

Photometric Report

MAC Ultra Performance – Narrow

MARTIN PROFESSIONAL R&D OPTICAL LABORATORY

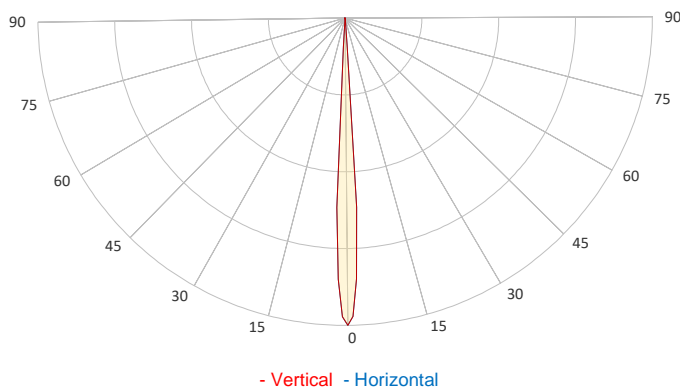
GENERAL SPECIFICATIONS

| | |
|-----------------------|-------------------|
| 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

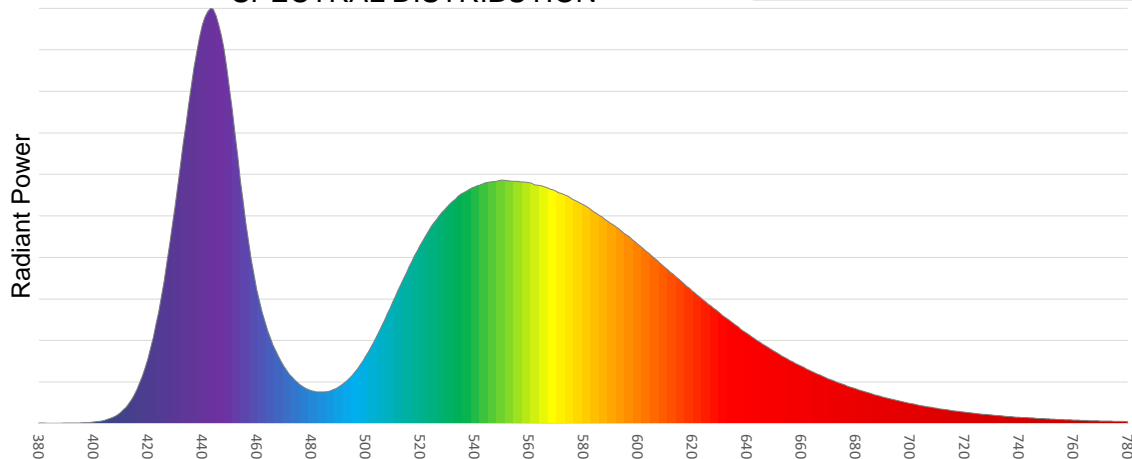


| | |
|------------------|------------|
| Catalog Number: | 90250085HU |
| Measured Output: | 29004 lm |
| Measured Peak: | 2990525 cd |
| Consumed Power: | 1402 W |
| Efficacy: | 20.7 lm/W |

| | |
|---------------------|------|
| Beam Angle (50%): | 6.6° |
| Field Angle (10%): | 8° |
| Cut-off Angle (3%): | 8.6° |

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

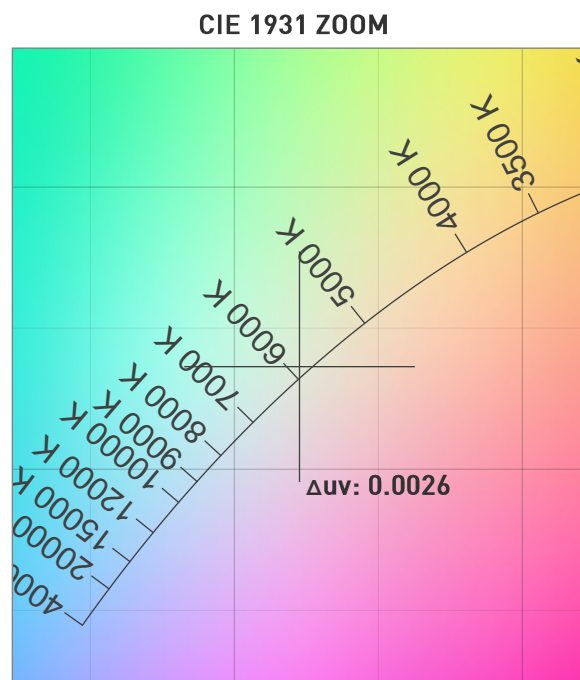
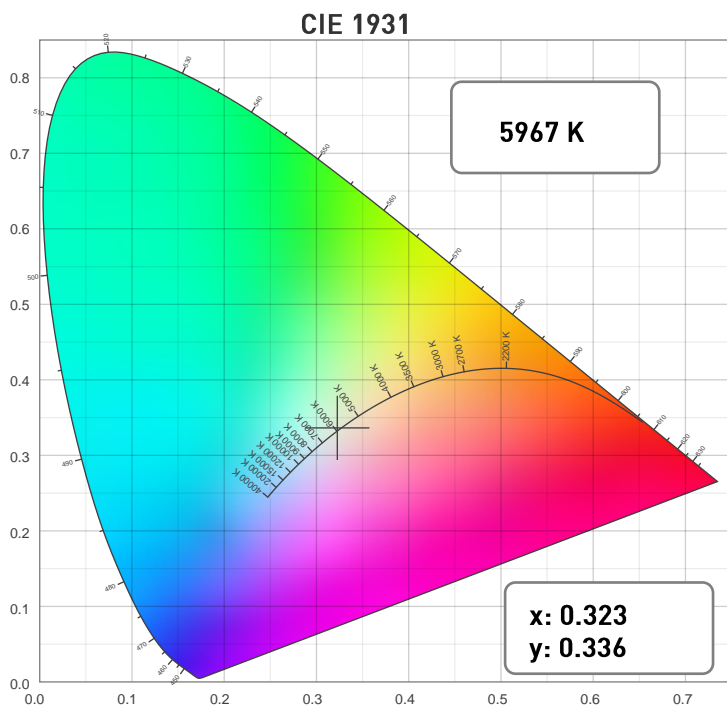
SPECTRAL DISTRIBUTION



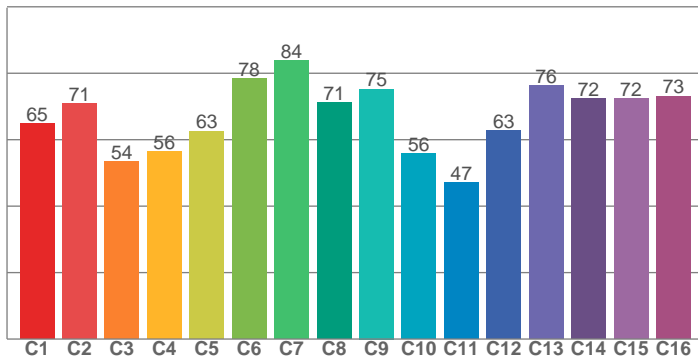
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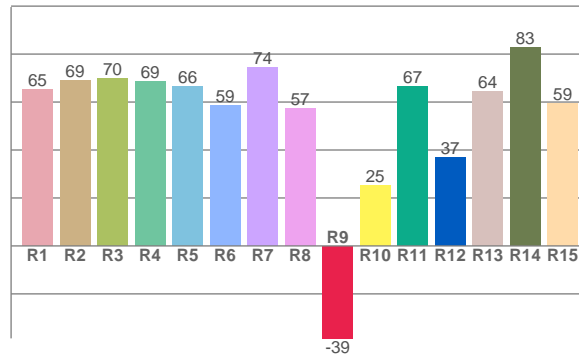
CHROMATICITY



TM30: 66.4



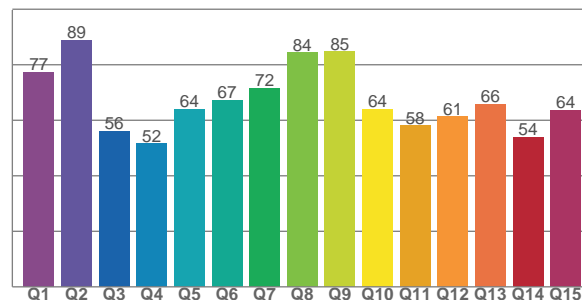
CRI: 66.2 (R1-R8)



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

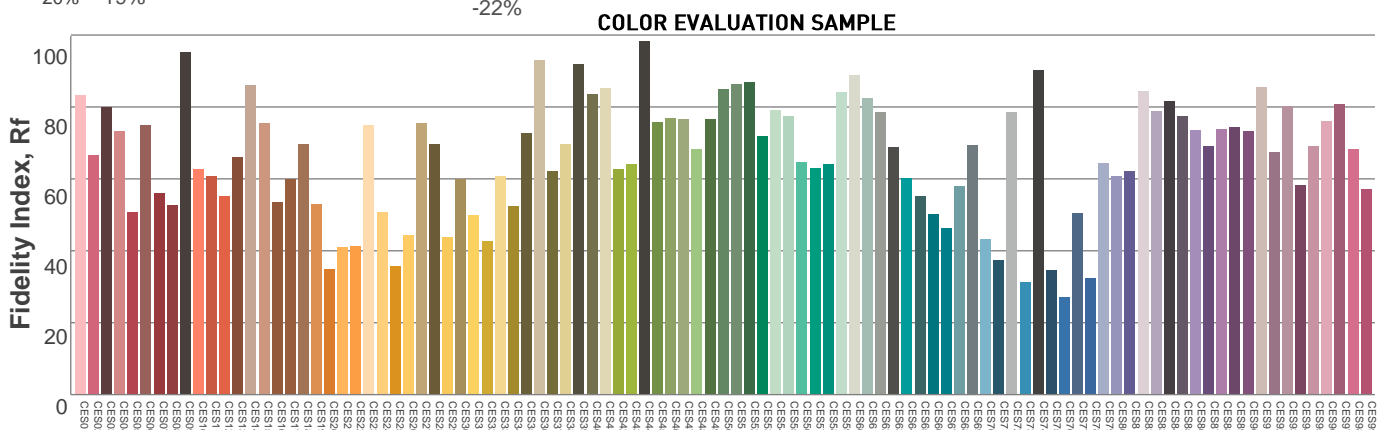
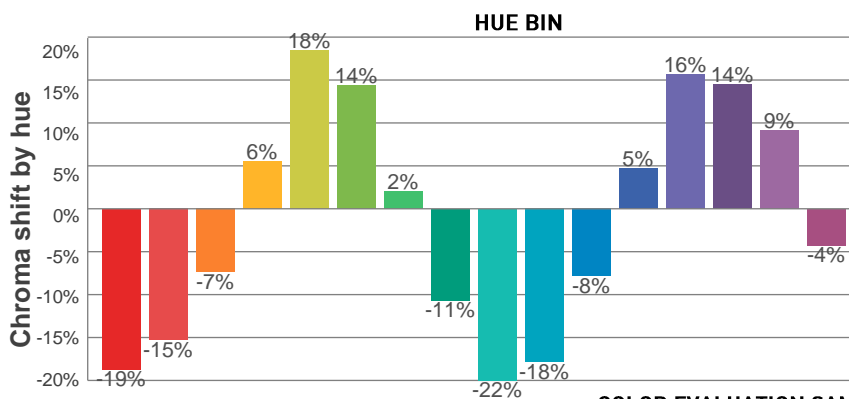
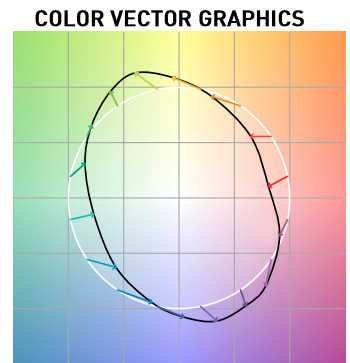
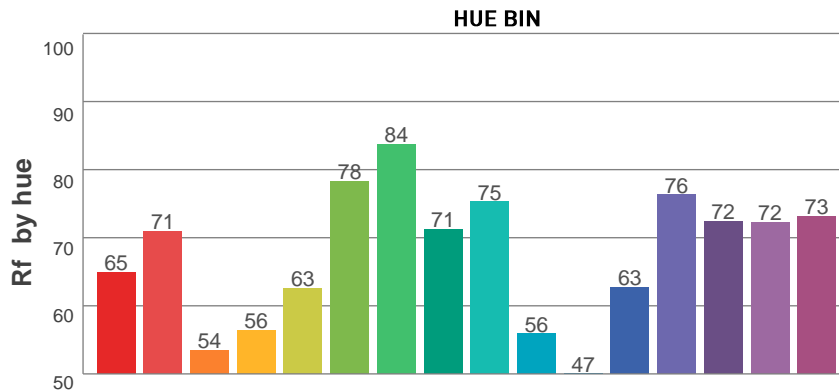
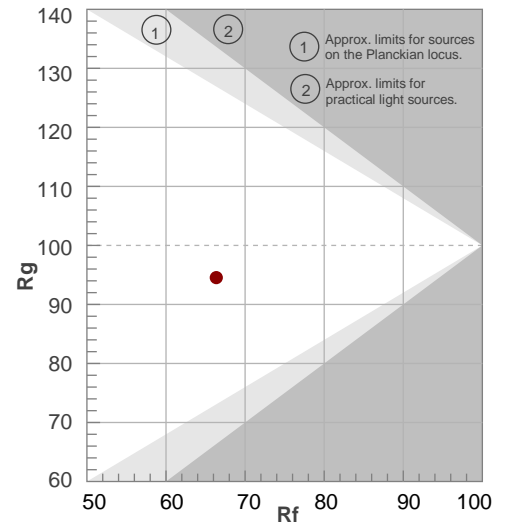
Rf 66.4

Fidelity index Rf

Rg 94.5

Gamut index Rg

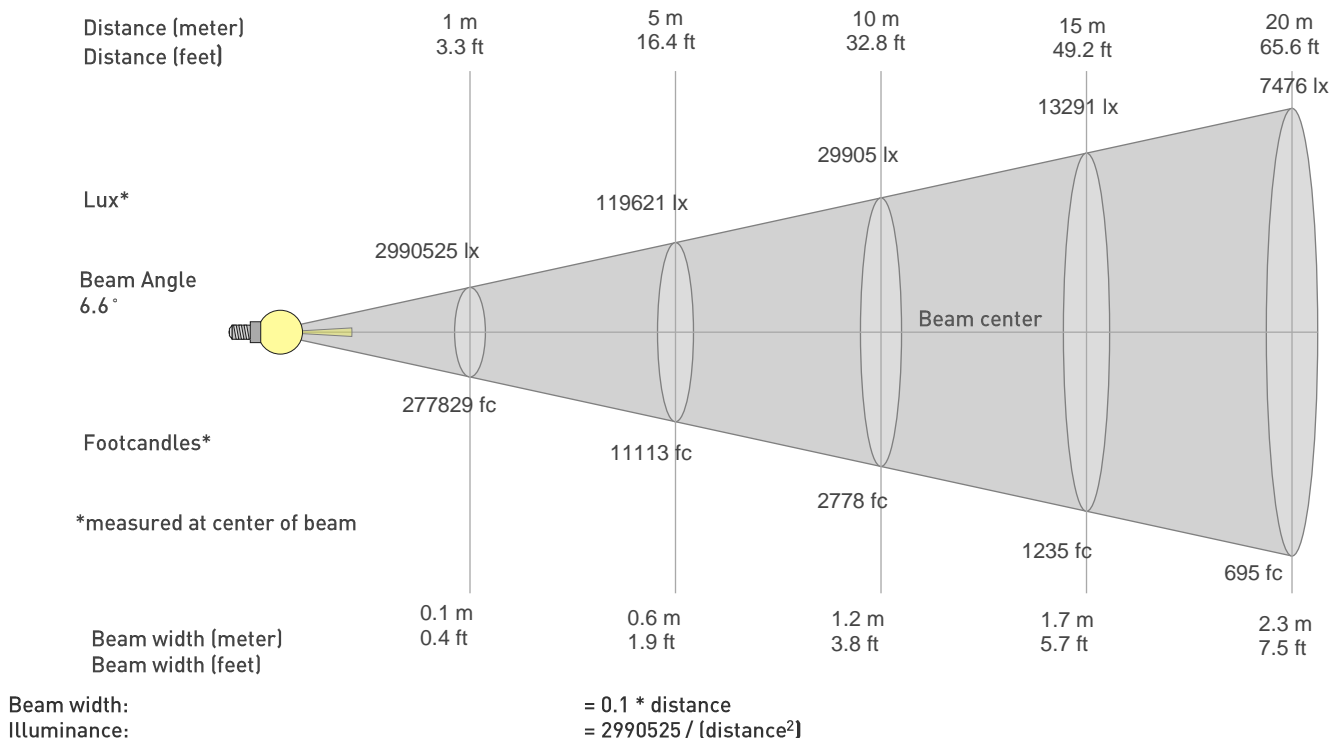
| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|------|
| | | Chroma | Hue |
| 1 | 65 | -19% | -6% |
| 2 | 71 | -15% | 10% |
| 3 | 54 | -7% | 26% |
| 4 | 56 | 6% | 27% |
| 5 | 63 | 18% | 17% |
| 6 | 78 | 14% | -2% |
| 7 | 84 | 2% | -11% |
| 8 | 71 | -11% | -14% |
| 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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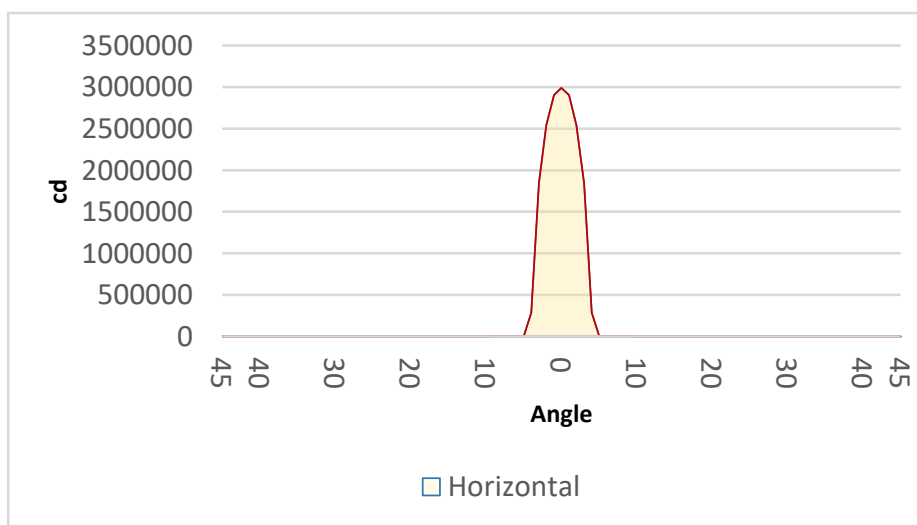
BEAM DETAILS



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 |
| 2990525lx | 747631lx | 332281lx | 186908lx | 119621lx | 83070lx | 61031lx | 46727lx | 36920lx | 29905lx | 24715lx | 20768lx | 17695lx | 15258lx | 13291lx | 11682lx | 10348lx | 9230lx | 8284lx | 7476lx |
| 277828.9fc | 69457.2fc | 30869.9fc | 17364.3fc | 11113.2fc | 7717.5fc | 5670fc | 4341.1fc | 3430fc | 2778.3fc | 2296.1fc | 1929.4fc | 1644fc | 1417.5fc | 1234.8fc | 1085.3fc | 961.3fc | 857.5fc | 769.6fc | 694.6fc |



| BEAM ANGLE 50% | FIELD ANGLE 10% | CUTOFF ANGLE 3% |
|----------------|-----------------|-----------------|
| 6.6° | 8° | 8.6° |