

Photometric Report

MAC Ultra Performance – 10 Degree

MARTIN PROFESSIONAL R&D OPTICAL LABORATORY

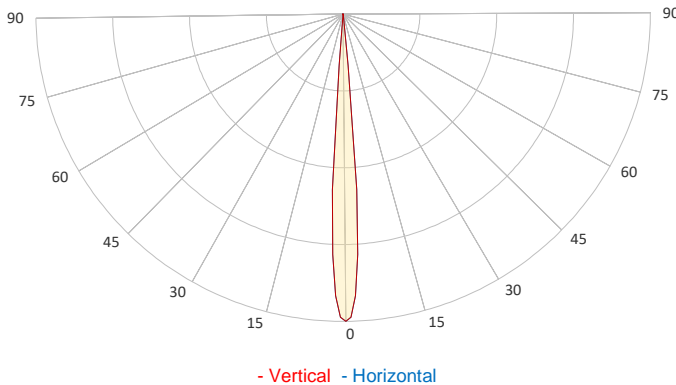
GENERAL SPECIFICATIONS

Total Fixture Output:	46500 lm
Light Engine Output:	90000 lm
Efficacy:	32 lm/W
Lens Option:	N/A
Beam Angle (50%):	6,6-50,2°
Field Angle (10%):	8,0-54,1°
Cut-off Angle (3%):	8,6-54,8°
CRI:	66 (+/-3)
CQS:	66
TM-30 Rf:	66
TM-30 Rg:	95
TLCI:	40
Color Temperature:	5800 K (+/-250 K)



SAMPLE MEASUREMENT

POLAR PLOT

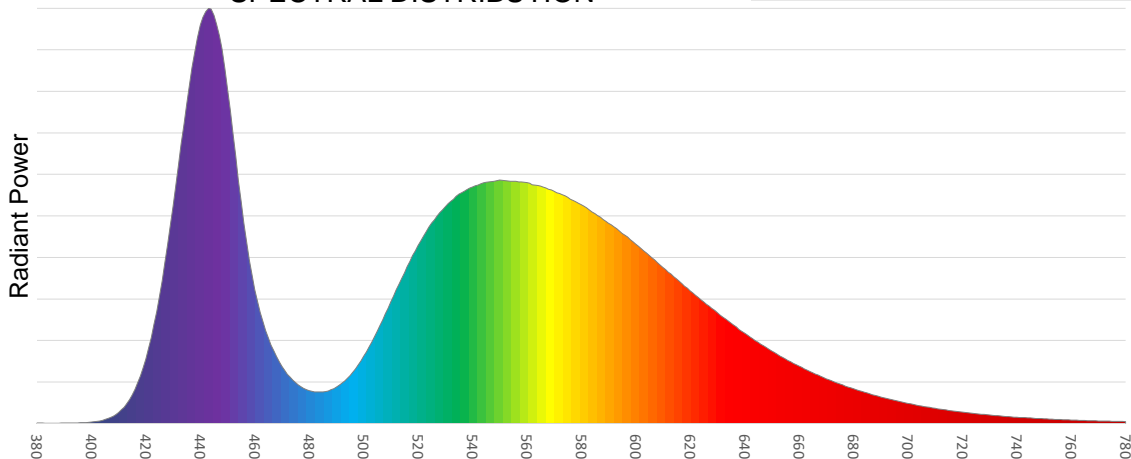


Catalog Number:	90250085HU
Measured Output:	39793 lm
Measured Peak:	2473138 cd
Consumed Power:	1402 W
Efficacy:	28.4 lm/W

Beam Angle (50%):	8.4°
Field Angle (10%):	10.4°
Cut-off Angle (3%):	10.9°

Measurement Condition:	
Ambient Temperature:	25° +/- 5° C
AC Supply:	230V/50Hz
Fan Mode:	Constant Full Fan
Fixture Warm-up Time:	30 minutes

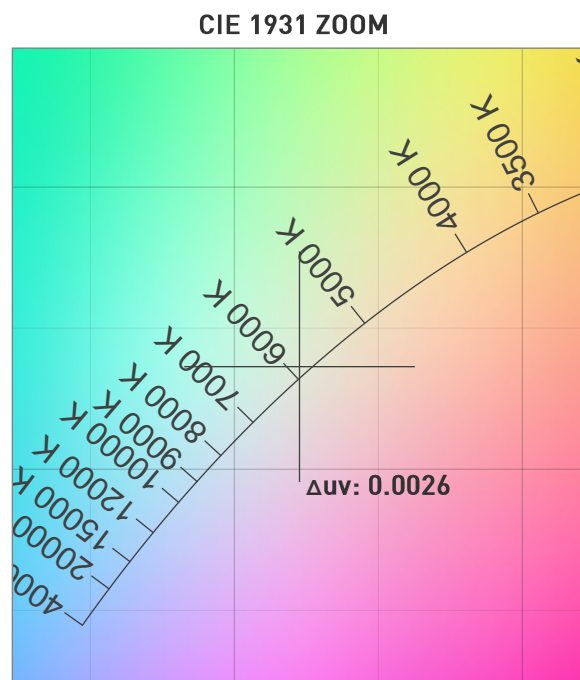
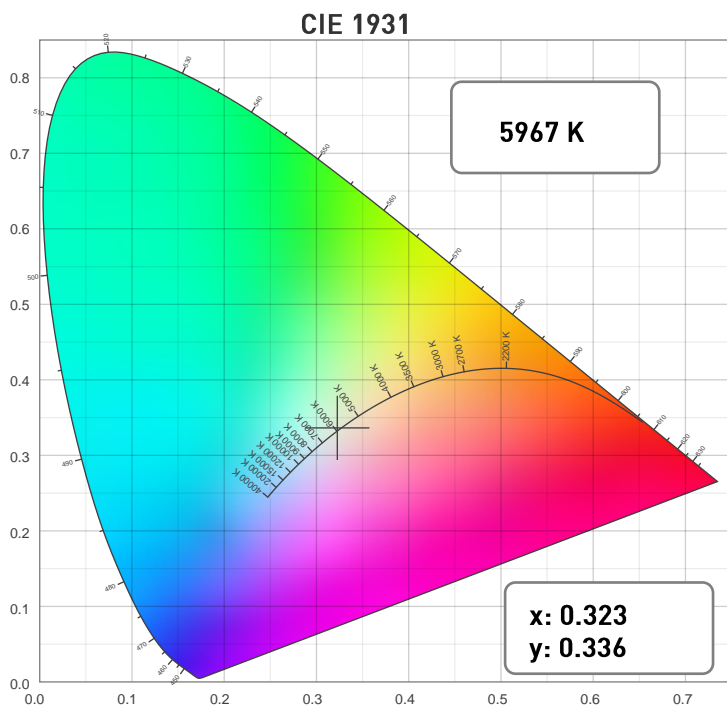
SPECTRAL DISTRIBUTION



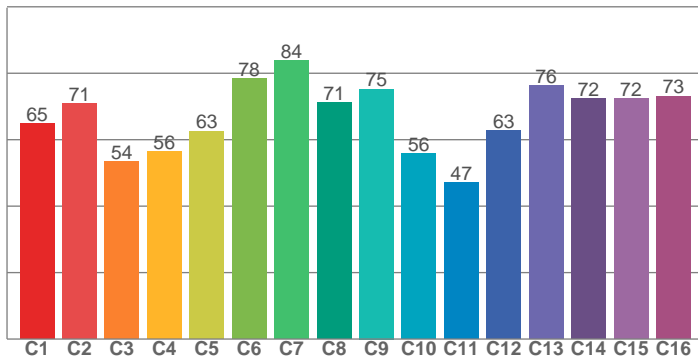
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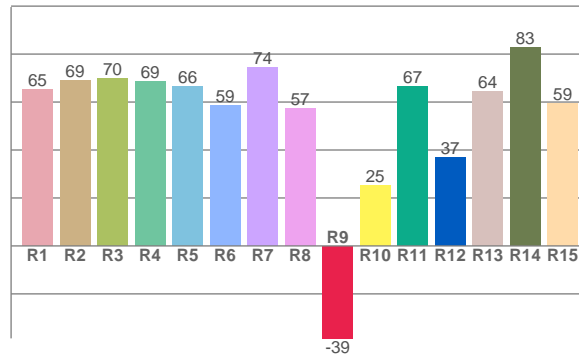
CHROMATICITY



TM30: 66.4



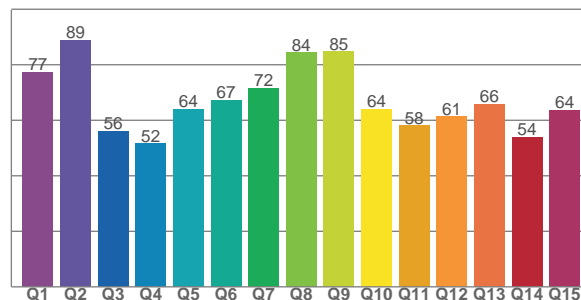
CRI: 66.2 (R1-R8)



COLOR PARAMETERS

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg
5967 K	66.2	-38.6	66.4	94.5

CQS: 65.6



Television Lighting Consistency Index	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964	Color Deviation from Black Body
TLCI	CQS	x	y	u	v	Δuv
40	65.6	0.323	0.336	0.202	0.316	0.0026

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TM30

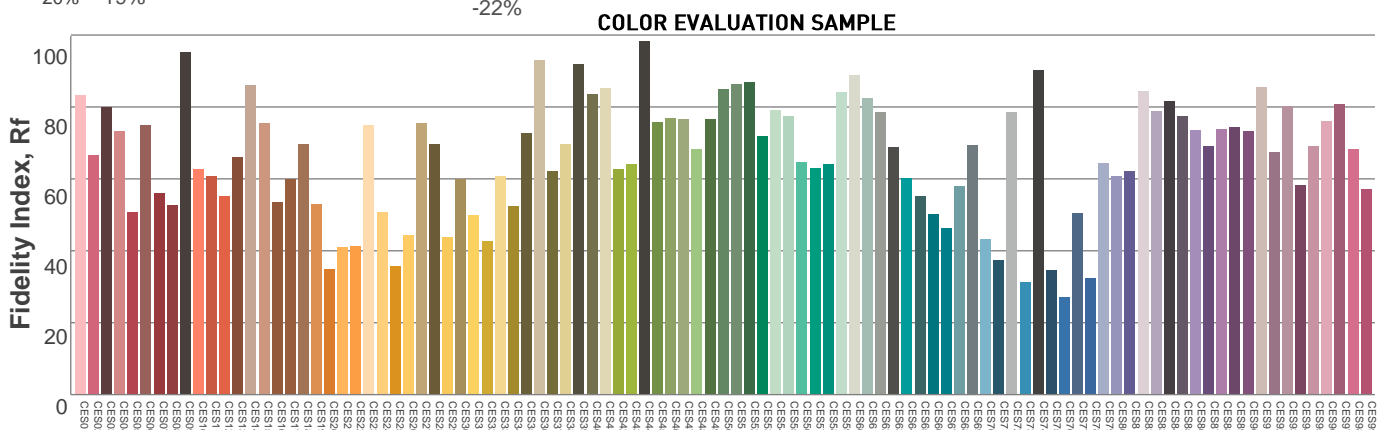
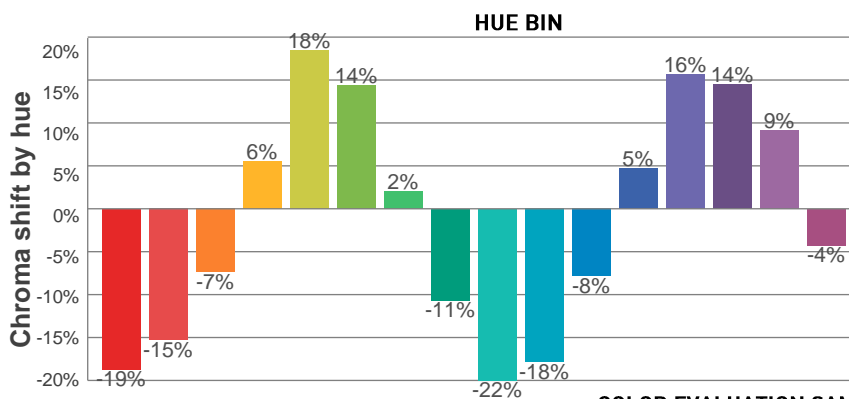
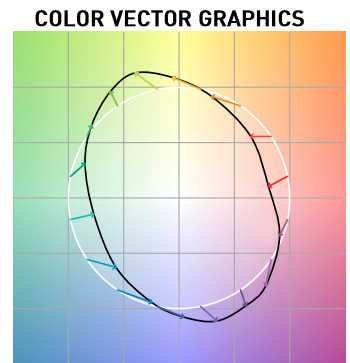
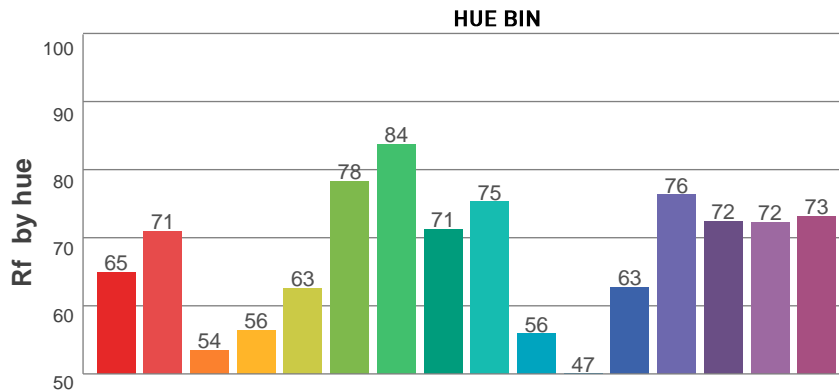
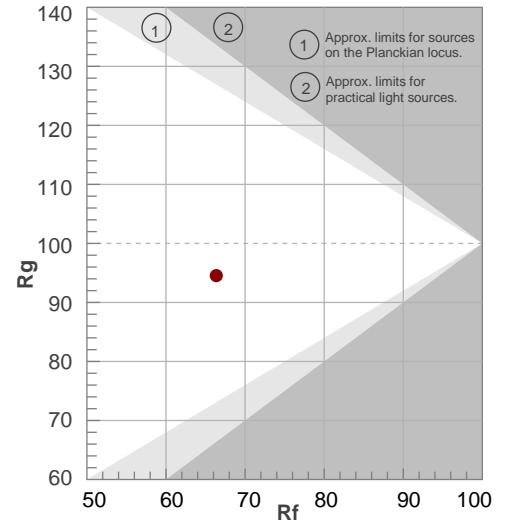
Rf 66.4

Fidelity index Rf

Rg 94.5

Gamut index Rg

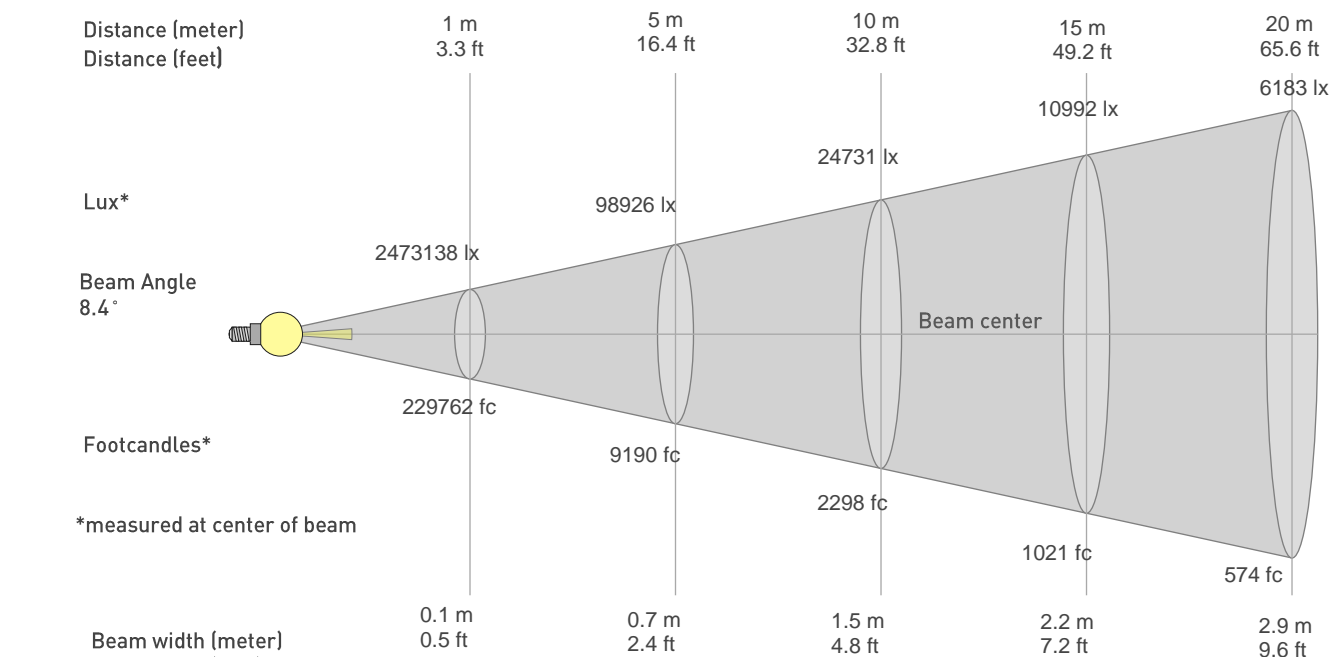
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	65	-19%	-6%
2	71	-15%	10%
3	54	-7%	26%
4	56	6%	27%
5	63	18%	17%
6	78	14%	-2%
7	84	2%	-11%
8	71	-11%	-14%
9	75	-22%	-1%
10	56	-18%	20%
11	47	-8%	32%
12	63	5%	25%
13	76	16%	12%
14	72	14%	-4%
15	72	9%	-22%
16	73	-4%	-16%



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BEAM DETAILS



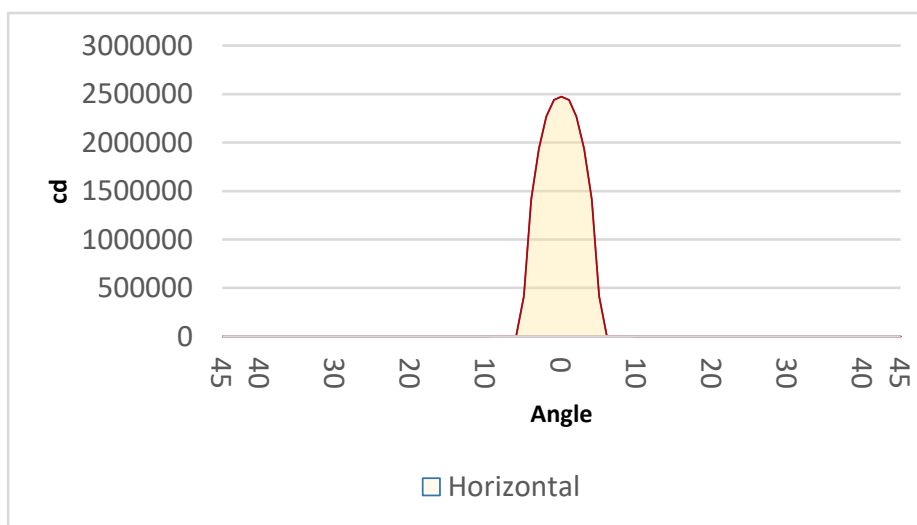
Beam width:
Illuminance:

$$= 0.1 * \text{distance}$$
$$= 2473138 / (\text{distance}^2)$$

distance in [m] for illuminance in [lux] distance in [ft] for illuminance in [fc]

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
2473138lx	618284lx	274793lx	154571lx	98926lx	68698lx	50472lx	38643lx	30533lx	24731lx	20439lx	17175lx	14634lx	12618lx	10992lx	9661lx	8558lx	7633lx	6851lx	6183lx
229762fc	57440.5fc	25529.1fc	14360.1fc	9190.5fc	6382.3fc	4689fc	3590fc	2836.6fc	2297.6fc	1898.9fc	1595.6fc	1359.5fc	1172.3fc	1021.2fc	897.5fc	795fc	709.1fc	636.5fc	574.4fc



BEAM ANGLE 50%	FIELD ANGLE 10%	CUTOFF ANGLE 3%
8.4°	10.4°	10.9°