

48 Lumen/Watt

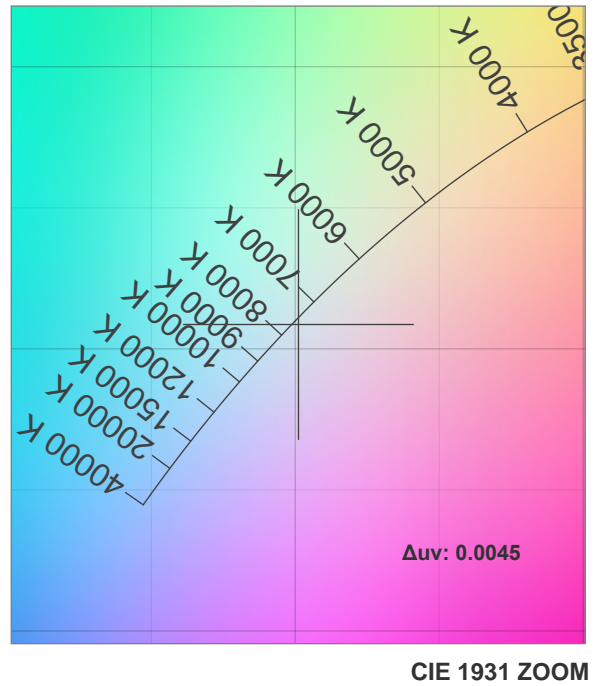
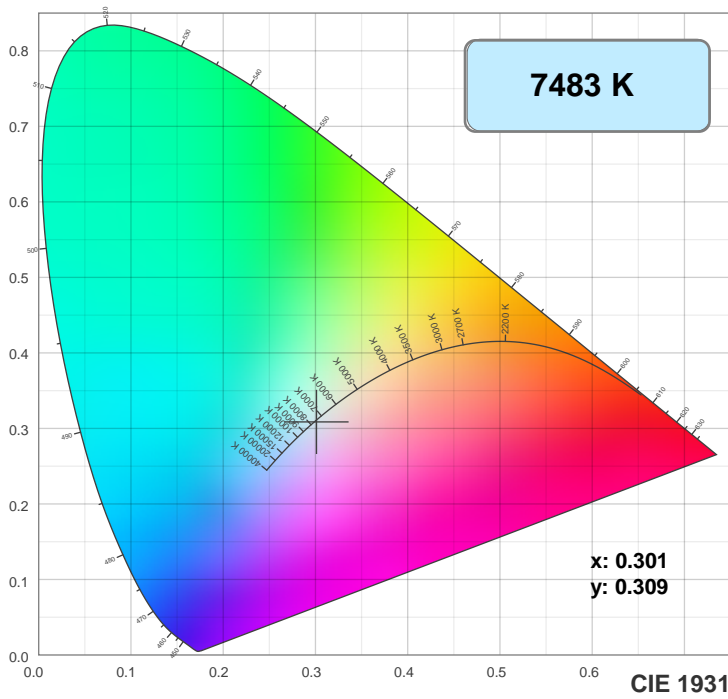
CRI: 71.4

7483 K

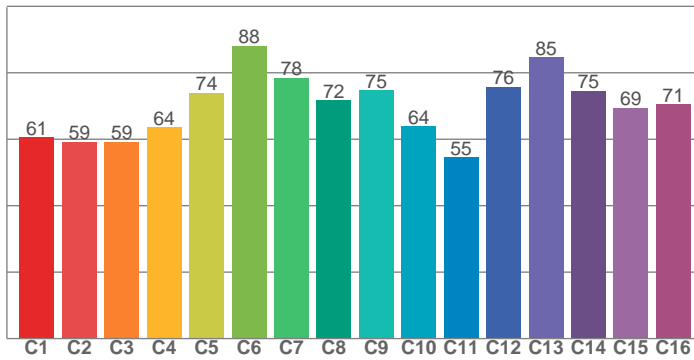
PF: 1.0



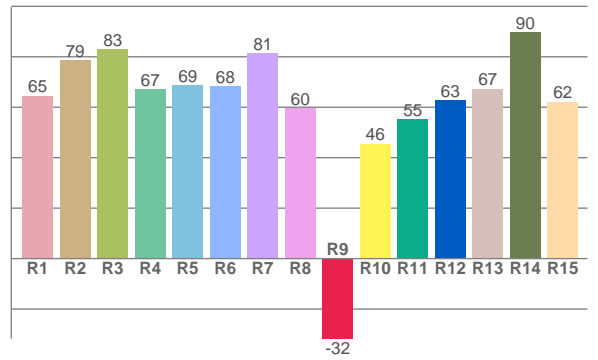
Color Details



TM30: 70.3



CRI: 71.4 (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
64.6	78.5	83.0	67.0	68.8	68.3	81.4	59.6	-31.7	45.5	55.3	62.8	67.3	89.6	62.2

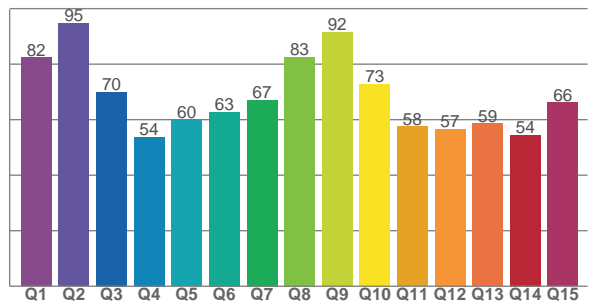
TM30 C Values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
60.5	59.2	59.2	63.5	73.9	88.2	78.5	71.7	74.7	63.8	54.6	75.8	84.6	74.5	69.4	70.5

CQS Q Values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82.3	94.7	70.0	53.8	60.1	62.7	67.1	82.6	91.6	72.9	57.6	56.6	58.6	54.4	66.2

CQS: 66.1



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
7483 K	71.4	-31.7	70.3	89.3	66.1	0.301	0.309	0.197	0.304	0.0045

TM30 Details

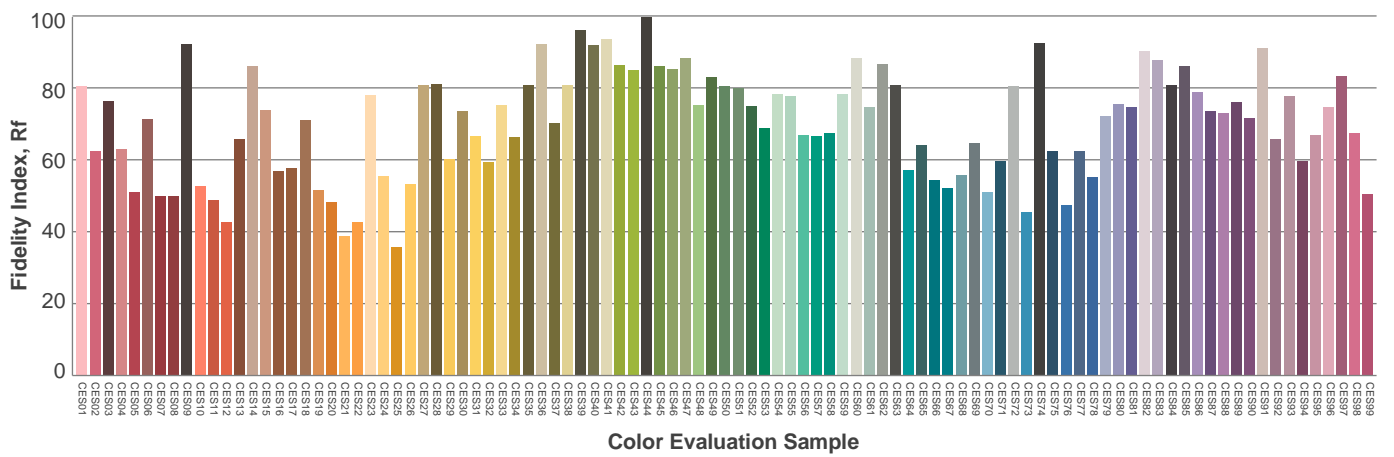
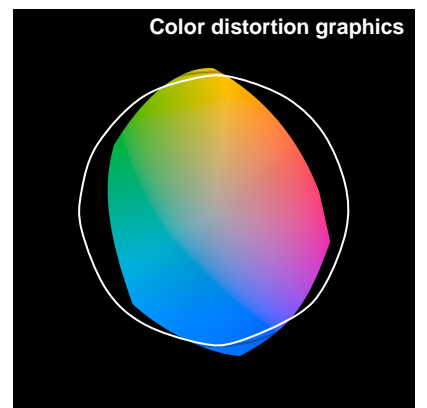
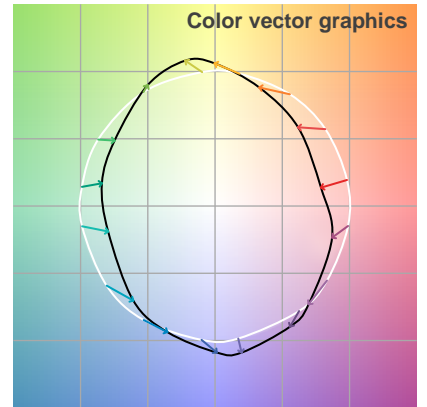
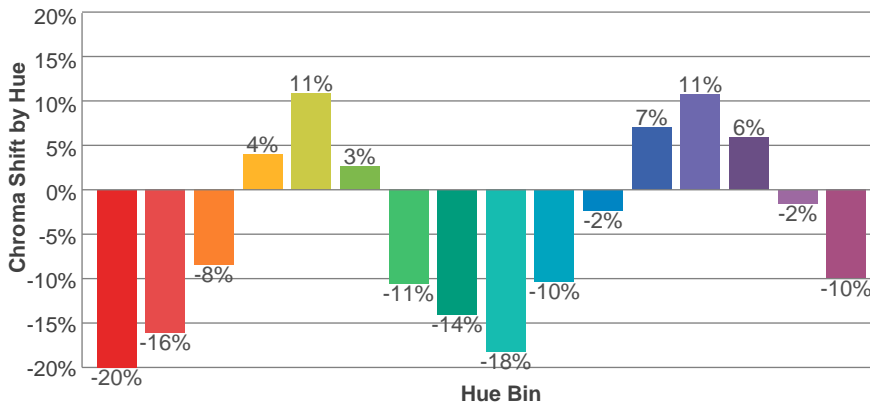
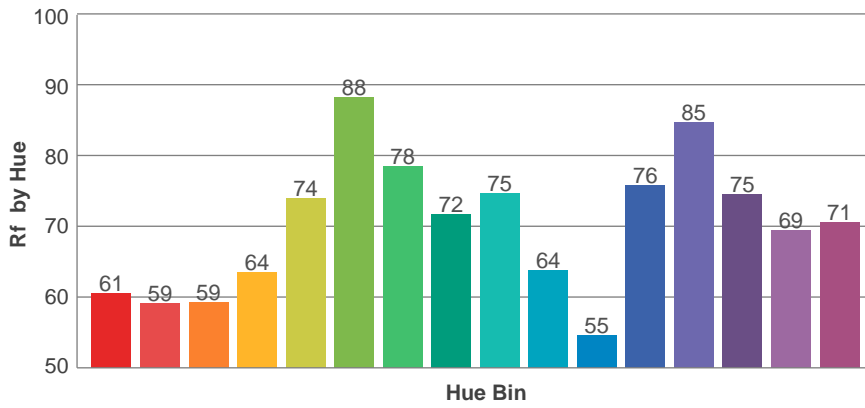
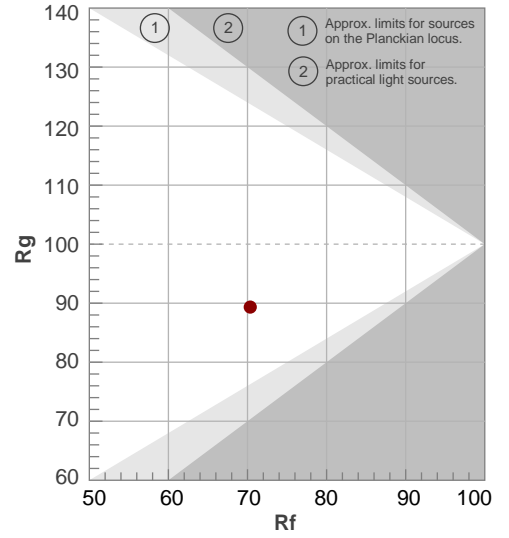
Rf 70.3

Fidelity Index Rf

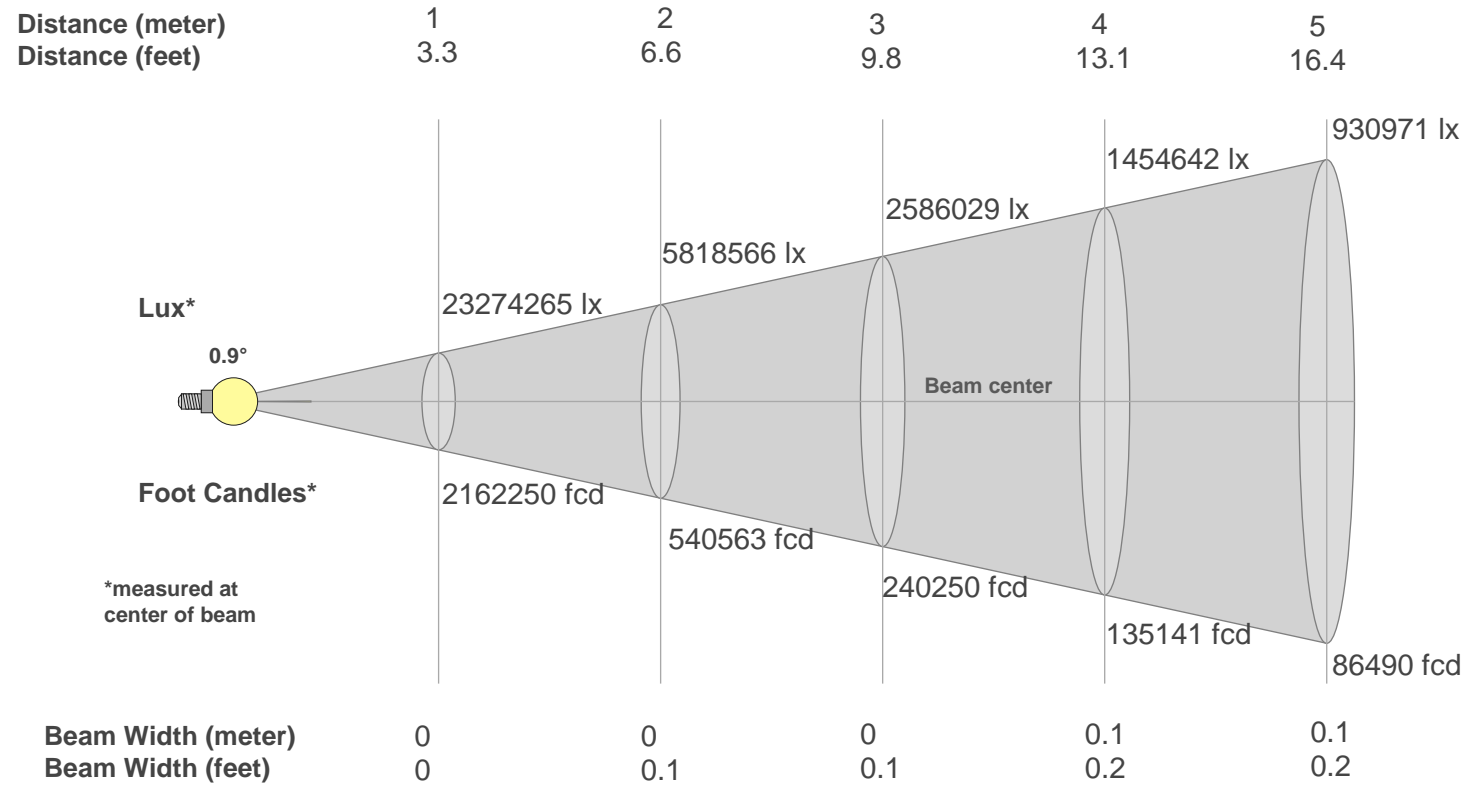
Rg 89.3

Gammut Index Rg

		Graphic shifts (%)	
Hue Bin	R_i	Chroma	Hue
1	61	-20%	-2%
2	59	-16%	12%
3	59	-8%	22%
4	64	4%	20%
5	74	11%	11%
6	88	3%	-5%
7	78	-11%	-6%
8	72	-14%	-6%
9	75	-18%	8%
10	64	-10%	20%
11	55	-2%	20%
12	76	7%	13%
13	85	11%	0%
14	75	6%	-12%
15	69	-2%	-22%
16	71	-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	23274265	5818566	2586029	1454642	930971	646507	474985	363660	287337	232743	192349	161627	137718	118746	103441	90915	80534	71834	64472	58186
Fcd	2162250.1	540562.5	240250	135140.6	86490	60062.5	44127.6	33785.2	26694.4	21622.5	17869.8	15015.6	12794.4	11031.9	9610	8446.3	7481.8	6673.6	5989.6	5405.6

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°
23M	4M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M
100%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	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°	
23M	4M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	
100%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

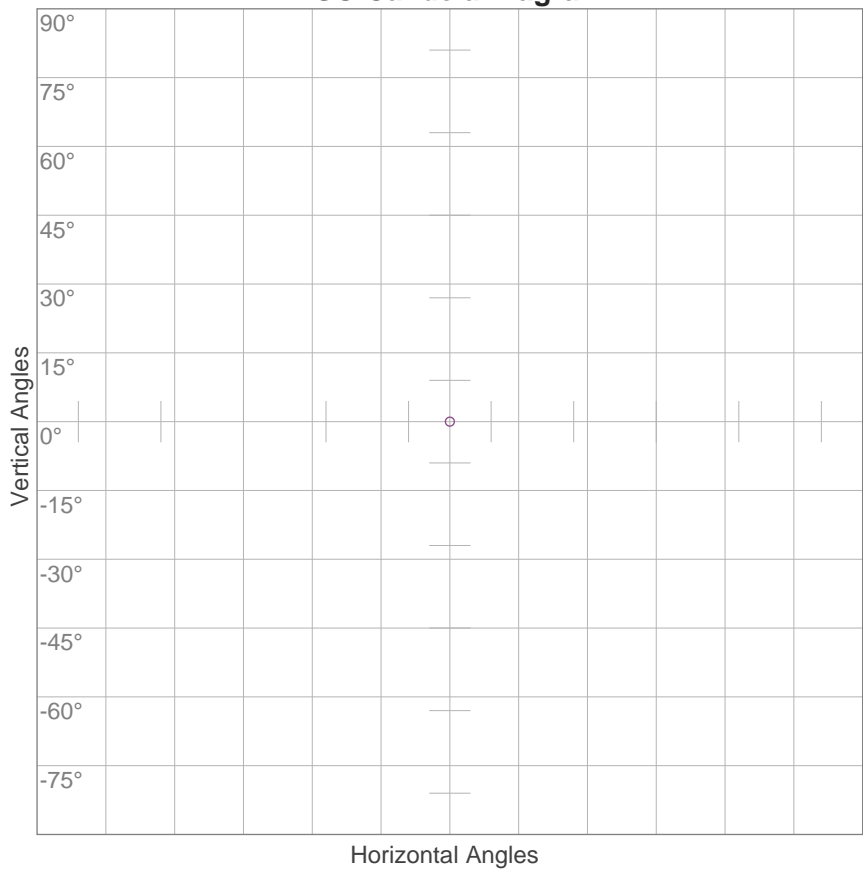
Intensities in 180° C-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
23M	4M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M
100%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

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°
23M	4M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M
100%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
0.9°	2.2°	2.5°	57.8%	52.2%

ISO Diagrams

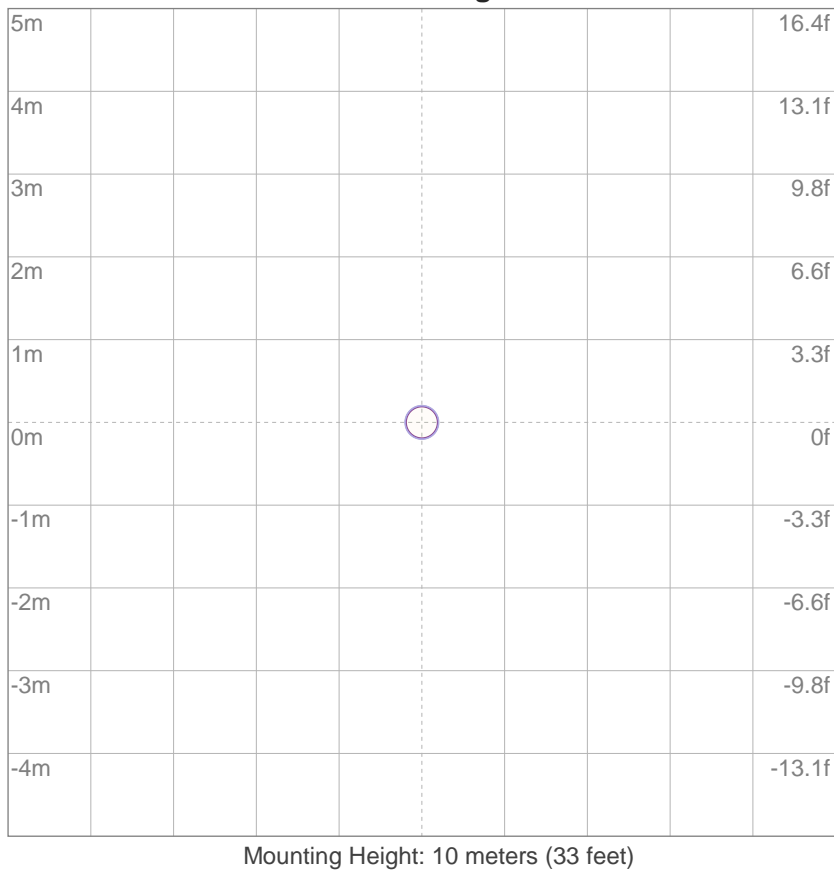
ISO Candela Diagram



10%	2327427 cd
20%	4654853 cd
30%	6982280 cd
40%	9309706 cd
50%	11637133 cd
60%	13964559 cd
70%	16291986 cd
80%	18619412 cd
90%	20946839 cd

Conditions:
Number of c-planes: 2
Candela at center: 23274265 cd

ISO Lux Diagram



3%	6982 lx
5%	11.6K lx
10%	23.3K lx
30%	69.8K lx
50%	116K lx

Conditions:
Number of c-planes: 2
Lux at center: 233K 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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	72
1	104	100	96	93	98	95	91	88	85	83	81	77	75	73	69	67	66	62
2	97	91	86	81	92	87	82	78	79	75	72	71	69	66	65	63	61	58
3	92	84	78	74	87	81	75	71	74	70	67	68	65	62	62	60	58	55
4	87	79	73	68	83	76	70	66	70	66	62	65	61	59	60	57	55	53
5	84	75	69	64	80	72	67	62	67	63	59	62	59	56	58	55	53	51
6	80	71	65	61	77	69	64	60	65	60	57	61	57	54	57	54	52	50
7	77	68	63	59	74	66	61	57	63	58	55	59	56	53	56	53	51	49
8	75	66	60	57	72	64	59	56	61	57	54	58	54	52	55	52	50	48
9	73	64	59	55	70	62	58	54	59	55	53	57	53	51	54	51	49	48
10	71	62	57	54	69	61	56	53	58	54	52	56	52	50	53	51	49	47

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
9347 lm	264 lm	466 lm	616 lm	707 lm	817 lm	893 lm	992 lm	1044 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
1054 lm	1019 lm	949 lm	816 lm	748 lm	611 lm	447 lm	268 lm	92.9 lm