

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: P1432783

Luminaire Tested: EHBR1-54-UNV-TASM-L835-UPL30

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1432783
REPORT IS A COMBINATION OF REPORTS P1431872 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-54-UNV-TASM-L835-UPL30
Description: Elevate Round Highbay at, 54000 lumens, 3500K 80CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

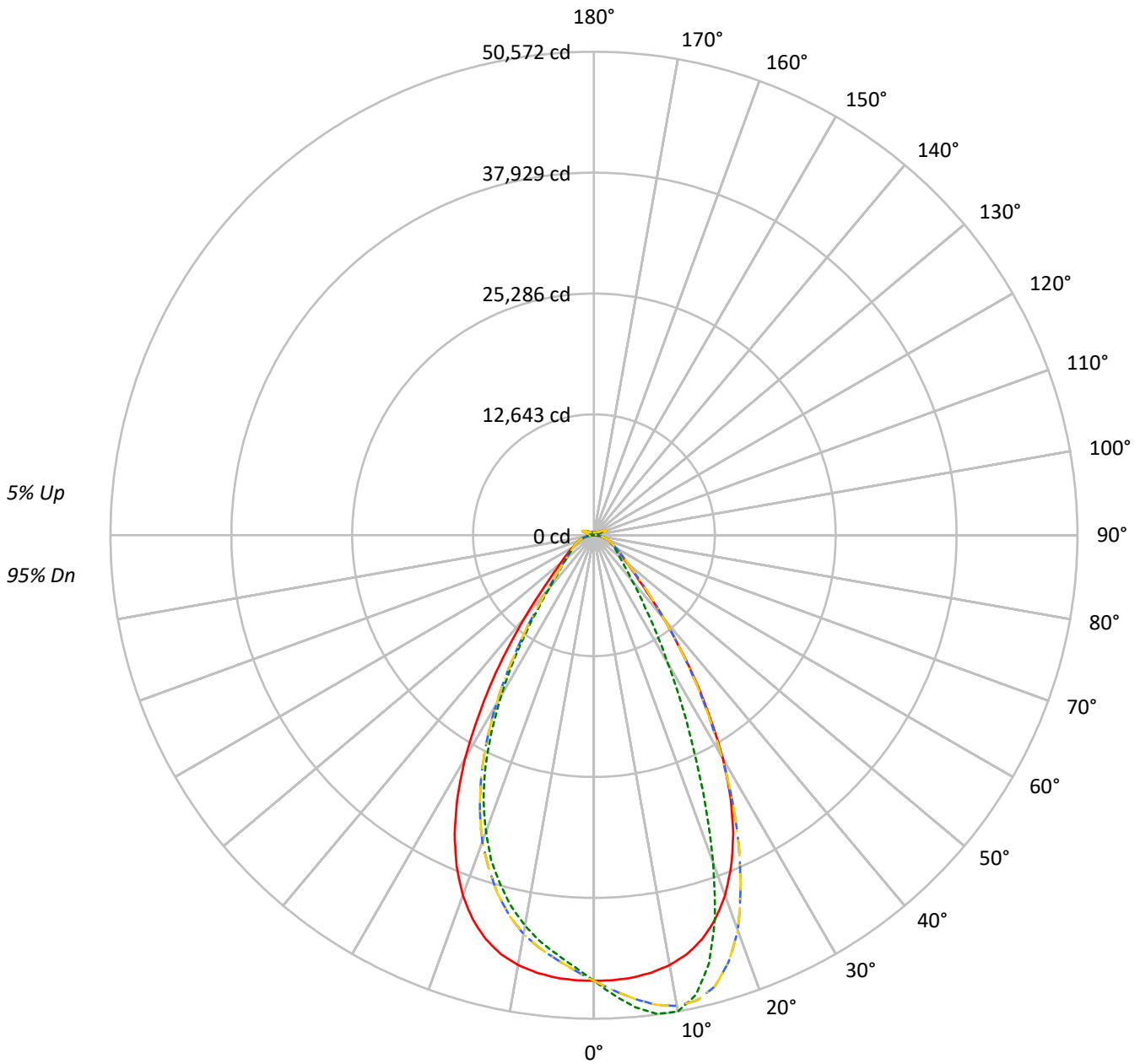
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 55070.8 lumens
Efficiency: N/A
Efficacy: 173.2 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): 318
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: P1432783
CATALOG NUMBER: EHBR1-54-UNV-TASM-L835-UPL30

Luminous Intensity Polar Plot



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



TEST NUMBER: P1432783

CATALOG NUMBER: EHBR1-54-UNV-TASM-L835-UPL30

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 | 114 | 114 | 114 | 114 | 108 | 108 | 108 | 102 | 102 | 102 | 97 | 97 | 97 | 97 | 97 | 97 | 95 |
| 1 | 111 | 107 | 104 | 101 | 107 | 104 | 102 | 99 | 99 | 97 | 95 | 95 | 93 | 91 | 90 | 89 | 88 | 88 | 88 | 88 | 85 |
| 2 | 104 | 98 | 93 | 88 | 101 | 95 | 91 | 87 | 91 | 87 | 84 | 87 | 84 | 82 | 84 | 81 | 79 | 79 | 79 | 79 | 77 |
| 3 | 97 | 89 | 83 | 79 | 95 | 88 | 82 | 78 | 84 | 79 | 76 | 81 | 77 | 74 | 78 | 75 | 72 | 72 | 72 | 72 | 70 |
| 4 | 91 | 82 | 76 | 71 | 89 | 81 | 75 | 70 | 78 | 73 | 69 | 75 | 71 | 67 | 72 | 69 | 66 | 66 | 66 | 66 | 64 |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 68 | 64 | 72 | 67 | 63 | 70 | 65 | 62 | 68 | 64 | 60 | 60 | 60 | 60 | 59 |
| 6 | 81 | 71 | 64 | 59 | 79 | 69 | 63 | 58 | 67 | 62 | 57 | 65 | 60 | 57 | 63 | 59 | 56 | 56 | 56 | 56 | 54 |
| 7 | 76 | 66 | 59 | 54 | 75 | 65 | 58 | 54 | 63 | 57 | 53 | 61 | 56 | 52 | 60 | 55 | 52 | 52 | 52 | 52 | 50 |
| 8 | 72 | 62 | 55 | 50 | 71 | 61 | 54 | 50 | 59 | 53 | 49 | 58 | 52 | 49 | 56 | 52 | 48 | 48 | 48 | 48 | 47 |
| 9 | 68 | 58 | 51 | 47 | 67 | 57 | 51 | 46 | 56 | 50 | 46 | 54 | 49 | 46 | 53 | 48 | 45 | 45 | 45 | 45 | 44 |
| 10 | 65 | 54 | 48 | 44 | 64 | 54 | 47 | 43 | 52 | 47 | 43 | 51 | 46 | 43 | 50 | 46 | 42 | 42 | 42 | 42 | 41 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|--------|--------|--------|--------|
| 0° | 218869 | 218869 | 218869 | 218869 |
| 5° | 217537 | 232071 | 217537 | 206247 |
| 10° | 214863 | 238029 | 214863 | 195196 |
| 15° | 208519 | 221203 | 208519 | 180308 |
| 20° | 195017 | 177375 | 195017 | 160604 |
| 25° | 172606 | 122895 | 172606 | 134593 |
| 30° | 140149 | 79952 | 140149 | 100703 |
| 35° | 100519 | 51779 | 100519 | 67040 |
| 40° | 64989 | 35689 | 64989 | 42279 |
| 45° | 41235 | 27645 | 41235 | 30124 |
| 50° | 30622 | 23491 | 30622 | 25092 |
| 55° | 25002 | 21399 | 25002 | 22150 |
| 60° | 21649 | 20385 | 21649 | 20508 |
| 65° | 19735 | 19659 | 19735 | 19576 |
| 70° | 18704 | 19263 | 18704 | 19014 |
| 75° | 17493 | 18635 | 17493 | 18075 |
| 80° | 15367 | 17593 | 15367 | 16447 |
| 85° | 9942 | 12560 | 9942 | 11976 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 57974 cd/sqm



TEST NUMBER: P1432783
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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 4431.6 | 8.0 |
| 10°-20° | 12056.4 | 21.9 |
| 20°-30° | 14139.6 | 25.7 |
| 30°-40° | 9833.2 | 17.9 |
| 40°-50° | 4886.7 | 8.9 |
| 50°-60° | 2922.7 | 5.3 |
| 60°-70° | 2057.1 | 3.7 |
| 70°-80° | 1325.1 | 2.4 |
| 80°-90° | 426.1 | 0.8 |
| 90°-100° | 80.3 | 0.1 |
| 100°-110° | 518.5 | 0.9 |
| 110°-120° | 956.8 | 1.7 |
| 120°-130° | 569.5 | 1.0 |
| 130°-140° | 345.7 | 0.6 |
| 140°-150° | 240.3 | 0.4 |
| 150°-160° | 158.1 | 0.3 |
| 160°-170° | 92.1 | 0.2 |
| 170°-180° | 30.9 | 0.1 |
| 0°-30° | 30627.6 | 55.6 |
| 0°-40° | 40460.8 | 73.5 |
| 0°-60° | 48270.2 | 87.7 |
| 0°-90° | 52078.6 | 94.6 |
| 90°-120° | 1555.5 | 2.8 |
| 90°-150° | 2711.0 | 4.9 |
| 90°-180° | 2992.0 | 5.4 |
| 0°-180° | 55070.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|------|-------|-------|-------|-------|-------|-------|
| 0° | 46606 | 46606 | 46606 | 46606 | 46606 | |
| 5° | 46448 | 49551 | 46448 | 44037 | 46448 | 4408 |
| 15° | 43746 | 46407 | 43746 | 37828 | 43746 | 12225 |
| 25° | 34469 | 24542 | 34469 | 26878 | 34469 | 15605 |
| 35° | 18449 | 9503 | 18449 | 12304 | 18449 | 11517 |
| 45° | 6672 | 4473 | 6672 | 4874 | 6672 | 5459 |
| 55° | 3379 | 2892 | 3379 | 2993 | 3379 | 3090 |
| 65° | 2060 | 2052 | 2060 | 2043 | 2060 | 2069 |
| 75° | 1232 | 1313 | 1232 | 1273 | 1232 | 1294 |
| 85° | 342 | 432 | 342 | 412 | 342 | 380 |
| 90° | 22 | 28 | 22 | 22 | 22 | 26 |
| 95° | 43 | 43 | 43 | 37 | 43 | 45 |
| 105° | 238 | 124 | 238 | 181 | 238 | 321 |
| 115° | 1018 | 872 | 1018 | 826 | 1018 | 928 |
| 125° | 652 | 686 | 652 | 597 | 652 | 601 |
| 135° | 414 | 480 | 414 | 437 | 414 | 329 |
| 145° | 377 | 394 | 377 | 366 | 377 | 236 |
| 155° | 338 | 352 | 338 | 329 | 338 | 158 |
| 165° | 323 | 334 | 323 | 317 | 323 | 92 |
| 175° | 325 | 333 | 325 | 319 | 325 | 31 |
| 180° | 325 | 325 | 325 | 325 | 325 | |



TEST NUMBER: P1432783
 CATALOG NUMBER: EHBR1-54-UNV-TASM-L835-UPL30

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 46606.5 | 46606.5 | 46606.5 | 46606.5 | 46606.5 | 46606.5 | 46606.5 | 46606.5 | 46606.5 | 46606.5 | 46606.5 |
| 2.5° | 46579.4 | 47181.5 | 47669.2 | 47990.9 | 48149.9 | 47990.9 | 47669.2 | 47181.5 | 46579.4 | 45980.7 | 45569.1 |
| 5° | 46447.5 | 47653.5 | 48675.2 | 49343.7 | 49550.8 | 49343.7 | 48675.2 | 47653.5 | 46447.5 | 45307.9 | 44551.9 |
| 7.5° | 46131.9 | 48010.9 | 49529.0 | 50309.4 | 50500.0 | 50309.4 | 49529.0 | 48010.9 | 46131.9 | 44518.7 | 43563.4 |
| 10° | 45650.5 | 48236.4 | 49990.4 | 50549.7 | 50572.5 | 50549.7 | 49990.4 | 48236.4 | 45650.5 | 43476.9 | 42350.4 |
| 12.5° | 44882.3 | 48156.0 | 49835.7 | 49652.3 | 49235.4 | 49652.3 | 49835.7 | 48156.0 | 44882.3 | 42204.5 | 40783.4 |
| 15° | 43746.1 | 47679.7 | 48856.0 | 47362.5 | 46407.2 | 47362.5 | 48856.0 | 47679.7 | 43746.1 | 40486.3 | 38838.0 |
| 17.5° | 42145.1 | 46788.3 | 46811.0 | 43856.2 | 42054.2 | 43856.2 | 46811.0 | 46788.3 | 42145.1 | 38385.3 | 36570.2 |
| 20° | 40081.7 | 45358.5 | 43995.2 | 38590.7 | 36455.7 | 38590.7 | 43995.2 | 45358.5 | 40081.7 | 35901.6 | 34120.5 |
| 22.5° | 37494.8 | 43430.6 | 40073.8 | 33293.7 | 30380.9 | 33293.7 | 40073.8 | 43430.6 | 37494.8 | 33013.2 | 31159.6 |
| 25° | 34469.2 | 41068.4 | 35855.2 | 27522.2 | 24542.1 | 27522.2 | 35855.2 | 41068.4 | 34469.2 | 29571.6 | 27895.4 |
| 27.5° | 30910.5 | 38074.2 | 31363.2 | 22490.1 | 19740.6 | 22490.1 | 31363.2 | 38074.2 | 30910.5 | 26018.2 | 24306.1 |
| 30° | 26957.6 | 34235.8 | 26688.5 | 17910.5 | 15378.8 | 17910.5 | 26688.5 | 34235.8 | 26957.6 | 22026.0 | 20493.1 |
| 32.5° | 22532.0 | 30473.5 | 22199.0 | 14351.0 | 12206.3 | 14351.0 | 22199.0 | 30473.5 | 22532.0 | 18216.5 | 16614.5 |
| 35° | 18448.9 | 25766.5 | 18150.9 | 11276.5 | 9503.3 | 11276.5 | 18150.9 | 25766.5 | 18448.9 | 14620.2 | 13047.1 |
| 37.5° | 14478.6 | 21319.0 | 14469.0 | 9080.3 | 7708.2 | 9080.3 | 14469.0 | 21319.0 | 14478.6 | 11366.6 | 10089.6 |
| 40° | 11264.2 | 16669.6 | 11336.8 | 7248.5 | 6185.8 | 7248.5 | 11336.8 | 16669.6 | 11264.2 | 8648.6 | 7831.4 |
| 42.5° | 8534.9 | 12746.5 | 8910.8 | 5949.0 | 5254.2 | 5949.0 | 8910.8 | 12746.5 | 8534.9 | 6814.2 | 6202.4 |
| 45° | 6671.7 | 9380.0 | 6958.3 | 5019.0 | 4472.9 | 5019.0 | 6958.3 | 9380.0 | 6671.7 | 5487.5 | 5076.7 |
| 47.5° | 5433.3 | 7249.4 | 5639.5 | 4305.0 | 3922.3 | 4305.0 | 5639.5 | 7249.4 | 5433.3 | 4641.5 | 4333.9 |
| 50° | 4563.7 | 5562.6 | 4682.6 | 3757.9 | 3501.0 | 3757.9 | 4682.6 | 5562.6 | 4563.7 | 3974.6 | 3769.4 |
| 52.5° | 3920.5 | 4536.6 | 3987.8 | 3349.0 | 3175.9 | 3349.0 | 3987.8 | 4536.6 | 3920.5 | 3477.4 | 3349.9 |
| 55° | 3378.7 | 3813.9 | 3467.8 | 3011.6 | 2891.9 | 3011.6 | 3467.8 | 3813.9 | 3378.7 | 3094.6 | 3000.3 |
| 57.5° | 2967.0 | 3235.3 | 3011.6 | 2724.1 | 2644.6 | 2724.1 | 3011.6 | 3235.3 | 2967.0 | 2753.8 | 2703.1 |
| 60° | 2602.6 | 2801.9 | 2657.7 | 2473.2 | 2450.6 | 2473.2 | 2657.7 | 2801.9 | 2602.6 | 2477.6 | 2444.4 |
| 62.5° | 2322.1 | 2447.9 | 2350.0 | 2247.8 | 2227.7 | 2247.8 | 2350.0 | 2447.9 | 2322.1 | 2226.0 | 2232.1 |
| 65° | 2059.9 | 2177.0 | 2100.1 | 2045.0 | 2052.0 | 2045.0 | 2100.1 | 2177.0 | 2059.9 | 2015.3 | 2024.9 |
| 67.5° | 1857.1 | 1918.3 | 1885.1 | 1853.6 | 1861.5 | 1853.6 | 1885.1 | 1918.3 | 1857.1 | 1813.5 | 1828.3 |
| 70° | 1641.2 | 1706.8 | 1672.7 | 1677.1 | 1690.2 | 1677.1 | 1672.7 | 1706.8 | 1641.2 | 1628.1 | 1639.5 |
| 72.5° | 1435.0 | 1485.7 | 1474.3 | 1484.8 | 1498.8 | 1484.8 | 1474.3 | 1485.7 | 1435.0 | 1433.2 | 1434.1 |
| 75° | 1232.3 | 1270.7 | 1275.9 | 1290.8 | 1312.7 | 1290.8 | 1275.9 | 1270.7 | 1232.3 | 1219.1 | 1234.9 |
| 77.5° | 1011.1 | 1054.9 | 1071.4 | 1091.6 | 1123.9 | 1091.6 | 1071.4 | 1054.9 | 1011.1 | 1019.8 | 1027.8 |
| 80° | 808.4 | 828.5 | 865.2 | 880.1 | 925.5 | 880.1 | 865.2 | 828.5 | 808.4 | 793.5 | 804.9 |
| 82.5° | 591.6 | 610.0 | 641.5 | 669.5 | 695.7 | 669.5 | 641.5 | 610.0 | 591.6 | 584.6 | 585.5 |
| 85° | 341.7 | 369.7 | 390.7 | 423.9 | 431.7 | 423.9 | 390.7 | 369.7 | 341.7 | 349.6 | 341.7 |
| 87.5° | 119.8 | 128.5 | 146.8 | 159.9 | 160.8 | 159.9 | 146.8 | 128.5 | 119.8 | 122.4 | 111.0 |
| 90° | 22.2 | 37.9 | 65.1 | 38.1 | 28.3 | 38.1 | 65.1 | 37.9 | 22.2 | 38.7 | 60.0 |
| 92.5° | 28.8 | 51.0 | 91.3 | 49.6 | 36.6 | 49.6 | 91.3 | 51.0 | 28.8 | 50.1 | 96.2 |
| 95° | 42.9 | 62.5 | 116.0 | 54.5 | 43.2 | 54.5 | 116.0 | 62.5 | 42.9 | 66.6 | 133.9 |
| 97.5° | 65.8 | 77.3 | 130.8 | 57.8 | 51.3 | 57.8 | 130.8 | 77.3 | 65.8 | 81.4 | 153.7 |
| 100° | 87.2 | 87.2 | 237.6 | 66.0 | 57.9 | 66.0 | 237.6 | 87.2 | 87.2 | 100.4 | 239.1 |
| 102.5° | 131.6 | 170.2 | 549.0 | 129.4 | 69.4 | 129.4 | 549.0 | 170.2 | 131.6 | 187.4 | 506.9 |
| 105° | 238.4 | 387.1 | 964.7 | 328.1 | 124.5 | 328.1 | 964.7 | 387.1 | 238.4 | 391.2 | 902.9 |
| 107.5° | 450.2 | 720.6 | 1242.3 | 643.6 | 283.8 | 643.6 | 1242.3 | 720.6 | 450.2 | 691.8 | 1191.3 |
| 110° | 719.7 | 1006.5 | 1355.7 | 880.2 | 569.8 | 880.2 | 1355.7 | 1006.5 | 719.7 | 949.7 | 1248.8 |



TEST NUMBER: P1432783
 CATALOG NUMBER: EHBR1-54-UNV-TASM-L835-UPL30

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|--------|--------|--------|-------|-------|--------|--------|--------|--------|--------|--------|
| 112.5° | 936.6 | 1121.5 | 1324.4 | 975.4 | 786.6 | 975.4 | 1324.4 | 1121.5 | 936.6 | 1048.4 | 1196.2 |
| 115° | 1018.0 | 1105.1 | 1183.1 | 972.2 | 872.1 | 972.2 | 1183.1 | 1105.1 | 1018.0 | 1023.7 | 1068.0 |
| 117.5° | 983.5 | 1011.4 | 1022.2 | 913.1 | 877.0 | 913.1 | 1022.2 | 1011.4 | 983.5 | 921.0 | 907.1 |
| 120° | 888.2 | 876.7 | 862.0 | 826.0 | 827.7 | 826.0 | 862.0 | 876.7 | 888.2 | 804.4 | 757.5 |
| 122.5° | 769.2 | 744.4 | 728.9 | 738.1 | 760.3 | 738.1 | 728.9 | 744.4 | 769.2 | 685.3 | 650.0 |
| 125° | 652.5 | 627.8 | 636.1 | 662.5 | 685.7 | 662.5 | 636.1 | 627.8 | 652.5 | 582.7 | 573.6 |
| 127.5° | 554.8 | 543.2 | 568.7 | 598.5 | 618.3 | 598.5 | 568.7 | 543.2 | 554.8 | 510.4 | 519.4 |
| 130° | 485.0 | 487.4 | 521.1 | 546.7 | 559.1 | 546.7 | 521.1 | 487.4 | 485.0 | 463.6 | 485.7 |
| 132.5° | 441.5 | 453.7 | 485.8 | 508.2 | 515.6 | 508.2 | 485.8 | 453.7 | 441.5 | 435.8 | 462.8 |
| 135° | 414.5 | 432.4 | 462.1 | 476.1 | 479.5 | 476.1 | 462.1 | 432.4 | 414.5 | 417.0 | 441.5 |
| 137.5° | 398.8 | 416.9 | 439.1 | 450.7 | 448.3 | 450.7 | 439.1 | 416.9 | 398.8 | 404.7 | 423.6 |
| 140° | 389.9 | 407.9 | 417.8 | 430.9 | 429.5 | 430.9 | 417.8 | 407.9 | 389.9 | 393.2 | 408.0 |
| 142.5° | 380.9 | 397.3 | 402.1 | 412.1 | 409.7 | 412.1 | 402.1 | 397.3 | 380.9 | 384.2 | 394.1 |
| 145° | 376.8 | 389.1 | 385.0 | 397.4 | 394.2 | 397.4 | 385.0 | 389.1 | 376.8 | 377.6 | 383.4 |
| 147.5° | 368.7 | 377.6 | 372.7 | 383.4 | 380.2 | 383.4 | 372.7 | 377.6 | 368.7 | 368.7 | 371.2 |
| 150° | 359.7 | 366.3 | 358.8 | 371.2 | 371.3 | 371.2 | 358.8 | 366.3 | 359.7 | 358.0 | 360.5 |
| 152.5° | 347.4 | 353.9 | 347.4 | 361.4 | 360.6 | 361.4 | 347.4 | 353.9 | 347.4 | 345.7 | 348.2 |
| 155° | 337.7 | 341.0 | 337.7 | 351.6 | 352.5 | 351.6 | 337.7 | 341.0 | 337.7 | 336.8 | 338.5 |
| 157.5° | 331.2 | 333.7 | 332.0 | 344.4 | 345.3 | 344.4 | 332.0 | 333.7 | 331.2 | 331.2 | 332.0 |
| 160° | 326.4 | 329.7 | 328.9 | 339.7 | 340.6 | 339.7 | 328.9 | 329.7 | 326.4 | 327.2 | 328.1 |
| 162.5° | 324.9 | 324.9 | 325.0 | 335.7 | 337.5 | 335.7 | 325.0 | 324.9 | 324.9 | 324.9 | 326.5 |
| 165° | 322.6 | 324.3 | 322.7 | 331.0 | 334.4 | 331.0 | 322.7 | 324.3 | 322.6 | 323.4 | 323.4 |
| 167.5° | 322.7 | 321.1 | 322.8 | 330.4 | 333.8 | 330.4 | 322.8 | 321.1 | 322.7 | 323.5 | 323.5 |
| 170° | 320.3 | 321.2 | 321.3 | 328.8 | 332.2 | 328.8 | 321.3 | 321.2 | 320.3 | 321.9 | 322.7 |
| 172.5° | 322.9 | 322.9 | 322.2 | 328.1 | 333.3 | 328.1 | 322.2 | 322.9 | 322.9 | 323.7 | 325.3 |
| 175° | 324.7 | 323.9 | 324.0 | 328.3 | 333.4 | 328.3 | 324.0 | 323.9 | 324.7 | 323.8 | 323.8 |
| 177.5° | 323.0 | 324.8 | 326.5 | 330.9 | 337.6 | 330.9 | 326.5 | 324.8 | 323.0 | 323.8 | 323.8 |
| 180° | 324.8 | 324.8 | 324.8 | 324.8 | 324.8 | 324.8 | 324.8 | 324.8 | 324.8 | 324.8 | 324.8 |



TEST NUMBER: P1432783

CATALOG NUMBER: EHBR1-54-UNV-TASM-L835-UPL30

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|---------|---------|---------|---------|---------|---------|
| 0° | 46606.5 | 46606.5 | 46606.5 | 46606.5 | 46606.5 | 46606.5 |
| 2.5° | 45252.8 | 45223.1 | 45252.8 | 45569.1 | 45980.7 | 46579.4 |
| 5° | 44201.4 | 44037.1 | 44201.4 | 44551.9 | 45307.9 | 46447.5 |
| 7.5° | 42977.1 | 42881.7 | 42977.1 | 43563.4 | 44518.7 | 46131.9 |
| 10° | 41687.9 | 41472.1 | 41687.9 | 42350.4 | 43476.9 | 45650.5 |
| 12.5° | 40099.2 | 39813.4 | 40099.2 | 40783.4 | 42204.5 | 44882.3 |
| 15° | 38078.6 | 37827.7 | 38078.6 | 38838.0 | 40486.3 | 43746.1 |
| 17.5° | 35910.3 | 35683.1 | 35910.3 | 36570.2 | 38385.3 | 42145.1 |
| 20° | 33187.2 | 33008.8 | 33187.2 | 34120.5 | 35901.6 | 40081.7 |
| 22.5° | 30330.2 | 30163.3 | 30330.2 | 31159.6 | 33013.2 | 37494.8 |
| 25° | 26969.0 | 26878.1 | 26969.0 | 27895.4 | 29571.6 | 34469.2 |
| 27.5° | 23336.9 | 23182.2 | 23336.9 | 24306.1 | 26018.2 | 30910.5 |
| 30° | 19626.2 | 19370.1 | 19626.2 | 20493.1 | 22026.0 | 26957.6 |
| 32.5° | 15996.6 | 15812.3 | 15996.6 | 16614.5 | 18216.5 | 22532.0 |
| 35° | 12488.6 | 12304.3 | 12488.6 | 13047.1 | 14620.2 | 18448.9 |
| 37.5° | 9731.3 | 9405.4 | 9731.3 | 10089.6 | 11366.6 | 14478.6 |
| 40° | 7380.5 | 7328.0 | 7380.5 | 7831.4 | 8648.6 | 11264.2 |
| 42.5° | 6008.3 | 5865.9 | 6008.3 | 6202.4 | 6814.2 | 8534.9 |
| 45° | 4929.9 | 4874.0 | 4929.9 | 5076.7 | 5487.5 | 6671.7 |
| 47.5° | 4239.5 | 4264.0 | 4239.5 | 4333.9 | 4641.5 | 5433.3 |
| 50° | 3724.8 | 3739.6 | 3724.8 | 3769.4 | 3974.6 | 4563.7 |
| 52.5° | 3345.5 | 3332.3 | 3345.5 | 3349.9 | 3477.4 | 3920.5 |
| 55° | 3009.9 | 2993.3 | 3009.9 | 3000.3 | 3094.6 | 3378.7 |
| 57.5° | 2716.3 | 2728.5 | 2716.3 | 2703.1 | 2753.8 | 2967.0 |
| 60° | 2454.0 | 2465.4 | 2454.0 | 2444.4 | 2477.6 | 2602.6 |
| 62.5° | 2233.0 | 2239.9 | 2233.0 | 2232.1 | 2226.0 | 2322.1 |
| 65° | 2035.4 | 2043.3 | 2035.4 | 2024.9 | 2015.3 | 2059.9 |
| 67.5° | 1846.6 | 1846.6 | 1846.6 | 1828.3 | 1813.5 | 1857.1 |
| 70° | 1669.3 | 1668.4 | 1669.3 | 1639.5 | 1628.1 | 1641.2 |
| 72.5° | 1456.0 | 1477.0 | 1456.0 | 1434.1 | 1433.2 | 1435.0 |
| 75° | 1248.9 | 1273.3 | 1248.9 | 1234.9 | 1219.1 | 1232.3 |
| 77.5° | 1039.1 | 1076.7 | 1039.1 | 1027.8 | 1019.8 | 1011.1 |
| 80° | 824.2 | 865.2 | 824.2 | 804.9 | 793.5 | 808.4 |
| 82.5° | 609.2 | 639.7 | 609.2 | 585.5 | 584.6 | 591.6 |
| 85° | 362.7 | 411.6 | 362.7 | 341.7 | 349.6 | 341.7 |
| 87.5° | 116.3 | 148.6 | 116.3 | 111.0 | 122.4 | 119.8 |
| 90° | 35.4 | 22.2 | 35.4 | 60.0 | 38.7 | 22.2 |
| 92.5° | 53.4 | 32.1 | 53.4 | 96.2 | 50.1 | 28.8 |
| 95° | 61.7 | 37.0 | 61.7 | 133.9 | 66.6 | 42.9 |
| 97.5° | 68.3 | 47.7 | 68.3 | 153.7 | 81.4 | 65.8 |
| 100° | 79.7 | 62.5 | 79.7 | 239.1 | 100.4 | 87.2 |
| 102.5° | 168.4 | 105.2 | 168.4 | 506.9 | 187.4 | 131.6 |
| 105° | 354.1 | 180.9 | 354.1 | 902.9 | 391.2 | 238.4 |
| 107.5° | 633.4 | 312.2 | 633.4 | 1191.3 | 691.8 | 450.2 |
| 110° | 840.4 | 581.7 | 840.4 | 1248.8 | 949.7 | 719.7 |



TEST NUMBER: P1432783

CATALOG NUMBER: EHBR1-54-UNV-TASM-L835-UPL30

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|-------|--------|--------|--------|--------|
| 112.5° | 902.9 | 785.5 | 902.9 | 1196.2 | 1048.4 | 936.6 |
| 115° | 868.4 | 826.5 | 868.4 | 1068.0 | 1023.7 | 1018.0 |
| 117.5° | 792.8 | 798.6 | 792.8 | 907.1 | 921.0 | 983.5 |
| 120° | 705.8 | 739.4 | 705.8 | 757.5 | 804.4 | 888.2 |
| 122.5° | 626.0 | 665.5 | 626.0 | 650.0 | 685.3 | 769.2 |
| 125° | 557.1 | 597.3 | 557.1 | 573.6 | 582.7 | 652.5 |
| 127.5° | 509.4 | 536.6 | 509.4 | 519.4 | 510.4 | 554.8 |
| 130° | 472.5 | 495.5 | 472.5 | 485.7 | 463.6 | 485.0 |
| 132.5° | 447.1 | 461.9 | 447.1 | 462.8 | 435.8 | 441.5 |
| 135° | 424.9 | 437.2 | 424.9 | 441.5 | 417.0 | 414.5 |
| 137.5° | 406.1 | 416.8 | 406.1 | 423.6 | 404.7 | 398.8 |
| 140° | 389.8 | 398.7 | 389.8 | 408.0 | 393.2 | 389.9 |
| 142.5° | 372.6 | 379.2 | 372.6 | 394.1 | 384.2 | 380.9 |
| 145° | 361.2 | 366.2 | 361.2 | 383.4 | 377.6 | 376.8 |
| 147.5° | 351.4 | 354.7 | 351.4 | 371.2 | 368.7 | 368.7 |
| 150° | 341.7 | 345.0 | 341.7 | 360.5 | 358.0 | 359.7 |
| 152.5° | 331.1 | 335.2 | 331.1 | 348.2 | 345.7 | 347.4 |
| 155° | 324.6 | 328.7 | 324.6 | 338.5 | 336.8 | 337.7 |
| 157.5° | 321.4 | 324.8 | 321.4 | 332.0 | 331.2 | 331.2 |
| 160° | 319.1 | 321.7 | 319.1 | 328.1 | 327.2 | 326.4 |
| 162.5° | 315.9 | 318.5 | 315.9 | 326.5 | 324.9 | 324.9 |
| 165° | 316.0 | 316.9 | 316.0 | 323.4 | 323.4 | 322.6 |
| 167.5° | 315.3 | 316.9 | 315.3 | 323.5 | 323.5 | 322.7 |
| 170° | 316.1 | 317.0 | 316.1 | 322.7 | 321.9 | 320.3 |
| 172.5° | 317.9 | 318.7 | 317.9 | 325.3 | 323.7 | 322.9 |
| 175° | 318.0 | 318.8 | 318.0 | 323.8 | 323.8 | 324.7 |
| 177.5° | 320.5 | 321.4 | 320.5 | 323.8 | 323.8 | 323.0 |
| 180° | 324.8 | 324.8 | 324.8 | 324.8 | 324.8 | 324.8 |



TEST NUMBER: P1432783
 CATALOG NUMBER: EHBR1-54-UNV-TASM-L835-UPL30

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 | 19.46 | 20.58 | 19.92 | 21.01 | 21.46 | 18.78 | 19.90 | 19.24 | 20.33 | 20.78 |
| | 3H | 21.01 | 22.01 | 21.49 | 22.45 | 22.95 | 20.63 | 21.63 | 21.10 | 22.07 | 22.57 |
| | 4H | 21.64 | 22.58 | 22.14 | 23.04 | 23.56 | 21.41 | 22.34 | 21.91 | 22.80 | 23.32 |
| | 6H | 22.13 | 22.98 | 22.64 | 23.46 | 23.99 | 22.05 | 22.91 | 22.56 | 23.39 | 23.92 |
| | 8H | 22.28 | 23.09 | 22.80 | 23.59 | 24.12 | 22.27 | 23.08 | 22.80 | 23.58 | 24.12 |
| | 12H | 22.35 | 23.12 | 22.88 | 23.61 | 24.18 | 22.40 | 23.18 | 22.93 | 23.67 | 24.23 |
| 4H | 2H | 19.88 | 20.81 | 20.38 | 21.27 | 21.79 | 19.35 | 20.29 | 19.85 | 20.75 | 21.27 |
| | 3H | 21.67 | 22.44 | 22.18 | 22.95 | 23.49 | 21.41 | 22.18 | 21.92 | 22.69 | 23.23 |
| | 4H | 22.45 | 23.14 | 22.98 | 23.66 | 24.23 | 22.32 | 23.01 | 22.85 | 23.53 | 24.11 |
| | 6H | 23.06 | 23.66 | 23.62 | 24.21 | 24.80 | 23.09 | 23.69 | 23.65 | 24.24 | 24.83 |
| | 8H | 23.26 | 23.82 | 23.82 | 24.36 | 24.96 | 23.36 | 23.92 | 23.92 | 24.47 | 25.06 |
| | 12H | 23.37 | 23.86 | 23.94 | 24.44 | 25.04 | 23.53 | 24.02 | 24.11 | 24.60 | 25.20 |
| 8H | 4H | 22.70 | 23.25 | 23.26 | 23.80 | 24.40 | 22.60 | 23.16 | 23.16 | 23.70 | 24.30 |
| | 6H | 23.44 | 23.89 | 24.03 | 24.49 | 25.09 | 23.50 | 23.96 | 24.10 | 24.55 | 25.16 |
| | 8H | 23.71 | 24.11 | 24.32 | 24.72 | 25.34 | 23.86 | 24.26 | 24.47 | 24.87 | 25.49 |
| | 12H | 23.88 | 24.24 | 24.49 | 24.82 | 25.52 | 24.11 | 24.46 | 24.71 | 25.05 | 25.74 |
| 12H | 4H | 22.71 | 23.20 | 23.29 | 23.78 | 24.38 | 22.61 | 23.10 | 23.19 | 23.68 | 24.28 |
| | 6H | 23.48 | 23.89 | 24.09 | 24.49 | 25.11 | 23.55 | 23.95 | 24.16 | 24.56 | 25.18 |
| | 8H | 23.80 | 24.15 | 24.41 | 24.74 | 25.44 | 23.95 | 24.31 | 24.56 | 24.90 | 25.59 |

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



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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-3

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L835-N

Data in this report applies to families of products including EHBR-60-L835-N

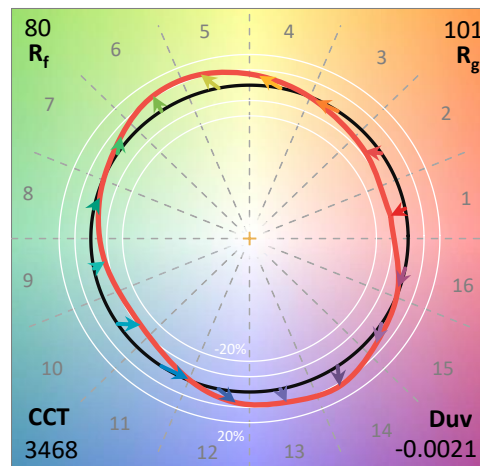
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-3
 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-L835-N**
 Description: Elevate Round Highbay at, 60000 lumens, 3500K 80CRI LEDs with N lens

Spectral Parameters

CCT (K): 3468
 CIE u': 0.2375
 CIE v': 0.5091
 Duv: -0.0021
 CIE x: 0.4049
 CIE y: 0.3856
 CIE z: 0.2095
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 581
 Purity: 37.24544
 Rf: 80.1
 Rg: 101

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 82.1 | | |
| R1: | 82.9 | R9: | 27.6 |
| R2: | 85.6 | R10: | 63.8 |
| R3: | 85.9 | R11: | 81.2 |
| R4: | 82.8 | R12: | 57.2 |
| R5: | 81.0 | R13: | 82.6 |
| R6: | 79.7 | R14: | 91.0 |
| R7: | 86.5 | R15: | 79.4 |
| R8: | 72.1 | | |



Test Conditions

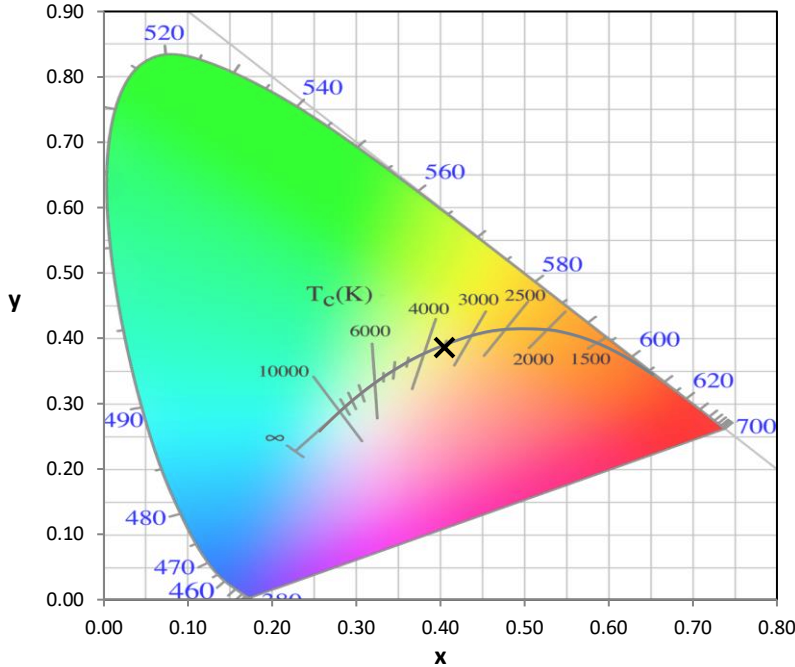
Stabilization Time: 39M
 Operation Time: 1H 39M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-3

| 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: SP1-2506-472-3

CIE 1931 Chromaticity Diagram



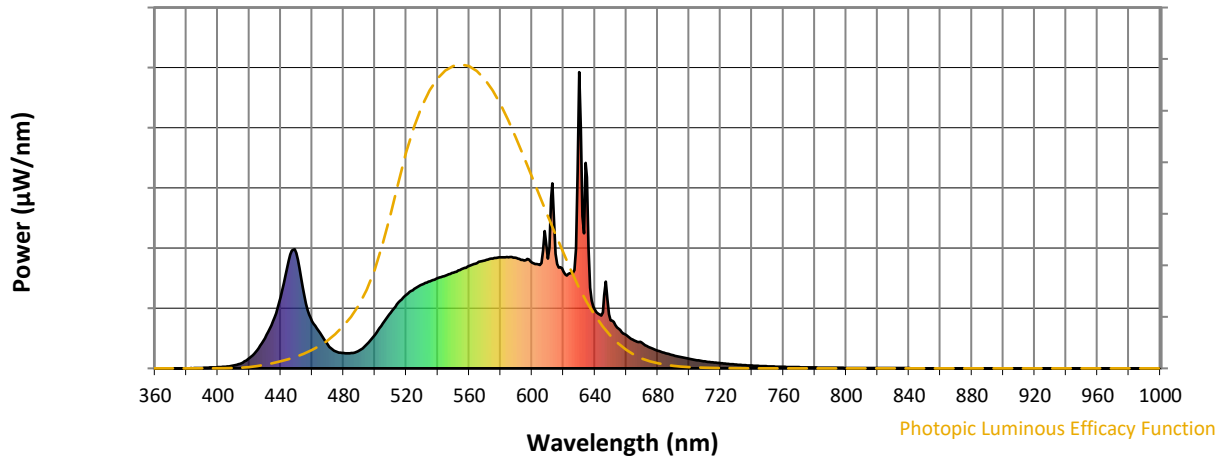
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-3

Photopic Flux vs. Wavelength

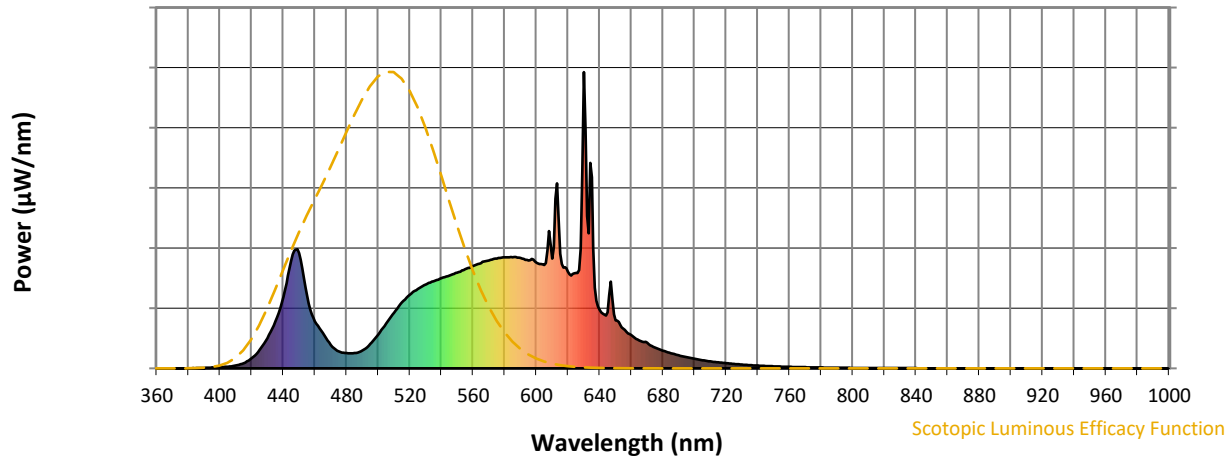


Photopic Lumens: NR

| 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 | 60 | NR | 620 | 327 | NR | 750 | 7 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 82 | NR | 625 | 322 | NR | 755 | 6 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 114 | NR | 630 | 1000 | NR | 760 | 5 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 152 | NR | 635 | 645 | NR | 765 | 4 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 189 | NR | 640 | 197 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 222 | NR | 645 | 189 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 248 | NR | 650 | 163 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 3 | NR | 525 | 268 | NR | 655 | 134 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 283 | NR | 660 | 113 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 294 | NR | 665 | 94 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 9 | NR | 540 | 305 | NR | 670 | 87 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 18 | NR | 545 | 314 | NR | 675 | 70 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 34 | NR | 550 | 323 | NR | 680 | 60 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 62 | NR | 555 | 335 | NR | 685 | 51 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 102 | NR | 560 | 346 | NR | 690 | 44 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 159 | NR | 565 | 356 | NR | 695 | 38 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 241 | NR | 570 | 364 | NR | 700 | 32 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 363 | NR | 575 | 371 | NR | 705 | 28 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 389 | NR | 580 | 375 | NR | 710 | 24 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 245 | NR | 585 | 375 | NR | 715 | 20 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 158 | NR | 590 | 373 | NR | 720 | 17 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 120 | NR | 595 | 364 | NR | 725 | 15 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 357 | NR | 730 | 13 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 57 | NR | 605 | 349 | NR | 735 | 11 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 51 | NR | 610 | 371 | NR | 740 | 9 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 51 | NR | 615 | 387 | NR | 745 | 8 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-472-3

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.43

| 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 | 60 | NR | 620 | 327 | NR | 750 | 7 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 82 | NR | 625 | 322 | NR | 755 | 6 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 114 | NR | 630 | 1000 | NR | 760 | 5 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 152 | NR | 635 | 645 | NR | 765 | 4 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 189 | NR | 640 | 197 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 222 | NR | 645 | 189 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 248 | NR | 650 | 163 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 3 | NR | 525 | 268 | NR | 655 | 134 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 283 | NR | 660 | 113 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 294 | NR | 665 | 94 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 9 | NR | 540 | 305 | NR | 670 | 87 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 18 | NR | 545 | 314 | NR | 675 | 70 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 34 | NR | 550 | 323 | NR | 680 | 60 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 62 | NR | 555 | 335 | NR | 685 | 51 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 102 | NR | 560 | 346 | NR | 690 | 44 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 159 | NR | 565 | 356 | NR | 695 | 38 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 241 | NR | 570 | 364 | NR | 700 | 32 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 363 | NR | 575 | 371 | NR | 705 | 28 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 389 | NR | 580 | 375 | NR | 710 | 24 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 245 | NR | 585 | 375 | NR | 715 | 20 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 158 | NR | 590 | 373 | NR | 720 | 17 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 120 | NR | 595 | 364 | NR | 725 | 15 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 357 | NR | 730 | 13 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 57 | NR | 605 | 349 | NR | 735 | 11 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 51 | NR | 610 | 371 | NR | 740 | 9 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 51 | NR | 615 | 387 | NR | 745 | 8 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-472-3

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.75

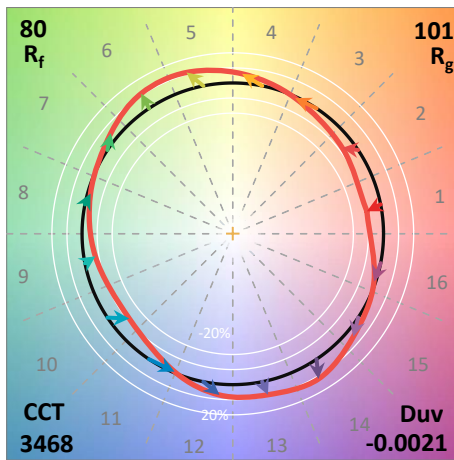
| λ (nm) | Power $\text{W}^{\wedge}/\text{nm}$ | Lumens (ϕ/nm) | λ (nm) | Power $\text{W}^{\wedge}/\text{nm}$ | Lumens (ϕ/nm) | λ (nm) | Power $\text{W}^{\wedge}/\text{nm}$ | Lumens (ϕ/nm) | λ (nm) | Power $\text{W}^{\wedge}/\text{nm}$ | Lumens (ϕ/nm) | λ (nm) | Power $\text{W}^{\wedge}/\text{nm}$ | Lumens (ϕ/nm) |
|----------------|-------------------------------------|-----------------------------|----------------|-------------------------------------|-----------------------------|----------------|-------------------------------------|-----------------------------|----------------|-------------------------------------|-----------------------------|----------------|-------------------------------------|-----------------------------|
| 360 | 0 | NR | 490 | 60 | NR | 620 | 327 | NR | 750 | 7 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 82 | NR | 625 | 322 | NR | 755 | 6 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 114 | NR | 630 | 1000 | NR | 760 | 5 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 152 | NR | 635 | 645 | NR | 765 | 4 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 189 | NR | 640 | 197 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 222 | NR | 645 | 189 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 248 | NR | 650 | 163 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 3 | NR | 525 | 268 | NR | 655 | 134 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 283 | NR | 660 | 113 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 294 | NR | 665 | 94 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 9 | NR | 540 | 305 | NR | 670 | 87 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 18 | NR | 545 | 314 | NR | 675 | 70 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 34 | NR | 550 | 323 | NR | 680 | 60 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 62 | NR | 555 | 335 | NR | 685 | 51 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 102 | NR | 560 | 346 | NR | 690 | 44 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 159 | NR | 565 | 356 | NR | 695 | 38 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 241 | NR | 570 | 364 | NR | 700 | 32 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 363 | NR | 575 | 371 | NR | 705 | 28 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 389 | NR | 580 | 375 | NR | 710 | 24 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 245 | NR | 585 | 375 | NR | 715 | 20 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 158 | NR | 590 | 373 | NR | 720 | 17 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 120 | NR | 595 | 364 | NR | 725 | 15 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 357 | NR | 730 | 13 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 57 | NR | 605 | 349 | NR | 735 | 11 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 51 | NR | 610 | 371 | NR | 740 | 9 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 51 | NR | 615 | 387 | NR | 745 | 8 | NR | 875 | 0 | NR | | | |

Summary

$R_f = 80.1$
 $R_g = 101$
 $CIE R_a = 82.1$
 $R_9 = 27.6$

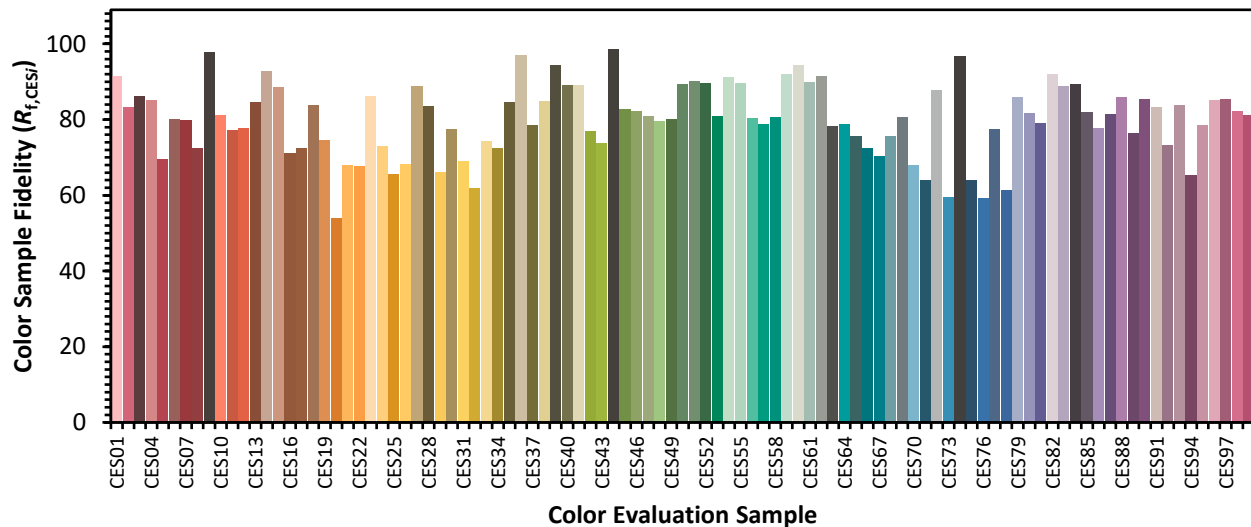


Color Vector Graphics

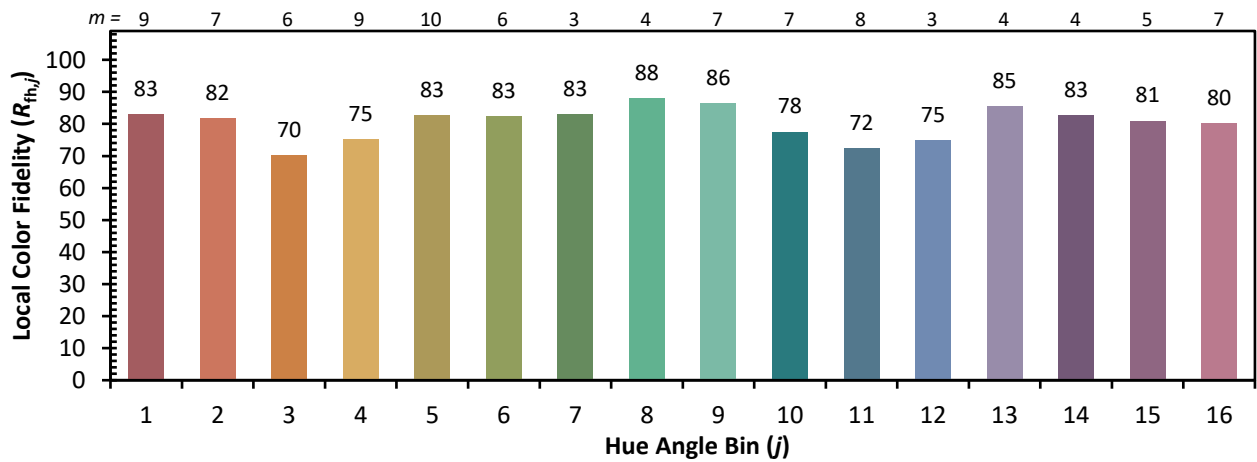


Individual Sample Fidelity Index ($R_{f,i}$)

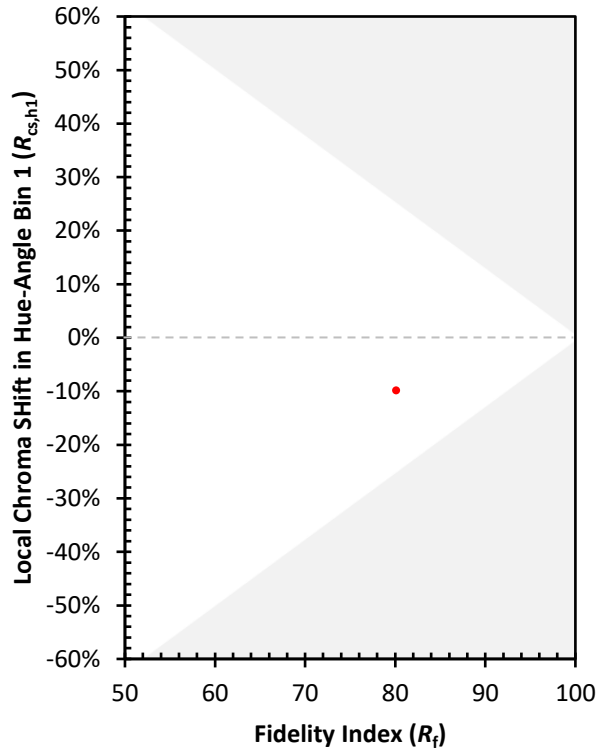
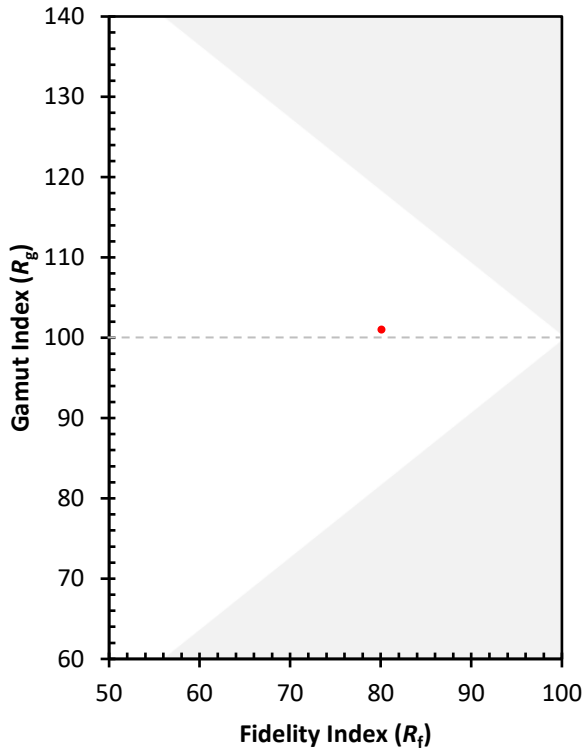
| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 68 | CES51 = 90 | CES76 = 59 |
| CES02 = 62 | CES27 = 89 | CES52 = 90 | CES77 = 78 |
| CES03 = 31 | CES28 = 84 | CES53 = 81 | CES78 = 61 |
| CES04 = 70 | CES29 = 66 | CES54 = 91 | CES79 = 86 |
| CES05 = 49 | CES30 = 77 | CES55 = 90 | CES80 = 82 |
| CES06 = 51 | CES31 = 69 | CES56 = 80 | CES81 = 79 |
| CES07 = 42 | CES32 = 62 | CES57 = 79 | CES82 = 92 |
| CES08 = 41 | CES33 = 74 | CES58 = 81 | CES83 = 89 |
| CES09 = 29 | CES34 = 72 | CES59 = 92 | CES84 = 89 |
| CES10 = 75 | CES35 = 85 | CES60 = 94 | CES85 = 82 |
| CES11 = 58 | CES36 = 97 | CES61 = 90 | CES86 = 78 |
| CES12 = 64 | CES37 = 79 | CES62 = 92 | CES87 = 82 |
| CES13 = 43 | CES38 = 85 | CES63 = 78 | CES88 = 86 |
| CES14 = 74 | CES39 = 94 | CES64 = 79 | CES89 = 76 |
| CES15 = 71 | CES40 = 89 | CES65 = 76 | CES90 = 85 |
| CES16 = 47 | CES41 = 89 | CES66 = 73 | CES91 = 83 |
| CES17 = 49 | CES42 = 77 | CES67 = 70 | CES92 = 73 |
| CES18 = 56 | CES43 = 74 | CES68 = 76 | CES93 = 84 |
| CES19 = 72 | CES44 = 99 | CES69 = 81 | CES94 = 65 |
| CES20 = 66 | CES45 = 83 | CES70 = 68 | CES95 = 79 |
| CES21 = 86 | CES46 = 82 | CES71 = 64 | CES96 = 85 |
| CES22 = 78 | CES47 = 81 | CES72 = 88 | CES97 = 85 |
| CES23 = 92 | CES48 = 80 | CES73 = 60 | CES98 = 82 |
| CES24 = 91 | CES49 = 80 | CES74 = 97 | CES99 = 81 |
| CES25 = 72 | CES50 = 89 | CES75 = 64 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)