

Photometric Report

MAC Encore Wash CLD – Medium

Martin Professional R&D Optical Laboratory, 01-Nov-17 11:12:40

General Specifications:

Total Fixture Output: 12.4 klm

Light Engine Output: 39.4 klm

Efficacy: 21 Lumen/Watt

Lens Option: PC Lens

Zoomrange: 11-58°

CRI: 80+

CQS: 80+

TM-30 Rf: 80+

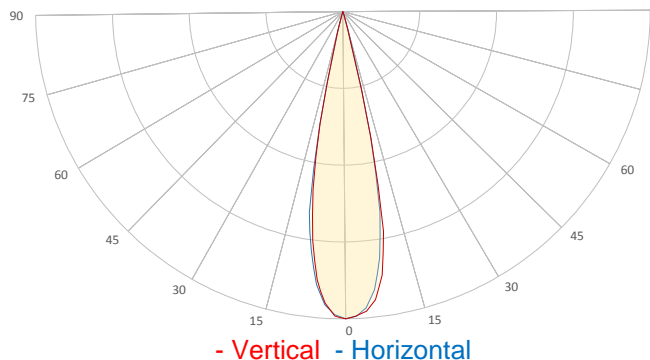
TM-30 Rg: 95+

TLCI: 70+

Color Temperature: 6000 K



Measurement

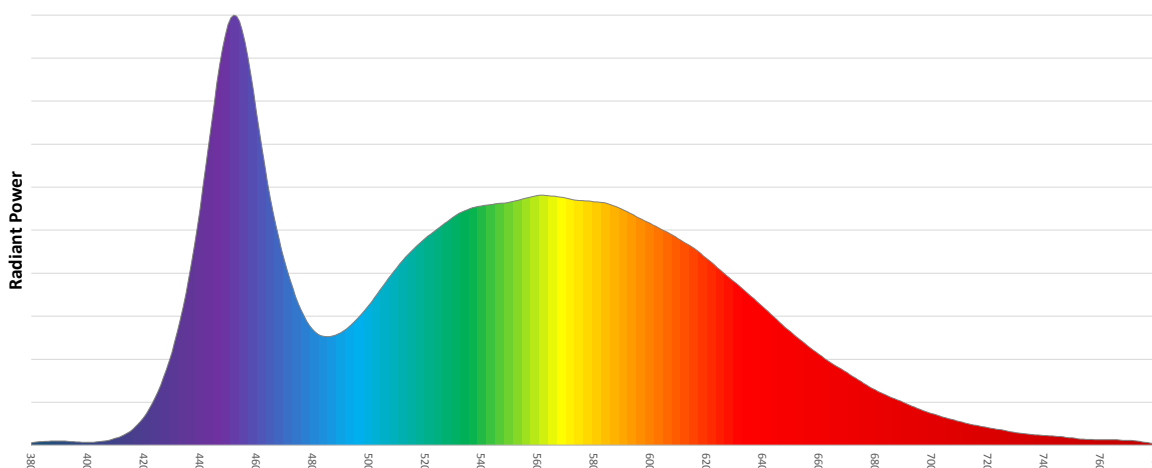


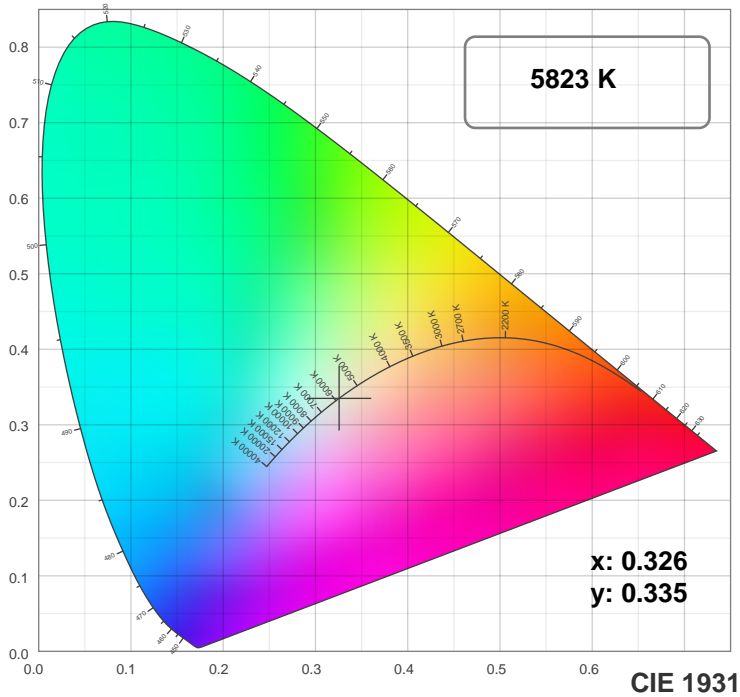
Catalog Number: 90234045
Measured Output: 12375 lm
Measured Peak: 105060 cd
Consumed Power: 590 W
Efficacy: 21.0 Lumen/Watt

Beam Angle (50%): 22.4°
Field Angle (10%): 28.3°
Cutoff Angle (3%): 31.5°

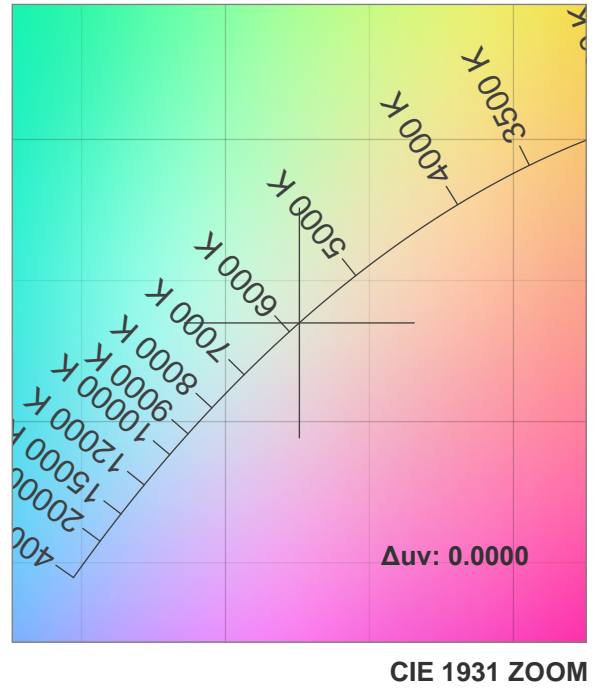
Measurement Condition:
Ambient Temperature: 25 +/- 5C
AC Supply: 230V/50Hz

Spectral distribution

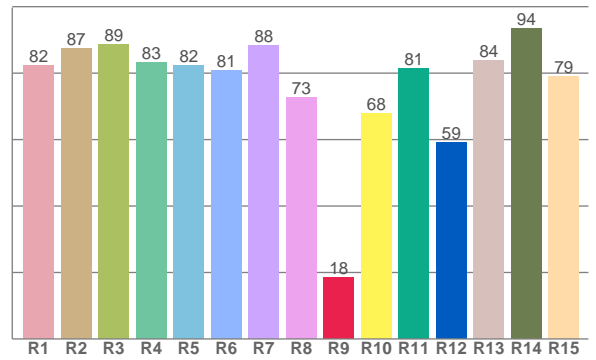
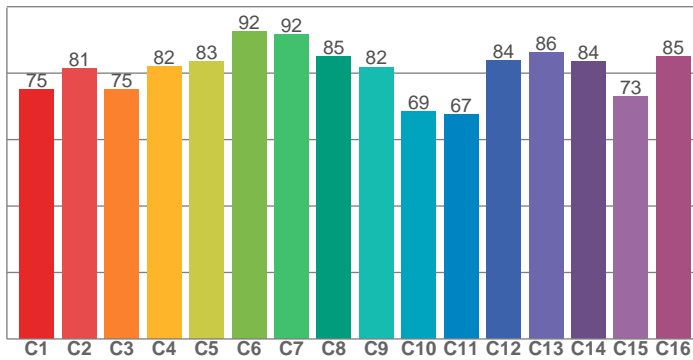




TM30: 80.5



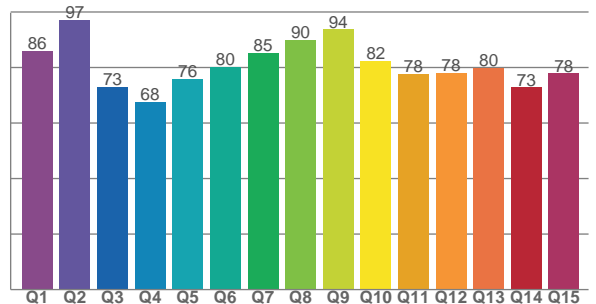
CRI: 83.3 (R1-R8)



Color Parameters

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg
5823 K	83.3	18.4	80.5	96.2

CQS: 79.6



Television Lighting Consistency Index	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964	Color Diviation from Black Body
TLCI	CQS	x	y	u	v	Δuv
70+	79.6	0.326	0.335	0.205	0.316	0.0000

TM30 MAC Encore Wash CLD – Medium

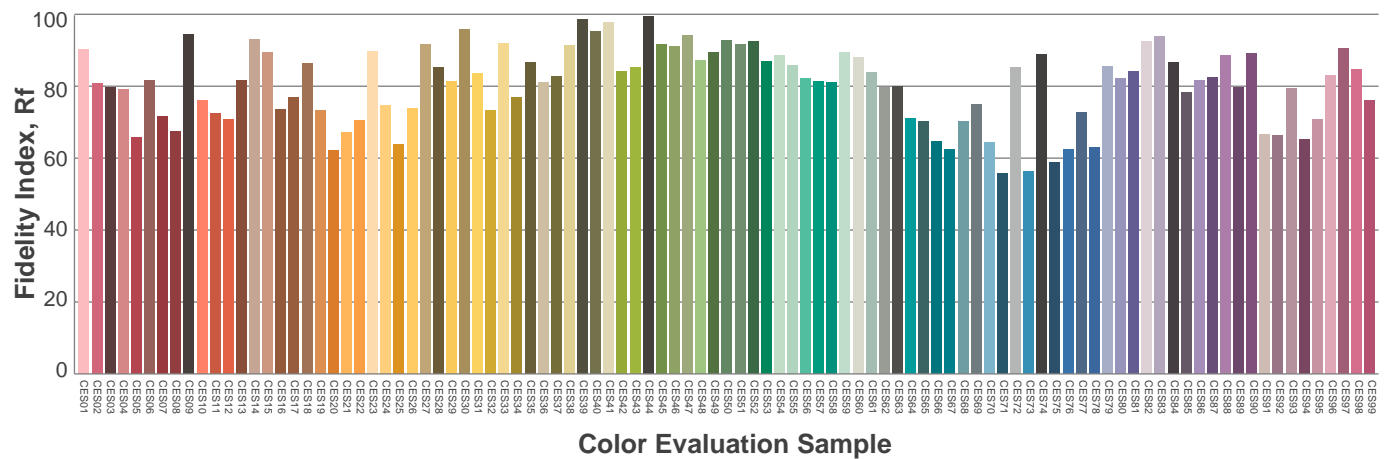
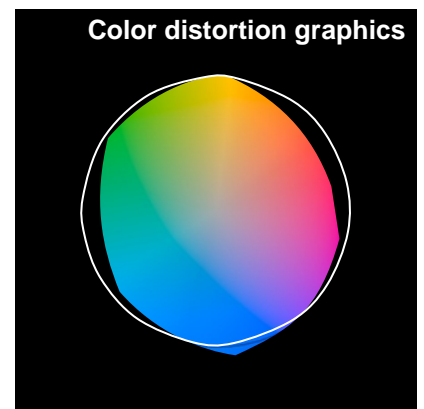
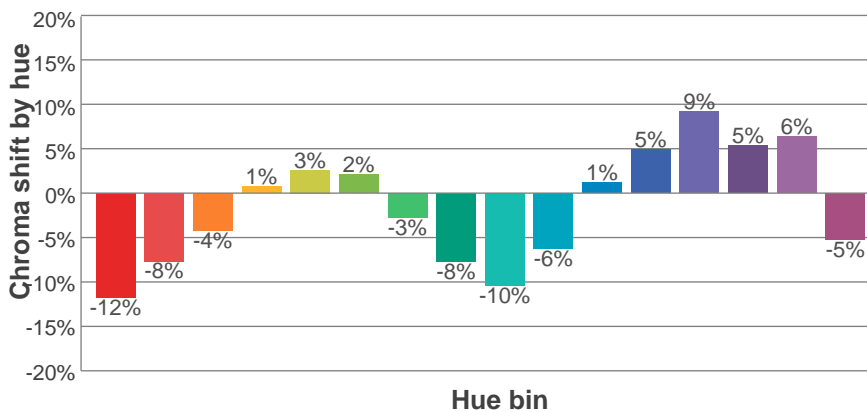
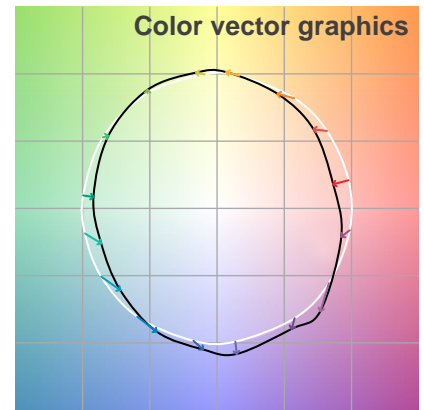
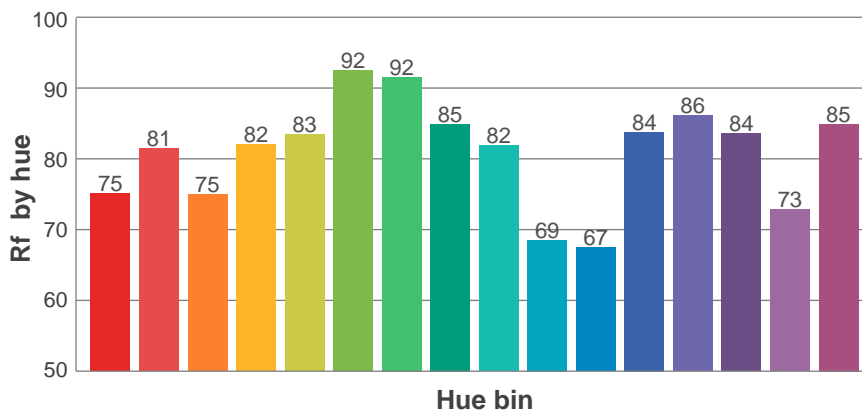
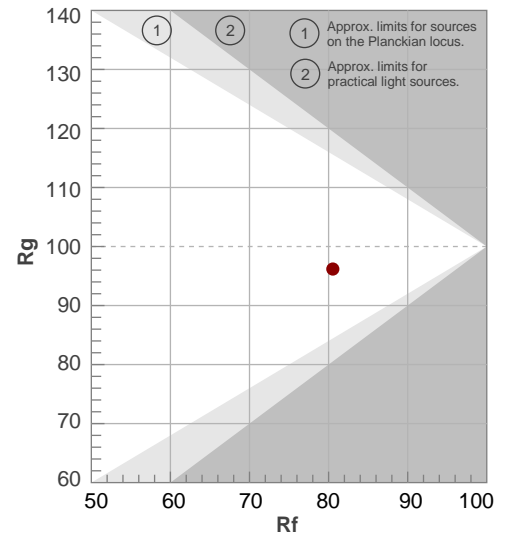
Rf 80.5

Fidelity index Rf

Rg 96.2

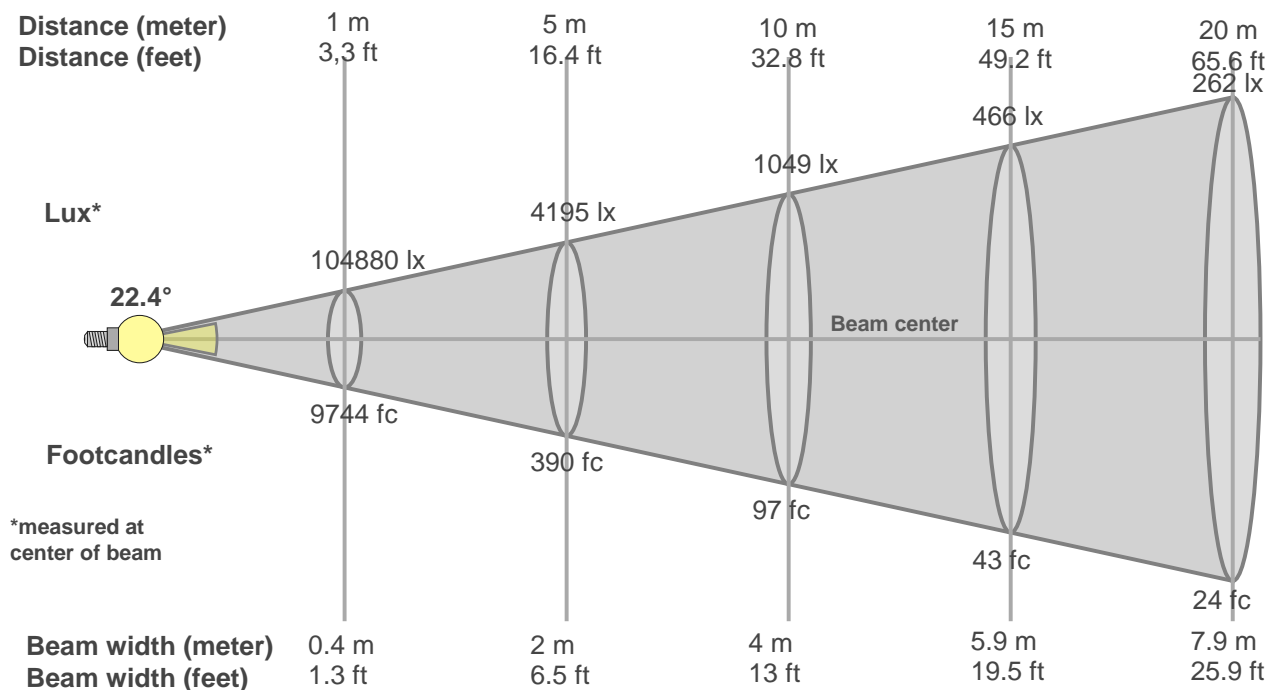
Gamut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	75	-12%	-1%
2	81	-8%	7%
3	75	-4%	12%
4	82	1%	10%
5	83	3%	6%
6	92	2%	-1%
7	92	-3%	-3%
8	85	-8%	0%
9	82	-10%	10%
10	69	-6%	16%
11	67	1%	18%
12	84	5%	8%
13	86	9%	-1%
14	84	5%	-6%
15	73	6%	-21%
16	85	-5%	-6%



Beam Details

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Beam width:

Beam luminous intensity formula:

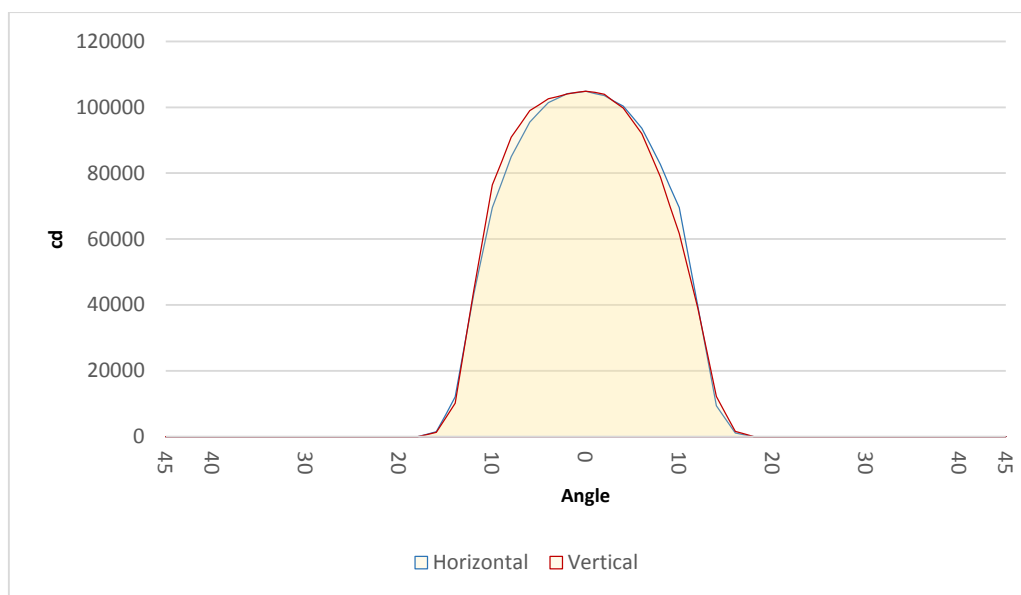
$$w = 0.4 * \text{distance}$$

$$\text{lux} = 104880 / (\text{distance}^2) \text{ (where distance is in meters)}$$

$$\text{fc} = 104880 / (\text{distance}^2) \text{ (where distance is in feet)}$$

Beam illuminance 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
104880lx	26220lx	11653lx	6555lx	4195lx	2913lx	2140lx	1639lx	1295lx	1049lx	867lx	728lx	621lx	535lx	466lx	410lx	363lx	324lx	291lx	262lx
9743.7fc	2435.9fc	1082.6fc	609fc	389.7fc	270.7fc	198.9fc	152.2fc	120.3fc	97.4fc	80.5fc	67.7fc	57.7fc	49.7fc	43.3fc	38.1fc	33.7fc	30.1fc	27fc	24.4fc

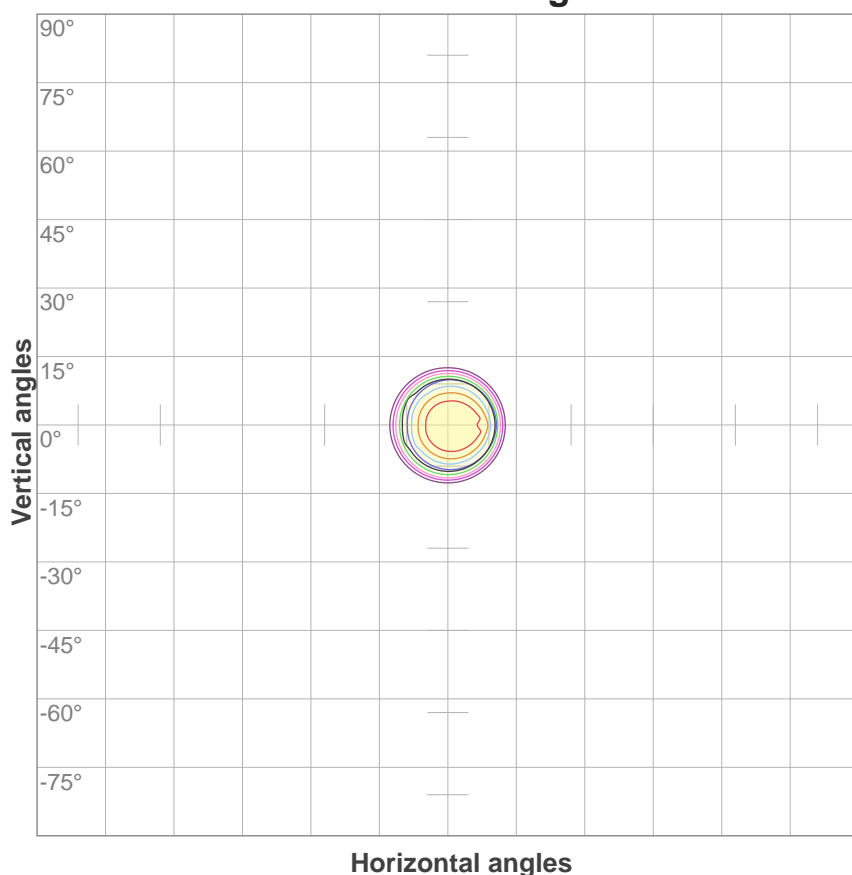


Beam angle 50%	Field angle 10%	Cutoff angle 3%
22.4°	28.3°	31.5°

ISO Diagrams

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ISO candela diagram



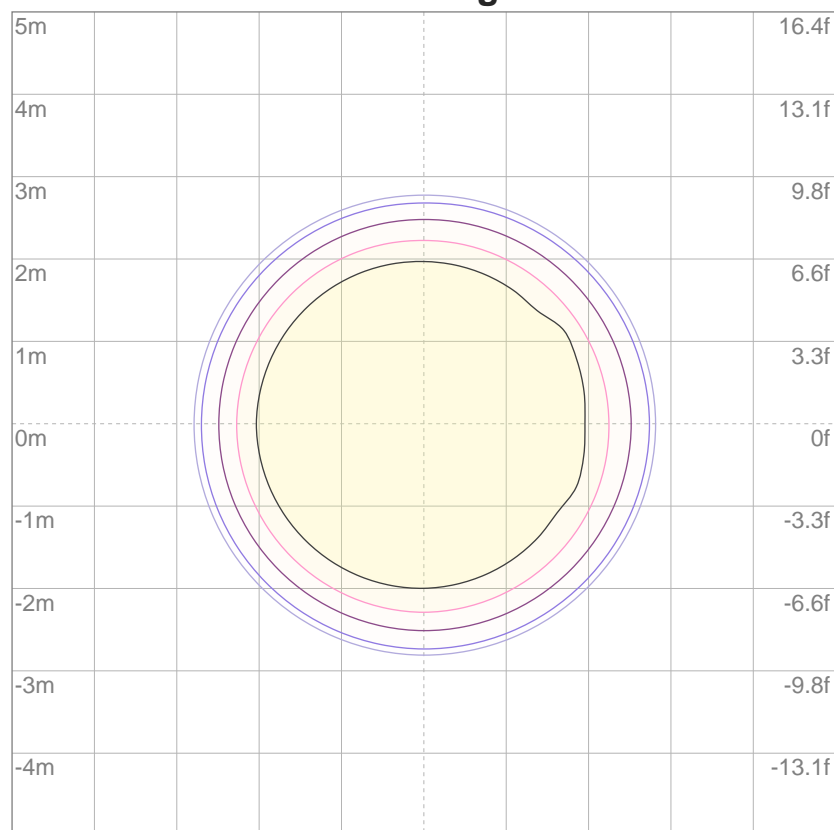
10%	10488 cd
20%	20976 cd
30%	31464 cd
40%	41952 cd
50%	52440 cd
60%	62928 cd
70%	73416 cd
80%	83904 cd
90%	94392 cd

Conditions:

Number of c-planes: 4

Candela at center: 104880 cd

ISO lux diagram



3%	31.5 lx
5%	52.4 lx
10%	105 lx
30%	315 lx
50%	524 lx

Conditions:

Number of c-planes: 4

Lux at center: 1049 lx

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