

Photometric Report

MAC Encore Performance CLD – Wide

Martin Professional R&D Optical Laboratory, 02-Nov-17 11:31:40

General Specifications:

Total Fixture Output: 11.6 klm

Light Engine Output: 39.4 klm

Efficacy: 20 Lumen/Watt

Lens Option: N/A

Zoomrange: 12-48°

CRI: 80+

CQS: 80+

TM-30 Rf: 80+

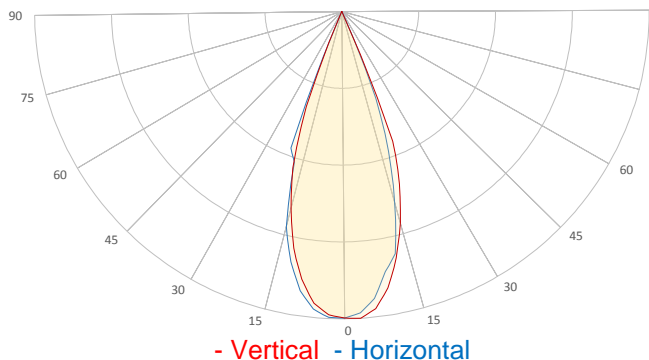
TM-30 Rg: 95+

TLCI: 70+

Color Temperature: 6000 K



Measurement



Catalog Number: 90234000

Measured Output: 11532 lm

Measured Peak: 35501 cd

Consumed Power: 590 W

Efficacy: 19.5 Lumen/Watt

Beam Angle (50%): 37.6°

Field Angle (10%): 46.4°

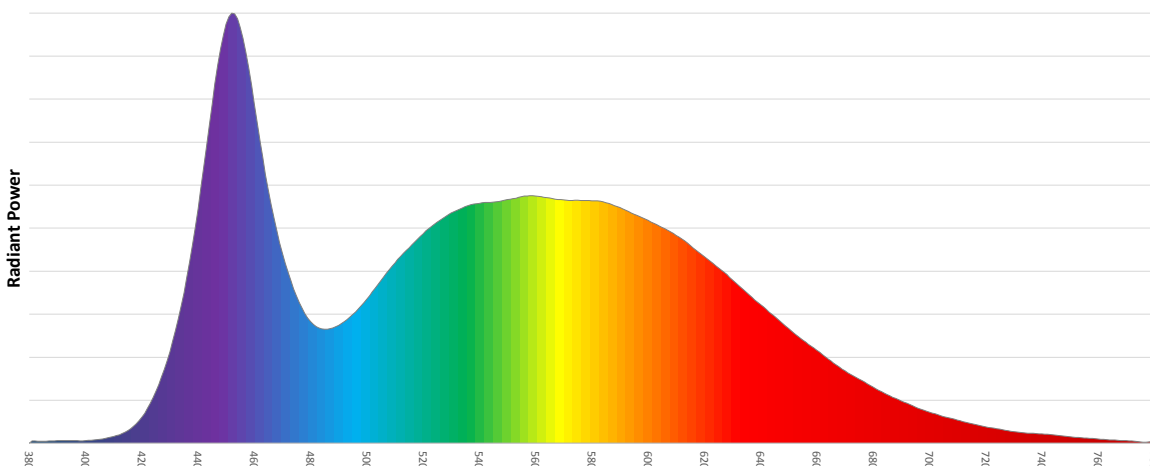
Cutoff Angle (3%): 47.6°

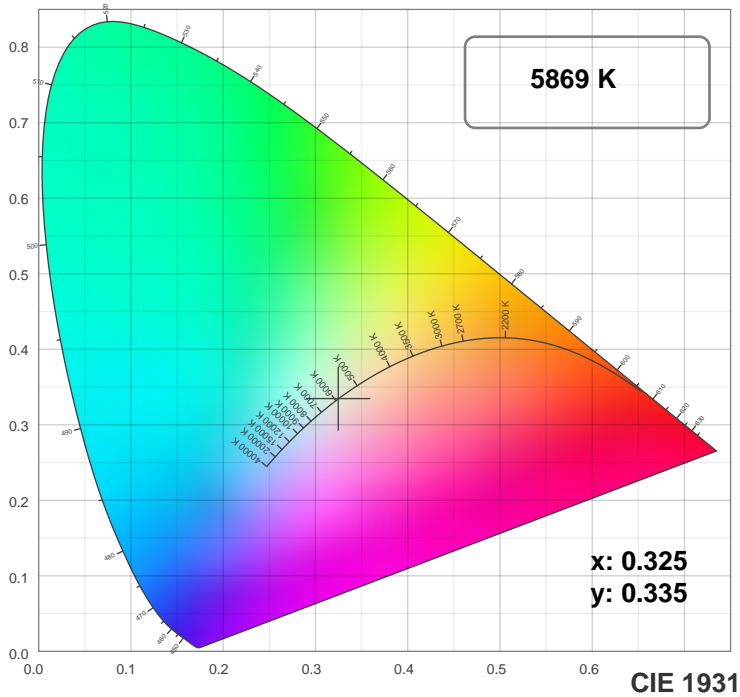
Measurement Condition:

Ambient Temperature: 25 +/- 5C

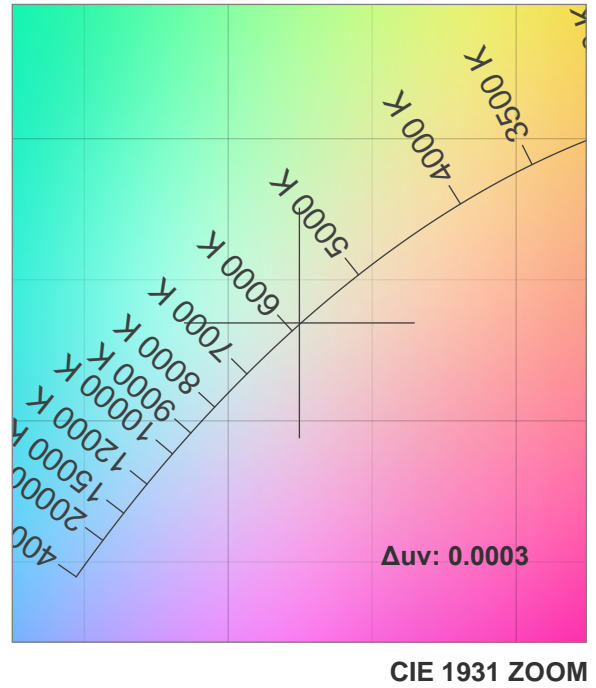
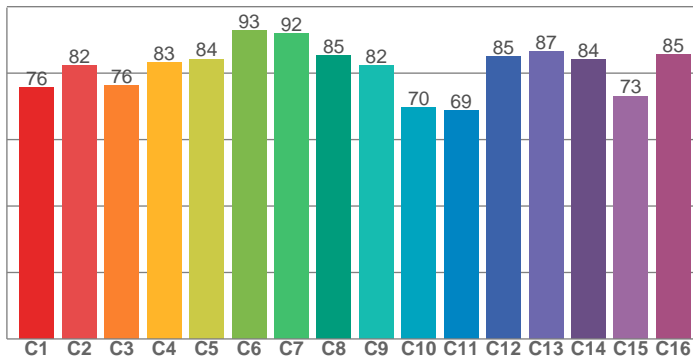
AC Supply: 230V/50Hz

Spectral distribution

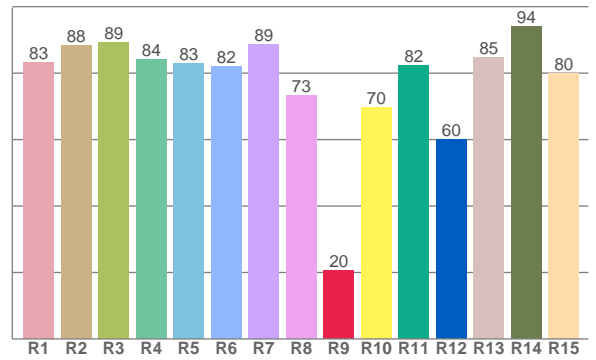




TM30: 81.3



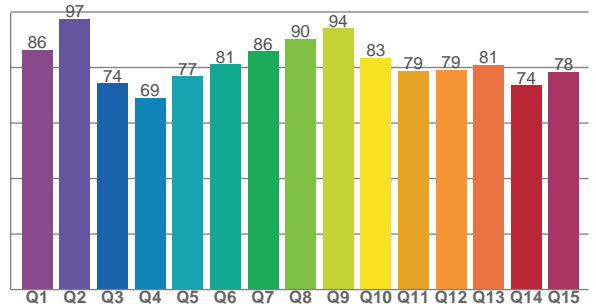
CRI: 84.0 (R1-R8)



Color Parameters

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg
5869 K	84.0	20.5	81.3	96.2

CQS: 80.4



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+	80.4	0.325	0.335	0.204	0.315	0.0003

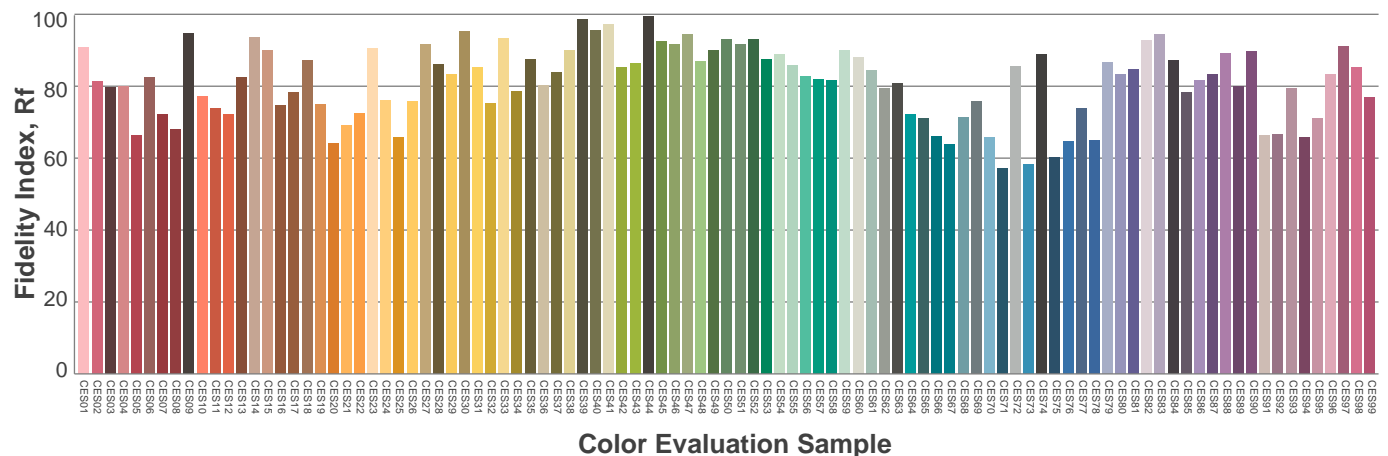
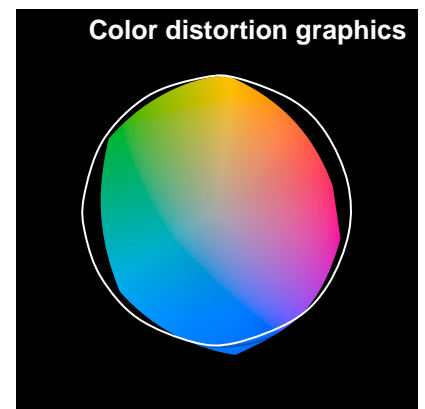
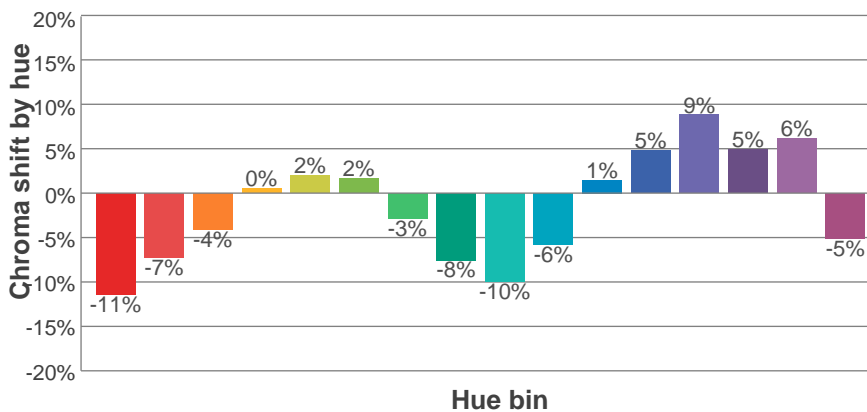
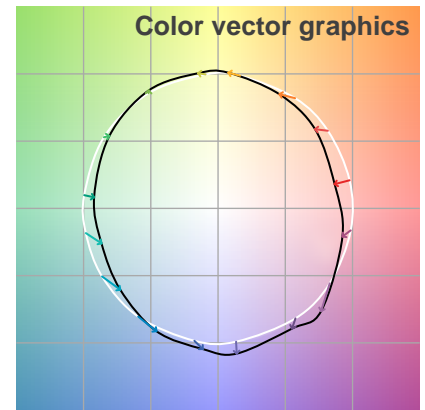
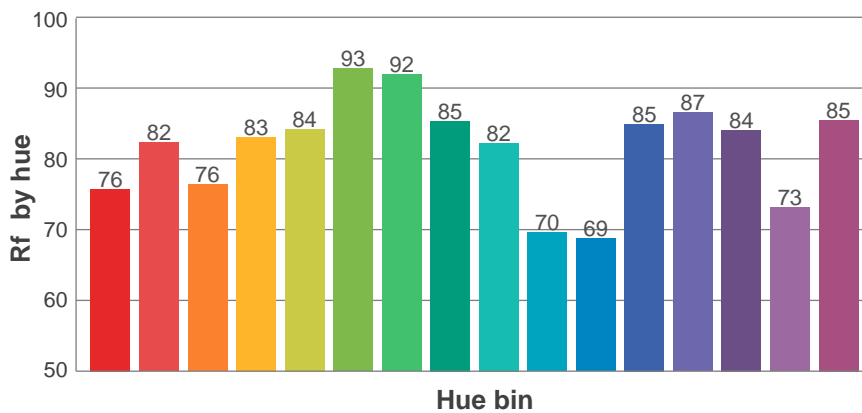
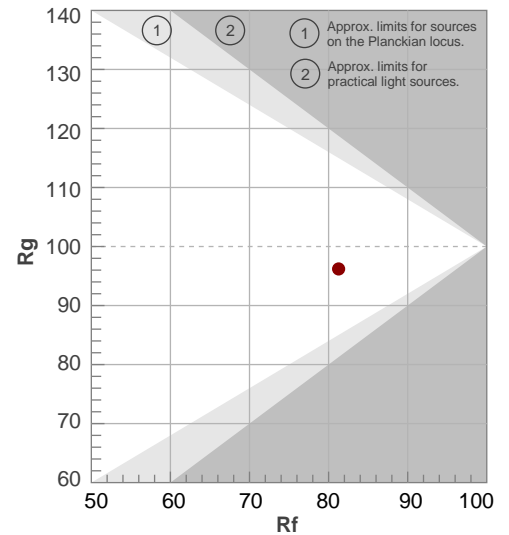
Rf 81.3

Fidelity index Rf

Rg 96.2

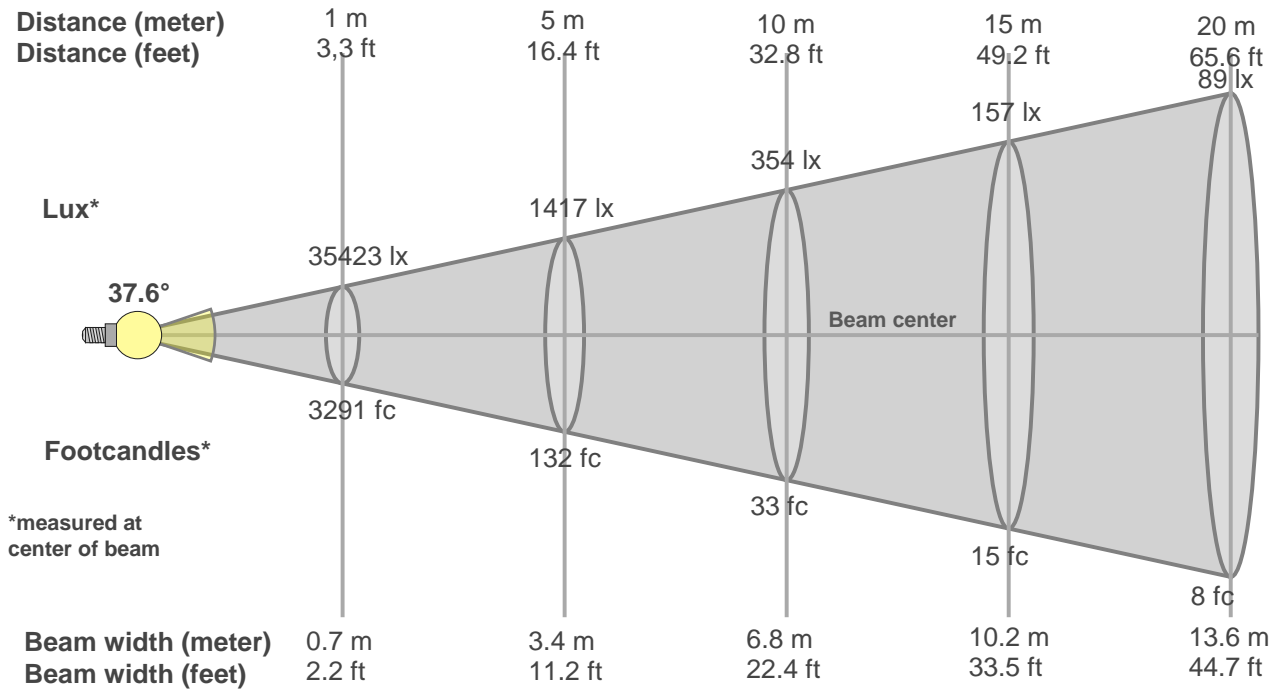
Gamut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	76	-11%	-1%
2	82	-7%	6%
3	76	-4%	11%
4	83	0%	9%
5	84	2%	5%
6	93	2%	-1%
7	92	-3%	-3%
8	85	-8%	0%
9	82	-10%	10%
10	70	-6%	16%
11	69	1%	17%
12	85	5%	7%
13	87	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:

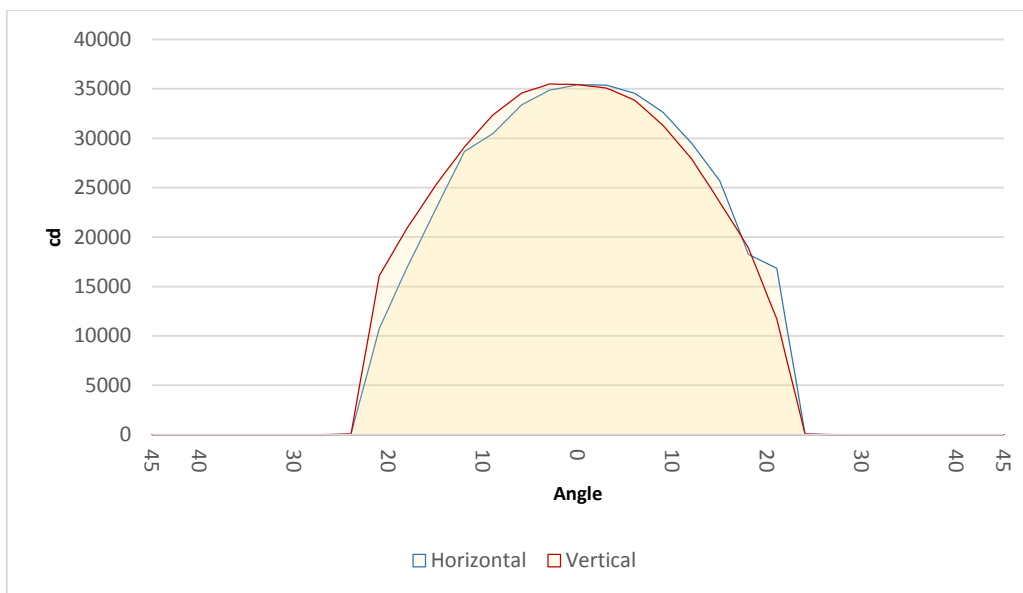
$$w = 0.7 * \text{distance}$$

$$\text{lux} = 35423 / (\text{distance}^2) \text{ (where distance is in meters)}$$

$$\text{fc} = 35423 / (\text{distance}^2) \text{ (where distance is in feet)}$$

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
35423lx	8856lx	3936lx	2214lx	1417lx	984lx	723lx	553lx	437lx	354lx	293lx	246lx	210lx	181lx	157lx	138lx	123lx	109lx	98lx	89lx
3290.9fc	822.7fc	365.7fc	205.7fc	131.6fc	91.4fc	67.2fc	51.4fc	40.6fc	32.9fc	27.2fc	22.9fc	19.5fc	16.8fc	14.6fc	12.9fc	11.4fc	10.2fc	9.1fc	8.2fc

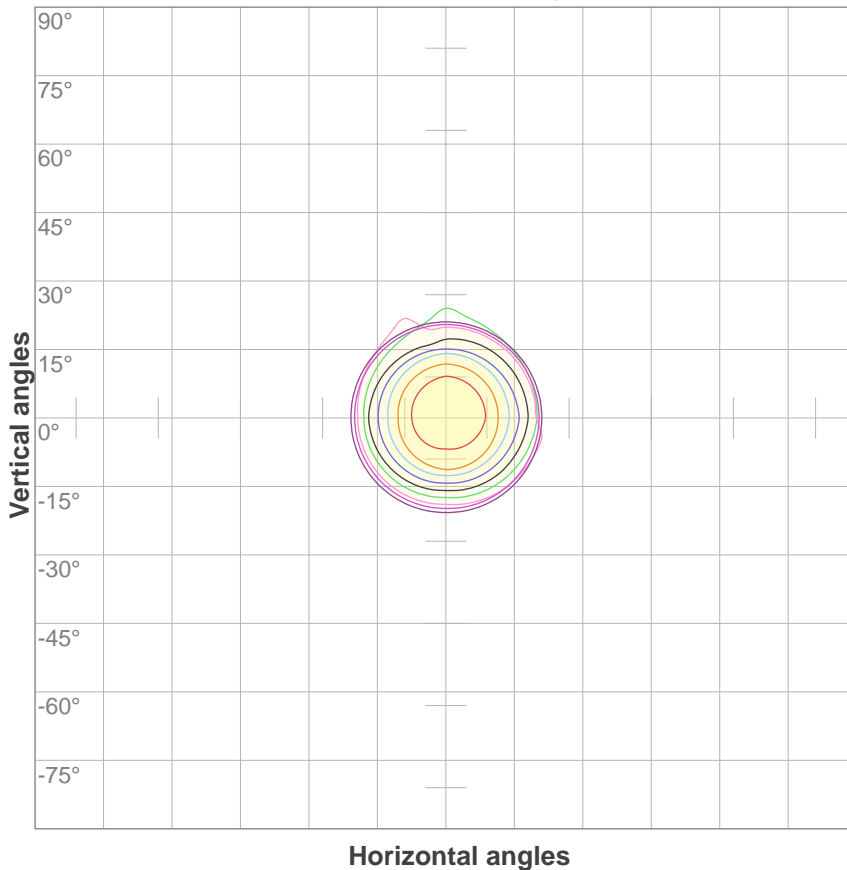


Beam angle 50%	Field angle 10%	Cutoff angle 3%
37.6°	46.4°	47.6°

ISO Diagrams

MAC Encore Performance CLD – Wide

ISO candela diagram



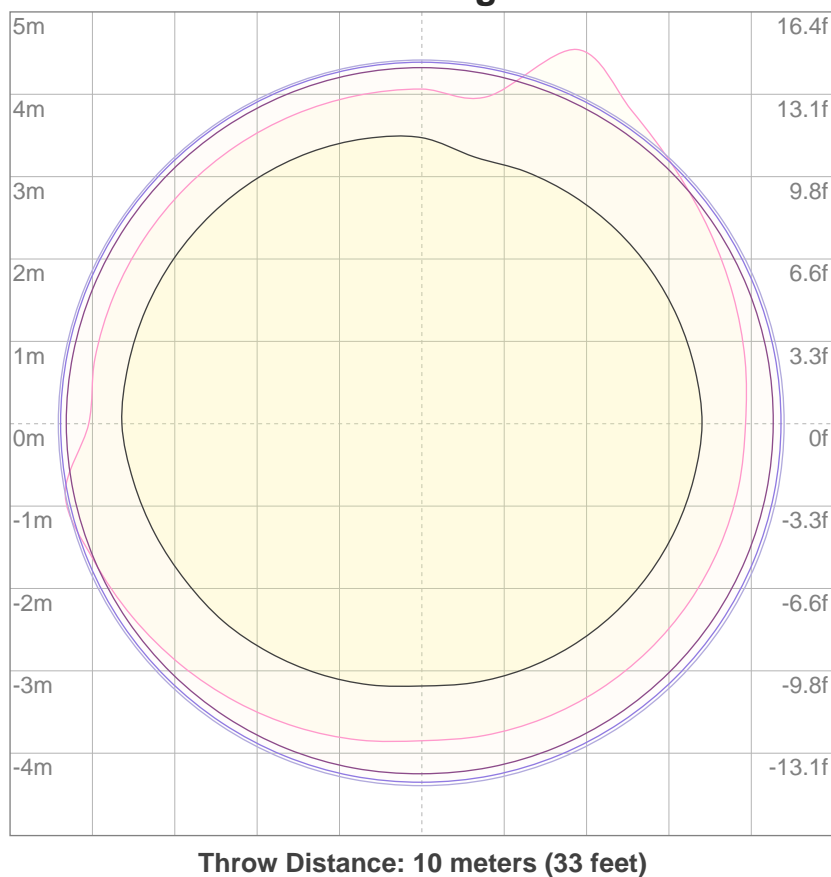
10%	3542 cd
20%	7085 cd
30%	10627 cd
40%	14169 cd
50%	17711 cd
60%	21254 cd
70%	24796 cd
80%	28338 cd
90%	31881 cd

Conditions:

Number of c-planes: 4

Candela at center: 35423 cd

ISO lux diagram



3%	10.6 lx
5%	17.7 lx
10%	35.4 lx
30%	106 lx
50%	177 lx

Conditions:

Number of c-planes: 4

Lux at center: 354 lx

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