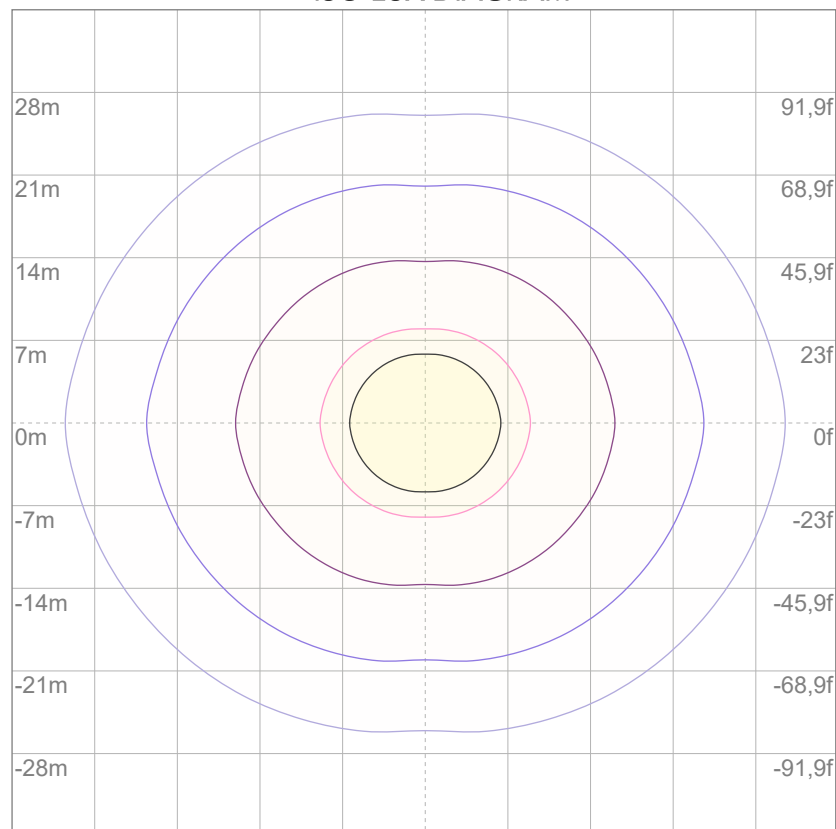
10%	294 cd
20%	588 cd
30%	882 cd
40%	1176 cd
50%	1470 cd
60%	1764 cd
70%	2058 cd
80%	2352 cd

### Conditions:

Number of c-planes: 4

Candela at center: 2940 cd

## ISO LUX DIAGRAM



3%	0,882 lx
5%	1,47 lx
10%	2,94 lx
30%	8,82 lx
50%	14,7 lx

### Conditions:

Number of c-planes: 4

Lux at center: 29,4 lx

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



Total lumen output:

5404 lm

Peak candela output:

6973 cd

Light quality:

CRI: 85,7

Color temperature:

4455 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8° + Filter 10°x60°

Target:

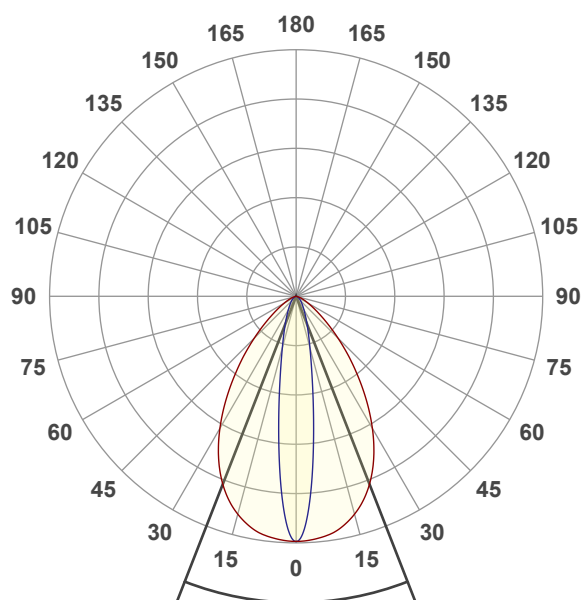
Full on

Operator:

Paolo Carvone

Date and time:

08/09/2022 15:43:13

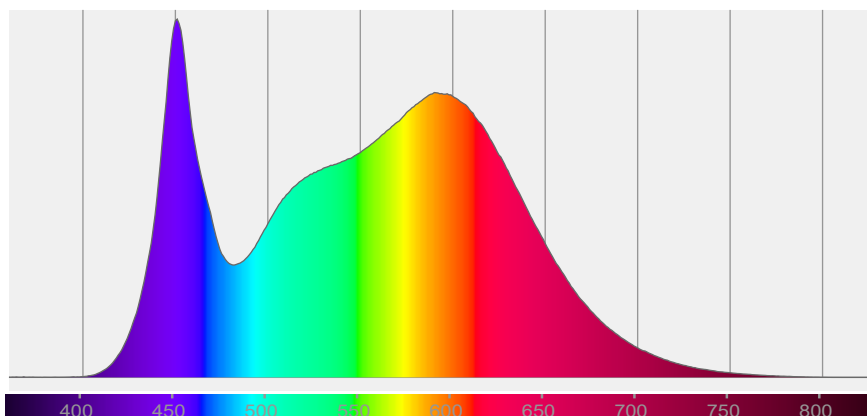


Beam angle 50%: 42,7°

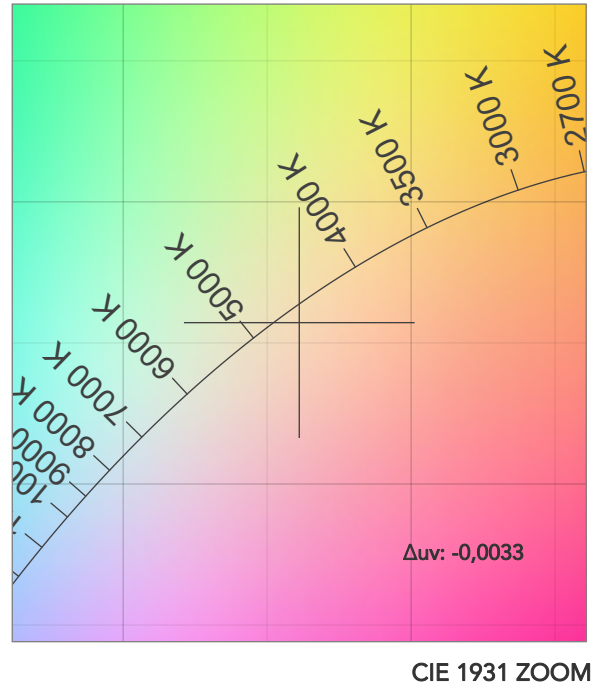
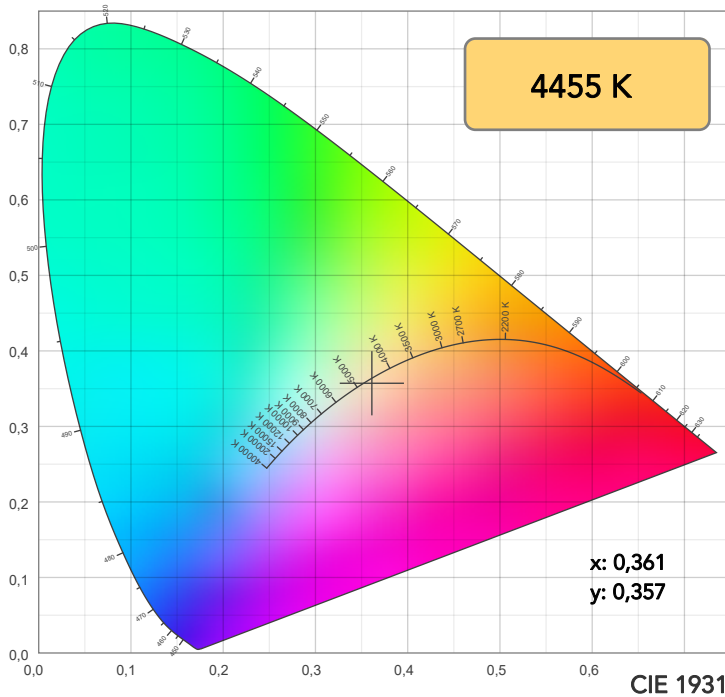
Field angle 10%: 78,4°

Cut off angle 2.5%: 113,8°

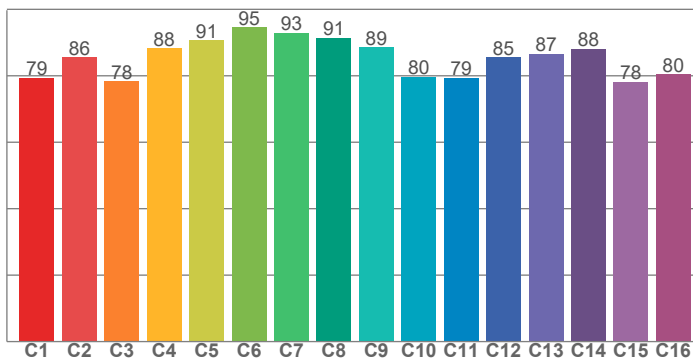
**Spectra**



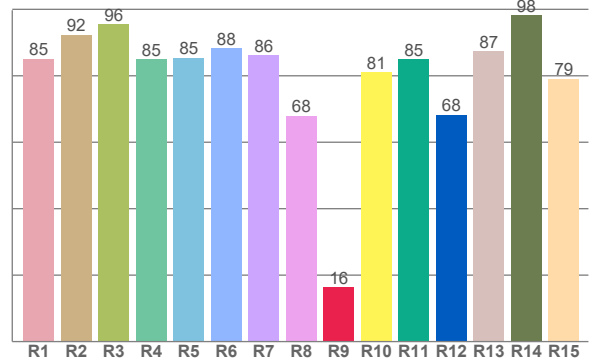




TM30: 85,2



CRI: 85,7 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
85,1	92,3	95,6	85,0	85,4	88,2	86,2	68,0	16,4	81,0	84,9	68,3	87,4	98,1	79,1

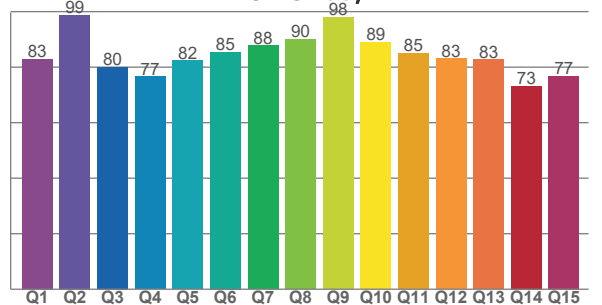
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
79,3	85,6	78,3	88,2	90,6	94,5	92,9	91,4	88,6	79,8	79,3	85,5	86,6	88,1	78,2	80,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82,9	98,7	80,0	76,6	82,3	85,4	87,7	90,1	98,0	89,0	85,0	83,1	82,8	73,2	76,7

CQS: 83,2



## 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	$\Delta uv$
4455 K	85,7	16,4	85,2	96,9	83,2	71	0,361	0,357	-0,0033

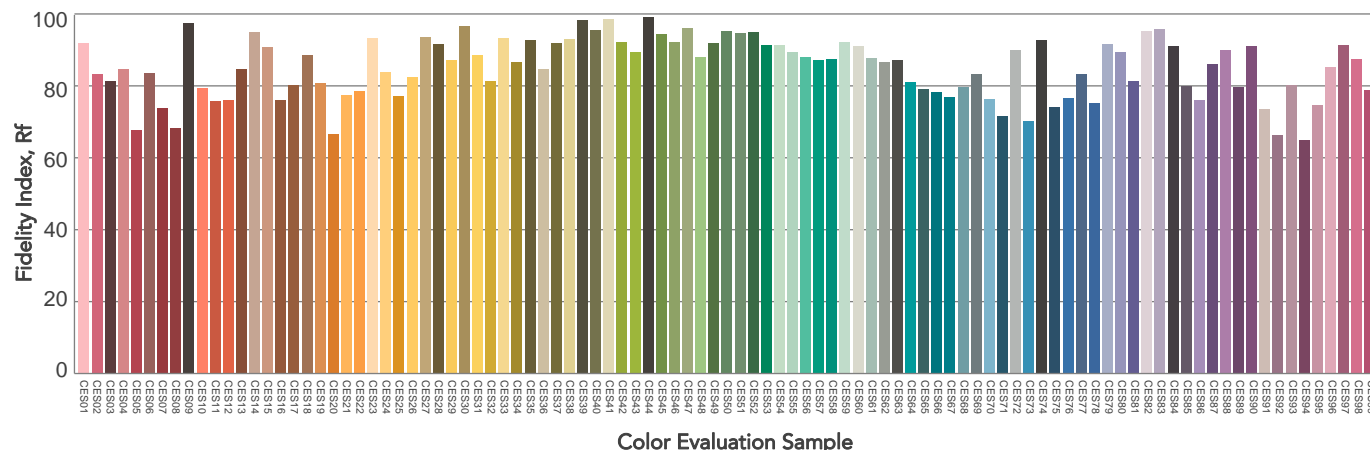
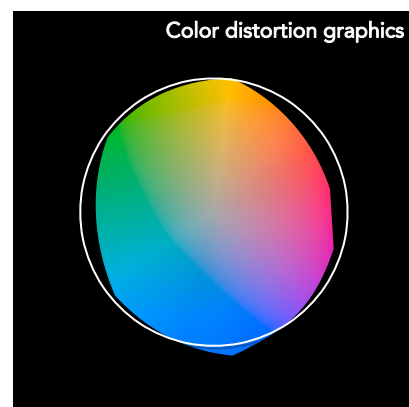
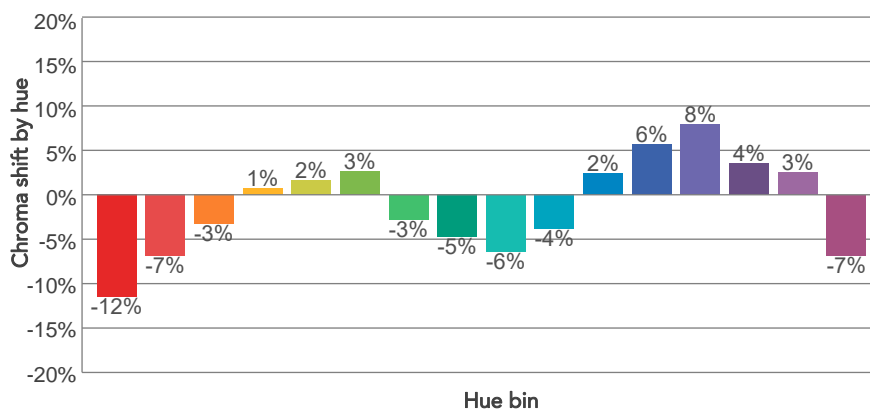
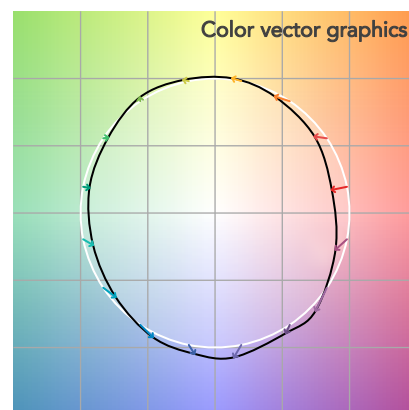
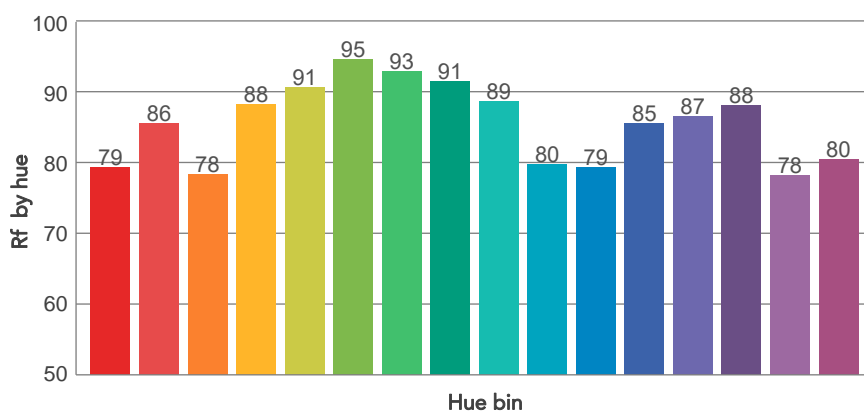
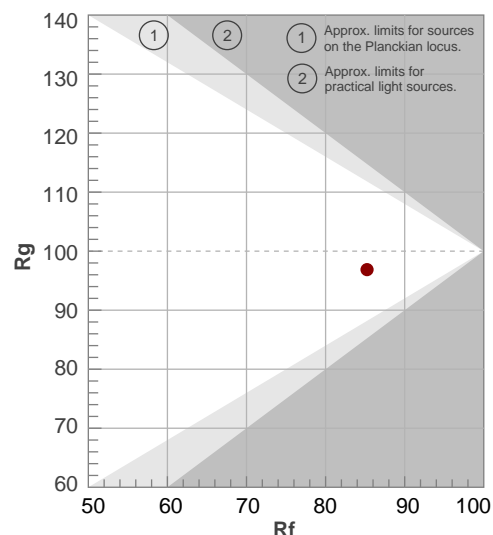


# TM30 DETAILS

**Rf 85,2**  
Fidelity index Rf

**Rg 96,9**  
Gammut index

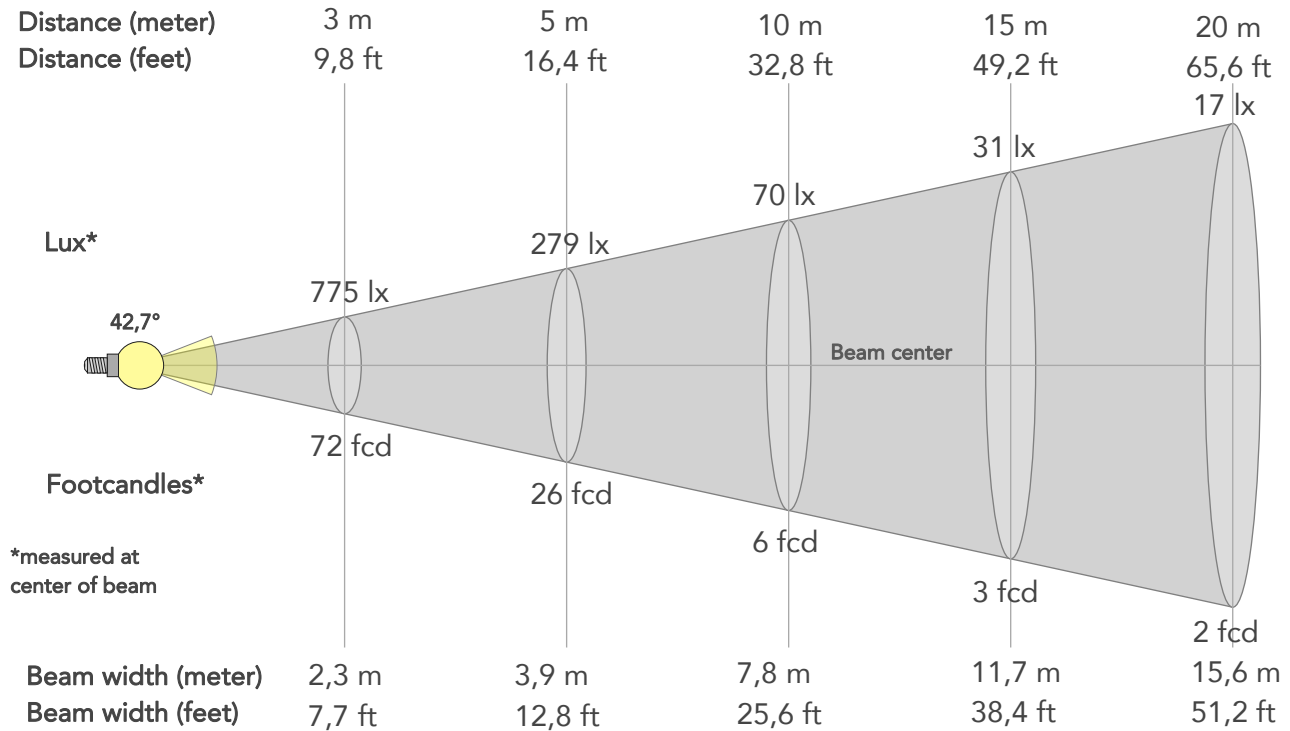
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	79	-12%	0%
2	86	-7%	6%
3	78	-3%	11%
4	88	1%	7%
5	91	2%	4%
6	95	3%	-1%
7	93	-3%	-3%
8	91	-5%	0%
9	89	-6%	6%
10	80	-4%	11%
11	79	2%	13%
12	85	6%	5%
13	87	8%	-7%
14	88	4%	-6%
15	78	3%	-19%
16	80	-7%	-9%





## BEAM DETAILS

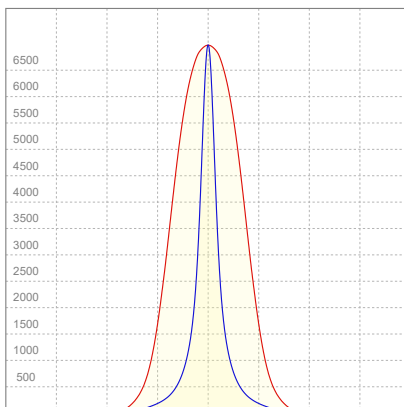
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
42,7°	78,4°	113,8°	96,6%	84,4%



### 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	6973lx	1743lx	775lx	436lx	279lx	124lx	70lx	31lx	17lx	11lx	8lx	4lx	3lx
Footcand.	648fcd	162fcd	72fcd	40fcd	26fcd	12fcd	6fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,8m	1,6m	2,3m	3,1m	3,9m	5,9m	7,8m	11,7m	15,6m	19,5m	23,4m	31,2m	39m
Beam wid.	2,6ft	5,2ft	7,7ft	10,2ft	12,8ft	19,2ft	25,6ft	38,4ft	51,2ft	64ft	76,8ft	102,5ft	128,1ft

### LINEAR DISTRIBUTION DIAGRAM

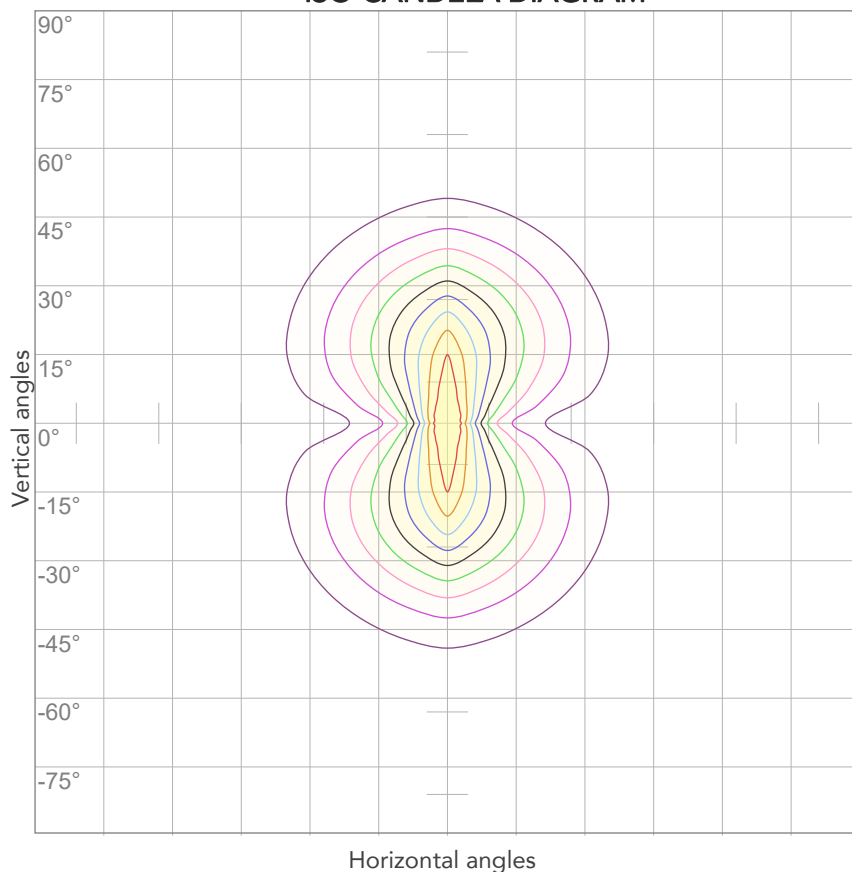


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,354A	74,1W	73lm/W



## ISO CANDELA DIAGRAM



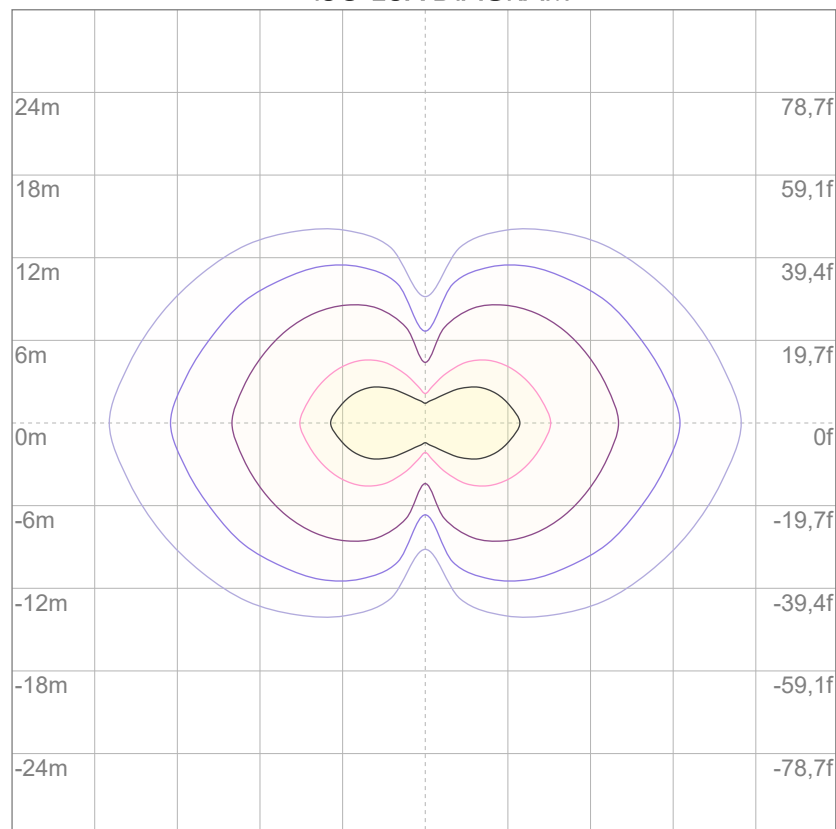
10%	697 cd
20%	1395 cd
30%	2092 cd
40%	2789 cd
50%	3486 cd
60%	4184 cd
70%	4881 cd
80%	5578 cd

### Conditions:

Number of c-planes: 4

Candela at center: 6973 cd

## ISO LUX DIAGRAM



3%	2,09 lx
5%	3,49 lx
10%	6,97 lx
30%	20,9 lx
50%	34,9 lx

### Conditions:

Number of c-planes: 4

Lux at center: 69,7 lx

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



Total lumen output:

3942 lm

Peak candela output:

3849 cd

Light quality:

CRI: 85,5

Color temperature:

4423 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8° + Filter 30°x60°

Target:

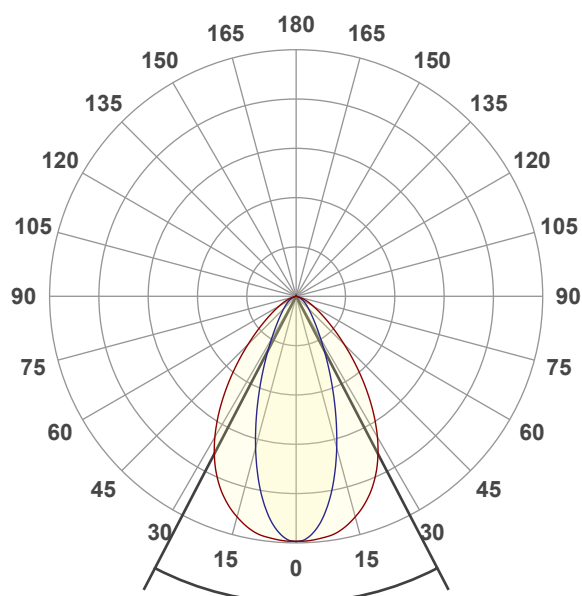
Full on

Operator:

Paolo Carvone

Date and time:

08/09/2022 15:39:47

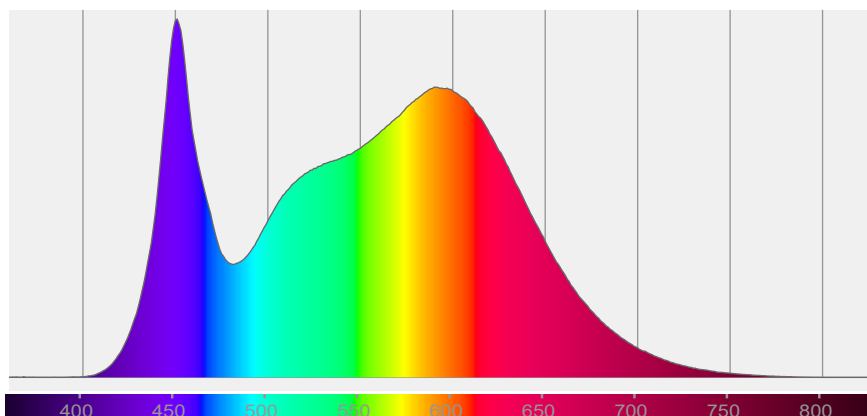


Beam angle 50%: 54,9°

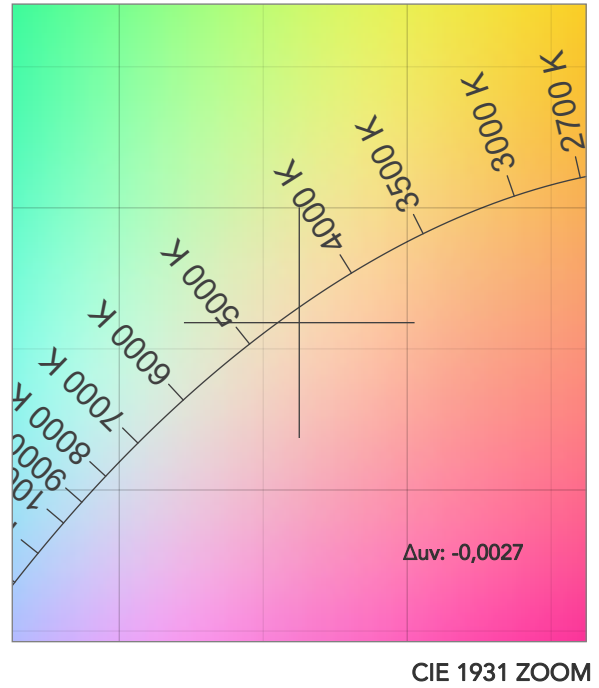
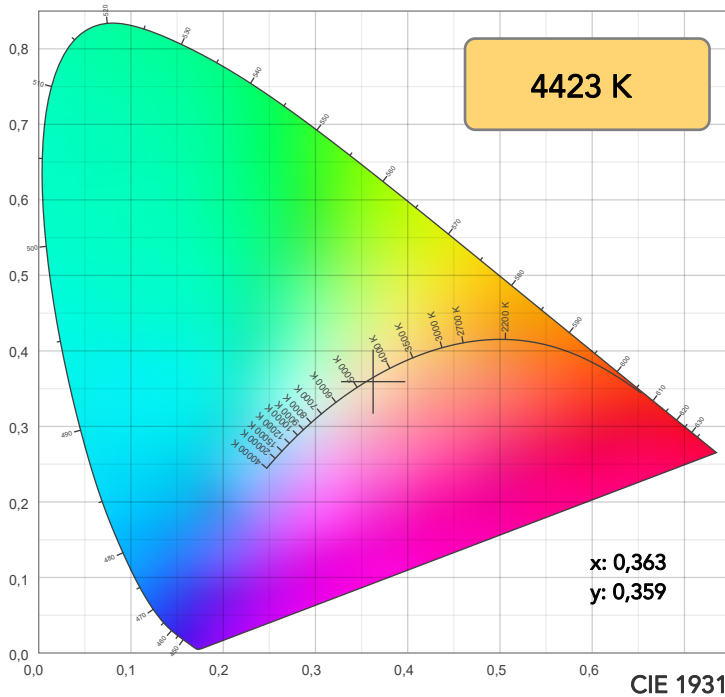
Field angle 10%: 96,9°

Cut off angle 2.5%: 134,1°

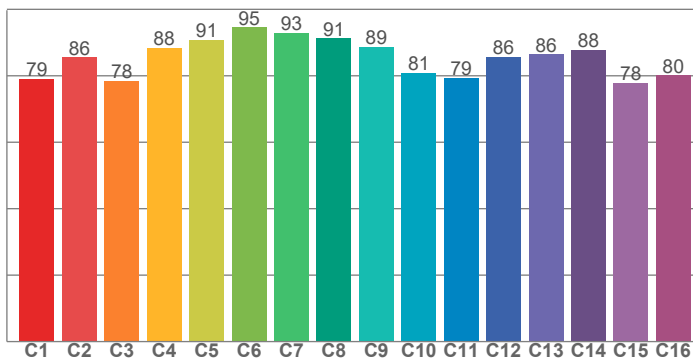
**Spectra**



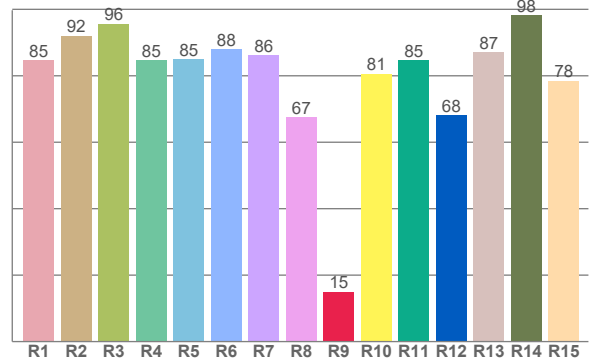




TM30: 85,2



CRI: 85,5 (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
84,7	92,1	95,6	84,8	85,1	88,1	86,2	67,4	15,0	80,6	84,7	68,1	87,0	98,1	78,5

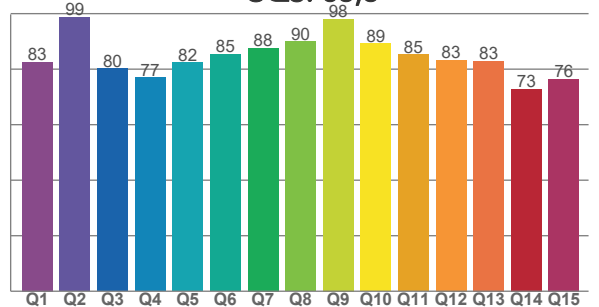
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
79,1	85,6	78,4	88,4	90,7	94,6	92,9	91,3	88,7	80,9	79,4	85,6	86,4	87,8	77,9	80,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82,6	98,7	80,2	76,9	82,4	85,3	87,6	90,0	98,0	89,1	85,2	83,3	82,9	72,9	76,4

CQS: 83,3



## 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
4423 K	85,5	15,0	85,2	96,6	83,3	71	0,363	0,359	-0,0027

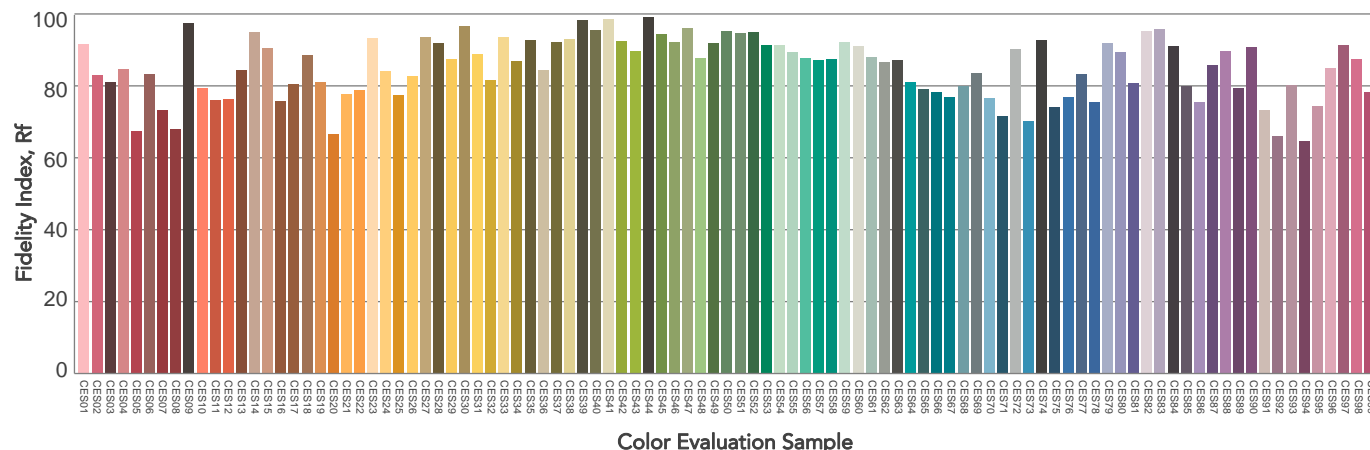
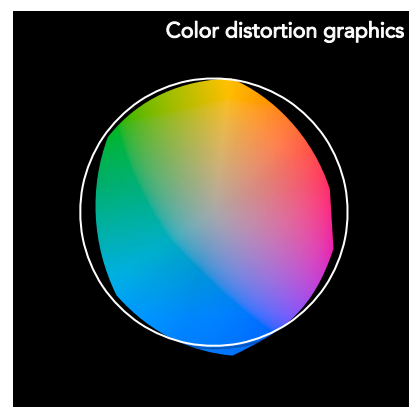
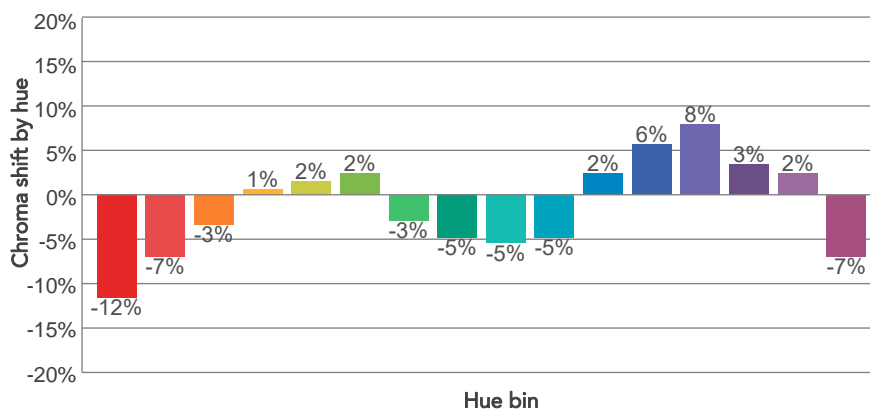
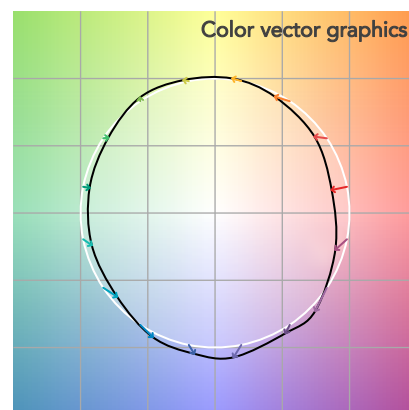
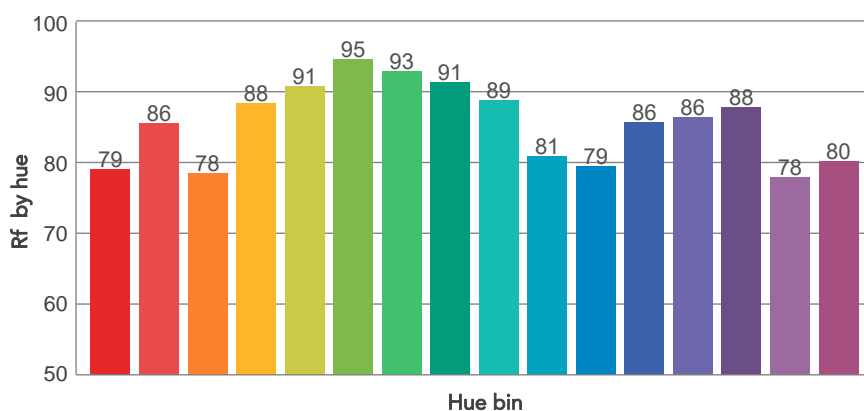
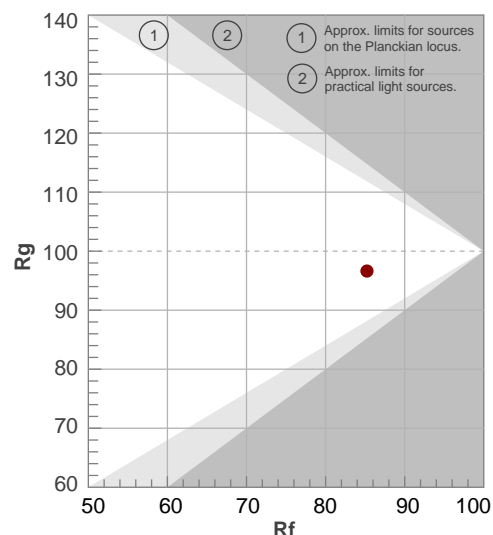


# TM30 DETAILS

**Rf 85,2**  
Fidelity index Rf

**Rg 96,6**  
Gammut index

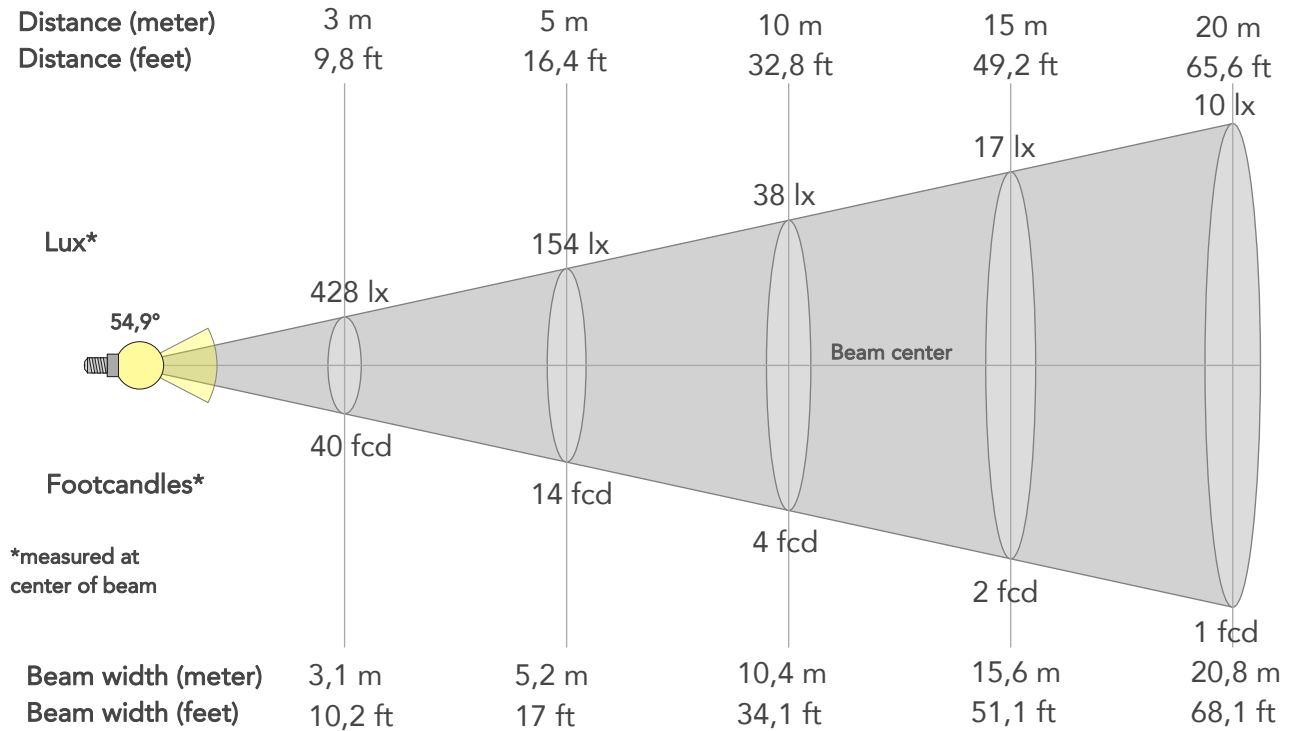
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	79	-12%	0%
2	86	-7%	6%
3	78	-3%	11%
4	88	1%	7%
5	91	2%	4%
6	95	2%	-1%
7	93	-3%	-3%
8	91	-5%	0%
9	89	-5%	6%
10	81	-5%	11%
11	79	2%	13%
12	86	6%	5%
13	86	8%	-7%
14	88	3%	-6%
15	78	2%	-19%
16	80	-7%	-9%





## BEAM DETAILS

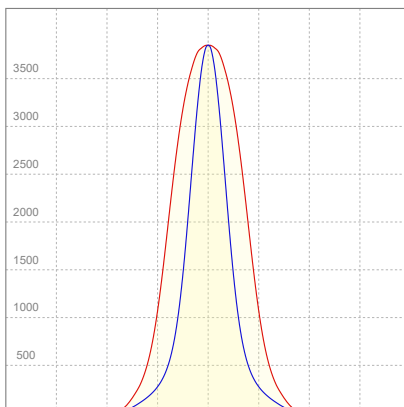
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
54,9°	96,9°	134,1°	95,3%	82,3%



### 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	3848lx	962lx	428lx	241lx	154lx	68lx	38lx	17lx	10lx	6lx	4lx	2lx	2lx
Footcand.	358fcd	89fcd	40fcd	22fcd	14fcd	6fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	1m	2,1m	3,1m	4,2m	5,2m	7,8m	10,4m	15,6m	20,8m	26m	31,2m	41,5m	51,9m
Beam wid.	3,4ft	6,9ft	10,2ft	13,6ft	17ft	25,6ft	34,1ft	51,1ft	68,1ft	85,2ft	102,2ft	136,3ft	170,3ft

### LINEAR DISTRIBUTION DIAGRAM

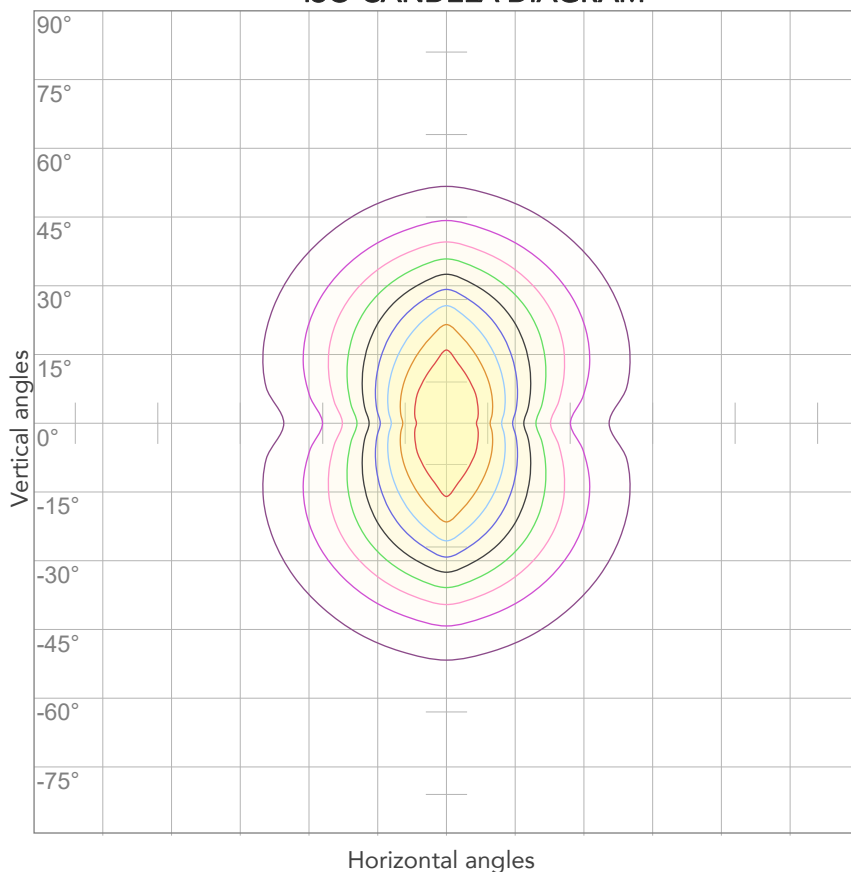


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
222V	0,356A	74,3W	53lm/W



## ISO CANDELA DIAGRAM



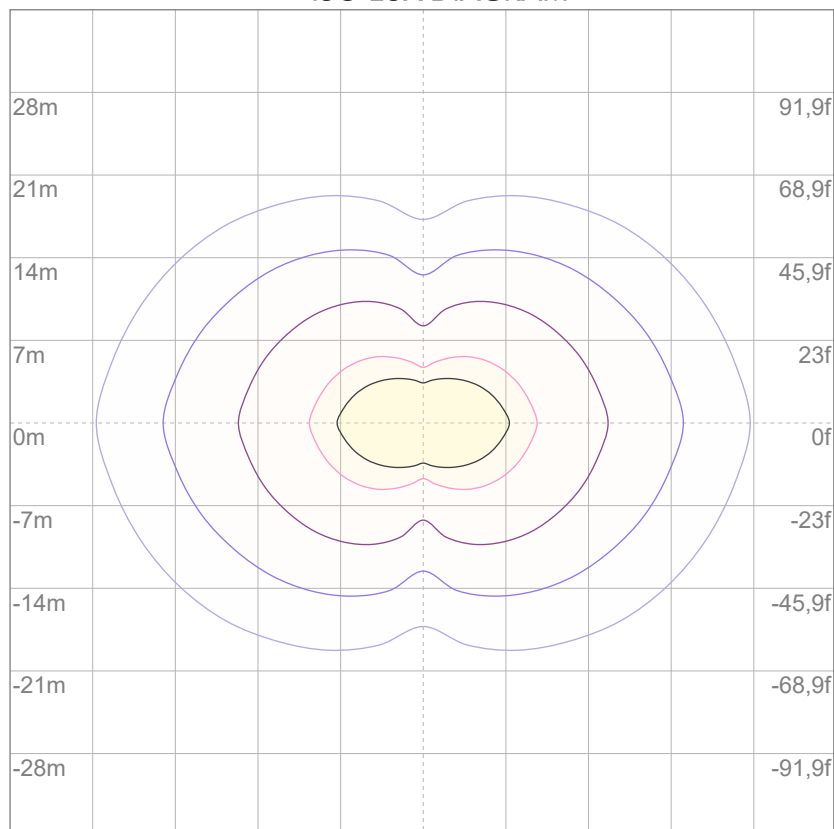
10%	385 cd
20%	770 cd
30%	1154 cd
40%	1539 cd
50%	1924 cd
60%	2309 cd
70%	2694 cd
80%	3079 cd

### Conditions:

Number of c-planes: 4

Candela at center: 3848 cd

## ISO LUX DIAGRAM



3%	1,15 lx
5%	1,92 lx
10%	3,85 lx
30%	11,5 lx
50%	19,2 lx

### Conditions:

Number of c-planes: 4

Lux at center: 38,5 lx

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



Total lumen output:

2083 lm

Peak candela output:

20153 cd

Light quality:

CRI: 80,0

Color temperature:

2858 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8°

Target:

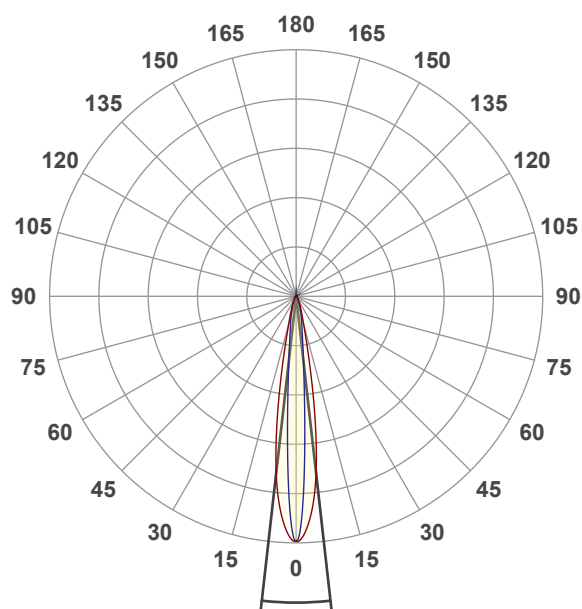
Warm White

Operator:

Paolo Carvone

Date and time:

08/09/2022 15:47:36

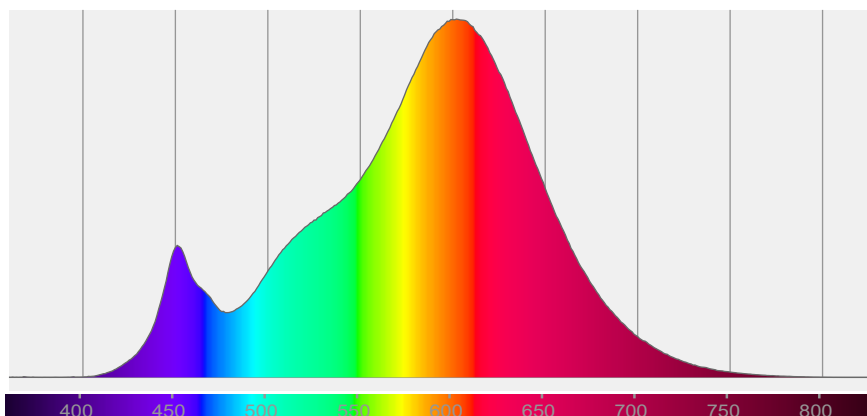


Beam angle 50%: 12,9°

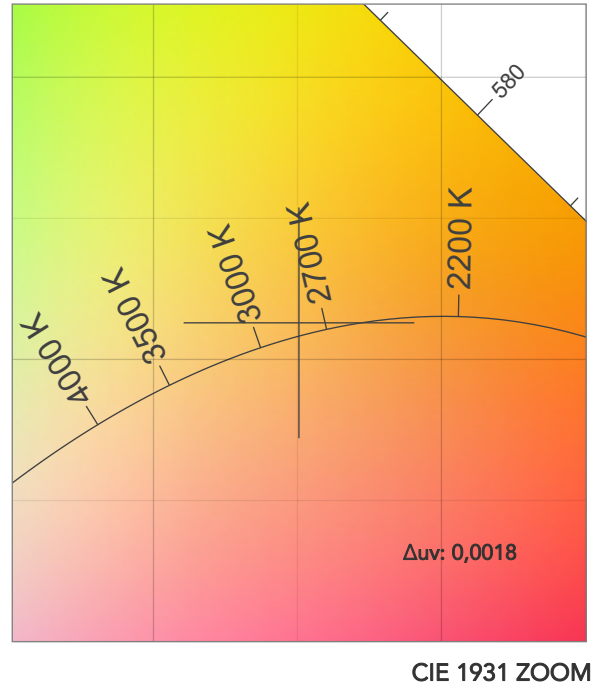
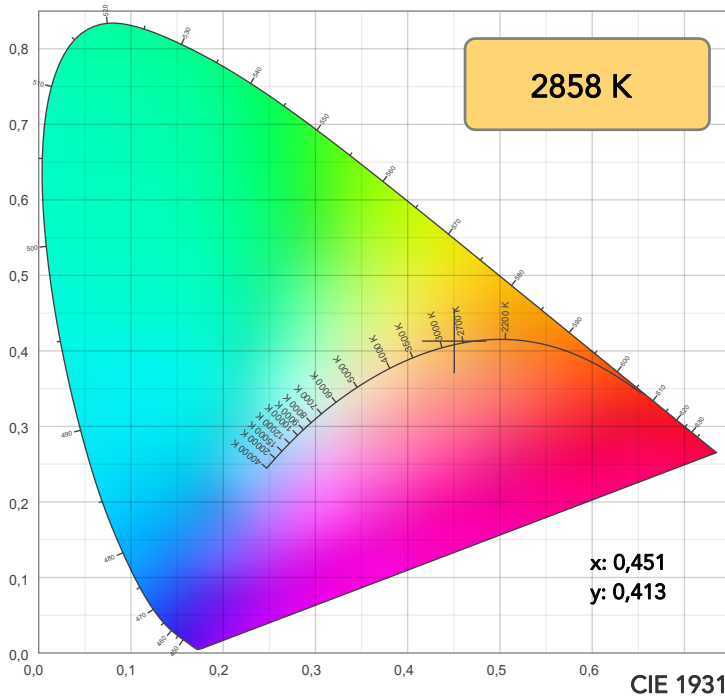
Field angle 10%: 28,5°

Cut off angle 2.5%: 52,7°

**Spectra**

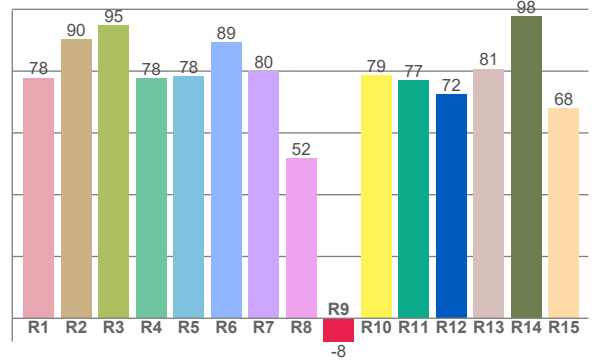
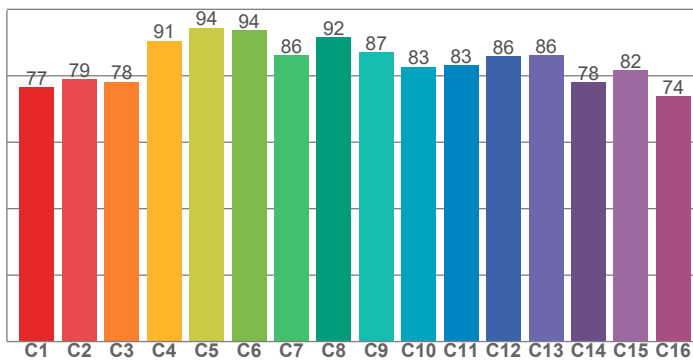






TM30: 84,2

CRI: 80,0 (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
77,8	90,2	94,8	77,6	78,3	89,2	79,9	51,9	-7,5	78,6	77,0	72,5	80,8	97,6	67,9

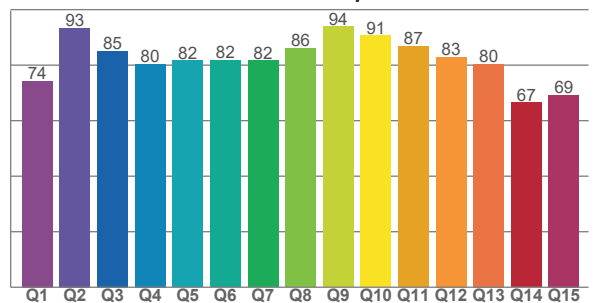
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
76,5	78,9	78,1	90,5	94,4	93,7	86,1	91,6	87,0	82,7	83,1	85,8	86,2	78,0	81,7	73,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
74,3	93,5	85,1	80,4	81,6	81,7	81,6	86,1	93,9	90,7	86,8	82,9	80,5	66,5	69,3

CQS: 80,6



## 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	$\Delta uv$
2858 K	80,0	-7,5	84,2	93,2	80,6	63	0,451	0,413	0,0018

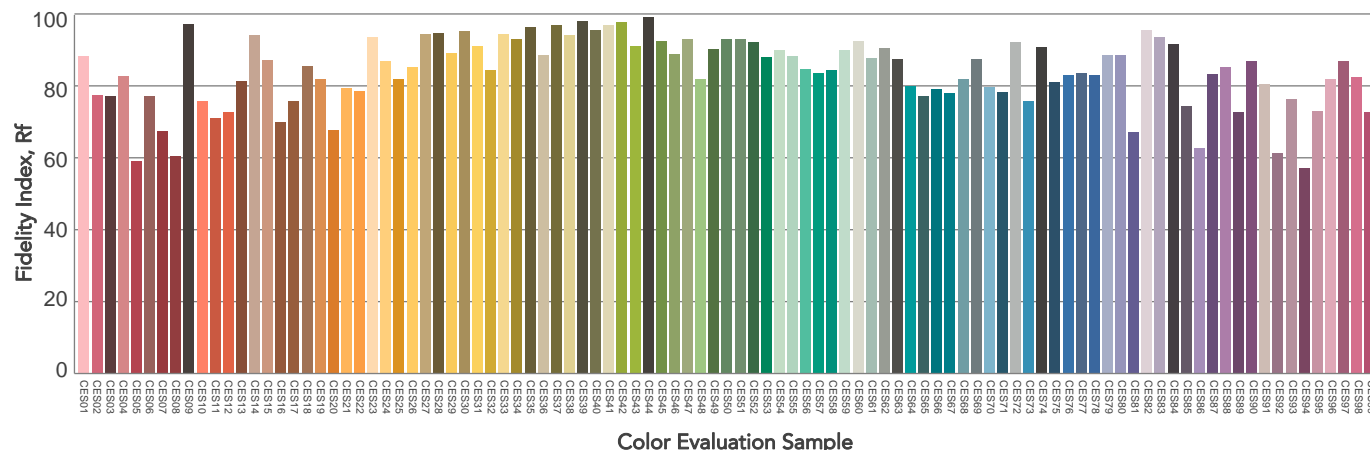
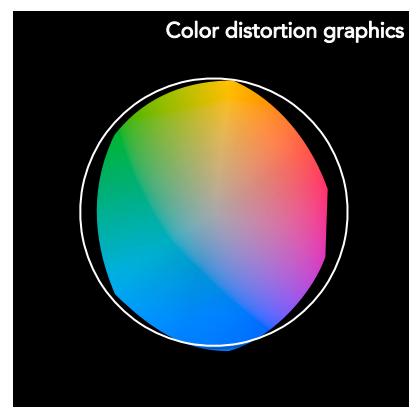
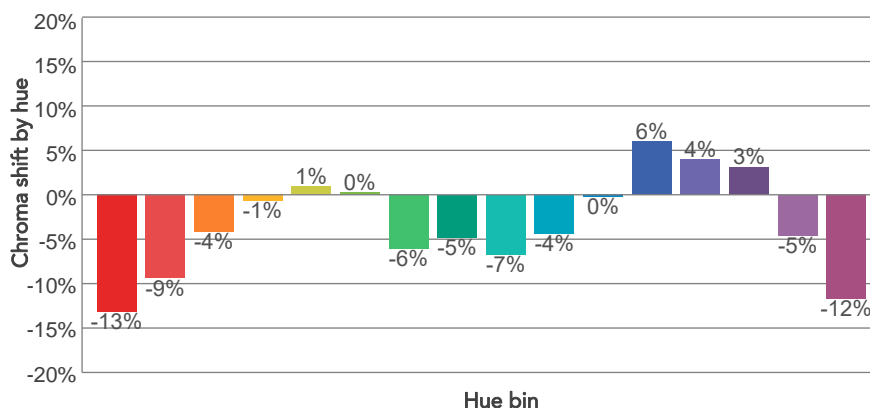
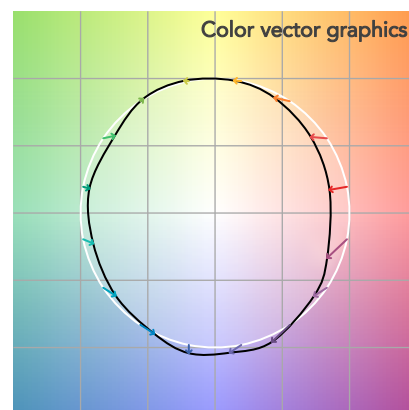
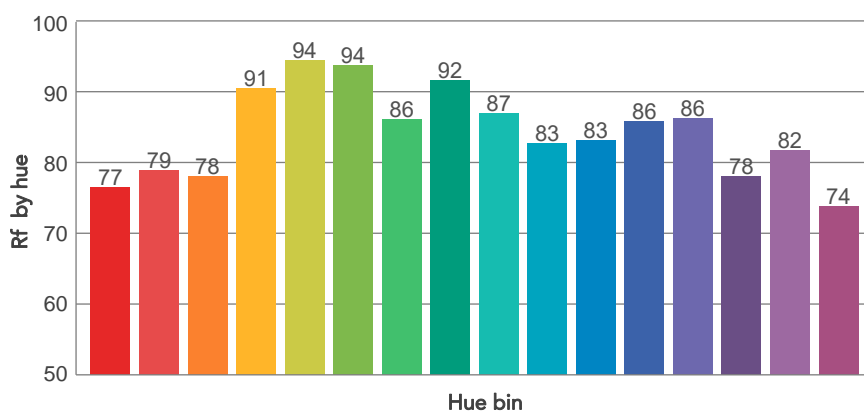
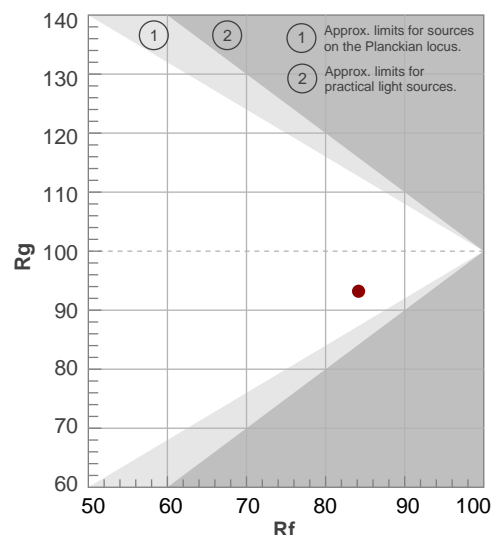


# TM30 DETAILS

**Rf 84,2**  
Fidelity index Rf

**Rg 93,2**  
Gammut index

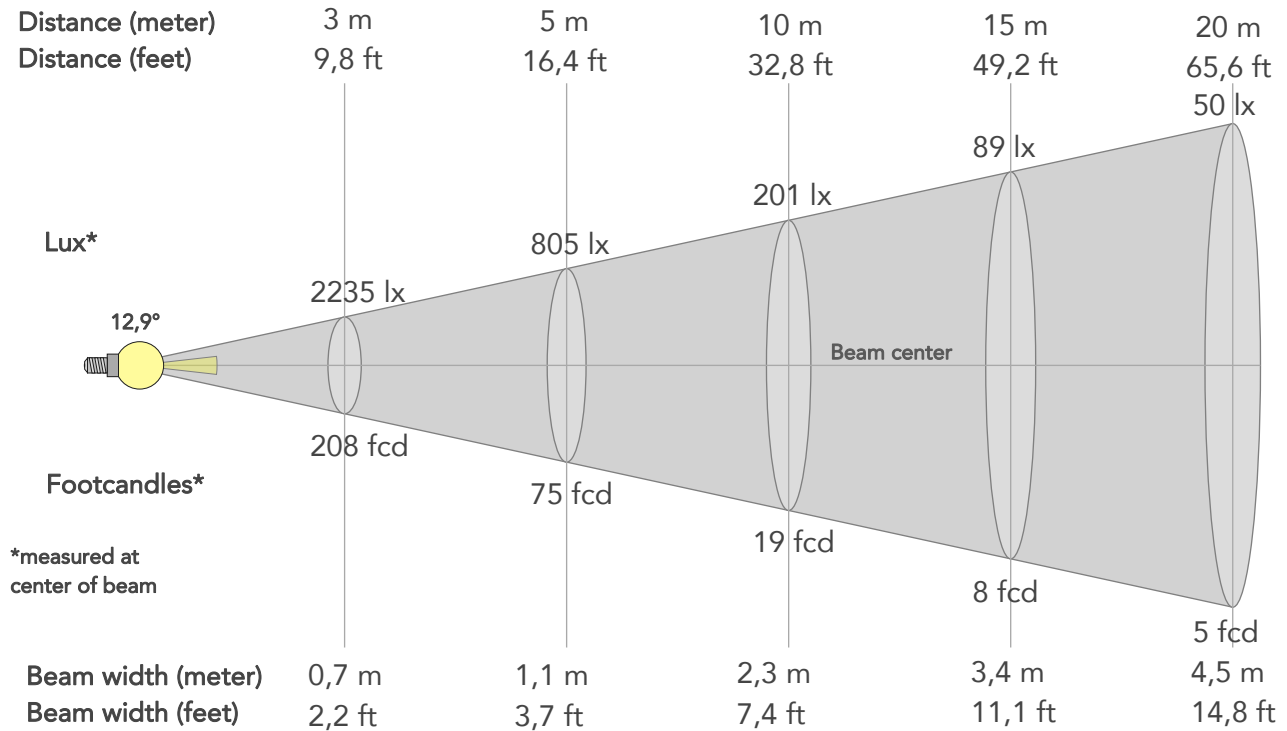
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	77	-13%	0%
2	79	-9%	7%
3	78	-4%	11%
4	91	-1%	5%
5	94	1%	3%
6	94	0%	-3%
7	86	-6%	-6%
8	92	-5%	0%
9	87	-7%	4%
10	83	-4%	10%
11	83	0%	12%
12	86	6%	1%
13	86	4%	-10%
14	78	3%	-18%
15	82	-5%	-10%
16	74	-12%	-17%





## BEAM DETAILS

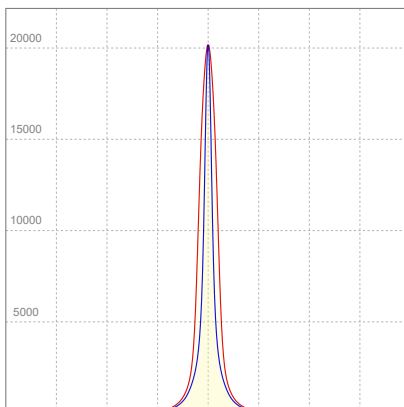
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
12,9°	28,5°	52,7°	99,7%	96,7%



### 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	20116lx	5029lx	2235lx	1257lx	805lx	358lx	201lx	89lx	50lx	32lx	22lx	13lx	8lx
Footcand.	1869fcd	467fcd	208fcd	117fcd	75fcd	33fcd	19fcd	8fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,2m	0,5m	0,7m	0,9m	1,1m	1,7m	2,3m	3,4m	4,5m	5,6m	6,8m	9m	11,3m
Beam wid.	0,7ft	1,5ft	2,2ft	3ft	3,7ft	5,6ft	7,4ft	11,1ft	14,8ft	18,5ft	22,2ft	29,6ft	37ft

### LINEAR DISTRIBUTION DIAGRAM

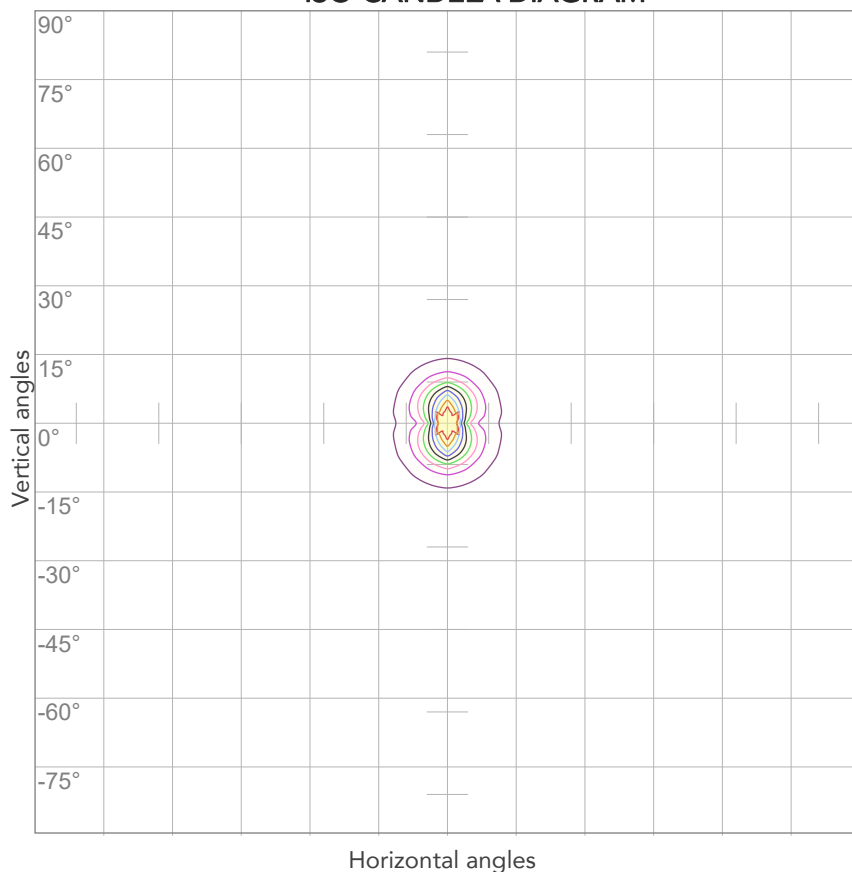


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,219A	42,2W	49lm/W



## ISO CANDELA DIAGRAM



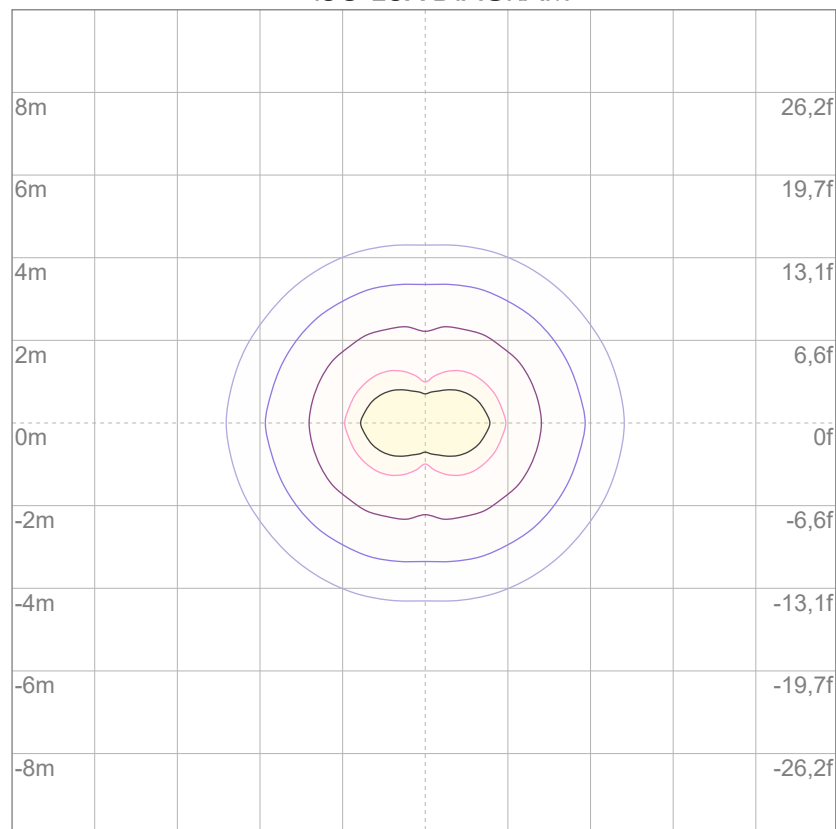
10%	2012 cd
20%	4023 cd
30%	6035 cd
40%	8046 cd
50%	10058 cd
60%	12069 cd
70%	14081 cd
80%	16093 cd

### Conditions:

Number of c-planes: 4

Candela at center: 20116 cd

## ISO LUX DIAGRAM



3%	6,03 lx
5%	10,1 lx
10%	20,1 lx
30%	60,3 lx
50%	101 lx

### Conditions:

Number of c-planes: 4

Lux at center: 201 lx

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



Total lumen output:

1953 lm

Peak candela output:

5036 cd

Light quality:

CRI: 80,1

Color temperature:

2863 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8°+ Filter 20°

Target:

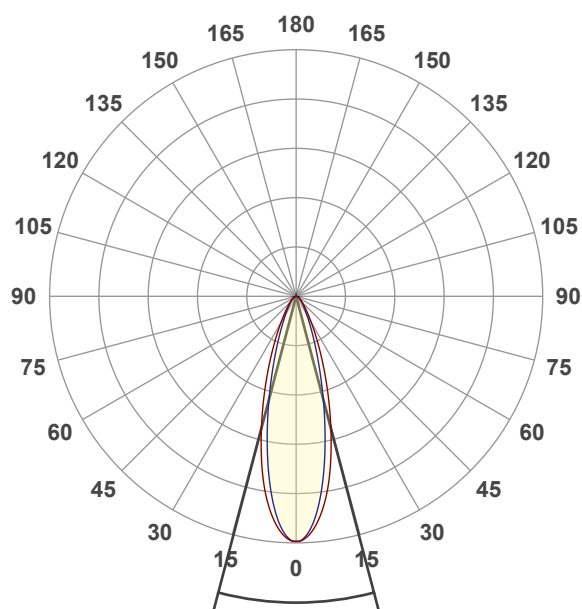
Warm White

Operator:

Paolo Carvone

Date and time:

08/09/2022 15:53:36

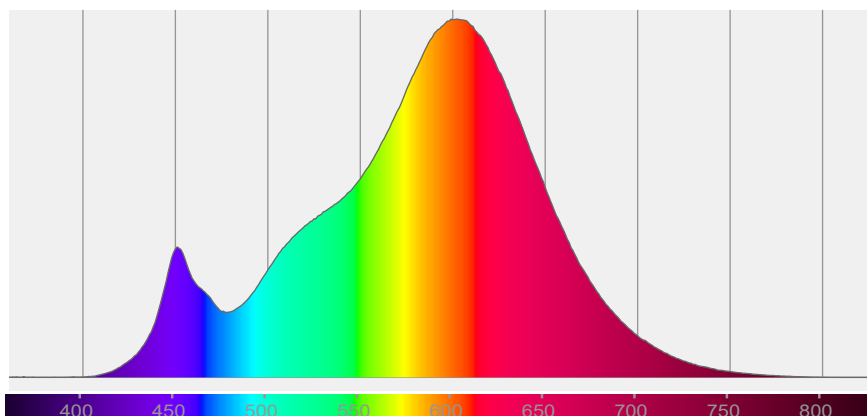


Beam angle 50%: 29,4°

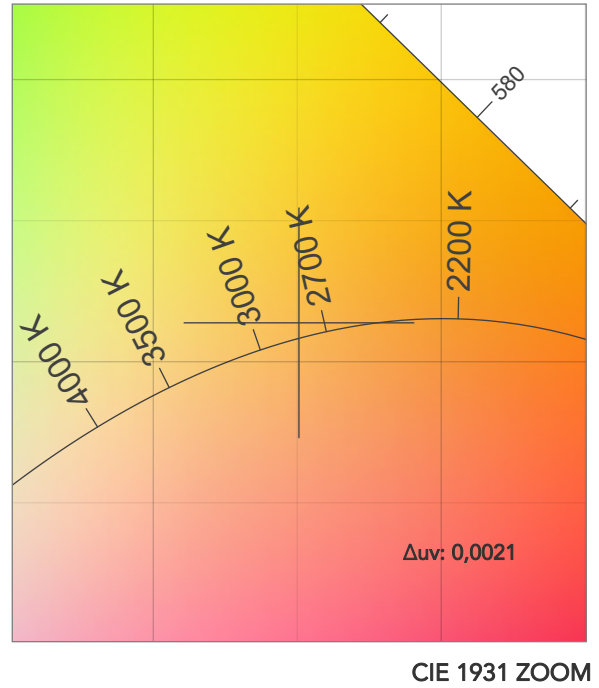
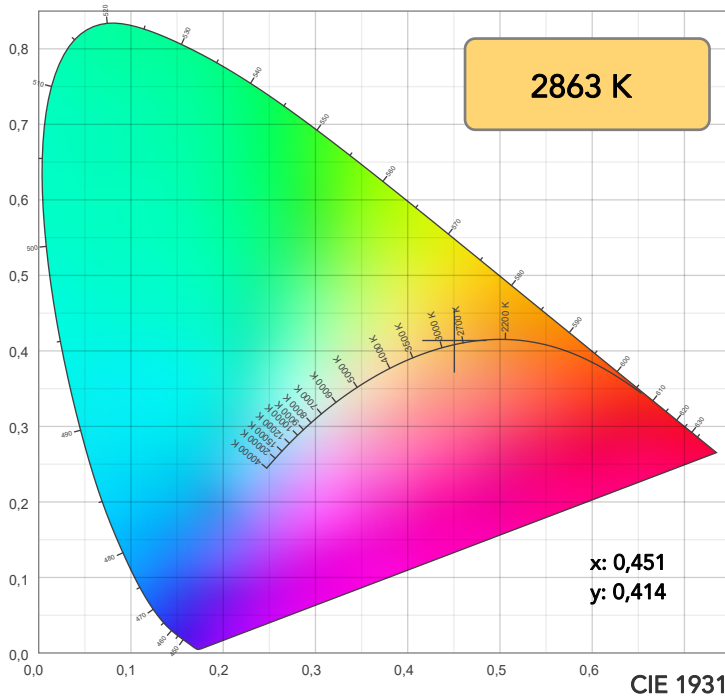
Field angle 10%: 60,7°

Cut off angle 2.5%: 97,3°

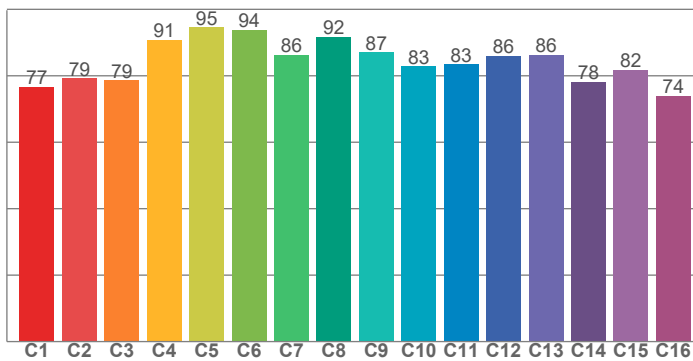
**Spectra**



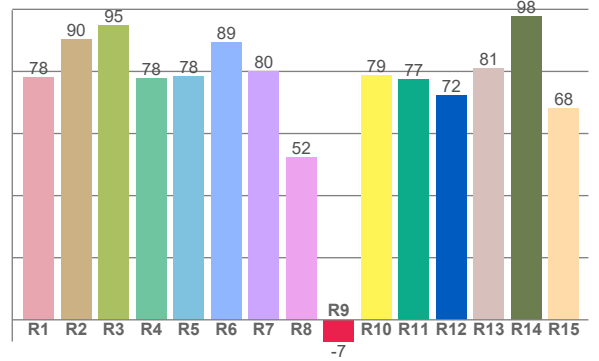




TM30: 84,4



CRI: 80,1 (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
78,0	90,2	94,9	77,9	78,5	89,3	80,1	52,2	-7,0	78,7	77,3	72,4	80,9	97,7	68,0

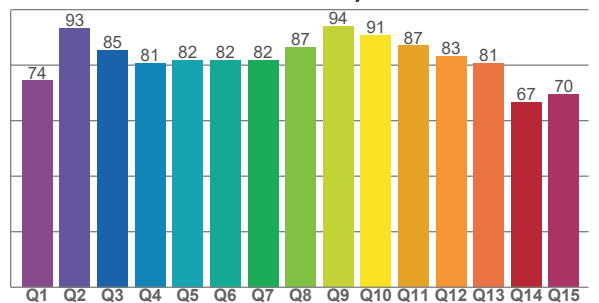
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
76,7	79,2	78,6	90,8	94,5	93,9	86,3	91,7	87,1	82,9	83,4	86,0	86,3	78,2	81,8	74,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
74,5	93,4	85,4	80,8	81,9	81,9	86,5	94,0	90,9	87,1	83,3	80,8	66,7	69,5	

CQS: 80,8



## COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
2863 K	80,1	-7,0	84,4	93,1	80,8	63	0,451	0,414	0,0021

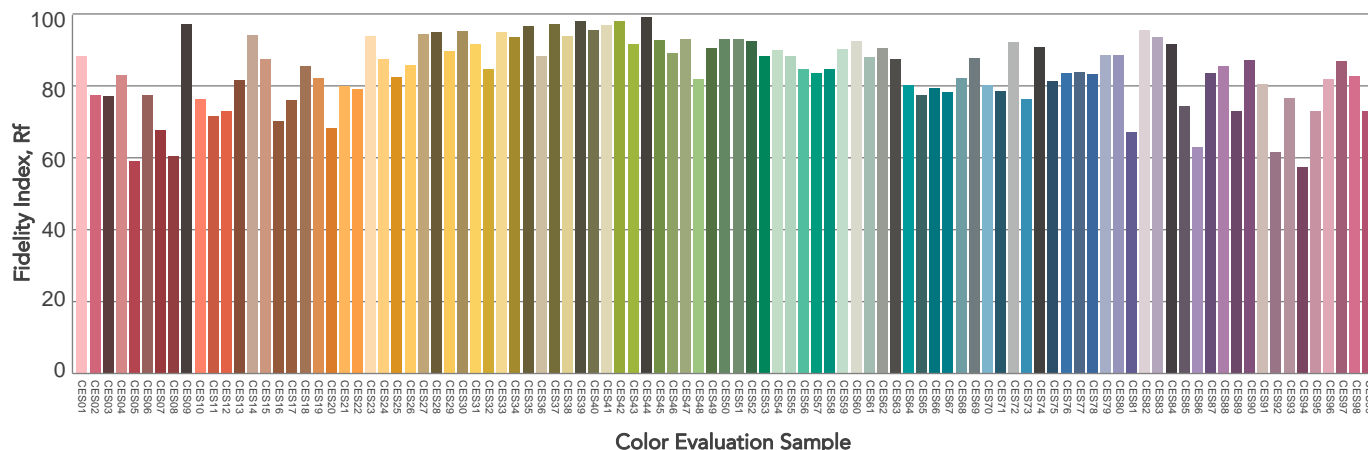
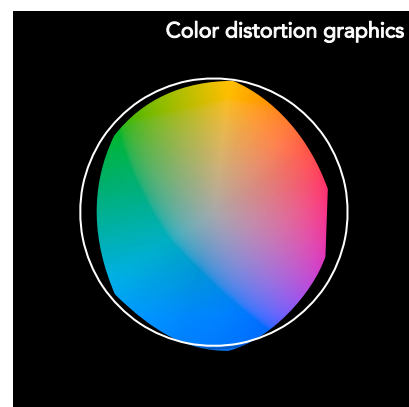
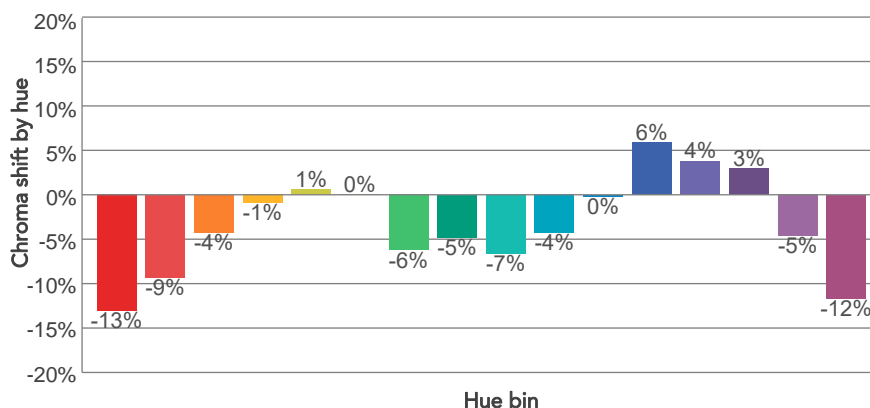
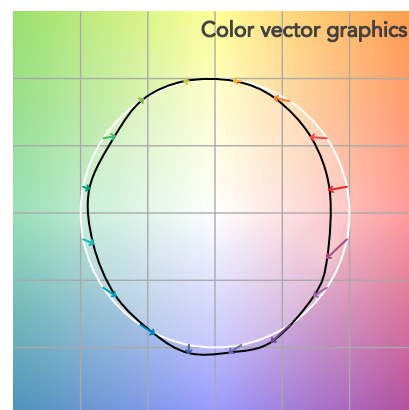
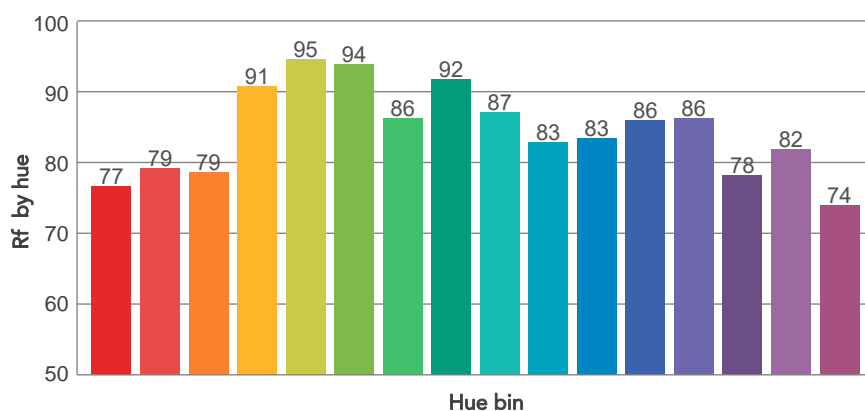
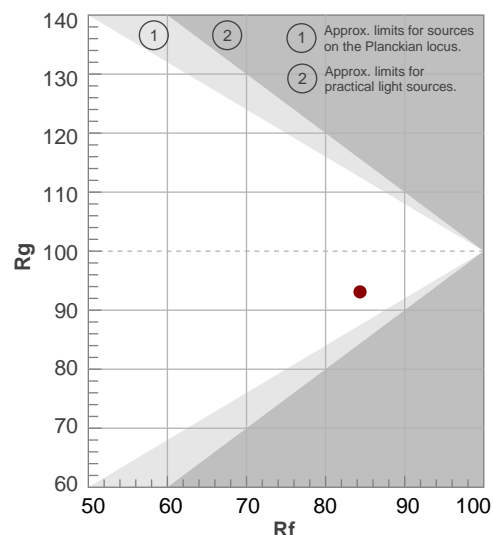


# TM30 DETAILS

**Rf 84,4**  
Fidelity index Rf

**Rg 93,1**  
Gammut index

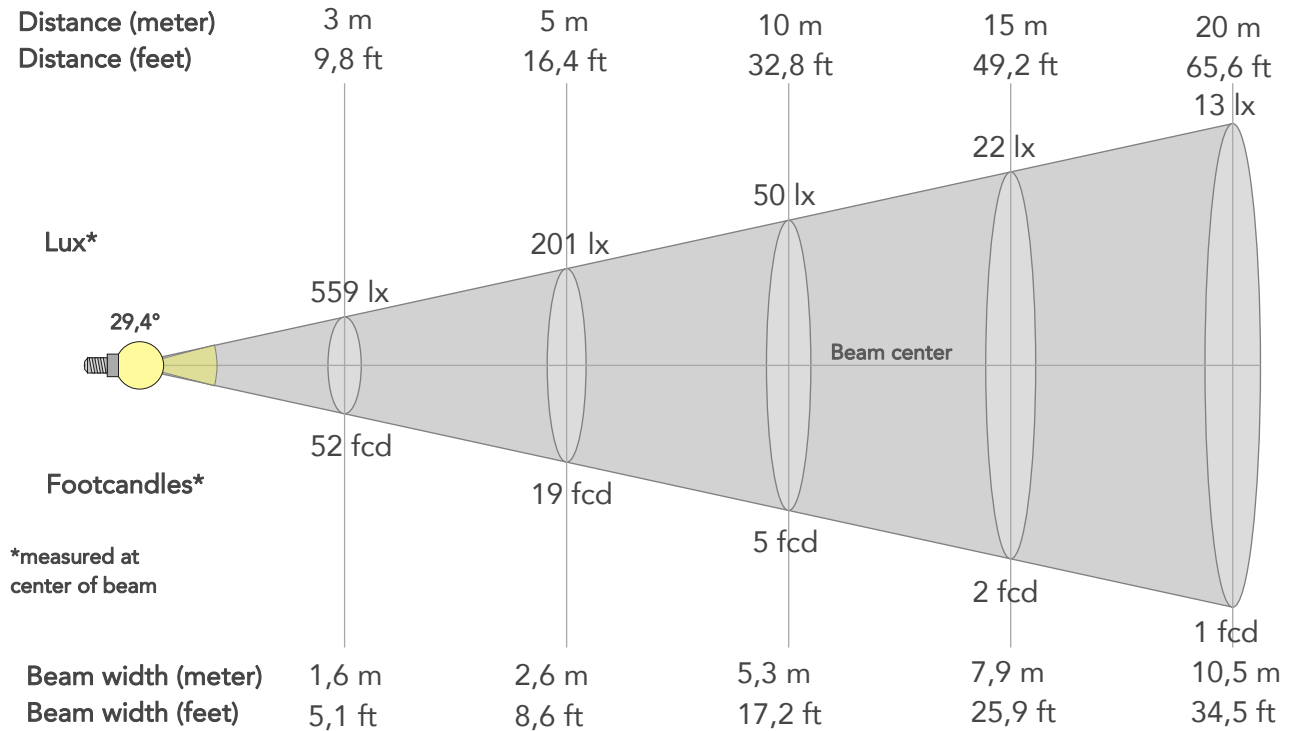
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	77	-13%	0%
2	79	-9%	7%
3	79	-4%	11%
4	91	-1%	5%
5	95	1%	3%
6	94	0%	-3%
7	86	-6%	-6%
8	92	-5%	1%
9	87	-7%	5%
10	83	-4%	10%
11	83	0%	12%
12	86	6%	1%
13	86	4%	-10%
14	78	3%	-18%
15	82	-5%	-10%
16	74	-12%	-16%





## BEAM DETAILS

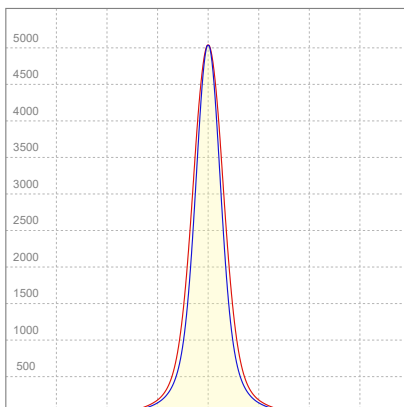
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
29,4°	60,7°	97,3°	97,9%	91,2%



### 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	5031lx	1258lx	559lx	314lx	201lx	89lx	50lx	22lx	13lx	8lx	6lx	3lx	2lx
Footcand.	467fcd	117fcd	52fcd	29fcd	19fcd	8fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,5m	1,1m	1,6m	2,1m	2,6m	3,9m	5,3m	7,9m	10,5m	13,1m	15,8m	21m	26,3m
Beam wid.	1,7ft	3,5ft	5,1ft	6,9ft	8,6ft	12,9ft	17,2ft	25,9ft	34,5ft	43,1ft	51,7ft	68,9ft	86,2ft

### LINEAR DISTRIBUTION DIAGRAM

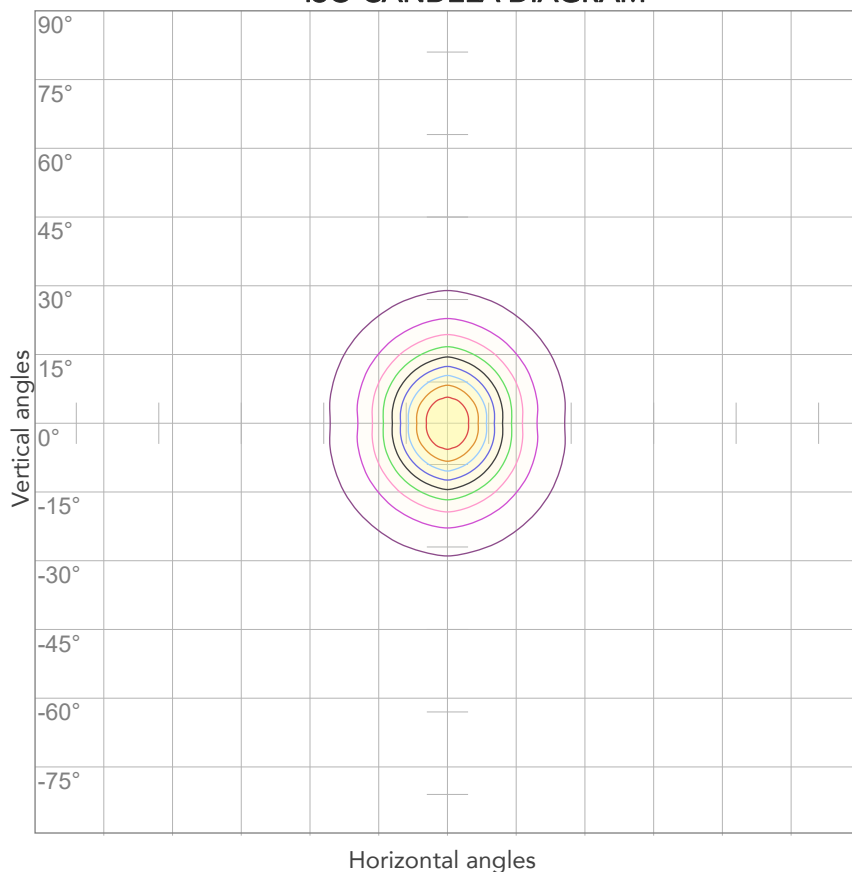


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
222V	0,220A	42,3W	46lm/W



## ISO CANDELA DIAGRAM



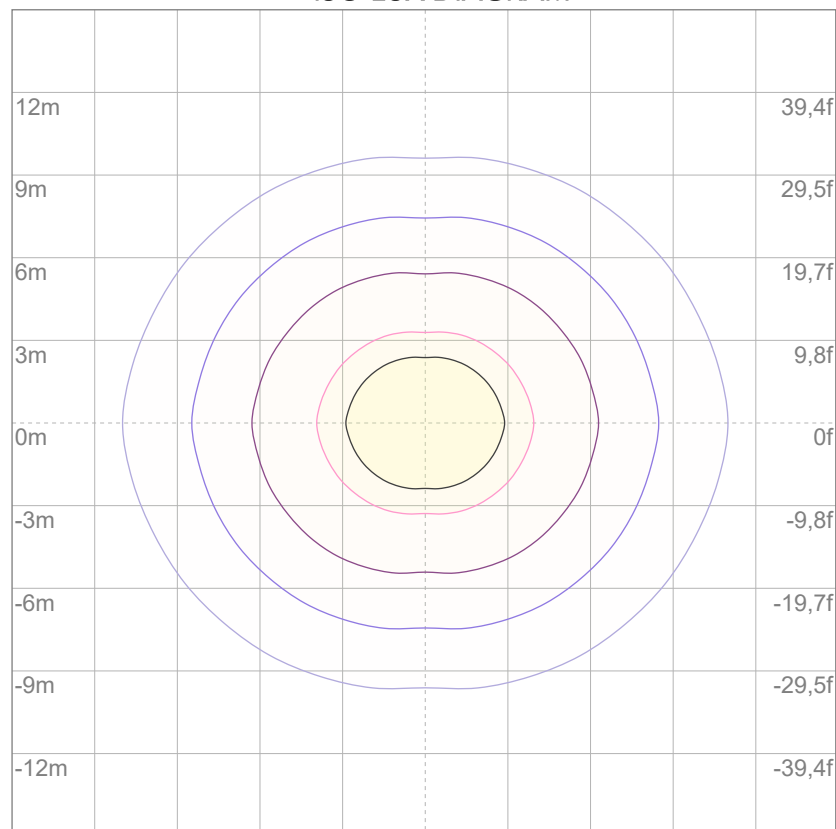
10%	503 cd
20%	1006 cd
30%	1509 cd
40%	2013 cd
50%	2516 cd
60%	3019 cd
70%	3522 cd
80%	4025 cd

### Conditions:

Number of c-planes: 4

Candela at center: 5031 cd

## ISO LUX DIAGRAM



3%	1,51 lx
5%	2,52 lx
10%	5,03 lx
30%	15,1 lx
50%	25,2 lx

### Conditions:

Number of c-planes: 4

Lux at center: 50,3 lx

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



Total lumen output:

1945 lm

Peak candela output:

2068 cd

Light quality:

CRI: 80,3

Color temperature:

2869 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8°+ Filter 40°

Target:

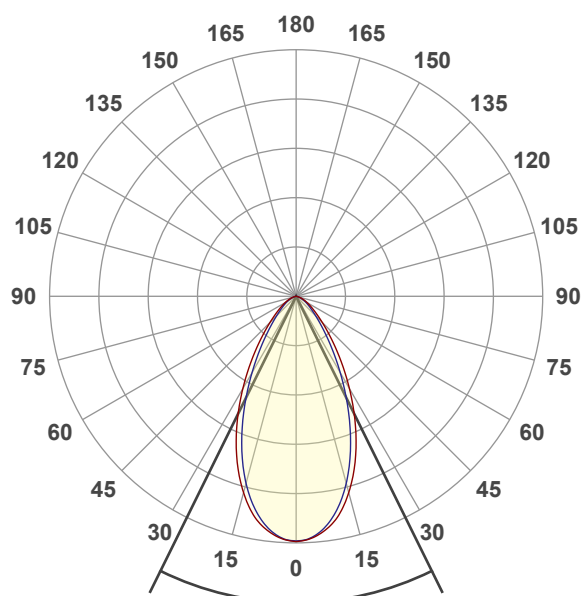
Warm White

Operator:

Paolo Carvone

Date and time:

08/09/2022 15:56:15

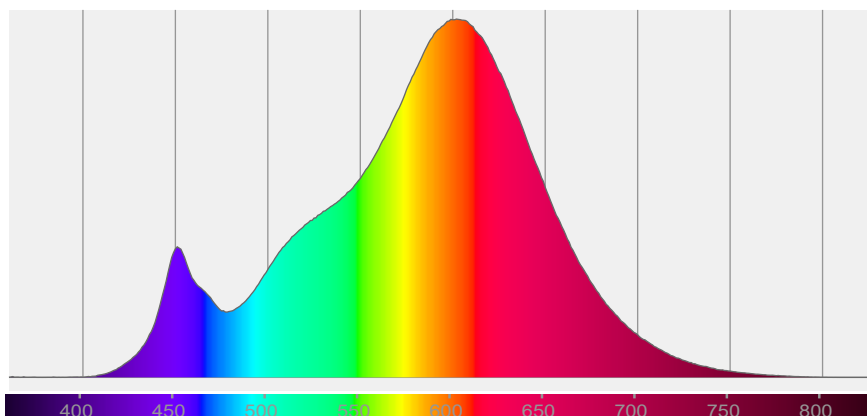


Beam angle 50%: 52,6°

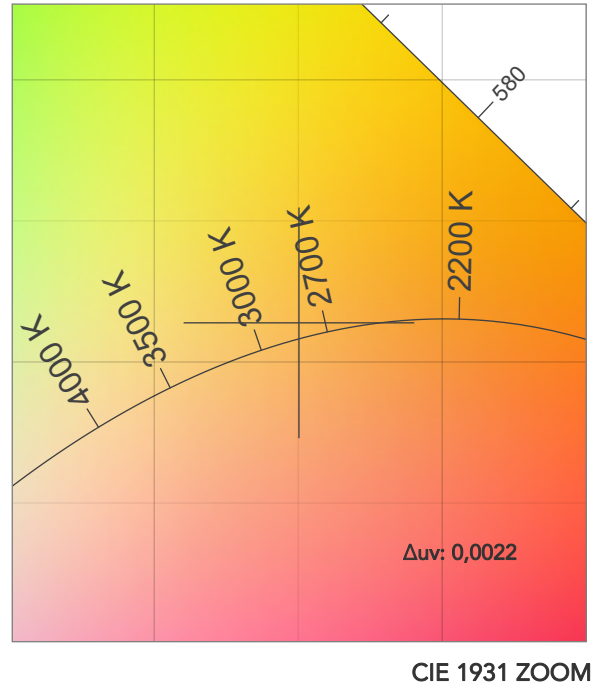
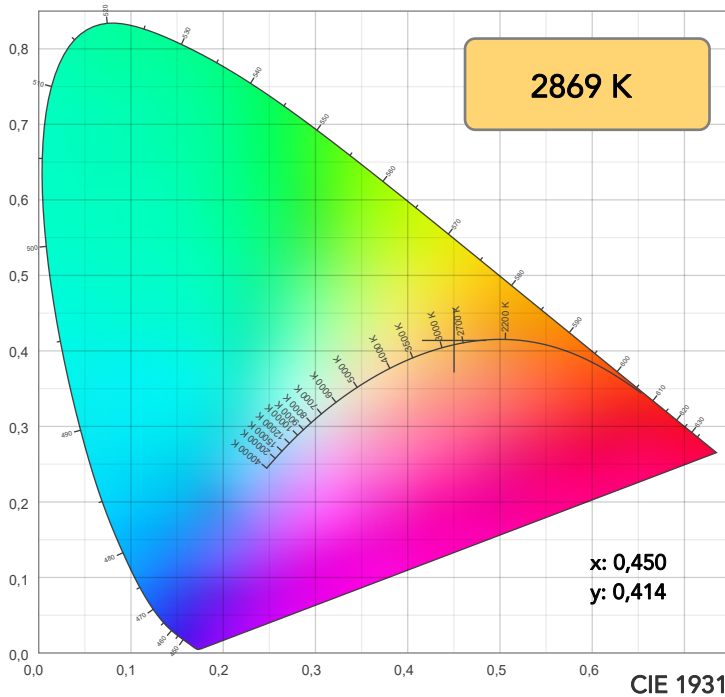
Field angle 10%: 97,3°

Cut off angle 2.5%: 134,7°

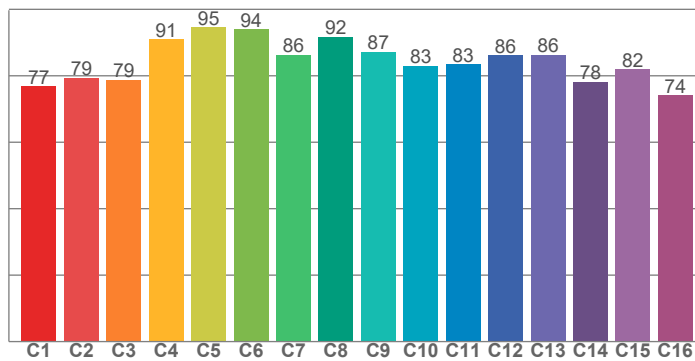
**Spectra**



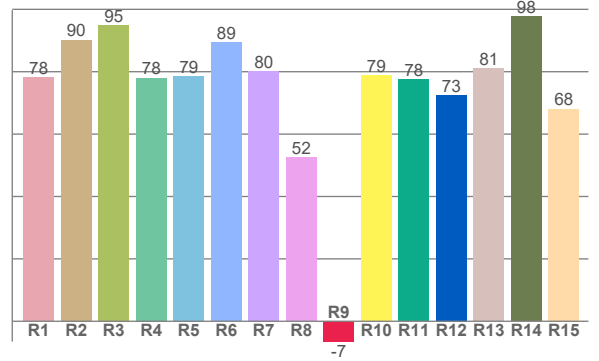




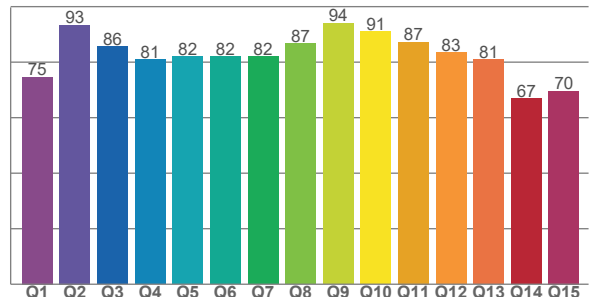
TM30: 84,4



CRI: 80,3 (R1-R8)



CQS: 81,0



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
78,1	90,2	95,0	78,0	78,6	89,4	80,3	52,5	-6,5	78,8	77,6	72,5	81,0	97,7	68,1

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
76,8	79,4	78,8	90,9	94,5	94,0	86,4	91,7	87,1	82,9	83,5	86,1	86,3	78,2	82,0	74,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
74,6	93,4	85,6	80,9	82,0	82,1	82,0	86,7	94,0	91,0	87,2	83,4	80,9	66,8	69,7

## COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2869 K	80,3	-6,5	84,4	93,1	81,0	64	0,450	0,414	0,0022

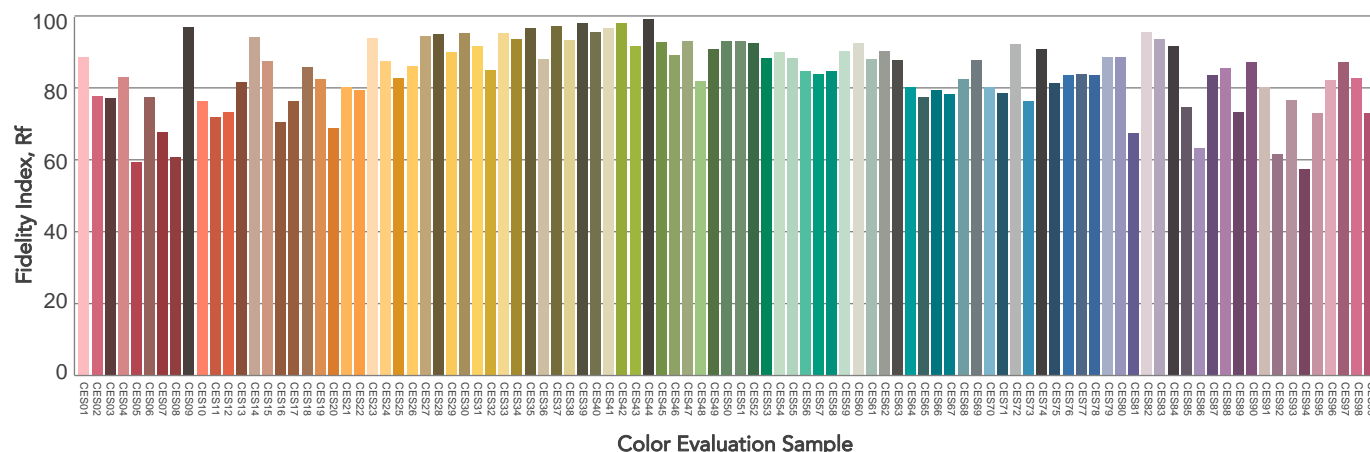
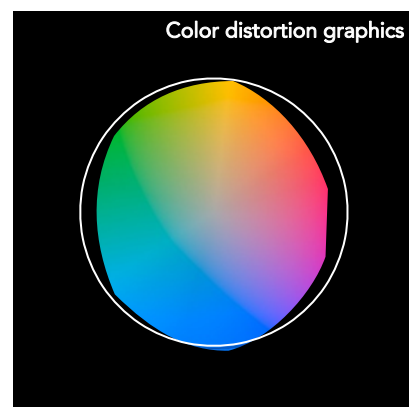
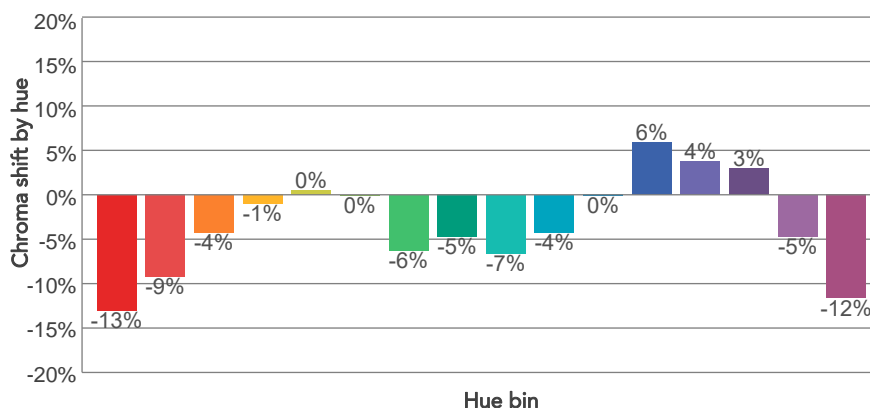
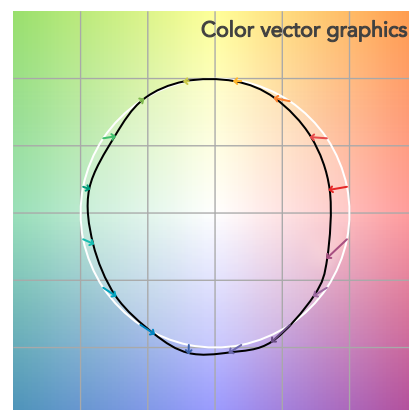
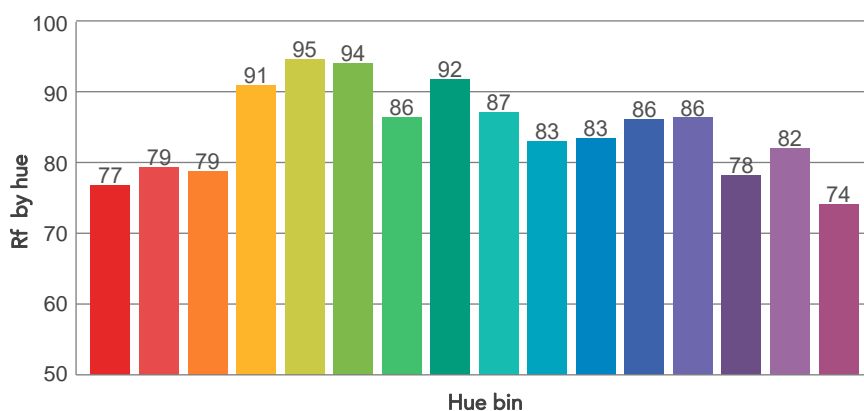
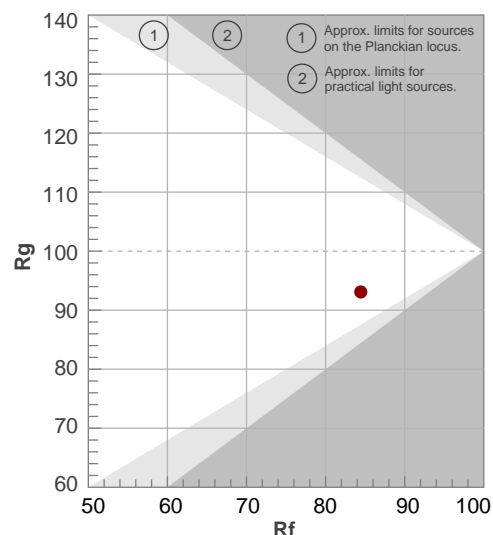


# TM30 DETAILS

**Rf 84,4**  
Fidelity index Rf

**Rg 93,1**  
Gammut index

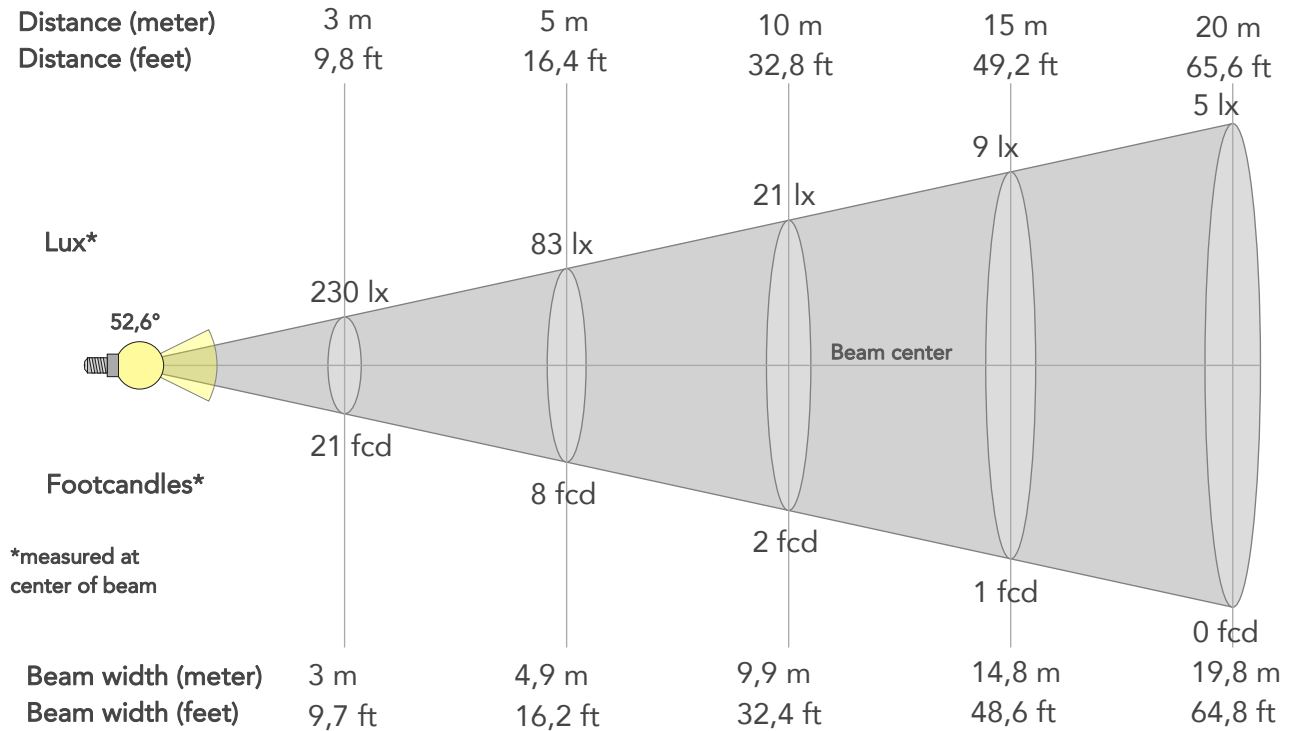
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	77	-13%	0%
2	79	-9%	7%
3	79	-4%	10%
4	91	-1%	5%
5	95	0%	3%
6	94	0%	-3%
7	86	-6%	-6%
8	92	-5%	1%
9	87	-7%	5%
10	83	-4%	10%
11	83	0%	12%
12	86	6%	1%
13	86	4%	-10%
14	78	3%	-18%
15	82	-5%	-10%
16	74	-12%	-16%





## BEAM DETAILS

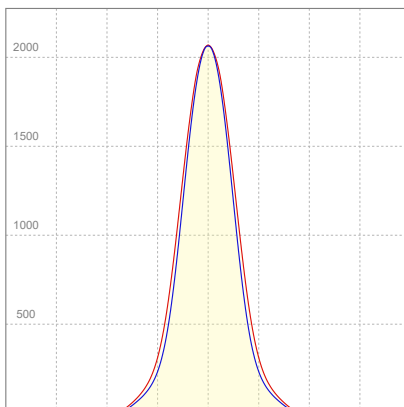
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
<b>52,6°</b>	<b>97,3°</b>	<b>134,7°</b>	<b>95,6%</b>	<b>84,6%</b>



### 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	2066lx	516lx	230lx	129lx	83lx	37lx	21lx	9lx	5lx	3lx	2lx	1lx	1lx
Footcand.	192fcd	48fcd	21fcd	12fcd	8fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1m	2m	3m	4m	4,9m	7,4m	9,9m	14,8m	19,8m	24,7m	29,6m	39,5m	49,4m
Beam wid.	3,3ft	6,5ft	9,7ft	12,9ft	16,2ft	24,3ft	32,4ft	48,6ft	64,8ft	81ft	97,2ft	129,6ft	162ft

### LINEAR DISTRIBUTION DIAGRAM

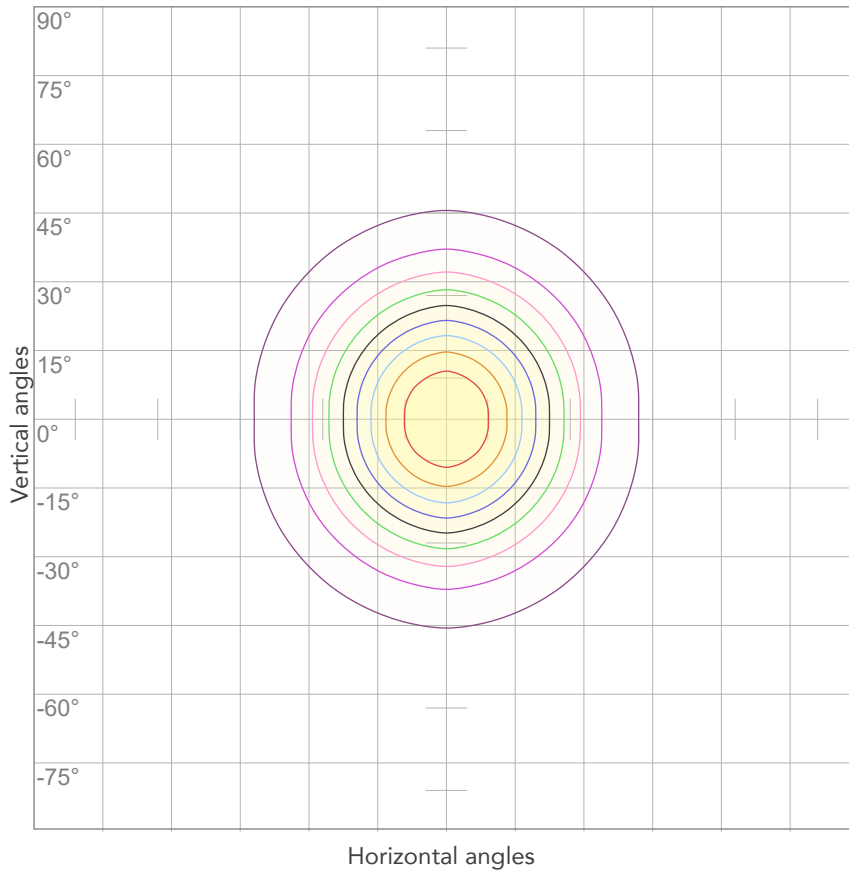


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
<b>223V</b>	<b>0,220A</b>	<b>42,3W</b>	<b>46lm/W</b>



## ISO CANDELA DIAGRAM



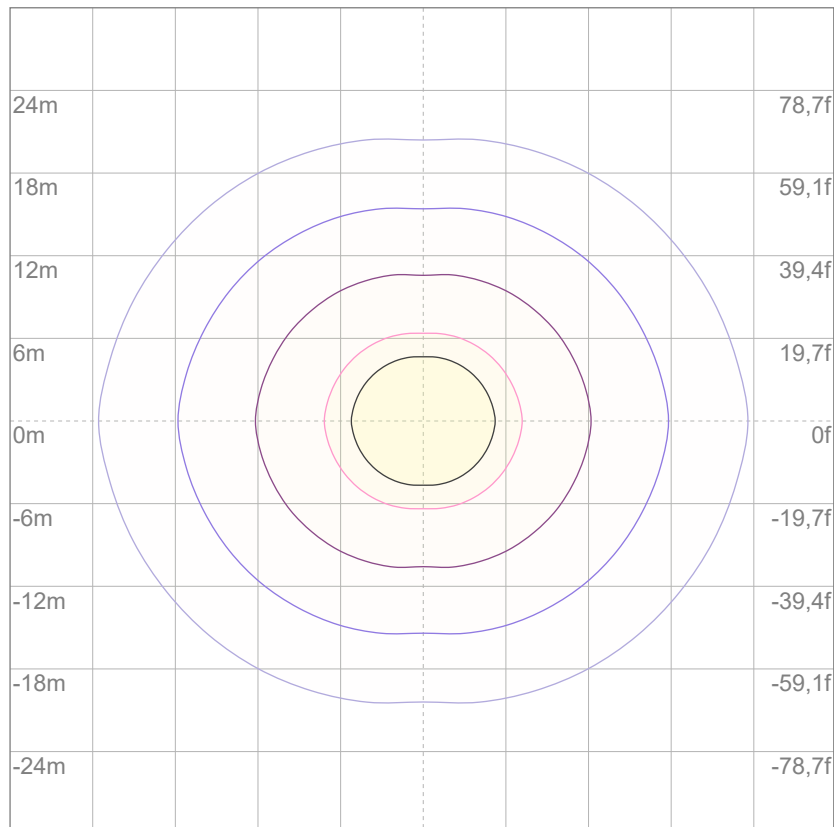
10%	207 cd
20%	413 cd
30%	620 cd
40%	826 cd
50%	1033 cd
60%	1239 cd
70%	1446 cd
80%	1653 cd

### Conditions:

Number of c-planes: 4

Candela at center: 2066 cd

## ISO LUX DIAGRAM



3%	0,620 lx
5%	1,03 lx
10%	2,07 lx
30%	6,20 lx
50%	10,3 lx

### Conditions:

Number of c-planes: 4

Lux at center: 20,7 lx

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



Total lumen output:

1938 lm

Peak candela output:

1627 cd

Light quality:

CRI: 80,2

Color temperature:

2866 K



## PRODUCT NAME:

ARCSHINEM18VW

## MEASURAMENT CONDITIONS:

Beam angle:

8°+ Filter 60°

Target:

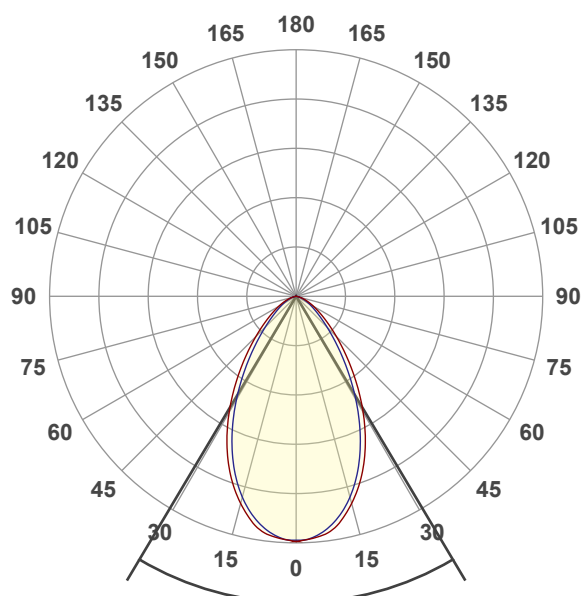
Warm White

Operator:

Paolo Carvone

Date and time:

08/09/2022 16:00:44

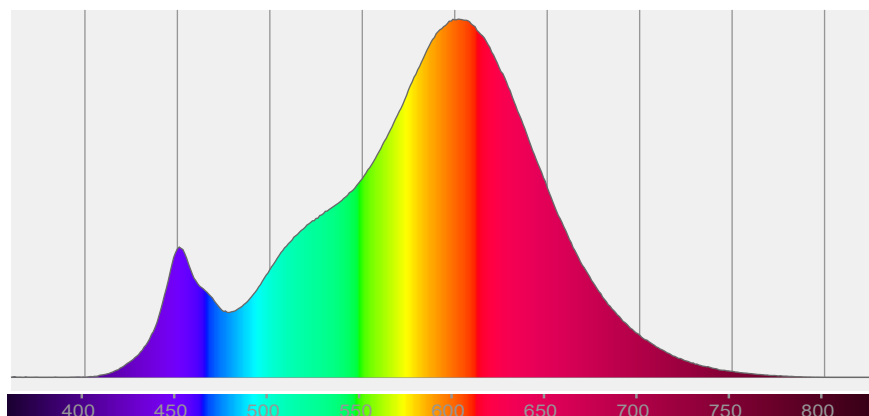


Beam angle 50%: 61,5°

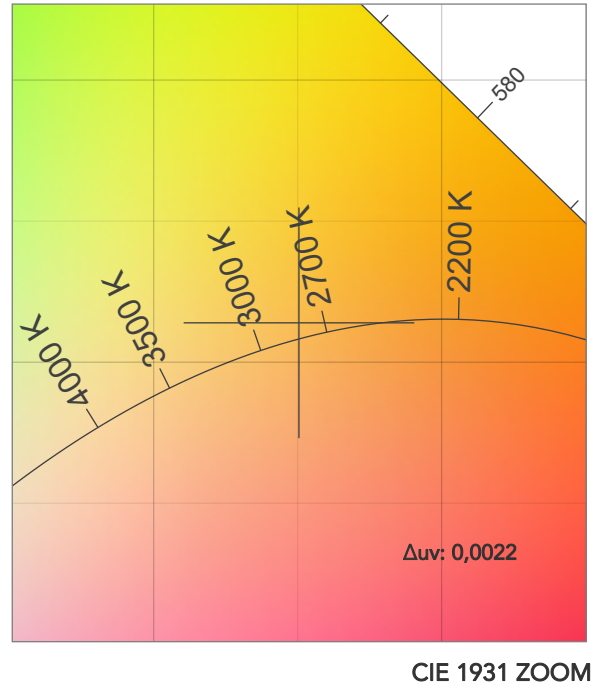
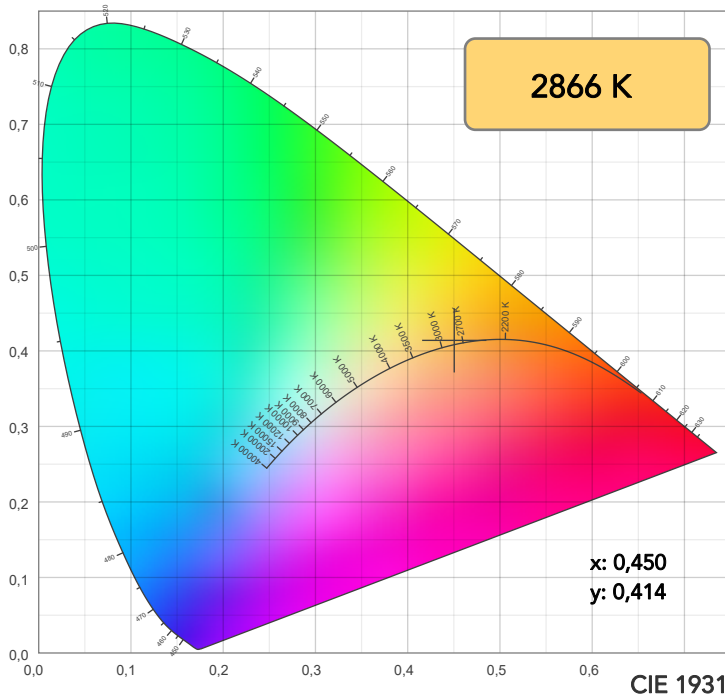
Field angle 10%: 110,4°

Cut off angle 2.5%: 142,2°

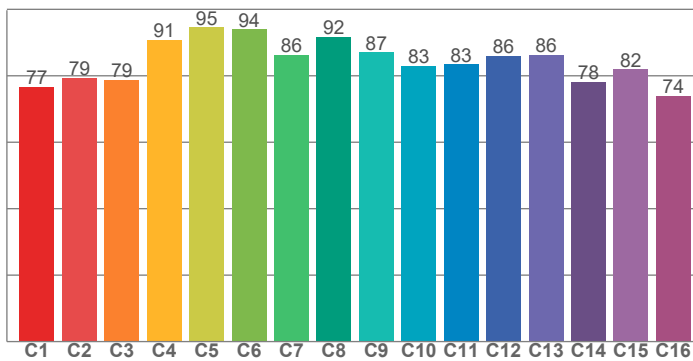
## Spectra



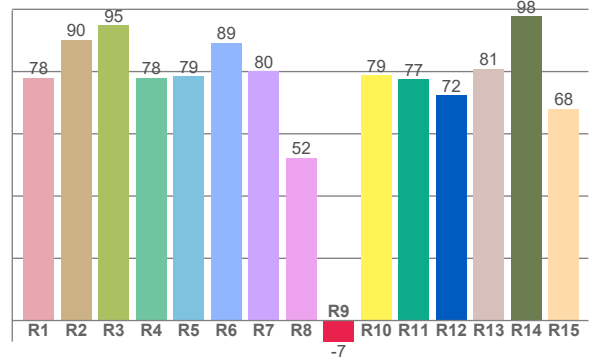




**TM30: 84,4**



**CRI: 80,2 (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
78,1	90,2	95,0	78,0	78,5	89,3	80,2	52,4	-6,8	78,8	77,5	72,5	80,9	97,7	68,0

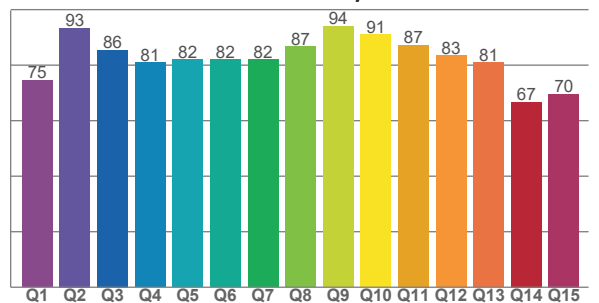
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
76,7	79,3	78,8	90,9	94,5	93,9	86,3	91,7	87,1	82,9	83,5	86,1	86,3	78,2	81,9	74,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
74,5	93,4	85,5	80,9	82,0	82,0	82,0	86,6	94,0	91,0	87,2	83,4	80,9	66,8	69,6

**CQS: 80,9**



## 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
2866 K	80,2	-6,8	84,4	93,1	80,9	63	0,450	0,414	0,0022

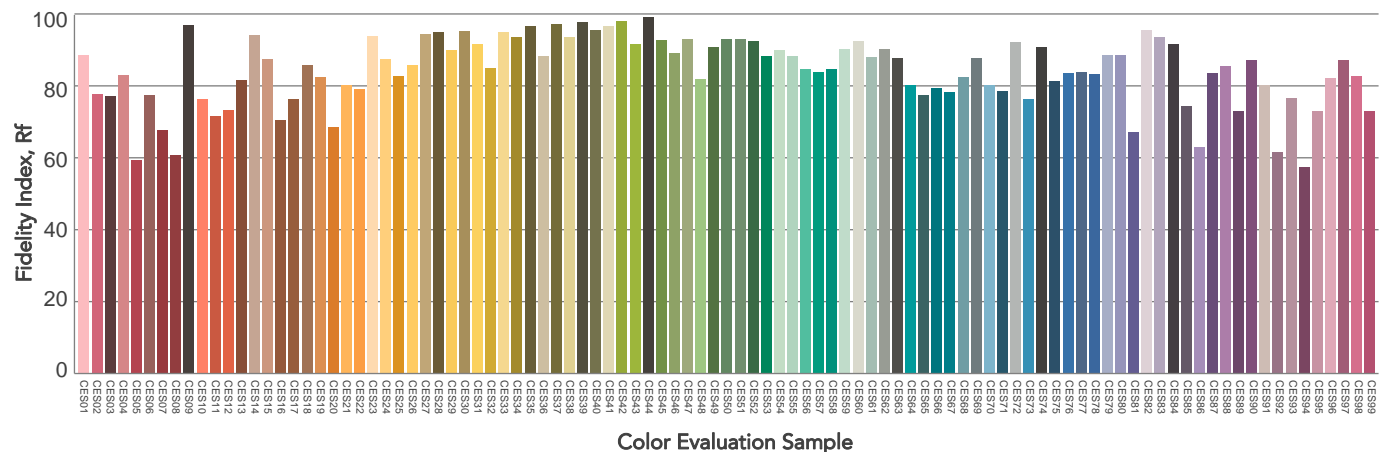
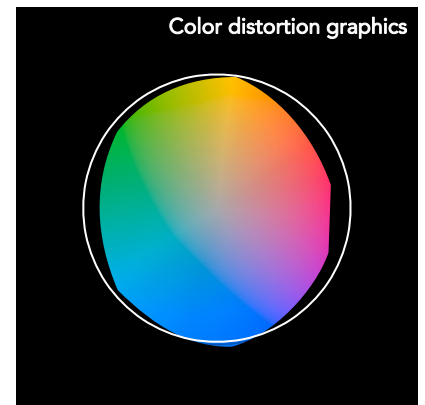
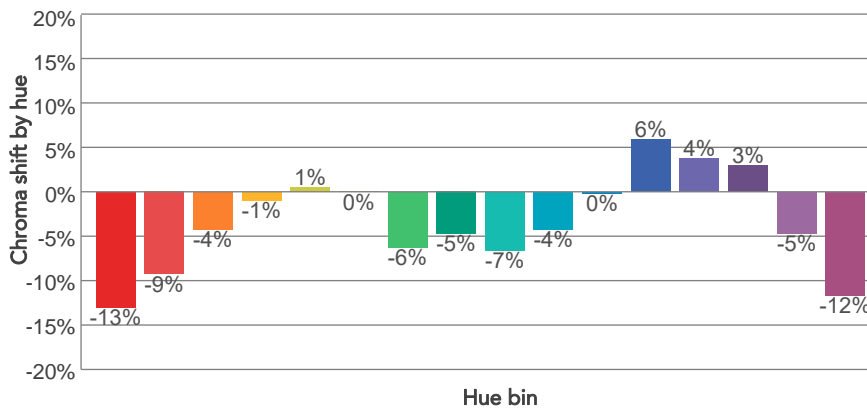
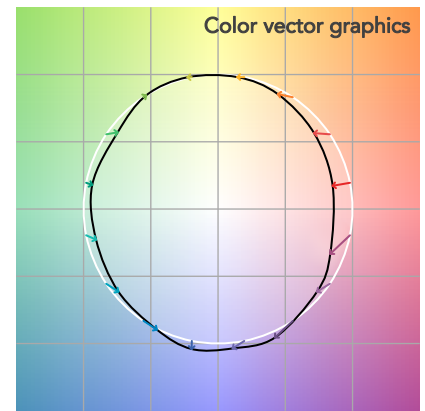
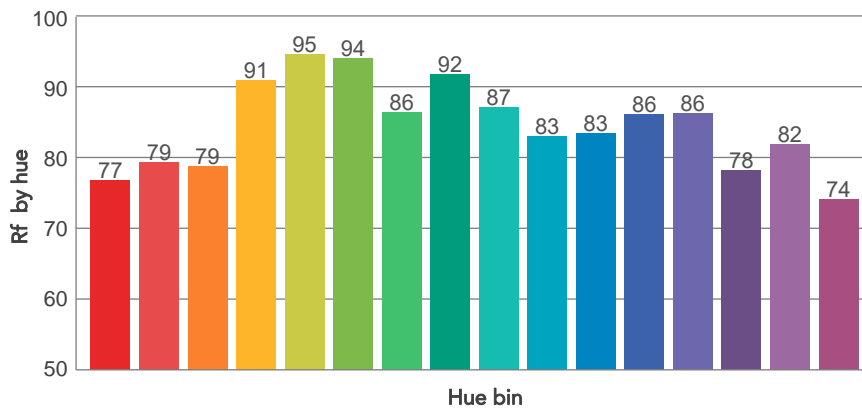
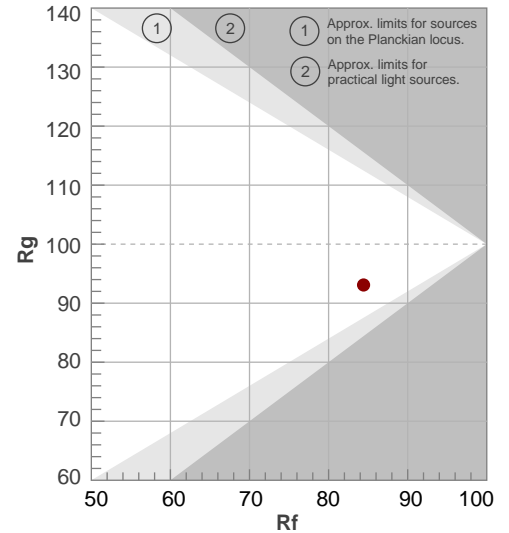


# TM30 DETAILS

**Rf 84,4**  
Fidelity index Rf

**Rg 93,1**  
Gammut index

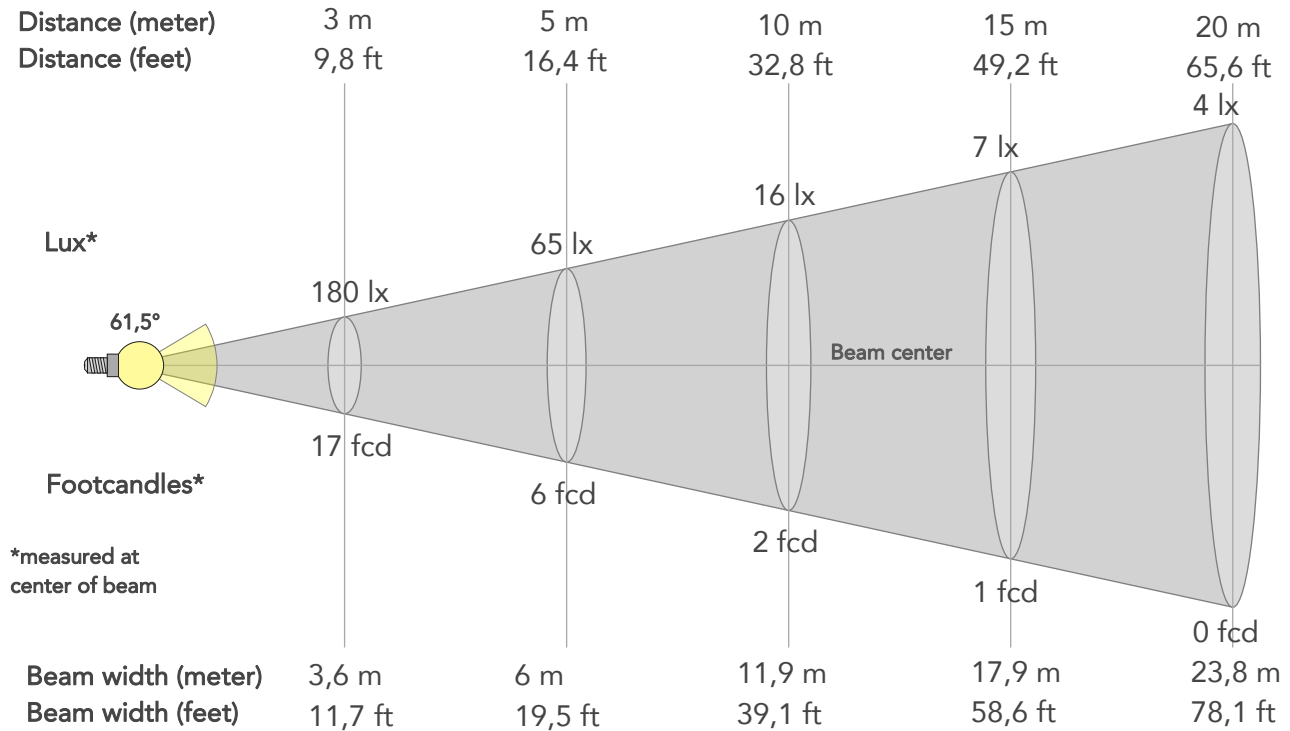
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	77	-13%	0%
2	79	-9%	7%
3	79	-4%	10%
4	91	-1%	5%
5	95	1%	3%
6	94	0%	-3%
7	86	-6%	-6%
8	92	-5%	1%
9	87	-7%	5%
10	83	-4%	10%
11	83	0%	12%
12	86	6%	1%
13	86	4%	-10%
14	78	3%	-18%
15	82	-5%	-10%
16	74	-12%	-16%





## BEAM DETAILS

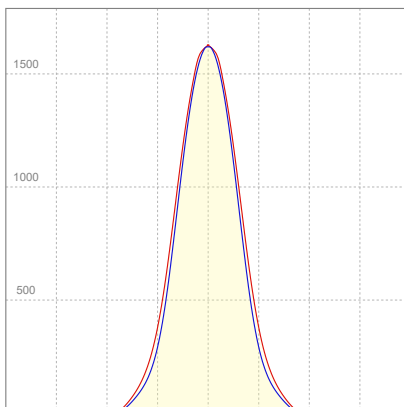
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
61,5°	110,4°	142,2°	94,6%	80,9%



### BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1622lx	406lx	180lx	101lx	65lx	29lx	16lx	7lx	4lx	3lx	2lx	1lx	1lx
Footcand.	151fcd	38fcd	17fcd	9fcd	6fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,2m	2,4m	3,6m	4,8m	6m	8,9m	11,9m	17,9m	23,8m	29,8m	35,7m	47,6m	59,5m
Beam wid.	3,9ft	7,9ft	11,7ft	15,6ft	19,5ft	29,3ft	39,1ft	58,6ft	78,1ft	97,6ft	117,2ft	156,2ft	195,3ft

### LINEAR DISTRIBUTION DIAGRAM

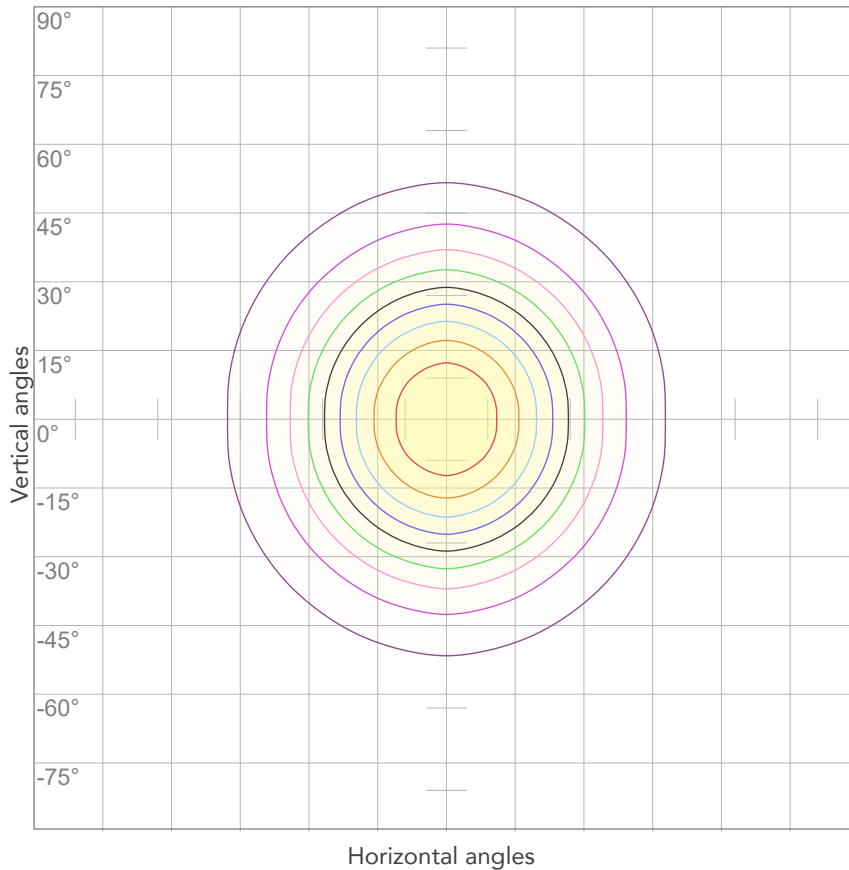


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,220A	42,3W	46lm/W



## ISO CANDELA DIAGRAM



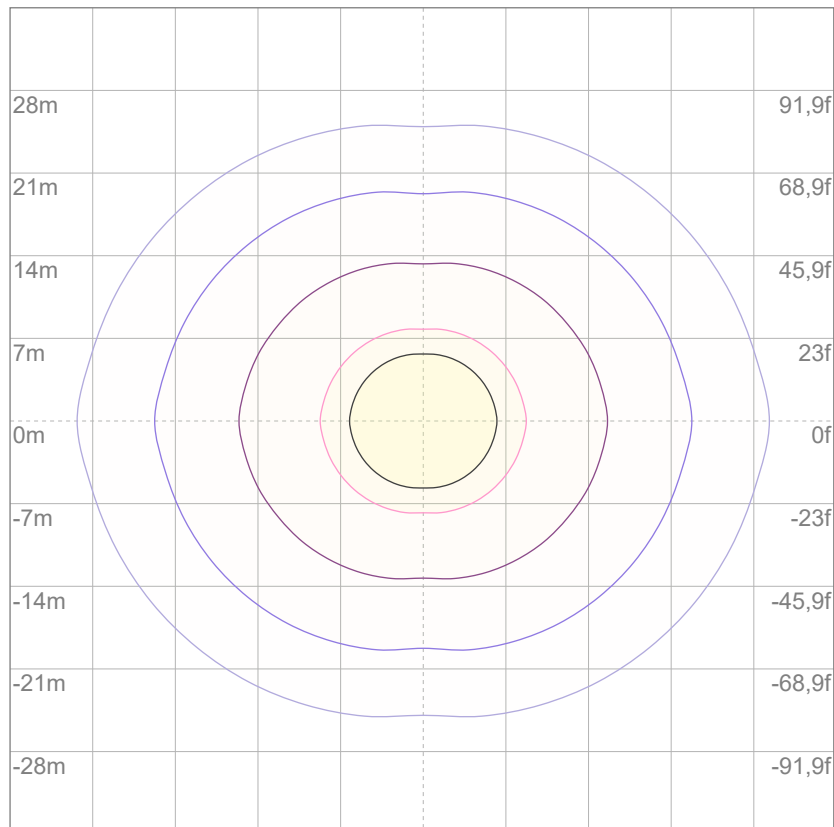
10%	162 cd
20%	324 cd
30%	487 cd
40%	649 cd
50%	811 cd
60%	973 cd
70%	1136 cd
80%	1298 cd

### Conditions:

Number of c-planes: 4

Candela at center: 1622 cd

## ISO LUX DIAGRAM



3%	0,487 lx
5%	0,811 lx
10%	1,62 lx
30%	4,87 lx
50%	8,11 lx

### Conditions:

Number of c-planes: 4

Lux at center: 16,2 lx

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



Total lumen output:

2939 lm

Peak candela output:

3836 cd

Light quality:

CRI: 80,3

Color temperature:

2869 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8°+ Filter 10°x60°

Target:

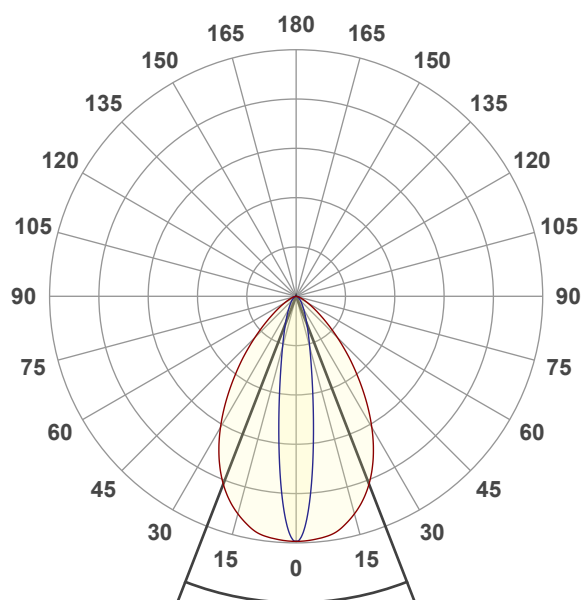
Warm White

Operator:

Paolo Carvone

Date and time:

08/09/2022 16:14:38

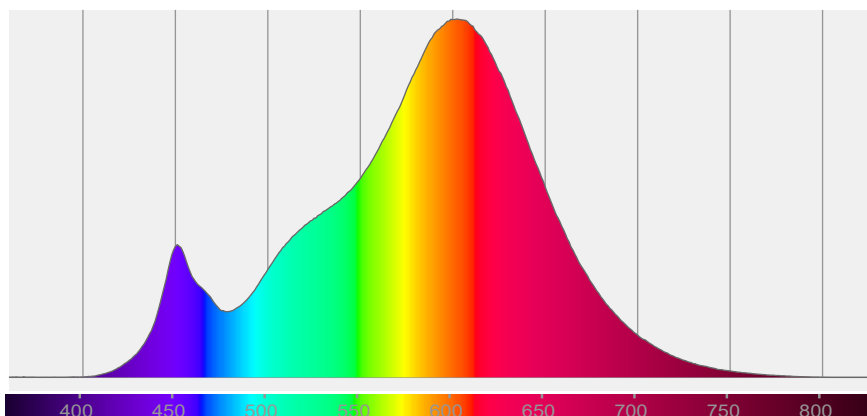


Beam angle 50%: 42,4°

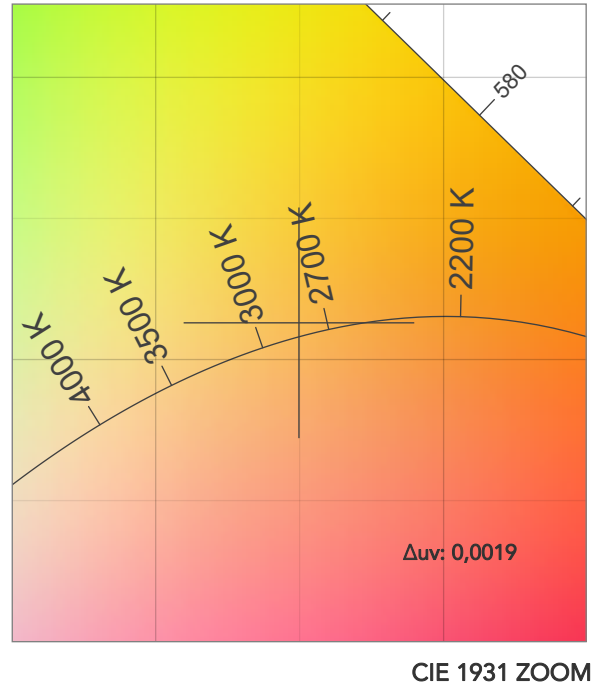
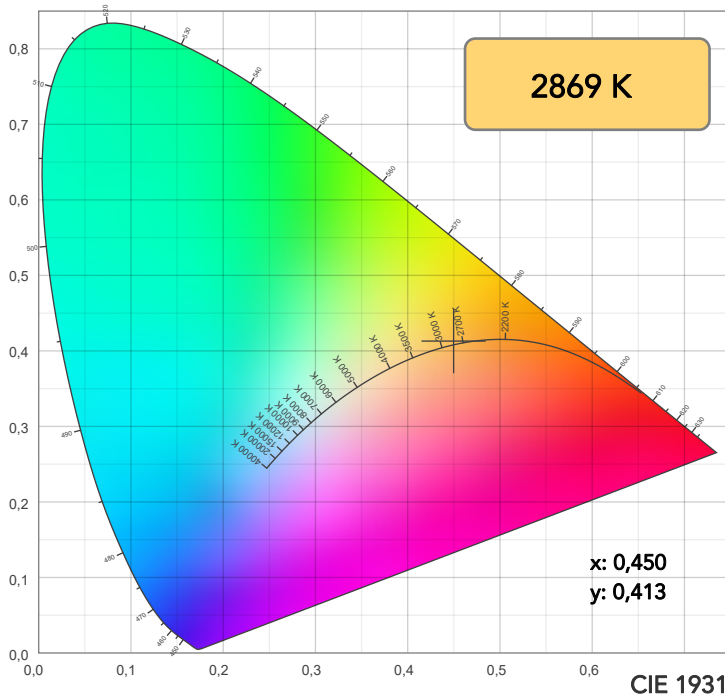
Field angle 10%: 77,9°

Cut off angle 2.5%: 112,5°

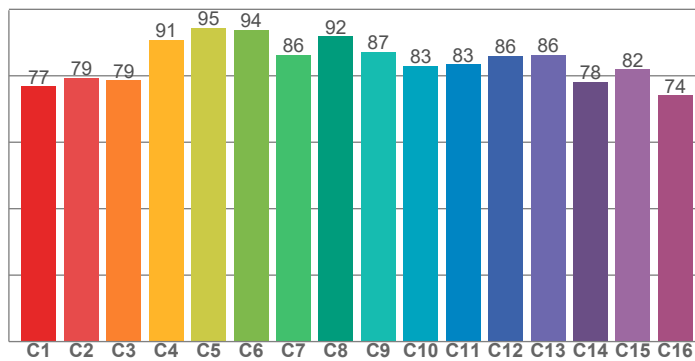
**Spectra**



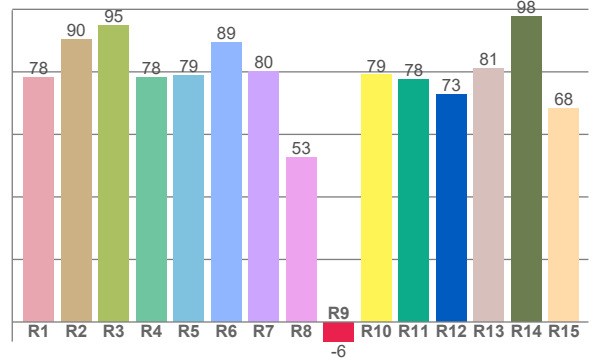




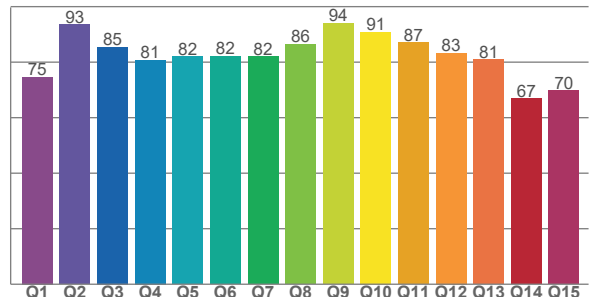
TM30: 84,4



CRI: 80,3 (R1-R8)



CQS: 80,9



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
78,2	90,3	94,9	78,1	78,7	89,5	80,2	52,5	-6,3	79,0	77,6	72,8	81,1	97,7	68,3

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
76,9	79,3	78,6	90,8	94,5	93,9	86,4	91,8	87,2	83,0	83,4	86,0	86,3	78,2	81,9	74,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
74,6	93,5	85,4	80,8	82,0	82,1	82,0	86,4	94,0	90,9	87,1	83,3	80,9	66,9	69,7

## 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	$\Delta uv$
2869 K	80,3	-6,3	84,4	93,3	80,9	64	0,450	0,413	0,0019

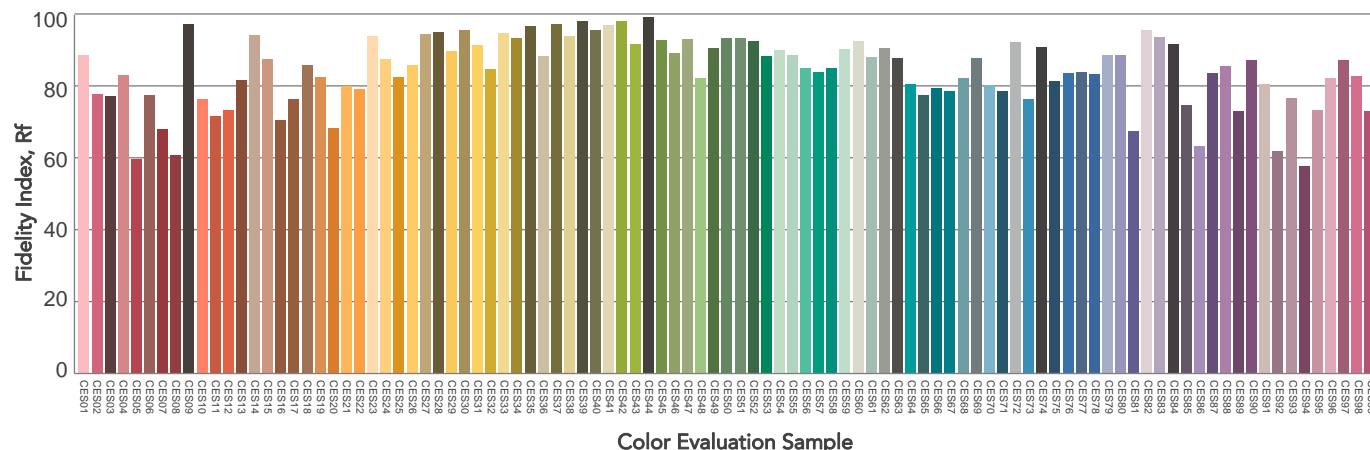
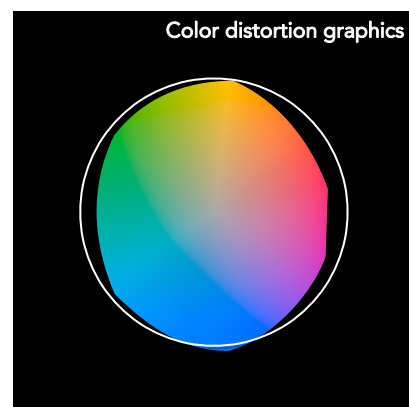
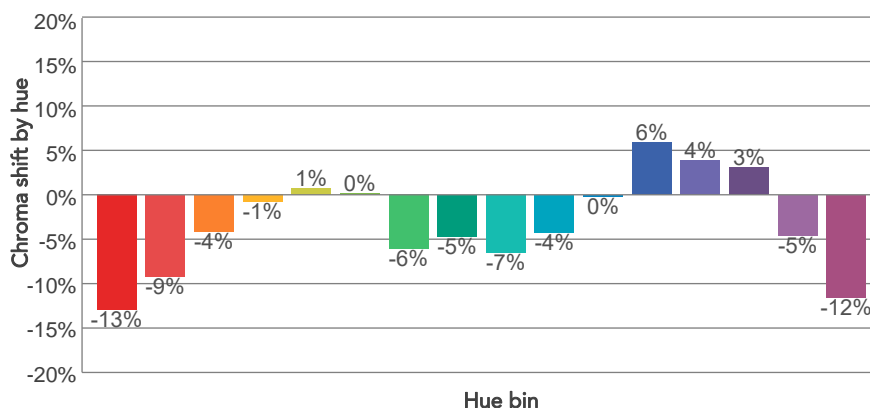
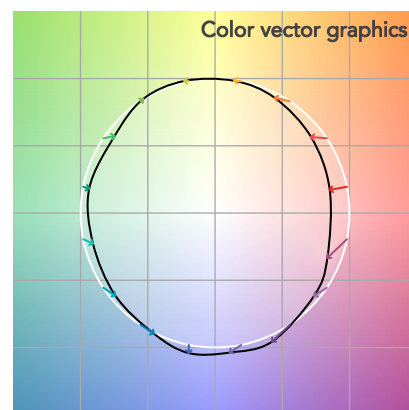
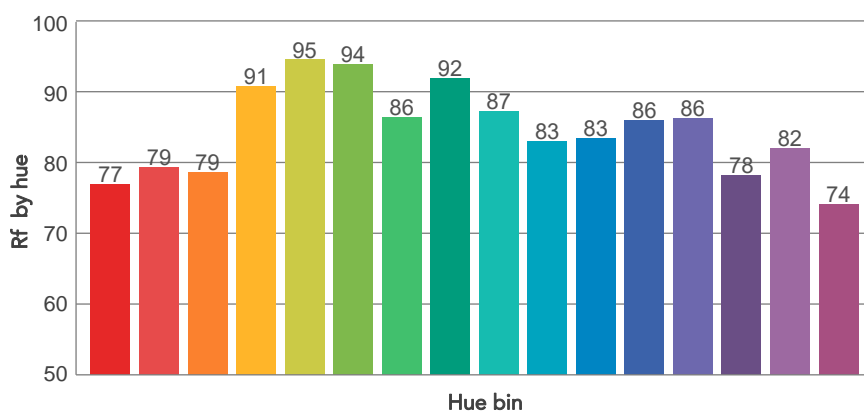
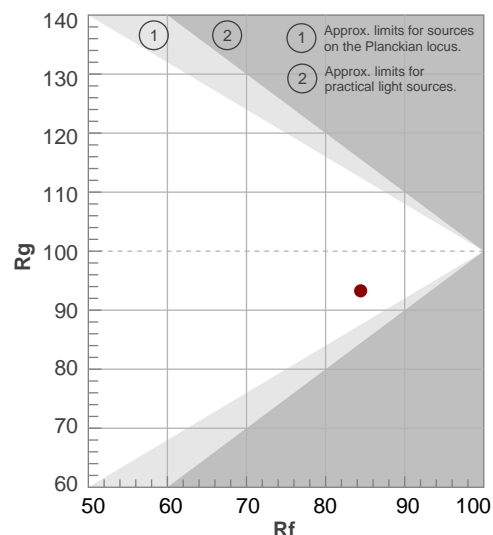


# TM30 DETAILS

**Rf 84,4**  
Fidelity index Rf

**Rg 93,3**  
Gammut index

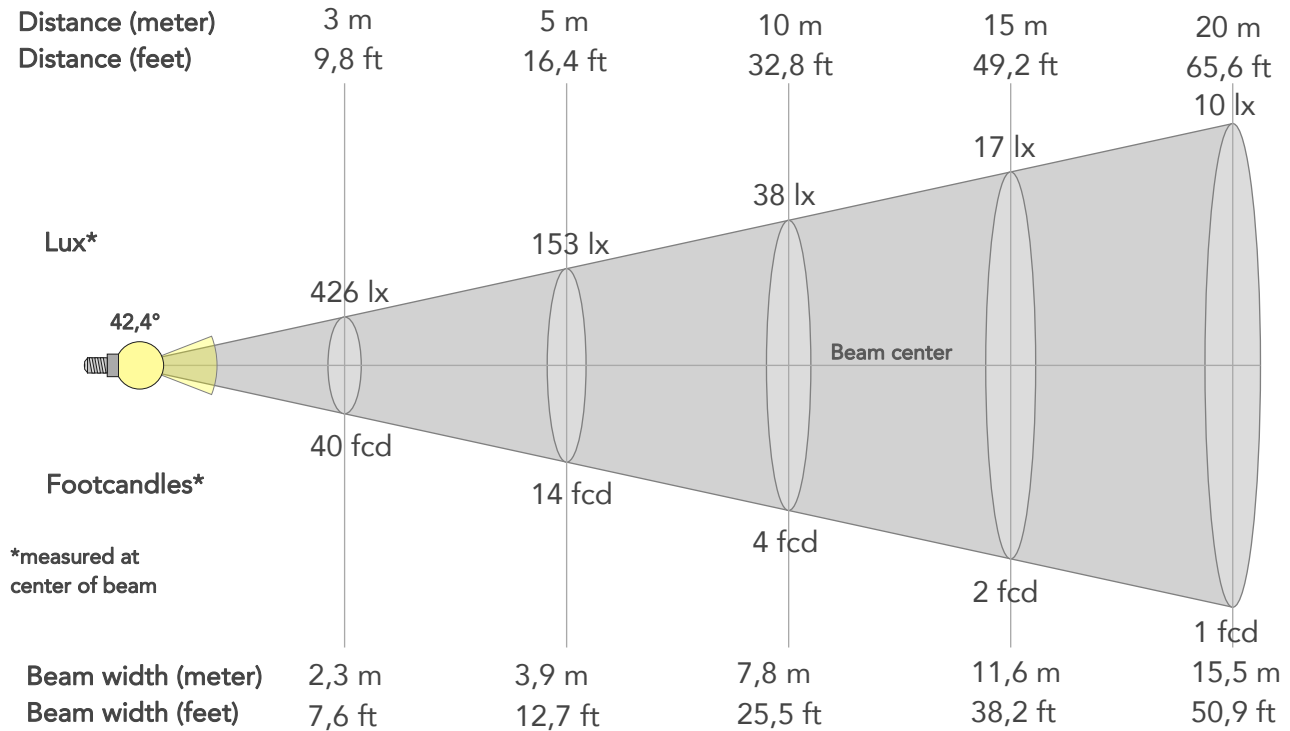
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	77	-13%	0%
2	79	-9%	7%
3	79	-4%	11%
4	91	-1%	5%
5	95	1%	3%
6	94	0%	-3%
7	86	-6%	-6%
8	92	-5%	0%
9	87	-7%	4%
10	83	-4%	10%
11	83	0%	12%
12	86	6%	1%
13	86	4%	-9%
14	78	3%	-18%
15	82	-5%	-10%
16	74	-12%	-16%





## BEAM DETAILS

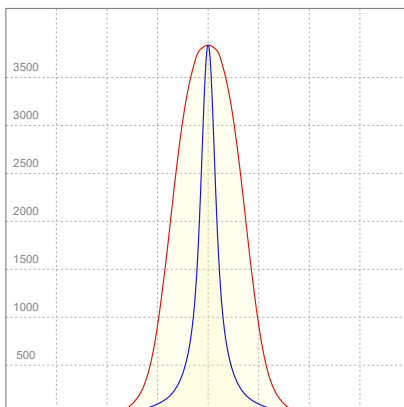
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
42,4°	77,9°	112,5°	96,7%	84,7%



### 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	3833lx	958lx	426lx	240lx	153lx	68lx	38lx	17lx	10lx	6lx	4lx	2lx	2lx
Footcand.	356fcd	89fcd	40fcd	22fcd	14fcd	6fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,8m	1,6m	2,3m	3,1m	3,9m	5,8m	7,8m	11,6m	15,5m	19,4m	23,3m	31m	38,8m
Beam wid.	2,6ft	5,1ft	7,6ft	10,2ft	12,7ft	19,1ft	25,5ft	38,2ft	50,9ft	63,6ft	76,4ft	101,8ft	127,3ft

### LINEAR DISTRIBUTION DIAGRAM

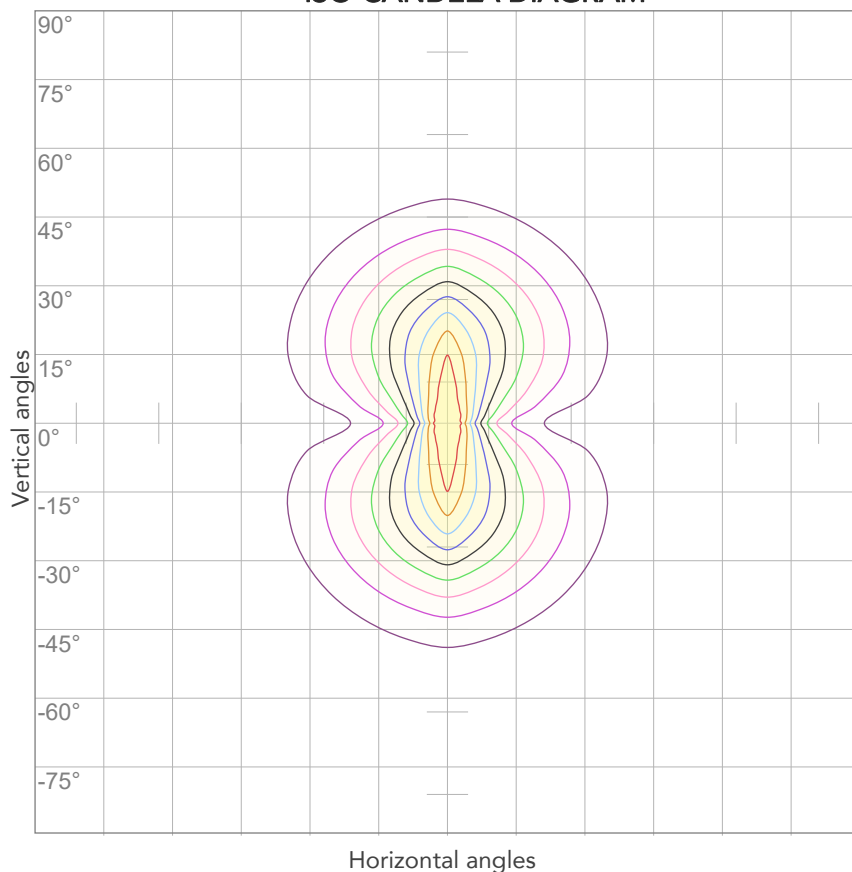


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,219A	42,4W	69lm/W



## ISO CANDELA DIAGRAM



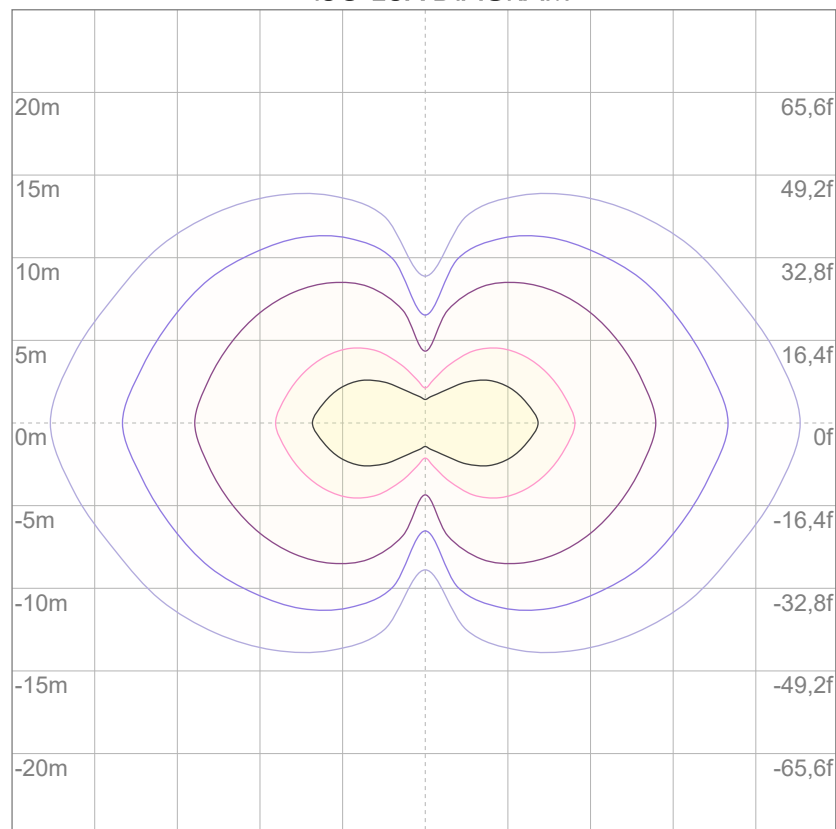
10%	383 cd
20%	767 cd
30%	1150 cd
40%	1533 cd
50%	1917 cd
60%	2300 cd
70%	2683 cd
80%	3067 cd

### Conditions:

Number of c-planes: 4

Candela at center: 3833 cd

## ISO LUX DIAGRAM



3%	1,15 lx
5%	1,92 lx
10%	3,83 lx
30%	11,5 lx
50%	19,2 lx

### Conditions:

Number of c-planes: 4

Lux at center: 38,3 lx

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



Total lumen output:

2144 lm

Peak candela output:

2110 cd

Light quality:

CRI: 80,3

Color temperature:

2866 K



## PRODUCT NAME:

ARCSHINEM18VW

## MEASUREMENT CONDITIONS:

Beam angle:

8°+ Filter 30°x60°

Target:

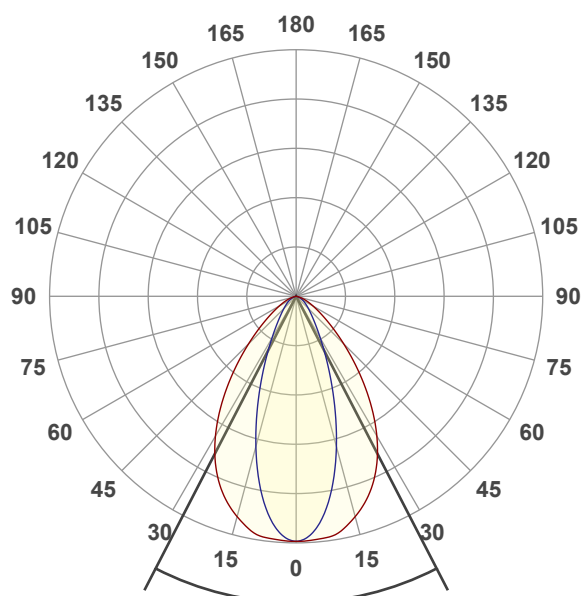
Warm White

Operator:

Paolo Carvone

Date and time:

08/09/2022 16:06:10

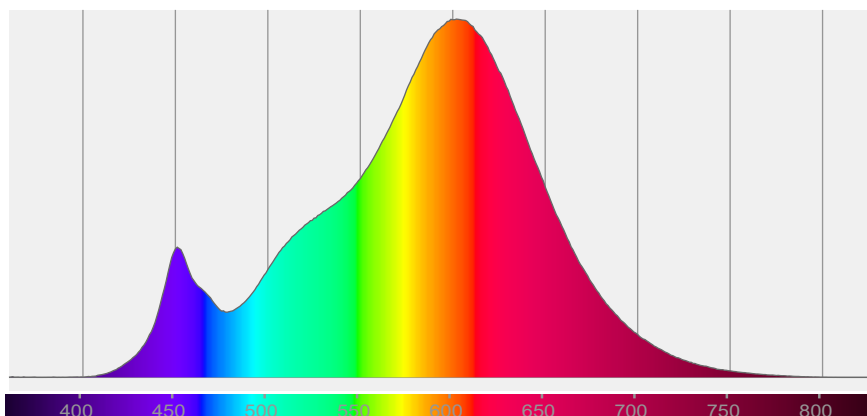


Beam angle 50%: 54,6°

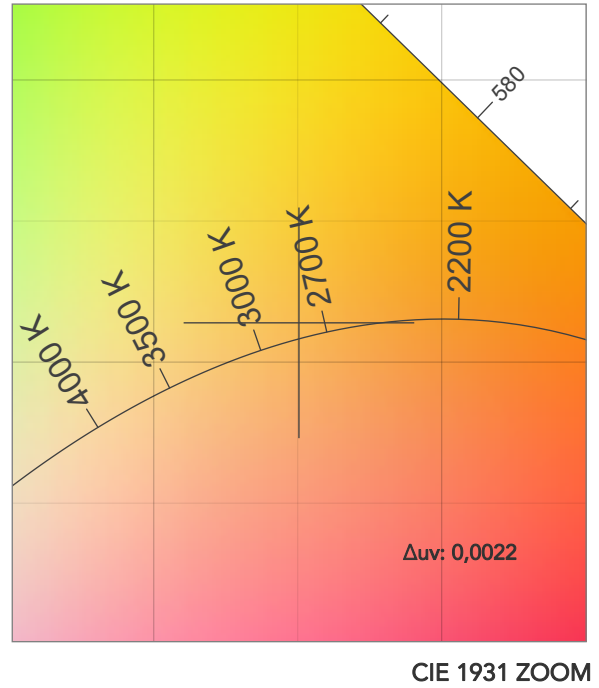
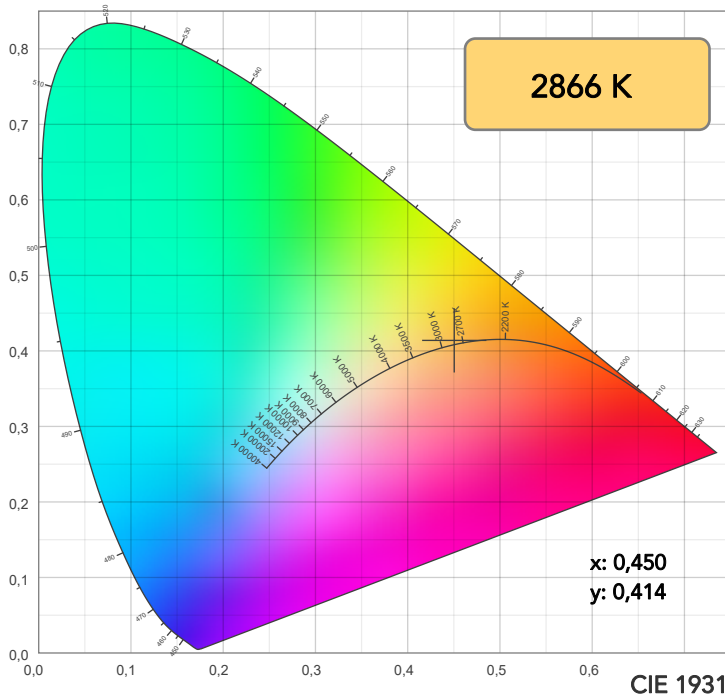
Field angle 10%: 96,6°

Cut off angle 2.5%: 134,1°

## Spectra

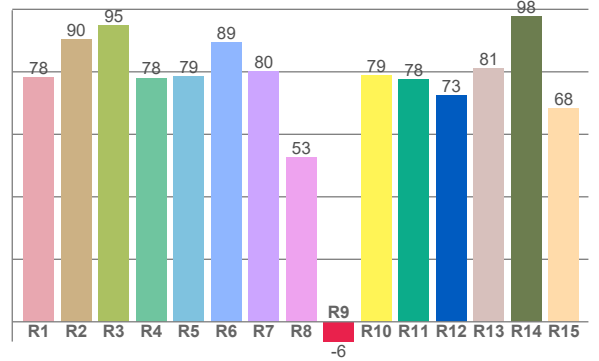
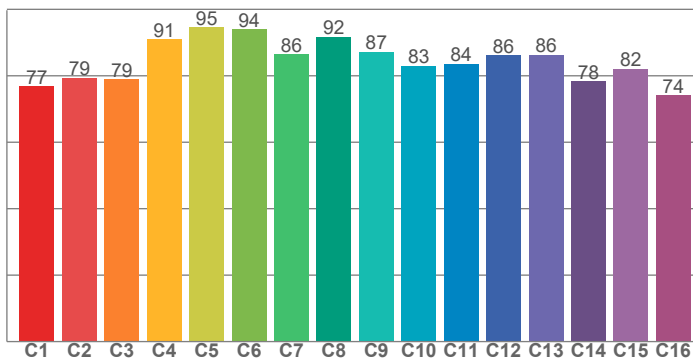






TM30: 84,5

CRI: 80,3 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
78,2	90,3	95,0	78,1	78,7	89,4	80,3	52,5	-6,3	78,9	77,6	72,6	81,1	97,7	68,2

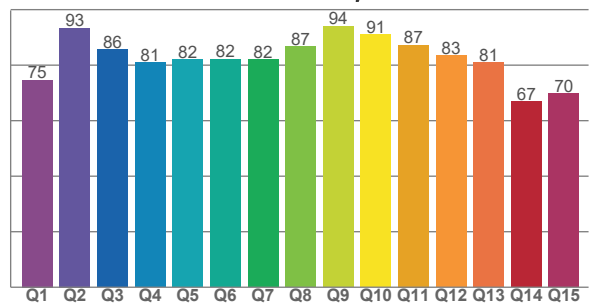
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
76,8	79,4	78,9	90,9	94,6	94,0	86,4	91,8	87,2	83,0	83,5	86,1	86,3	78,3	82,0	74,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
74,6	93,4	85,6	81,0	82,0	82,1	82,1	86,7	94,0	91,1	87,3	83,5	81,0	66,9	69,7

CQS: 81,0



## COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2866 K	80,3	-6,3	84,5	93,1	81,0	64	0,450	0,414	0,0022

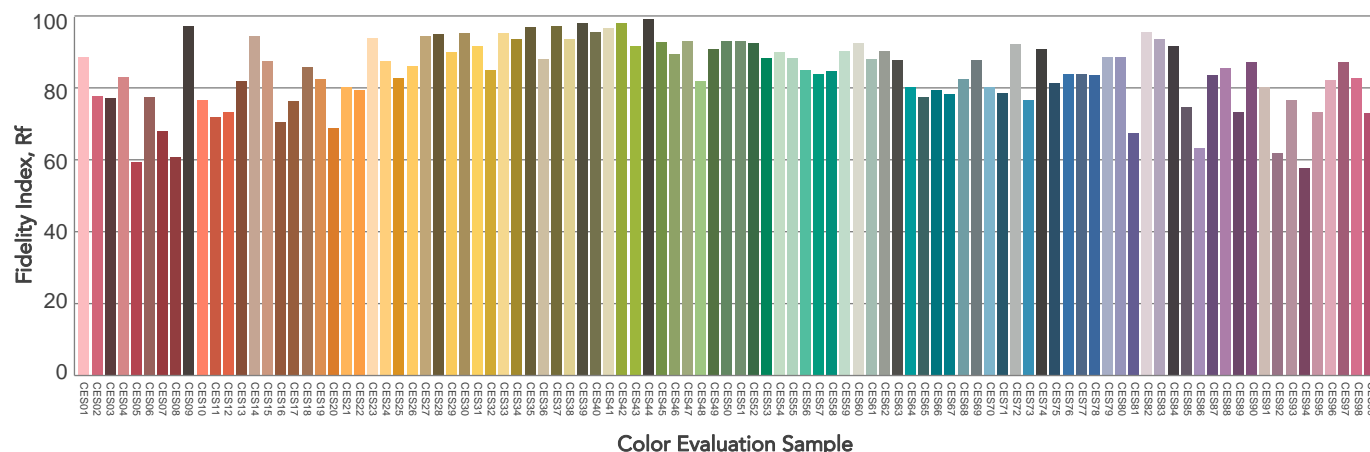
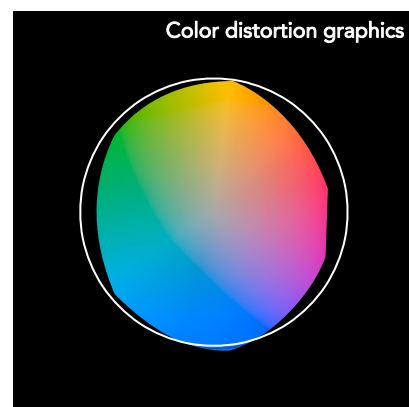
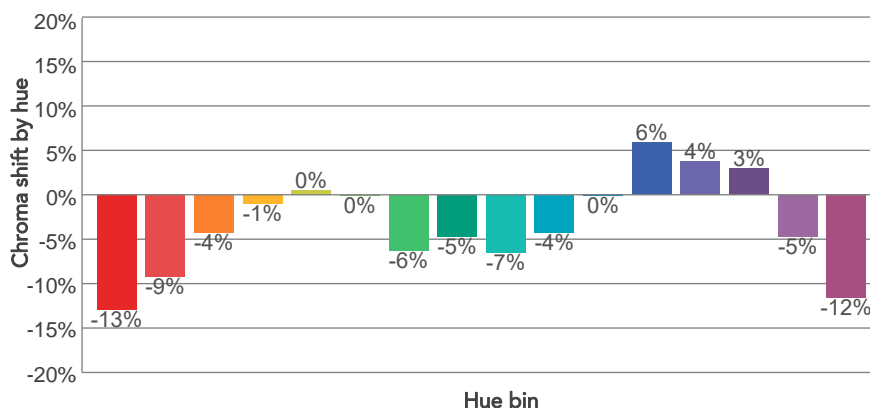
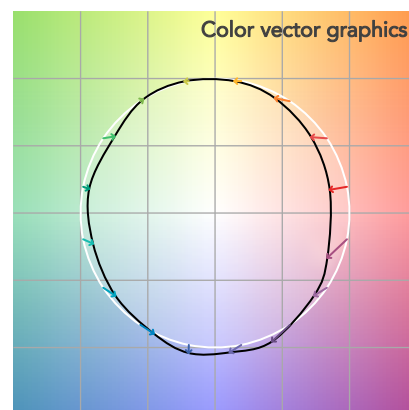
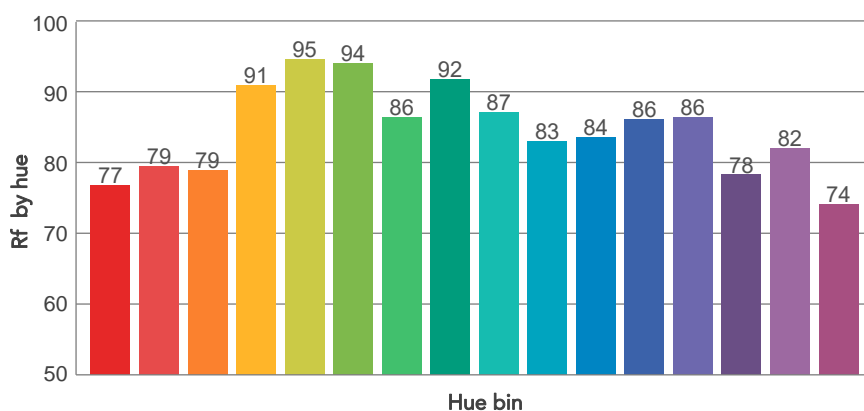
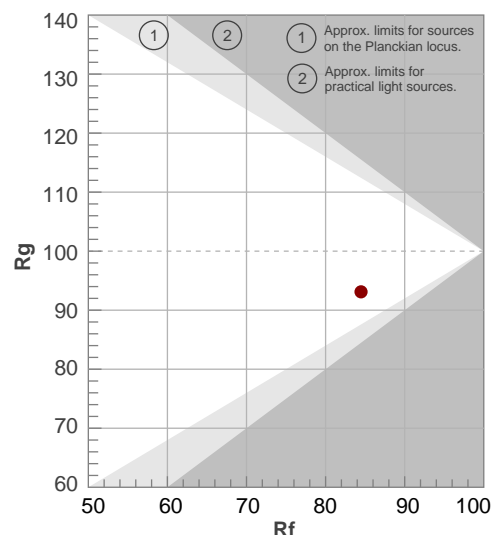


# TM30 DETAILS

**Rf 84,5**  
Fidelity index Rf

**Rg 93,1**  
Gammut index

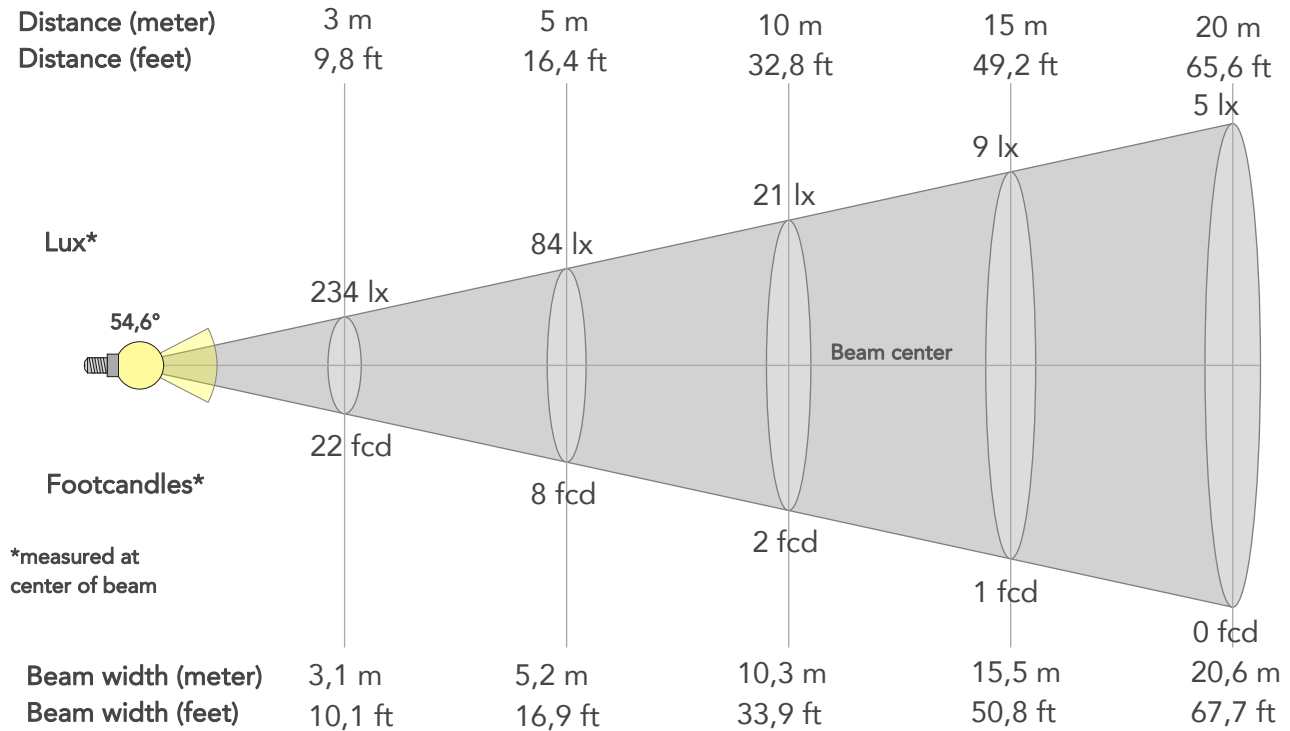
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	77	-13%	0%
2	79	-9%	7%
3	79	-4%	10%
4	91	-1%	5%
5	95	0%	3%
6	94	0%	-3%
7	86	-6%	-6%
8	92	-5%	1%
9	87	-7%	5%
10	83	-4%	10%
11	84	0%	12%
12	86	6%	1%
13	86	4%	-10%
14	78	3%	-18%
15	82	-5%	-10%
16	74	-12%	-16%





## BEAM DETAILS

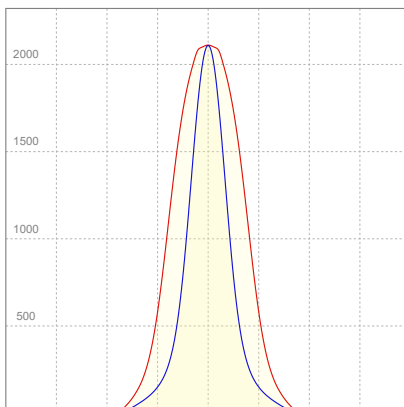
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
54,6°	96,6°	134,1°	95,4%	82,4%



### 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	2109lx	527lx	234lx	132lx	84lx	37lx	21lx	9lx	5lx	3lx	2lx	1lx	1lx
Footcand.	196fcd	49fcd	22fcd	12fcd	8fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1m	2,1m	3,1m	4,1m	5,2m	7,7m	10,3m	15,5m	20,6m	25,8m	31m	41,3m	51,6m
Beam wid.	3,4ft	6,8ft	10,1ft	13,5ft	16,9ft	25,4ft	33,9ft	50,8ft	67,7ft	84,7ft	101,6ft	135,4ft	169,3ft

### LINEAR DISTRIBUTION DIAGRAM

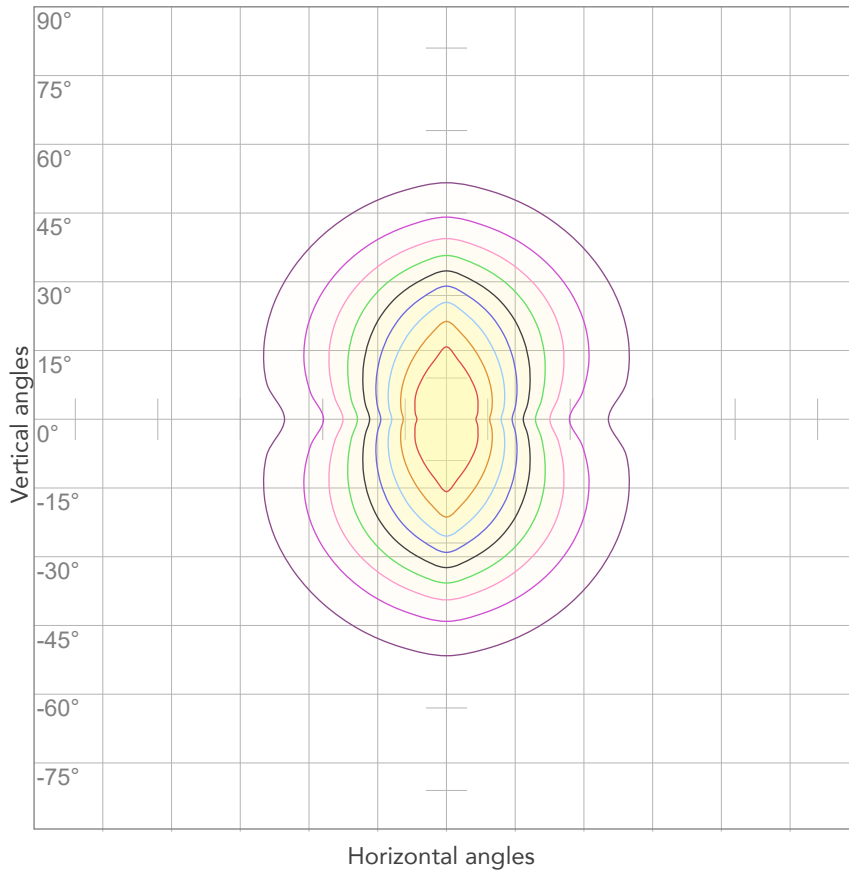


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,220A	42,3W	51lm/W



## ISO CANDELA DIAGRAM



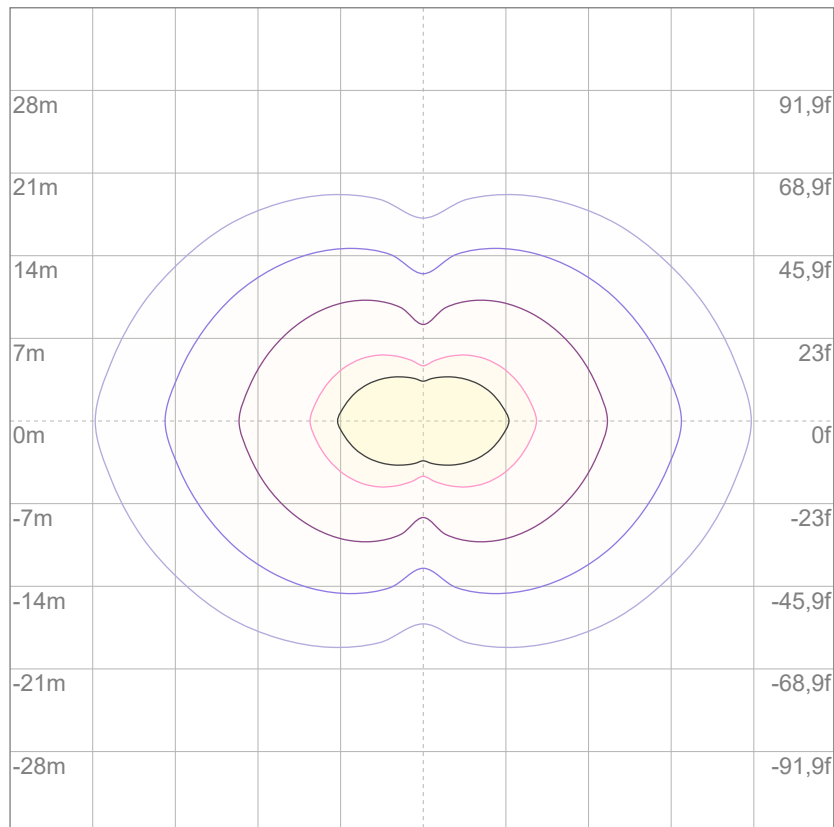
10%	211 cd
20%	422 cd
30%	633 cd
40%	843 cd
50%	1054 cd
60%	1265 cd
70%	1476 cd
80%	1687 cd

### Conditions:

Number of c-planes: 4

Candela at center: 2109 cd

## ISO LUX DIAGRAM



3%	0,633 lx
5%	1,05 lx
10%	2,11 lx
30%	6,33 lx
50%	10,5 lx

### Conditions:

Number of c-planes: 4

Lux at center: 21,1 lx

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



Total lumen output:

2459 lm

Peak candela output:

23183 cd

Light quality:

CRI: 83,3

Color temperature:

7079 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8°

Target:

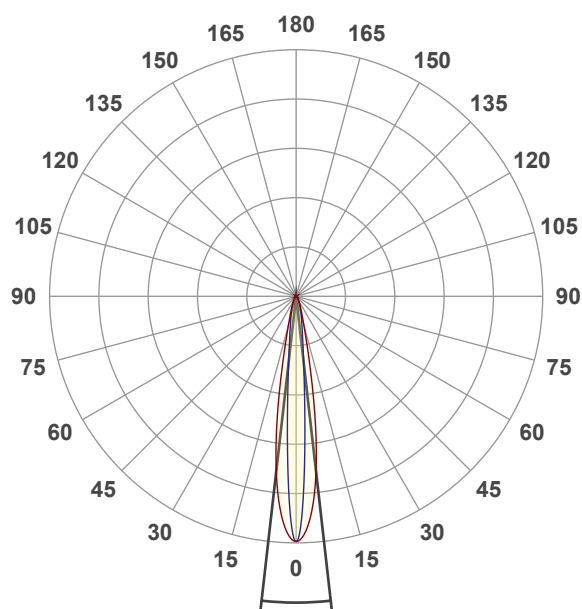
Cold White

Operator:

Paolo Carvone

Date and time:

08/09/2022 16:18:09

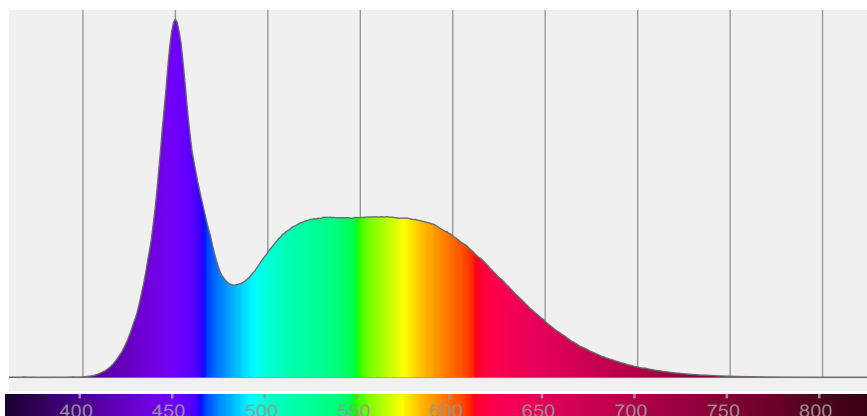


Beam angle 50%: 13°

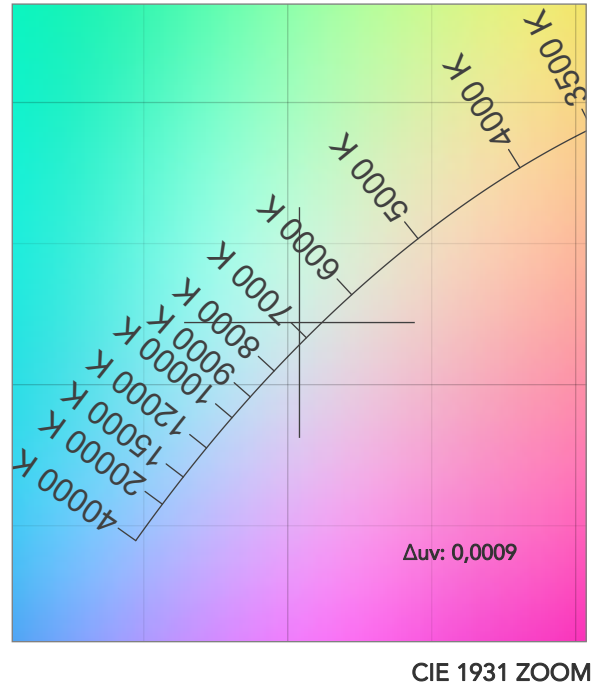
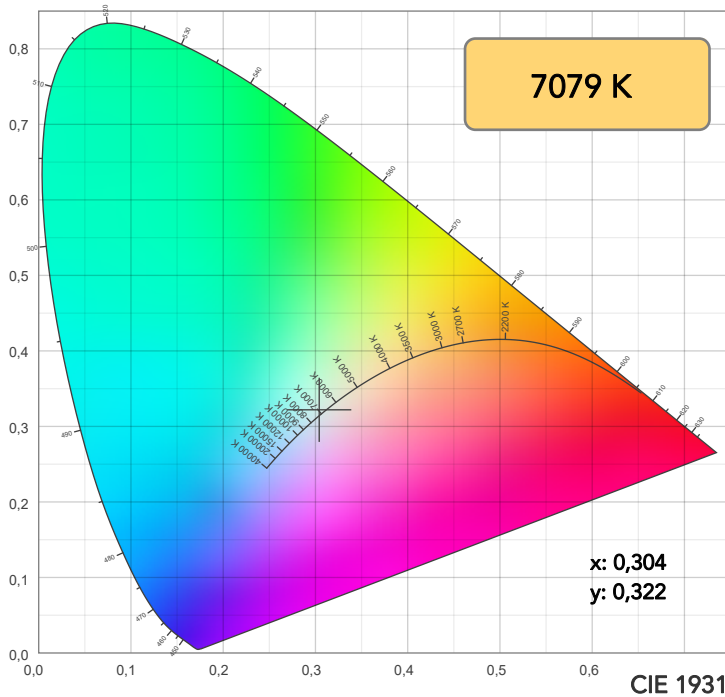
Field angle 10%: 29°

Cut off angle 2.5%: 53,7°

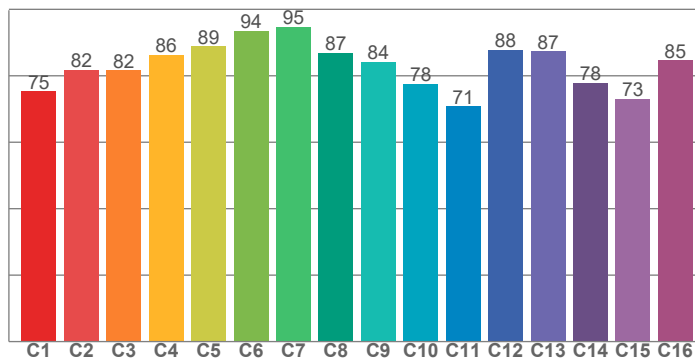
**Spectra**



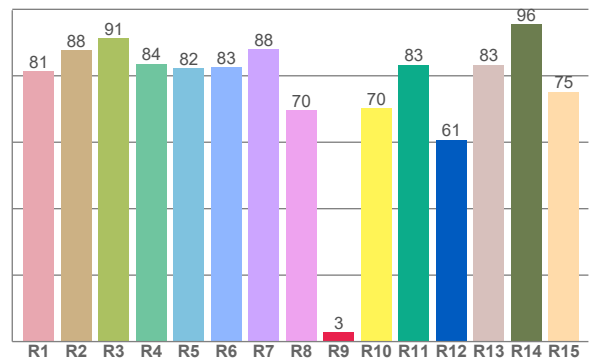




TM30: 83,6



CRI: 83,3 (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
81,3	87,6	91,3	83,6	82,4	82,6	88,1	69,6	2,8	70,2	83,3	60,7	83,3	95,6	75,2

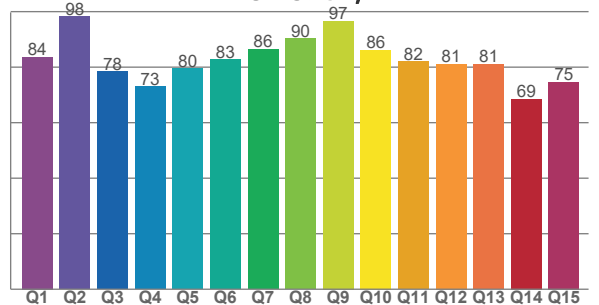
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75,3	81,8	81,6	86,3	88,8	93,5	94,7	86,8	84,2	77,6	70,8	87,8	87,3	77,9	73,0	84,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,7	98,2	78,4	73,0	79,6	82,7	86,4	90,3	96,6	86,1	82,1	81,1	81,0	68,5	74,6

CQS: 81,1



## 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
7079 K	83,3	2,8	83,6	94,7	81,1	69	0,304	0,322	0,0009



# TM30 DETAILS

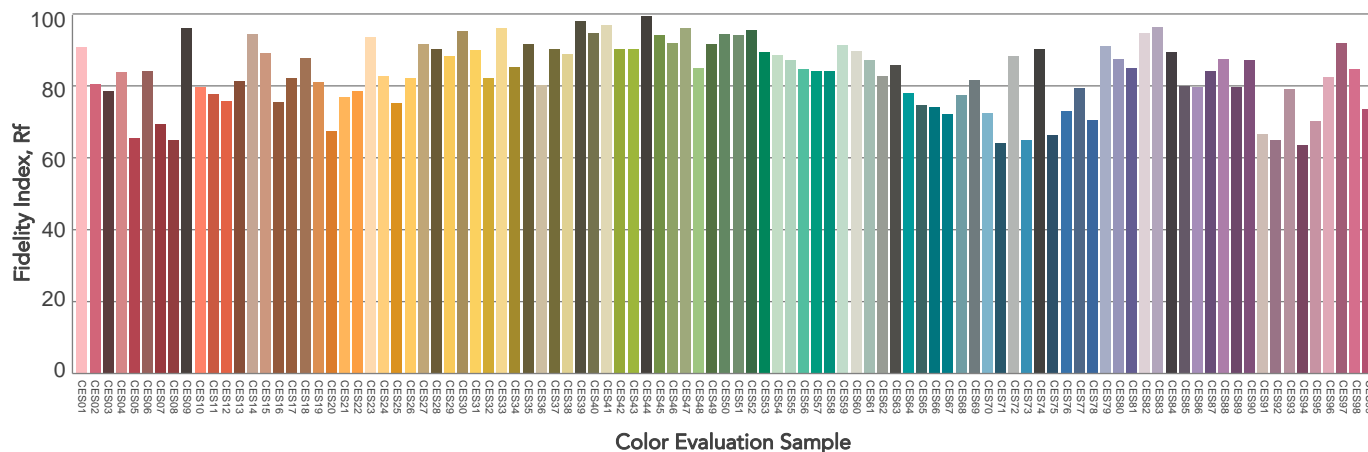
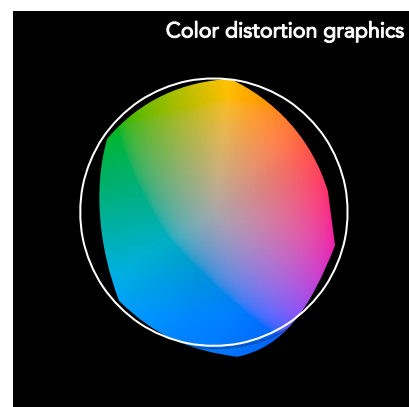
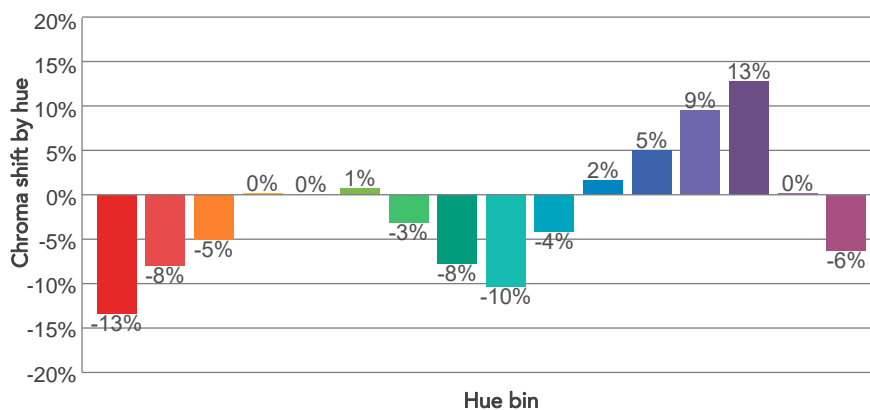
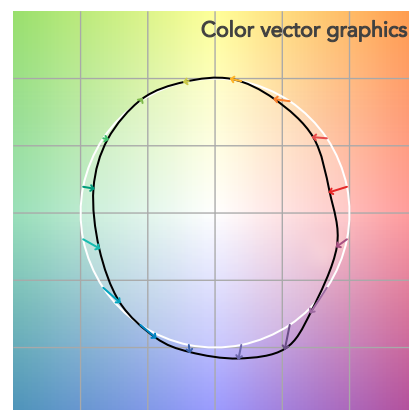
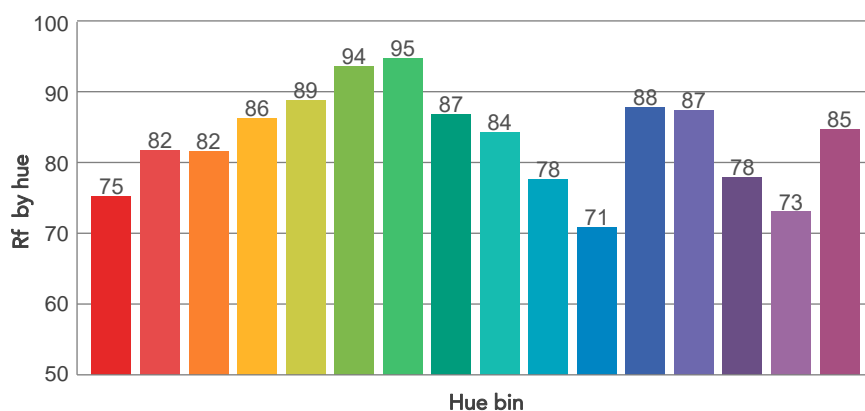
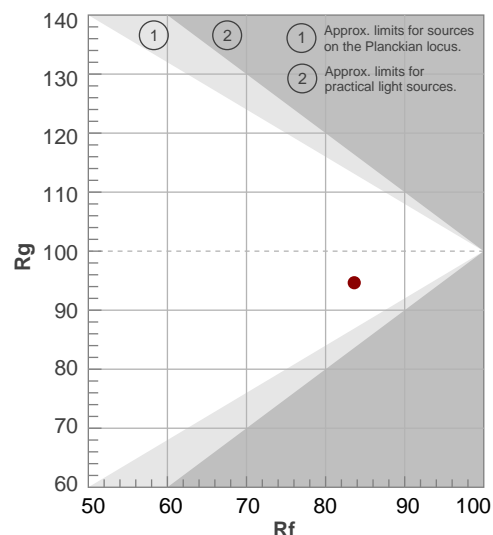
**Rf 83,6**

Fidelity index Rf

**Rg 94,7**

Gammut index

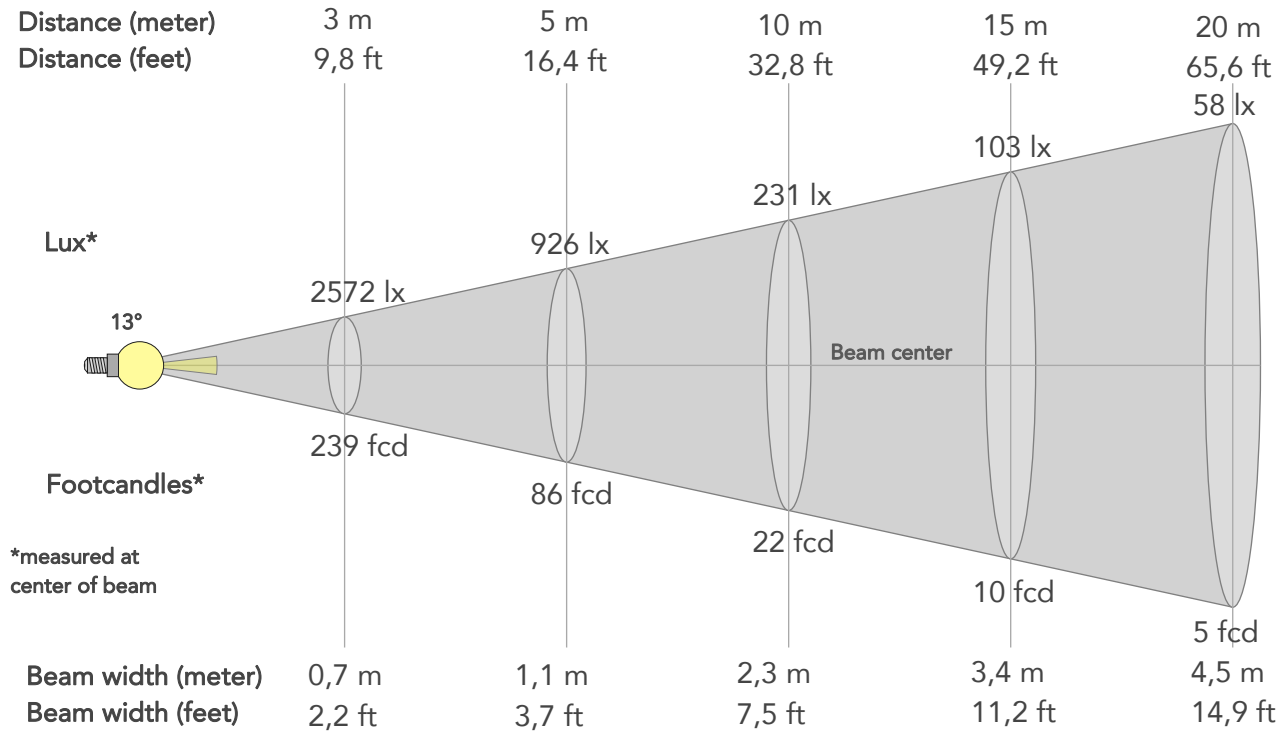
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-13%	-1%
2	82	-8%	6%
3	82	-5%	10%
4	86	0%	8%
5	89	0%	3%
6	94	1%	-2%
7	95	-3%	-1%
8	87	-8%	0%
9	84	-10%	9%
10	78	-4%	16%
11	71	2%	15%
12	88	5%	2%
13	87	9%	-4%
14	78	13%	-13%
15	73	0%	-22%
16	85	-6%	-7%





## BEAM DETAILS

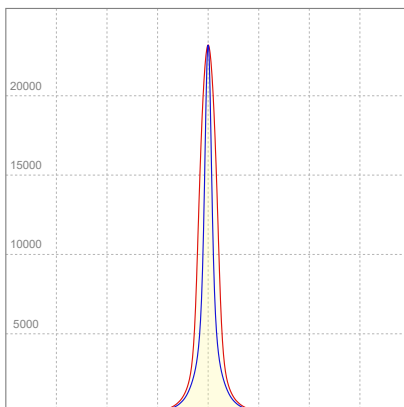
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
13°	29°	53,7°	99,8%	96,4%



### 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	23149lx	5787lx	2572lx	1447lx	926lx	412lx	231lx	103lx	58lx	37lx	26lx	14lx	9lx
Footcand.	2151fcd	538fcd	239fcd	134fcd	86fcd	38fcd	22fcd	10fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,2m	0,5m	0,7m	0,9m	1,1m	1,7m	2,3m	3,4m	4,5m	5,7m	6,8m	9,1m	11,4m
Beam wid.	0,7ft	1,5ft	2,2ft	3ft	3,7ft	5,6ft	7,5ft	11,2ft	14,9ft	18,6ft	22,4ft	29,8ft	37,3ft

### LINEAR DISTRIBUTION DIAGRAM

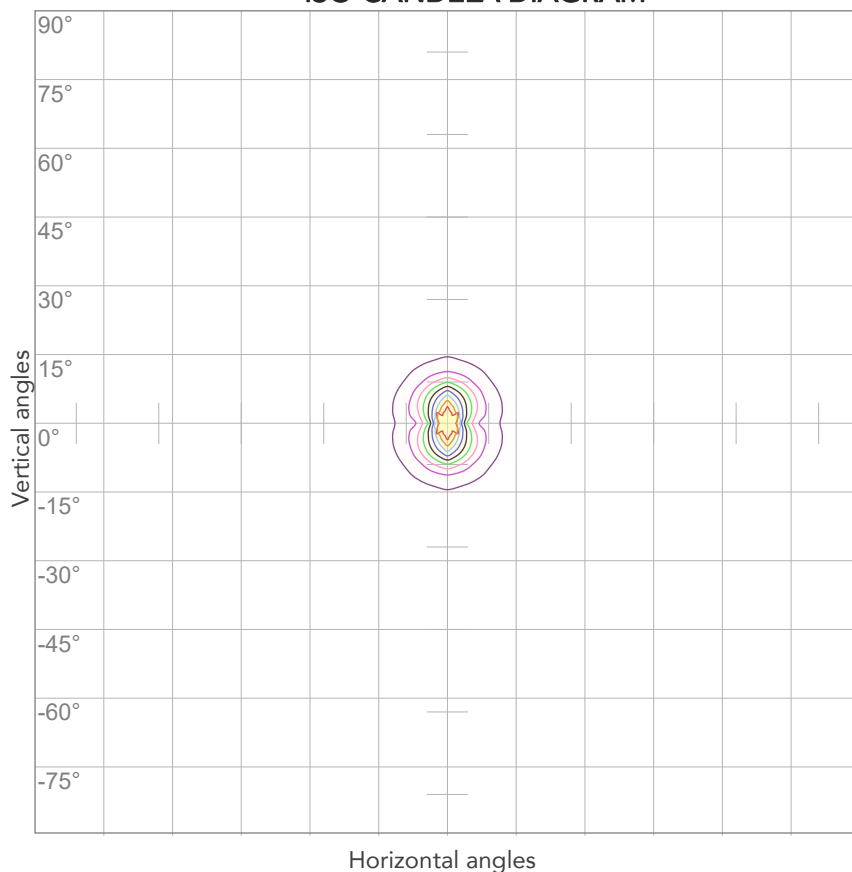


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,222A	43,1W	57lm/W



## ISO CANDELA DIAGRAM



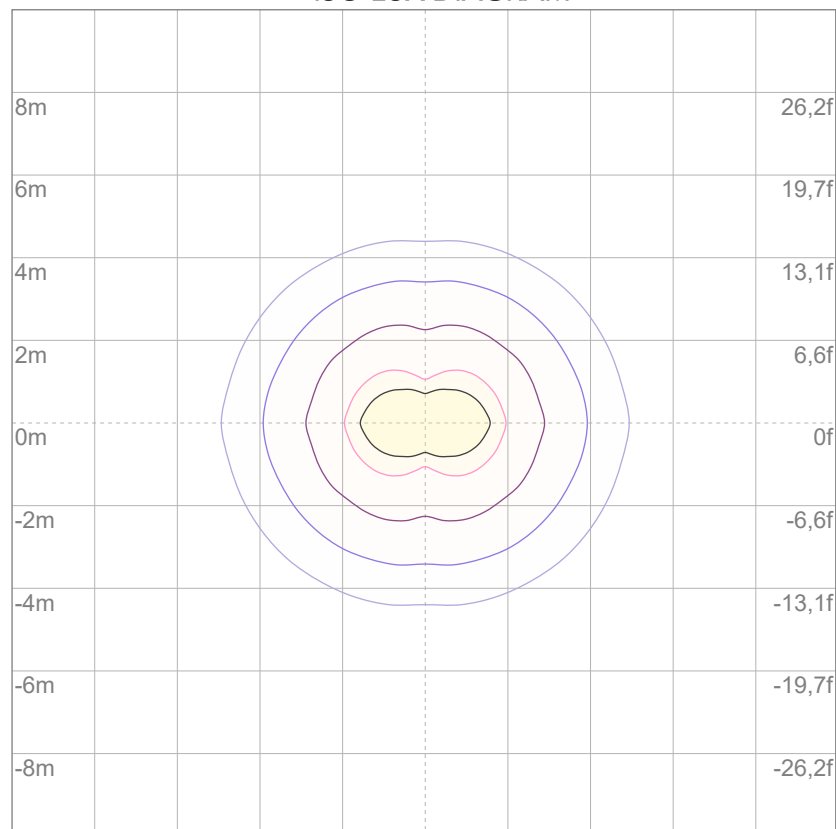
10%	2315 cd
20%	4630 cd
30%	6945 cd
40%	9260 cd
50%	11575 cd
60%	13890 cd
70%	16204 cd
80%	18519 cd

### Conditions:

Number of c-planes: 4

Candela at center: 23149 cd

## ISO LUX DIAGRAM



3%	6,94 lx
5%	11,6 lx
10%	23,1 lx
30%	69,4 lx
50%	116 lx

### Conditions:

Number of c-planes: 4

Lux at center: 231 lx

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



Total lumen output:

2293 lm

Peak candela output:

5832 cd

Light quality:

CRI: 83,2

Color temperature:

7003 K



## PRODUCT NAME:

ARCSHINEM18VW

## MEASURAMENT CONDITIONS:

Beam angle:

8° + Filter 20°

Target:

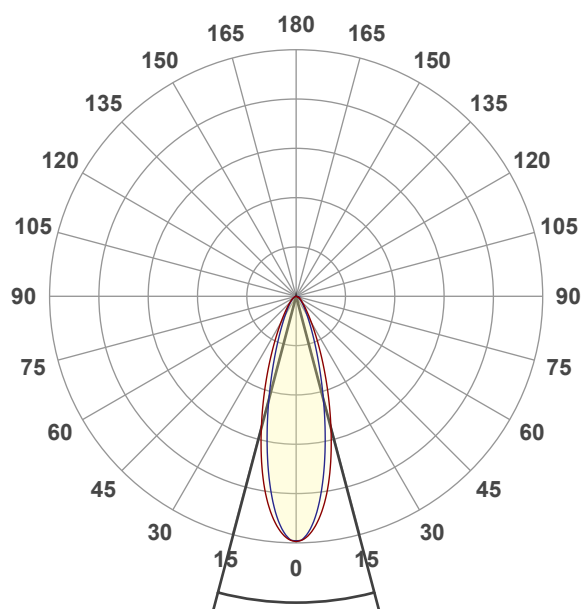
Cold White

Operator:

Paolo Carvone

Date and time:

08/09/2022 16:24:24

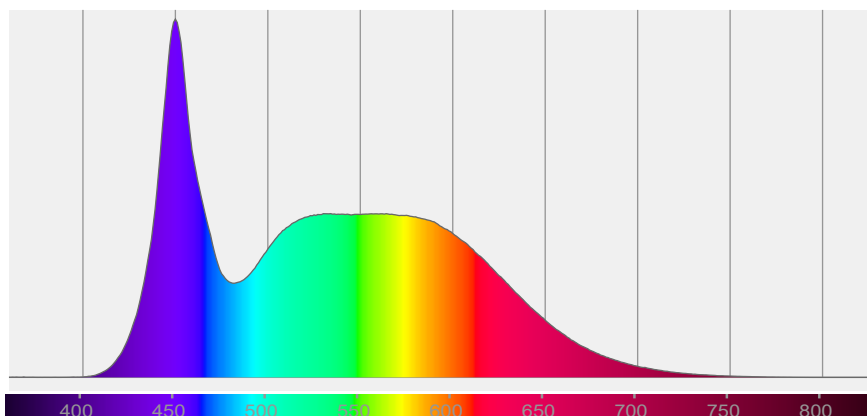


Beam angle 50%: 29,6°

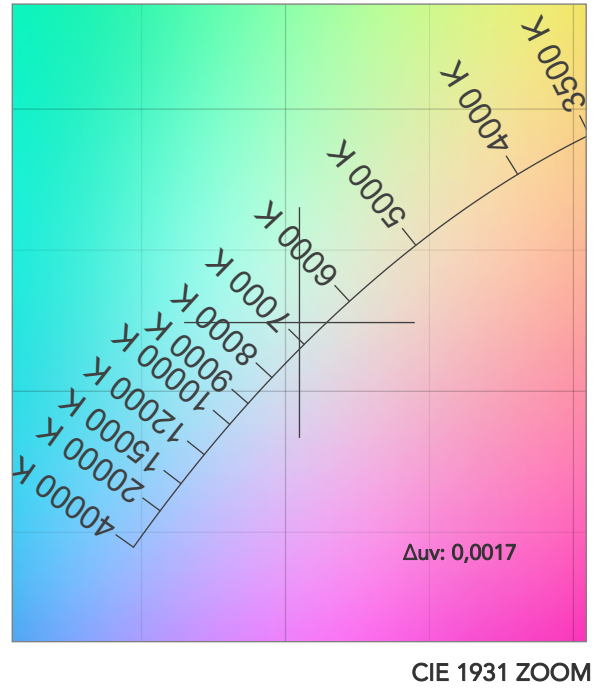
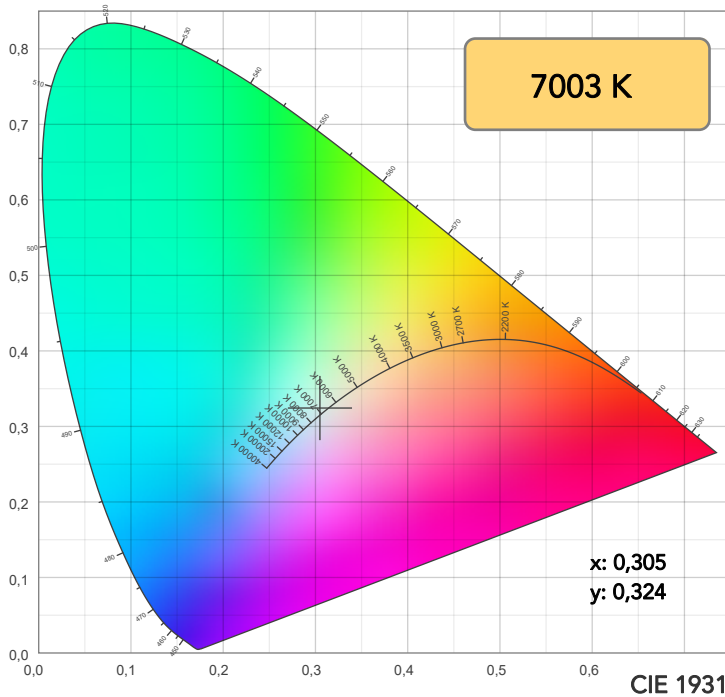
Field angle 10%: 61,2°

Cut off angle 2.5%: 98,6°

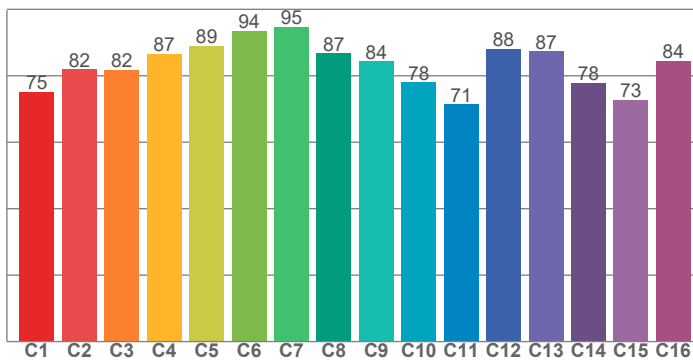
## Spectra



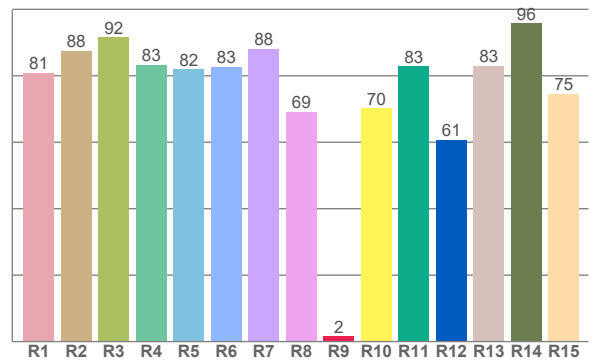




TM30: 83,7



CRI: 83,2 (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
80,9	87,5	91,6	83,3	82,0	82,7	88,1	69,2	1,6	70,2	83,0	60,7	83,0	95,7	74,6

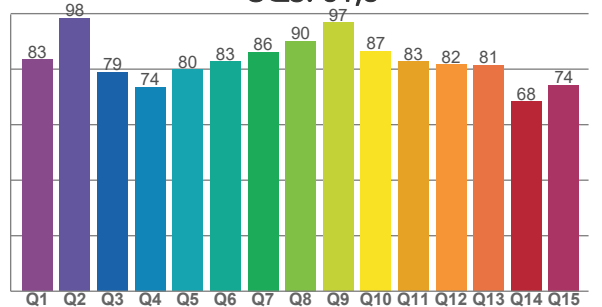
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75,2	81,9	81,8	86,7	89,1	93,5	94,7	86,7	84,3	78,0	71,5	88,0	87,4	77,8	72,8	84,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,4	98,3	78,9	73,6	79,9	82,7	86,2	90,1	96,8	86,6	82,7	81,7	81,4	68,4	74,4

CQS: 81,3



## 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
7003 K	83,2	1,6	83,7	94,5	81,3	69	0,305	0,324	0,0017

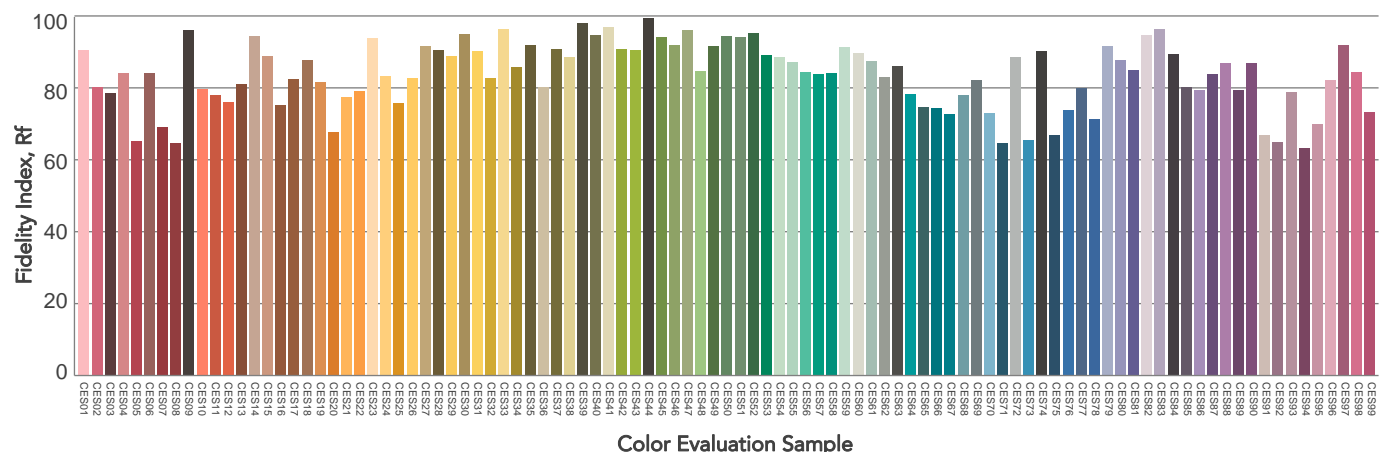
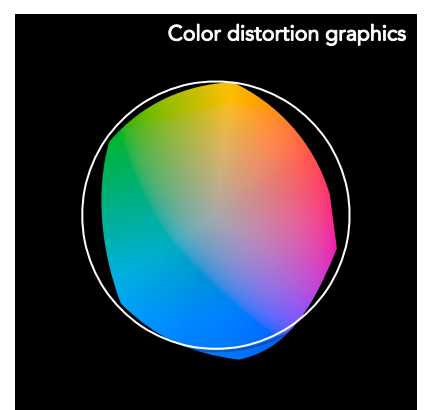
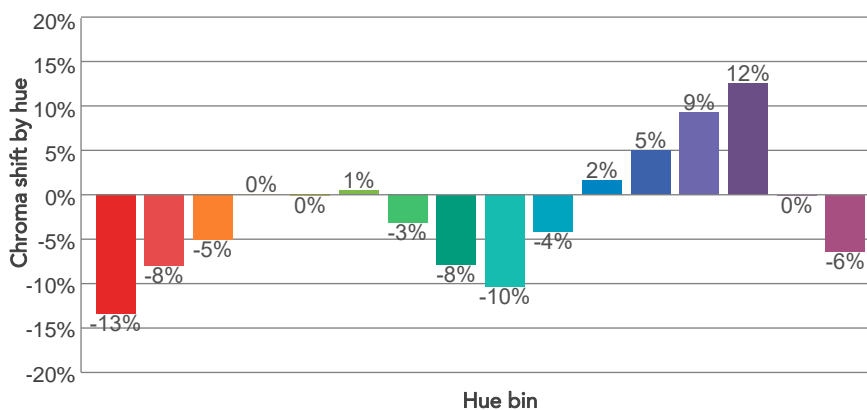
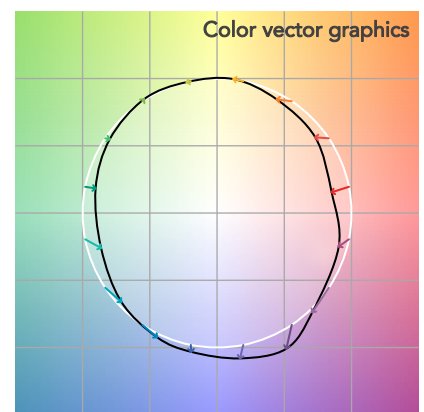
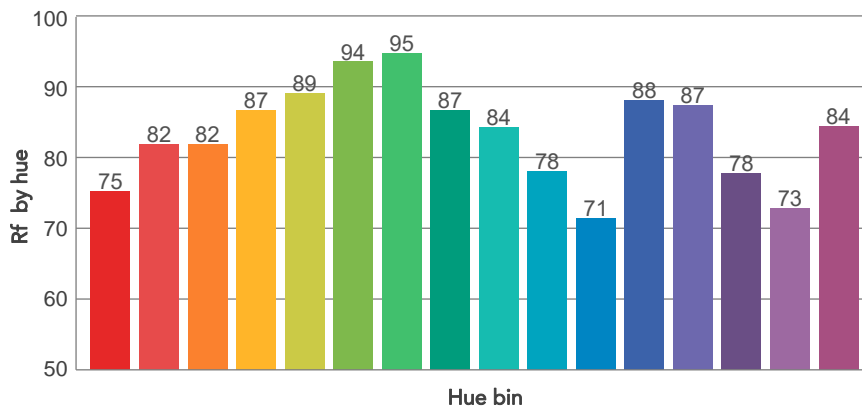
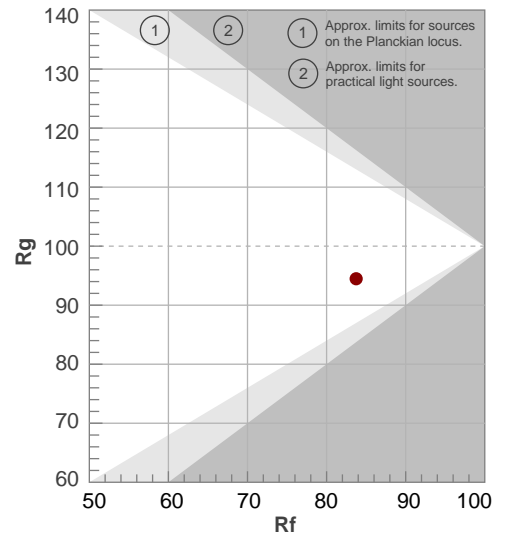


# TM30 DETAILS

**Rf 83,7**  
Fidelity index Rf

**Rg 94,5**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-13%	-1%
2	82	-8%	6%
3	82	-5%	10%
4	87	0%	8%
5	89	0%	3%
6	94	1%	-2%
7	95	-3%	-1%
8	87	-8%	0%
9	84	-10%	9%
10	78	-4%	15%
11	71	2%	14%
12	88	5%	1%
13	87	9%	-4%
14	78	12%	-13%
15	73	0%	-22%
16	84	-6%	-7%

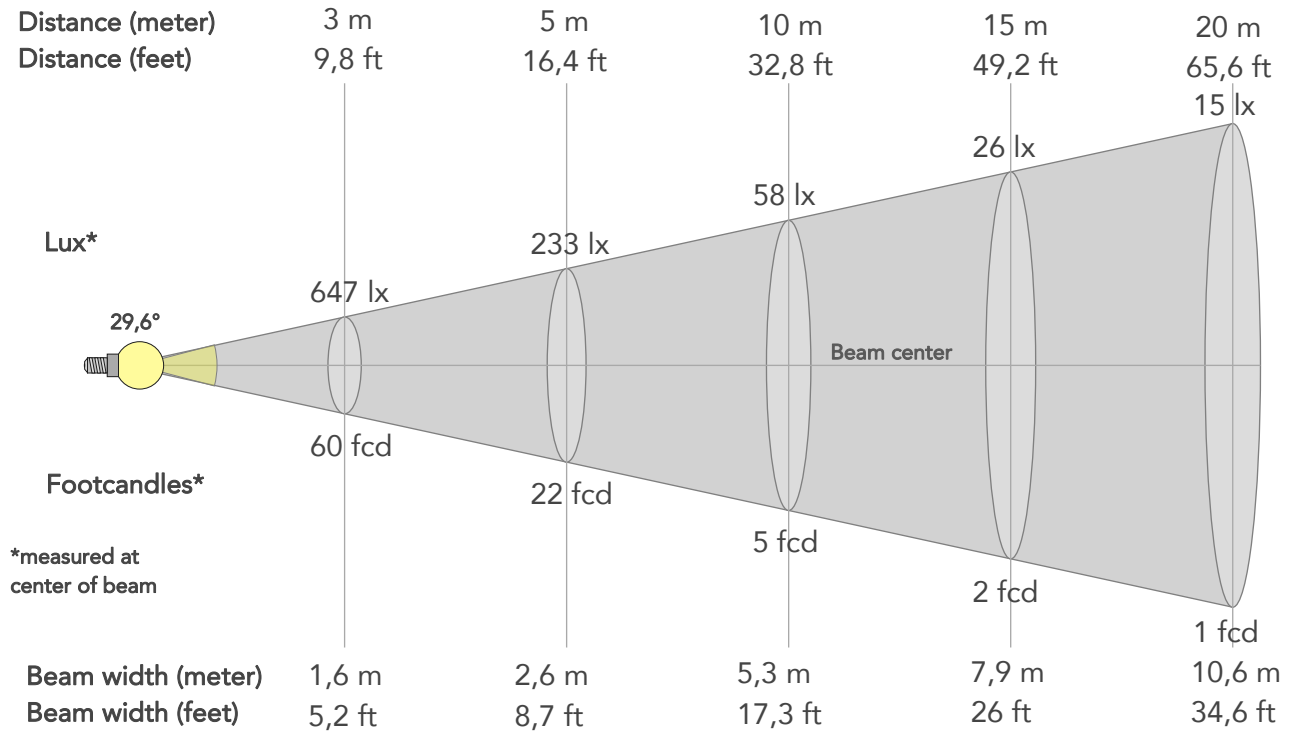




## BEAM DETAILS



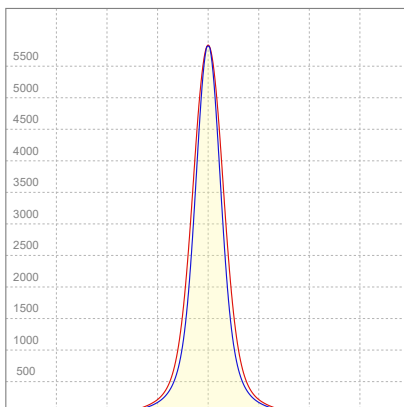
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
29,6°	61,2°	98,6°	97,7%	90,8%



### 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	5821lx	1455lx	647lx	364lx	233lx	103lx	58lx	26lx	15lx	9lx	6lx	4lx	2lx
Footcand.	541fcd	135fcd	60fcd	34fcd	22fcd	10fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,5m	1,1m	1,6m	2,1m	2,6m	4m	5,3m	7,9m	10,6m	13,2m	15,8m	21,1m	26,4m
Beam wid.	1,7ft	3,5ft	5,2ft	6,9ft	8,7ft	13ft	17,3ft	26ft	34,6ft	43,3ft	52ft	69,3ft	86,6ft

### LINEAR DISTRIBUTION DIAGRAM

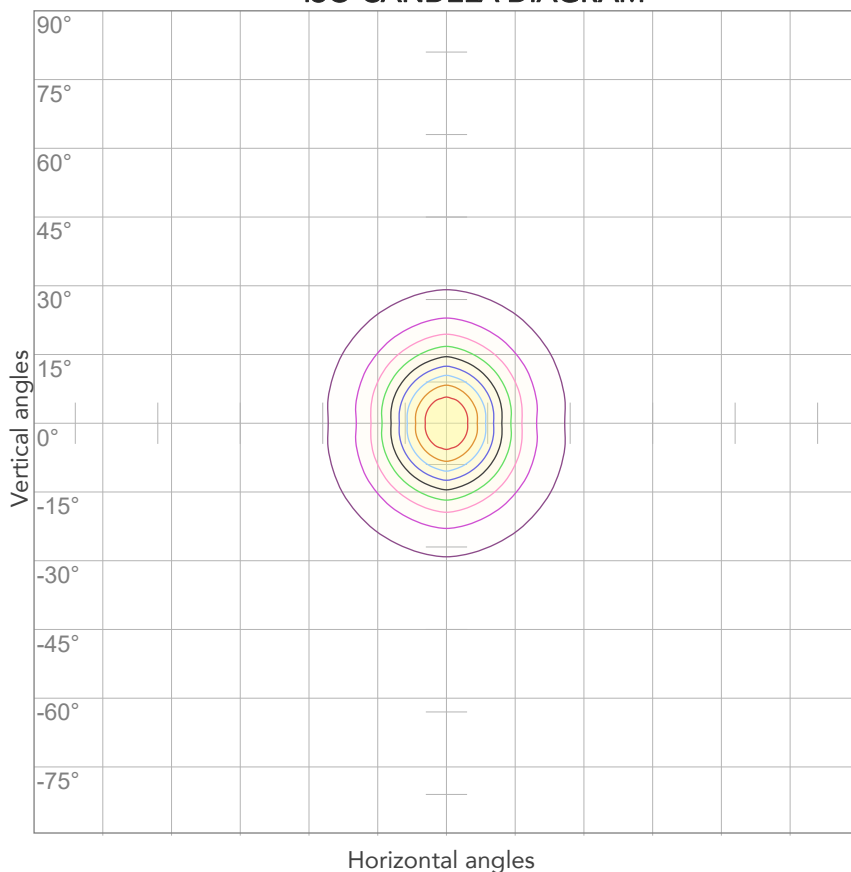


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,221A	43,0W	53lm/W



## ISO CANDELA DIAGRAM



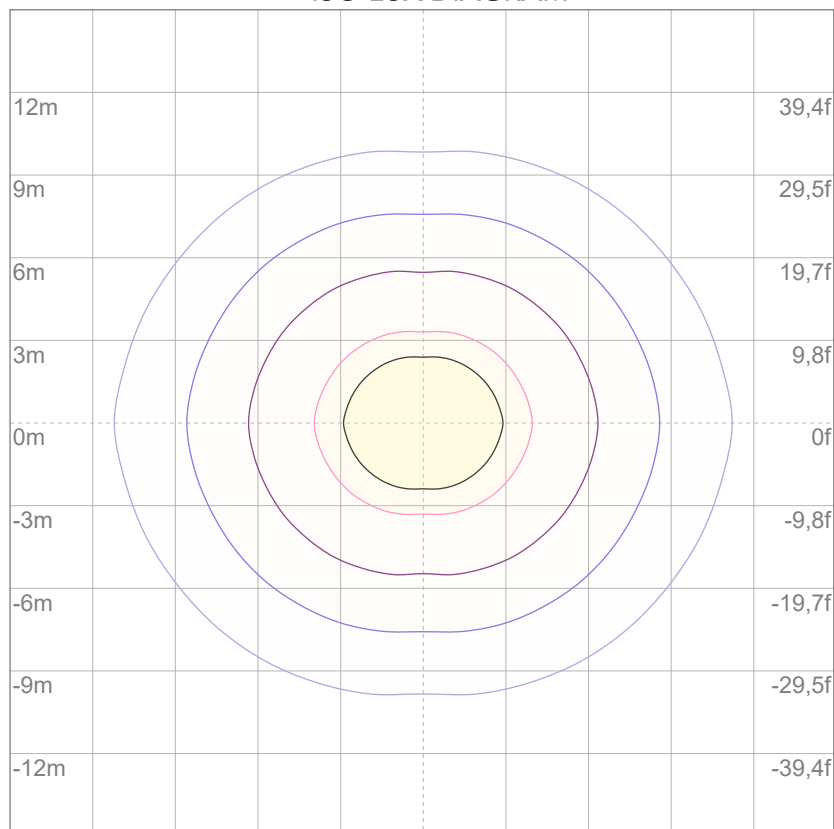
10%	582 cd
20%	1164 cd
30%	1746 cd
40%	2328 cd
50%	2910 cd
60%	3493 cd
70%	4075 cd
80%	4657 cd

### Conditions:

Number of c-planes: 4

Candela at center: 5821 cd

## ISO LUX DIAGRAM



3%	1,75 lx
5%	2,91 lx
10%	5,82 lx
30%	17,5 lx
50%	29,1 lx

### Conditions:

Number of c-planes: 4

Lux at center: 58,2 lx

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



Total lumen output:

2277 lm

Peak candela output:

2413 cd

Light quality:

CRI: 83,2

Color temperature:

7001 K



## PRODUCT NAME:

ARCSHINEM18VW

## MEASUREMENT CONDITIONS:

Beam angle:

8° + Filter 40°

Target:

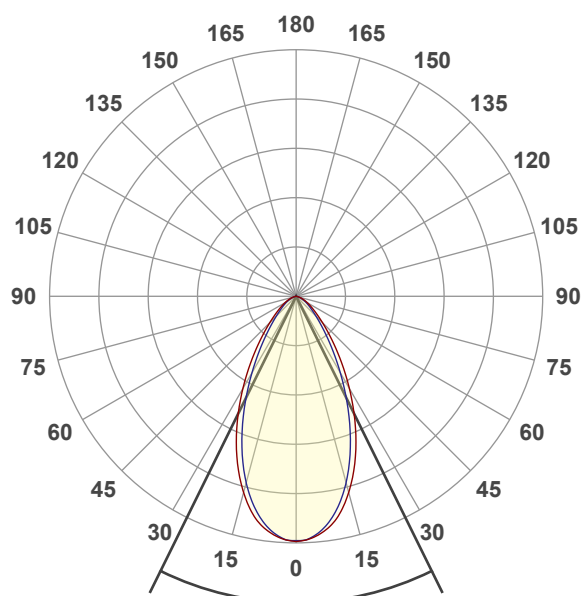
Cold White

Operator:

Paolo Carvone

Date and time:

08/09/2022 16:28:32

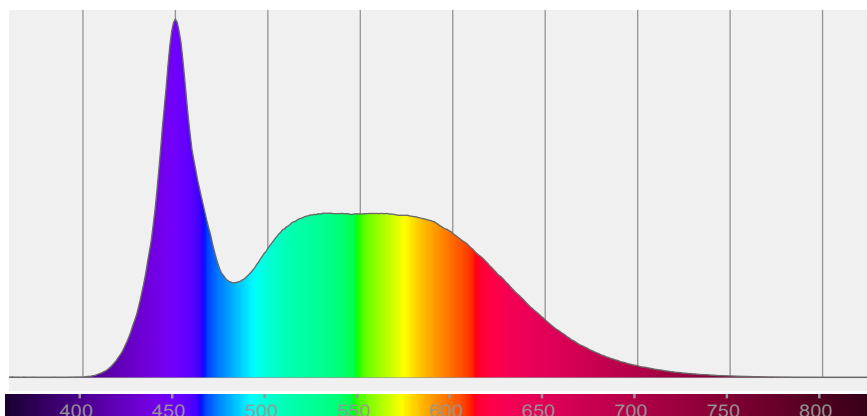


Beam angle 50%: 52,5°

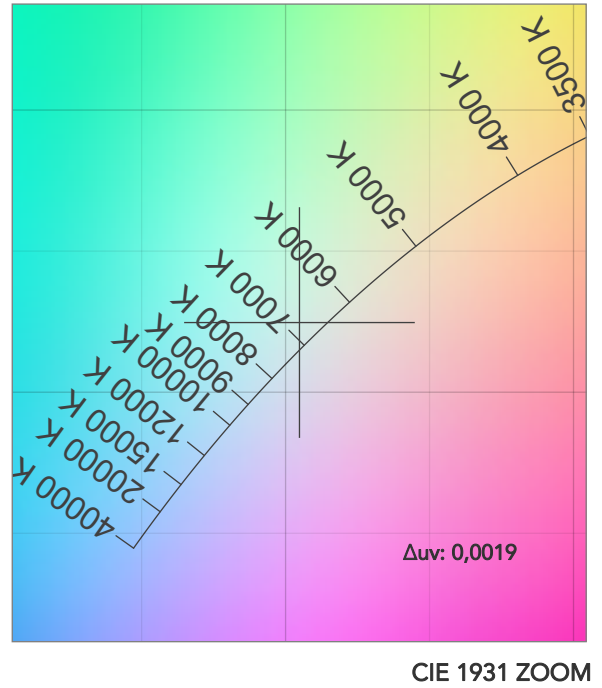
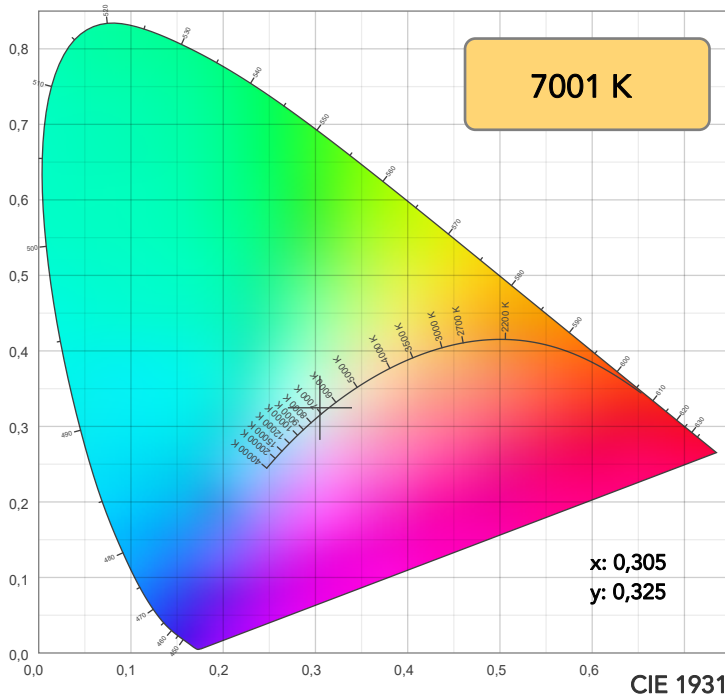
Field angle 10%: 97,8°

Cut off angle 2.5%: 135,4°

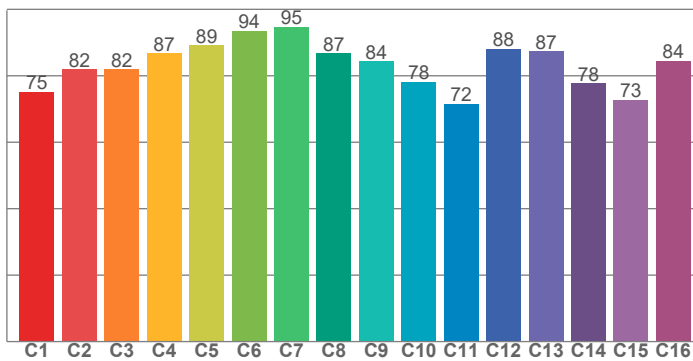
## Spectra



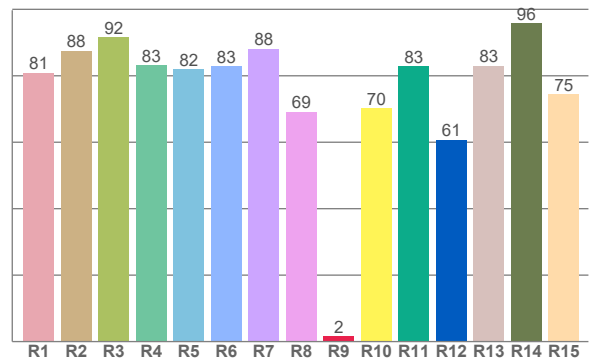




TM30: 83,8



CRI: 83,2 (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
80,9	87,5	91,6	83,3	82,0	82,8	88,1	69,2	1,7	70,2	83,0	60,7	83,0	95,8	74,5

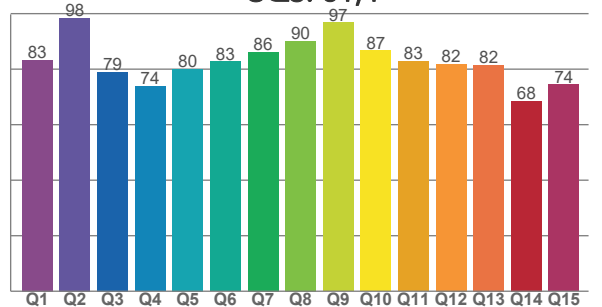
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75,2	82,0	81,9	86,8	89,2	93,5	94,7	86,7	84,4	78,1	71,6	88,1	87,4	77,8	72,8	84,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,4	98,4	79,0	73,8	80,0	82,8	86,2	90,1	96,8	86,7	82,9	81,9	81,5	68,5	74,4

CQS: 81,4



## COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
7001 K	83,2	1,7	83,8	94,5	81,4	70	0,305	0,325	0,0019

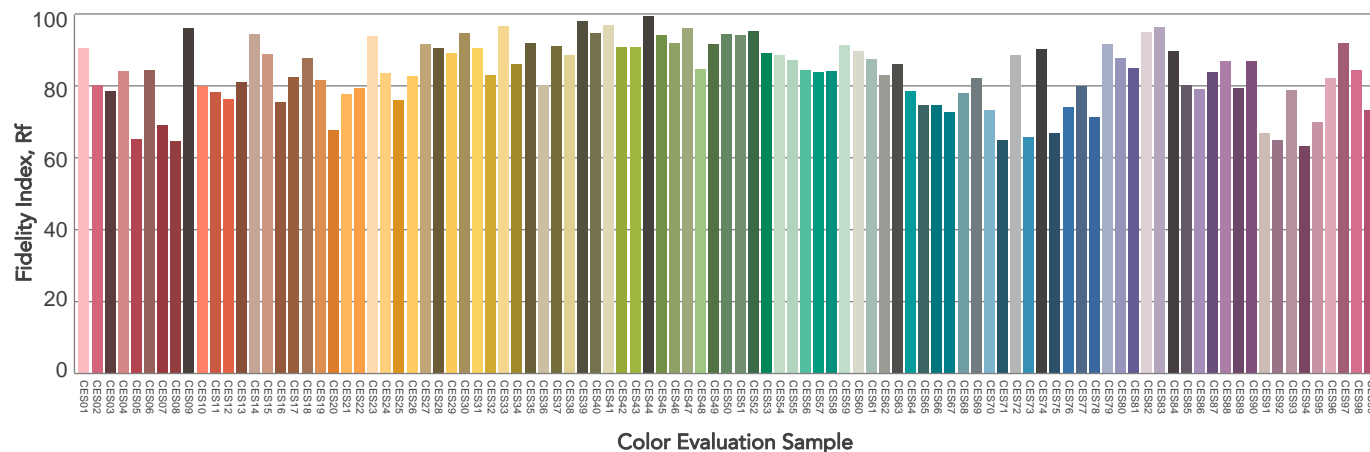
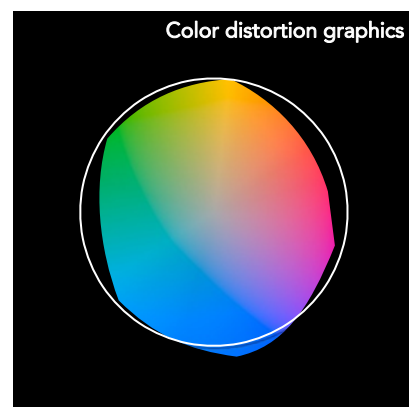
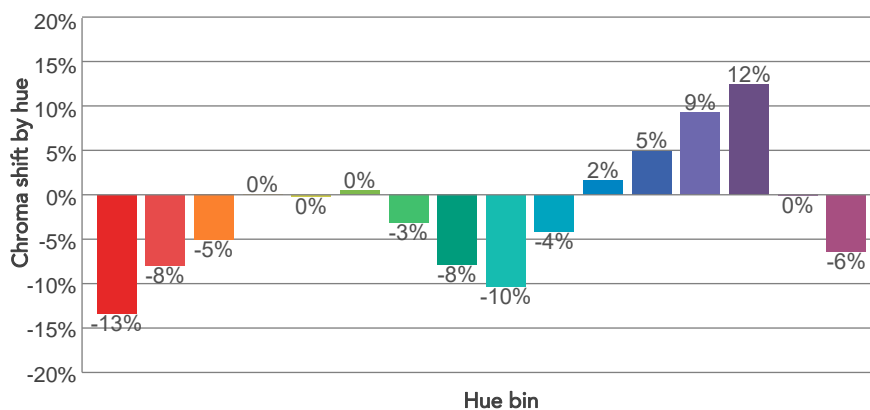
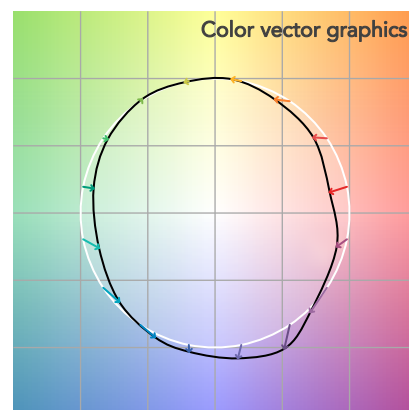
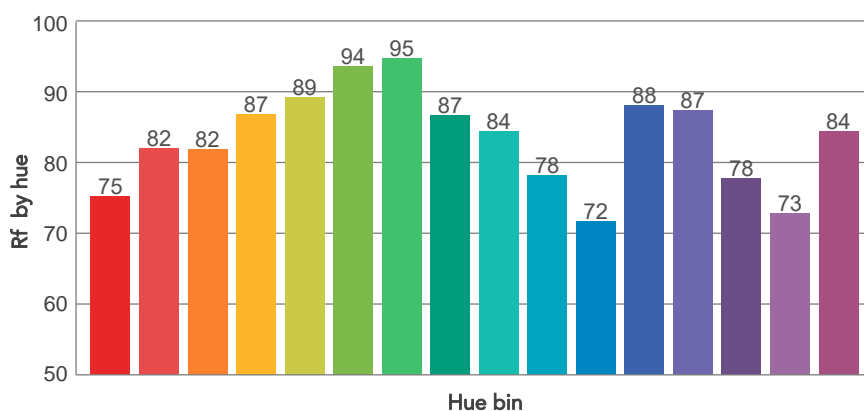
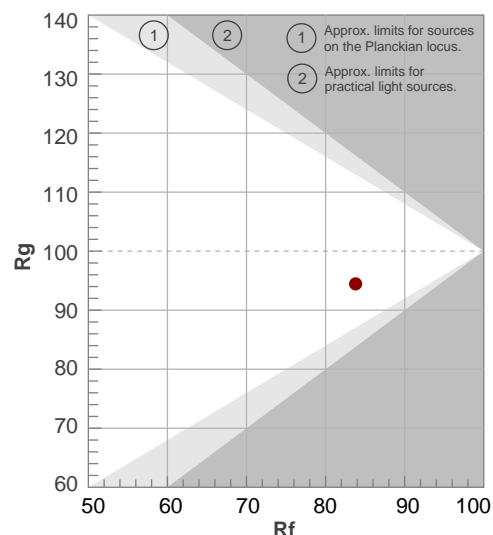


# TM30 DETAILS

**Rf 83,8**  
Fidelity index Rf

**Rg 94,5**  
Gammut index

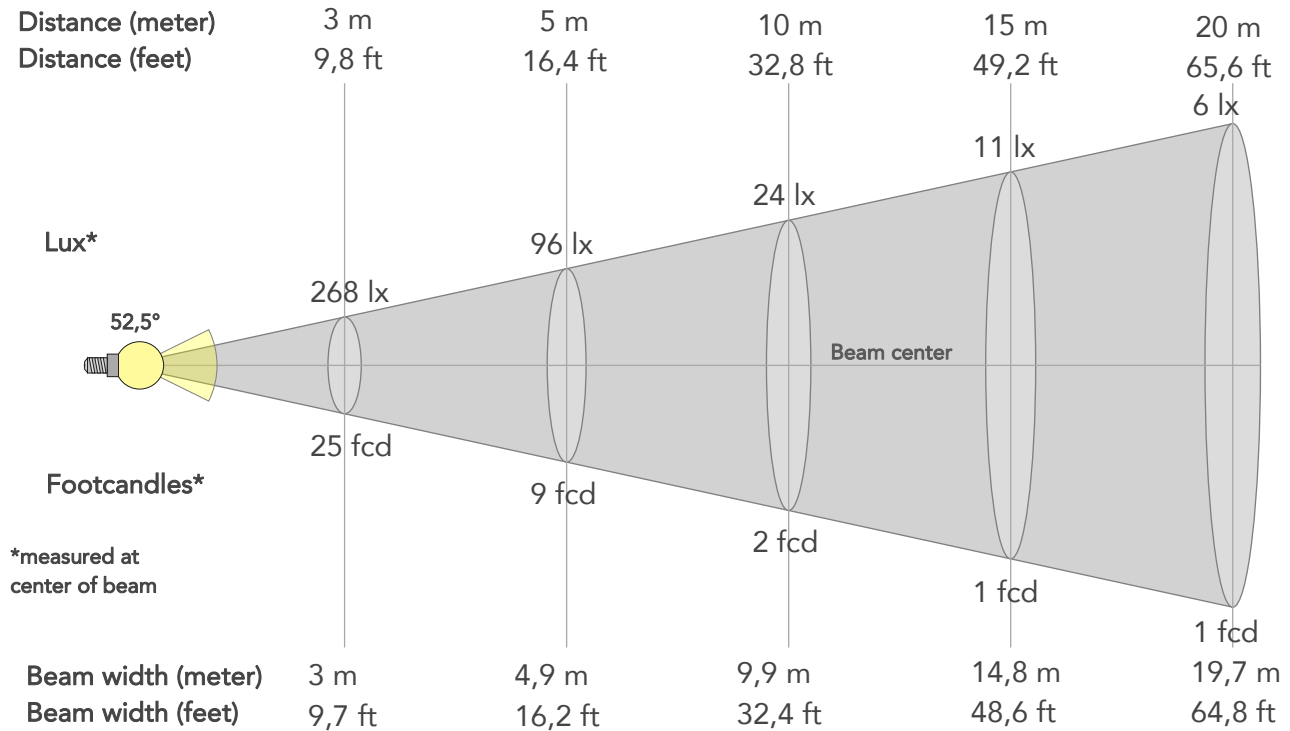
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-13%	-1%
2	82	-8%	6%
3	82	-5%	10%
4	87	0%	7%
5	89	0%	3%
6	94	0%	-2%
7	95	-3%	-1%
8	87	-8%	0%
9	84	-10%	9%
10	78	-4%	15%
11	72	2%	14%
12	88	5%	1%
13	87	9%	-4%
14	78	12%	-13%
15	73	0%	-22%
16	84	-6%	-7%





## BEAM DETAILS

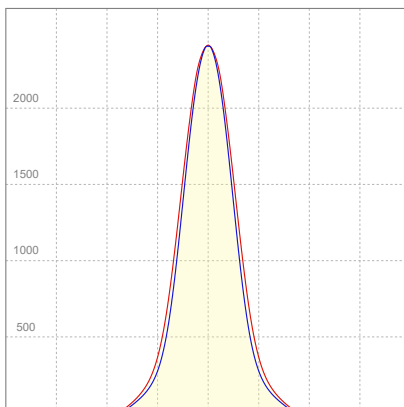
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
52,5°	97,8°	135,4°	95,5%	84,3%



### 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	2408lx	602lx	268lx	150lx	96lx	43lx	24lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	224fcd	56fcd	25fcd	14fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1m	2m	3m	3,9m	4,9m	7,4m	9,9m	14,8m	19,7m	24,7m	29,6m	39,5m	49,4m
Beam wid.	3,3ft	6,5ft	9,7ft	12,9ft	16,2ft	24,3ft	32,4ft	48,6ft	64,8ft	81ft	97,1ft	129,5ft	161,9ft

### LINEAR DISTRIBUTION DIAGRAM

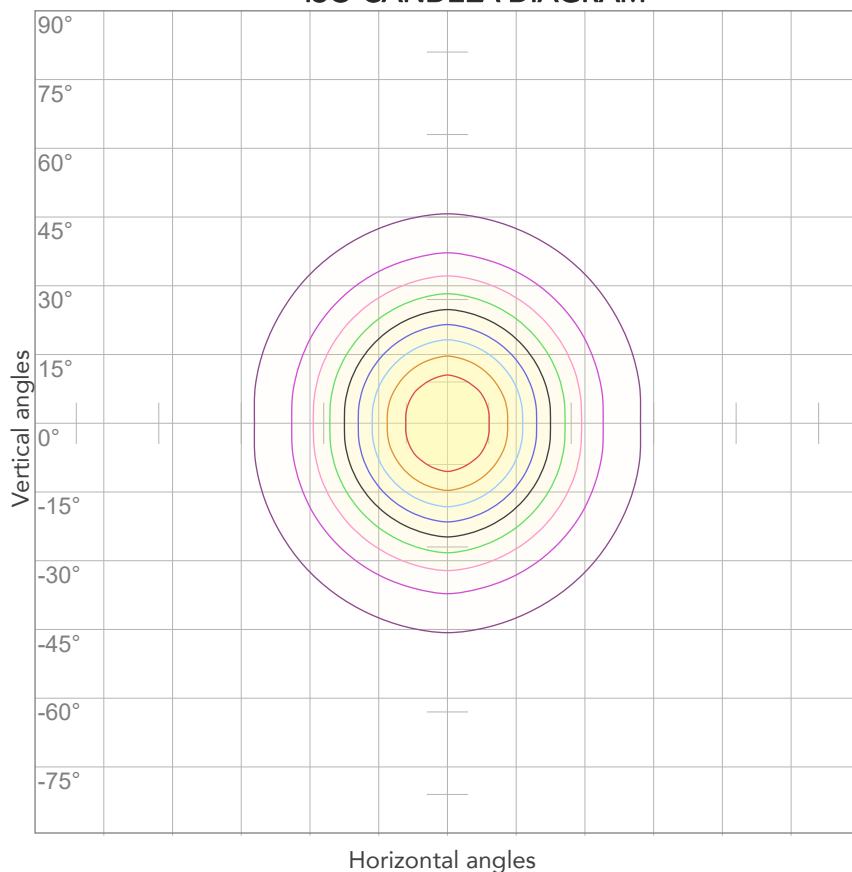


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,221A	43,0W	53lm/W



## ISO CANDELA DIAGRAM



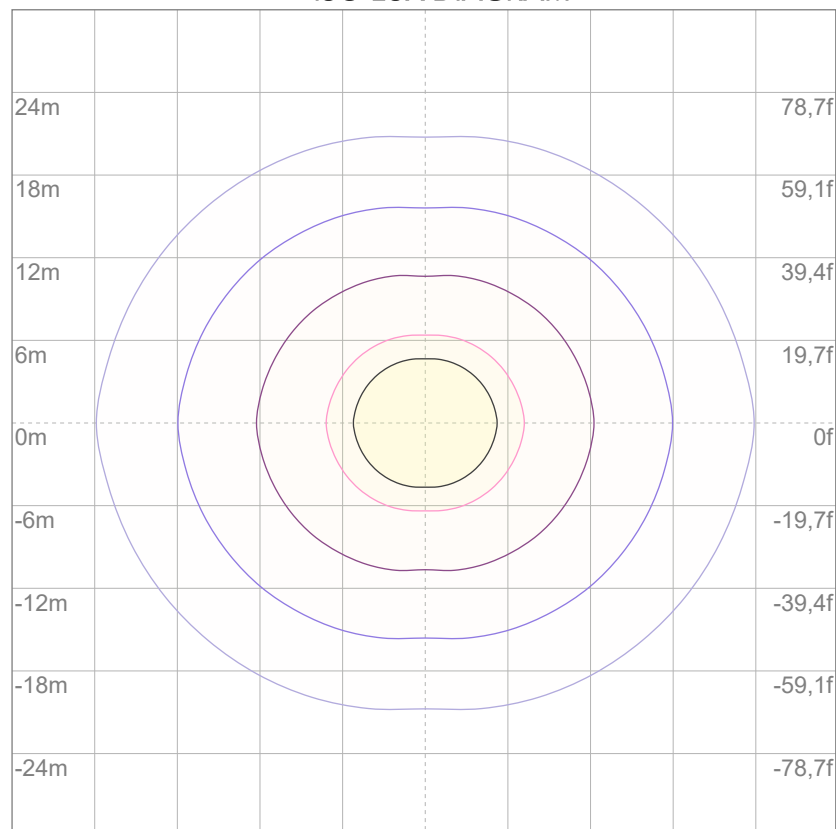
10%	241 cd
20%	482 cd
30%	722 cd
40%	963 cd
50%	1204 cd
60%	1445 cd
70%	1686 cd
80%	1926 cd

### Conditions:

Number of c-planes: 4

Candela at center: 2408 cd

## ISO LUX DIAGRAM



3%	0,722 lx
5%	1,20 lx
10%	2,41 lx
30%	7,22 lx
50%	12,0 lx

### Conditions:

Number of c-planes: 4

Lux at center: 24,1 lx

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



Total lumen output:

2264 lm

Peak candela output:

1887 cd

Light quality:

CRI: 83,2

Color temperature:

7002 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8° + Filter 60°

Target:

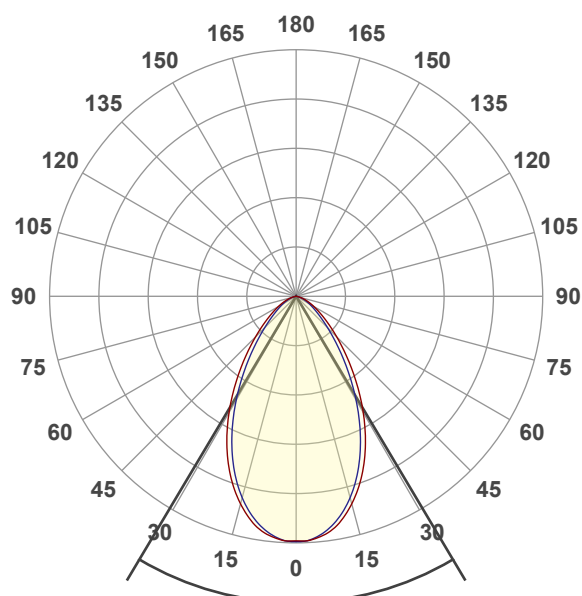
Cold White

Operator:

Paolo Carvone

Date and time:

08/09/2022 16:31:00

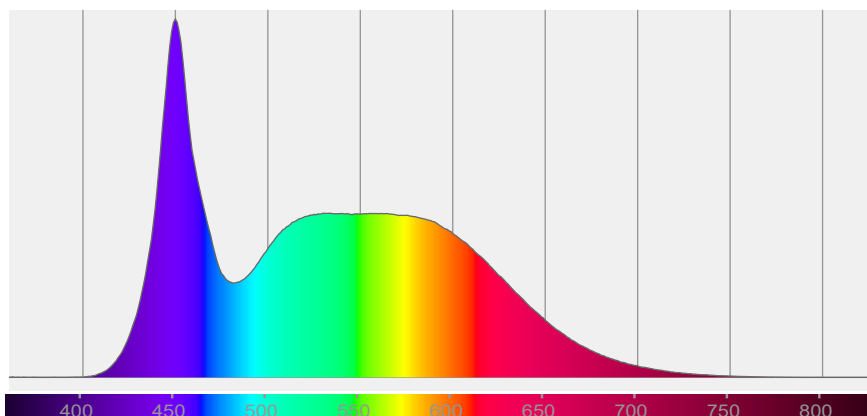


Beam angle 50%: 61,6°

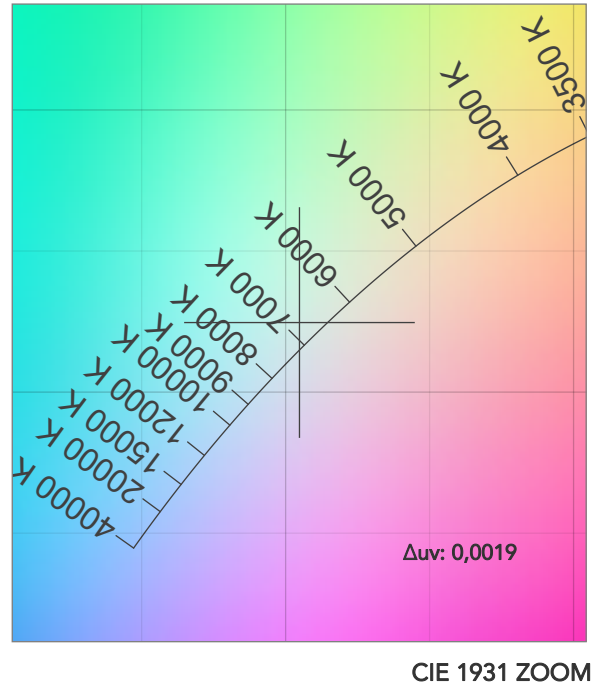
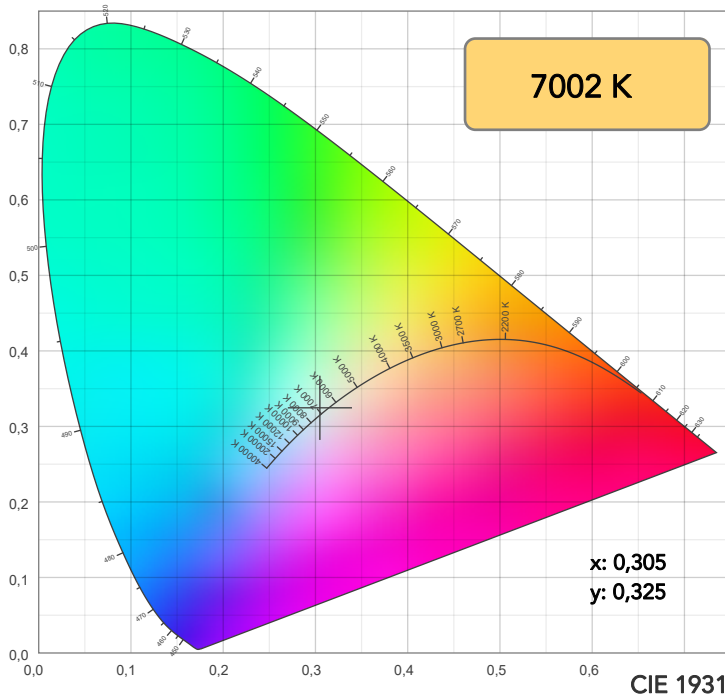
Field angle 10%: 110,9°

Cut off angle 2.5%: 143,1°

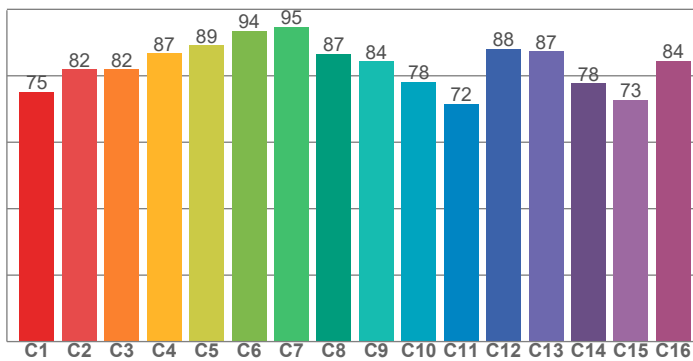
**Spectra**



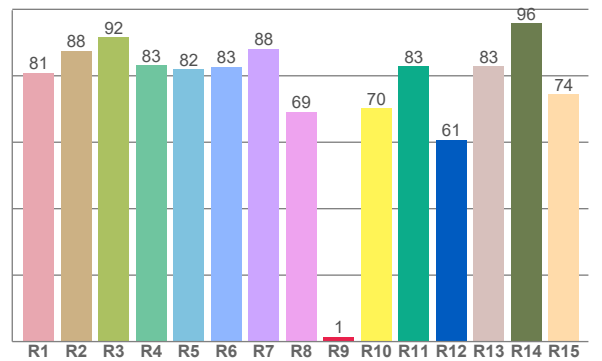




TM30: 83,8



CRI: 83,2 (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
80,9	87,5	91,6	83,2	82,0	82,7	88,1	69,2	1,5	70,2	82,9	60,7	82,9	95,8	74,5

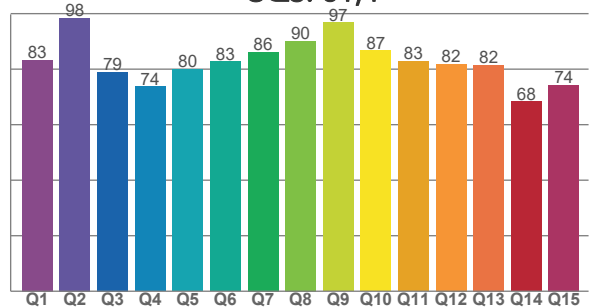
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75,2	82,0	81,9	86,8	89,1	93,5	94,7	86,7	84,3	78,1	71,6	88,1	87,4	77,7	72,7	84,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,4	98,4	79,0	73,8	80,0	82,7	86,2	90,1	96,8	86,7	82,8	81,8	81,5	68,4	74,4

CQS: 81,4



## COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
7002 K	83,2	1,5	83,8	94,5	81,4	69	0,305	0,325	0,0019

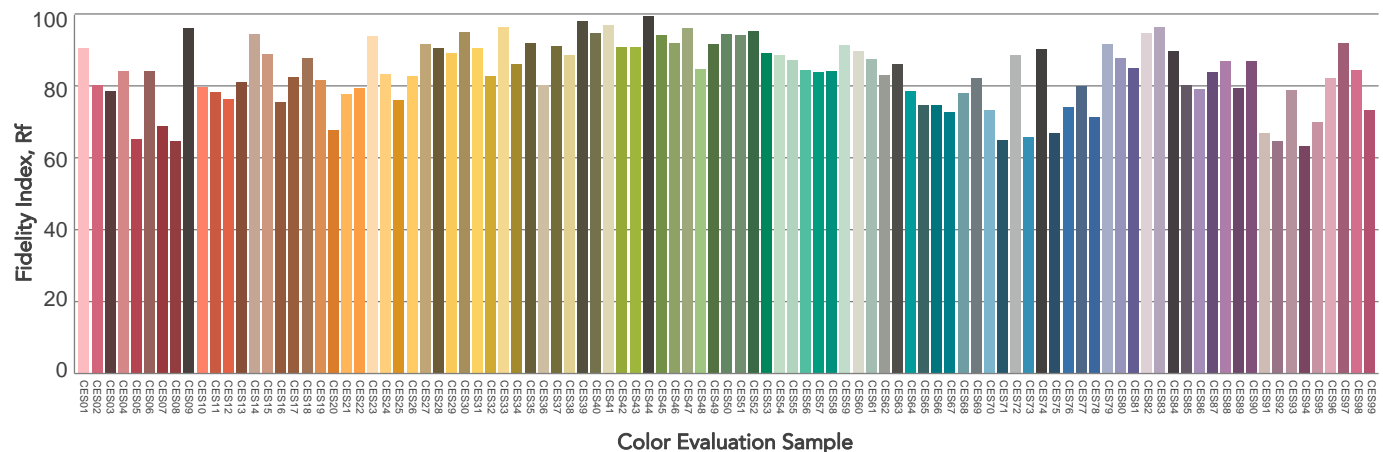
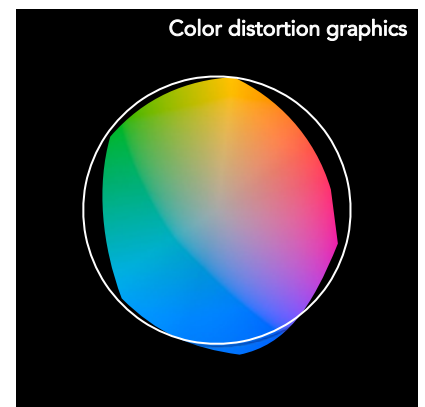
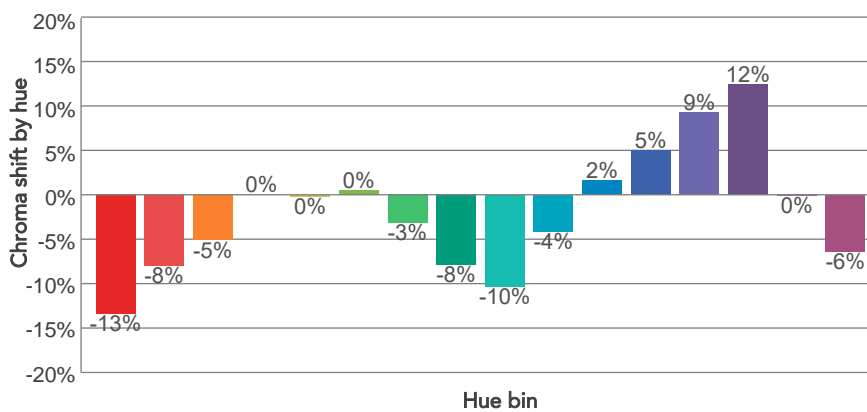
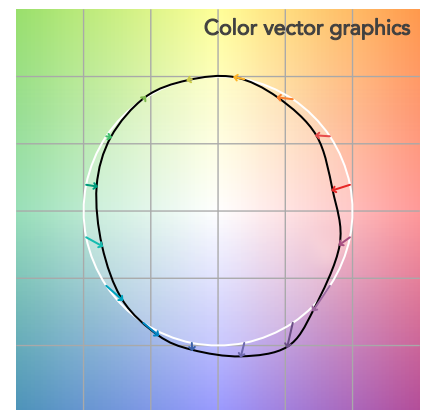
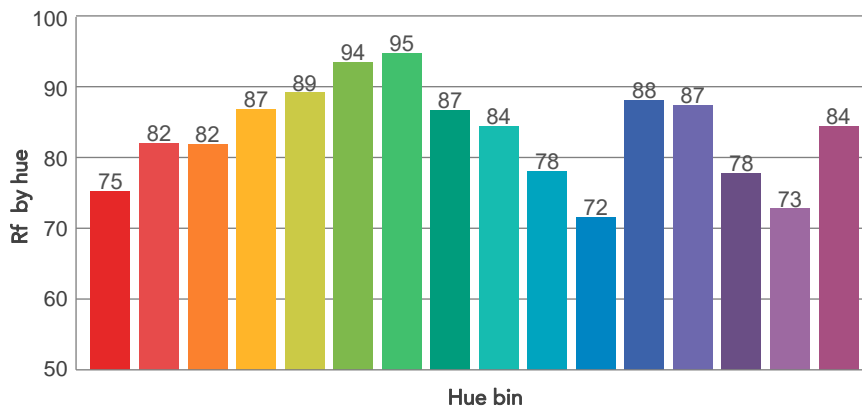
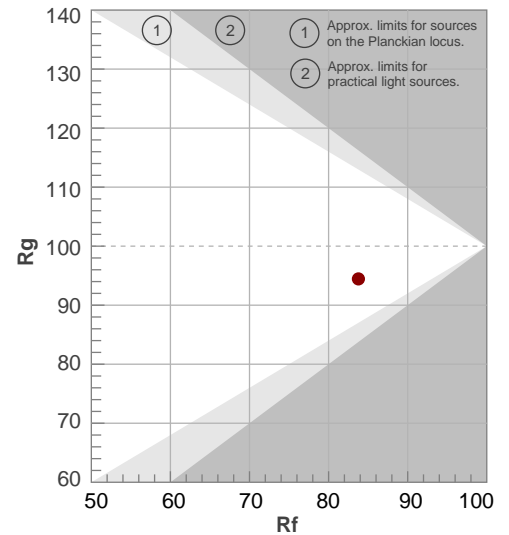


# TM30 DETAILS

**Rf 83,8**  
Fidelity index Rf

**Rg 94,5**  
Gammut index

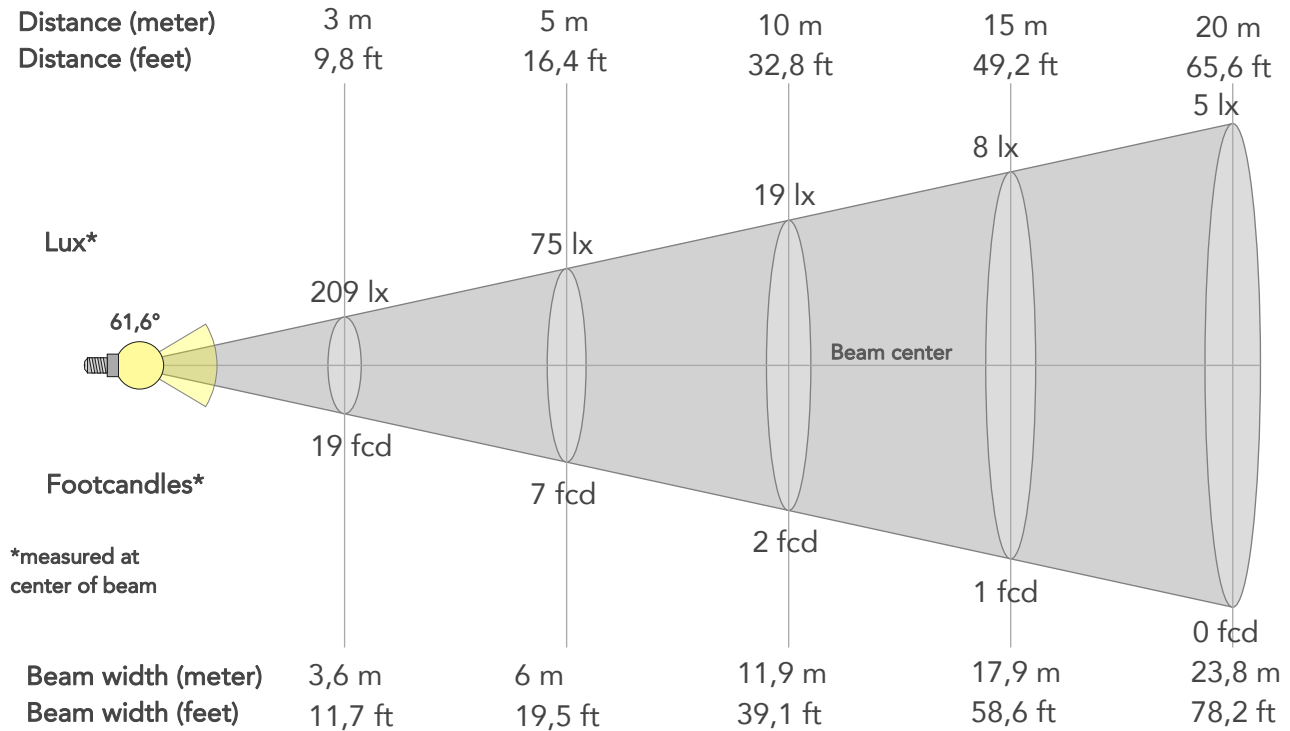
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-13%	-2%
2	82	-8%	6%
3	82	-5%	10%
4	87	0%	7%
5	89	0%	3%
6	94	0%	-2%
7	95	-3%	-1%
8	87	-8%	0%
9	84	-10%	9%
10	78	-4%	15%
11	72	2%	14%
12	88	5%	1%
13	87	9%	-4%
14	78	12%	-13%
15	73	0%	-22%
16	84	-6%	-7%





## BEAM DETAILS

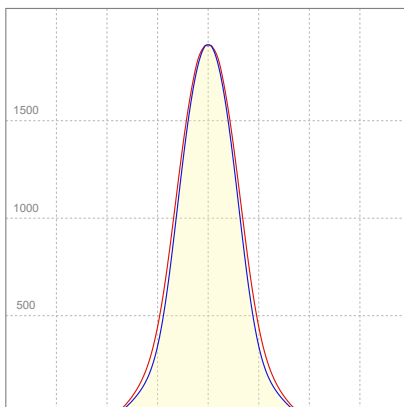
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
61,6°	110,9°	143,1°	94,4%	80,6%



### 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	1885lx	471lx	209lx	118lx	75lx	34lx	19lx	8lx	5lx	3lx	2lx	1lx	1lx
Footcand.	175fcd	44fcd	19fcd	11fcd	7fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,2m	2,4m	3,6m	4,8m	6m	8,9m	11,9m	17,9m	23,8m	29,8m	35,7m	47,7m	59,6m
Beam wid.	3,9ft	7,9ft	11,7ft	15,6ft	19,5ft	29,3ft	39,1ft	58,6ft	78,2ft	97,7ft	117,2ft	156,3ft	195,4ft

### LINEAR DISTRIBUTION DIAGRAM

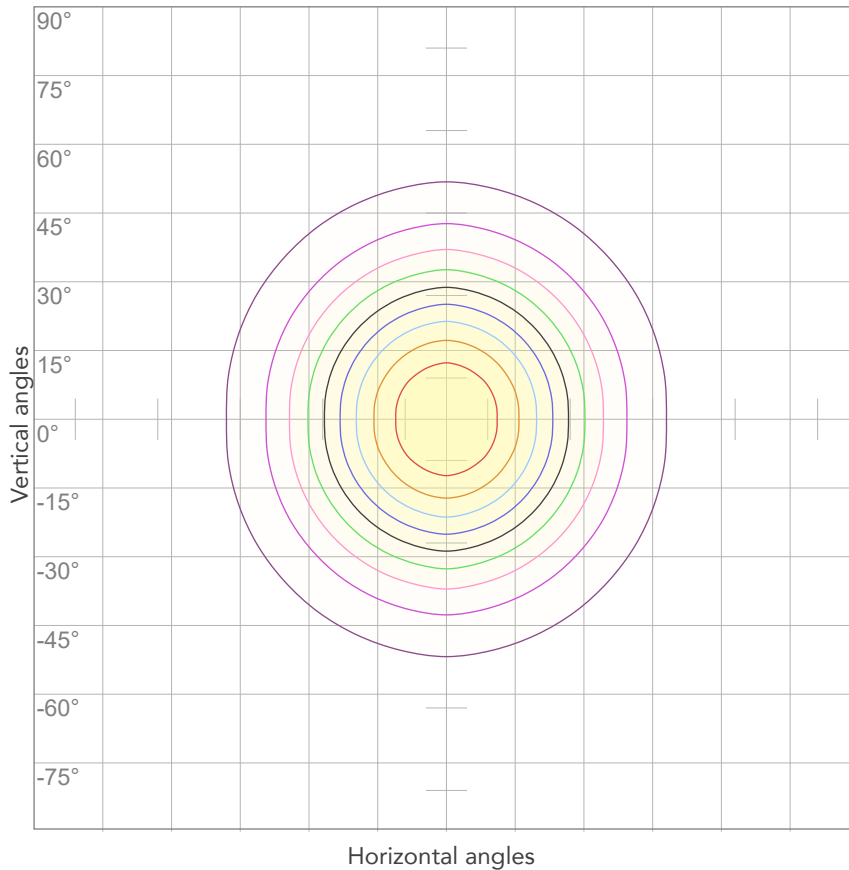


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,221A	43,0W	53lm/W



## ISO CANDELA DIAGRAM



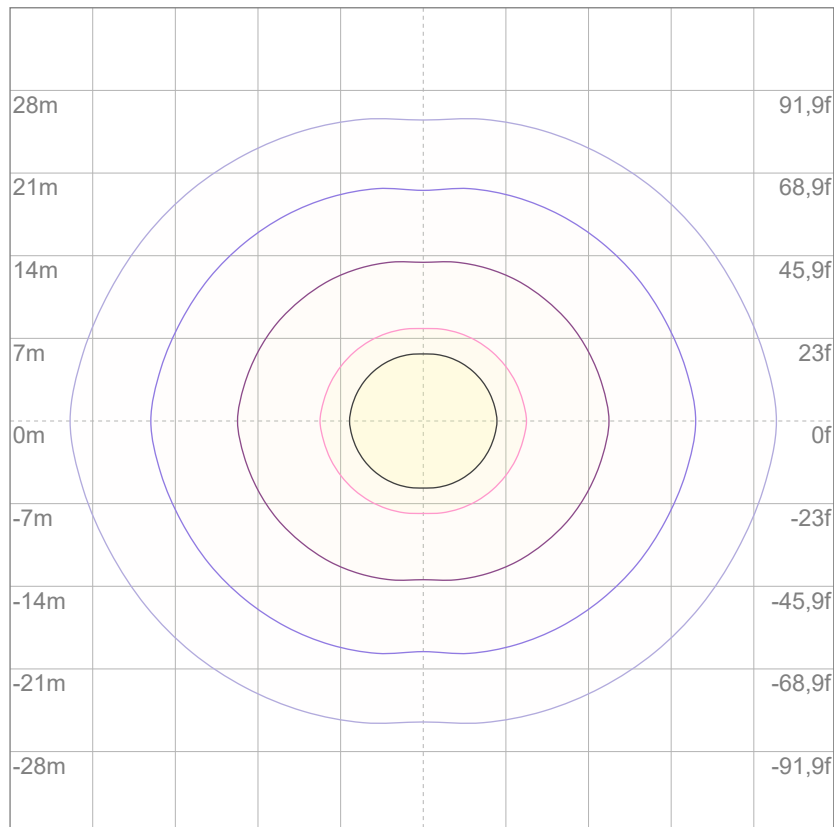
10%	189 cd
20%	377 cd
30%	566 cd
40%	754 cd
50%	943 cd
60%	1131 cd
70%	1320 cd
80%	1508 cd

### Conditions:

Number of c-planes: 4

Candela at center: 1885 cd

## ISO LUX DIAGRAM



3%	0,566 lx
5%	0,943 lx
10%	1,89 lx
30%	5,66 lx
50%	9,43 lx

### Conditions:

Number of c-planes: 4

Lux at center: 18,9 lx

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



Total lumen output:

3407 lm

Peak candela output:

4420 cd

Light quality:

CRI: 83,5

Color temperature:

7073 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8° + Filter 10°x60°

Target:

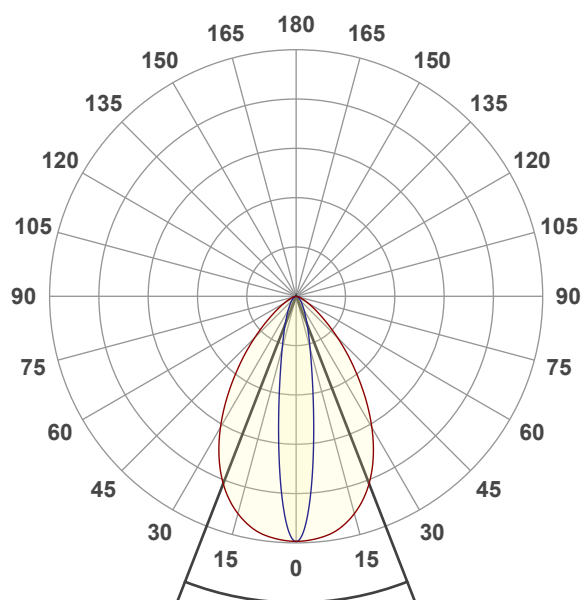
Cold White

Operator:

Paolo Carvone

Date and time:

08/09/2022 16:38:57

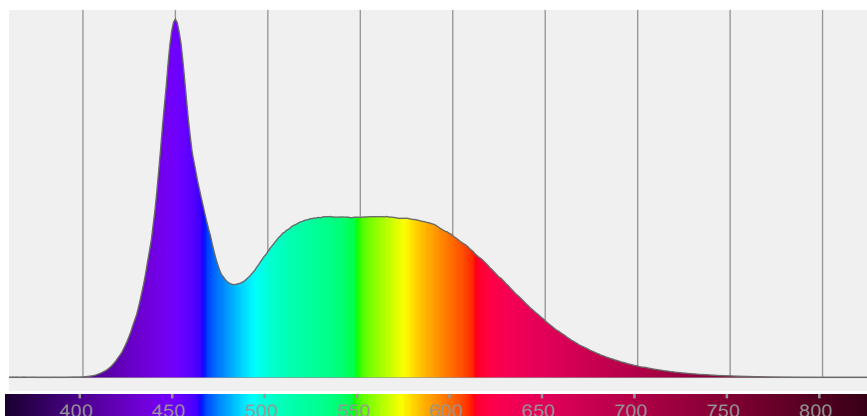


Beam angle 50%: 42,5°

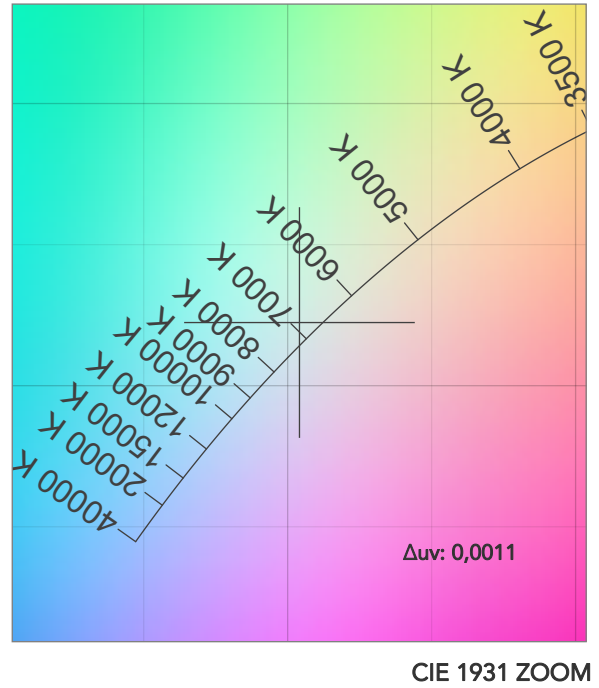
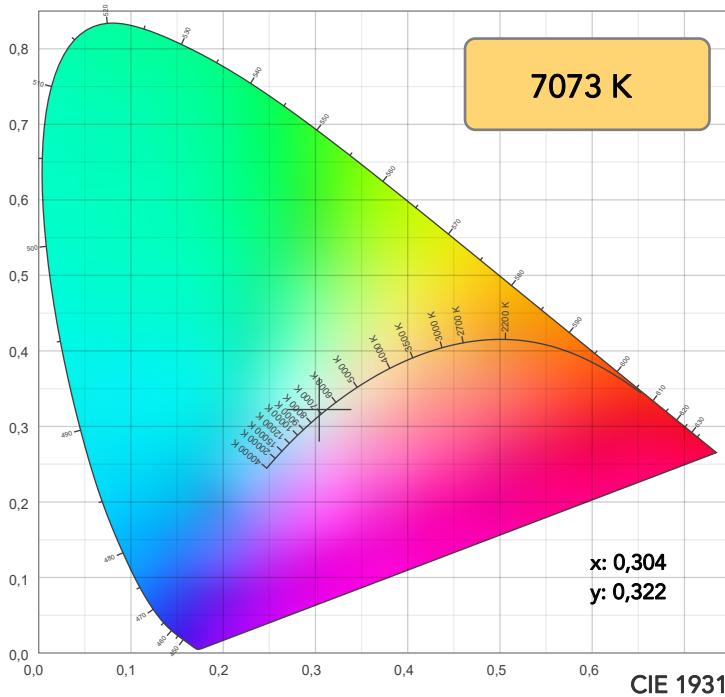
Field angle 10%: 78,4°

Cut off angle 2.5%: 113,5°

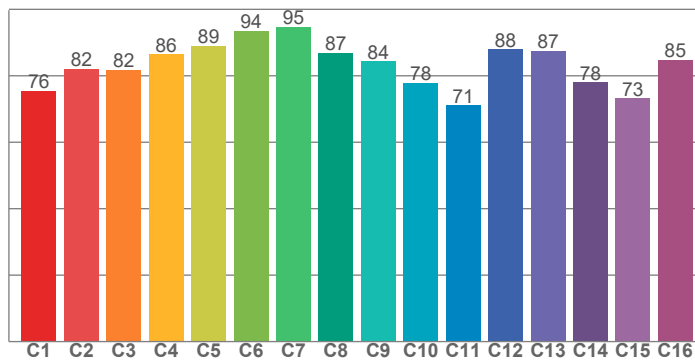
**Spectra**



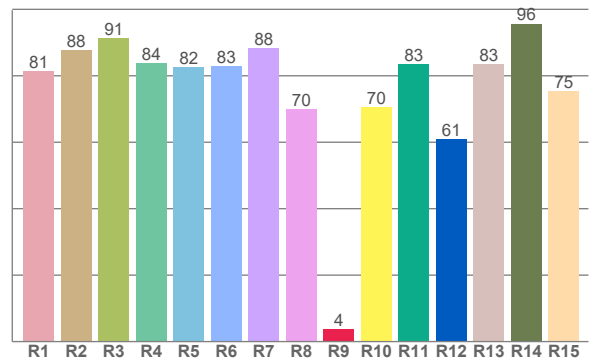




TM30: 83,8



CRI: 83,5 (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
81,4	87,7	91,4	83,7	82,5	82,8	88,2	69,9	3,7	70,5	83,5	60,8	83,4	95,6	75,3

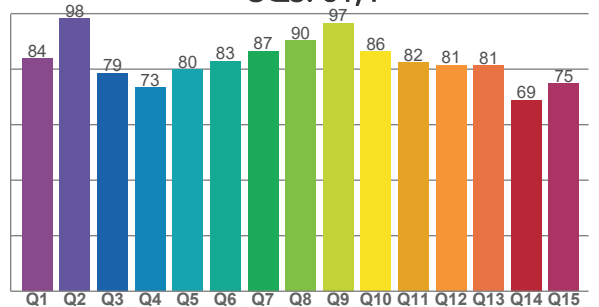
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75,5	82,0	81,8	86,5	88,9	93,6	94,8	86,9	84,3	77,8	71,1	88,0	87,4	78,0	73,2	84,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,8	98,2	78,6	73,3	79,8	82,9	86,5	90,4	96,6	86,4	82,4	81,5	81,4	68,9	74,8

CQS: 81,4



## COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
7073 K	83,5	3,7	83,8	94,7	81,4	70	0,304	0,322	0,0011

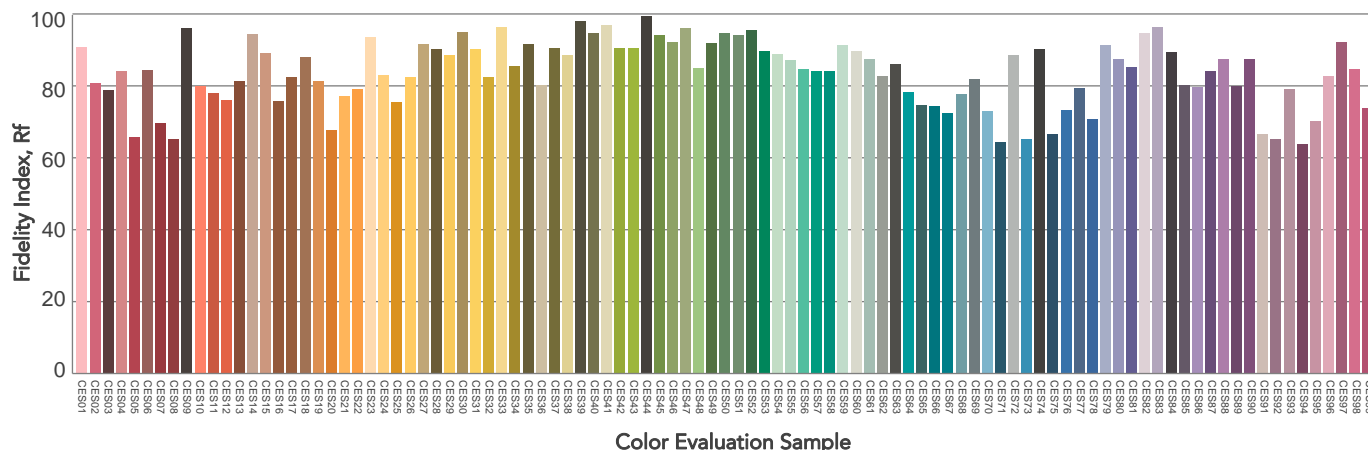
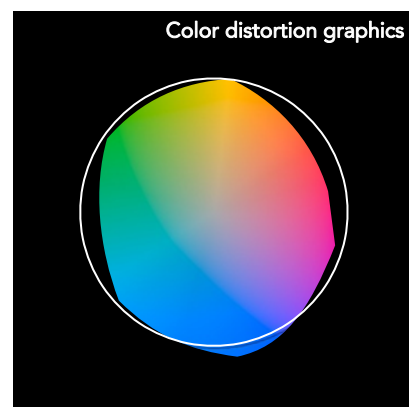
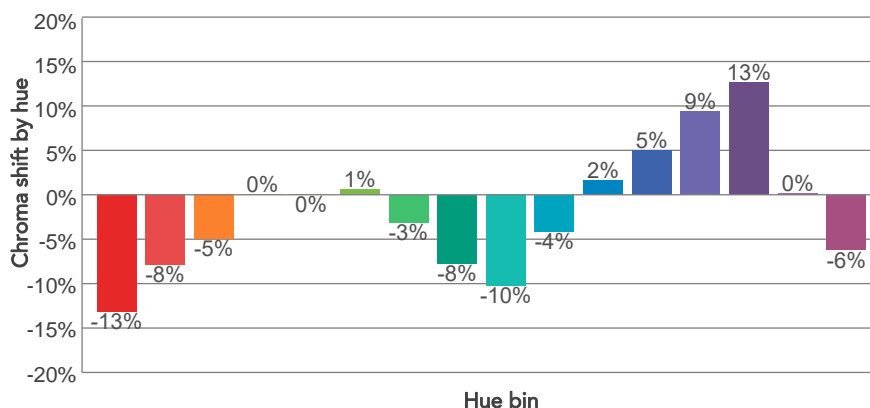
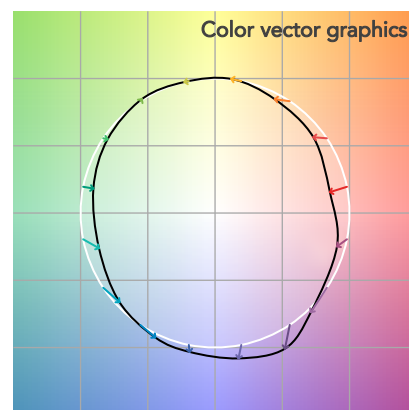
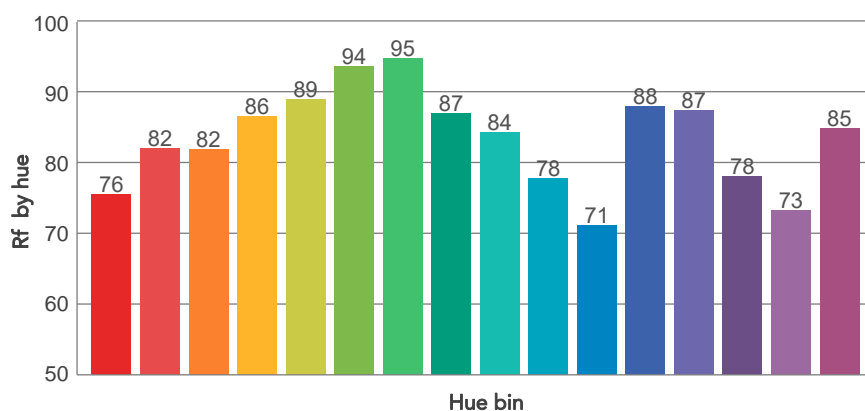
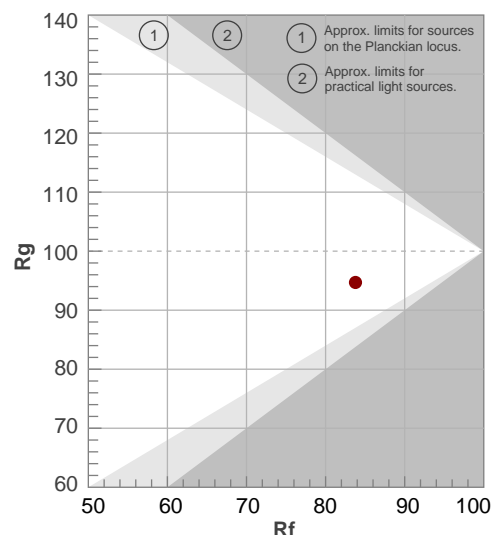


# TM30 DETAILS

**Rf 83,8**  
Fidelity index Rf

**Rg 94,7**  
Gammut index

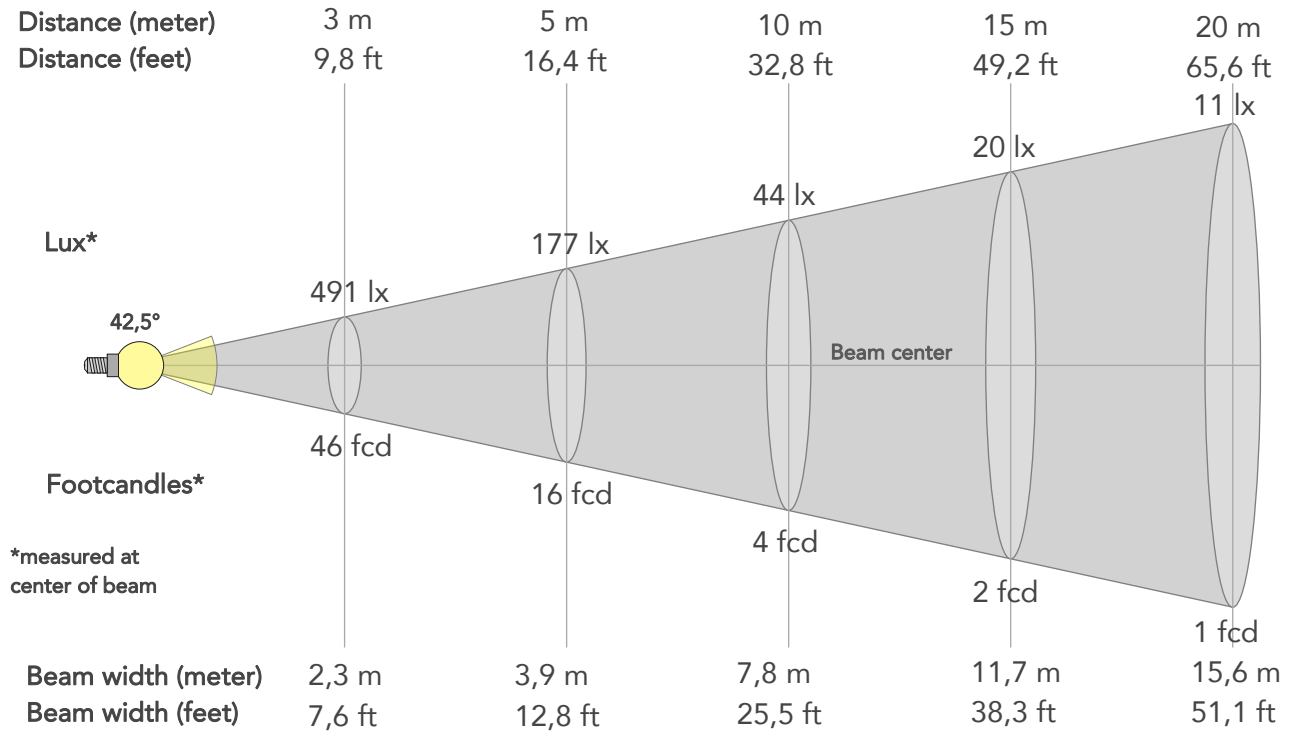
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	76	-13%	-1%
2	82	-8%	6%
3	82	-5%	10%
4	86	0%	8%
5	89	0%	3%
6	94	1%	-2%
7	95	-3%	-1%
8	87	-8%	0%
9	84	-10%	9%
10	78	-4%	16%
11	71	2%	14%
12	88	5%	2%
13	87	9%	-4%
14	78	13%	-13%
15	73	0%	-22%
16	85	-6%	-7%





## BEAM DETAILS

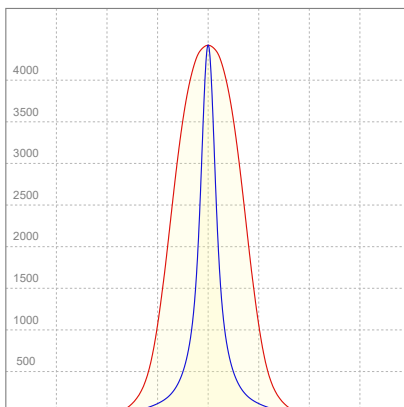
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
42,5°	78,4°	113,5°	96,6%	84,5%



### 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	4419lx	1105lx	491lx	276lx	177lx	79lx	44lx	20lx	11lx	7lx	5lx	3lx	2lx
Footcand.	411fcd	103fcd	46fcd	26fcd	16fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,8m	1,6m	2,3m	3,1m	3,9m	5,8m	7,8m	11,7m	15,6m	19,5m	23,4m	31,1m	38,9m
Beam wid.	2,6ft	5,1ft	7,6ft	10,2ft	12,8ft	19,2ft	25,5ft	38,3ft	51,1ft	63,8ft	76,6ft	102,1ft	127,7ft

### LINEAR DISTRIBUTION DIAGRAM

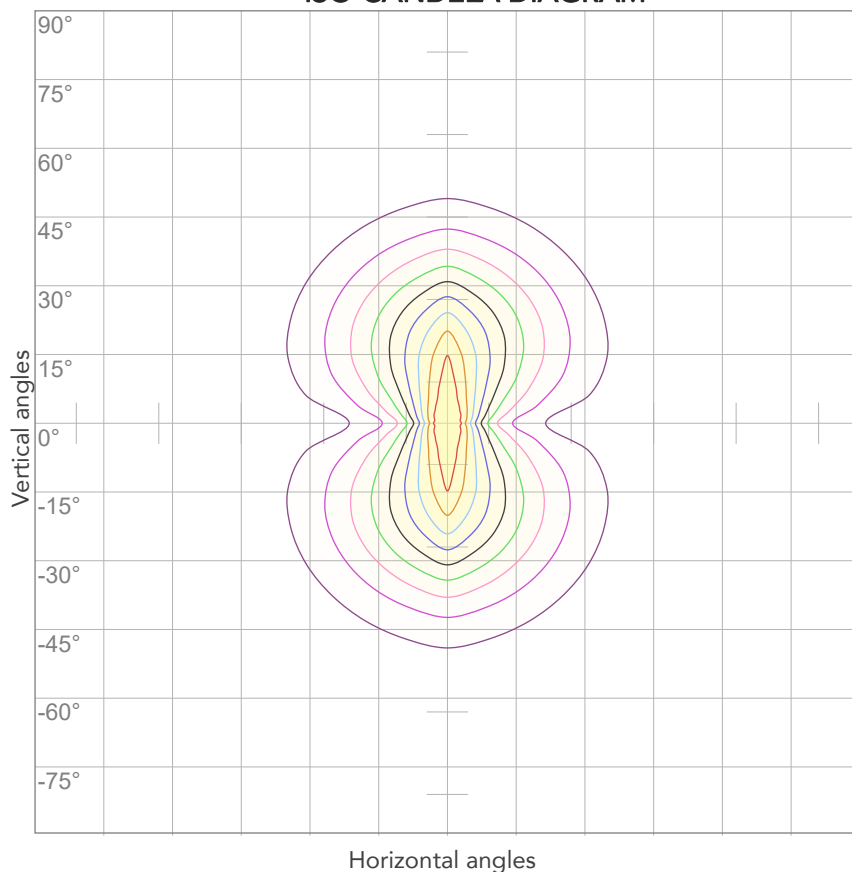


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,221A	43,0W	79lm/W



## ISO CANDELA DIAGRAM



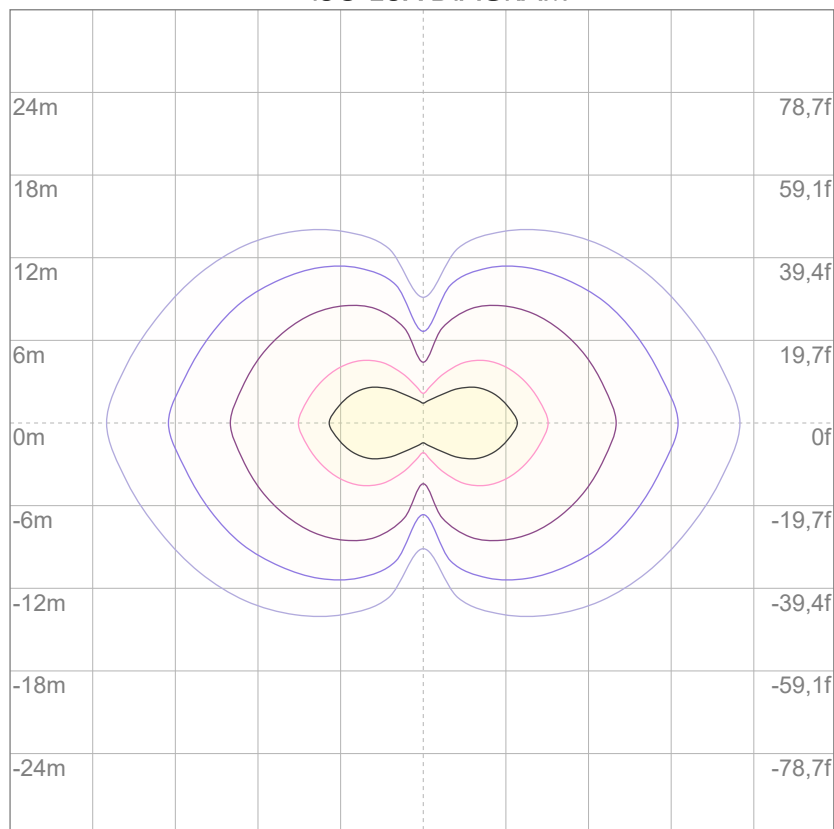
10%	442 cd
20%	884 cd
30%	1326 cd
40%	1768 cd
50%	2209 cd
60%	2651 cd
70%	3093 cd
80%	3535 cd

### Conditions:

Number of c-planes: 4

Candela at center: 4419 cd

## ISO LUX DIAGRAM



3%	1,33 lx
5%	2,21 lx
10%	4,42 lx
30%	13,3 lx
50%	22,1 lx

### Conditions:

Number of c-planes: 4

Lux at center: 44,2 lx

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



Total lumen output:

2501 lm

Peak candela output:

2437 cd

Light quality:

CRI: 83,2

Color temperature:

6974 K



**PRODUCT NAME:**

ARCSHINEM18VW

**MEASURAMENT CONDITIONS:**

Beam angle:

8° + Filter 30°x60°

Target:

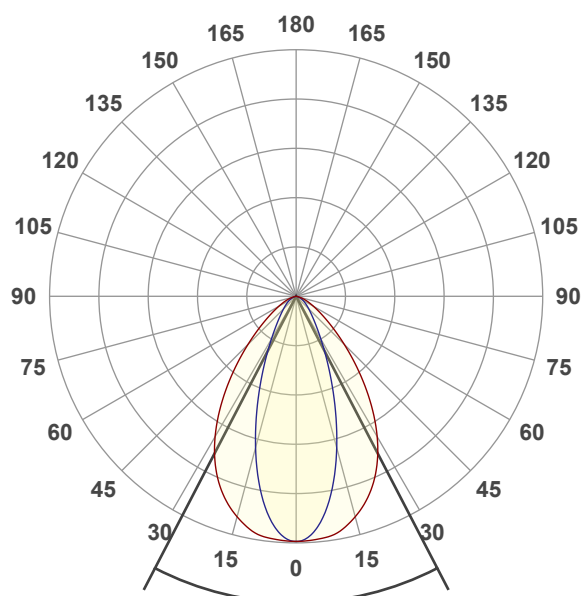
Cold White

Operator:

Paolo Carvone

Date and time:

08/09/2022 16:35:09

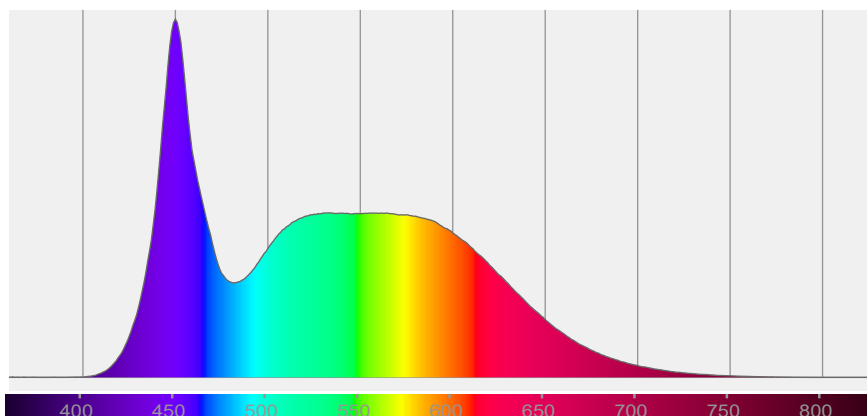


Beam angle 50%: 54,9°

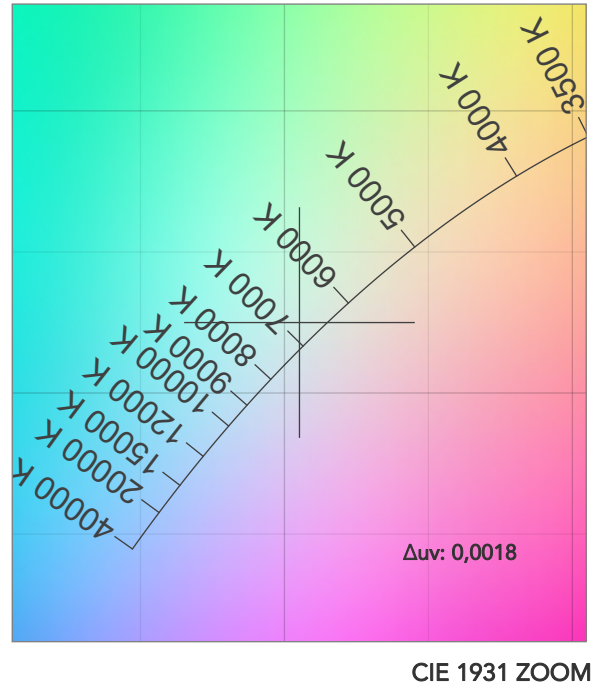
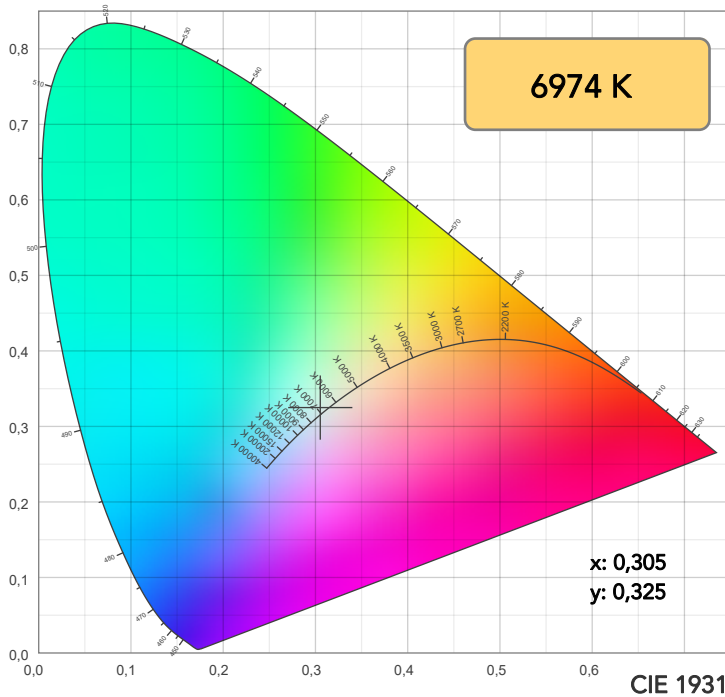
Field angle 10%: 97,3°

Cut off angle 2.5%: 134,9°

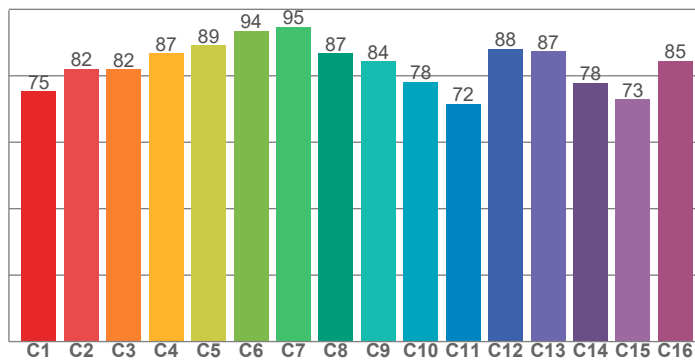
**Spectra**



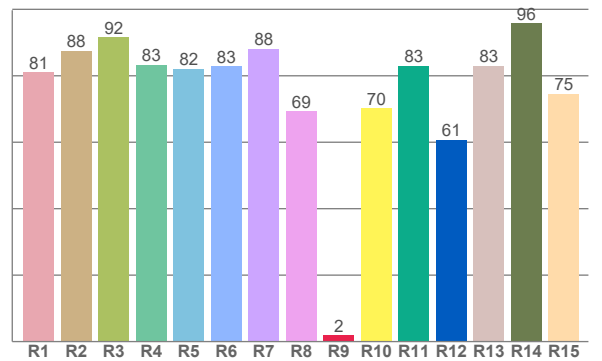




TM30: 83,8



CRI: 83,2 (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
81,0	87,6	91,6	83,3	82,1	82,8	88,2	69,3	2,0	70,3	83,0	60,8	83,0	95,8	74,6

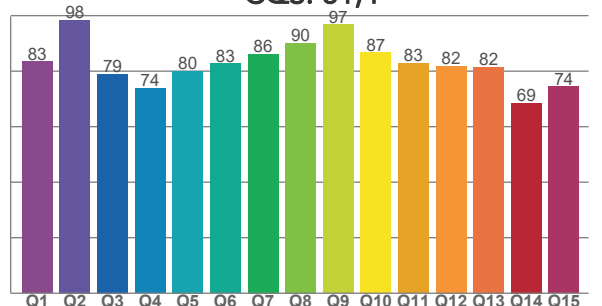
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75,3	82,0	81,9	86,8	89,1	93,5	94,7	86,7	84,4	78,1	71,6	88,1	87,4	77,8	72,9	84,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,4	98,4	79,0	73,8	80,0	82,8	86,2	90,2	96,8	86,7	82,8	81,9	81,6	68,5	74,5

CQS: 81,4



## COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6974 K	83,2	2,0	83,8	94,5	81,4	70	0,305	0,325	0,0018

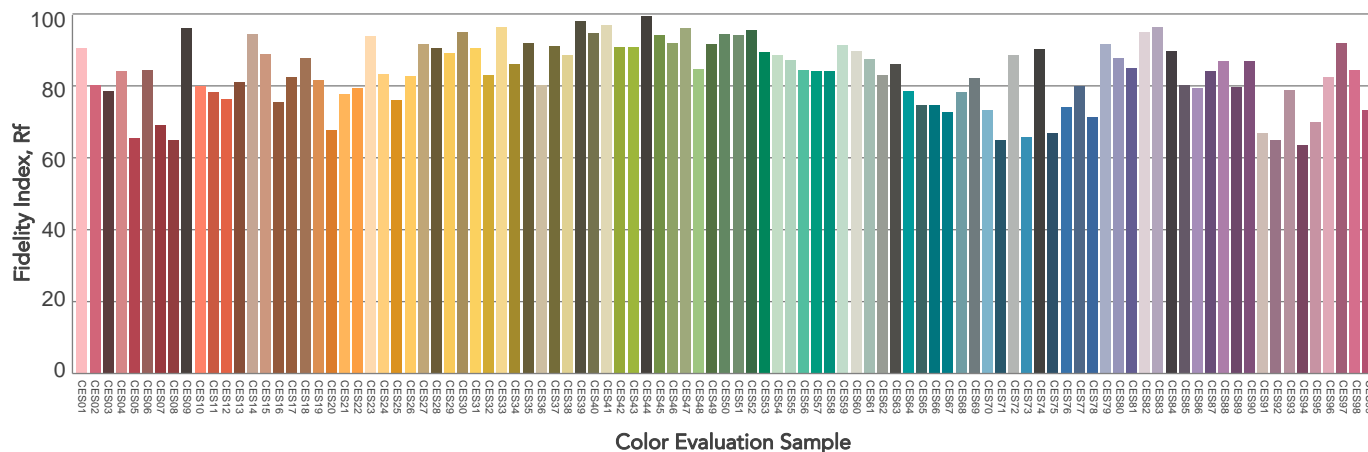
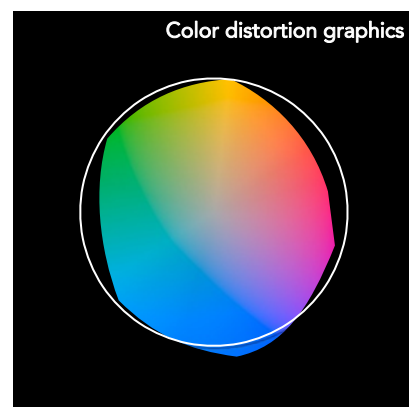
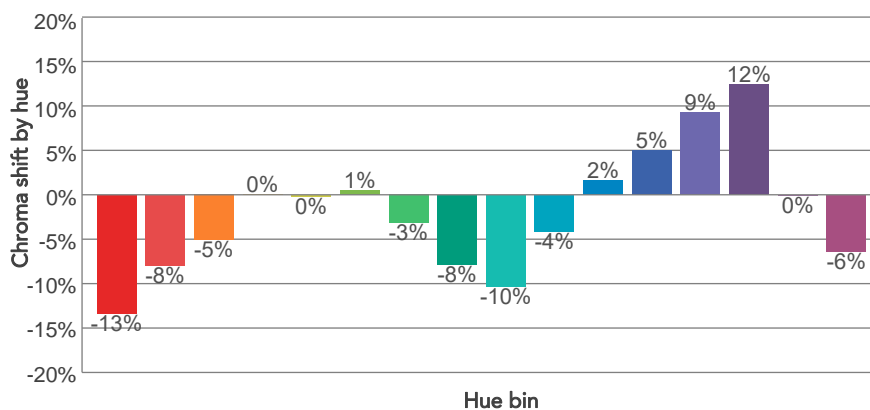
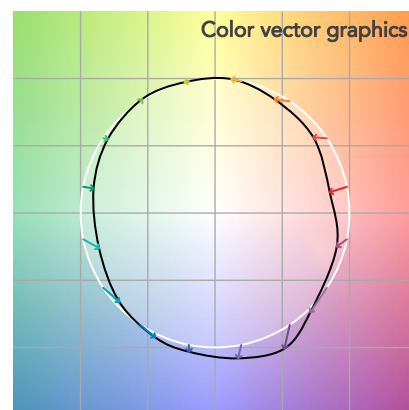
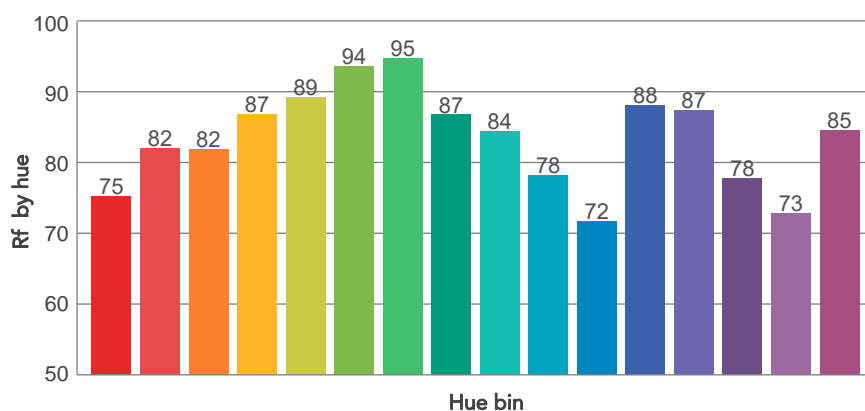
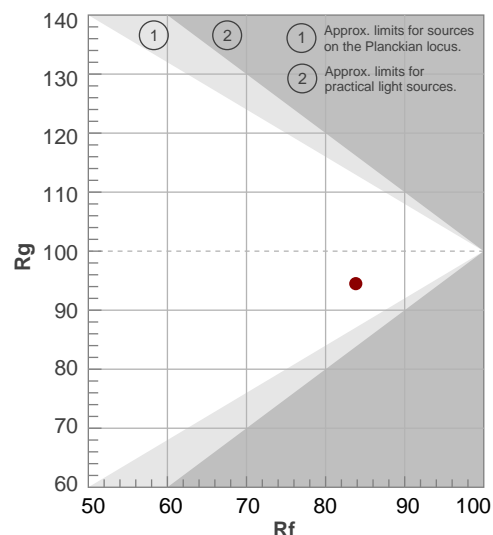


# TM30 DETAILS

**Rf 83,8**  
Fidelity index Rf

**Rg 94,5**  
Gammut index

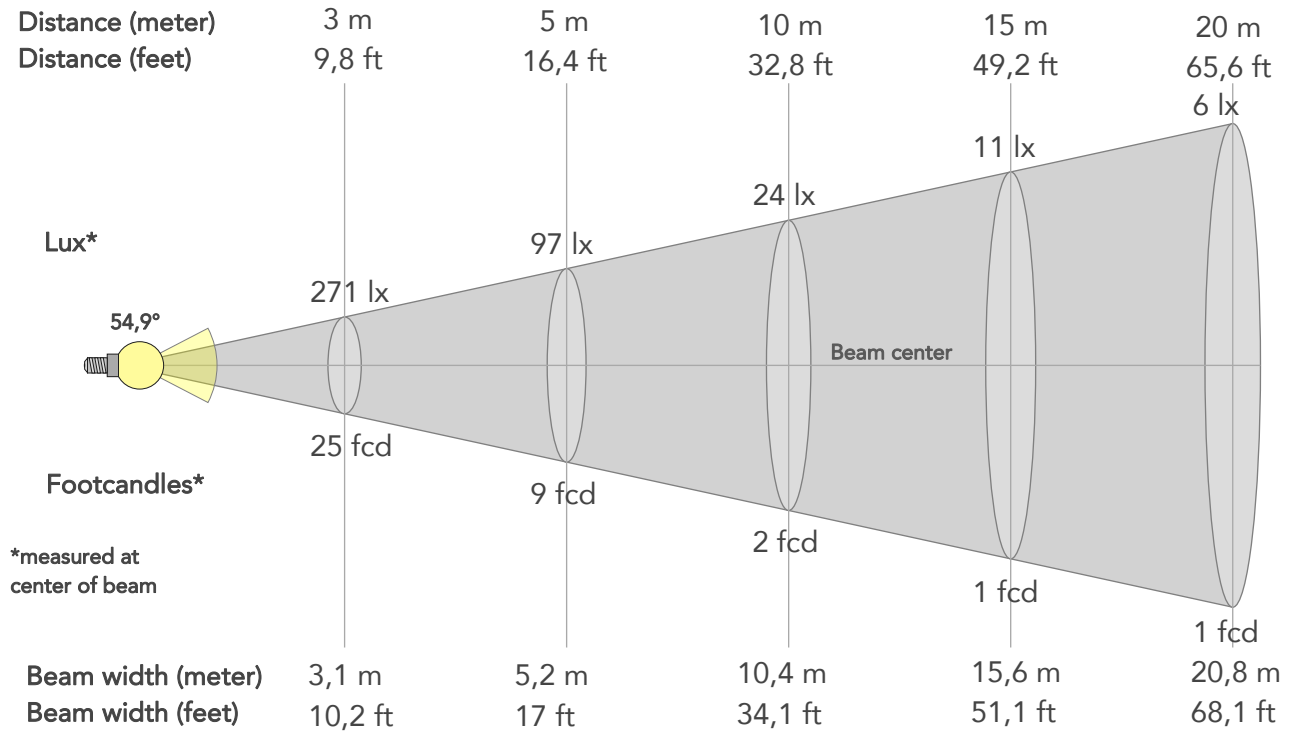
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-13%	-1%
2	82	-8%	6%
3	82	-5%	10%
4	87	0%	7%
5	89	0%	3%
6	94	1%	-2%
7	95	-3%	-1%
8	87	-8%	0%
9	84	-10%	9%
10	78	-4%	15%
11	72	2%	14%
12	88	5%	1%
13	87	9%	-4%
14	78	12%	-13%
15	73	0%	-22%
16	85	-6%	-7%





## BEAM DETAILS

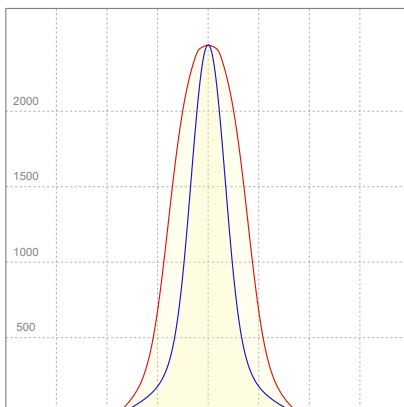
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
54,9°	97,3°	134,9°	95,2%	82,1%



### BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	2436lx	609lx	271lx	152lx	97lx	43lx	24lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	226fcd	57fcd	25fcd	14fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1m	2,1m	3,1m	4,2m	5,2m	7,8m	10,4m	15,6m	20,8m	26m	31,1m	41,5m	51,9m
Beam wid.	3,4ft	6,9ft	10,2ft	13,6ft	17ft	25,5ft	34,1ft	51,1ft	68,1ft	85,1ft	102,2ft	136,2ft	170,3ft

### LINEAR DISTRIBUTION DIAGRAM

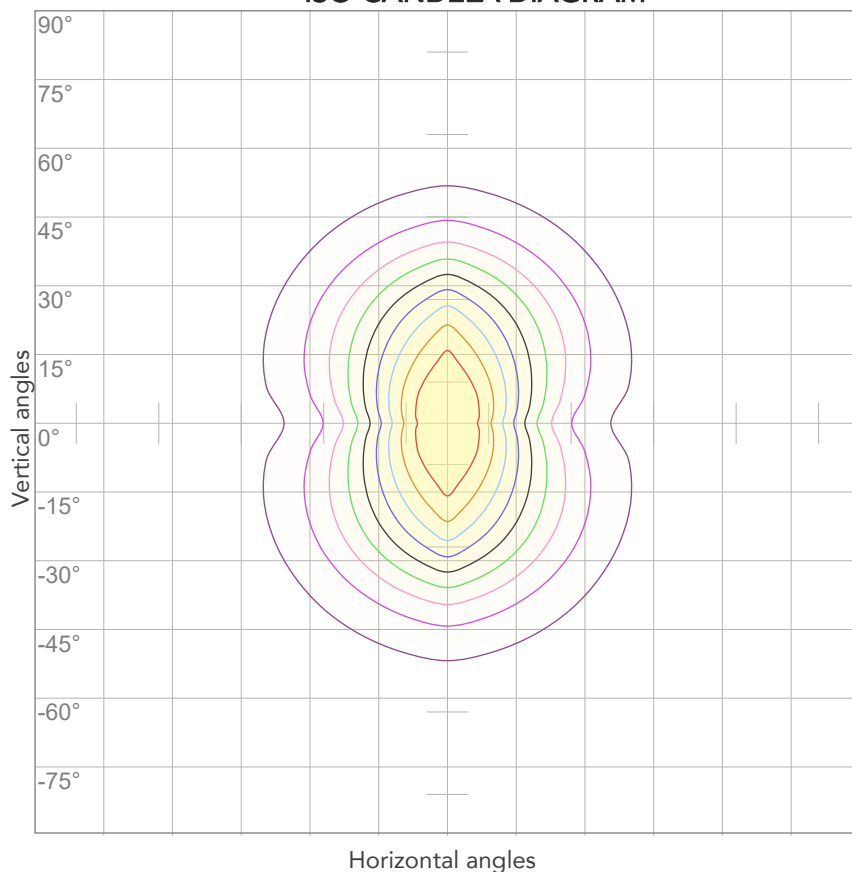


### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,221A	43,0W	58lm/W



## ISO CANDELA DIAGRAM



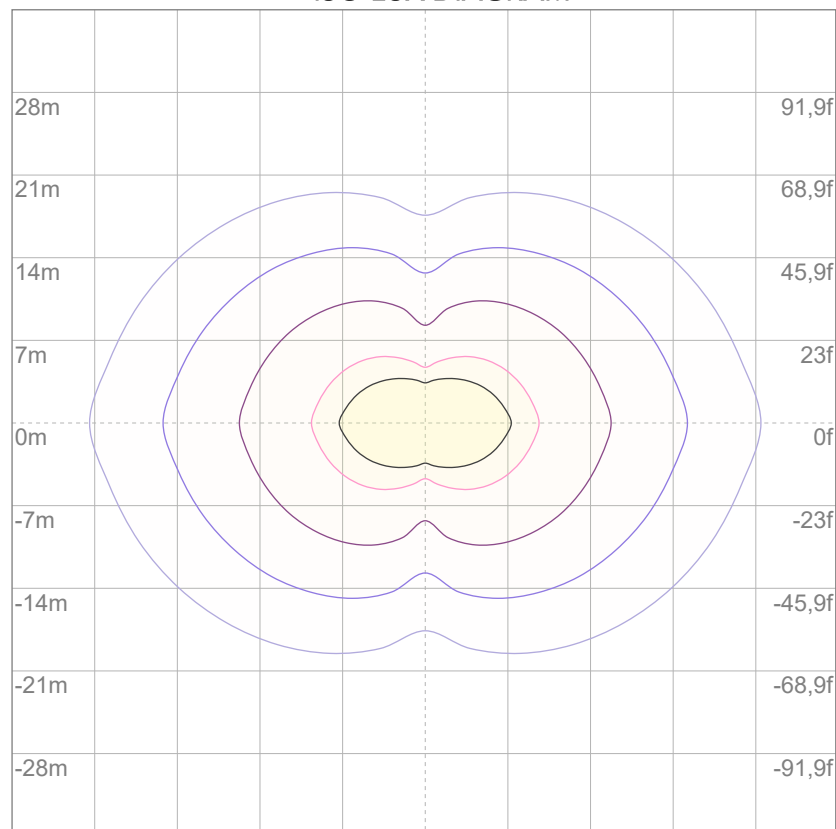
10%	244 cd
20%	487 cd
30%	731 cd
40%	974 cd
50%	1218 cd
60%	1462 cd
70%	1705 cd
80%	1949 cd

### Conditions:

Number of c-planes: 4

Candela at center: 2436 cd

## ISO LUX DIAGRAM



3%	0,731 lx
5%	1,22 lx
10%	2,44 lx
30%	7,31 lx
50%	12,2 lx

### Conditions:

Number of c-planes: 4

Lux at center: 24,4 lx

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