

# Photometric Test Report



## Astra Blade100IP

IP65 motorized linear batten with 16x40W  
RGB+WW LEDs with two variable white pixel  
linear LED strips on both sides and zoom 4°-40°

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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:

14054 lm

Peak candela output:

57599 cd



**PRODUCT NAME:**

ASTRABLADE100IP

**MEASUREMENT CONDITIONS:**

Beam angle:

Max Zoom

Target:

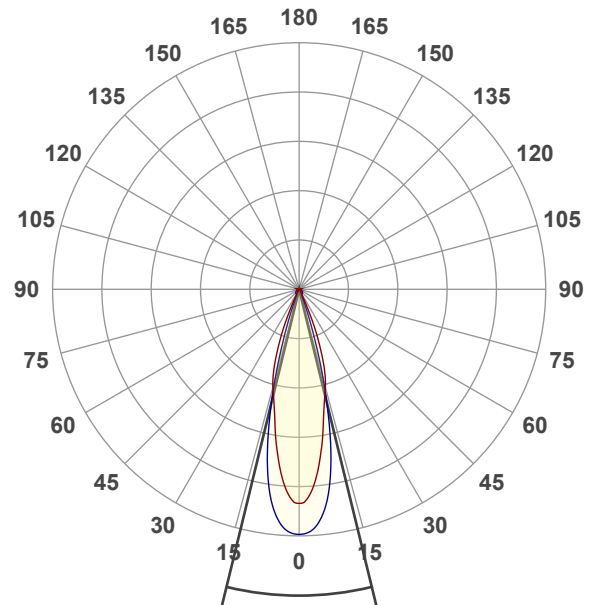
Full On (LED + Strip)

Operator:

Salvatore Giglio

Date and time:

11/10/2024 17:34:13

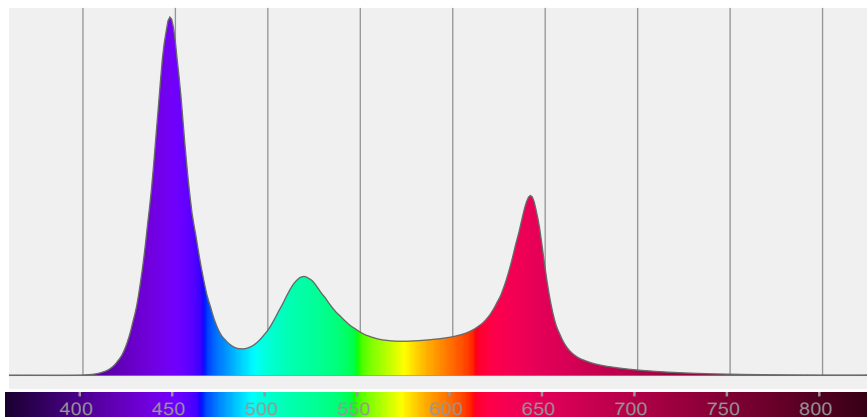


Beam angle 50%: 27,4°

Field angle 10%: 43,6°

Cut off angle 2.5%: 51,5°

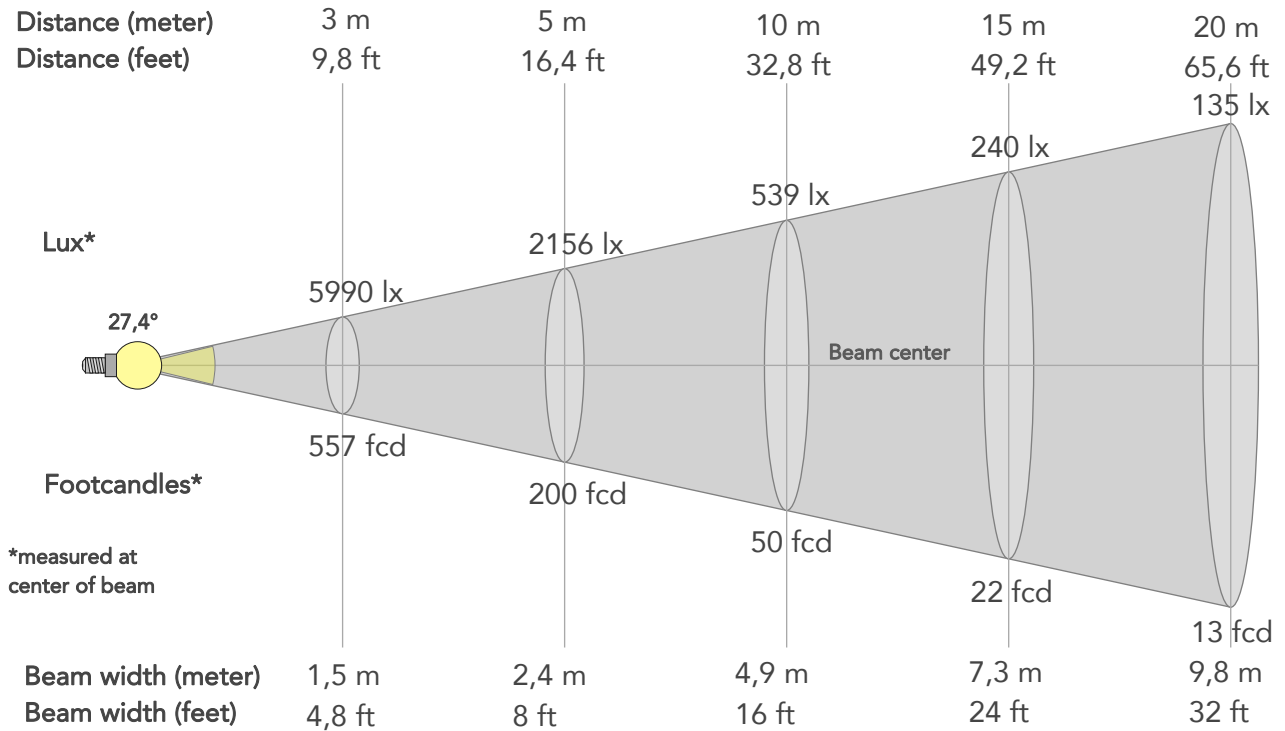
**Spectra**



# BEAM DETAILS



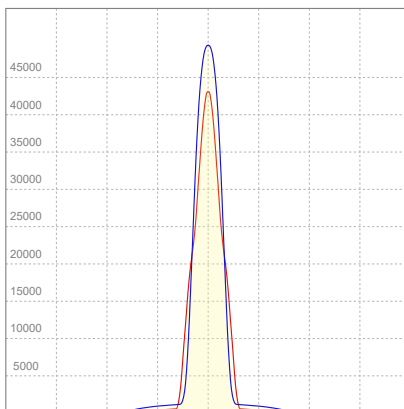
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
27,4°	43,6°	51,5°	96,7%	91,0%



## 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	53911lx	13478lx	5990lx	3369lx	2156lx	958lx	539lx	240lx	135lx	86lx	60lx	34lx	22lx
Footcand.	5009fcd	1252fcd	557fcd	313fcd	200fcd	89fcd	50fcd	22fcd	13fcd	8fcd	6fcd	3fcd	2fcd
Beam wid.	0,5m	1m	1,5m	2m	2,4m	3,7m	4,9m	7,3m	9,8m	12,2m	14,6m	19,5m	24,4m
Beam wid.	1,6ft	3,2ft	4,8ft	6,4ft	8ft	12ft	16ft	24ft	32ft	40ft	48ft	64ft	80,1ft

## LINEAR DISTRIBUTION DIAGRAM



## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
226V	3,17A	688,9W	0,96	20lm/W



Total lumen output:

12028 lm

Peak candela output:

400791 cd

**PRODUCT NAME:**

ASTRABLED100IP

**MEASUREMENT CONDITIONS:**

Beam angle:

Min Zoom

Target:

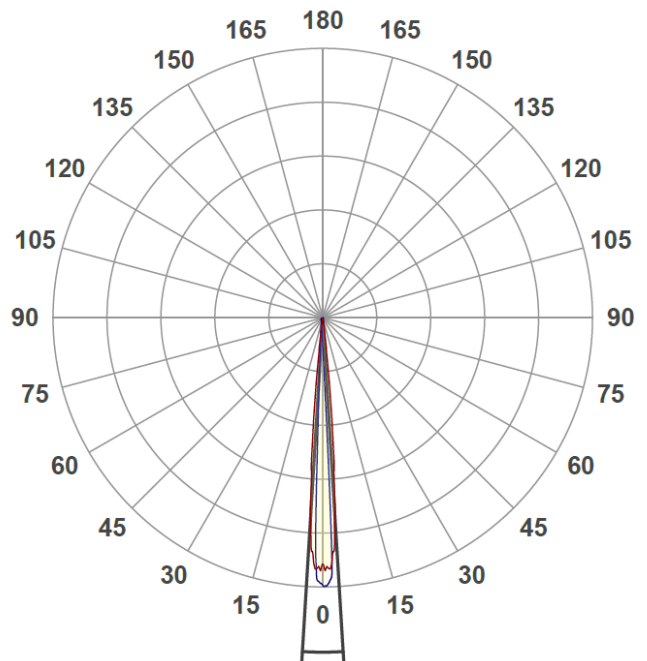
Full On (LED + Strip)

Operator:

Salvatore Giglio

Date and time:

11/10/2024 10:13:42

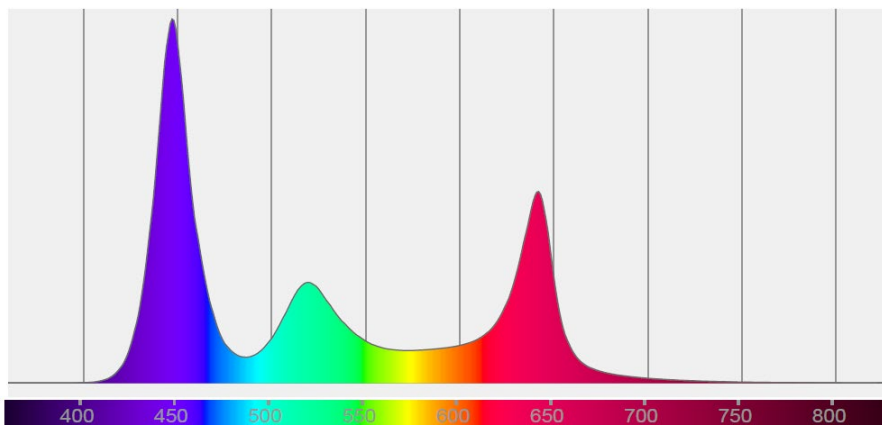


Beam angle 50%: 4,5°

Field angle 10%: 9,3°

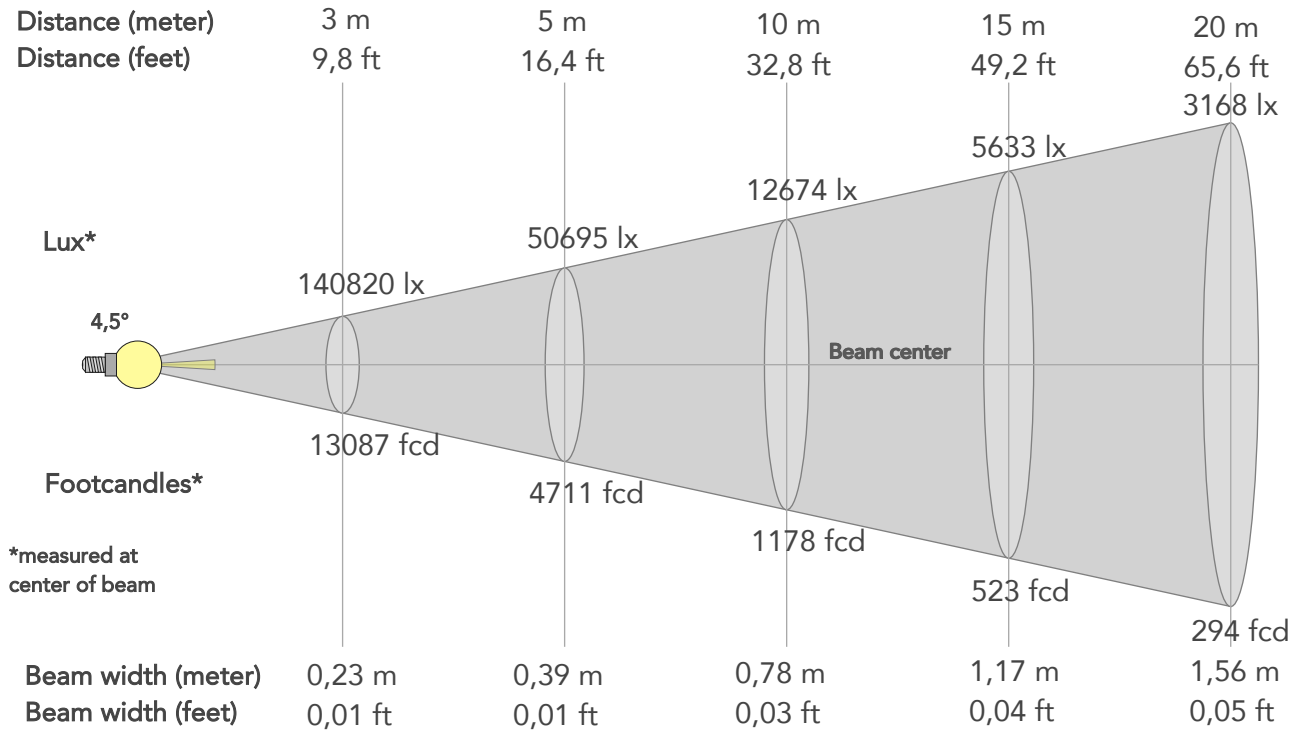
Cut off angle 2.5%: 9,8°

Spectra



# BEAM DETAILS

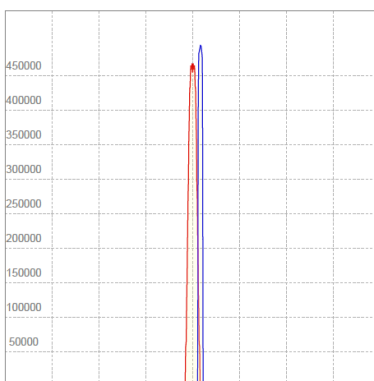
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,5°	9,3°	9,8°	99,1%	96,6%



## 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	1267378lx	544962lx	140820lx	79211lx	50695lx	22531lx	12674lx	5633lx	3168lx	2028lx	1408lx	792lx	507lx
Footcand.	117786fcd	50647fcd	13087fcd	7362fcd	4711fcd	2094fcd	1178fcd	523fcd	294fcd	188fcd	131fcd	74fcd	47fcd
Beam wid.	0,08m	0,12m	0,23m	0,31m	0,39m	0,59m	0,78m	1,17m	1,56m	1,95m	2,34m	3,12m	3,90m
Beam wid.	0,00ft	0,00ft	0,01ft	0,01ft	0,01ft	0,02ft	0,03ft	0,04ft	0,05ft	0,06ft	0,08ft	0,10ft	0,13ft

## LINEAR DISTRIBUTION DIAGRAM



**Table Note:** Approximate illuminance and beam diameter at different projection distances, calculated with the inverse-square law. The approximation is valid only for large distances, compared to the size of the fixture output port.

## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
226V	3,22A	697,4W	0,96	17lm/W

Total lumen output:

2965 lm

Peak candela output:

1154 cd

Light quality:

CRI: 90,1

Color temperature:

4502 K



**PRODUCT NAME:**

ASTRABLADE100IP

**MEASURAMENT CONDITIONS:**

Beam angle:

Strip

Target:

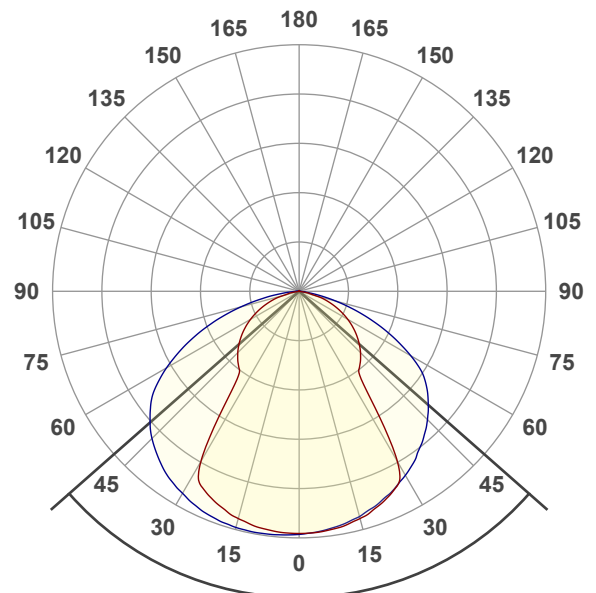
Full On

Operator:

Salvatore Giglio

Date and time:

11/10/2024 14:55:56

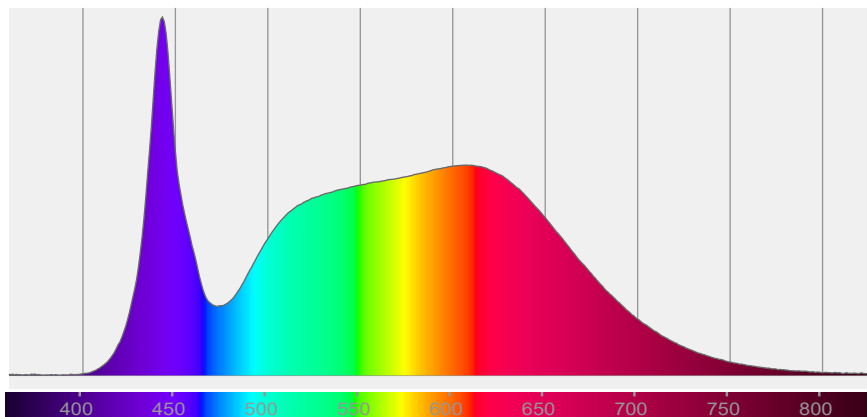


Beam angle 50%: 97,3°

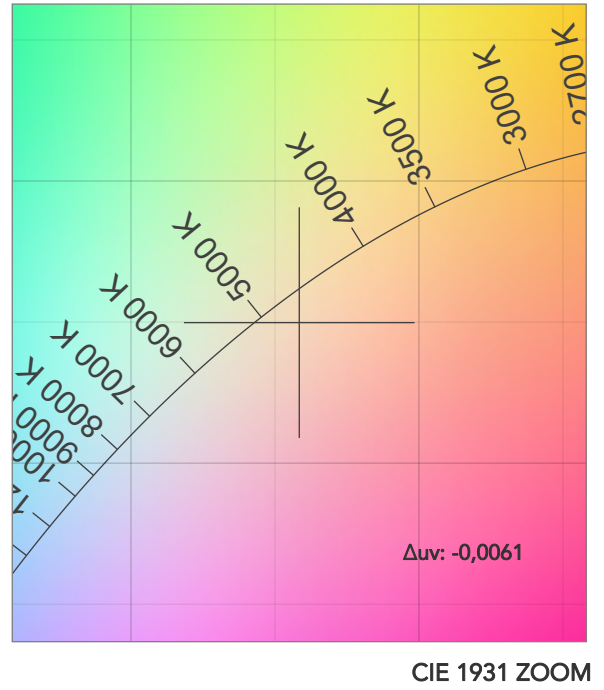
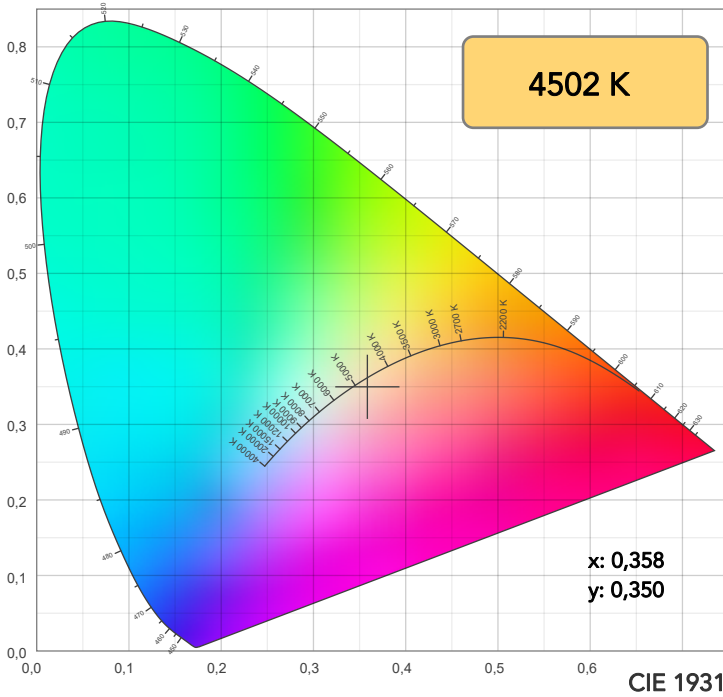
Field angle 10%: 152,7°

Cut off angle 2.5%: 165°

Spectra

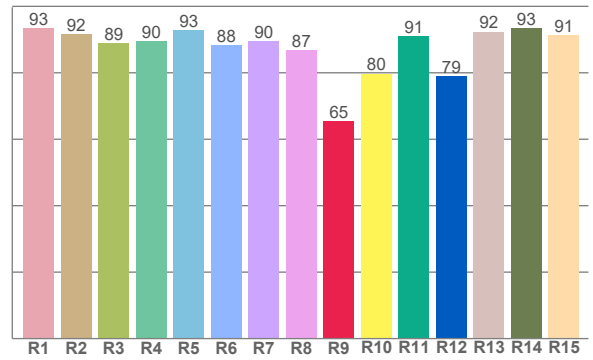
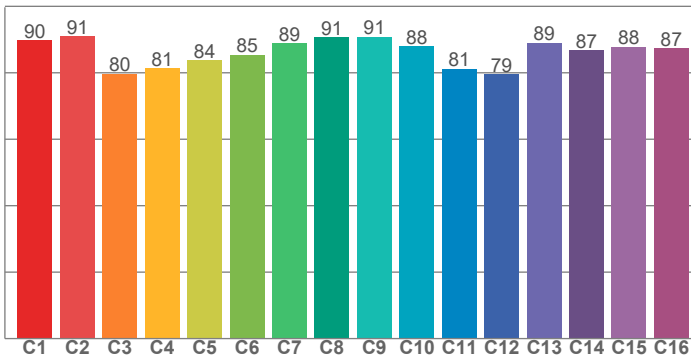


# COLOR DETAILS



TM30: 86,2

CRI: 90,1 (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
93,3	91,7	88,8	89,6	92,9	88,4	89,6	86,7	65,4	79,7	91,1	79,0	92,4	93,3	91,3

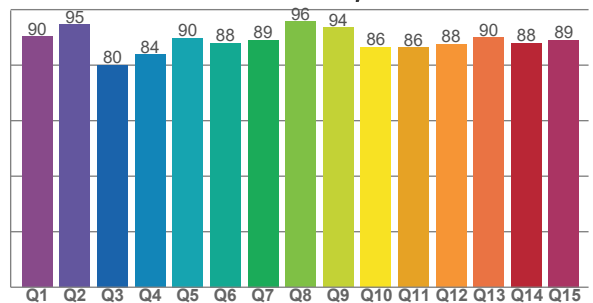
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,9	91,1	79,7	81,3	83,8	85,5	88,8	90,6	90,8	87,9	81,2	79,5	89,0	86,8	87,8	87,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90,2	94,6	80,0	83,8	89,7	87,9	89,0	95,7	93,6	86,5	86,4	87,6	90,0	87,9	89,0

CQS: 88,1



## COLOR PARAMETERS

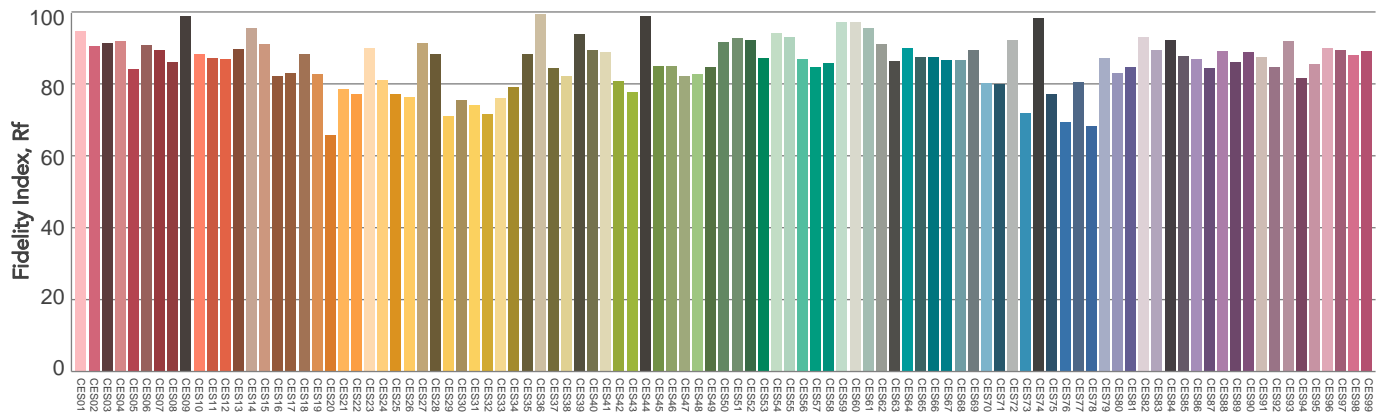
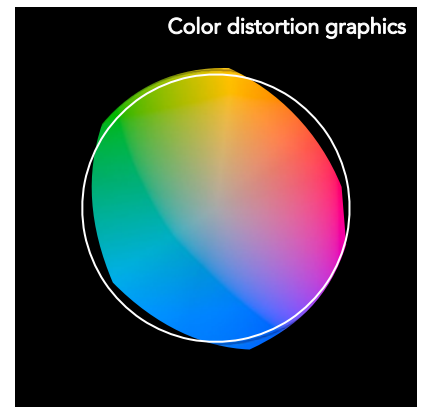
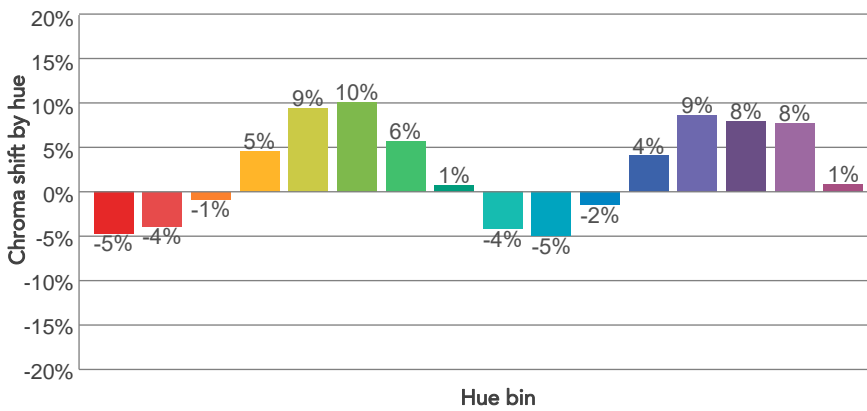
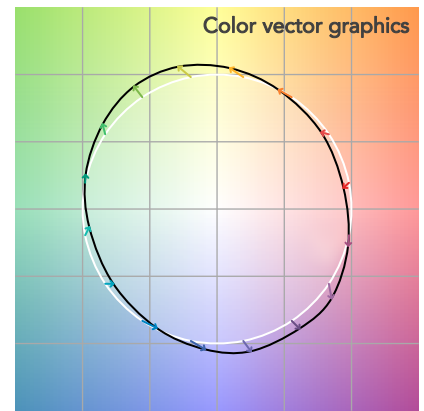
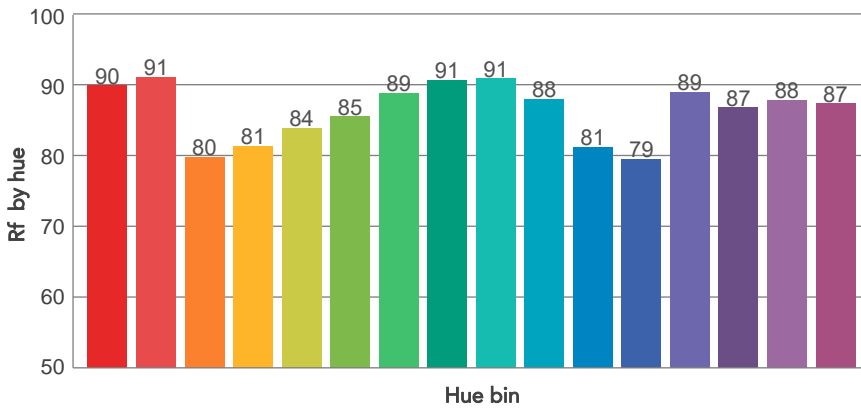
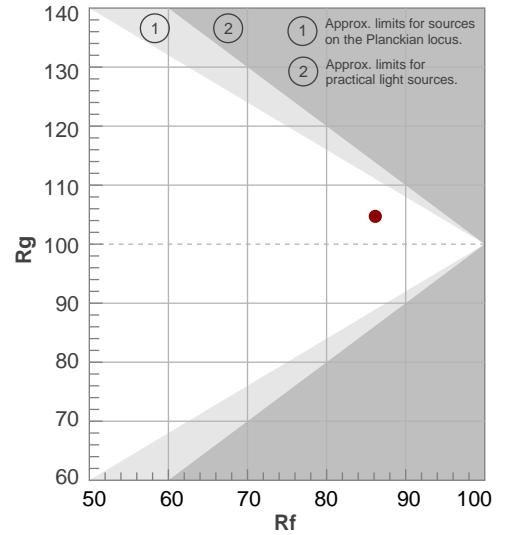
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4502 K	90,1	65,4	86,2	104,7	88,1	83	0,358	0,350	-0,0061

# TM30 DETAILS

**Rf 86,2**  
Fidelity index Rf

**Rg 104,7**  
Gammut index

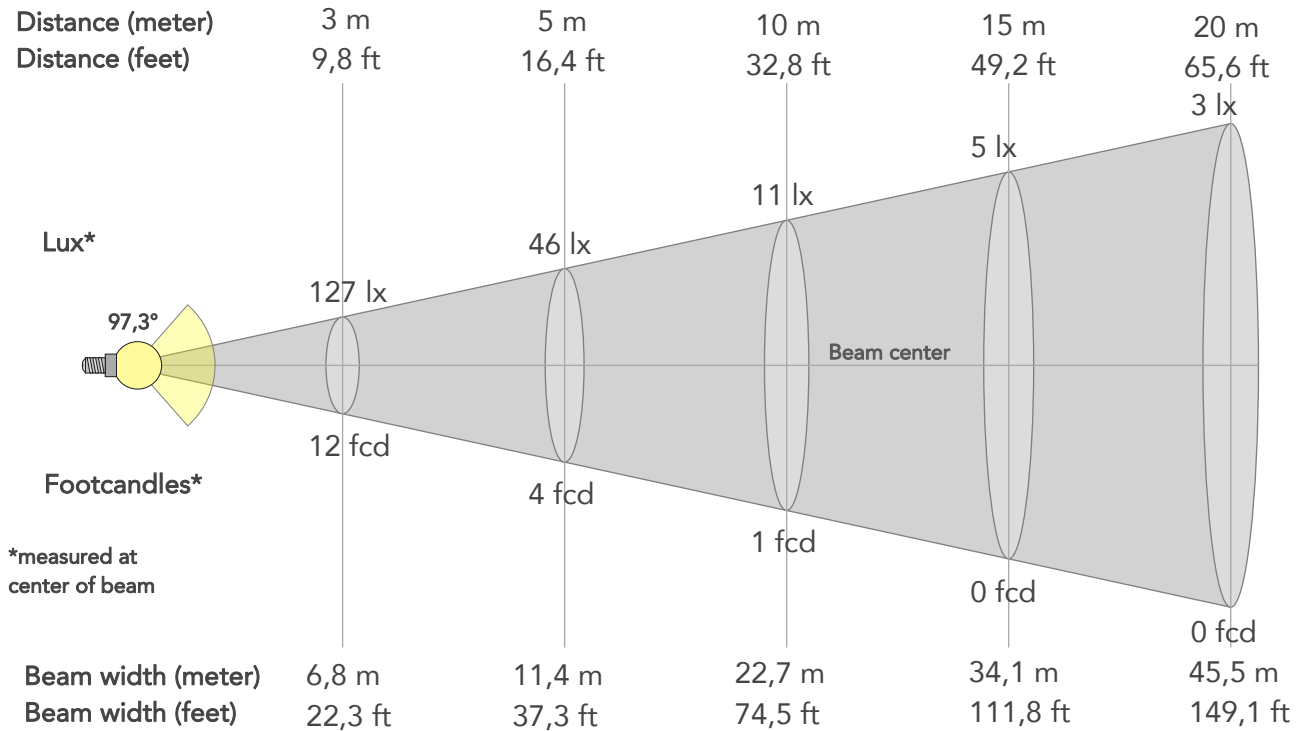
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	90	-5%	-3%
2	91	-4%	4%
3	80	-1%	11%
4	81	5%	11%
5	84	9%	8%
6	85	10%	1%
7	89	6%	-5%
8	91	1%	-6%
9	91	-4%	-5%
10	88	-5%	3%
11	81	-2%	12%
12	79	4%	12%
13	89	9%	4%
14	87	8%	2%
15	88	8%	-8%
16	87	1%	-8%



# BEAM DETAILS



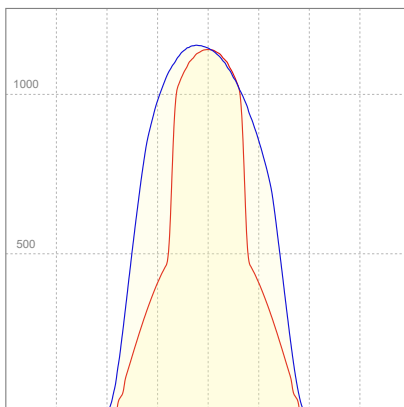
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
97,3°	152,7°	165°	81,3%	56,2%



## 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	1143lx	286lx	127lx	71lx	46lx	20lx	11lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	106fcd	27fcd	12fcd	7fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	2,3m	4,5m	6,8m	9,1m	11,4m	17m	22,7m	34,1m	45,5m	56,8m	68,2m	90,9m	113,6m
Beam wid.	7,5ft	15ft	22,3ft	29,8ft	37,3ft	55,9ft	74,5ft	111,8ft	149,1ft	186,4ft	223,6ft	298,2ft	372,7ft

## LINEAR DISTRIBUTION DIAGRAM



**Table Note:** Approximate illuminance and beam diameter at different projection distances, calculated with the inverse-square law. The approximation is valid only for large distances, compared to the size of the fixture output port.

## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
228V	0,715A	114,4W	0,7	26lm/W

Total lumen output:

2555 lm

Peak candela output:

992 cd

Light quality:

CRI: 91,3

Color temperature:

2732 K



**PRODUCT NAME:**

ASTRABLADE100IP

**MEASURAMENT CONDITIONS:**

Beam angle:

Strip

Target:

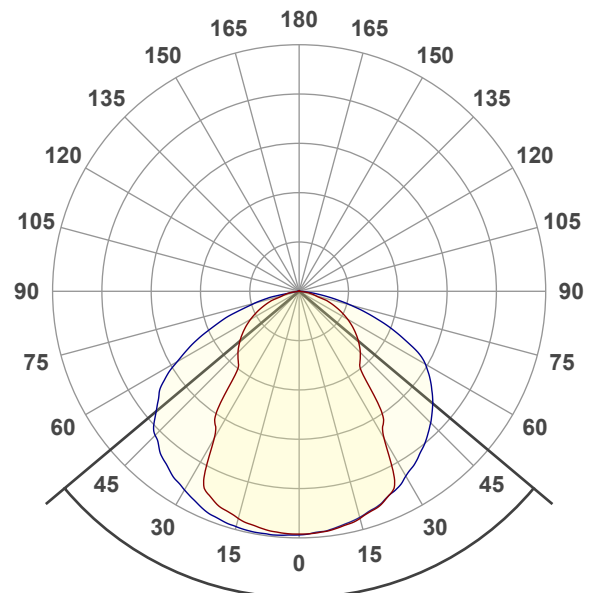
Warm White

Operator:

Salvatore Giglio

Date and time:

11/10/2024 11:00:36

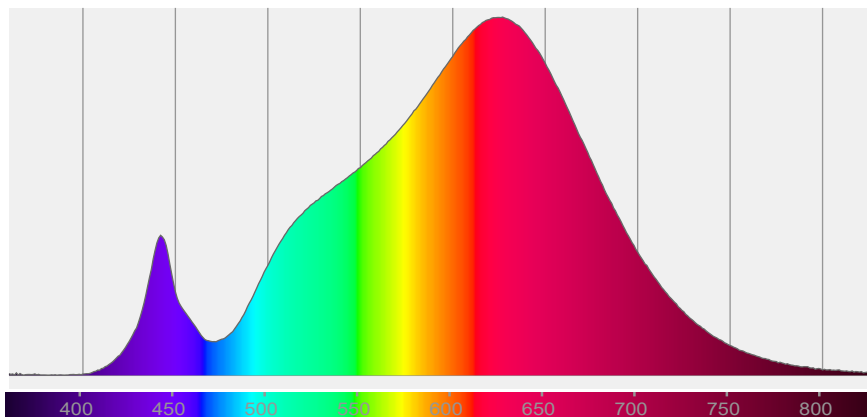


Beam angle 50%: 99,9°

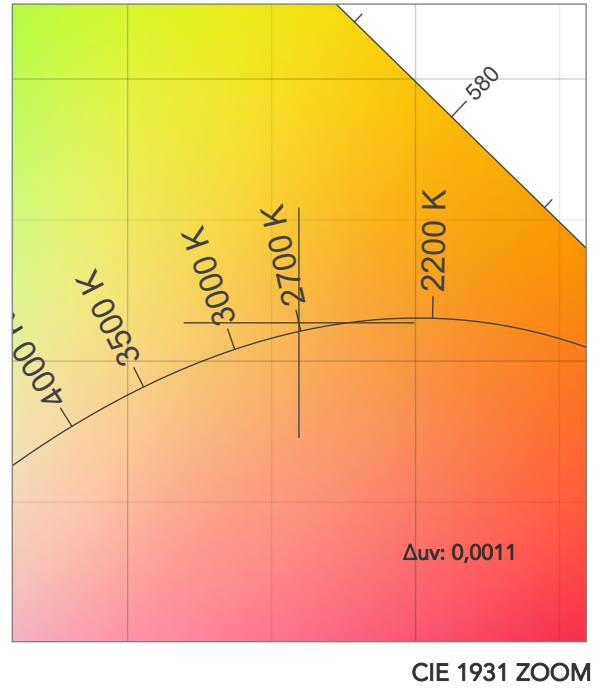
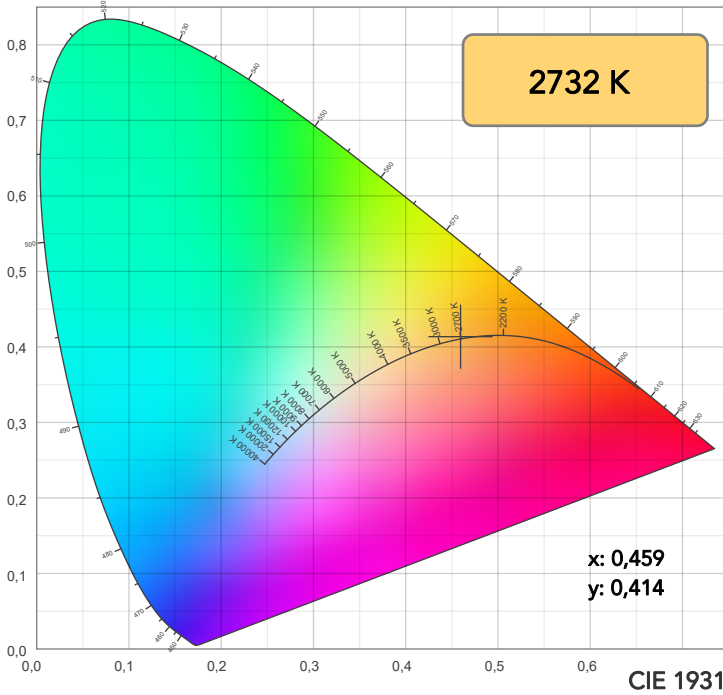
Field angle 10%: 151,8°

Cut off angle 2.5%: 165,8°

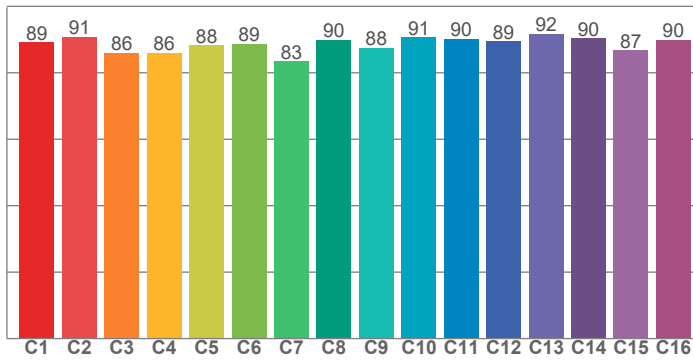
Spectra



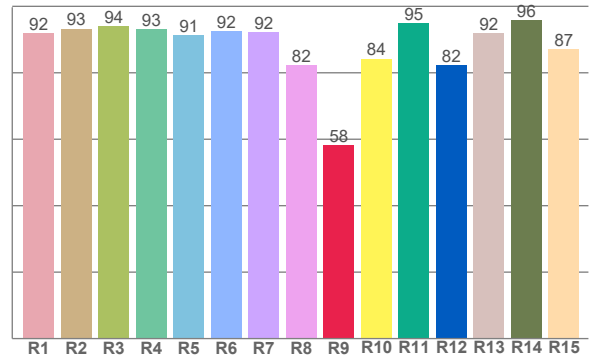
# COLOR DETAILS



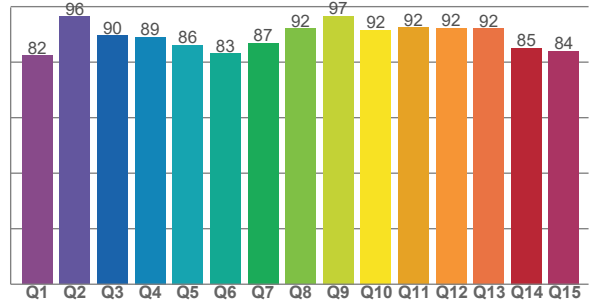
**TM30: 88,8**



**CRI: 91,3 (R1-R8)**



**CQS: 88,2**



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
91,9	93,2	93,9	93,0	91,2	92,5	92,3	82,3	58,3	84,2	94,9	82,4	91,9	95,8	87,1

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
89,2	90,8	86,0	86,1	88,3	88,7	83,5	89,9	87,5	90,6	90,3	89,5	91,8	90,4	86,8	89,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82,3	96,5	89,7	89,0	86,2	83,1	86,9	92,1	96,5	91,6	92,4	92,3	92,2	85,0	84,0

## COLOR PARAMETERS

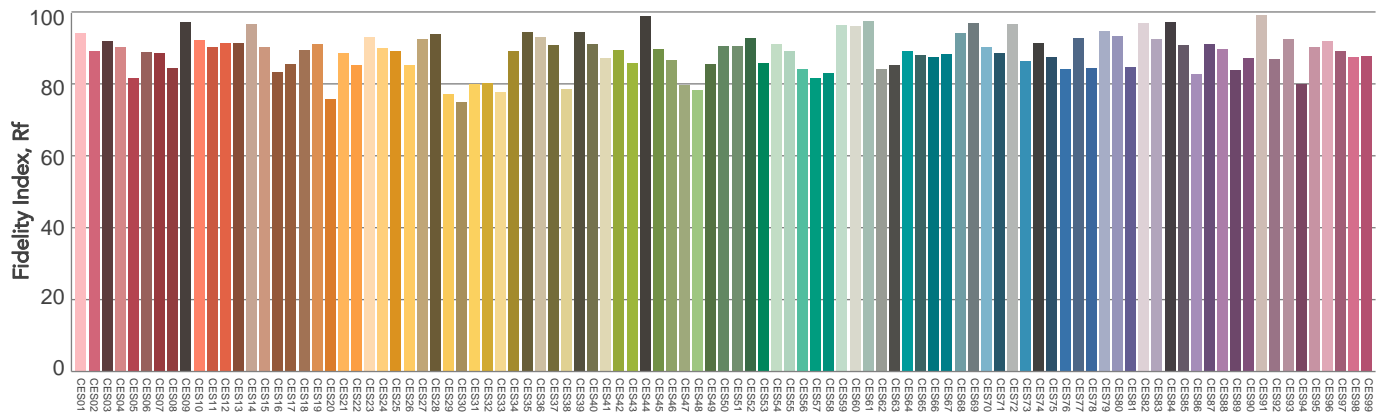
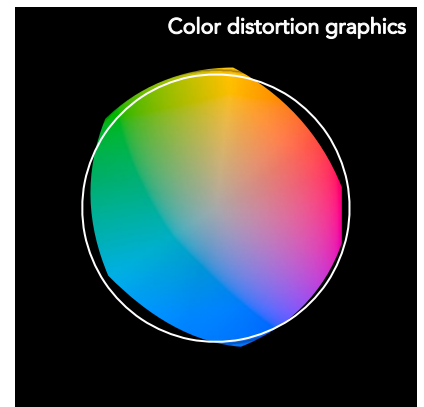
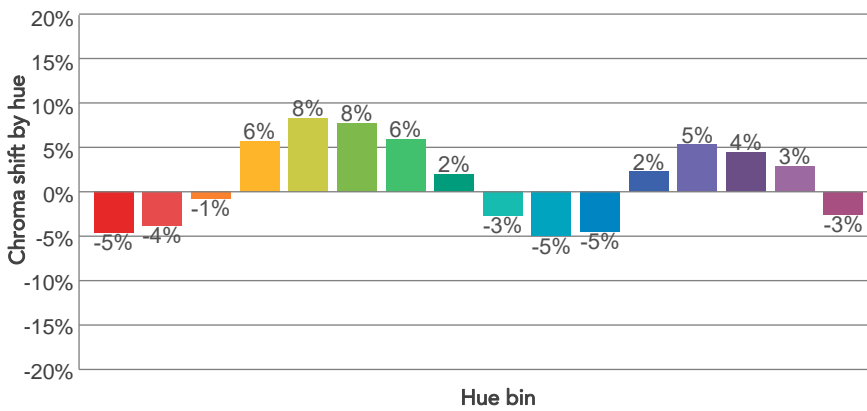
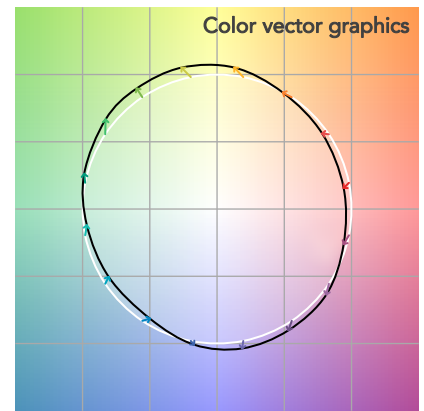
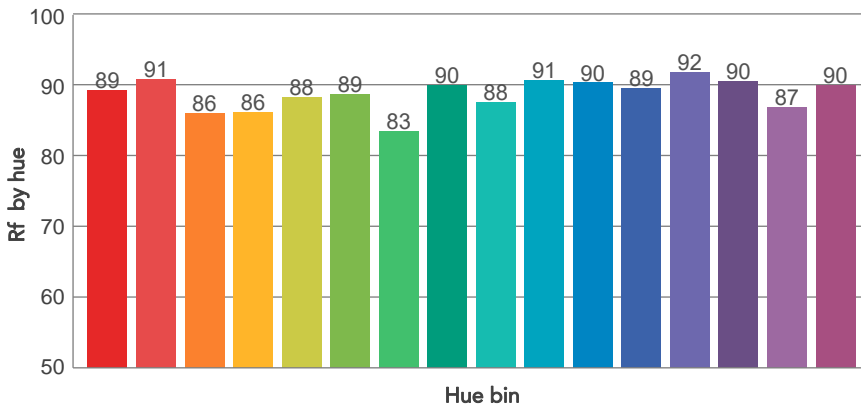
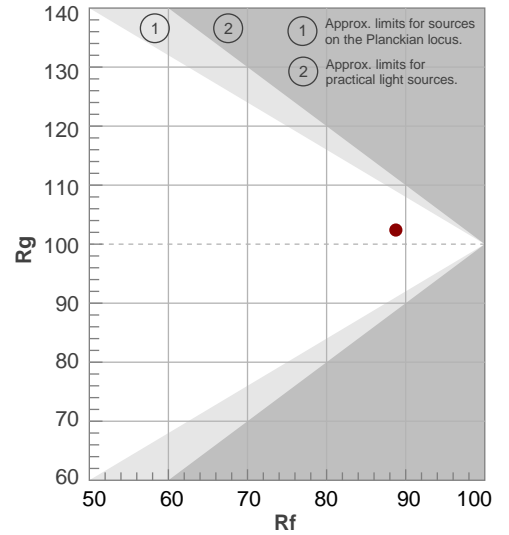
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2732 K	91,3	58,3	88,8	102,4	88,2	82	0,459	0,414	0,0011

# TM30 DETAILS

**Rf 88,8**  
Fidelity index Rf

**Rg 102,4**  
Gammut index

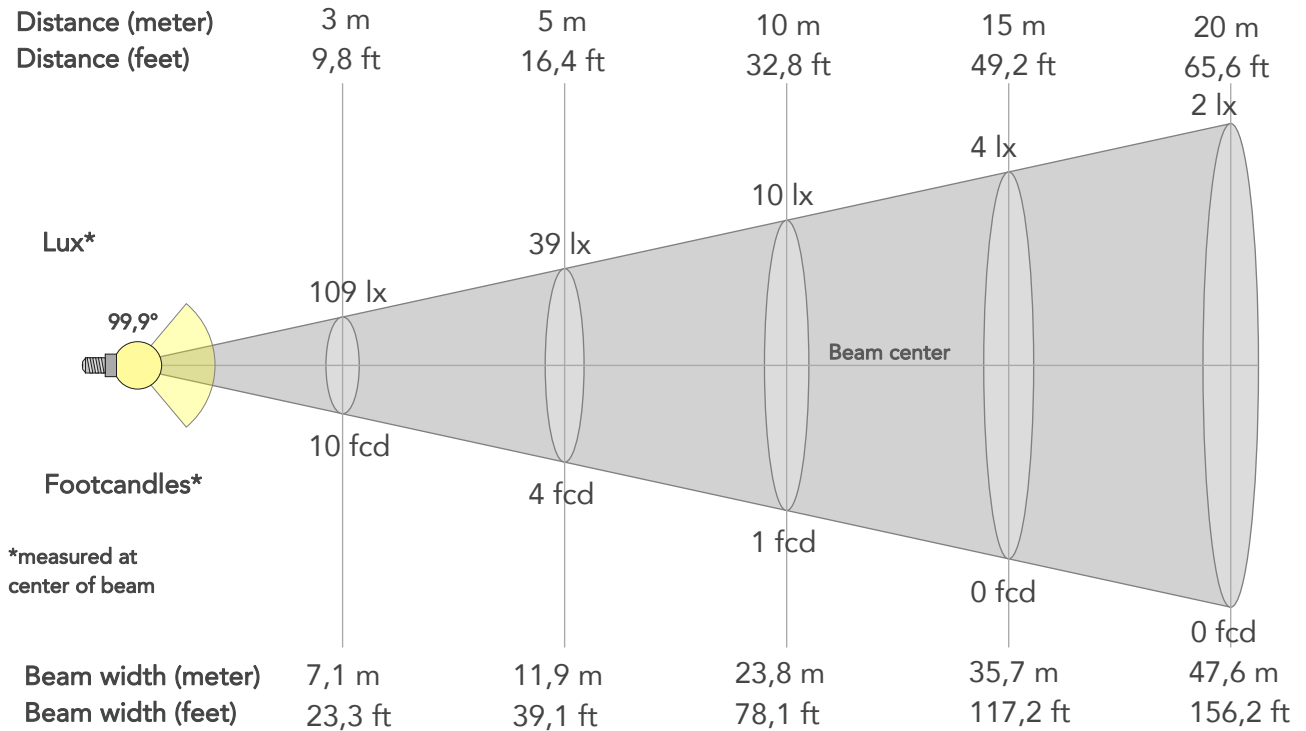
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	-3%
2	91	-4%	3%
3	86	-1%	7%
4	86	6%	8%
5	88	8%	5%
6	89	8%	0%
7	83	6%	-9%
8	90	2%	-6%
9	88	-3%	-7%
10	91	-5%	-3%
11	90	-5%	4%
12	89	2%	3%
13	92	5%	-2%
14	90	4%	-6%
15	87	3%	-8%
16	90	-3%	-7%



# BEAM DETAILS



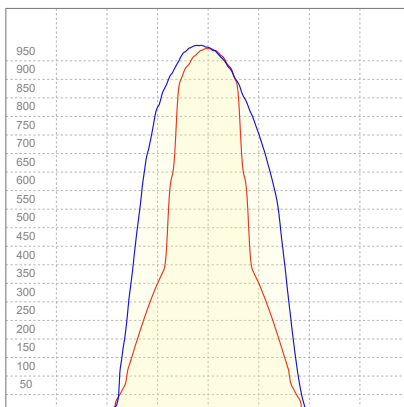
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
99,9°	151,8°	165,8°	81,1%	56,0%



## 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	984lx	246lx	109lx	62lx	39lx	18lx	10lx	4lx	2lx	2lx	1lx	1lx	0lx
Footcand.	91fcd	23fcd	10fcd	6fcd	4fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	2,4m	4,8m	7,1m	9,5m	11,9m	17,9m	23,8m	35,7m	47,6m	59,5m	71,4m	95,2m	119,1m
Beam wid.	7,9ft	15,7ft	23,3ft	31,2ft	39,1ft	58,6ft	78,1ft	117,2ft	156,2ft	195,3ft	234,3ft	312,4ft	390,5ft

## LINEAR DISTRIBUTION DIAGRAM



**Table Note:** Approximate illuminance and beam diameter at different projection distances, calculated with the inverse-square law. The approximation is valid only for large distances, compared to the size of the fixture output port.

## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
227V	0,725A	116,5W	0,71	22lm/W

Total lumen output:

3440 lm

Peak candela output:

1322 cd

Light quality:

CRI: 81,4

Color temperature:

8171 K



**PRODUCT NAME:**

**ASTRABLADE100IP**

**MEASURAMENT CONDITIONS:**

**Beam angle:**

**Strip**

**Target:**

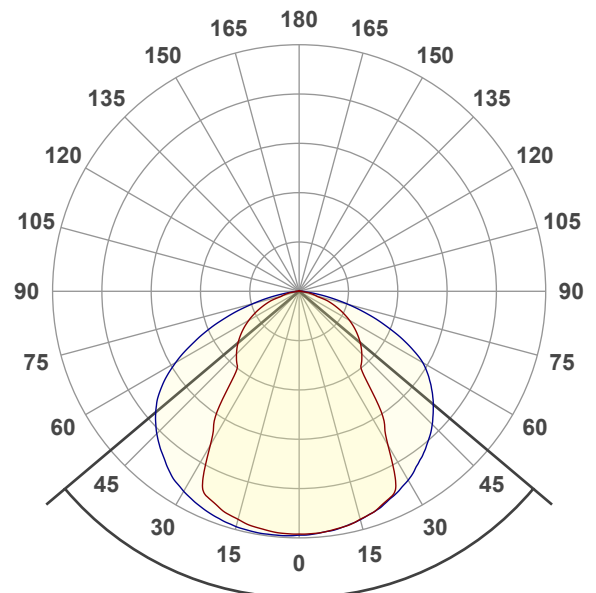
**Cold White**

**Operator:**

**Salvatore Giglio**

**Date and time:**

**11/10/2024 11:06:07**

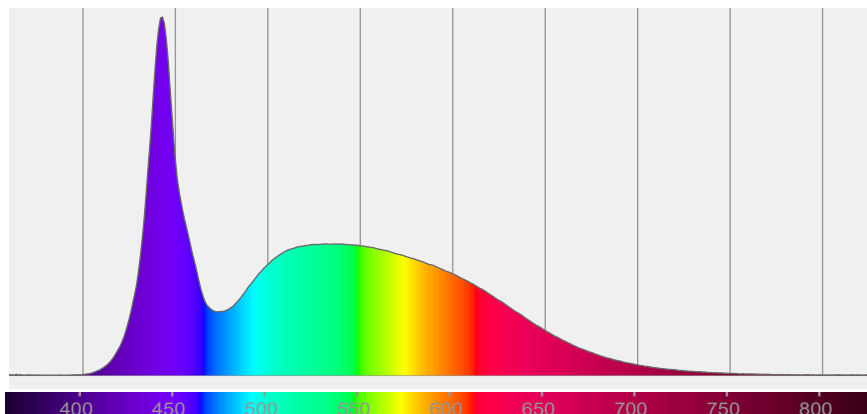


**Beam angle 50%: 99,7°**

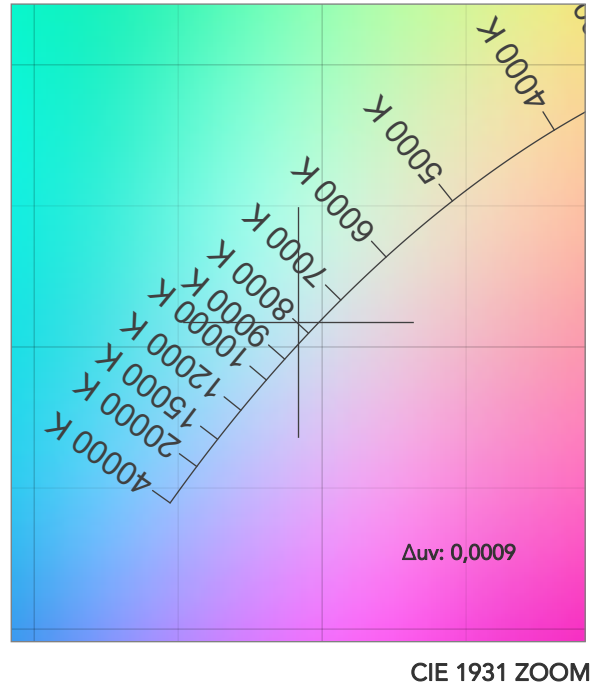
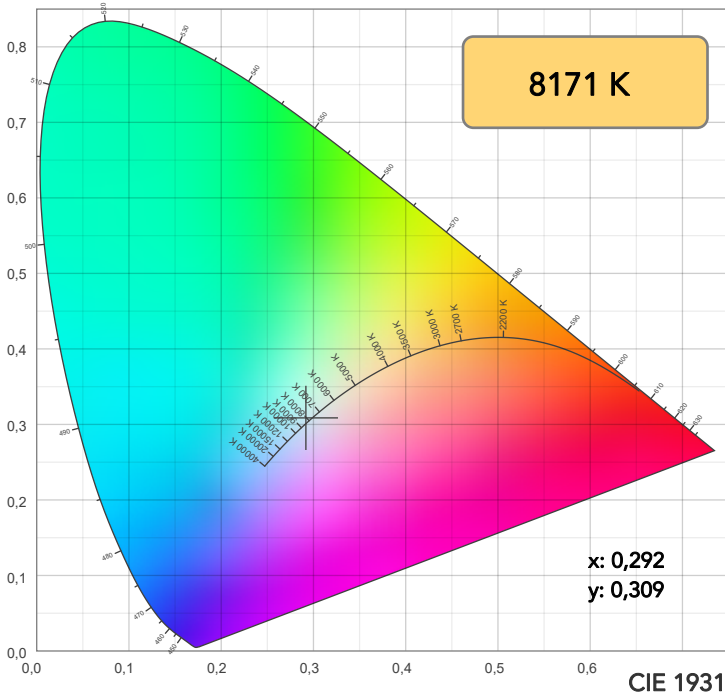
**Field angle 10%: 152,5°**

**Cut off angle 2.5%: 167,3°**

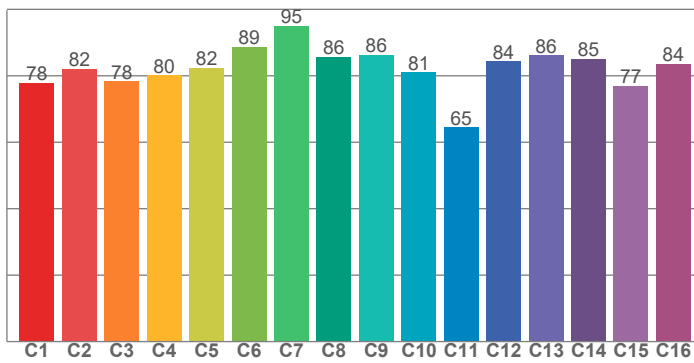
**Spectra**



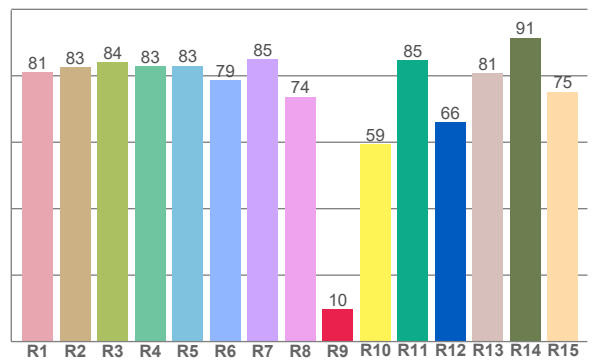
# COLOR DETAILS



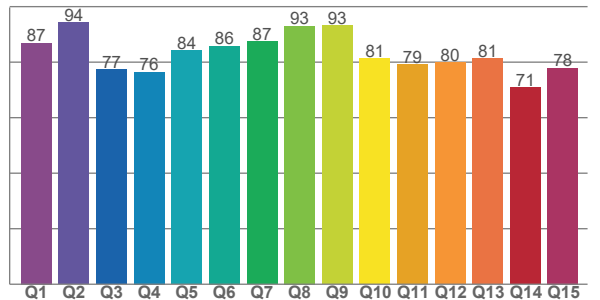
**TM30: 82,3**



**CRI: 81,4 (R1-R8)**



**CQS: 82,0**



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
81,0	82,6	84,1	83,0	83,0	78,7	84,9	73,7	9,9	59,4	84,8	66,0	80,7	91,5	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
77,9	82,1	78,3	80,2	82,5	88,7	95,0	85,7	86,3	81,0	64,6	84,4	86,2	85,1	77,0	83,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
86,9	94,3	77,4	76,5	84,1	85,9	87,4	93,0	93,3	81,4	79,2	79,8	81,2	71,0	77,9

## COLOR PARAMETERS

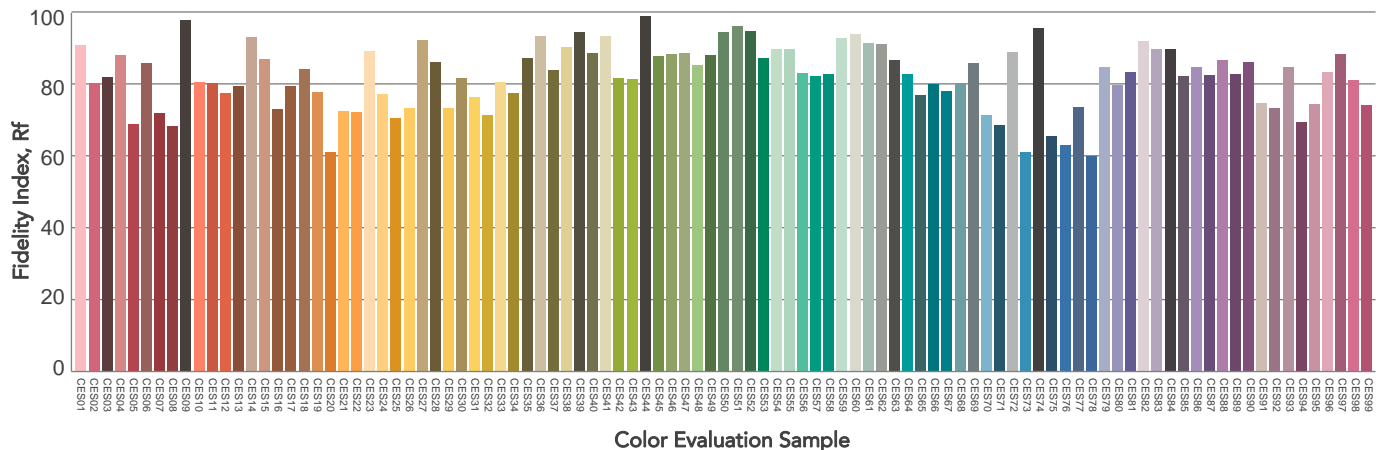
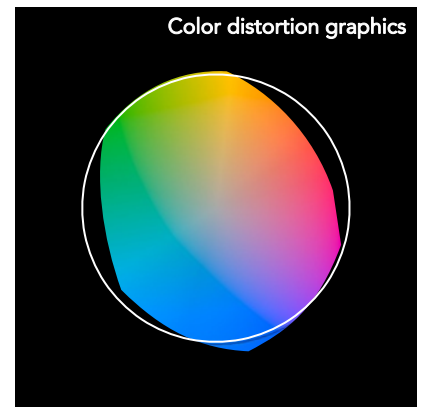
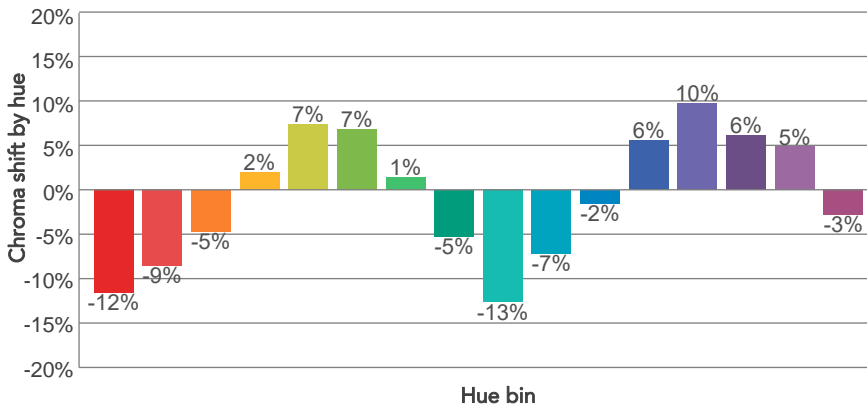
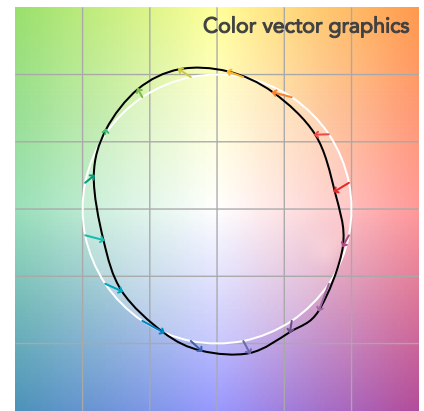
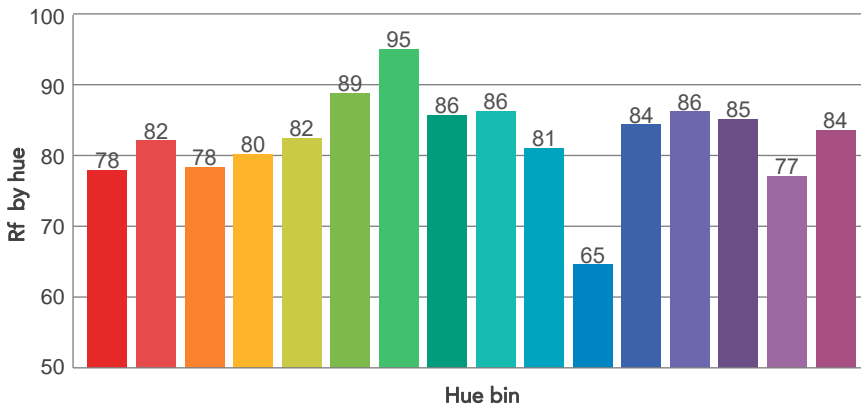
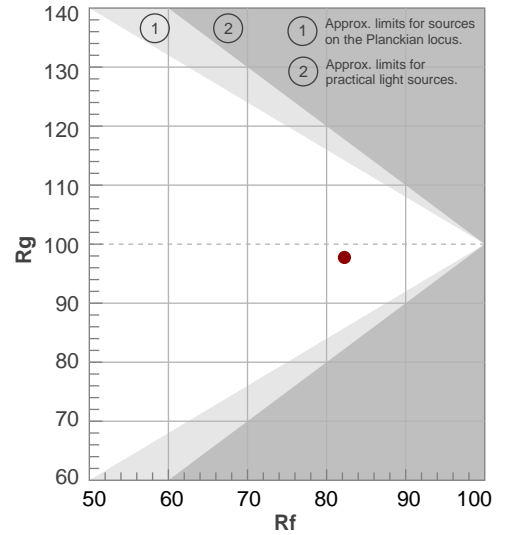
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	$\Delta uv$
8171 K	81,4	9,9	82,3	97,7	82,0	69	0,292	0,309	0,0009

# TM30 DETAILS

**Rf 82,3**  
Fidelity index Rf

**Rg 97,7**  
Gammut index

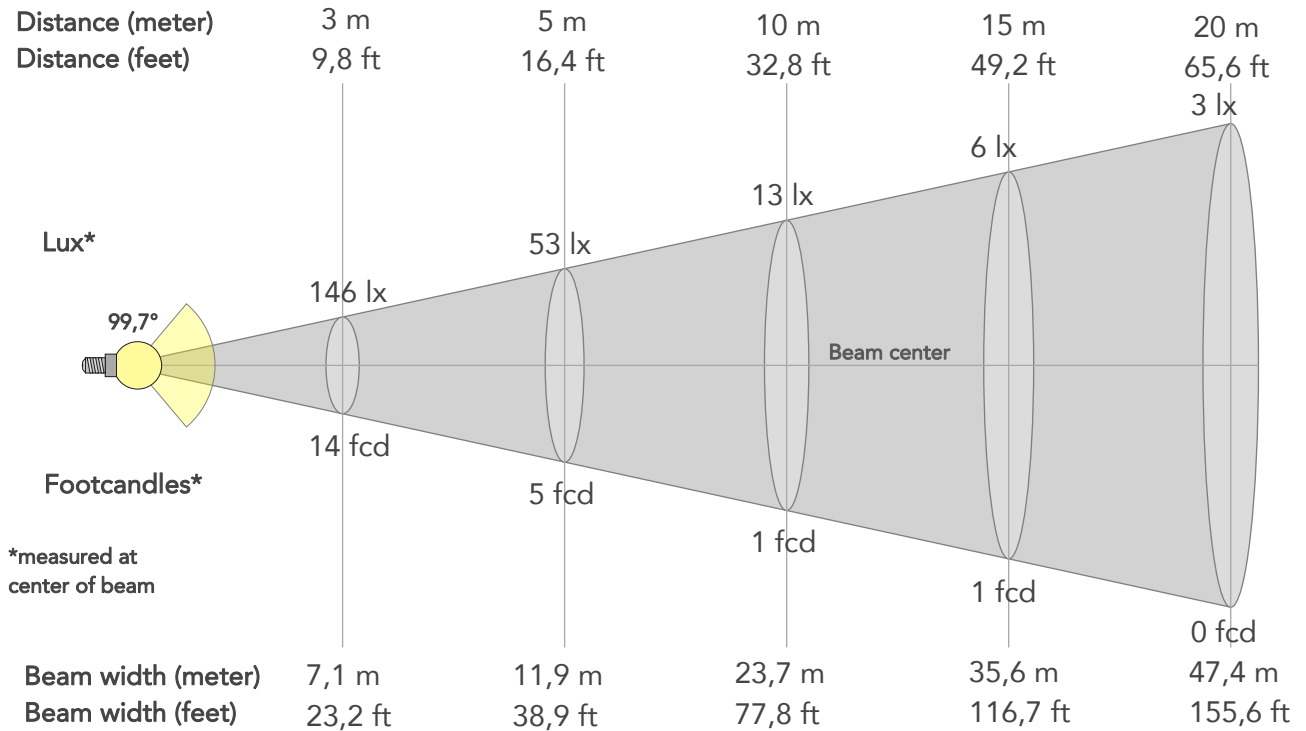
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	78	-12%	-4%
2	82	-9%	5%
3	78	-5%	13%
4	80	2%	12%
5	82	7%	7%
6	89	7%	-1%
7	95	1%	-3%
8	86	-5%	-6%
9	86	-13%	6%
10	81	-7%	11%
11	65	-2%	18%
12	84	6%	9%
13	86	10%	3%
14	85	6%	-6%
15	77	5%	-20%
16	84	-3%	-9%



# BEAM DETAILS



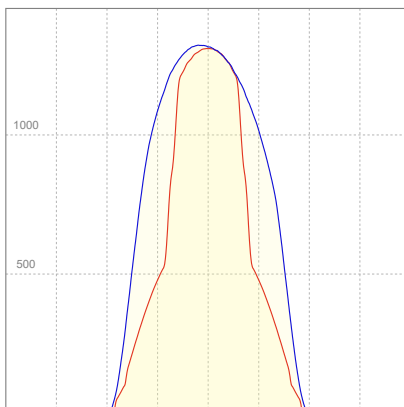
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
99,7°	152,5°	167,3°	81,0%	56,0%



## 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	1313lx	328lx	146lx	82lx	53lx	23lx	13lx	6lx	3lx	2lx	1lx	1lx	1lx
Footcand.	122fcd	30fcd	14fcd	8fcd	5fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	2,4m	4,7m	7,1m	9,5m	11,9m	17,8m	23,7m	35,6m	47,4m	59,3m	71,1m	94,9m	118,6m
Beam wid.	7,8ft	15,7ft	23,2ft	31,1ft	38,9ft	58,3ft	77,8ft	116,7ft	155,6ft	194,5ft	233,3ft	311,1ft	388,9ft

## LINEAR DISTRIBUTION DIAGRAM



**Table Note:** Approximate illuminance and beam diameter at different projection distances, calculated with the inverse-square law. The approximation is valid only for large distances, compared to the size of the fixture output port.

## ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
228V	0,718A	115W	0,7	30lm/W