

21 Lumen/Watt

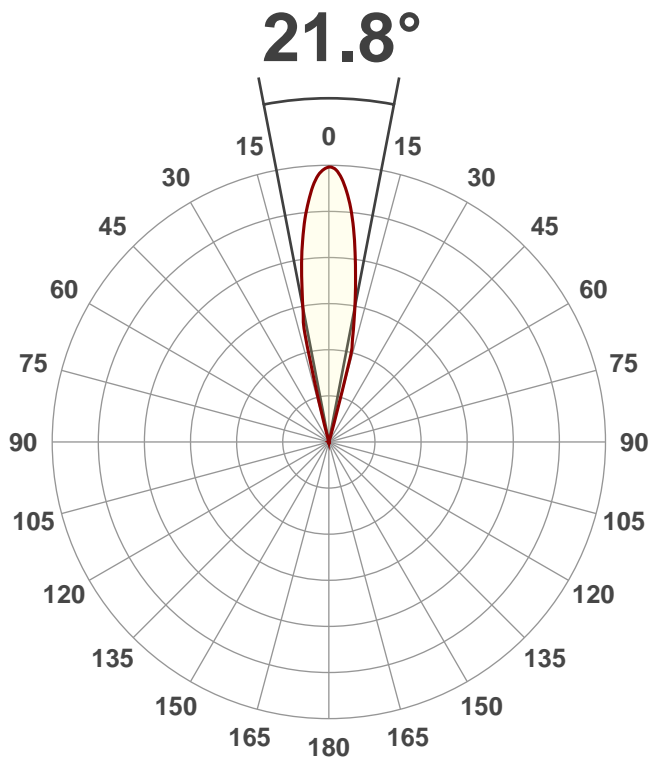
CRI: 72.6

6816 K

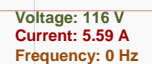
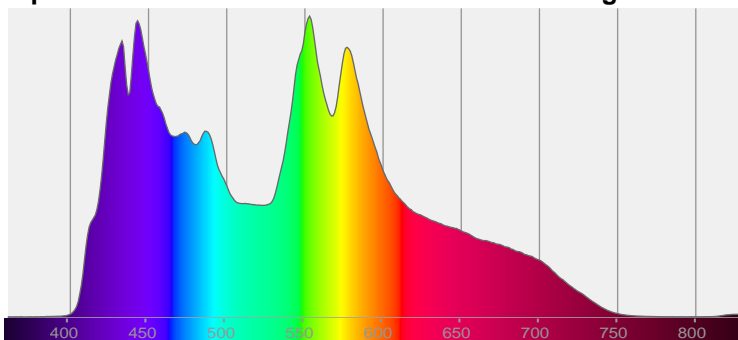
PF: 1.0



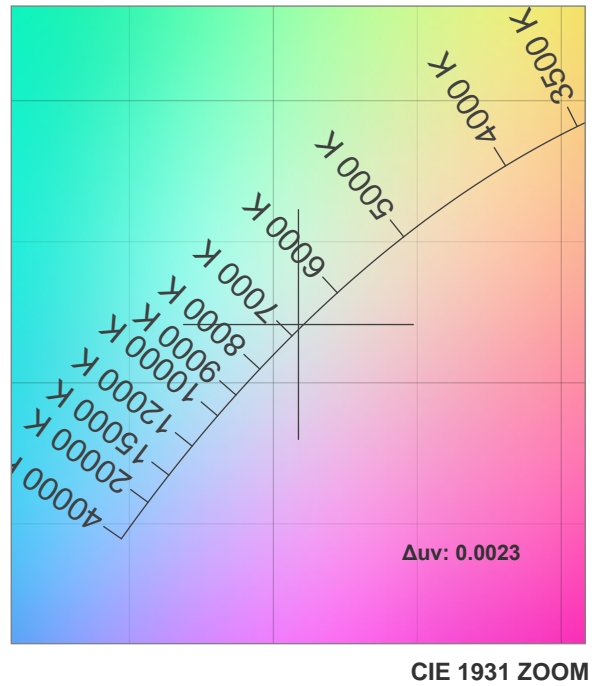
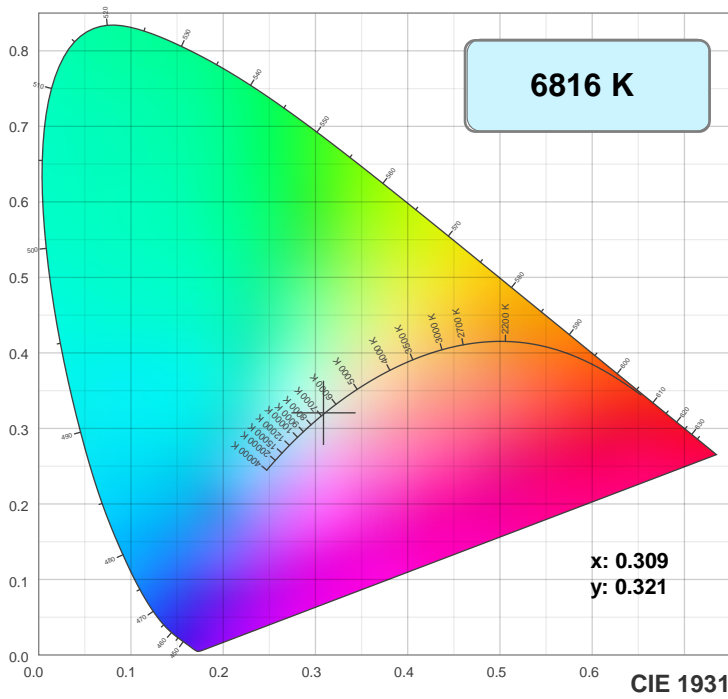
Note:



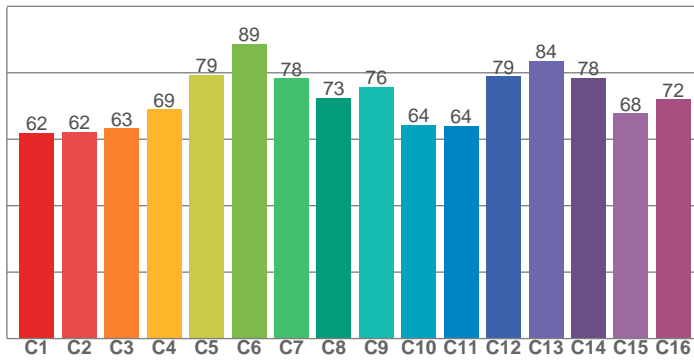
CIE 1931
x: 0.309
y: 0.321



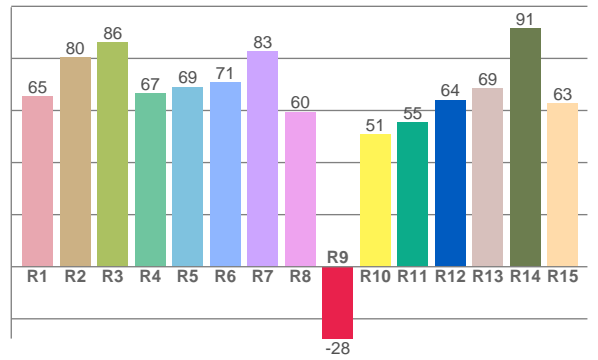
Color Details



TM30: 72.7



CRI: 72.6 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
65.3	80.4	86.2	66.7	69.1	70.7	82.6	59.5	-27.6	50.8	55.4	64.1	68.6	91.5	62.7

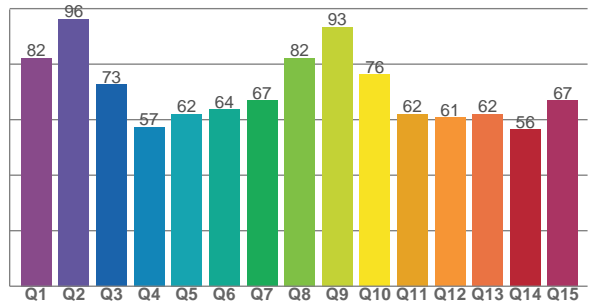
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
62.0	62.2	63.3	69.0	79.4	88.7	78.3	72.5	75.8	64.3	64.1	78.9	83.5	78.5	67.8	72.0

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82.2	96.3	72.6	57.3	62.1	63.6	66.9	82.3	93.4	76.3	62.0	60.8	61.9	56.5	66.8

CQS: 68.3



Color Parameters

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Deviation from Black Body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
6816 K	72.6	-27.6	72.7	89.4	68.3	0.309	0.321	0.198	0.309	0.0023

TM30 Details

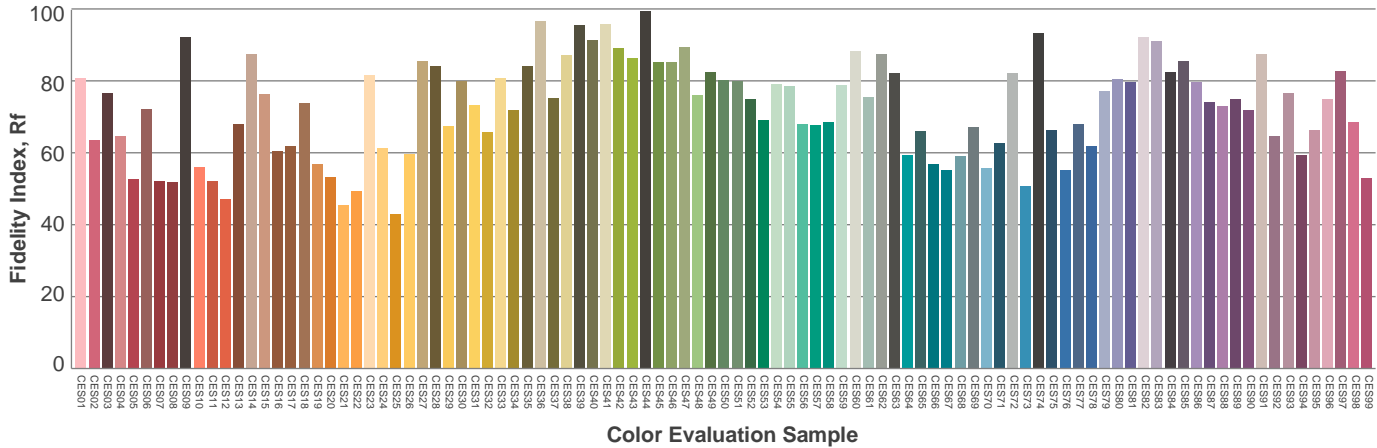
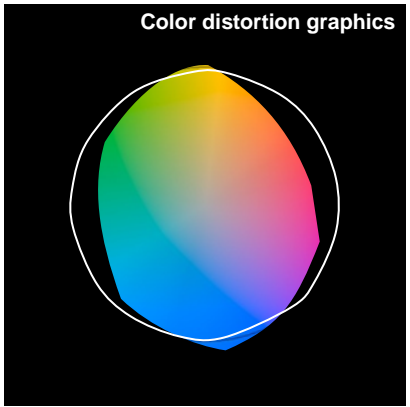
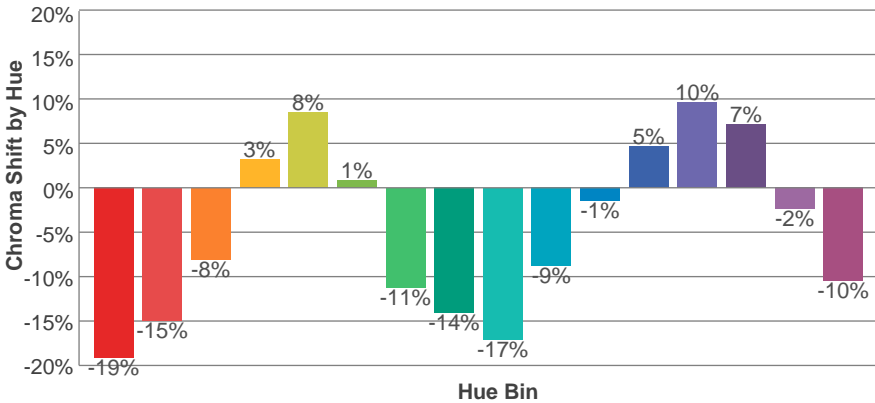
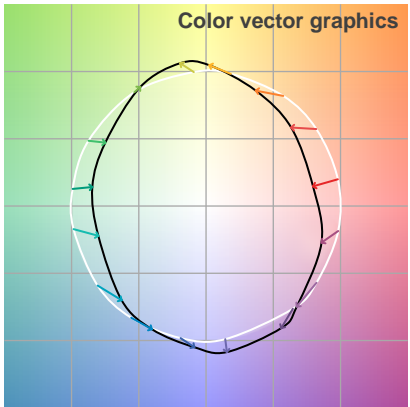
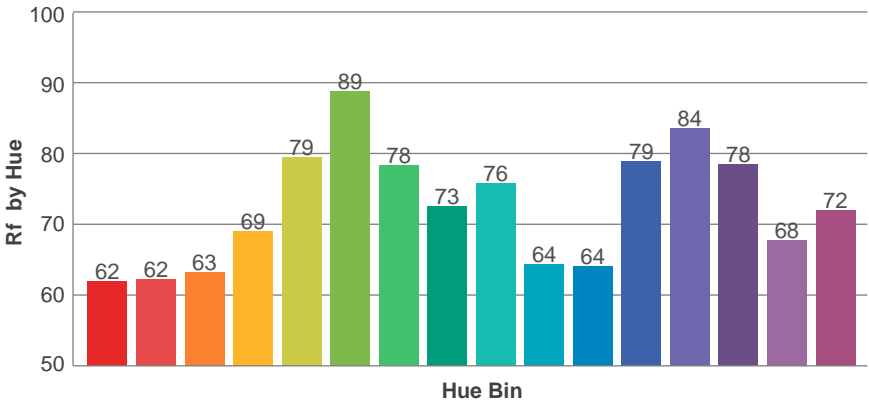
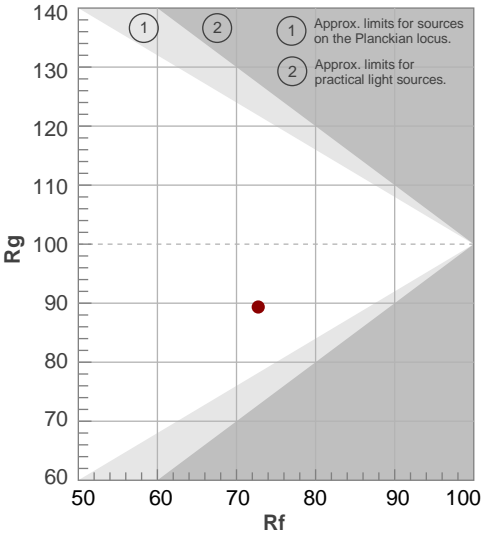
Rf 72.7

Fidelity Index Rf

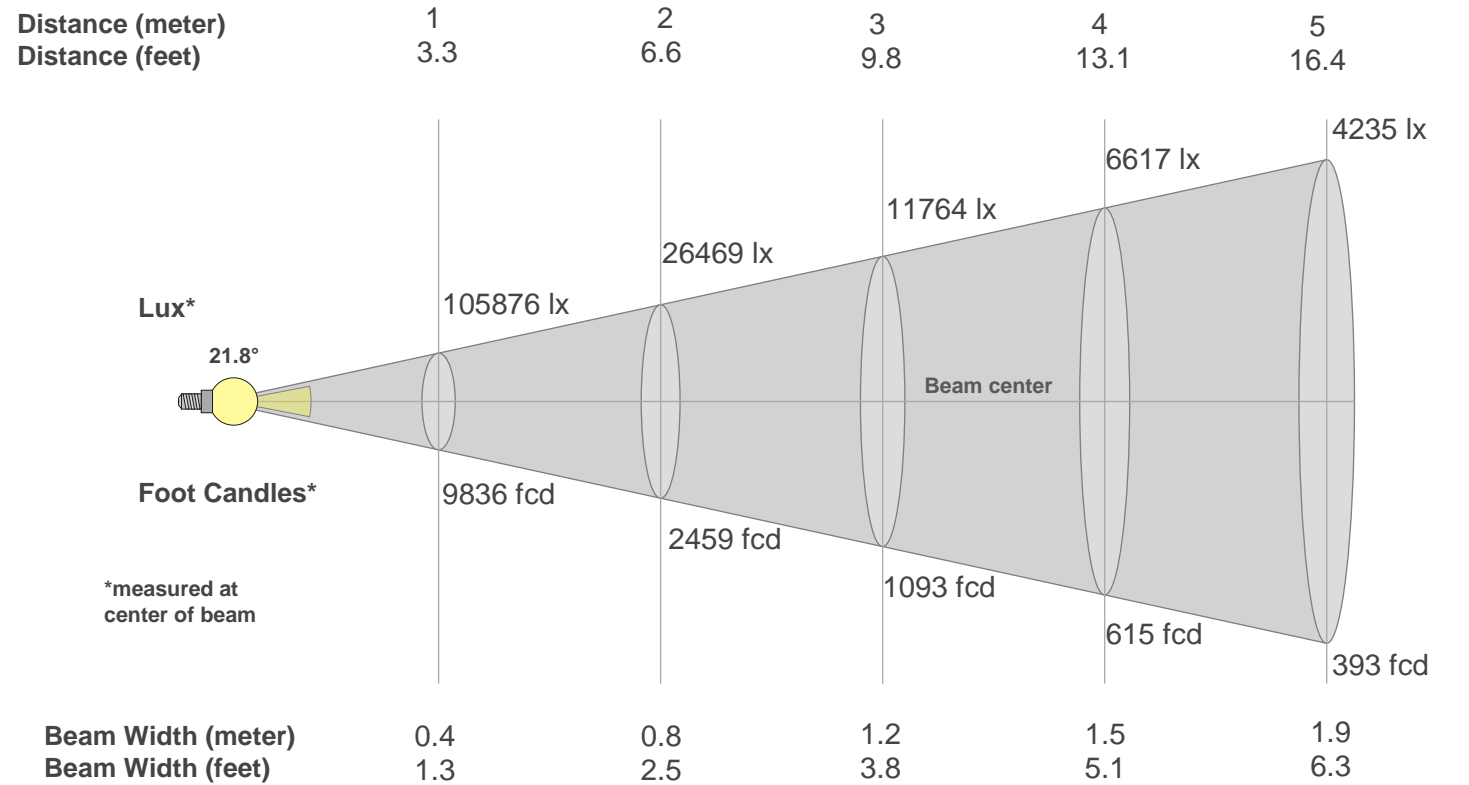
Rg 89.4

Gammut Index Rg

		Graphic shifts (%)	
Hue Bin	Rf	Chroma	Hue
1	62	-19%	-2%
2	62	-15%	11%
3	63	-8%	19%
4	69	3%	17%
5	79	8%	9%
6	89	1%	-6%
7	78	-11%	-6%
8	73	-14%	-4%
9	76	-17%	8%
10	64	-9%	19%
11	64	-1%	17%
12	79	5%	11%
13	84	10%	-1%
14	78	7%	-15%
15	68	-2%	-23%
16	72	-10%	-11%



Beam Details



Beam Intensities from 1-20m																				
M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
Lx	105876	26469	11764	6617	4235	2941	2161	1654	1307	1059	875	735	626	540	471	414	366	327	293	265
Fcd	9836.2	2459.1	1092.9	614.8	393.4	273.2	200.7	153.7	121.4	98.4	81.3	68.3	58.2	50.2	43.7	38.4	34	30.4	27.2	24.6

Intensities in 0° C-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
106K	105K	103K	101K	97K	92K	87K	81K	74K	67K	59K	52K	46K	32K	14K	1K	0K	0K	0K	0K
100%	99%	98%	95%	92%	87%	82%	76%	70%	63%	56%	50%	43%	31%	13%	1%	0%	0%	0%	0%

Intensities in 90° C-plane																				
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	
106K	105K	103K	101K	97K	92K	87K	81K	74K	67K	59K	52K	46K	32K	14K	1K	0K	0K	0K	0K	
100%	99%	98%	95%	92%	87%	82%	76%	70%	63%	56%	50%	43%	31%	13%	1%	0%	0%	0%	0%	

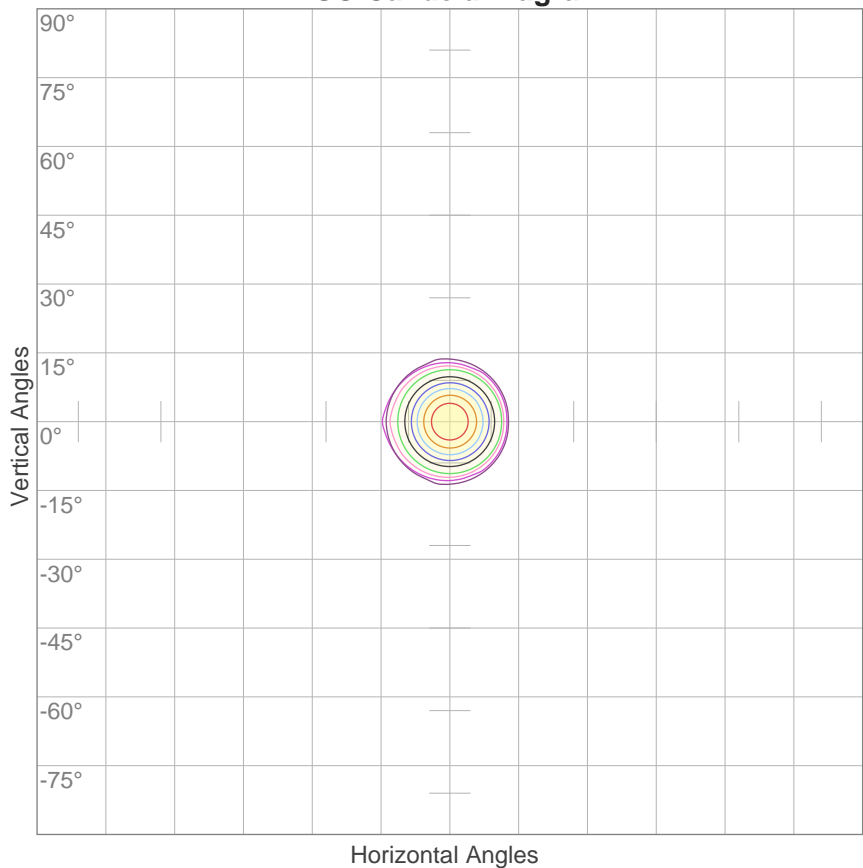
Intensities in 180° C-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
106K	105K	104K	101K	97K	92K	87K	80K	73K	66K	59K	53K	46K	40K	35K	18K	5K	0K	0K	0K
100%	100%	98%	95%	92%	87%	82%	76%	69%	62%	56%	50%	44%	38%	33%	17%	5%	0%	0%	0%

Intensities in 270° C-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
106K	105K	104K	101K	97K	92K	87K	80K	73K	66K	59K	53K	46K	40K	35K	18K	5K	0K	0K	0K
100%	100%	98%	95%	92%	87%	82%	76%	69%	62%	56%	50%	44%	38%	33%	17%	5%	0%	0%	0%

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
21.8°	29.6°	31.2°	96.6%	95.6%

ISO Diagrams

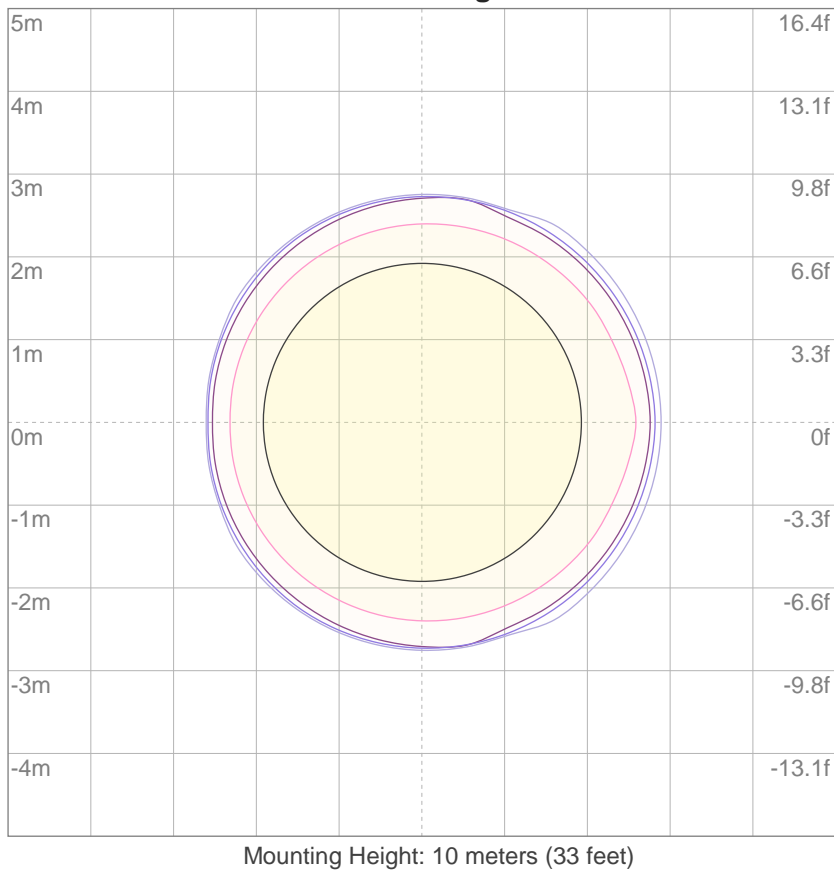
ISO Candela Diagram



10%	10588 cd
20%	21175 cd
30%	31763 cd
40%	42350 cd
50%	52938 cd
60%	63526 cd
70%	74113 cd
80%	84701 cd
90%	95288 cd

Conditions:
Number of c-planes: 2
Candela at center: 105876 cd

ISO Lux Diagram



3%	31.8 lx
5%	52.9 lx
10%	106 lx
30%	318 lx
50%	529 lx

Conditions:
Number of c-planes: 2
Lux at center: 1059 lx

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

Light Planning

Coefficients of Utilization

Ceiling Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Floor Reflectance	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0
RCR	(RCR: Room Cavity Ratio) Room Values are expressed as percentage of Lumens delivered to the task surface																	
0	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97
1	115	113	111	110	112	110	109	108	106	105	104	102	101	100	98	98	97	95
2	112	108	106	103	109	107	104	102	103	101	100	100	98	97	97	96	95	93
3	109	105	102	99	107	103	100	98	100	98	96	98	96	95	95	94	93	91
4	106	102	98	96	105	100	97	95	98	96	94	96	94	92	94	92	91	90
5	104	99	95	93	102	98	95	92	96	93	91	94	92	90	93	91	89	88
6	102	97	93	91	100	96	93	90	94	91	89	93	90	89	91	90	88	87
7	100	94	91	89	99	94	91	88	93	90	88	91	89	87	90	88	87	86
8	98	93	89	87	97	92	89	87	91	88	86	90	88	86	89	87	85	85
9	96	91	88	85	95	90	87	85	90	87	85	89	86	85	88	86	84	83
10	95	89	86	84	94	89	86	84	88	86	84	87	85	83	87	85	83	82

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
7718 lm	4655 lm	205 lm	168 lm	110 lm	74.4 lm	46.1 lm	30.4 lm	20.4 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
15.5 lm	12.2 lm	22.5 lm	49.7 lm	73.0 lm	76.7 lm	65.7 lm	37.5 lm	9.31 lm