

Photometric Report

MAC Encore Wash WRM – Wide

Martin Professional R&D Optical Laboratory, 01-Nov-17 10:45:06

General Specifications:

Total Fixture Output: 9.3 klm

Light Engine Output: 31.5 klm

Efficacy: 16 Lumen/Watt

Lens Option: PC Lens

Zoomrange: 11-58°

CRI: 90+

CQS: 90+

TM-30 Rf: 90+

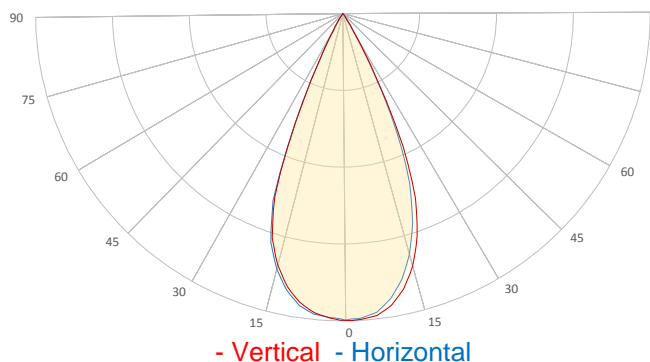
TM-30 Rg: 98+

TLCI: 90+

Color Temperature: 3000 K



Measurement



Catalog Number: 90234030

Measured Output: 9301 lm

Measured Peak: 19021 cd

Consumed Power: 582 W

Efficacy: 16.0 Lumen/Watt

Beam Angle (50%): 45.8°

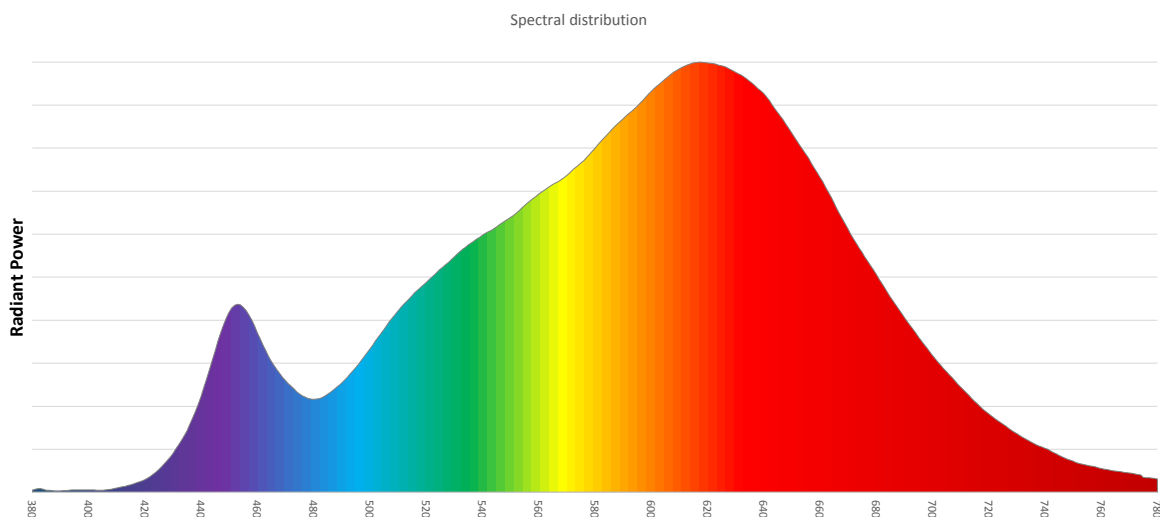
Field Angle (10%): 58.4°

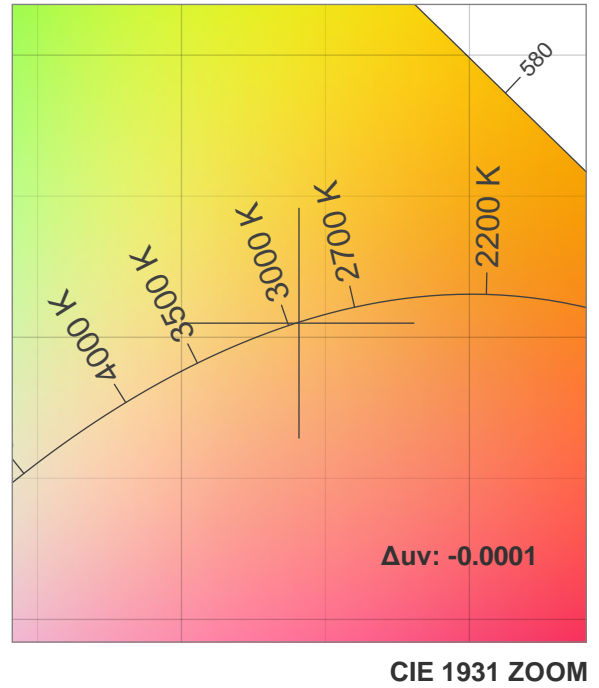
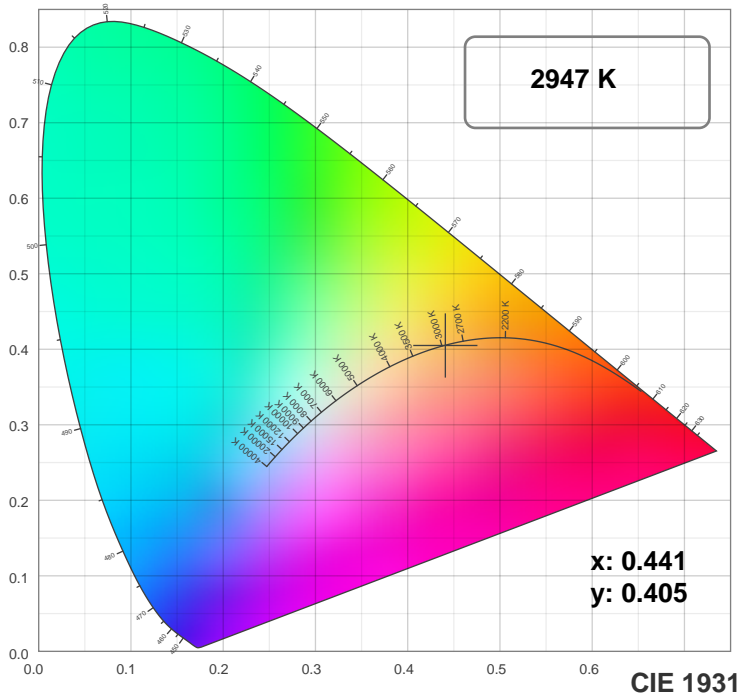
Cutoff Angle (3%): 65.7°

Measurement Condition:

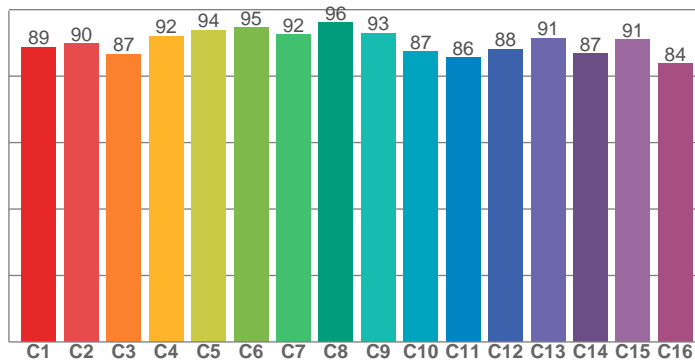
Ambient Temperature: 25 +/- 5C

AC Supply: 230V/50Hz

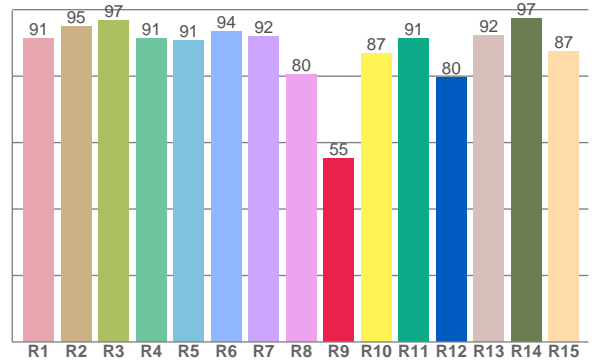




TM30: 89.9



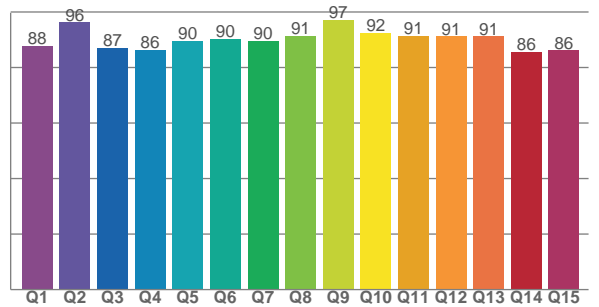
CRI: 91.4 (R1-R8)



Color Parameters

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg
2947 K	91.4	55.3	89.9	99.2

CQS: 89.6



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
90+	89.6	0.441	0.405	0.253	0.348	-0.0001

TM30 MAC Encore Wash WRM – Wide

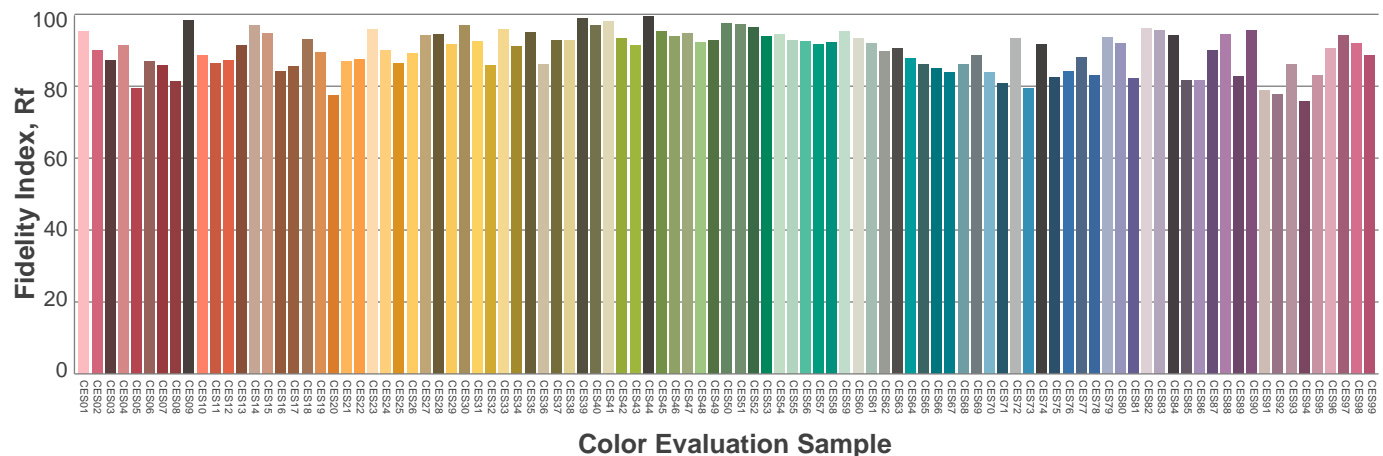
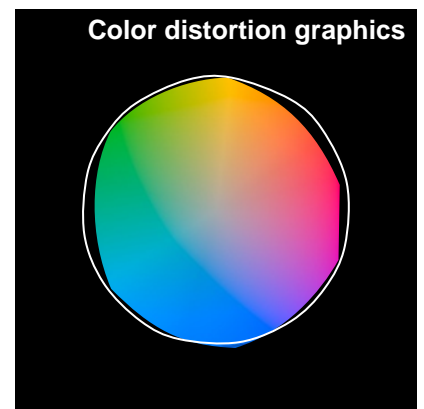
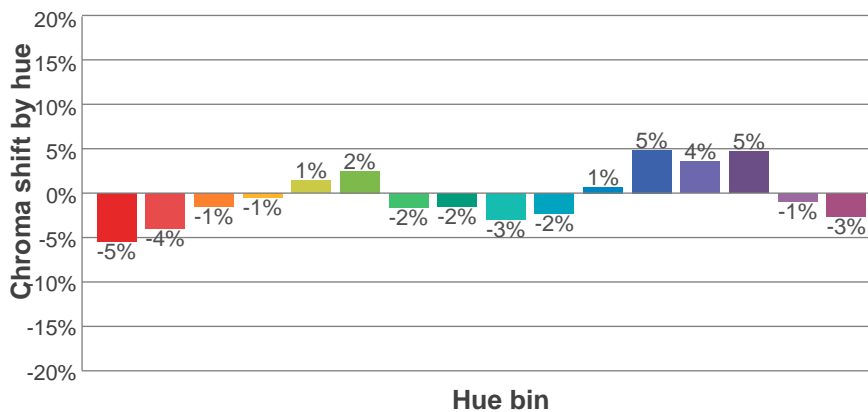
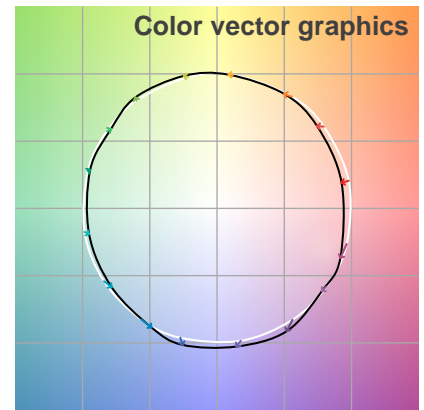
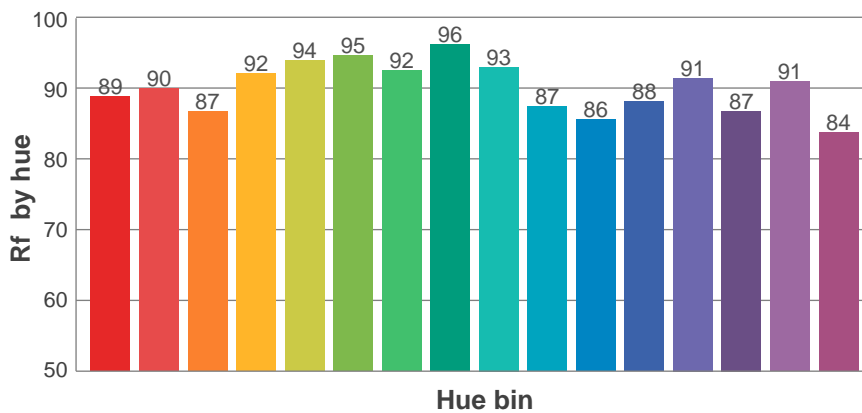
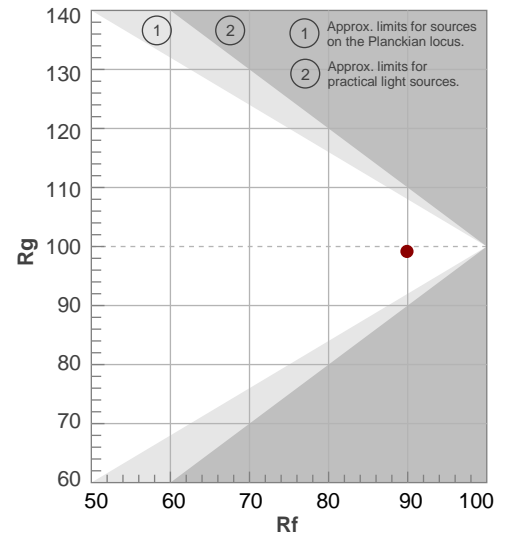
Rf 89.9

Fidelity index Rf

Rg 99.2

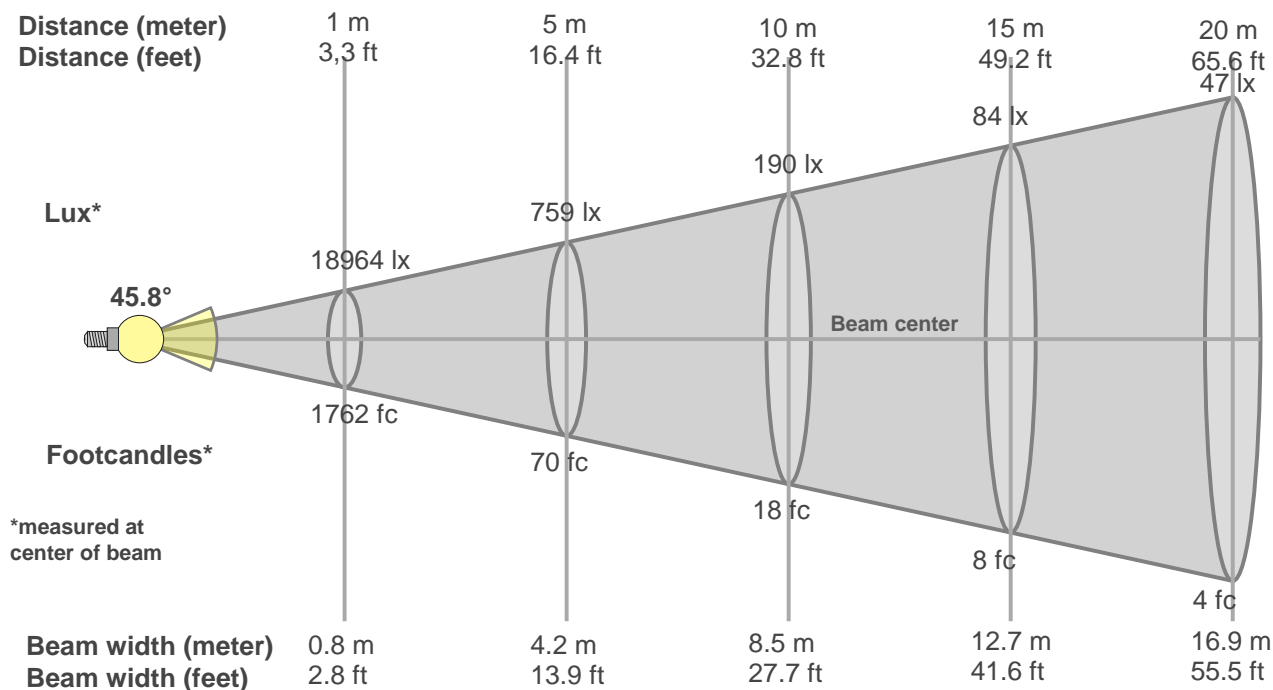
Gamut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	0%
2	90	-4%	3%
3	87	-1%	6%
4	92	-1%	3%
5	94	1%	3%
6	95	2%	-1%
7	92	-2%	-3%
8	96	-2%	-1%
9	93	-3%	2%
10	87	-2%	7%
11	86	1%	10%
12	88	5%	3%
13	91	4%	-4%
14	87	5%	-8%
15	91	-1%	-5%
16	84	-3%	-11%



Beam Details

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Beam width:

Beam luminous intensity formula:

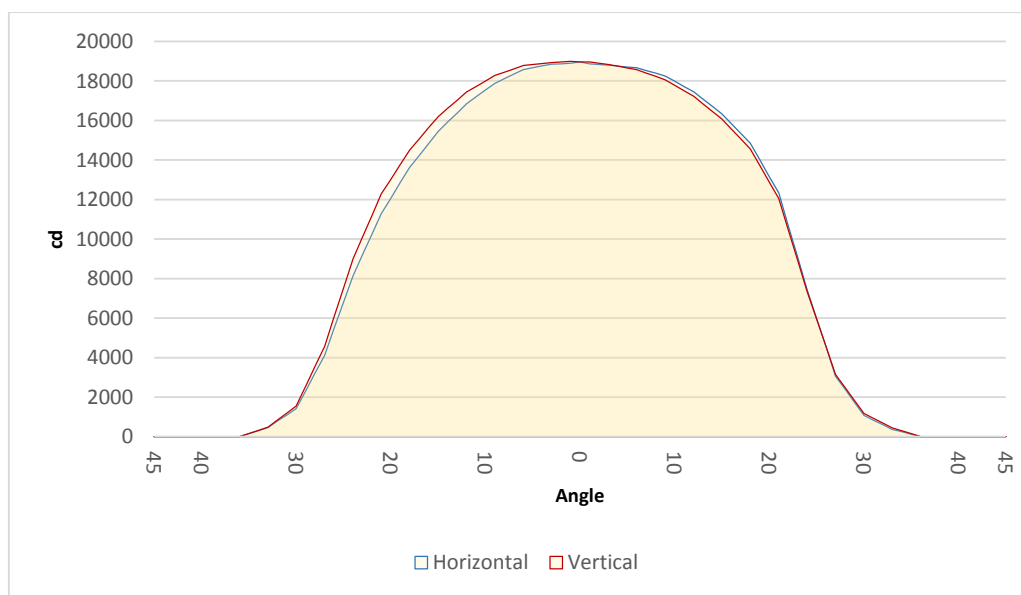
$$w = 0.8 * \text{distance}$$

$$\text{lux} = 18964 / (\text{distance}^2) \text{ (where distance is in meters)}$$

$$\text{fc} = 18964 / (\text{distance}^2) \text{ (where distance is in feet)}$$

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
18964lx	4741lx	2107lx	1185lx	759lx	527lx	387lx	296lx	234lx	190lx	157lx	132lx	112lx	97lx	84lx	74lx	66lx	59lx	53lx	47lx
1761.8fc	440.5fc	195.8fc	110.1fc	70.5fc	48.9fc	36fc	27.5fc	21.8fc	17.6fc	14.6fc	12.2fc	10.4fc	9fc	7.8fc	6.9fc	6.1fc	5.4fc	4.9fc	4.4fc

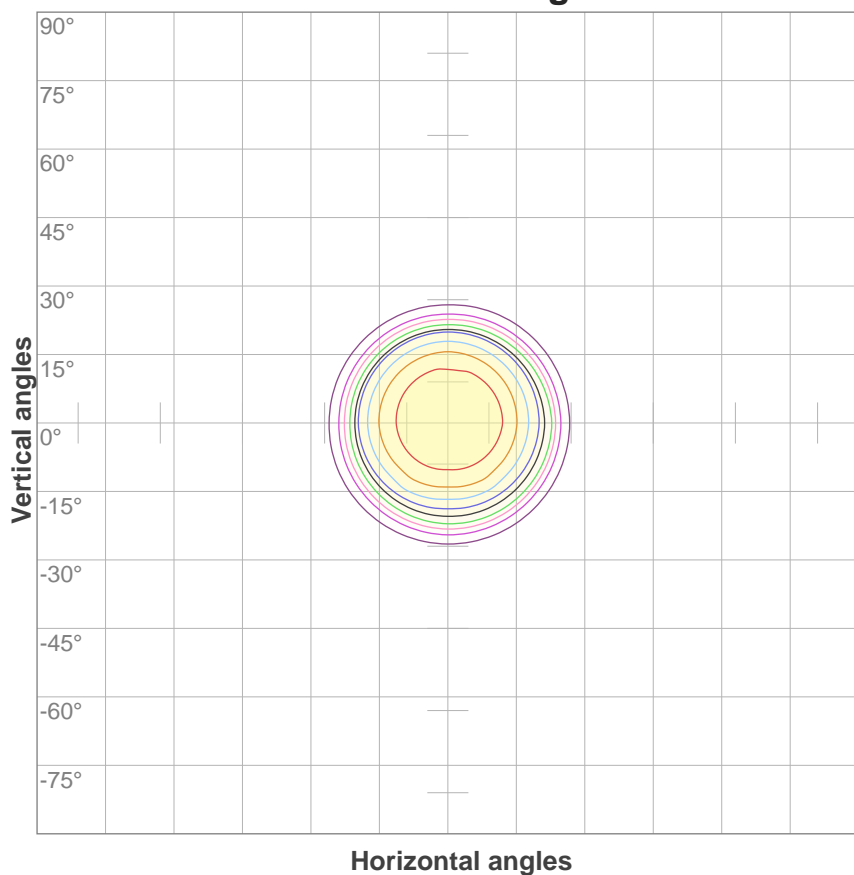


Beam angle 50%	Field angle 10%	Cutoff angle 3%
45.8°	58.4°	65.7°

ISO Diagrams

MAC Encore Wash WRM – Wide

ISO candela diagram



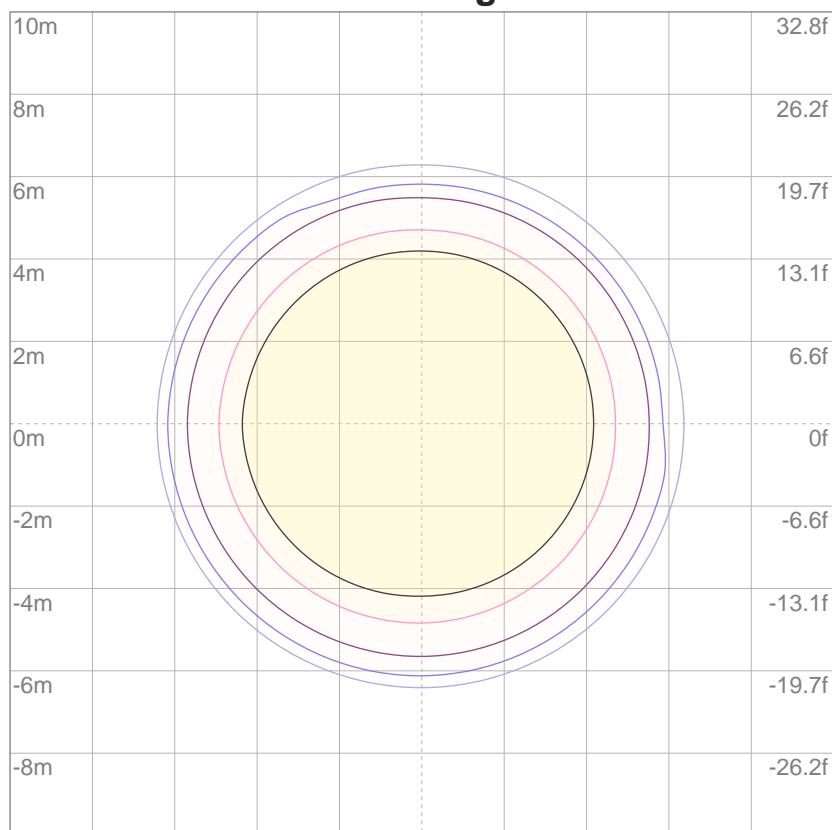
10%	1896 cd
20%	3793 cd
30%	5689 cd
40%	7586 cd
50%	9482 cd
60%	11378 cd
70%	13275 cd
80%	15171 cd
90%	17068 cd

Conditions:

Number of c-planes: 4

Candela at center: 18964 cd

ISO lux diagram



3%	5.69 lx
5%	9.48 lx
10%	19.0 lx
30%	56.9 lx
50%	94.8 lx

Conditions:

Number of c-planes: 4

Lux at center: 190 lx

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

Throw Distance: 10 meters (33 feet)