

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: P1432494

Luminaire Tested: EHBR1-54-UNV-TASM-L830-UPL24

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1432494
REPORT IS A COMBINATION OF REPORTS P1431871 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-54-UNV-TASM-L830-UPL24
Description: Elevate Round Highbay at, 54000 lumens, 3000K 80CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

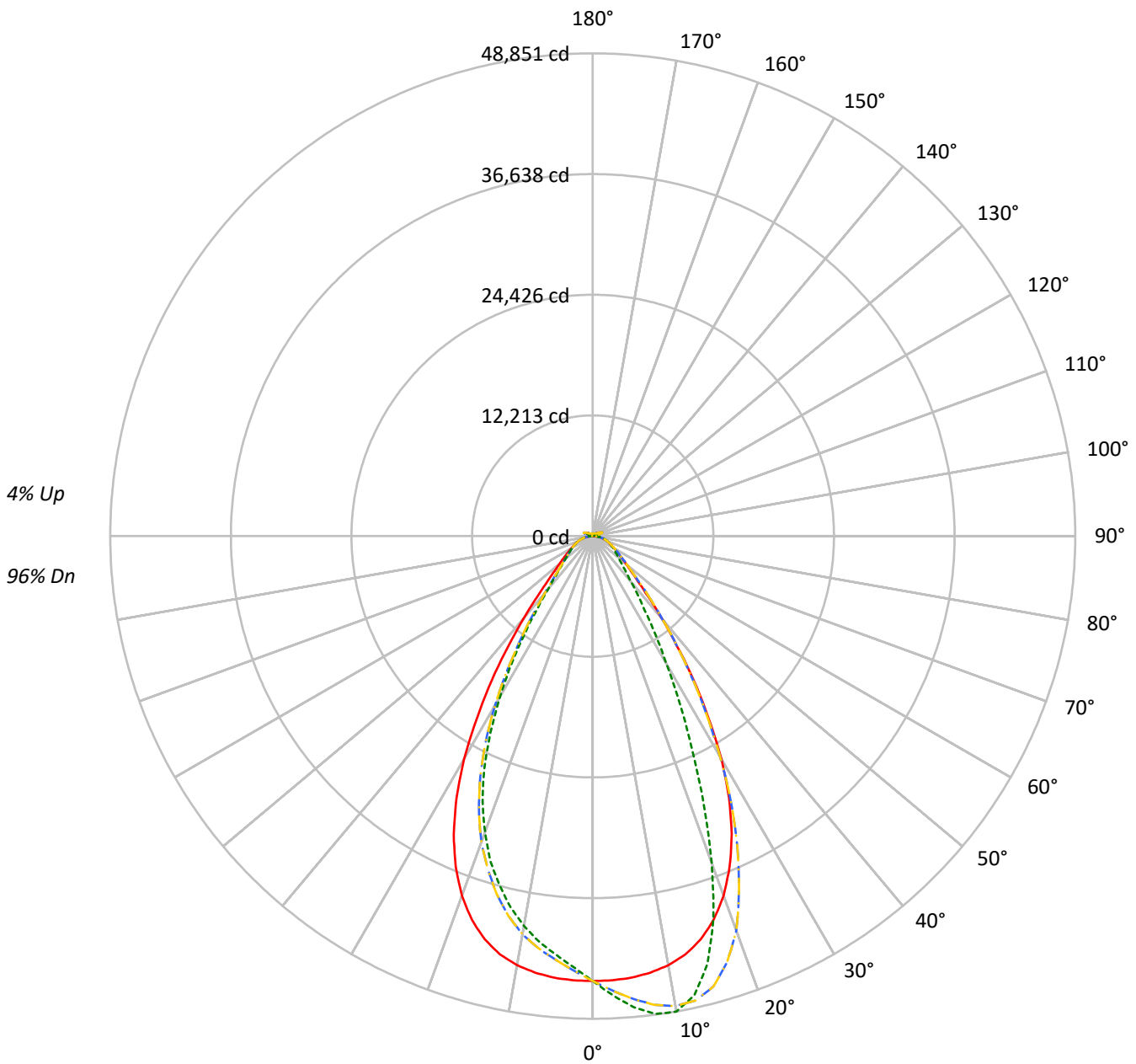
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 52618.6 lumens
Efficiency: N/A
Efficacy: 168.4 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 0.84 / 0.9
Luminous Opening: Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type: Direct

Input Watts (W): 312.5
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: P1432494
CATALOG NUMBER: EHBR1-54-UNV-TASM-L830-UPL24

Luminous Intensity Polar Plot



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



TEST NUMBER: P1432494

CATALOG NUMBER: EHBR1-54-UNV-TASM-L830-UPL24

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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 103 | 103 | 103 | 98 | 98 | 98 | 98 | 98 | 98 | 96 |
| 1 | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99 | 100 | 98 | 96 | 95 | 94 | 92 | 91 | 90 | 88 | 88 | 88 | 88 | 86 |
| 2 | 104 | 98 | 93 | 89 | 101 | 96 | 91 | 87 | 92 | 88 | 85 | 88 | 85 | 82 | 85 | 82 | 80 | 85 | 82 | 80 | 78 |
| 3 | 97 | 90 | 84 | 79 | 95 | 88 | 82 | 78 | 85 | 80 | 76 | 81 | 78 | 74 | 79 | 75 | 73 | 79 | 75 | 73 | 71 |
| 4 | 92 | 83 | 76 | 71 | 89 | 81 | 75 | 70 | 78 | 73 | 69 | 76 | 71 | 68 | 73 | 70 | 66 | 73 | 70 | 66 | 65 |
| 5 | 86 | 76 | 70 | 65 | 84 | 75 | 69 | 64 | 73 | 67 | 63 | 71 | 66 | 62 | 68 | 64 | 61 | 68 | 64 | 61 | 59 |
| 6 | 81 | 71 | 64 | 59 | 79 | 70 | 63 | 59 | 68 | 62 | 58 | 66 | 61 | 57 | 64 | 60 | 56 | 64 | 60 | 56 | 55 |
| 7 | 77 | 66 | 59 | 54 | 75 | 65 | 59 | 54 | 63 | 58 | 54 | 62 | 57 | 53 | 60 | 56 | 52 | 60 | 56 | 52 | 51 |
| 8 | 73 | 62 | 55 | 50 | 71 | 61 | 55 | 50 | 59 | 54 | 50 | 58 | 53 | 49 | 57 | 52 | 49 | 57 | 52 | 49 | 47 |
| 9 | 69 | 58 | 51 | 47 | 67 | 57 | 51 | 47 | 56 | 50 | 46 | 55 | 50 | 46 | 54 | 49 | 46 | 54 | 49 | 46 | 44 |
| 10 | 65 | 55 | 48 | 44 | 64 | 54 | 48 | 44 | 53 | 47 | 43 | 52 | 47 | 43 | 51 | 46 | 43 | 51 | 46 | 43 | 41 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|--------|--------|--------|--------|
| 0° | 211420 | 211420 | 211420 | 211420 |
| 5° | 210133 | 224173 | 210133 | 199229 |
| 10° | 207550 | 229928 | 207550 | 188553 |
| 15° | 201423 | 213675 | 201423 | 174172 |
| 20° | 188380 | 171338 | 188380 | 155139 |
| 25° | 166732 | 118713 | 166732 | 130013 |
| 30° | 135380 | 77232 | 135380 | 97276 |
| 35° | 97099 | 50016 | 97099 | 64758 |
| 40° | 62777 | 34474 | 62777 | 40840 |
| 45° | 39832 | 26705 | 39832 | 29099 |
| 50° | 29580 | 22692 | 29580 | 24238 |
| 55° | 24151 | 20671 | 24151 | 21396 |
| 60° | 20912 | 19691 | 20912 | 19810 |
| 65° | 19064 | 18991 | 19064 | 18909 |
| 70° | 18068 | 18607 | 18068 | 18367 |
| 75° | 16899 | 18000 | 16899 | 17461 |
| 80° | 14842 | 16994 | 14842 | 15886 |
| 85° | 9604 | 12133 | 9604 | 11568 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 56001 cd/sqm



TEST NUMBER: P1432494
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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 4280.7 | 8.1 |
| 10°-20° | 11646.1 | 22.1 |
| 20°-30° | 13658.4 | 26.0 |
| 30°-40° | 9498.6 | 18.1 |
| 40°-50° | 4720.3 | 9.0 |
| 50°-60° | 2823.3 | 5.4 |
| 60°-70° | 1987.1 | 3.8 |
| 70°-80° | 1280.1 | 2.4 |
| 80°-90° | 410.6 | 0.8 |
| 90°-100° | 62.3 | 0.1 |
| 100°-110° | 400.1 | 0.8 |
| 110°-120° | 737.8 | 1.4 |
| 120°-130° | 439.6 | 0.8 |
| 130°-140° | 267.4 | 0.5 |
| 140°-150° | 186.4 | 0.4 |
| 150°-160° | 123.2 | 0.2 |
| 160°-170° | 72.2 | 0.1 |
| 170°-180° | 24.4 | 0.0 |
| 0°-30° | 29585.3 | 56.2 |
| 0°-40° | 39083.8 | 74.3 |
| 0°-60° | 46627.5 | 88.6 |
| 0°-90° | 50305.3 | 95.6 |
| 90°-120° | 1200.3 | 2.3 |
| 90°-150° | 2093.6 | 4.0 |
| 90°-180° | 2313.0 | 4.4 |
| 0°-180° | 52618.6 | 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° | 17 | 23 | 17 | 17 | 17 | 24 |
| 95° | 33 | 35 | 33 | 29 | 33 | 35 |
| 105° | 184 | 98 | 184 | 140 | 184 | 248 |
| 115° | 785 | 674 | 785 | 637 | 785 | 715 |
| 125° | 504 | 530 | 504 | 461 | 504 | 464 |
| 135° | 321 | 371 | 321 | 338 | 321 | 254 |
| 145° | 292 | 306 | 292 | 284 | 292 | 183 |
| 155° | 263 | 275 | 263 | 257 | 263 | 123 |
| 165° | 253 | 263 | 253 | 249 | 253 | 72 |
| 175° | 256 | 264 | 256 | 252 | 256 | 24 |
| 180° | 257 | 257 | 257 | 257 | 257 | |



TEST NUMBER: P1432494
 CATALOG NUMBER: EHBR1-54-UNV-TASM-L830-UPL24

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° | 17.3 | 29.5 | 50.7 | 30.3 | 23.2 | 30.3 | 50.7 | 29.5 | 17.3 | 30.0 | 46.5 |
| 92.5° | 22.4 | 39.6 | 70.9 | 39.2 | 29.5 | 39.2 | 70.9 | 39.6 | 22.4 | 38.8 | 74.3 |
| 95° | 33.3 | 48.5 | 89.9 | 43.0 | 34.6 | 43.0 | 89.9 | 48.5 | 33.3 | 51.5 | 103.4 |
| 97.5° | 51.1 | 59.9 | 101.3 | 45.6 | 40.9 | 45.6 | 101.3 | 59.9 | 51.1 | 62.9 | 118.6 |
| 100° | 67.5 | 67.5 | 183.6 | 51.9 | 46.0 | 51.9 | 183.6 | 67.5 | 67.5 | 77.7 | 184.4 |
| 102.5° | 101.7 | 131.7 | 423.7 | 100.9 | 54.9 | 100.9 | 423.7 | 131.7 | 101.7 | 144.7 | 390.8 |
| 105° | 184.0 | 298.8 | 744.0 | 254.0 | 97.5 | 254.0 | 744.0 | 298.8 | 184.0 | 301.7 | 695.9 |
| 107.5° | 347.3 | 555.7 | 958.0 | 497.1 | 220.3 | 497.1 | 958.0 | 555.7 | 347.3 | 533.5 | 918.3 |
| 110° | 554.9 | 776.1 | 1045.3 | 679.4 | 440.5 | 679.4 | 1045.3 | 776.1 | 554.9 | 732.2 | 962.6 |



TEST NUMBER: P1432494

CATALOG NUMBER: EHBR1-54-UNV-TASM-L830-UPL24

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-------|-------|--------|-------|-------|--------|--------|--------|-------|--------|-------|
| 112.5° | 722.0 | 864.7 | 1021.3 | 752.8 | 607.6 | 752.8 | 1021.3 | 864.7 | 722.0 | 808.1 | 922.1 |
| 115° | 785.0 | 852.0 | 912.4 | 750.3 | 673.5 | 750.3 | 912.4 | 852.0 | 785.0 | 789.2 | 823.4 |
| 117.5° | 758.4 | 779.9 | 788.3 | 704.8 | 677.3 | 704.8 | 788.3 | 779.9 | 758.4 | 710.2 | 699.3 |
| 120° | 684.9 | 676.0 | 665.1 | 637.6 | 639.3 | 637.6 | 665.1 | 676.0 | 684.9 | 620.4 | 584.0 |
| 122.5° | 593.3 | 574.4 | 562.5 | 570.1 | 587.4 | 570.1 | 562.5 | 574.4 | 593.3 | 528.8 | 501.3 |
| 125° | 503.5 | 484.5 | 491.2 | 511.9 | 530.0 | 511.9 | 491.2 | 484.5 | 503.5 | 449.9 | 442.7 |
| 127.5° | 428.4 | 419.5 | 439.3 | 462.5 | 478.1 | 462.5 | 439.3 | 419.5 | 428.4 | 394.2 | 400.9 |
| 130° | 374.8 | 376.5 | 402.6 | 422.8 | 432.6 | 422.8 | 402.6 | 376.5 | 374.8 | 358.3 | 375.2 |
| 132.5° | 341.4 | 350.7 | 375.6 | 393.3 | 399.2 | 393.3 | 375.6 | 350.7 | 341.4 | 337.2 | 357.8 |
| 135° | 320.7 | 334.2 | 357.4 | 368.4 | 371.3 | 368.4 | 357.4 | 334.2 | 320.7 | 322.8 | 341.4 |
| 137.5° | 308.9 | 322.4 | 339.7 | 349.0 | 347.3 | 349.0 | 339.7 | 322.4 | 308.9 | 313.5 | 327.8 |
| 140° | 302.2 | 315.7 | 323.3 | 333.8 | 332.9 | 333.8 | 323.3 | 315.7 | 302.2 | 304.7 | 316.0 |
| 142.5° | 295.4 | 307.6 | 311.5 | 319.4 | 317.7 | 319.4 | 311.5 | 307.6 | 295.4 | 298.0 | 305.6 |
| 145° | 292.4 | 301.7 | 298.3 | 308.1 | 305.9 | 308.1 | 298.3 | 301.7 | 292.4 | 292.9 | 297.5 |
| 147.5° | 286.1 | 292.9 | 289.1 | 297.5 | 295.4 | 297.5 | 289.1 | 292.9 | 286.1 | 286.1 | 288.2 |
| 150° | 279.3 | 284.4 | 278.5 | 288.2 | 288.6 | 288.2 | 278.5 | 284.4 | 279.3 | 278.1 | 280.2 |
| 152.5° | 270.1 | 275.1 | 270.1 | 281.0 | 280.6 | 281.0 | 270.1 | 275.1 | 270.1 | 268.8 | 270.9 |
| 155° | 262.9 | 265.5 | 262.9 | 273.9 | 274.7 | 273.9 | 262.9 | 265.5 | 262.9 | 262.1 | 263.8 |
| 157.5° | 258.3 | 260.4 | 259.1 | 268.8 | 269.7 | 268.8 | 259.1 | 260.4 | 258.3 | 258.3 | 259.1 |
| 160° | 255.3 | 257.8 | 257.4 | 265.8 | 266.7 | 265.8 | 257.4 | 257.8 | 255.3 | 255.7 | 256.6 |
| 162.5° | 254.4 | 254.4 | 254.9 | 263.3 | 265.0 | 263.3 | 254.9 | 254.4 | 254.4 | 254.4 | 255.7 |
| 165° | 253.2 | 254.4 | 253.6 | 260.3 | 263.3 | 260.3 | 253.6 | 254.4 | 253.2 | 253.6 | 253.6 |
| 167.5° | 253.6 | 252.3 | 254.0 | 260.3 | 263.3 | 260.3 | 254.0 | 252.3 | 253.6 | 254.0 | 254.0 |
| 170° | 251.9 | 252.7 | 253.2 | 259.5 | 262.5 | 259.5 | 253.2 | 252.7 | 251.9 | 253.2 | 253.6 |
| 172.5° | 254.4 | 254.4 | 254.4 | 259.5 | 263.8 | 259.5 | 254.4 | 254.4 | 254.4 | 254.9 | 256.1 |
| 175° | 256.1 | 255.7 | 256.1 | 260.0 | 264.2 | 260.0 | 256.1 | 255.7 | 256.1 | 255.3 | 255.3 |
| 177.5° | 254.9 | 256.6 | 258.3 | 262.1 | 267.6 | 262.1 | 258.3 | 256.6 | 254.9 | 255.3 | 255.3 |
| 180° | 256.6 | 256.6 | 256.6 | 256.6 | 256.6 | 256.6 | 256.6 | 256.6 | 256.6 | 256.6 | 256.6 |



TEST NUMBER: P1432494

CATALOG NUMBER: EHBR1-54-UNV-TASM-L830-UPL24

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° | 27.4 | 17.3 | 27.4 | 46.5 | 30.0 | 17.3 |
| 92.5° | 41.4 | 24.9 | 41.4 | 74.3 | 38.8 | 22.4 |
| 95° | 47.7 | 28.7 | 47.7 | 103.4 | 51.5 | 33.3 |
| 97.5° | 52.7 | 37.1 | 52.7 | 118.6 | 62.9 | 51.1 |
| 100° | 61.6 | 48.5 | 61.6 | 184.4 | 77.7 | 67.5 |
| 102.5° | 130.0 | 81.4 | 130.0 | 390.8 | 144.7 | 101.7 |
| 105° | 273.1 | 139.7 | 273.1 | 695.9 | 301.7 | 184.0 |
| 107.5° | 488.3 | 240.9 | 488.3 | 918.3 | 533.5 | 347.3 |
| 110° | 647.7 | 448.6 | 647.7 | 962.6 | 732.2 | 554.9 |



TEST NUMBER: P1432494
 CATALOG NUMBER: EHBR1-54-UNV-TASM-L830-UPL24

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|-------|--------|-------|--------|-------|
| 112.5° | 695.9 | 605.6 | 695.9 | 922.1 | 808.1 | 722.0 |
| 115° | 669.3 | 637.2 | 669.3 | 823.4 | 789.2 | 785.0 |
| 117.5° | 611.1 | 615.7 | 611.1 | 699.3 | 710.2 | 758.4 |
| 120° | 543.9 | 570.2 | 543.9 | 584.0 | 620.4 | 684.9 |
| 122.5° | 482.8 | 513.1 | 482.8 | 501.3 | 528.8 | 593.3 |
| 125° | 429.6 | 460.9 | 429.6 | 442.7 | 449.9 | 503.5 |
| 127.5° | 392.9 | 414.0 | 392.9 | 400.9 | 394.2 | 428.4 |
| 130° | 364.6 | 382.4 | 364.6 | 375.2 | 358.3 | 374.8 |
| 132.5° | 345.2 | 356.6 | 345.2 | 357.8 | 337.2 | 341.4 |
| 135° | 328.3 | 337.6 | 328.3 | 341.4 | 322.8 | 320.7 |
| 137.5° | 314.0 | 321.9 | 314.0 | 327.8 | 313.5 | 308.9 |
| 140° | 301.7 | 308.5 | 301.7 | 316.0 | 304.7 | 302.2 |
| 142.5° | 288.6 | 293.8 | 288.6 | 305.6 | 298.0 | 295.4 |
| 145° | 280.2 | 284.0 | 280.2 | 297.5 | 292.9 | 292.4 |
| 147.5° | 273.1 | 275.6 | 273.1 | 288.2 | 286.1 | 286.1 |
| 150° | 265.8 | 268.4 | 265.8 | 280.2 | 278.1 | 279.3 |
| 152.5° | 257.9 | 261.2 | 257.9 | 270.9 | 268.8 | 270.1 |
| 155° | 253.2 | 256.6 | 253.2 | 263.8 | 262.1 | 262.9 |
| 157.5° | 251.0 | 254.0 | 251.0 | 259.1 | 258.3 | 258.3 |
| 160° | 249.8 | 251.9 | 249.8 | 256.6 | 255.7 | 255.3 |
| 162.5° | 247.7 | 249.8 | 247.7 | 255.7 | 254.4 | 254.4 |
| 165° | 248.1 | 249.0 | 248.1 | 253.6 | 253.6 | 253.2 |
| 167.5° | 247.7 | 249.0 | 247.7 | 254.0 | 254.0 | 253.6 |
| 170° | 248.5 | 249.4 | 248.5 | 253.6 | 253.2 | 251.9 |
| 172.5° | 250.2 | 251.0 | 250.2 | 256.1 | 254.9 | 254.4 |
| 175° | 250.7 | 251.5 | 250.7 | 255.3 | 255.3 | 256.1 |
| 177.5° | 252.7 | 253.6 | 252.7 | 255.3 | 255.3 | 254.9 |
| 180° | 256.6 | 256.6 | 256.6 | 256.6 | 256.6 | 256.6 |



TEST NUMBER: P1432494
 CATALOG NUMBER: EHBR1-54-UNV-TASM-L830-UPL24

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 | 19.42 | 20.56 | 19.87 | 20.97 | 21.40 | 18.74 | 19.88 | 19.19 | 20.29 | 20.71 |
| | 3H | 20.97 | 21.98 | 21.43 | 22.41 | 22.88 | 20.59 | 21.60 | 21.05 | 22.03 | 22.50 |
| | 4H | 21.61 | 22.55 | 22.09 | 23.00 | 23.49 | 21.37 | 22.32 | 21.85 | 22.76 | 23.25 |
| | 6H | 22.09 | 22.96 | 22.58 | 23.42 | 23.92 | 22.02 | 22.88 | 22.51 | 23.34 | 23.85 |
| | 8H | 22.24 | 23.06 | 22.75 | 23.54 | 24.06 | 22.24 | 23.06 | 22.75 | 23.54 | 24.05 |
| | 12H | 22.31 | 23.10 | 22.83 | 23.57 | 24.11 | 22.37 | 23.15 | 22.88 | 23.62 | 24.16 |
| 4H | 2H | 19.84 | 20.78 | 20.32 | 21.23 | 21.72 | 19.32 | 20.26 | 19.80 | 20.70 | 21.20 |
| | 3H | 21.64 | 22.42 | 22.13 | 22.91 | 23.42 | 21.38 | 22.16 | 21.87 | 22.65 | 23.16 |
| | 4H | 22.41 | 23.11 | 22.93 | 23.62 | 24.17 | 22.28 | 22.99 | 22.80 | 23.49 | 24.04 |
| | 6H | 23.03 | 23.63 | 23.57 | 24.16 | 24.73 | 23.06 | 23.66 | 23.60 | 24.19 | 24.76 |
| | 8H | 23.22 | 23.79 | 23.77 | 24.32 | 24.89 | 23.33 | 23.89 | 23.87 | 24.42 | 24.99 |
| | 12H | 23.33 | 23.83 | 23.89 | 24.39 | 24.97 | 23.50 | 23.99 | 24.06 | 24.55 | 25.13 |
| 8H | 4H | 22.66 | 23.23 | 23.21 | 23.76 | 24.33 | 22.56 | 23.13 | 23.11 | 23.66 | 24.23 |
| | 6H | 23.40 | 23.86 | 23.98 | 24.44 | 25.02 | 23.47 | 23.93 | 24.05 | 24.50 | 25.09 |
| | 8H | 23.67 | 24.08 | 24.27 | 24.67 | 25.27 | 23.82 | 24.23 | 24.42 | 24.82 | 25.42 |
| | 12H | 23.85 | 24.21 | 24.44 | 24.78 | 25.45 | 24.07 | 24.43 | 24.66 | 25.00 | 25.67 |
| 12H | 4H | 22.67 | 23.17 | 23.24 | 23.73 | 24.31 | 22.58 | 23.07 | 23.14 | 23.64 | 24.21 |
| | 6H | 23.45 | 23.86 | 24.04 | 24.45 | 25.04 | 23.51 | 23.92 | 24.11 | 24.51 | 25.11 |
| | 8H | 23.77 | 24.12 | 24.36 | 24.70 | 25.37 | 23.92 | 24.28 | 24.51 | 24.85 | 25.52 |

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

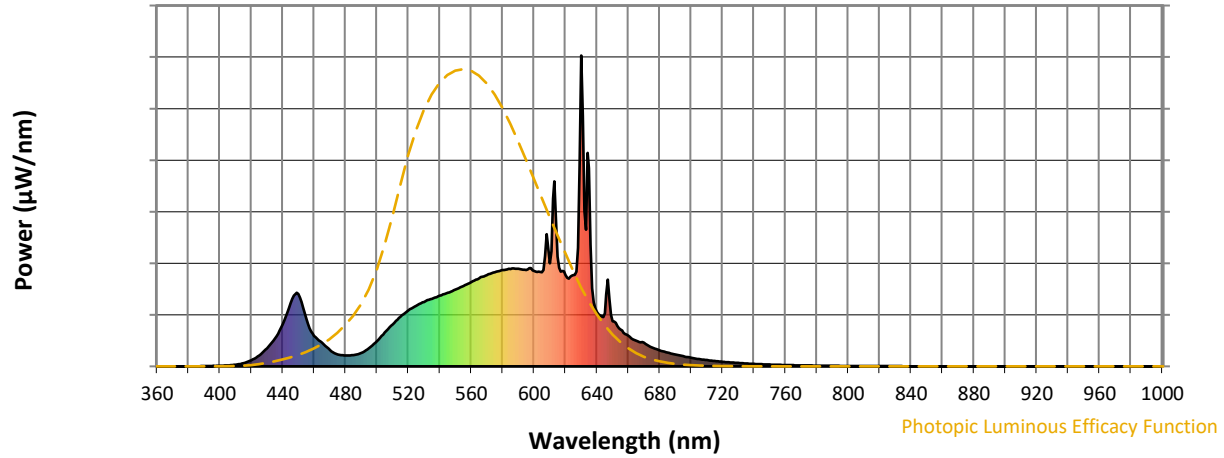


CCT = 2983K
 CIE x = 0.4364
 CIE y = 0.4010
 Duv = -0.0012

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 ($R_{f,i}$)

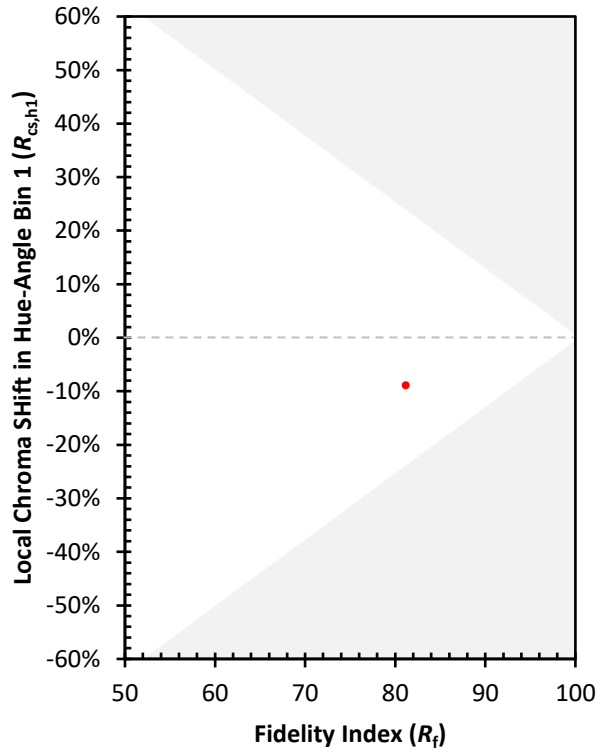
| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 71 | CES51 = 89 | CES76 = 65 |
| CES02 = 63 | CES27 = 89 | CES52 = 89 | CES77 = 82 |
| CES03 = 31 | CES28 = 86 | CES53 = 80 | CES78 = 67 |
| CES04 = 70 | CES29 = 68 | CES54 = 92 | CES79 = 89 |
| CES05 = 50 | CES30 = 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)