NOVA FLEX

Flexible Grazer Test Report

Light efficiency:

57 Lumen/Watt

Light quality:

CRI: 84.8

Color temperature:

3004 K

Output: 460 lm
Peak: 827 cd

Power: 8.1 W
PF: 1.0

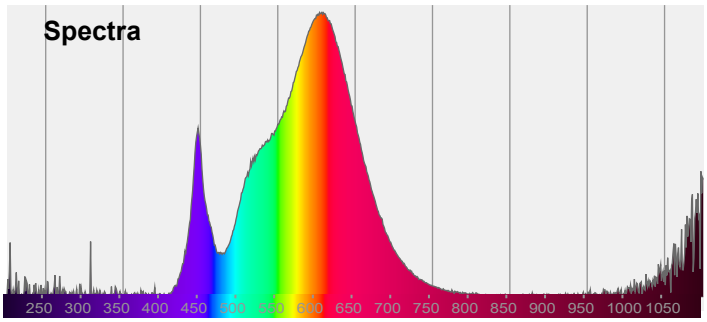
Tracking number: VT250711-002597

Product name:
GZF-BK-15X60-IP67-30

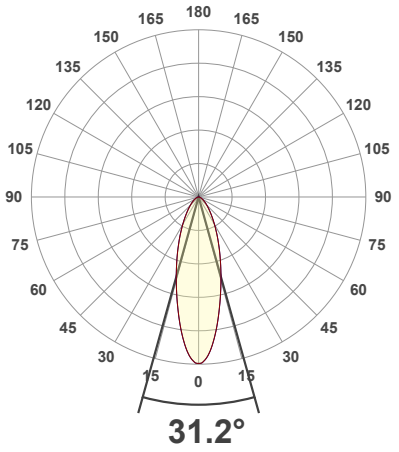
Item number:
GZF-BK-15X60-IP67-30

Date and time:
7/11/25 1:32:55 PM

All values scaled to 1 foot
From 0.75 M sample tested @ 11 M

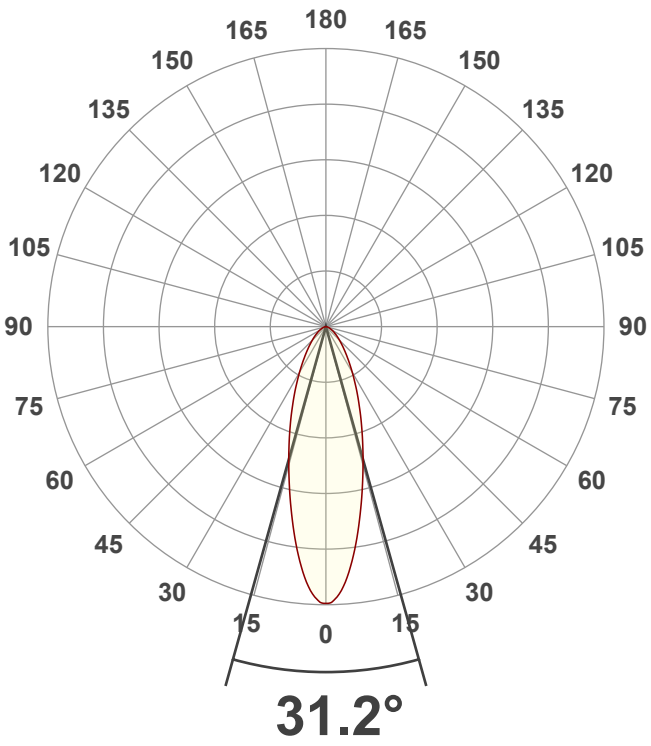


Average Beam Angle

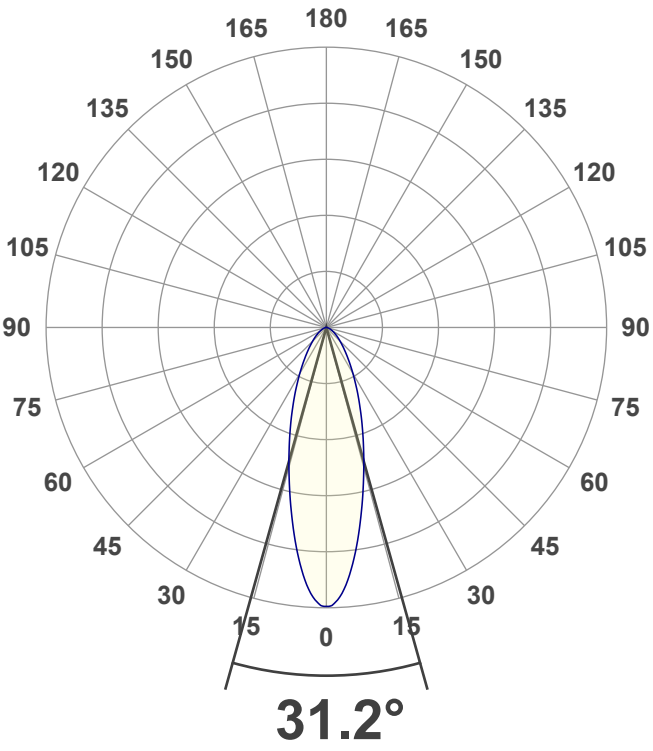


C Plane Resolution: 18°

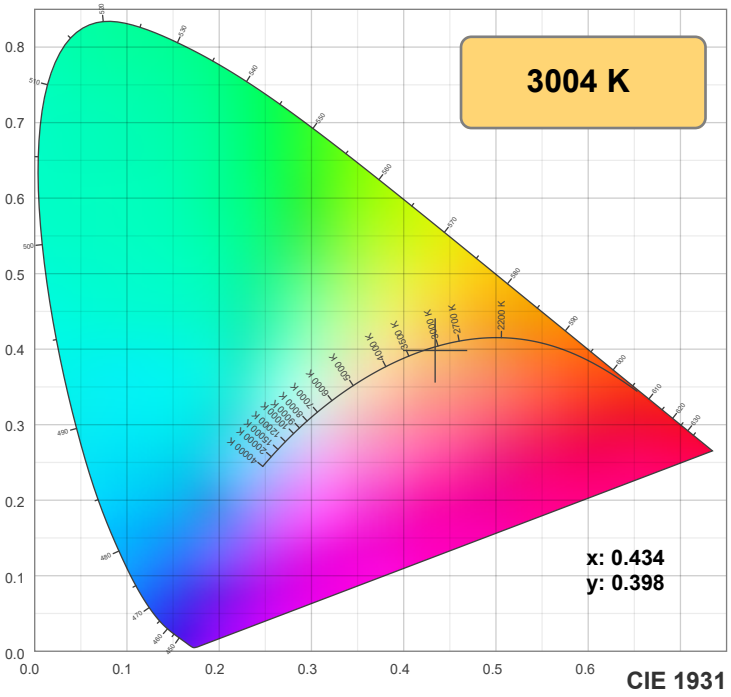
Angular Distribution 0 ° Plane

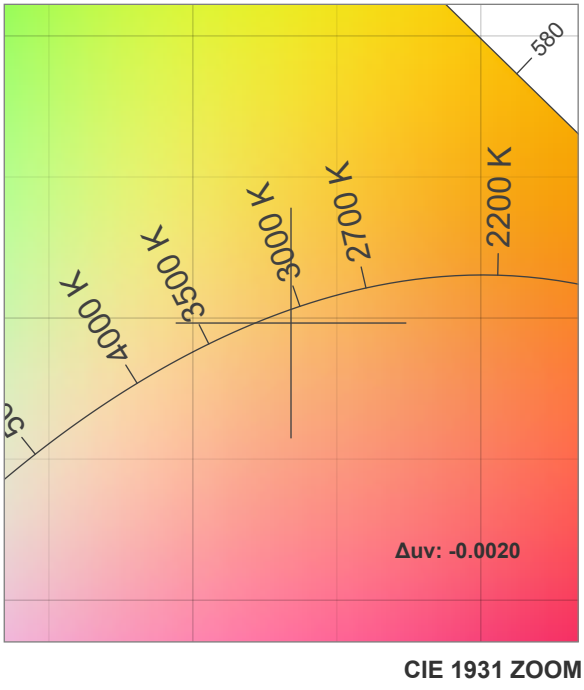


Angular Distribution 90 ° Plane

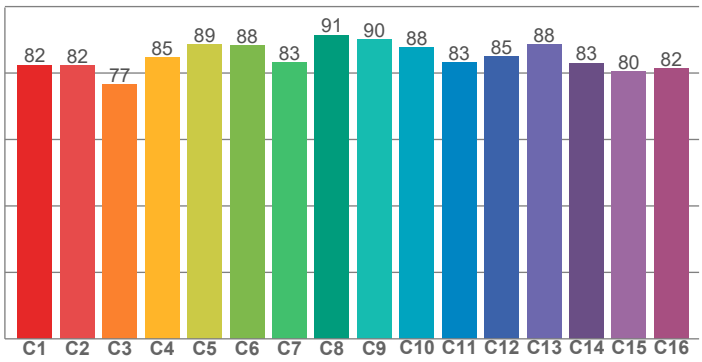


Color details

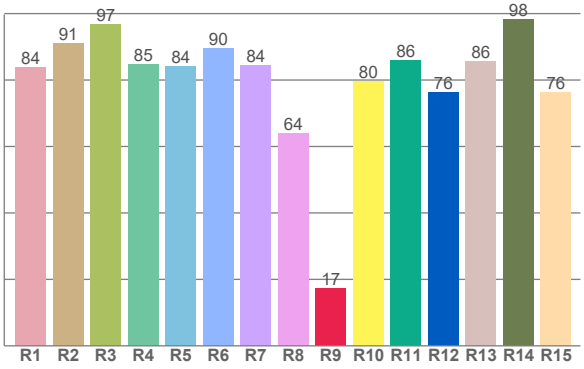




TM-30: 84.8



CRI: (R1-R8): 84.8



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
83.9	91.0	96.7	84.8	84.1	89.6	84.5	64.0	17.3	79.7	85.8	76.3	85.6	98.2	76.4

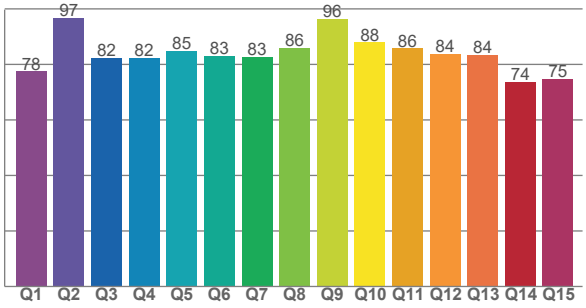
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
82.4	82.4	76.5	84.7	88.5	88.2	83.3	91.5	90.0	87.8	83.2	84.9	88.5	83.1	80.4	81.5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
77.5	96.6	82.2	82.4	84.8	83.2	82.7	86.0	96.4	87.9	85.8	83.7	83.5	73.7	74.8

CQS: 82.8



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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3004 K	84.8	17.3	84.8	99.7	82.8	0.434	0.398	0.251	0.346	-0.0020

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TM-30 details

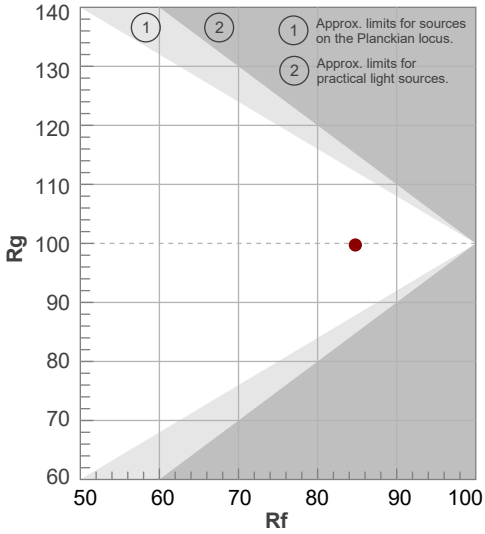
Rf 84.8

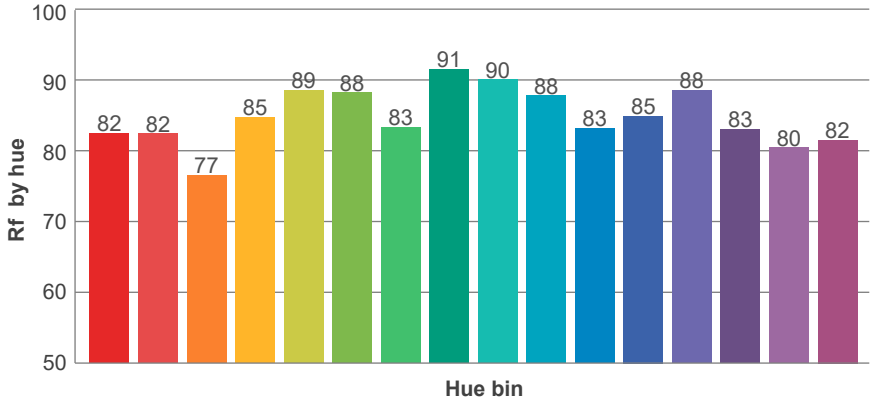
Fidelity index Rf

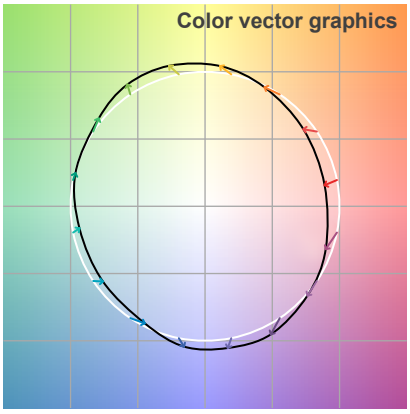
Rg 99.7

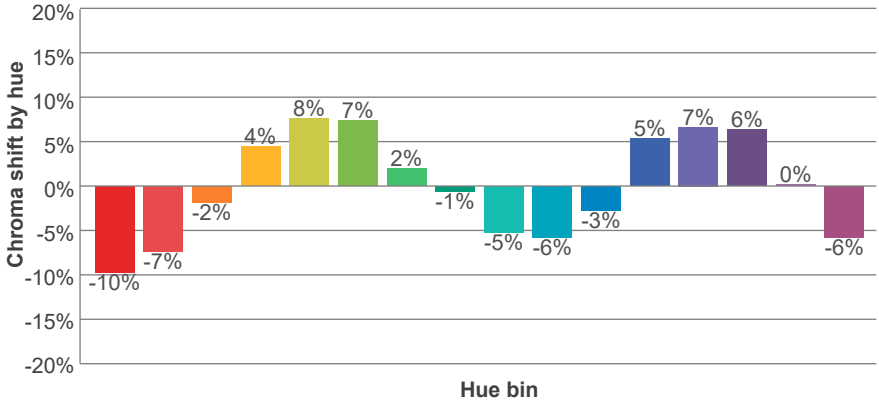
Gamut index Rg

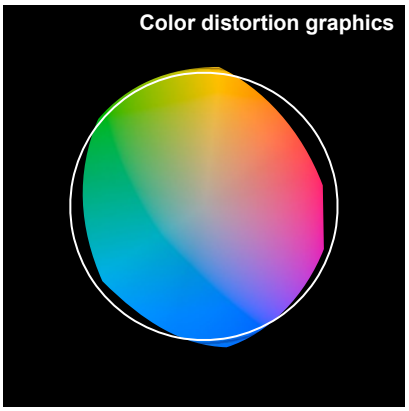
Hue Bin	R_f	Shifts (%) Chroma	Hue
1	82	-10%	-2%
2	82	-7%	7%
3	77	-2%	12%
4	85	4%	9%
5	89	8%	6%
6	88	7%	-2%
7	83	2%	-10%
8	91	-1%	-5%
9	90	-5%	-2%
10	88	-6%	4%
11	83	-3%	11%
12	85	5%	5%
13	88	7%	-4%
14	83	6%	-12%
15	80	0%	-13%
16	82	-6%	-14%

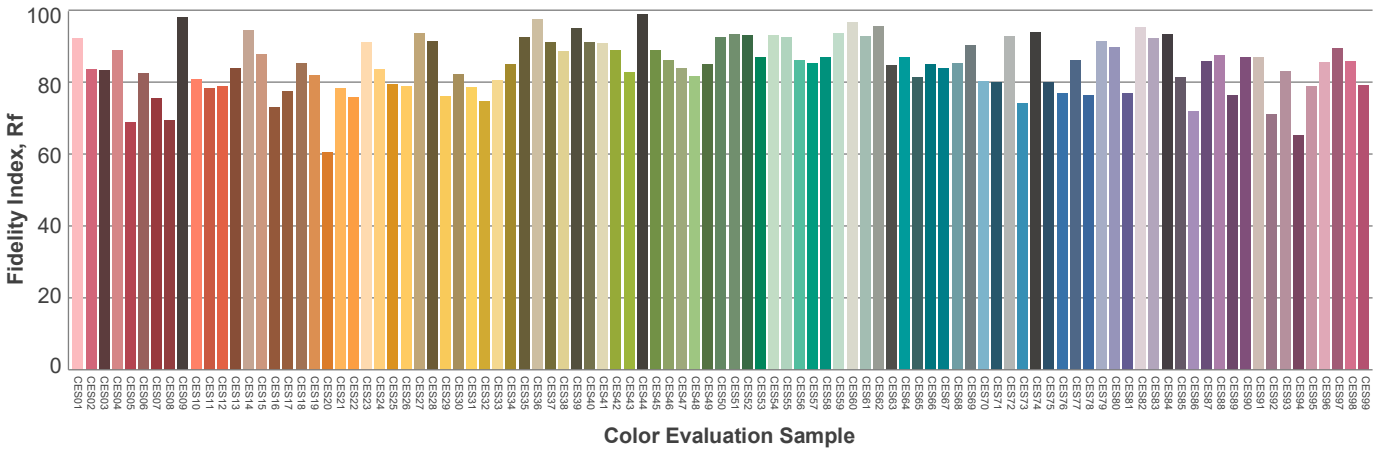






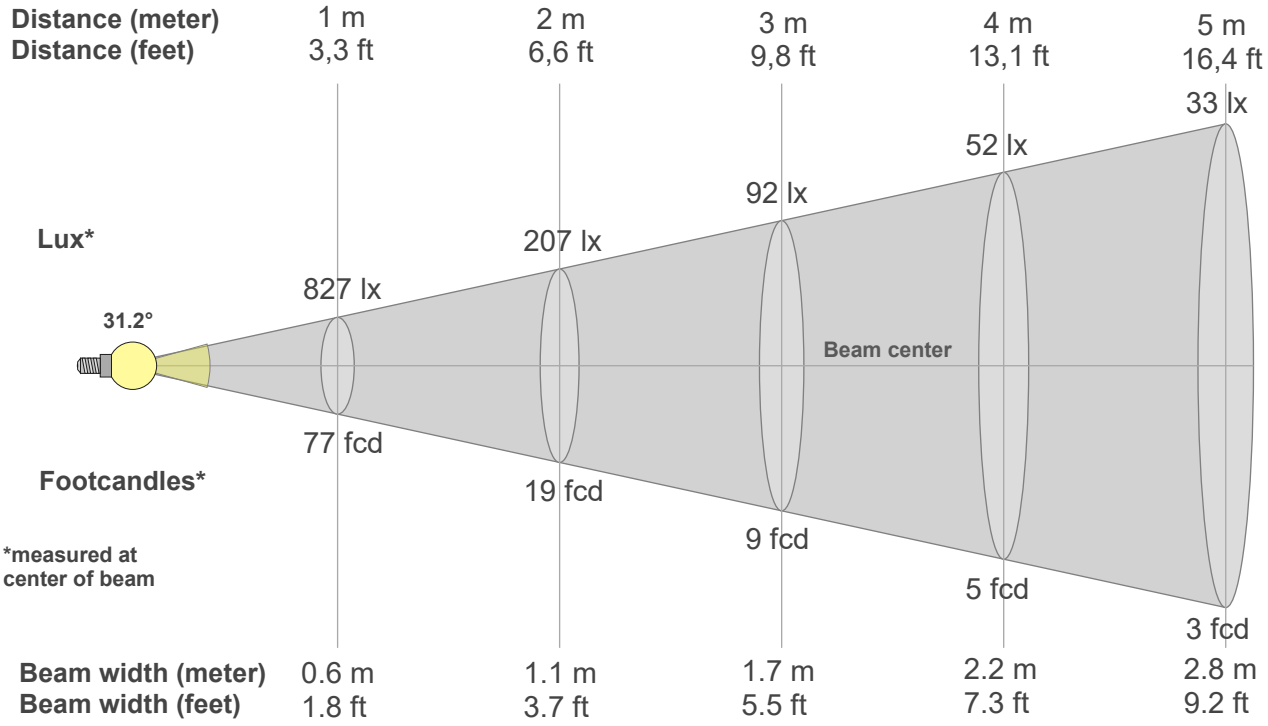






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Beam details



Beam intensities from 1-20m

1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
827lx	207lx	92lx	52lx	33lx	23lx	17lx	13lx	10lx	8lx	7lx	6lx	5lx	4lx	4lx	3lx	3lx	3lx	2lx	2lx
76.8fcd	19.2fcd	8.5fcd	4.8fcd	3.1fcd	2.1fcd	1.6fcd	1.2fcd	0.9fcd	0.8fcd	0.6fcd	0.5fcd	0.5fcd	0.4fcd	0.3fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd

Intensities in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
827	814	775	717	651	582	517	457	403	355	311	273	238	208	181	158	137	120	104	91
100%	98%	94%	87%	79%	70%	63%	55%	49%	43%	38%	33%	29%	25%	22%	19%	17%	14%	13%	11%

Intensities in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
827	814	775	717	651	582	517	457	403	355	311	273	238	208	181	158	137	120	104	91
100%	98%	94%	87%	79%	70%	63%	55%	49%	43%	38%	33%	29%	25%	22%	19%	17%	14%	13%	11%

Intensities in 180° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
827	814	775	717	651	582	517	457	403	355	311	273	238	208	181	158	137	120	104	91
100%	98%	94%	87%	79%	70%	63%	55%	49%	43%	38%	33%	29%	25%	22%	19%	17%	14%	13%	11%

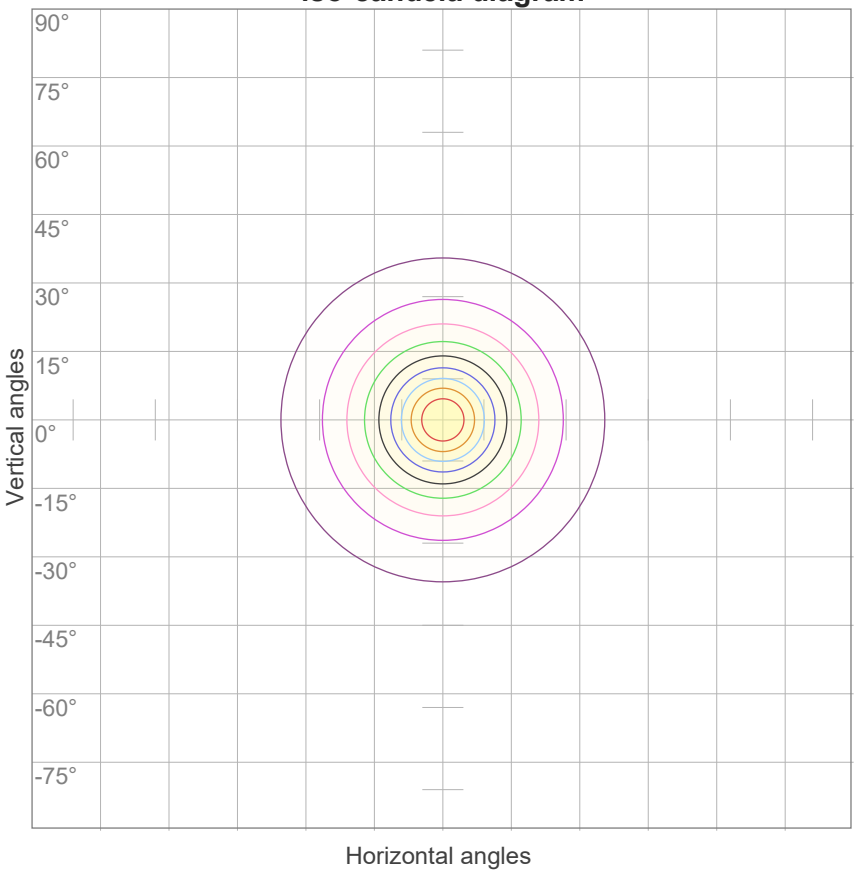
Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
827	814	775	717	651	582	517	457	403	355	311	273	238	208	181	158	137	120	104	91
100%	98%	94%	87%	79%	70%	63%	55%	49%	43%	38%	33%	29%	25%	22%	19%	17%	14%	13%	11%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
31.2°	79°	121°	93.7%	83.3%

Iso Diagrams

iso-candela diagram



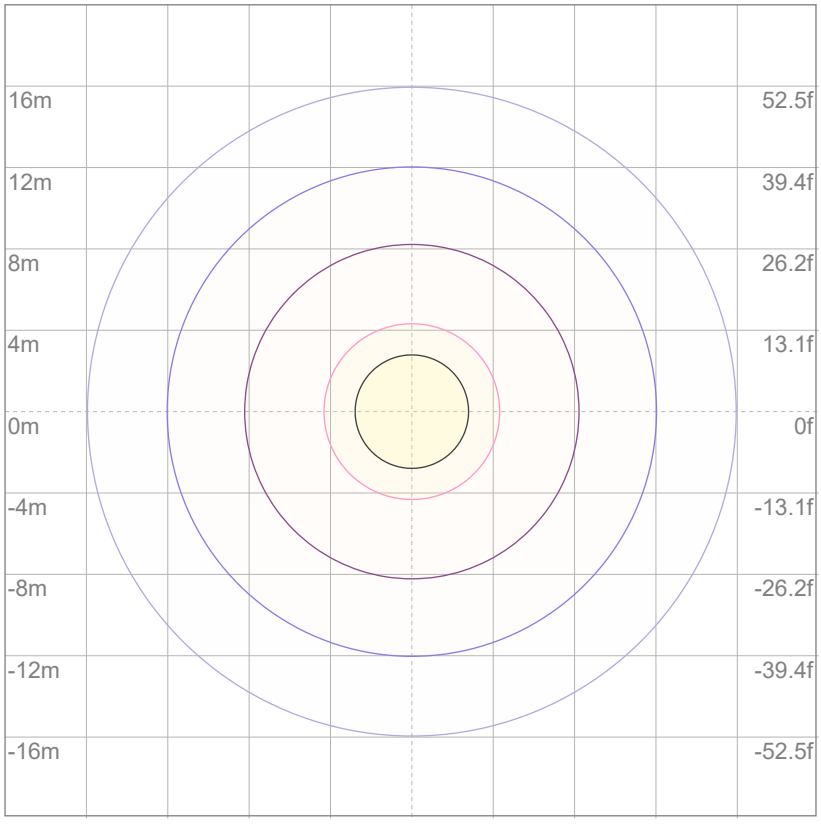
10%	83 cd
20%	165 cd
30%	248 cd
40%	331 cd
50%	413 cd
60%	496 cd
70%	579 cd
80%	662 cd
90%	744 cd

Conditions:

Number of c-planes: 20

Candela at center: 827 cd

iso-lux diagram



Mounting height: 10 meters (33 feet)

3%	0.248 lx
5%	0.413 lx
10%	0.827 lx
30%	2.48 lx
50%	4.13 lx

Conditions:

Number of c-planes: 20

Lux at center: 8.27 lx

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

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p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X	Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	17.7	18.4	17.8	18.7	18.9	18.3	19.0	18.4	19.3	19.5
	3H	17.9	18.7	18.3	19.0	19.2	18.6	19.5	19.0	19.7	19.9
	4H	18.0	18.8	18.4	19.1	19.3	18.8	19.7	19.2	19.9	20.1
	6H	18.1	18.8	18.4	19.1	19.5	19.0	19.7	19.3	20.0	20.4
	8H	18.1	18.8	18.5	19.1	19.5	19.1	19.8	19.4	20.1	20.5
	12H	18.1	18.8	18.5	19.1	19.5	19.1	19.8	19.5	20.1	20.6
4H	2H	17.7	18.6	18.1	18.8	19.0	18.3	19.1	18.7	19.4	19.6
	3H	18.3	18.9	18.6	19.3	19.7	18.9	19.6	19.3	19.9	20.4
	4H	18.4	19.0	18.8	19.4	19.9	19.1	19.7	19.6	20.2	20.7
	6H	18.5	19.1	19.0	19.4	19.8	19.4	20.0	19.8	20.3	20.7
	8H	18.5	19.1	19.0	19.4	19.8	19.4	20.0	20.0	20.4	20.7
	12H	18.5	19.0	19.0	19.4	19.8	19.5	20.0	20.0	20.4	20.8
8H	4H	18.4	19.0	18.9	19.3	19.7	19.1	19.7	19.6	20.1	20.4
	6H	18.6	19.0	19.1	19.5	20.0	19.4	19.8	19.9	20.3	20.8
	8H	18.7	19.0	19.2	19.6	20.2	19.6	19.9	20.1	20.5	21.1
	12H	18.7	19.0	19.3	19.5	20.1	19.7	20.0	20.3	20.5	21.1
12H	4H	18.4	18.8	18.9	19.2	19.7	19.1	19.5	19.6	20.0	20.4
	6H	18.6	19.0	19.1	19.5	20.1	19.5	19.8	20.0	20.3	20.9
	8H	18.7	19.0	19.3	19.5	20.1	19.6	19.9	20.2	20.4	21.0
Variation of the observer position for the luminaire distance S											
S = 1.0H		0.9 / -0.9					0.8 / -0.7				
S = 1.5H		2.2 / -1.8					2.0 / -1.5				
S = 2.0H		3.5 / -2.6					3.2 / -2.3				
CIE 117-1995. Corrected glare indices referring to 460 lm total luminous flux											

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	112	109	106	104	110	107	104	102	103	100	99	99	97	95	95	94	92	91
2	106	100	96	92	103	98	94	91	95	92	89	92	89	87	89	87	85	83
3	100	93	87	83	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	86	80	75	92	85	79	75	82	78	74	80	76	73	78	75	72	70
5	89	80	74	69	88	79	73	69	77	72	68	75	71	67	74	70	67	65
6	85	75	69	64	83	74	68	64	73	67	63	71	66	63	70	65	62	61
7	80	71	64	60	79	70	64	59	68	63	59	67	62	59	66	62	58	57
8	77	67	60	56	75	66	60	56	65	59	55	64	59	55	62	58	55	53
9	73	63	57	53	72	62	56	52	61	56	52	60	55	52	59	55	52	50
10	70	60	54	50	69	59	53	50	58	53	49	57	53	49	57	52	49	48

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
65.9 lm	119 lm	103 lm	70.6 lm	45.1 lm	27.6 lm	14.8 lm	7.08 lm	2.53 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.834 lm	0.809 lm	0.759 lm	0.686 lm	0.592 lm	0.480 lm	0.354 lm	0.217 lm	0.073 lm

LCS table

BUG rating:	B1 U0 G0	
Forward light	Lumens	Lumens %
Low(0-30):	145.4	31.6%
Medium(30-60):	72.4	15.7%
High(60-80):	11.1	2.4%
Very high(80-90):	1.3	0.3%
Back light		
Low(0-30):	145.4	31.6%
Medium(30-60):	72.4	15.7%
High(60-80):	11.1	2.4%
Very high(80-90):	1.3	0.3%
Uplight		
Low(90-100):	0	0%
High(100-180):	0	0%

