



# Photometric Test Report



## STUDIOCOBDY

100W Daylight White COB PAR  
with parabolic reflector

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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:

8139 lm

Peak candela output:

7113 cd

Light quality:

CRI: 83,2

Color temperature:

4884 K

**PRODUCT NAME:**

STUDIOCOBDY

**MEASURAMENT CONDITIONS:**

Beam angle:

Wide Optic

Target:

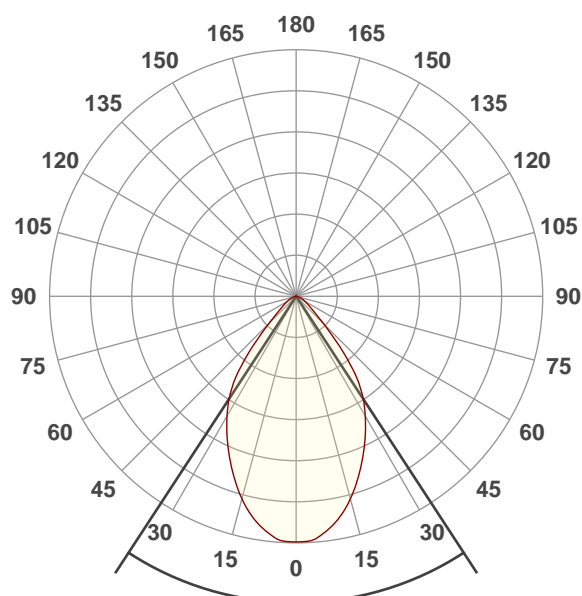
Full

Operator:

Paolo Carvone

Date and time:

23/04/2021 12:40:42

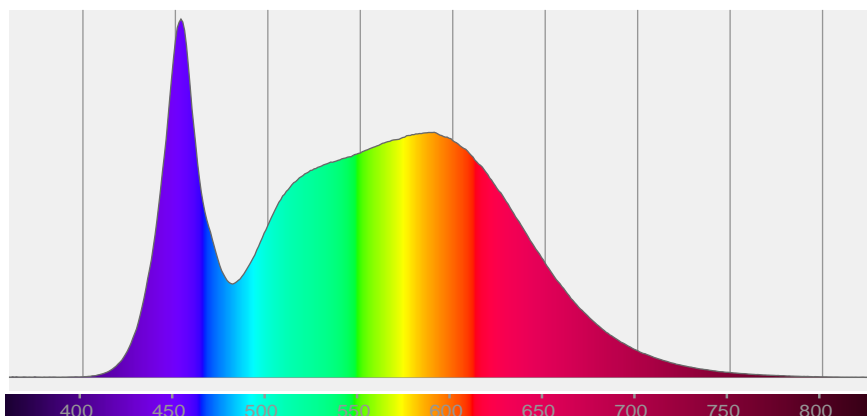


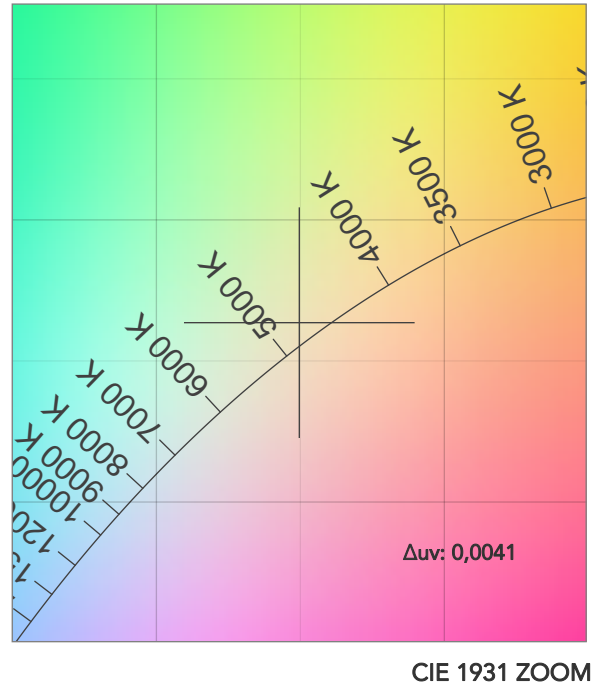
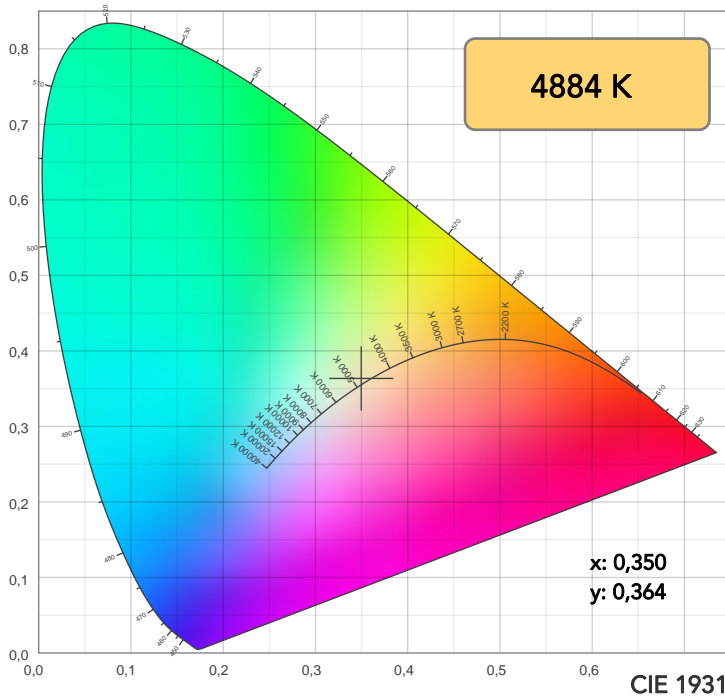
Beam angle 50%: 66,3°

Field angle 10%: 98,2°

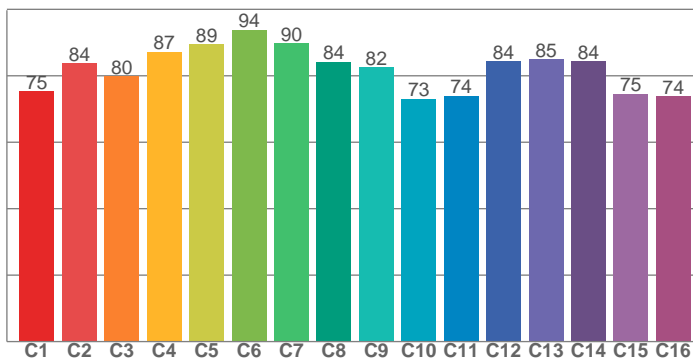
Cut off angle 2.5%: 133,7°

**Spectra**

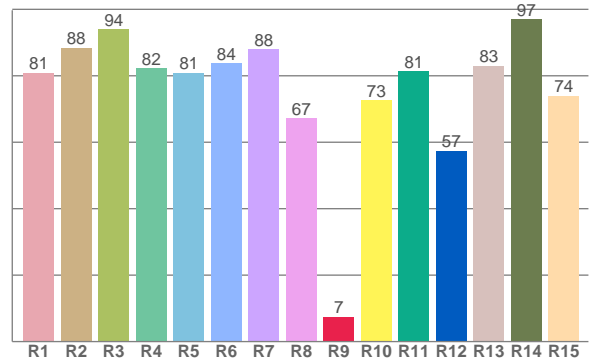




TM30: 82,3



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	88,5	94,0	82,2	80,9	83,8	88,1	67,2	7,4	72,6	81,3	57,5	83,0	96,9	74,0

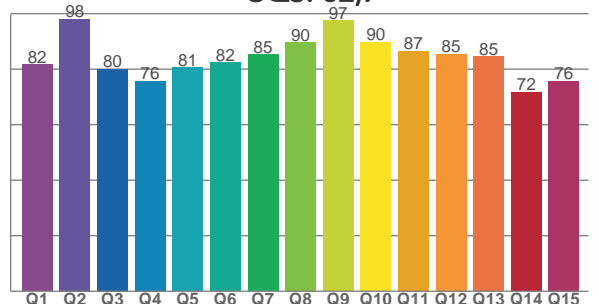
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75,4	83,8	79,9	87,3	89,4	93,8	89,8	84,3	82,5	73,0	73,9	84,3	84,9	84,3	74,5	73,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
81,7	98,1	80,1	75,7	80,5	82,4	85,2	89,6	97,5	89,7	86,6	85,4	84,6	71,7	75,7

CQS: 82,7



## COLOR PARAMETERS

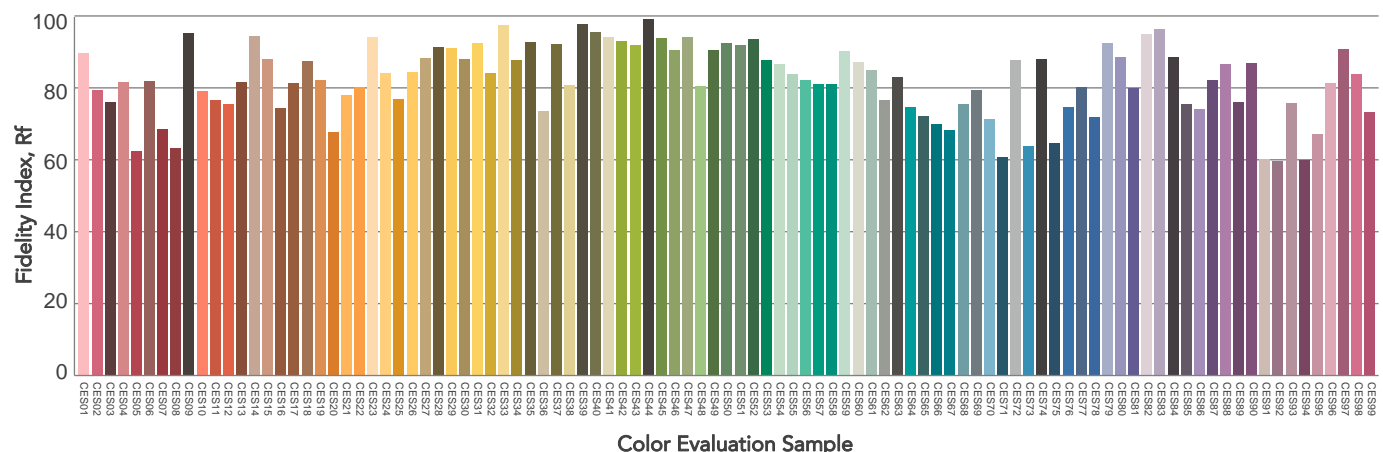
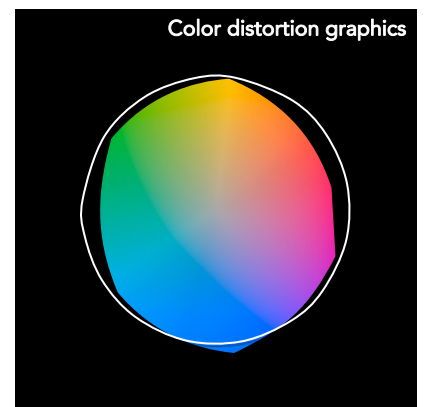
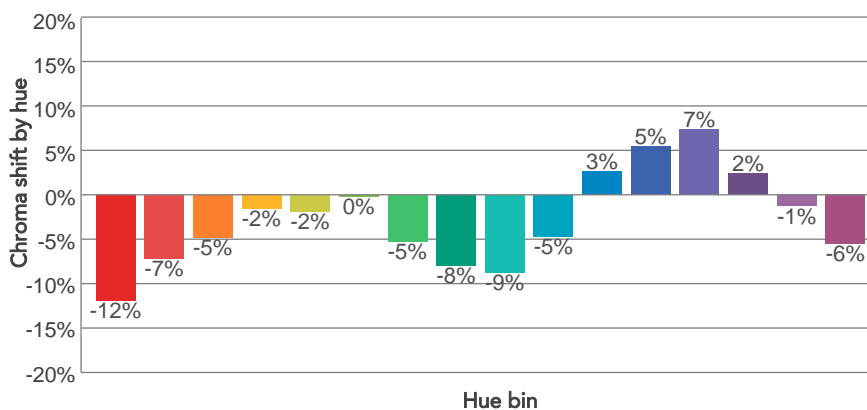
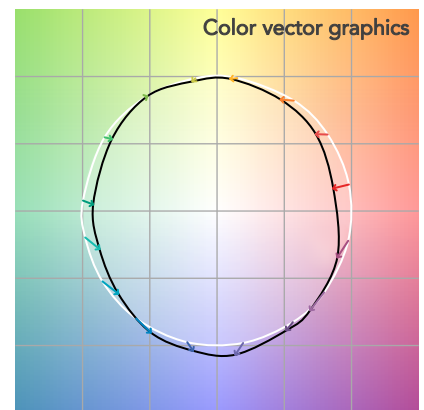
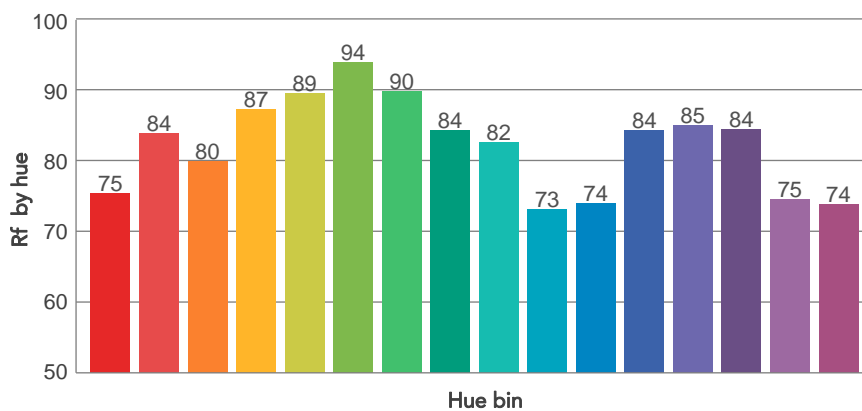
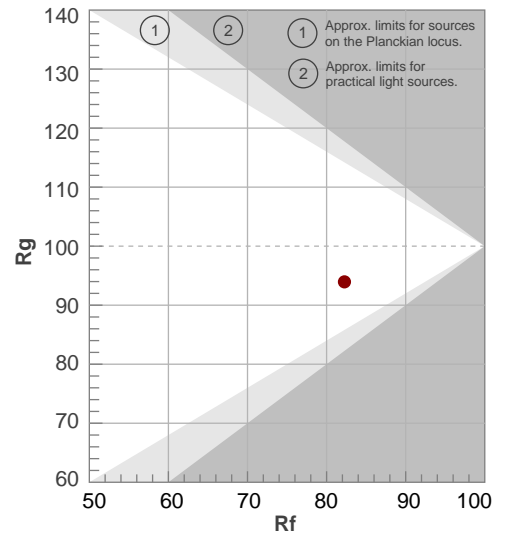
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4884 K	83,2	7,4	82,3	94,0	82,7	70	0,350	0,364	0,0041

# TM30 DETAILS

**Rf 82,3**  
Fidelity index Rf

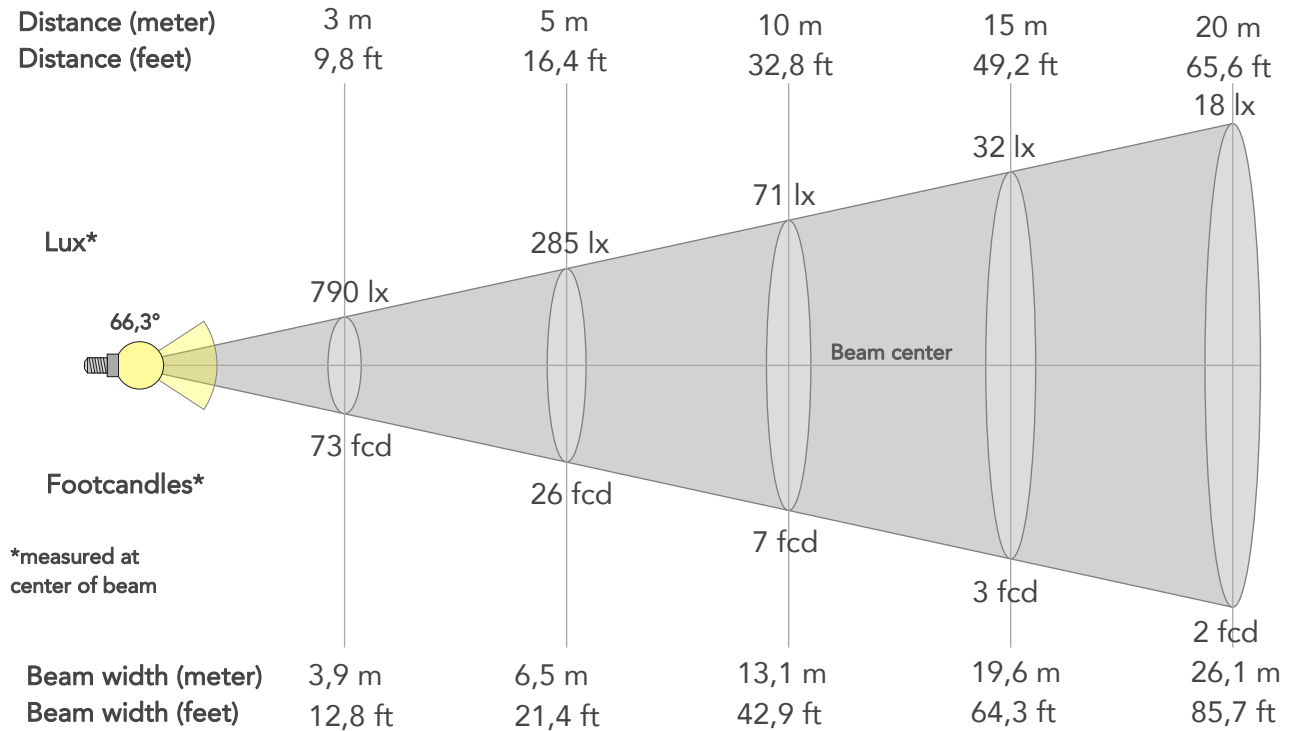
**Rg 94,0**  
Gammut index

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-12%	-1%
2	84	-7%	5%
3	80	-5%	9%
4	87	-2%	5%
5	89	-2%	3%
6	94	0%	-2%
7	90	-5%	-2%
8	84	-8%	1%
9	82	-9%	11%
10	73	-5%	14%
11	74	3%	15%
12	84	5%	5%
13	85	7%	-7%
14	84	2%	-7%
15	75	-1%	-17%
16	74	-6%	-14%



## BEAM DETAILS

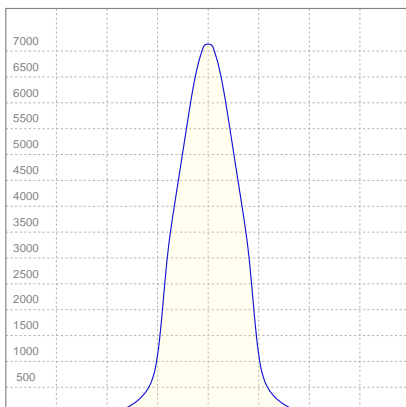
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
66,3°	98,2°	133,7°	96,1%	87,2%



### 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	7113lx	1778lx	790lx	445lx	285lx	126lx	71lx	32lx	18lx	11lx	8lx	4lx	3lx
Footcand.	661fcd	165fcd	73fcd	41fcd	26fcd	12fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	1,3m	2,6m	3,9m	5,2m	6,5m	9,8m	13,1m	19,6m	26,1m	32,7m	39,2m	52,3m	65,4m
Beam wid.	4,3ft	8,6ft	12,8ft	17,1ft	21,4ft	32,2ft	42,9ft	64,3ft	85,7ft	107,2ft	128,6ft	171,5ft	214,4ft

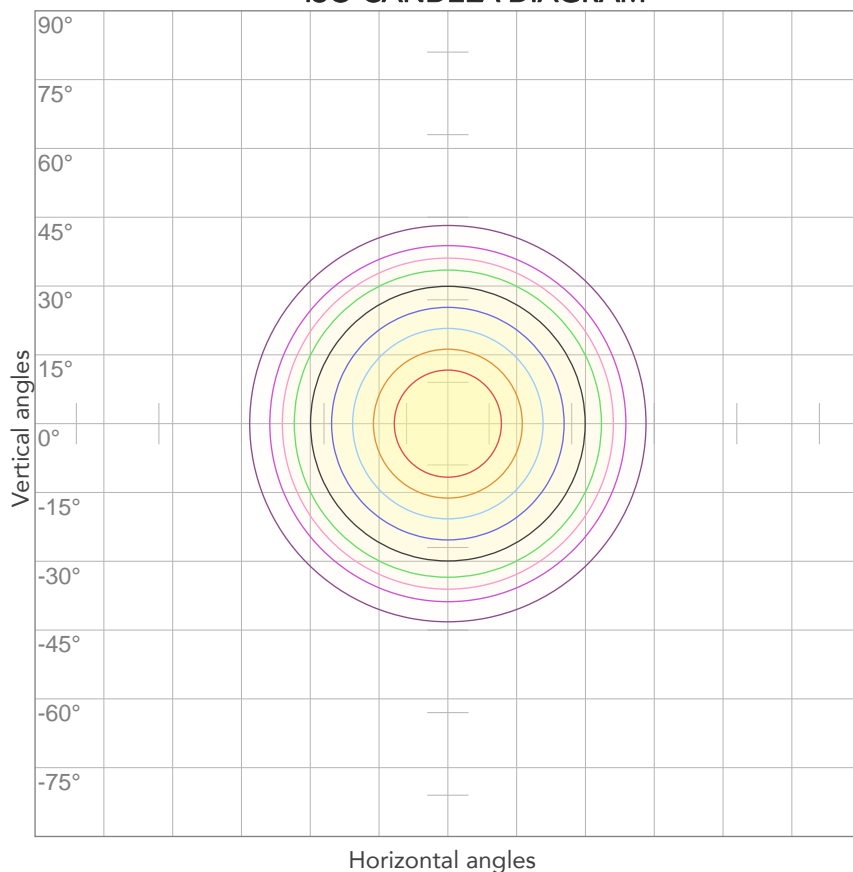
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,515A	108,7W	75lm/W
Power Fc			
0.94			

## ISO CANDELA DIAGRAM



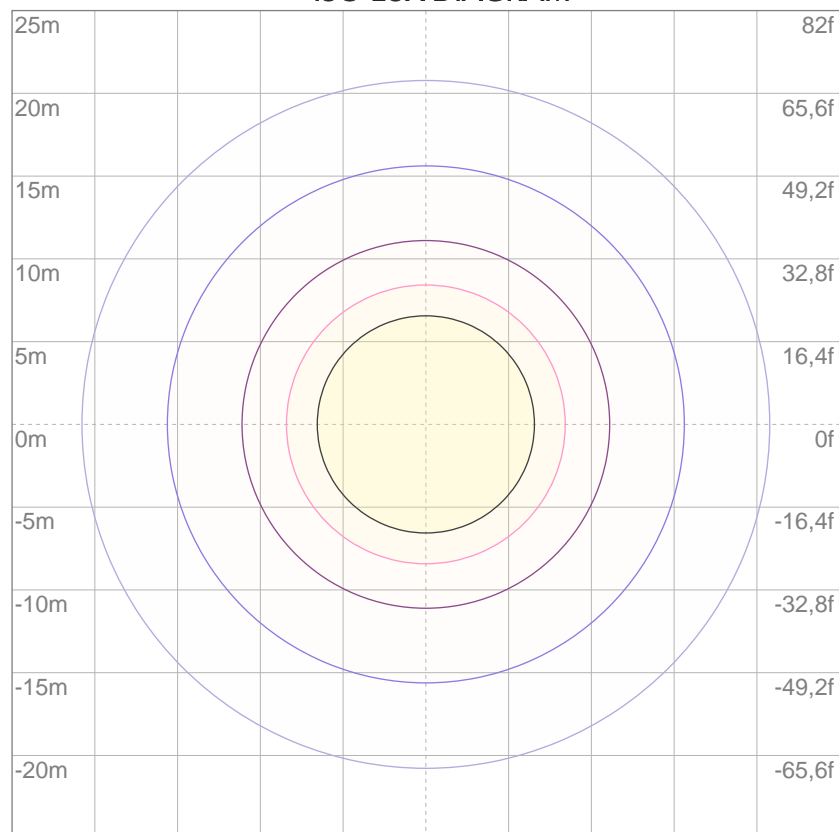
10%	711 cd
20%	1423 cd
30%	2134 cd
40%	2845 cd
50%	3557 cd
60%	4268 cd
70%	4979 cd
80%	5690 cd

### Conditions:

Number of c-planes: 2

Candela at center: 7113 cd

## ISO LUX DIAGRAM



3%	2,13 lx
5%	3,56 lx
10%	7,11 lx
30%	21,3 lx
50%	35,6 lx

### Conditions:

Number of c-planes: 2

Lux at center: 71,1 lx

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





Total lumen output:

7134 lm

Peak candela output:

15278 cd

Light quality:

CRI: 83,7

Color temperature:

4922 K

PRODUCT NAME:

STUDIOCOBDY

MEASURAMENT CONDITIONS:

Beam angle:

Medium Optic

Target:

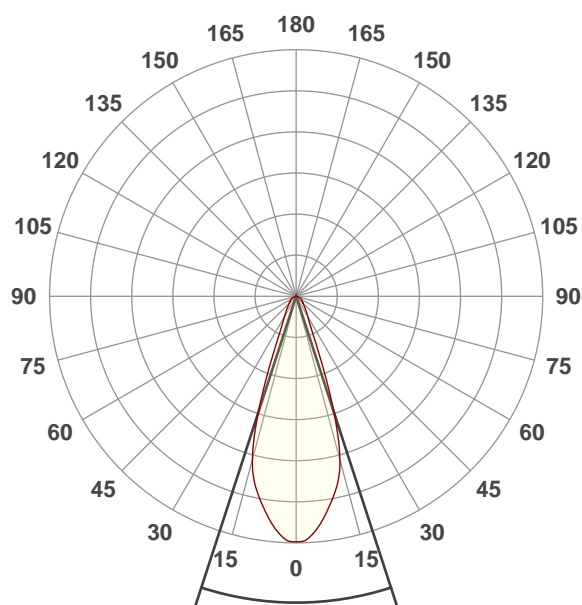
Full

Operator:

Paolo Carvone

Date and time:

23/04/2021 13:04:07

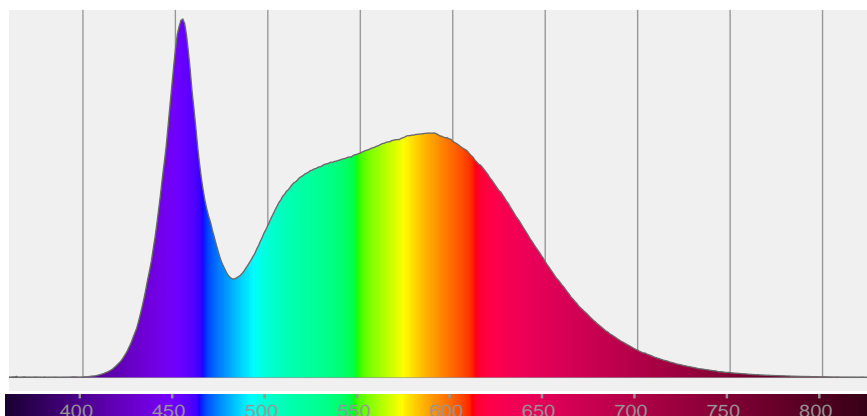


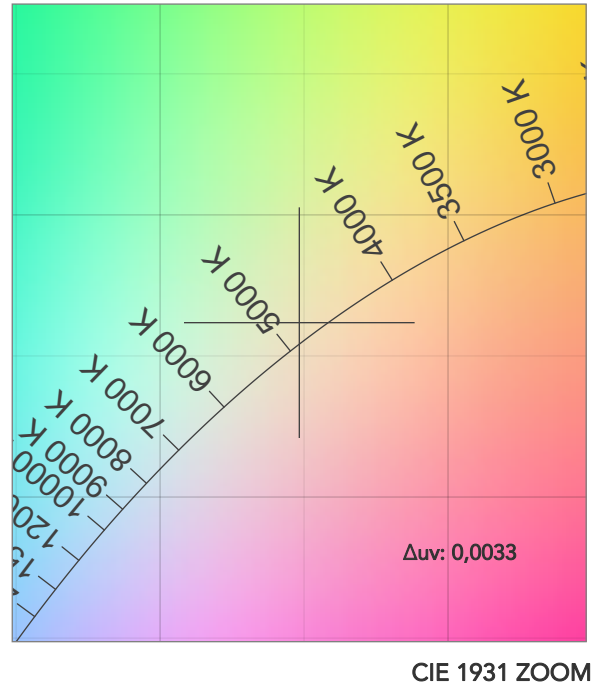
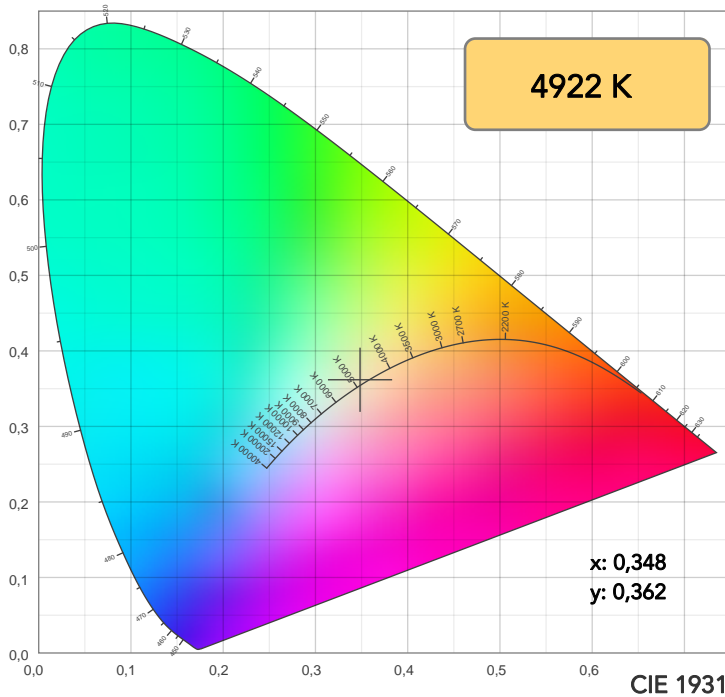
Beam angle 50%: 36,1°

Field angle 10%: 58,4°

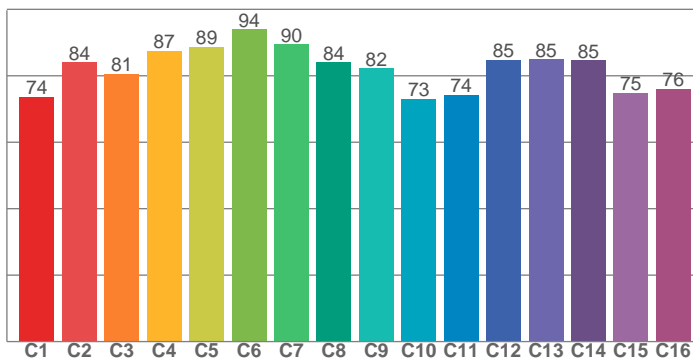
Cut off angle 2.5%: 115,7°

Spectra

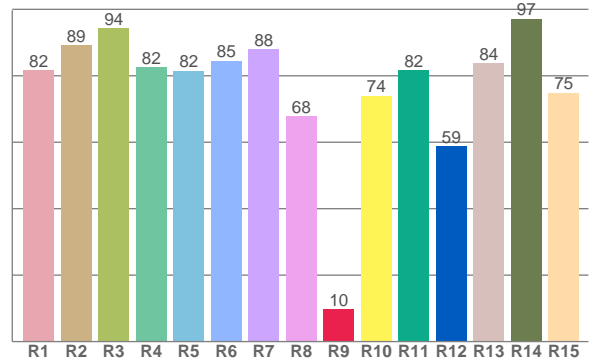




TM30: 82,4



CRI: 83,7 (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
81,6	89,1	94,4	82,5	81,5	84,6	88,0	67,8	9,8	74,0	81,7	58,8	83,8	97,1	74,9

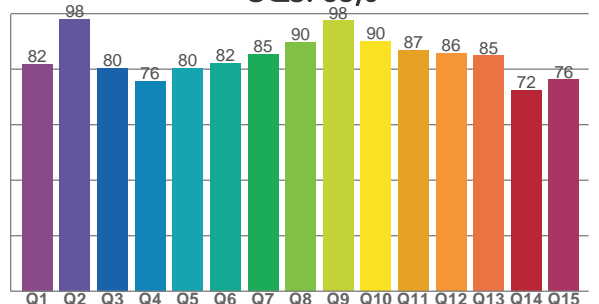
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
73,7	84,1	80,6	87,5	88,7	94,0	89,5	84,1	82,2	73,0	74,3	84,8	85,0	84,6	74,8	76,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
81,9	98,0	80,5	75,7	80,3	82,3	85,4	89,7	97,5	90,1	86,8	85,7	84,9	72,5	76,3

CQS: 83,0



## COLOR PARAMETERS

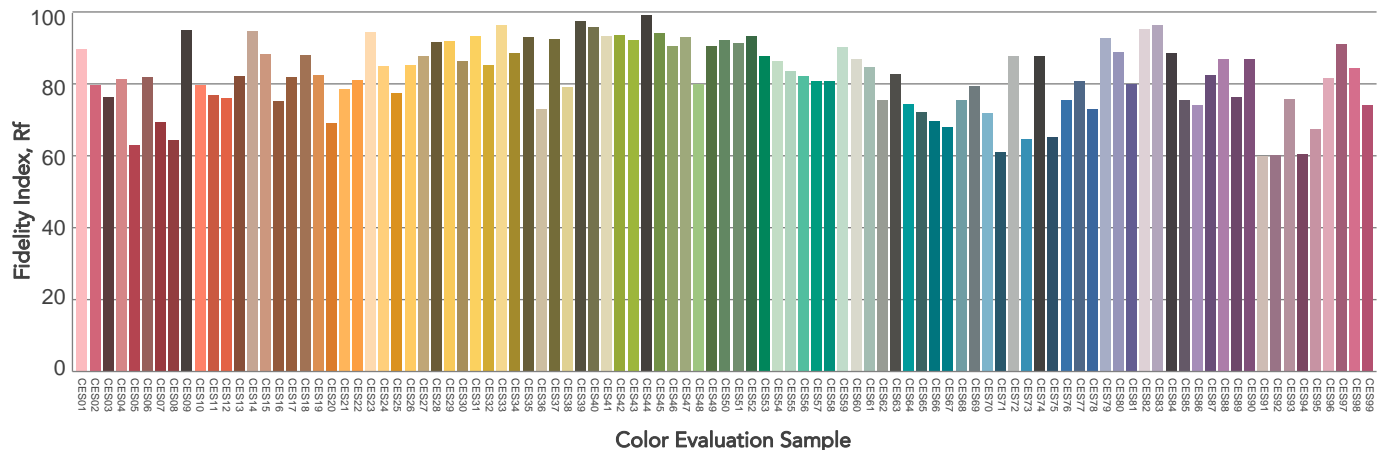
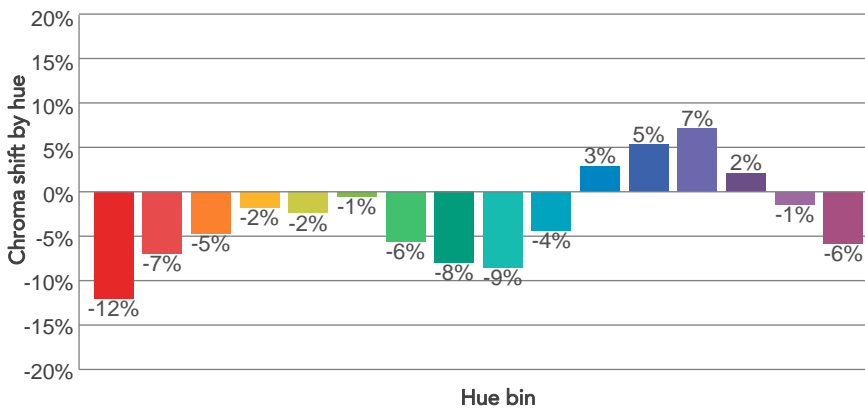
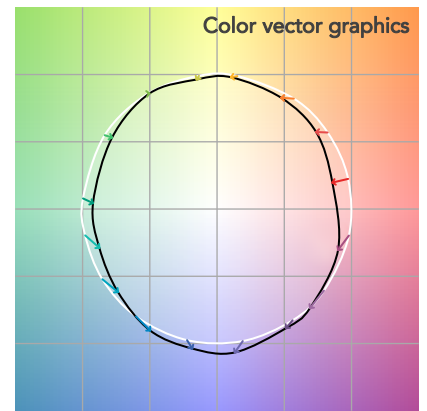
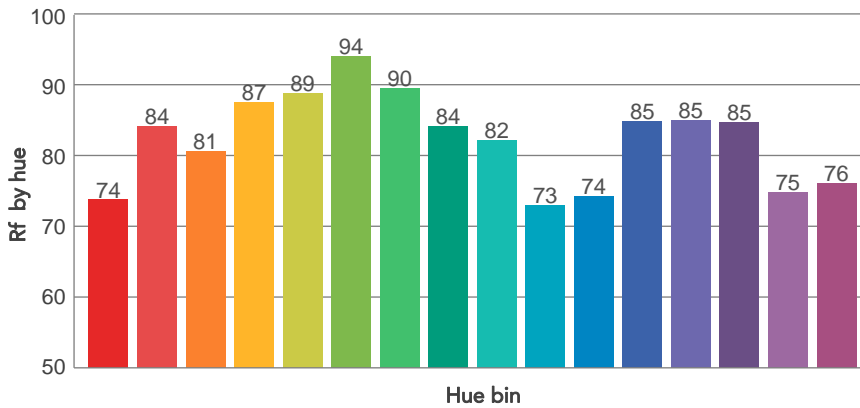
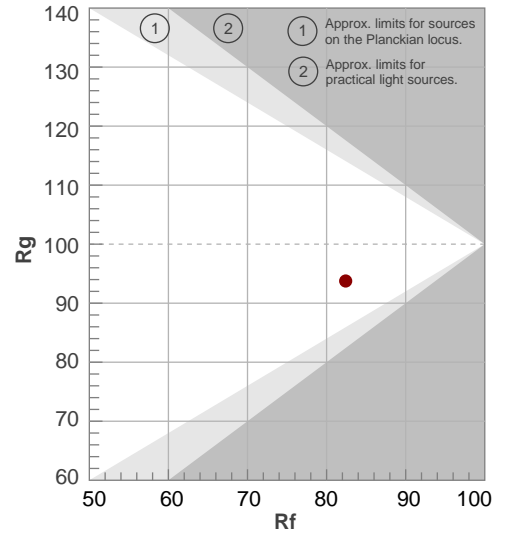
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4922 K	83,7	9,8	82,4	93,8	83,0	71	0,348	0,362	0,0033

# TM30 DETAILS

**Rf 82,4**  
Fidelity index Rf

**Rg 93,8**  
Gammut index

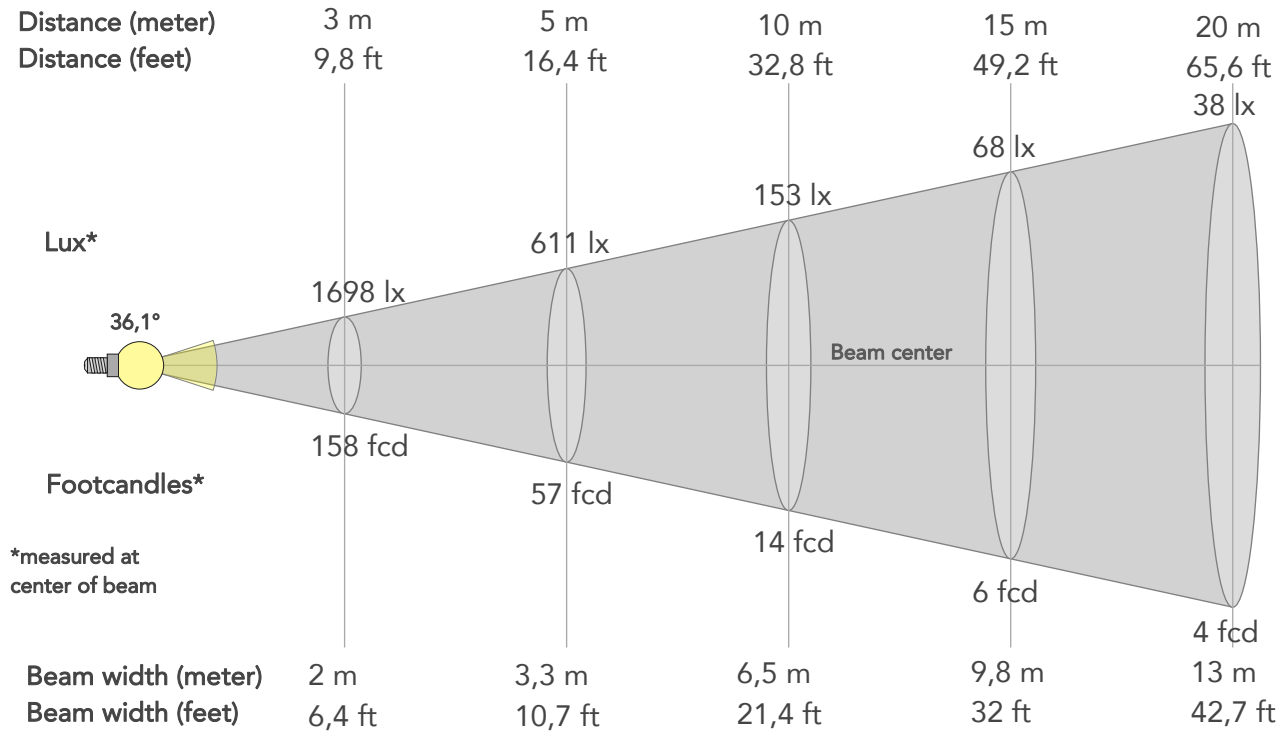
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	74	-12%	0%
2	84	-7%	5%
3	81	-5%	8%
4	87	-2%	5%
5	89	-2%	2%
6	94	-1%	-1%
7	90	-6%	-2%
8	84	-8%	2%
9	82	-9%	11%
10	73	-4%	14%
11	74	3%	15%
12	85	5%	5%
13	85	7%	-7%
14	85	2%	-7%
15	75	-1%	-17%
16	76	-6%	-12%



## BEAM DETAILS



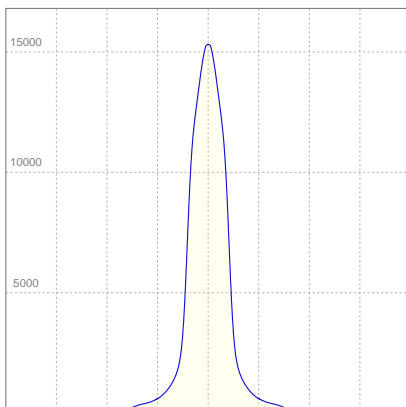
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
36,1°	58,4°	115,7°	94,4%	86,1%



### 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	15278lx	3820lx	1698lx	955lx	611lx	272lx	153lx	68lx	38lx	24lx	17lx	10lx	6lx
Footcand.	1419fcd	355fcd	158fcd	89fcd	57fcd	25fcd	14fcd	6fcd	4fcd	2fcd	2fcd	1fcd	1fcd
Beam wid.	0,7m	1,3m	2m	2,6m	3,3m	4,9m	6,5m	9,8m	13m	16,3m	19,5m	26m	32,6m
Beam wid.	2,1ft	4,3ft	6,4ft	8,5ft	10,7ft	16ft	21,4ft	32ft	42,7ft	53,4ft	64,1ft	85,4ft	106,8ft

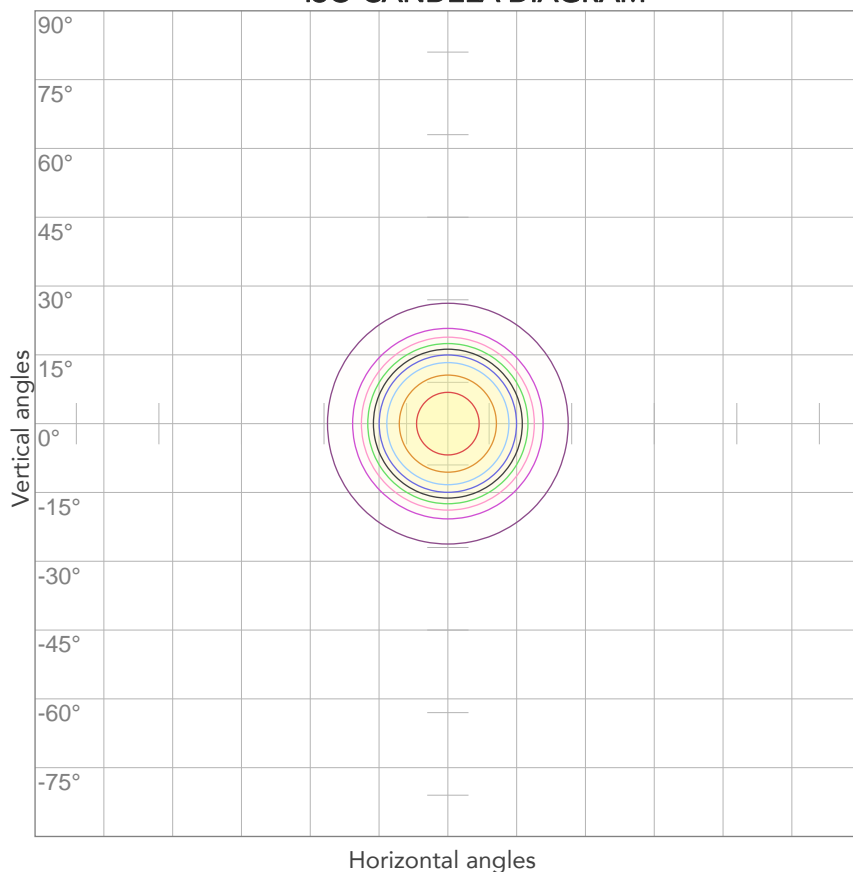
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
228V	0,499A	106,4W	67lm/W
Power Fc			
0.94			

## ISO CANDELA DIAGRAM



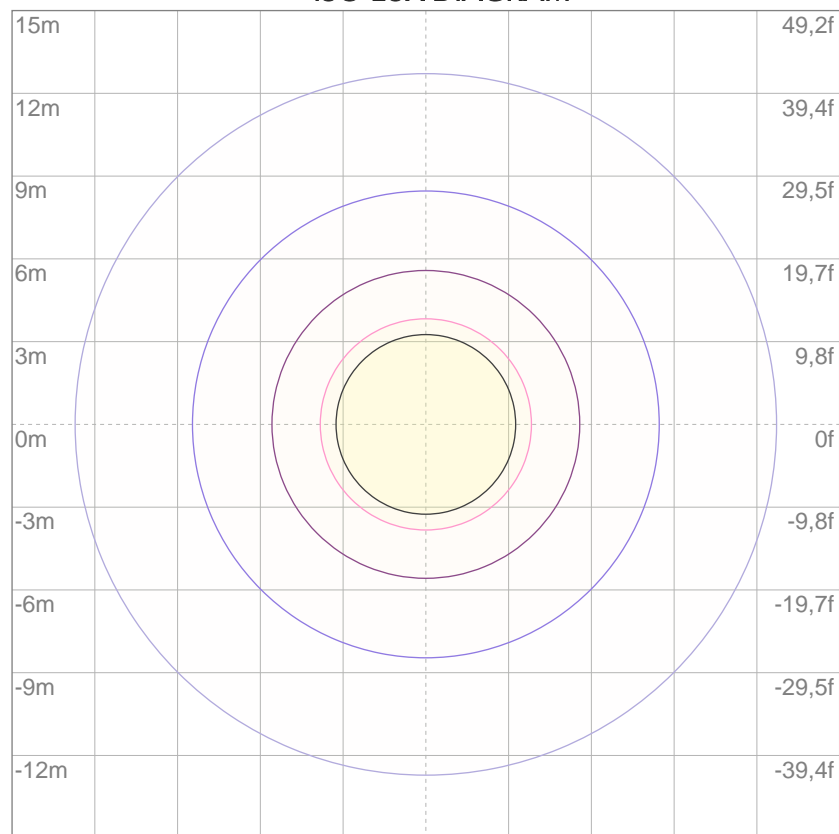
10%	1528 cd
20%	3056 cd
30%	4583 cd
40%	6111 cd
50%	7639 cd
60%	9167 cd
70%	10695 cd
80%	12223 cd

### Conditions:

Number of c-planes: 2

Candela at center: 15278 cd

## ISO LUX DIAGRAM



3%	4,58 lx
5%	7,64 lx
10%	15,3 lx
30%	45,8 lx
50%	76,4 lx

### Conditions:

Number of c-planes: 2

Lux at center: 153 lx

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



Total lumen output:

6875 lm

Peak candela output:

50512 cd

Light quality:

CRI: 83,1

Color temperature:

4838 K

**PRODUCT NAME:**

STUDIOCOBDY

**MEASURAMENT CONDITIONS:**

Beam angle:

Narrow Optic

Target:

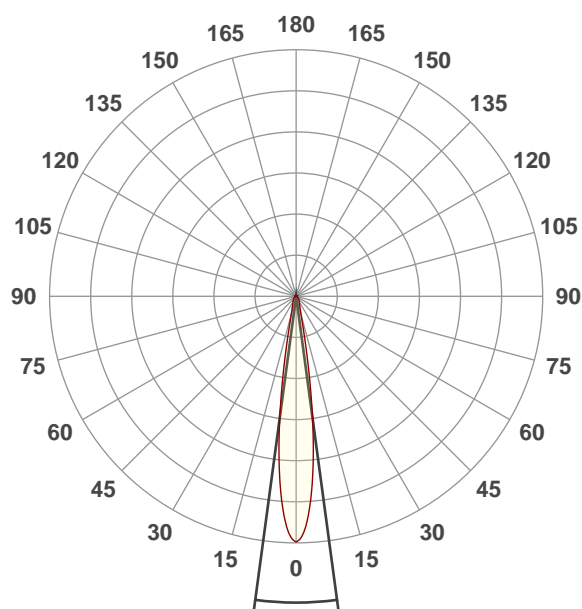
Full

Operator:

Paolo Carvone

Date and time:

23/04/2021 12:56:53

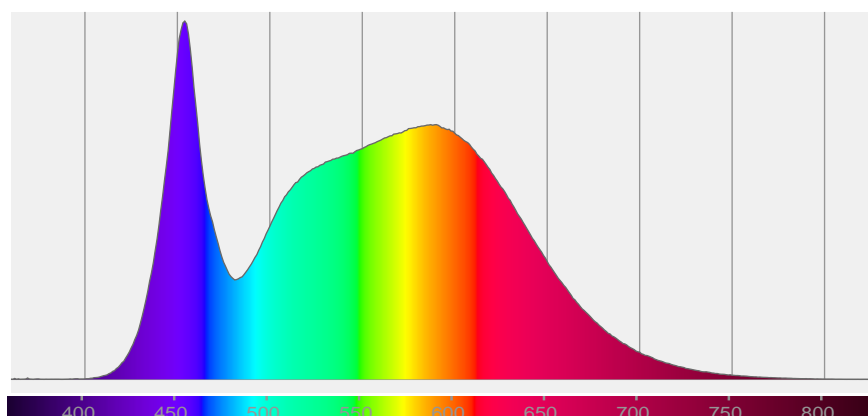


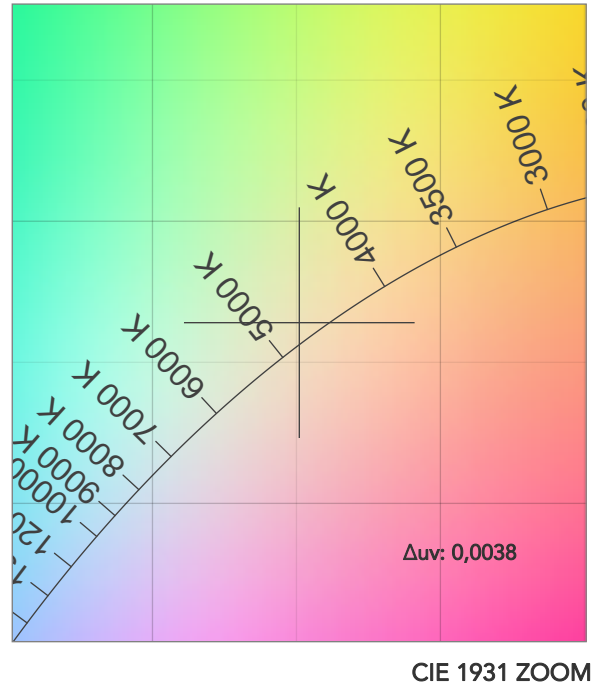
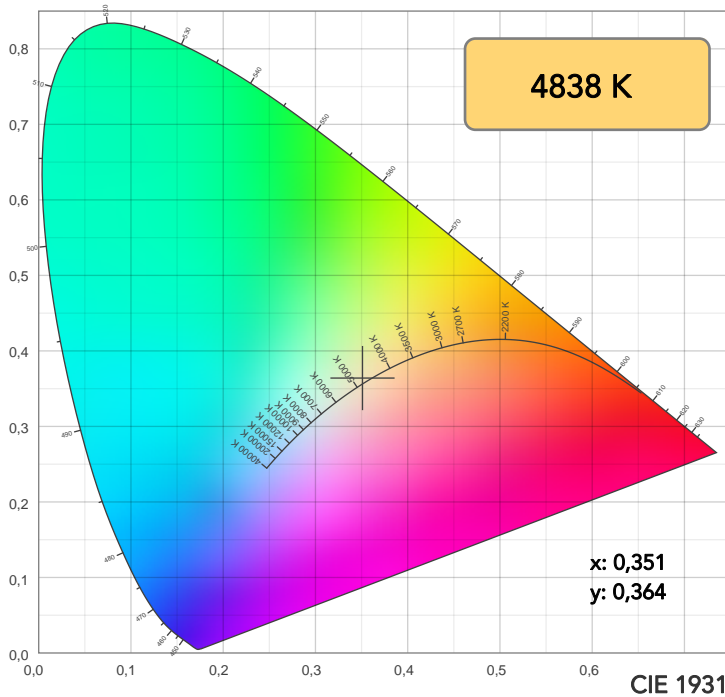
Beam angle 50%: 15,3°

Field angle 10%: 27,3°

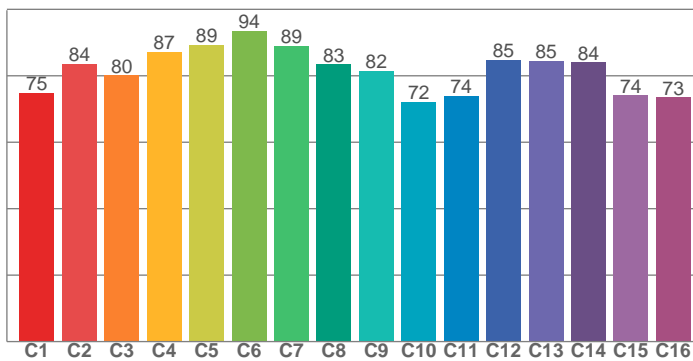
Cut off angle 2.5%: 60,3°

**Spectra**

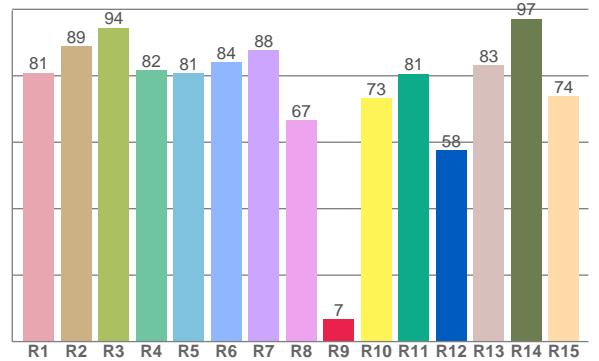




TM30: 81,9



CRI: 83,1 (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
80,9	88,8	94,4	81,6	80,7	84,1	87,7	66,5	6,6	73,3	80,6	57,6	83,1	97,2	73,9

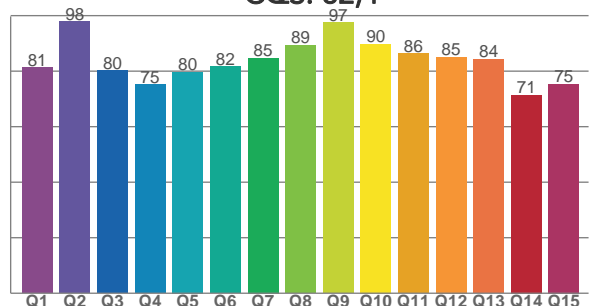
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
74,9	83,5	80,1	87,2	89,3	93,5	88,9	83,4	81,6	72,2	74,0	84,8	84,5	84,1	74,1	73,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
81,2	97,9	80,2	75,2	79,7	81,6	84,8	89,3	97,4	89,8	86,4	85,1	84,2	71,4	75,3

CQS: 82,4



## COLOR PARAMETERS

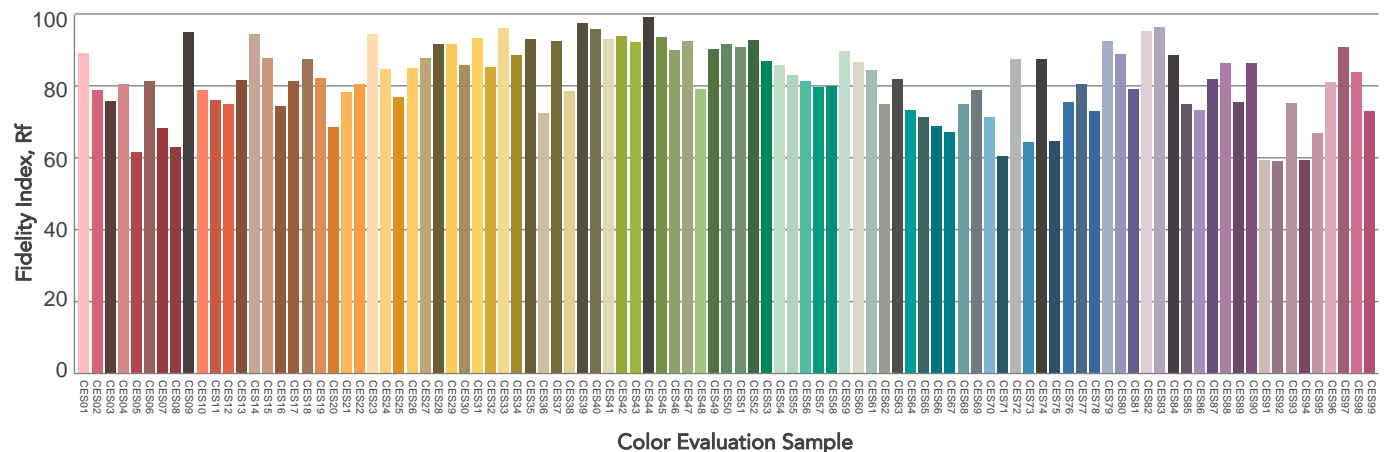
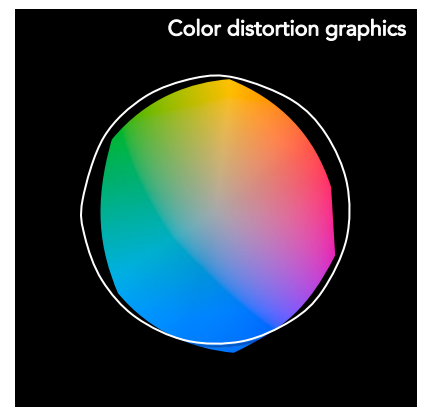
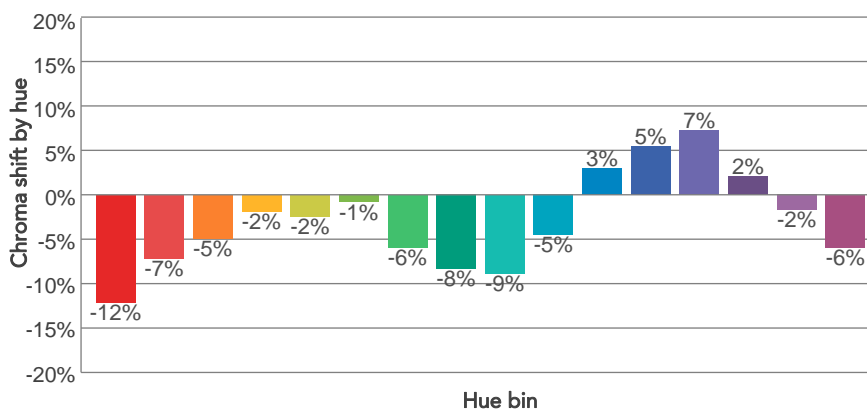
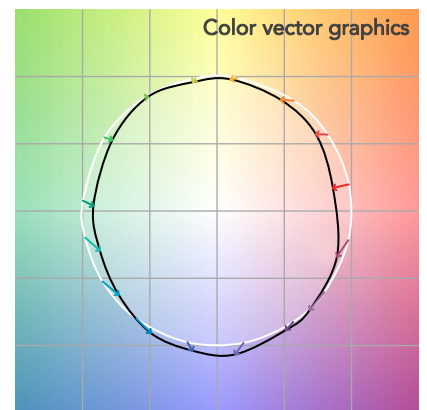
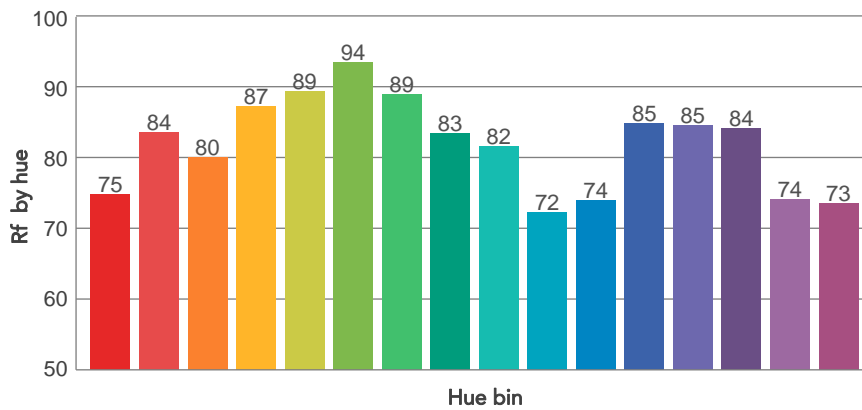
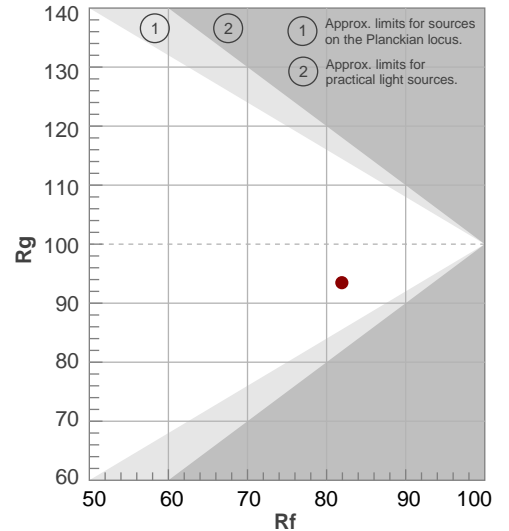
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
4838 K	83,1	6,6	81,9	93,5	82,4	69	0,351	0,364	0,0038

# TM30 DETAILS

**Rf 81,9**  
Fidelity index Rf

**Rg 93,5**  
Gammut index

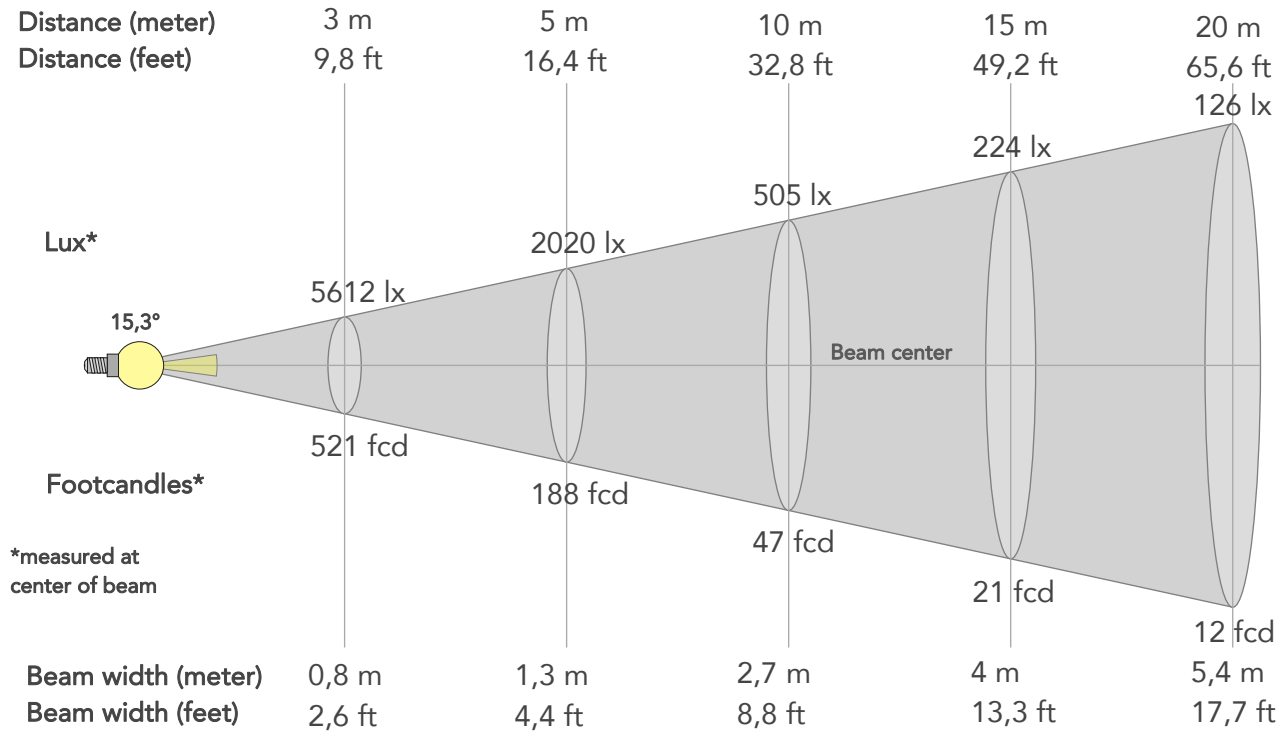
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-12%	0%
2	84	-7%	5%
3	80	-5%	8%
4	87	-2%	5%
5	89	-2%	2%
6	94	-1%	-2%
7	89	-6%	-2%
8	83	-8%	2%
9	82	-9%	12%
10	72	-5%	15%
11	74	3%	15%
12	85	5%	5%
13	85	7%	-8%
14	84	2%	-8%
15	74	-2%	-17%
16	73	-6%	-14%





## BEAM DETAILS

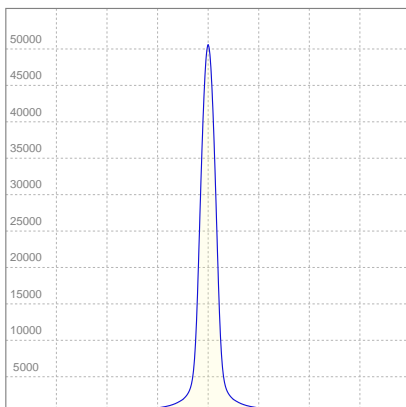
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,3°	27,3°	60,3°	95,3%	85,0%



### 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	50512lx	12628lx	5612lx	3157lx	2020lx	898lx	505lx	224lx	126lx	81lx	56lx	32lx	20lx
Footcand.	4693fcd	1173fcd	521fcd	293fcd	188fcd	83fcd	47fcd	21fcd	12fcd	8fcd	5fcd	3fcd	2fcd
Beam wid.	0,3m	0,5m	0,8m	1,1m	1,3m	2m	2,7m	4m	5,4m	6,7m	8,1m	10,8m	13,5m
Beam wid.	0,9ft	1,8ft	2,6ft	3,5ft	4,4ft	6,6ft	8,8ft	13,3ft	17,7ft	22,1ft	26,5ft	35,3ft	44,2ft

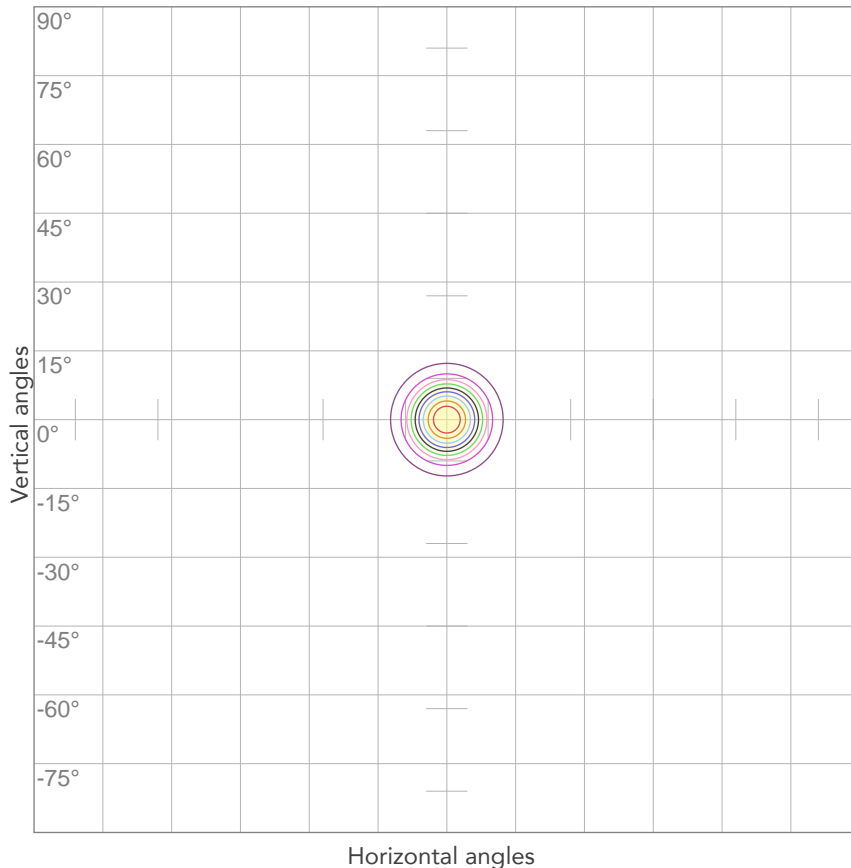
### LINEAR DISTRIBUTION DIAGRAM



### ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,500A	105,5W	65lm/W
Power Fc			
0.94			

## ISO CANDELA DIAGRAM



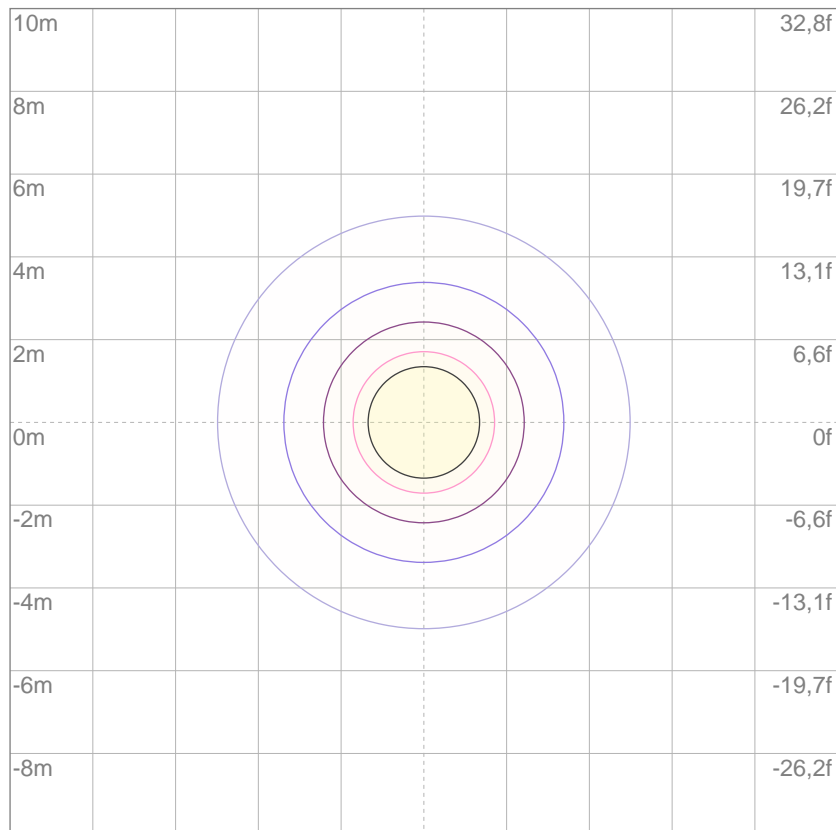
10%	5051 cd
20%	10102 cd
30%	15154 cd
40%	20205 cd
50%	25256 cd
60%	30307 cd
70%	35359 cd
80%	40410 cd

### Conditions:

Number of c-planes: 2

Candela at center: 50512 cd

## ISO LUX DIAGRAM



3%	15,2 lx
5%	25,3 lx
10%	50,5 lx
30%	152 lx
50%	253 lx

### Conditions:

Number of c-planes: 2

Lux at center: 505 lx

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