

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P1432498

Luminaire Tested: EHBR1-54-UNV-TASM-L830

Issue Date: 3/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1432498
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-654-4)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-54-UNV-TASM-L830
Description: Elevate Round Highbay at, 54000 lumens, 3000K 80CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

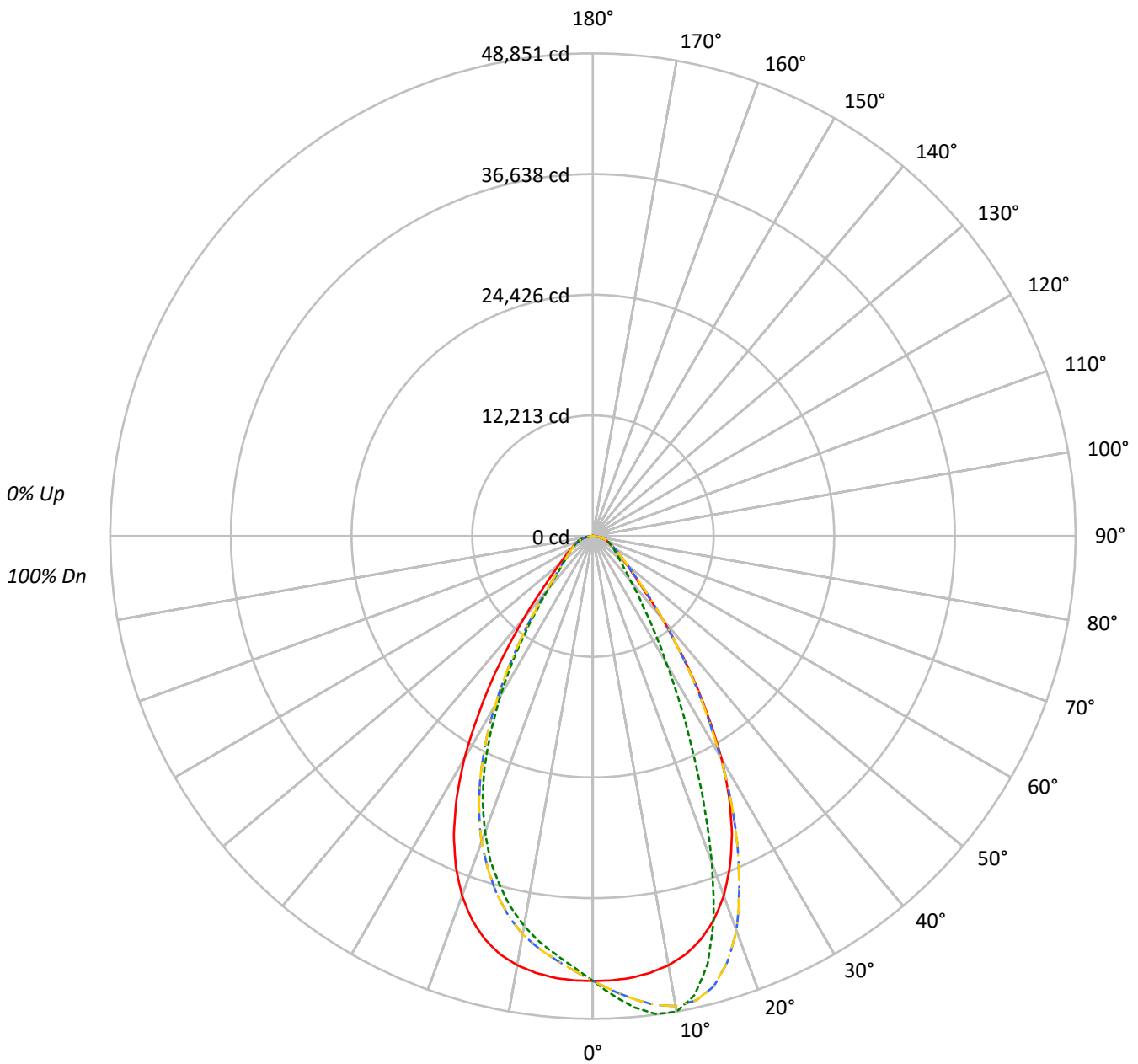
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 50339.6 lumens
Efficiency: N/A
Efficacy: 170.1 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 0.84 / 0.9
Luminous Opening: Circular (Dia: 1.71' x H: 0')
CIE Type: Direct

Input Watts (W): 296
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P1432498
CATALOG NUMBER: EHBR1-54-UNV-TASM-L830

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - · - · 90°-270° - · - · 135°-315°



TEST NUMBER: P1432498
 CATALOG NUMBER: EHBR1-54-UNV-TASM-L830

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | | | |
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | | 0 | |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 102 | 100 | |
| 1 | 112 | 108 | 105 | 103 | 109 | 106 | 104 | 101 | 102 | 100 | 98 | 98 | 97 | 95 | 95 | 93 | 92 | 92 | 90 | |
| 2 | 105 | 99 | 94 | 90 | 103 | 97 | 93 | 89 | 94 | 90 | 87 | 91 | 88 | 85 | 88 | 85 | 83 | 83 | 81 | |
| 3 | 99 | 91 | 85 | 80 | 96 | 89 | 84 | 79 | 87 | 82 | 78 | 84 | 80 | 77 | 82 | 78 | 76 | 76 | 74 | |
| 4 | 93 | 84 | 77 | 72 | 91 | 83 | 77 | 72 | 80 | 75 | 71 | 78 | 74 | 70 | 76 | 72 | 69 | 69 | 67 | |
| 5 | 87 | 78 | 71 | 66 | 86 | 77 | 70 | 65 | 75 | 69 | 65 | 73 | 68 | 64 | 71 | 67 | 64 | 64 | 62 | |
| 6 | 82 | 72 | 65 | 60 | 81 | 71 | 65 | 60 | 70 | 64 | 60 | 68 | 63 | 59 | 67 | 62 | 59 | 59 | 57 | |
| 7 | 78 | 67 | 60 | 56 | 76 | 67 | 60 | 56 | 65 | 59 | 55 | 64 | 59 | 55 | 63 | 58 | 55 | 55 | 53 | |
| 8 | 74 | 63 | 56 | 52 | 72 | 62 | 56 | 52 | 61 | 55 | 51 | 60 | 55 | 51 | 59 | 54 | 51 | 51 | 49 | |
| 9 | 70 | 59 | 53 | 48 | 69 | 59 | 52 | 48 | 58 | 52 | 48 | 57 | 51 | 48 | 56 | 51 | 47 | 47 | 46 | |
| 10 | 66 | 56 | 49 | 45 | 65 | 55 | 49 | 45 | 54 | 49 | 45 | 54 | 48 | 45 | 53 | 48 | 45 | 45 | 43 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|--------|--------|--------|--------|
| 0° | 211420 | 211420 | 211420 | 211420 |
| 5° | 211504 | 225635 | 211504 | 200528 |
| 10° | 210278 | 232950 | 210278 | 191031 |
| 15° | 205445 | 217942 | 205445 | 177650 |
| 20° | 193490 | 175986 | 193490 | 159347 |
| 25° | 172526 | 122839 | 172526 | 134531 |
| 30° | 141205 | 80555 | 141205 | 101461 |
| 35° | 102166 | 52627 | 102166 | 68138 |
| 40° | 66703 | 36630 | 66703 | 43394 |
| 45° | 42801 | 28695 | 42801 | 31268 |
| 50° | 32207 | 24708 | 32207 | 26391 |
| 55° | 26721 | 22871 | 26721 | 23673 |
| 60° | 23612 | 22233 | 23612 | 22367 |
| 65° | 22110 | 22026 | 22110 | 21932 |
| 70° | 21768 | 22418 | 21768 | 22128 |
| 75° | 21599 | 23007 | 21599 | 22318 |
| 80° | 21116 | 24177 | 21116 | 22600 |
| 85° | 17786 | 22469 | 17786 | 21423 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 60175 cd/sqm



TEST NUMBER: P1432498
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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 4280.7 | 8.5 |
| 10°-20° | 11646.1 | 23.1 |
| 20°-30° | 13658.4 | 27.1 |
| 30°-40° | 9498.6 | 18.9 |
| 40°-50° | 4720.3 | 9.4 |
| 50°-60° | 2823.3 | 5.6 |
| 60°-70° | 1987.1 | 3.9 |
| 70°-80° | 1280.1 | 2.5 |
| 80°-90° | 406.6 | 0.8 |
| 90°-100° | 2.3 | 0.0 |
| 100°-110° | 2.8 | 0.0 |
| 110°-120° | 2.9 | 0.0 |
| 120°-130° | 3.6 | 0.0 |
| 130°-140° | 4.9 | 0.0 |
| 140°-150° | 5.9 | 0.0 |
| 150°-160° | 6.6 | 0.0 |
| 160°-170° | 6.5 | 0.0 |
| 170°-180° | 2.8 | 0.0 |
| 0°-30° | 29585.3 | 58.8 |
| 0°-40° | 39083.8 | 77.6 |
| 0°-60° | 46627.5 | 92.6 |
| 0°-90° | 50301.2 | 99.9 |
| 90°-120° | 8.0 | 0.0 |
| 90°-150° | 22.5 | 0.0 |
| 90°-180° | 38.0 | 0.1 |
| 0°-180° | 50339.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|------|-------|-------|-------|-------|-------|-------|
| 0° | 45020 | 45020 | 45020 | 45020 | 45020 | |
| 5° | 44867 | 47864 | 44867 | 42538 | 44867 | 4258 |
| 15° | 42257 | 44828 | 42257 | 36540 | 42257 | 11809 |
| 25° | 33296 | 23707 | 33296 | 25963 | 33296 | 15074 |
| 35° | 17821 | 9180 | 17821 | 11886 | 17821 | 11125 |
| 45° | 6445 | 4321 | 6445 | 4708 | 6445 | 5274 |
| 55° | 3264 | 2794 | 3264 | 2891 | 3264 | 2984 |
| 65° | 1990 | 1982 | 1990 | 1974 | 1990 | 1998 |
| 75° | 1190 | 1268 | 1190 | 1230 | 1190 | 1250 |
| 85° | 330 | 417 | 330 | 398 | 330 | 367 |
| 90° | 1 | 7 | 1 | 1 | 1 | 16 |
| 95° | 2 | 7 | 2 | 1 | 2 | 1 |
| 105° | 2 | 8 | 2 | 2 | 2 | 2 |
| 115° | 2 | 8 | 2 | 2 | 2 | 2 |
| 125° | 3 | 8 | 3 | 2 | 3 | 3 |
| 135° | 7 | 9 | 7 | 3 | 7 | 5 |
| 145° | 10 | 11 | 10 | 9 | 10 | 6 |
| 155° | 14 | 15 | 14 | 16 | 14 | 6 |
| 165° | 23 | 28 | 23 | 24 | 23 | 6 |
| 175° | 30 | 36 | 30 | 29 | 30 | 3 |
| 180° | 31 | 31 | 31 | 31 | 31 | |



TEST NUMBER: P1432498
 CATALOG NUMBER: EHBR1-54-UNV-TASM-L830

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 45020.4 | 45020.4 | 45020.4 | 45020.4 | 45020.4 | 45020.4 | 45020.4 | 45020.4 | 45020.4 | 45020.4 | 45020.4 |
| 2.5° | 44994.3 | 45575.9 | 46046.9 | 46357.6 | 46511.3 | 46357.6 | 46046.9 | 45575.9 | 44994.3 | 44415.9 | 44018.3 |
| 5° | 44866.8 | 46031.8 | 47018.7 | 47664.4 | 47864.5 | 47664.4 | 47018.7 | 46031.8 | 44866.8 | 43765.9 | 43035.7 |
| 7.5° | 44562.0 | 46377.0 | 47843.4 | 48597.3 | 48781.4 | 48597.3 | 47843.4 | 46377.0 | 44562.0 | 43003.7 | 42080.9 |
| 10° | 44096.9 | 46594.8 | 48289.1 | 48829.4 | 48851.4 | 48829.4 | 48289.1 | 46594.8 | 44096.9 | 41997.3 | 40909.2 |
| 12.5° | 43354.8 | 46517.2 | 48139.7 | 47962.5 | 47559.8 | 47962.5 | 48139.7 | 46517.2 | 43354.8 | 40768.2 | 39395.5 |
| 15° | 42257.4 | 46057.0 | 47193.4 | 45750.6 | 44827.9 | 45750.6 | 47193.4 | 46057.0 | 42257.4 | 39108.4 | 37516.3 |
| 17.5° | 40710.8 | 45196.0 | 45217.9 | 42363.7 | 40623.0 | 42363.7 | 45217.9 | 45196.0 | 40710.8 | 37079.0 | 35325.6 |
| 20° | 38717.6 | 43814.8 | 42497.9 | 37277.4 | 35215.0 | 37277.4 | 42497.9 | 43814.8 | 38717.6 | 34679.8 | 32959.3 |
| 22.5° | 36218.8 | 41952.6 | 38710.0 | 32160.7 | 29347.0 | 32160.7 | 38710.0 | 41952.6 | 36218.8 | 31889.7 | 30099.2 |
| 25° | 33296.2 | 39670.8 | 34635.0 | 26585.6 | 23706.9 | 26585.6 | 34635.0 | 39670.8 | 33296.2 | 28565.2 | 26946.0 |
| 27.5° | 29858.5 | 36778.5 | 30295.9 | 21724.7 | 19068.8 | 21724.7 | 30295.9 | 36778.5 | 29858.5 | 25132.7 | 23478.9 |
| 30° | 26040.2 | 33070.7 | 25780.2 | 17301.0 | 14855.5 | 17301.0 | 25780.2 | 33070.7 | 26040.2 | 21276.4 | 19795.7 |
| 32.5° | 21765.2 | 29436.5 | 21443.5 | 13862.6 | 11790.9 | 13862.6 | 21443.5 | 29436.5 | 21765.2 | 17596.5 | 16049.1 |
| 35° | 17821.1 | 24889.6 | 17533.2 | 10892.7 | 9179.8 | 10892.7 | 17533.2 | 24889.6 | 17821.1 | 14122.7 | 12603.0 |
| 37.5° | 13985.9 | 20593.5 | 13976.6 | 8771.2 | 7445.9 | 8771.2 | 13976.6 | 20593.5 | 13985.9 | 10979.7 | 9746.3 |
| 40° | 10880.9 | 16102.3 | 10951.0 | 7001.8 | 5975.3 | 7001.8 | 10951.0 | 16102.3 | 10880.9 | 8354.2 | 7564.9 |
| 42.5° | 8244.4 | 12312.7 | 8607.5 | 5746.5 | 5075.4 | 5746.5 | 8607.5 | 12312.7 | 8244.4 | 6582.3 | 5991.3 |
| 45° | 6444.7 | 9060.8 | 6721.5 | 4848.2 | 4320.7 | 4848.2 | 6721.5 | 9060.8 | 6444.7 | 5300.7 | 4904.0 |
| 47.5° | 5248.4 | 7002.6 | 5447.6 | 4158.5 | 3788.8 | 4158.5 | 5447.6 | 7002.6 | 5248.4 | 4483.6 | 4186.4 |
| 50° | 4408.4 | 5373.3 | 4523.3 | 3630.0 | 3381.9 | 3630.0 | 4523.3 | 5373.3 | 4408.4 | 3839.4 | 3641.1 |
| 52.5° | 3787.1 | 4382.2 | 3852.1 | 3235.0 | 3067.8 | 3235.0 | 3852.1 | 4382.2 | 3787.1 | 3359.0 | 3235.9 |
| 55° | 3263.7 | 3684.1 | 3349.8 | 2909.1 | 2793.5 | 2909.1 | 3349.8 | 3684.1 | 3263.7 | 2989.3 | 2898.2 |
| 57.5° | 2866.0 | 3125.2 | 2909.1 | 2631.4 | 2554.6 | 2631.4 | 2909.1 | 3125.2 | 2866.0 | 2660.1 | 2611.1 |
| 60° | 2514.0 | 2706.5 | 2567.2 | 2389.1 | 2367.2 | 2389.1 | 2567.2 | 2706.5 | 2514.0 | 2393.3 | 2361.3 |
| 62.5° | 2243.0 | 2364.6 | 2270.0 | 2171.3 | 2151.9 | 2171.3 | 2270.0 | 2364.6 | 2243.0 | 2150.2 | 2156.1 |
| 65° | 1989.8 | 2102.9 | 2028.6 | 1975.4 | 1982.2 | 1975.4 | 2028.6 | 2102.9 | 1989.8 | 1946.8 | 1956.0 |
| 67.5° | 1793.9 | 1853.0 | 1821.0 | 1790.5 | 1798.1 | 1790.5 | 1821.0 | 1853.0 | 1793.9 | 1751.7 | 1766.1 |
| 70° | 1585.4 | 1648.7 | 1615.8 | 1620.0 | 1632.7 | 1620.0 | 1615.8 | 1648.7 | 1585.4 | 1572.7 | 1583.7 |
| 72.5° | 1386.1 | 1435.1 | 1424.2 | 1434.3 | 1447.8 | 1434.3 | 1424.2 | 1435.1 | 1386.1 | 1384.5 | 1385.3 |
| 75° | 1190.4 | 1227.5 | 1232.5 | 1246.9 | 1268.0 | 1246.9 | 1232.5 | 1227.5 | 1190.4 | 1177.6 | 1192.9 |
| 77.5° | 976.7 | 1019.0 | 1035.0 | 1054.5 | 1085.6 | 1054.5 | 1035.0 | 1019.0 | 976.7 | 985.1 | 992.8 |
| 80° | 780.8 | 800.3 | 835.7 | 850.2 | 894.0 | 850.2 | 835.7 | 800.3 | 780.8 | 766.5 | 777.5 |
| 82.5° | 571.5 | 589.3 | 619.6 | 646.7 | 672.0 | 646.7 | 619.6 | 589.3 | 571.5 | 564.7 | 565.6 |
| 85° | 330.1 | 357.1 | 377.4 | 409.4 | 417.0 | 409.4 | 377.4 | 357.1 | 330.1 | 337.7 | 330.1 |
| 87.5° | 115.7 | 124.1 | 141.8 | 154.5 | 155.3 | 154.5 | 141.8 | 124.1 | 115.7 | 118.2 | 107.3 |
| 90° | 0.8 | 1.7 | 2.5 | 5.1 | 6.7 | 5.1 | 2.5 | 1.7 | 0.8 | 0.8 | 0.8 |
| 92.5° | 0.8 | 1.7 | 2.5 | 5.1 | 6.7 | 5.1 | 2.5 | 1.7 | 0.8 | 0.8 | 0.8 |
| 95° | 1.7 | 1.7 | 2.5 | 5.1 | 6.7 | 5.1 | 2.5 | 1.7 | 1.7 | 0.8 | 0.8 |
| 97.5° | 1.7 | 1.7 | 2.5 | 5.1 | 6.7 | 5.1 | 2.5 | 1.7 | 1.7 | 0.8 | 0.8 |
| 100° | 1.7 | 1.7 | 2.5 | 5.1 | 6.7 | 5.1 | 2.5 | 1.7 | 1.7 | 1.7 | 0.8 |
| 102.5° | 1.7 | 2.5 | 3.4 | 5.9 | 6.7 | 5.9 | 3.4 | 2.5 | 1.7 | 1.7 | 0.8 |
| 105° | 1.7 | 2.5 | 3.4 | 5.9 | 7.6 | 5.9 | 3.4 | 2.5 | 1.7 | 1.7 | 0.8 |
| 107.5° | 1.7 | 2.5 | 3.4 | 5.9 | 7.6 | 5.9 | 3.4 | 2.5 | 1.7 | 1.7 | 1.7 |
| 110° | 1.7 | 2.5 | 3.4 | 5.9 | 7.6 | 5.9 | 3.4 | 2.5 | 1.7 | 1.7 | 1.7 |



TEST NUMBER: P1432498
 CATALOG NUMBER: EHBR1-54-UNV-TASM-L830

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|------|-------|------|-------|------|--------|------|--------|------|--------|------|
| 112.5° | 1.7 | 2.5 | 3.4 | 5.9 | 7.6 | 5.9 | 3.4 | 2.5 | 1.7 | 1.7 | 1.7 |
| 115° | 2.5 | 2.5 | 3.4 | 5.9 | 7.6 | 5.9 | 3.4 | 2.5 | 2.5 | 1.7 | 1.7 |
| 117.5° | 2.5 | 2.5 | 3.4 | 5.9 | 7.6 | 5.9 | 3.4 | 2.5 | 2.5 | 2.5 | 1.7 |
| 120° | 2.5 | 2.5 | 4.2 | 5.9 | 7.6 | 5.9 | 4.2 | 2.5 | 2.5 | 2.5 | 1.7 |
| 122.5° | 3.4 | 3.4 | 4.2 | 6.7 | 7.6 | 6.7 | 4.2 | 3.4 | 3.4 | 3.4 | 2.5 |
| 125° | 3.4 | 3.4 | 5.1 | 6.7 | 8.4 | 6.7 | 5.1 | 3.4 | 3.4 | 4.2 | 3.4 |
| 127.5° | 4.2 | 4.2 | 5.1 | 6.7 | 8.4 | 6.7 | 5.1 | 4.2 | 4.2 | 4.2 | 3.4 |
| 130° | 5.1 | 4.2 | 5.1 | 7.6 | 8.4 | 7.6 | 5.1 | 4.2 | 5.1 | 5.1 | 4.2 |
| 132.5° | 5.9 | 5.1 | 5.9 | 8.4 | 9.3 | 8.4 | 5.9 | 5.1 | 5.9 | 6.7 | 5.9 |
| 135° | 6.7 | 5.1 | 6.7 | 7.6 | 9.3 | 7.6 | 6.7 | 5.1 | 6.7 | 7.6 | 5.9 |
| 137.5° | 7.6 | 5.9 | 6.7 | 8.4 | 9.3 | 8.4 | 6.7 | 5.9 | 7.6 | 8.4 | 7.6 |
| 140° | 8.4 | 6.7 | 6.7 | 8.4 | 10.1 | 8.4 | 6.7 | 6.7 | 8.4 | 8.4 | 8.4 |
| 142.5° | 9.3 | 7.6 | 7.6 | 9.3 | 10.1 | 9.3 | 7.6 | 7.6 | 9.3 | 9.3 | 9.3 |
| 145° | 10.1 | 9.3 | 8.4 | 9.3 | 11.0 | 9.3 | 8.4 | 9.3 | 10.1 | 9.3 | 10.1 |
| 147.5° | 10.1 | 9.3 | 9.3 | 10.1 | 11.8 | 10.1 | 9.3 | 9.3 | 10.1 | 10.1 | 11.0 |
| 150° | 11.0 | 11.0 | 10.1 | 11.0 | 12.6 | 11.0 | 10.1 | 11.0 | 11.0 | 11.0 | 11.8 |
| 152.5° | 11.8 | 11.8 | 11.8 | 12.6 | 13.5 | 12.6 | 11.8 | 11.8 | 11.8 | 11.8 | 12.6 |
| 155° | 13.5 | 13.5 | 13.5 | 14.3 | 15.2 | 14.3 | 13.5 | 13.5 | 13.5 | 12.6 | 14.3 |
| 157.5° | 15.2 | 16.0 | 16.0 | 16.9 | 17.7 | 16.9 | 16.0 | 16.0 | 15.2 | 15.2 | 16.0 |
| 160° | 18.5 | 18.5 | 19.4 | 20.2 | 21.1 | 20.2 | 19.4 | 18.5 | 18.5 | 17.7 | 18.5 |
| 162.5° | 20.2 | 20.2 | 21.9 | 22.8 | 24.4 | 22.8 | 21.9 | 20.2 | 20.2 | 20.2 | 20.2 |
| 165° | 22.8 | 22.8 | 24.4 | 26.1 | 27.8 | 26.1 | 24.4 | 22.8 | 22.8 | 21.9 | 21.9 |
| 167.5° | 24.4 | 24.4 | 26.1 | 28.7 | 30.3 | 28.7 | 26.1 | 24.4 | 24.4 | 23.6 | 23.6 |
| 170° | 25.3 | 26.1 | 27.8 | 30.3 | 32.0 | 30.3 | 27.8 | 26.1 | 25.3 | 25.3 | 24.4 |
| 172.5° | 27.8 | 27.8 | 30.3 | 32.9 | 34.7 | 32.9 | 30.3 | 27.8 | 27.8 | 27.0 | 27.0 |
| 175° | 29.5 | 30.3 | 32.0 | 34.7 | 36.3 | 34.7 | 32.0 | 30.3 | 29.5 | 28.7 | 28.7 |
| 177.5° | 29.5 | 31.2 | 32.9 | 35.5 | 37.2 | 35.5 | 32.9 | 31.2 | 29.5 | 28.7 | 28.7 |
| 180° | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 |



TEST NUMBER: P1432498
 CATALOG NUMBER: EHBR1-54-UNV-TASM-L830

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|---------|---------|---------|---------|---------|---------|
| 0° | 45020.4 | 45020.4 | 45020.4 | 45020.4 | 45020.4 | 45020.4 |
| 2.5° | 43712.7 | 43684.1 | 43712.7 | 44018.3 | 44415.9 | 44994.3 |
| 5° | 42697.2 | 42538.5 | 42697.2 | 43035.7 | 43765.9 | 44866.8 |
| 7.5° | 41514.5 | 41422.4 | 41514.5 | 42080.9 | 43003.7 | 44562.0 |
| 10° | 40269.2 | 40060.7 | 40269.2 | 40909.2 | 41997.3 | 44096.9 |
| 12.5° | 38734.5 | 38458.5 | 38734.5 | 39395.5 | 40768.2 | 43354.8 |
| 15° | 36782.7 | 36540.4 | 36782.7 | 37516.3 | 39108.4 | 42257.4 |
| 17.5° | 34688.2 | 34468.7 | 34688.2 | 35325.6 | 37079.0 | 40710.8 |
| 20° | 32057.7 | 31885.5 | 32057.7 | 32959.3 | 34679.8 | 38717.6 |
| 22.5° | 29298.0 | 29136.8 | 29298.0 | 30099.2 | 31889.7 | 36218.8 |
| 25° | 26051.2 | 25963.4 | 26051.2 | 26946.0 | 28565.2 | 33296.2 |
| 27.5° | 22542.7 | 22393.2 | 22542.7 | 23478.9 | 25132.7 | 29858.5 |
| 30° | 18958.2 | 18710.9 | 18958.2 | 19795.7 | 21276.4 | 26040.2 |
| 32.5° | 15452.2 | 15274.2 | 15452.2 | 16049.1 | 17596.5 | 21765.2 |
| 35° | 12063.6 | 11885.5 | 12063.6 | 12603.0 | 14122.7 | 17821.1 |
| 37.5° | 9400.2 | 9085.3 | 9400.2 | 9746.3 | 10979.7 | 13985.9 |
| 40° | 7129.3 | 7078.6 | 7129.3 | 7564.9 | 8354.2 | 10880.9 |
| 42.5° | 5803.8 | 5666.2 | 5803.8 | 5991.3 | 6582.3 | 8244.4 |
| 45° | 4762.1 | 4708.1 | 4762.1 | 4904.0 | 5300.7 | 6444.7 |
| 47.5° | 4095.2 | 4118.9 | 4095.2 | 4186.4 | 4483.6 | 5248.4 |
| 50° | 3598.0 | 3612.3 | 3598.0 | 3641.1 | 3839.4 | 4408.4 |
| 52.5° | 3231.6 | 3218.9 | 3231.6 | 3235.9 | 3359.0 | 3787.1 |
| 55° | 2907.5 | 2891.4 | 2907.5 | 2898.2 | 2989.3 | 3263.7 |
| 57.5° | 2623.8 | 2635.6 | 2623.8 | 2611.1 | 2660.1 | 2866.0 |
| 60° | 2370.5 | 2381.5 | 2370.5 | 2361.3 | 2393.3 | 2514.0 |
| 62.5° | 2157.0 | 2163.7 | 2157.0 | 2156.1 | 2150.2 | 2243.0 |
| 65° | 1966.2 | 1973.7 | 1966.2 | 1956.0 | 1946.8 | 1989.8 |
| 67.5° | 1783.8 | 1783.8 | 1783.8 | 1766.1 | 1751.7 | 1793.9 |
| 70° | 1612.5 | 1611.6 | 1612.5 | 1583.7 | 1572.7 | 1585.4 |
| 72.5° | 1406.5 | 1426.7 | 1406.5 | 1385.3 | 1384.5 | 1386.1 |
| 75° | 1206.4 | 1230.0 | 1206.4 | 1192.9 | 1177.6 | 1190.4 |
| 77.5° | 1003.8 | 1040.0 | 1003.8 | 992.8 | 985.1 | 976.7 |
| 80° | 796.1 | 835.7 | 796.1 | 777.5 | 766.5 | 780.8 |
| 82.5° | 588.4 | 617.9 | 588.4 | 565.6 | 564.7 | 571.5 |
| 85° | 350.3 | 397.6 | 350.3 | 330.1 | 337.7 | 330.1 |
| 87.5° | 112.3 | 143.5 | 112.3 | 107.3 | 118.2 | 115.7 |
| 90° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 92.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 95° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 1.7 |
| 97.5° | 0.8 | 1.7 | 0.8 | 0.8 | 0.8 | 1.7 |
| 100° | 0.8 | 1.7 | 0.8 | 0.8 | 1.7 | 1.7 |
| 102.5° | 0.8 | 1.7 | 0.8 | 0.8 | 1.7 | 1.7 |
| 105° | 0.8 | 1.7 | 0.8 | 0.8 | 1.7 | 1.7 |
| 107.5° | 0.8 | 1.7 | 0.8 | 1.7 | 1.7 | 1.7 |
| 110° | 0.8 | 1.7 | 0.8 | 1.7 | 1.7 | 1.7 |



TEST NUMBER: P1432498
 CATALOG NUMBER: EHBR1-54-UNV-TASM-L830

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 112.5° | 0.8 | 1.7 | 0.8 | 1.7 | 1.7 | 1.7 |
| 115° | 0.8 | 1.7 | 0.8 | 1.7 | 1.7 | 2.5 |
| 117.5° | 0.8 | 1.7 | 0.8 | 1.7 | 2.5 | 2.5 |
| 120° | 0.8 | 1.7 | 0.8 | 1.7 | 2.5 | 2.5 |
| 122.5° | 1.7 | 1.7 | 1.7 | 2.5 | 3.4 | 3.4 |
| 125° | 1.7 | 2.5 | 1.7 | 3.4 | 4.2 | 3.4 |
| 127.5° | 1.7 | 2.5 | 1.7 | 3.4 | 4.2 | 4.2 |
| 130° | 2.5 | 2.5 | 2.5 | 4.2 | 5.1 | 5.1 |
| 132.5° | 3.4 | 3.4 | 3.4 | 5.9 | 6.7 | 5.9 |
| 135° | 4.2 | 3.4 | 4.2 | 5.9 | 7.6 | 6.7 |
| 137.5° | 5.1 | 4.2 | 5.1 | 7.6 | 8.4 | 7.6 |
| 140° | 6.7 | 5.9 | 6.7 | 8.4 | 8.4 | 8.4 |
| 142.5° | 7.6 | 7.6 | 7.6 | 9.3 | 9.3 | 9.3 |
| 145° | 9.3 | 9.3 | 9.3 | 10.1 | 9.3 | 10.1 |
| 147.5° | 11.0 | 11.0 | 11.0 | 11.0 | 10.1 | 10.1 |
| 150° | 12.6 | 12.6 | 12.6 | 11.8 | 11.0 | 11.0 |
| 152.5° | 13.5 | 14.3 | 13.5 | 12.6 | 11.8 | 11.8 |
| 155° | 15.2 | 16.0 | 15.2 | 14.3 | 12.6 | 13.5 |
| 157.5° | 16.9 | 18.5 | 16.9 | 16.0 | 15.2 | 15.2 |
| 160° | 19.4 | 20.2 | 19.4 | 18.5 | 17.7 | 18.5 |
| 162.5° | 21.1 | 21.9 | 21.1 | 20.2 | 20.2 | 20.2 |
| 165° | 22.8 | 23.6 | 22.8 | 21.9 | 21.9 | 22.8 |
| 167.5° | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | 24.4 |
| 170° | 24.4 | 25.3 | 24.4 | 24.4 | 25.3 | 25.3 |
| 172.5° | 26.1 | 27.0 | 26.1 | 27.0 | 27.0 | 27.8 |
| 175° | 27.8 | 28.7 | 27.8 | 28.7 | 28.7 | 29.5 |
| 177.5° | 28.7 | 29.5 | 28.7 | 28.7 | 28.7 | 29.5 |
| 180° | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 |



TEST NUMBER: P1432498
 CATALOG NUMBER: EHBR1-54-UNV-TASM-L830

CIE UGR TABLE:

| Reflectances: | | | | | | | | | | | |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Reference plane | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| X=2H | Y=2H | 20.25 | 21.46 | 20.62 | 21.77 | 22.09 | 19.57 | 20.78 | 19.94 | 21.09 | 21.41 |
| | 3H | 21.89 | 22.96 | 22.27 | 23.30 | 23.66 | 21.52 | 22.59 | 21.90 | 22.93 | 23.29 |
| | 4H | 22.60 | 23.60 | 23.00 | 23.95 | 24.34 | 22.38 | 23.38 | 22.79 | 23.73 | 24.12 |
| | 6H | 23.17 | 24.09 | 23.58 | 24.46 | 24.86 | 23.13 | 24.05 | 23.55 | 24.42 | 24.82 |
| | 8H | 23.37 | 24.24 | 23.81 | 24.63 | 25.04 | 23.42 | 24.29 | 23.85 | 24.68 | 25.09 |
| | 12H | 23.49 | 24.32 | 23.93 | 24.71 | 25.14 | 23.61 | 24.45 | 24.05 | 24.83 | 25.26 |
| 4H | 2H | 20.71 | 21.71 | 21.12 | 22.07 | 22.46 | 20.20 | 21.20 | 20.61 | 21.55 | 21.94 |
| | 3H | 22.62 | 23.45 | 23.04 | 23.86 | 24.26 | 22.38 | 23.20 | 22.79 | 23.61 | 24.02 |
| | 4H | 23.48 | 24.22 | 23.92 | 24.64 | 25.09 | 23.37 | 24.11 | 23.81 | 24.54 | 24.98 |
| | 6H | 24.20 | 24.84 | 24.67 | 25.29 | 25.76 | 24.27 | 24.91 | 24.74 | 25.36 | 25.83 |
| | 8H | 24.46 | 25.06 | 24.94 | 25.51 | 25.98 | 24.61 | 25.21 | 25.09 | 25.66 | 26.13 |
| | 12H | 24.63 | 25.16 | 25.12 | 25.64 | 26.12 | 24.87 | 25.39 | 25.35 | 25.87 | 26.35 |
| 8H | 4H | 23.79 | 24.39 | 24.26 | 24.84 | 25.31 | 23.71 | 24.31 | 24.19 | 24.76 | 25.23 |
| | 6H | 24.67 | 25.15 | 25.17 | 25.65 | 26.13 | 24.77 | 25.25 | 25.27 | 25.75 | 26.24 |
| | 8H | 25.02 | 25.45 | 25.54 | 25.97 | 26.46 | 25.22 | 25.65 | 25.74 | 26.17 | 26.66 |
| | 12H | 25.28 | 25.65 | 25.80 | 26.15 | 26.73 | 25.57 | 25.95 | 26.09 | 26.45 | 27.02 |
| 12H | 4H | 23.82 | 24.34 | 24.31 | 24.83 | 25.31 | 23.75 | 24.27 | 24.23 | 24.75 | 25.23 |
| | 6H | 24.74 | 25.17 | 25.26 | 25.69 | 26.18 | 24.84 | 25.27 | 25.37 | 25.79 | 26.29 |
| | 8H | 25.15 | 25.53 | 25.67 | 26.03 | 26.60 | 25.36 | 25.73 | 25.88 | 26.23 | 26.81 |

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-2

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L830-N

Data in this report applies to families of products including EHBR-60-L830-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-2
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/05/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Metalux
 Catalog Number: **EHBR-60-L830-N**
 Description: Elevate Round Highbay at, 60000 lumens, 3000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K): 2983
 CIE u': 0.2516
 CIE v': 0.5201
 Duv: -0.0012
 CIE x: 0.4364
 CIE y: 0.4010
 CIE z: 0.1626
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 583
 Purity: 51.34918
 Rf: 81.2
 Rg: 101.5

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 83.4 | | |
| R1: | 84.0 | R9: | 29.4 |
| R2: | 87.5 | R10: | 68.6 |
| R3: | 88.9 | R11: | 82.2 |
| R4: | 83.8 | R12: | 61.6 |
| R5: | 81.9 | R13: | 83.9 |
| R6: | 83.1 | R14: | 92.5 |
| R7: | 87.1 | R15: | 79.8 |
| R8: | 70.9 | | |



Test Conditions

Stabilization Time: 38M
 Operation Time: 1H 38M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-2

| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | 76INCH SPHERE IN0058 | 6/16/2025 | 12/16/2025 |
| Power Meter | XITRON INXT2011004 | 1/21/2025 | 1/21/2026 |
| AC Power Source | CHROMA 61603 IN0063 | 10/22/2024 | 10/22/2025 |
| DC Power Source | AGILENT E3634A IN0208 | 10/22/2024 | 10/22/2025 |
| Sphere Thermometer | ONSET IN0085 | 10/22/2024 | 10/22/2025 |
| Room Thermometer | ONSET IN0046 | 10/22/2024 | 10/22/2025 |

REPORT NUMBER: SP1-2506-472-2

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-2

Photopic Flux vs. Wavelength



Photopic Lumens: NR

| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 43 | NR | 620 | 294 | NR | 750 | 6 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 59 | NR | 625 | 294 | NR | 755 | 5 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 81 | NR | 630 | 1000 | NR | 760 | 4 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 109 | NR | 635 | 637 | NR | 765 | 4 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 135 | NR | 640 | 175 | NR | 770 | 3 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 160 | NR | 645 | 171 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 180 | NR | 650 | 146 | NR | 780 | 2 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 195 | NR | 655 | 119 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 207 | NR | 660 | 99 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 3 | NR | 535 | 218 | NR | 665 | 82 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 5 | NR | 540 | 227 | NR | 670 | 76 | NR | 800 | 1 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 237 | NR | 675 | 61 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 247 | NR | 680 | 52 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 35 | NR | 555 | 259 | NR | 685 | 44 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 58 | NR | 560 | 271 | NR | 690 | 38 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 90 | NR | 565 | 283 | NR | 695 | 33 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 135 | NR | 570 | 293 | NR | 700 | 27 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 204 | NR | 575 | 303 | NR | 705 | 24 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 233 | NR | 580 | 310 | NR | 710 | 20 | NR | 840 | 0 | NR | 970 | 0 | NR |
| 455 | 153 | NR | 585 | 313 | NR | 715 | 17 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 98 | NR | 590 | 314 | NR | 720 | 15 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 76 | NR | 595 | 310 | NR | 725 | 13 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 53 | NR | 600 | 307 | NR | 730 | 11 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 39 | NR | 605 | 303 | NR | 735 | 9 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 35 | NR | 610 | 331 | NR | 740 | 8 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 36 | NR | 615 | 353 | NR | 745 | 7 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-472-2

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

| λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) |
|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|
| 360 | 0 | NR | 490 | 43 | NR | 620 | 294 | NR | 750 | 6 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 59 | NR | 625 | 294 | NR | 755 | 5 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 81 | NR | 630 | 1000 | NR | 760 | 4 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 109 | NR | 635 | 637 | NR | 765 | 4 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 135 | NR | 640 | 175 | NR | 770 | 3 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 160 | NR | 645 | 171 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 180 | NR | 650 | 146 | NR | 780 | 2 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 195 | NR | 655 | 119 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 207 | NR | 660 | 99 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 3 | NR | 535 | 218 | NR | 665 | 82 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 5 | NR | 540 | 227 | NR | 670 | 76 | NR | 800 | 1 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 237 | NR | 675 | 61 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 247 | NR | 680 | 52 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 35 | NR | 555 | 259 | NR | 685 | 44 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 58 | NR | 560 | 271 | NR | 690 | 38 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 90 | NR | 565 | 283 | NR | 695 | 33 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 135 | NR | 570 | 293 | NR | 700 | 27 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 204 | NR | 575 | 303 | NR | 705 | 24 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 233 | NR | 580 | 310 | NR | 710 | 20 | NR | 840 | 0 | NR | 970 | 0 | NR |
| 455 | 153 | NR | 585 | 313 | NR | 715 | 17 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 98 | NR | 590 | 314 | NR | 720 | 15 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 76 | NR | 595 | 310 | NR | 725 | 13 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 53 | NR | 600 | 307 | NR | 730 | 11 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 39 | NR | 605 | 303 | NR | 735 | 9 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 35 | NR | 610 | 331 | NR | 740 | 8 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 36 | NR | 615 | 353 | NR | 745 | 7 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-472-2

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.34

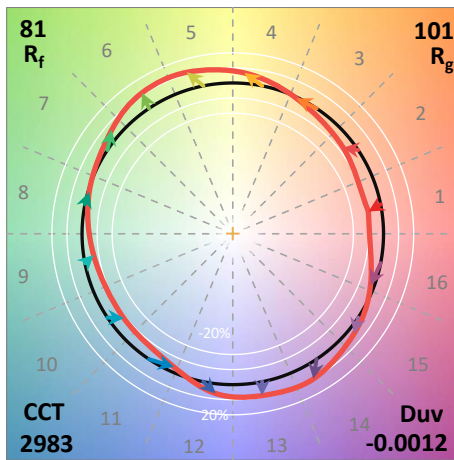
| λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) |
|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|
| 360 | 0 | NR | 490 | 43 | NR | 620 | 294 | NR | 750 | 6 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 59 | NR | 625 | 294 | NR | 755 | 5 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 81 | NR | 630 | 1000 | NR | 760 | 4 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 109 | NR | 635 | 637 | NR | 765 | 4 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 135 | NR | 640 | 175 | NR | 770 | 3 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 160 | NR | 645 | 171 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 180 | NR | 650 | 146 | NR | 780 | 2 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 195 | NR | 655 | 119 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 207 | NR | 660 | 99 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 3 | NR | 535 | 218 | NR | 665 | 82 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 5 | NR | 540 | 227 | NR | 670 | 76 | NR | 800 | 1 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 237 | NR | 675 | 61 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 247 | NR | 680 | 52 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 35 | NR | 555 | 259 | NR | 685 | 44 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 58 | NR | 560 | 271 | NR | 690 | 38 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 90 | NR | 565 | 283 | NR | 695 | 33 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 135 | NR | 570 | 293 | NR | 700 | 27 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 204 | NR | 575 | 303 | NR | 705 | 24 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 233 | NR | 580 | 310 | NR | 710 | 20 | NR | 840 | 0 | NR | 970 | 0 | NR |
| 455 | 153 | NR | 585 | 313 | NR | 715 | 17 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 98 | NR | 590 | 314 | NR | 720 | 15 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 76 | NR | 595 | 310 | NR | 725 | 13 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 53 | NR | 600 | 307 | NR | 730 | 11 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 39 | NR | 605 | 303 | NR | 735 | 9 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 35 | NR | 610 | 331 | NR | 740 | 8 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 36 | NR | 615 | 353 | NR | 745 | 7 | NR | 875 | 0 | NR | | | |

Summary

$R_f = 81.2$
 $R_g = 101.5$
 CIE $R_a = 83.4$
 $R_9 = 29.4$



Color Vector Graphics

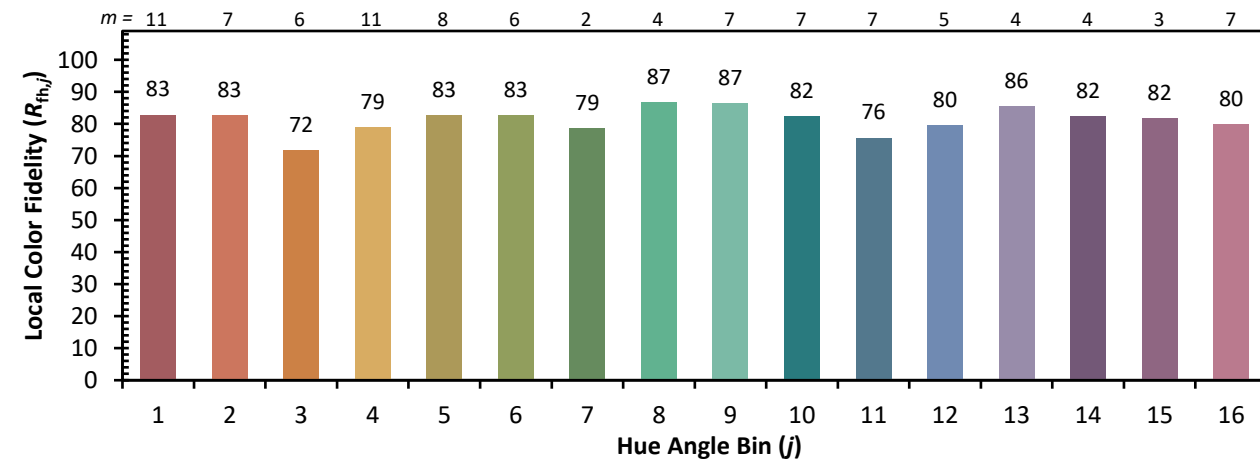
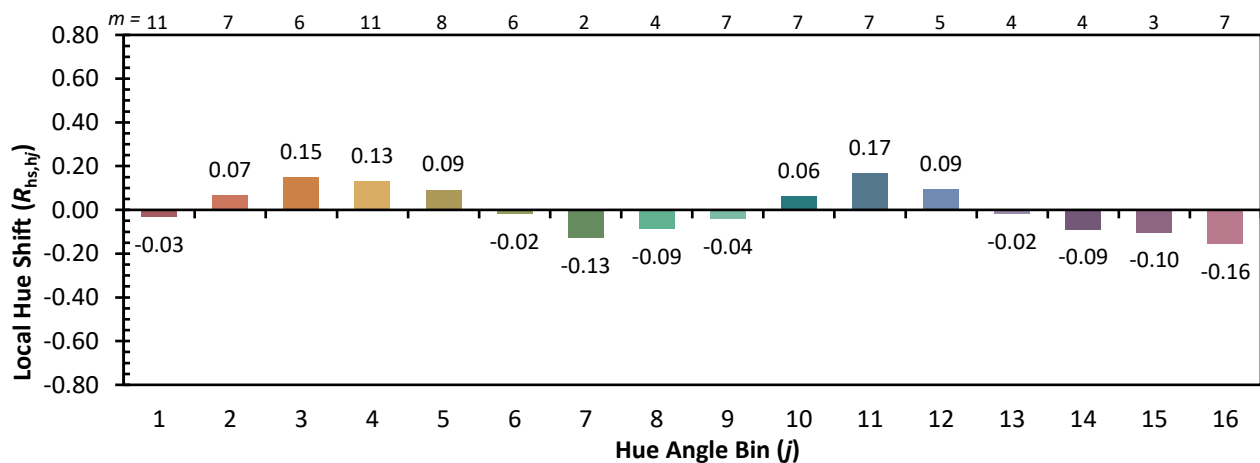


Individual Sample Fidelity Index ($R_{f,i}$)

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 71 | CES51 = 89 | CES76 = 65 |
| CES02 = 63 | CES27 = 89 | CES52 = 89 | CES77 = 82 |
| CES03 = 31 | CES28 = 86 | CES53 = 80 | CES78 = 67 |
| CES04 = 70 | CES29 = 68 | CES54 = 92 | CES79 = 89 |
| CES05 = 50 | CES30 = 77 | CES55 = 90 | CES80 = 85 |
| CES06 = 51 | CES31 = 70 | CES56 = 81 | CES81 = 75 |
| CES07 = 43 | CES32 = 64 | CES57 = 79 | CES82 = 93 |
| CES08 = 41 | CES33 = 74 | CES58 = 81 | CES83 = 89 |
| CES09 = 29 | CES34 = 76 | CES59 = 92 | CES84 = 91 |
| CES10 = 76 | CES35 = 87 | CES60 = 96 | CES85 = 81 |
| CES11 = 59 | CES36 = 99 | CES61 = 91 | CES86 = 74 |
| CES12 = 65 | CES37 = 81 | CES62 = 93 | CES87 = 83 |
| CES13 = 44 | CES38 = 83 | CES63 = 79 | CES88 = 86 |
| CES14 = 74 | CES39 = 94 | CES64 = 81 | CES89 = 74 |
| CES15 = 72 | CES40 = 89 | CES65 = 78 | CES90 = 85 |
| CES16 = 48 | CES41 = 88 | CES66 = 76 | CES91 = 87 |
| CES17 = 50 | CES42 = 80 | CES67 = 74 | CES92 = 73 |
| CES18 = 57 | CES43 = 75 | CES68 = 79 | CES93 = 84 |
| CES19 = 72 | CES44 = 99 | CES69 = 83 | CES94 = 64 |
| CES20 = 67 | CES45 = 83 | CES70 = 72 | CES95 = 80 |
| CES21 = 87 | CES46 = 82 | CES71 = 70 | CES96 = 86 |
| CES22 = 79 | CES47 = 79 | CES72 = 90 | CES97 = 85 |
| CES23 = 92 | CES48 = 78 | CES73 = 65 | CES98 = 83 |
| CES24 = 91 | CES49 = 79 | CES74 = 94 | CES99 = 82 |
| CES25 = 72 | CES50 = 88 | CES75 = 70 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)