

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: P1433007

Luminaire Tested: EHBR1-42-UNV-ASM-L850-UPL30

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1433007
REPORT IS A COMBINATION OF REPORTS P1431808 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-42-UNV-ASM-L850-UPL30
Description: Elevate Round Highbay at, 42000 lumens, 5000K 80CRI LEDs with ASM lens
Light Source: -
Ballast/Driver: -

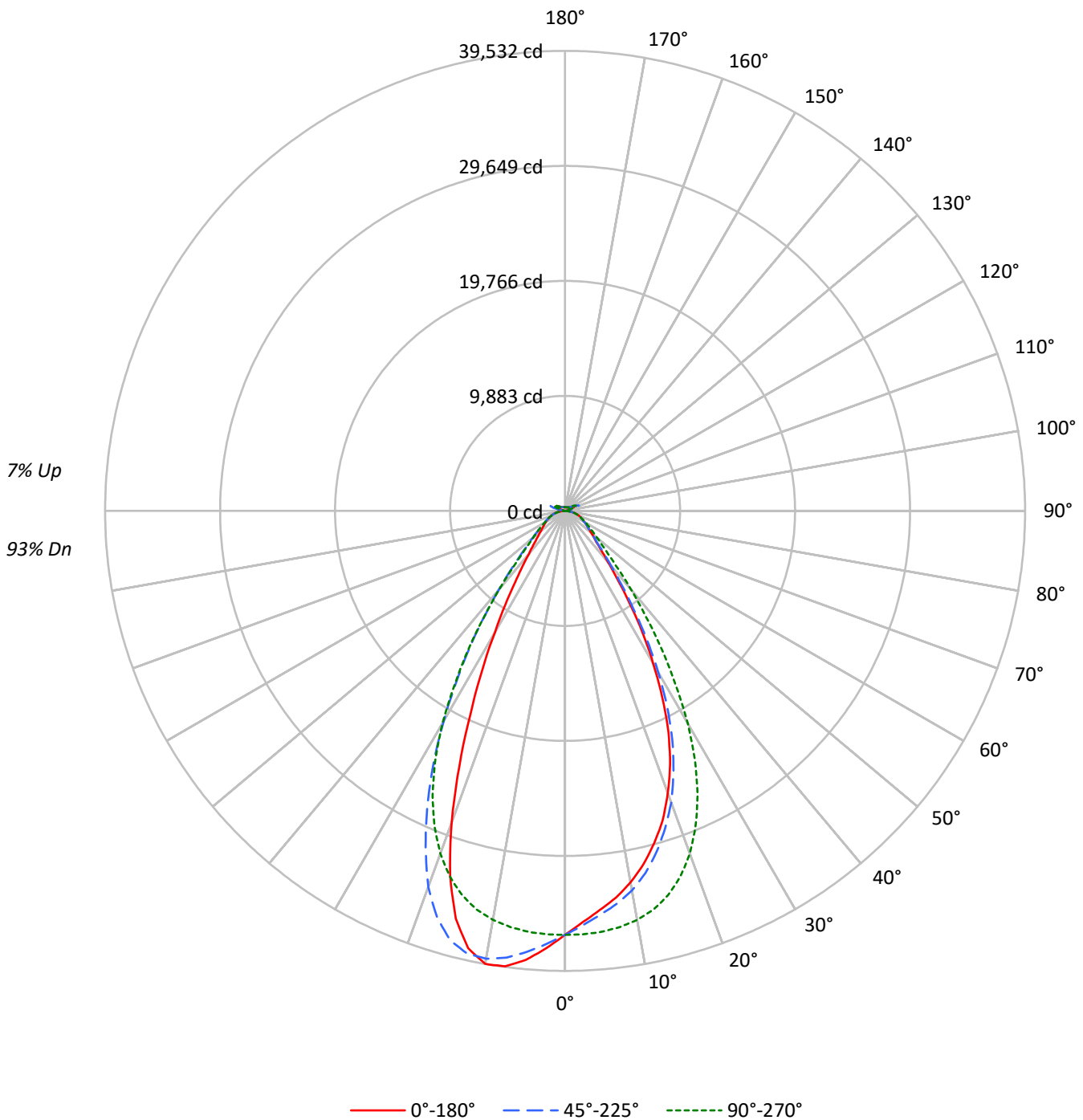
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43732.1 lumens
Efficiency: N/A
Efficacy: 177.5 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 0.99 / 0.92
Luminous Opening: Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type: Direct

Input Watts (W): 246.4
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: P1433007
CATALOG NUMBER: EHBR1-42-UNV-ASM-L850-UPL30

Luminous Intensity Polar Plot





TEST NUMBER: P1433007

CATALOG NUMBER: EHBR1-42-UNV-ASM-L850-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 | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 101 | 101 | 101 | 96 | 96 | 96 | 96 | 96 | 96 | 93 |
| 1 | 110 | 107 | 104 | 101 | 107 | 104 | 101 | 99 | 98 | 96 | 94 | 94 | 92 | 90 | 89 | 88 | 86 | 86 | 86 | 86 | 84 |
| 2 | 103 | 97 | 92 | 88 | 100 | 95 | 90 | 87 | 90 | 87 | 84 | 86 | 83 | 81 | 83 | 80 | 78 | 78 | 78 | 78 | 76 |
| 3 | 97 | 89 | 83 | 78 | 94 | 87 | 82 | 77 | 83 | 79 | 75 | 80 | 76 | 73 | 77 | 74 | 71 | 71 | 71 | 71 | 69 |
| 4 | 91 | 82 | 75 | 70 | 88 | 80 | 74 | 69 | 77 | 72 | 68 | 74 | 70 | 66 | 71 | 68 | 65 | 65 | 65 | 65 | 63 |
| 5 | 85 | 76 | 69 | 64 | 83 | 74 | 68 | 63 | 72 | 66 | 62 | 69 | 64 | 61 | 67 | 63 | 60 | 60 | 60 | 60 | 58 |
| 6 | 81 | 70 | 63 | 58 | 78 | 69 | 63 | 58 | 67 | 61 | 57 | 65 | 60 | 56 | 63 | 58 | 55 | 55 | 55 | 55 | 53 |
| 7 | 76 | 65 | 59 | 54 | 74 | 64 | 58 | 53 | 62 | 57 | 53 | 61 | 56 | 52 | 59 | 54 | 51 | 51 | 51 | 51 | 49 |
| 8 | 72 | 61 | 54 | 50 | 70 | 60 | 54 | 49 | 58 | 53 | 49 | 57 | 52 | 48 | 55 | 51 | 48 | 48 | 48 | 48 | 46 |
| 9 | 68 | 57 | 51 | 46 | 67 | 57 | 50 | 46 | 55 | 49 | 45 | 54 | 49 | 45 | 52 | 48 | 44 | 44 | 44 | 44 | 43 |
| 10 | 65 | 54 | 47 | 43 | 63 | 53 | 47 | 43 | 52 | 46 | 42 | 51 | 46 | 42 | 49 | 45 | 42 | 42 | 42 | 42 | 40 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° | 135° | 180° |
|-----|--------|--------|--------|--------|--------|
| 0° | 171086 | 171086 | 171086 | 171086 | 171086 |
| 5° | 161220 | 163105 | 170045 | 178200 | 181406 |
| 10° | 152582 | 155813 | 167954 | 183922 | 186063 |
| 15° | 140944 | 144709 | 162995 | 182035 | 172910 |
| 20° | 125542 | 129769 | 152441 | 167325 | 138650 |
| 25° | 105209 | 109191 | 134923 | 140349 | 96065 |
| 30° | 78718 | 83281 | 109552 | 108458 | 62497 |
| 35° | 52404 | 55568 | 78574 | 77305 | 40474 |
| 40° | 33049 | 35319 | 50800 | 51128 | 27897 |
| 45° | 23548 | 24527 | 32233 | 33618 | 21609 |
| 50° | 19614 | 19770 | 23937 | 24560 | 18363 |
| 55° | 17313 | 17354 | 19543 | 20059 | 16728 |
| 60° | 16031 | 15895 | 16923 | 17281 | 15935 |
| 65° | 15302 | 15165 | 15427 | 15728 | 15367 |
| 70° | 14862 | 14606 | 14622 | 14901 | 15057 |
| 75° | 14130 | 13703 | 13673 | 14159 | 14566 |
| 80° | 12856 | 11960 | 12012 | 12856 | 13753 |
| 85° | 9363 | 7771 | 7771 | 8886 | 9820 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
 Vertical Angle: 45°
 Luminance: 45318 cd/sqm



TEST NUMBER: P1433007
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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 3464.1 | 7.9 |
| 10°-20° | 9424.2 | 21.5 |
| 20°-30° | 11052.7 | 25.3 |
| 30°-40° | 7686.5 | 17.6 |
| 40°-50° | 3819.8 | 8.7 |
| 50°-60° | 2284.6 | 5.2 |
| 60°-70° | 1608.0 | 3.7 |
| 70°-80° | 1035.8 | 2.4 |
| 80°-90° | 334.3 | 0.8 |
| 90°-100° | 80.8 | 0.2 |
| 100°-110° | 524.6 | 1.2 |
| 110°-120° | 968.5 | 2.2 |
| 120°-130° | 576.1 | 1.3 |
| 130°-140° | 349.0 | 0.8 |
| 140°-150° | 242.0 | 0.6 |
| 150°-160° | 158.6 | 0.4 |
| 160°-170° | 91.7 | 0.2 |
| 170°-180° | 30.6 | 0.1 |
| 0°-30° | 23941.0 | 54.7 |
| 0°-40° | 31627.5 | 72.3 |
| 0°-60° | 37732.0 | 86.3 |
| 0°-90° | 40710.2 | 93.1 |
| 90°-120° | 1573.9 | 3.6 |
| 90°-150° | 2741.0 | 6.3 |
| 90°-180° | 3022.0 | 6.9 |
| 0°-180° | 43732.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0° | 36432 | 36432 | 36432 | 36432 | 36432 | |
| 5° | 34423 | 34826 | 36307 | 38048 | 38733 | 3229 |
| 15° | 29569 | 30359 | 34196 | 38190 | 36276 | 8246 |
| 25° | 21010 | 21805 | 26944 | 28028 | 19184 | 9480 |
| 35° | 9618 | 10199 | 14421 | 14188 | 7428 | 6127 |
| 45° | 3810 | 3968 | 5215 | 5439 | 3496 | 3080 |
| 55° | 2340 | 2345 | 2641 | 2711 | 2261 | 2123 |
| 65° | 1597 | 1583 | 1610 | 1642 | 1604 | 1586 |
| 75° | 995 | 965 | 963 | 997 | 1026 | 1051 |
| 85° | 322 | 267 | 267 | 305 | 338 | 331 |
| 90° | 22 | 61 | 22 | 65 | 27 | 26 |
| 95° | 37 | 136 | 43 | 117 | 42 | 36 |
| 105° | 183 | 914 | 241 | 976 | 124 | 244 |
| 115° | 837 | 1082 | 1031 | 1198 | 882 | 771 |
| 125° | 604 | 580 | 660 | 643 | 693 | 551 |
| 135° | 442 | 446 | 418 | 466 | 484 | 346 |
| 145° | 369 | 386 | 379 | 388 | 397 | 233 |
| 155° | 329 | 340 | 339 | 339 | 353 | 153 |
| 165° | 315 | 322 | 321 | 321 | 332 | 90 |
| 175° | 316 | 321 | 322 | 320 | 329 | 30 |
| 180° | 322 | 322 | 322 | 322 | 322 | |



TEST NUMBER: P1433007
 CATALOG NUMBER: EHBR1-42-UNV-ASM-L850-UPL30

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 36431.5 | 36431.5 | 36431.5 | 36431.5 | 36431.5 | 36431.5 | 36431.5 | 36431.5 | 36431.5 |
| 2.5° | 35350.1 | 35373.3 | 35620.7 | 35942.4 | 36410.3 | 36881.0 | 37262.2 | 37513.6 | 37637.9 |
| 5° | 34423.0 | 34551.5 | 34825.5 | 35416.3 | 36307.2 | 37249.9 | 38048.5 | 38571.1 | 38733.1 |
| 7.5° | 33519.9 | 33594.4 | 34052.8 | 34799.5 | 36060.5 | 37529.4 | 38716.0 | 39326.0 | 39474.9 |
| 10° | 32418.1 | 32586.7 | 33104.6 | 33985.1 | 35684.1 | 37705.6 | 39076.7 | 39513.9 | 39531.6 |
| 12.5° | 31121.4 | 31344.8 | 31879.7 | 32990.5 | 35083.6 | 37642.7 | 38955.8 | 38812.2 | 38486.4 |
| 15° | 29569.3 | 29765.4 | 30359.1 | 31647.4 | 34195.5 | 37270.4 | 38190.0 | 37022.4 | 36275.7 |
| 17.5° | 27892.9 | 28070.5 | 28586.3 | 30005.1 | 32944.1 | 36573.6 | 36591.4 | 34281.7 | 32873.0 |
| 20° | 25802.5 | 25941.8 | 26671.4 | 28063.6 | 31331.1 | 35456.0 | 34390.2 | 30165.6 | 28496.7 |
| 22.5° | 23578.1 | 23708.6 | 24356.9 | 25805.8 | 29309.0 | 33949.0 | 31325.0 | 26025.2 | 23748.2 |
| 25° | 21010.1 | 21081.2 | 21805.4 | 23115.6 | 26944.0 | 32102.4 | 28027.5 | 21513.6 | 19184.1 |
| 27.5° | 18121.2 | 18242.1 | 18999.6 | 20337.9 | 24162.2 | 29761.9 | 24516.0 | 17580.1 | 15431.0 |
| 30° | 15141.3 | 15341.5 | 16019.1 | 17217.4 | 21072.3 | 26761.6 | 20861.9 | 14000.4 | 12021.3 |
| 32.5° | 12360.2 | 12504.3 | 12987.3 | 14239.5 | 17612.8 | 23820.7 | 17352.6 | 11218.0 | 9541.5 |
| 35° | 9618.0 | 9762.2 | 10198.7 | 11428.4 | 14421.2 | 20141.2 | 14188.2 | 8814.7 | 7428.5 |
| 37.5° | 7352.0 | 7606.8 | 7886.9 | 8885.0 | 11317.7 | 16664.7 | 11310.2 | 7097.9 | 6025.3 |
| 40° | 5728.2 | 5769.1 | 6121.7 | 6760.4 | 8805.0 | 13030.3 | 8861.8 | 5666.0 | 4835.3 |
| 42.5° | 4585.3 | 4696.7 | 4848.3 | 5326.5 | 6671.6 | 9963.7 | 6965.4 | 4650.2 | 4107.1 |
| 45° | 3809.9 | 3853.7 | 3968.4 | 4289.5 | 5215.1 | 7332.2 | 5439.2 | 3923.3 | 3496.3 |
| 47.5° | 3333.0 | 3314.0 | 3387.8 | 3628.2 | 4247.1 | 5666.7 | 4408.4 | 3365.2 | 3066.0 |
| 50° | 2923.2 | 2911.5 | 2946.4 | 3106.9 | 3567.4 | 4348.2 | 3660.3 | 2937.6 | 2736.7 |
| 52.5° | 2604.9 | 2615.1 | 2618.5 | 2718.2 | 3064.6 | 3546.2 | 3117.2 | 2617.8 | 2482.6 |
| 55° | 2339.7 | 2352.8 | 2345.2 | 2419.0 | 2641.0 | 2981.3 | 2710.8 | 2354.1 | 2260.6 |
| 57.5° | 2132.8 | 2123.2 | 2112.9 | 2152.6 | 2319.3 | 2529.0 | 2354.1 | 2129.3 | 2067.2 |
| 60° | 1927.2 | 1918.2 | 1910.8 | 1936.7 | 2034.4 | 2190.1 | 2077.5 | 1933.3 | 1915.6 |
| 62.5° | 1750.9 | 1745.4 | 1744.8 | 1739.9 | 1815.1 | 1913.5 | 1837.0 | 1757.0 | 1741.3 |
| 65° | 1597.2 | 1591.0 | 1582.9 | 1575.3 | 1610.2 | 1701.7 | 1641.6 | 1598.6 | 1604.0 |
| 67.5° | 1443.5 | 1443.5 | 1429.1 | 1417.6 | 1451.6 | 1499.5 | 1473.5 | 1449.0 | 1455.1 |
| 70° | 1304.1 | 1304.8 | 1281.6 | 1272.7 | 1283.0 | 1334.2 | 1307.5 | 1311.0 | 1321.2 |
| 72.5° | 1154.5 | 1138.1 | 1121.0 | 1120.3 | 1121.7 | 1161.4 | 1152.4 | 1160.7 | 1171.6 |
| 75° | 995.4 | 976.2 | 965.3 | 953.0 | 963.2 | 993.3 | 997.4 | 1009.0 | 1026.1 |
| 77.5° | 841.6 | 812.3 | 803.4 | 797.2 | 790.4 | 824.5 | 837.5 | 853.2 | 878.6 |
| 80° | 676.3 | 644.2 | 629.2 | 620.3 | 631.9 | 647.6 | 676.3 | 687.9 | 723.5 |
| 82.5° | 500.1 | 476.1 | 457.8 | 457.1 | 462.5 | 476.8 | 501.5 | 523.3 | 543.8 |
| 85° | 321.8 | 283.5 | 267.1 | 273.3 | 267.1 | 289.0 | 305.4 | 331.3 | 337.5 |
| 87.5° | 116.1 | 90.9 | 86.7 | 95.7 | 93.6 | 100.4 | 114.7 | 125.0 | 125.7 |
| 90° | 22.3 | 35.7 | 60.6 | 39.0 | 22.3 | 38.0 | 65.3 | 37.4 | 27.1 |
| 92.5° | 32.3 | 53.9 | 97.2 | 50.6 | 29.0 | 51.3 | 91.9 | 49.0 | 35.5 |
| 95° | 37.3 | 62.3 | 135.5 | 67.3 | 43.0 | 63.0 | 116.9 | 54.0 | 42.1 |
| 97.5° | 47.9 | 69.0 | 155.5 | 82.2 | 66.3 | 77.9 | 131.9 | 57.4 | 50.4 |
| 100° | 63.0 | 80.5 | 242.0 | 101.3 | 87.9 | 87.9 | 240.1 | 65.7 | 57.1 |
| 102.5° | 106.2 | 170.4 | 513.3 | 189.5 | 132.9 | 171.8 | 555.3 | 129.7 | 68.8 |
| 105° | 182.8 | 358.5 | 914.4 | 395.9 | 241.1 | 391.5 | 976.4 | 331.0 | 124.4 |
| 107.5° | 315.9 | 641.4 | 1206.4 | 700.4 | 455.7 | 729.4 | 1257.6 | 650.6 | 285.8 |
| 110° | 588.9 | 851.2 | 1264.6 | 961.7 | 728.7 | 1018.9 | 1372.5 | 890.3 | 575.4 |



TEST NUMBER: P1433007

CATALOG NUMBER: EHBR1-42-UNV-ASM-L850-UPL30

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|--------|-------|-------|--------|--------|--------|--------|--------|--------|-------|
| 112.5° | 795.3 | 914.4 | 1211.4 | 1061.6 | 948.4 | 1135.4 | 1340.8 | 986.7 | 795.1 |
| 115° | 836.8 | 879.5 | 1081.5 | 1036.6 | 1030.6 | 1118.8 | 1197.7 | 983.5 | 881.6 |
| 117.5° | 808.5 | 802.9 | 918.5 | 932.4 | 995.7 | 1023.9 | 1034.7 | 923.6 | 886.6 |
| 120° | 748.6 | 714.7 | 767.0 | 814.2 | 899.1 | 887.5 | 872.2 | 835.3 | 836.7 |
| 122.5° | 673.8 | 633.8 | 657.8 | 693.4 | 778.4 | 753.3 | 737.4 | 746.2 | 768.5 |
| 125° | 604.5 | 563.9 | 580.2 | 589.3 | 660.2 | 635.2 | 643.2 | 669.5 | 692.6 |
| 127.5° | 543.0 | 515.6 | 525.3 | 516.0 | 561.0 | 549.3 | 574.9 | 604.7 | 624.3 |
| 130° | 501.4 | 478.1 | 491.1 | 468.5 | 490.1 | 492.7 | 526.7 | 552.1 | 564.4 |
| 132.5° | 467.1 | 452.2 | 467.5 | 439.9 | 445.9 | 458.4 | 490.8 | 512.9 | 520.1 |
| 135° | 442.1 | 429.5 | 445.9 | 420.6 | 418.3 | 436.8 | 466.5 | 480.5 | 483.6 |
| 137.5° | 421.2 | 410.2 | 427.3 | 407.9 | 402.3 | 420.9 | 443.2 | 454.6 | 452.0 |
| 140° | 402.5 | 393.3 | 411.3 | 396.4 | 393.0 | 411.6 | 421.6 | 434.6 | 432.6 |
| 142.5° | 382.3 | 375.6 | 397.0 | 387.0 | 383.7 | 400.7 | 405.6 | 415.3 | 412.6 |
| 145° | 368.8 | 363.7 | 385.9 | 380.3 | 379.3 | 392.0 | 388.0 | 400.4 | 396.7 |
| 147.5° | 356.7 | 353.3 | 373.4 | 371.0 | 371.0 | 380.3 | 375.3 | 385.9 | 382.3 |
| 150° | 346.5 | 343.1 | 362.4 | 360.0 | 361.7 | 368.4 | 361.0 | 373.4 | 373.1 |
| 152.5° | 336.1 | 332.1 | 349.7 | 347.3 | 349.0 | 355.7 | 349.0 | 363.1 | 362.1 |
| 155° | 329.2 | 325.1 | 339.5 | 338.1 | 338.8 | 342.1 | 338.8 | 352.7 | 353.4 |
| 157.5° | 324.6 | 321.5 | 332.5 | 331.8 | 331.8 | 334.2 | 332.5 | 344.9 | 345.6 |
| 160° | 321.0 | 318.7 | 327.9 | 327.2 | 326.2 | 329.6 | 328.6 | 339.3 | 340.0 |
| 162.5° | 317.4 | 315.0 | 325.9 | 324.3 | 324.3 | 324.3 | 324.1 | 334.7 | 336.0 |
| 165° | 315.4 | 314.7 | 322.4 | 322.4 | 321.4 | 323.1 | 321.1 | 329.1 | 332.1 |
| 167.5° | 315.4 | 313.7 | 322.1 | 322.1 | 321.1 | 319.4 | 320.8 | 327.8 | 330.8 |
| 170° | 315.1 | 314.4 | 321.1 | 320.1 | 318.5 | 319.1 | 318.9 | 325.8 | 328.9 |
| 172.5° | 316.5 | 315.8 | 323.2 | 321.5 | 320.5 | 320.5 | 319.1 | 324.6 | 329.3 |
| 175° | 316.1 | 315.5 | 321.1 | 321.1 | 321.8 | 320.8 | 320.5 | 324.3 | 329.0 |
| 177.5° | 318.5 | 317.8 | 321.1 | 321.1 | 320.1 | 321.5 | 322.9 | 326.6 | 333.0 |
| 180° | 321.5 | 321.5 | 321.5 | 321.5 | 321.5 | 321.5 | 321.5 | 321.5 | 321.5 |



TEST NUMBER: P1433007
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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 | 17.81 | 18.91 | 18.29 | 19.37 | 19.86 | 18.57 | 19.67 | 19.06 | 20.13 | 20.62 |
| | 3H | 19.62 | 20.60 | 20.12 | 21.07 | 21.61 | 20.13 | 21.11 | 20.63 | 21.58 | 22.12 |
| | 4H | 20.36 | 21.27 | 20.88 | 21.76 | 22.32 | 20.78 | 21.69 | 21.30 | 22.18 | 22.74 |
| | 6H | 20.93 | 21.77 | 21.46 | 22.27 | 22.84 | 21.27 | 22.11 | 21.81 | 22.62 | 23.18 |
| | 8H | 21.11 | 21.91 | 21.66 | 22.43 | 23.00 | 21.43 | 22.23 | 21.98 | 22.75 | 23.32 |
| | 12H | 21.21 | 21.97 | 21.76 | 22.49 | 23.08 | 21.51 | 22.27 | 22.06 | 22.79 | 23.38 |
| 4H | 2H | 18.32 | 19.24 | 18.85 | 19.73 | 20.28 | 18.95 | 19.87 | 19.48 | 20.36 | 20.91 |
| | 3H | 20.36 | 21.12 | 20.90 | 21.65 | 22.22 | 20.76 | 21.51 | 21.29 | 22.05 | 22.62 |
| | 4H | 21.22 | 21.90 | 21.78 | 22.45 | 23.06 | 21.54 | 22.22 | 22.10 | 22.77 | 23.38 |
| | 6H | 21.92 | 22.50 | 22.50 | 23.08 | 23.70 | 22.18 | 22.76 | 22.76 | 23.34 | 23.96 |
| | 8H | 22.14 | 22.69 | 22.73 | 23.26 | 23.89 | 22.38 | 22.93 | 22.97 | 23.50 | 24.13 |
| | 12H | 22.28 | 22.76 | 22.88 | 23.36 | 24.00 | 22.50 | 22.98 | 23.10 | 23.58 | 24.22 |
| 8H | 4H | 21.48 | 22.03 | 22.07 | 22.60 | 23.23 | 21.79 | 22.33 | 22.37 | 22.91 | 23.54 |
| | 6H | 22.30 | 22.74 | 22.92 | 23.36 | 24.00 | 22.55 | 23.00 | 23.17 | 23.61 | 24.25 |
| | 8H | 22.60 | 23.00 | 23.24 | 23.63 | 24.28 | 22.83 | 23.23 | 23.47 | 23.86 | 24.51 |
| | 12H | 22.80 | 23.15 | 23.43 | 23.76 | 24.49 | 23.02 | 23.36 | 23.65 | 23.98 | 24.70 |
| 12H | 4H | 21.49 | 21.97 | 22.09 | 22.58 | 23.21 | 21.80 | 22.28 | 22.40 | 22.88 | 23.52 |
| | 6H | 22.34 | 22.74 | 22.97 | 23.37 | 24.02 | 22.59 | 22.99 | 23.23 | 23.62 | 24.27 |
| | 8H | 22.68 | 23.03 | 23.31 | 23.64 | 24.37 | 22.92 | 23.27 | 23.55 | 23.88 | 24.61 |

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: SP1-2506-472-4

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L850-N

Data in this report applies to families of products including EHBR-60-L850-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-4
 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-L850-N**
 Description: Elevate Round Highbay at, 60000 lumens, 5000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K): 4875
 CIE u': 0.2124
 CIE v': 0.4871
 Duv: 0.0005
 CIE x: 0.3488
 CIE y: 0.3555
 CIE z: 0.2957
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 573
 Purity: 11.33556
 Rf: 80
 Rg: 102.3

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 82.3 | | |
| R1: | 85.0 | R9: | 43.9 |
| R2: | 83.1 | R10: | 57.4 |
| R3: | 78.8 | R11: | 83.1 |
| R4: | 84.0 | R12: | 51.0 |
| R5: | 83.0 | R13: | 83.4 |
| R6: | 76.3 | R14: | 87.4 |
| R7: | 86.8 | R15: | 83.4 |
| R8: | 81.7 | | |



Test Conditions

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

REPORT NUMBER: SP1-2506-472-4

| 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 |

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CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-4

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 | 89 | NR | 620 | 280 | NR | 750 | 6 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 121 | NR | 625 | 280 | NR | 755 | 5 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 168 | NR | 630 | 1000 | NR | 760 | 5 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 224 | NR | 635 | 626 | NR | 765 | 4 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 275 | NR | 640 | 163 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 321 | NR | 645 | 160 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 3 | NR | 520 | 354 | NR | 650 | 136 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 5 | NR | 525 | 375 | NR | 655 | 111 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 388 | NR | 660 | 93 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 395 | NR | 665 | 76 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 15 | NR | 540 | 397 | NR | 670 | 72 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 28 | NR | 545 | 398 | NR | 675 | 57 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 53 | NR | 550 | 396 | NR | 680 | 49 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 97 | NR | 555 | 395 | NR | 685 | 42 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 163 | NR | 560 | 392 | NR | 690 | 37 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 261 | NR | 565 | 388 | NR | 695 | 32 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 409 | NR | 570 | 381 | NR | 700 | 27 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 637 | NR | 575 | 374 | NR | 705 | 23 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 699 | NR | 580 | 365 | NR | 710 | 20 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 436 | NR | 585 | 354 | NR | 715 | 17 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 274 | NR | 590 | 342 | NR | 720 | 15 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 205 | NR | 595 | 325 | NR | 725 | 13 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 130 | NR | 600 | 313 | NR | 730 | 11 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 90 | NR | 605 | 301 | NR | 735 | 10 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 78 | NR | 610 | 323 | NR | 740 | 8 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 77 | NR | 615 | 340 | NR | 745 | 7 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-472-4

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.82

| 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 | 89 | NR | 620 | 280 | NR | 750 | 6 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 121 | NR | 625 | 280 | NR | 755 | 5 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 168 | NR | 630 | 1000 | NR | 760 | 5 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 224 | NR | 635 | 626 | NR | 765 | 4 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 275 | NR | 640 | 163 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 321 | NR | 645 | 160 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 3 | NR | 520 | 354 | NR | 650 | 136 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 5 | NR | 525 | 375 | NR | 655 | 111 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 388 | NR | 660 | 93 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 395 | NR | 665 | 76 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 15 | NR | 540 | 397 | NR | 670 | 72 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 28 | NR | 545 | 398 | NR | 675 | 57 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 53 | NR | 550 | 396 | NR | 680 | 49 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 97 | NR | 555 | 395 | NR | 685 | 42 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 163 | NR | 560 | 392 | NR | 690 | 37 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 261 | NR | 565 | 388 | NR | 695 | 32 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 409 | NR | 570 | 381 | NR | 700 | 27 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 637 | NR | 575 | 374 | NR | 705 | 23 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 699 | NR | 580 | 365 | NR | 710 | 20 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 436 | NR | 585 | 354 | NR | 715 | 17 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 274 | NR | 590 | 342 | NR | 720 | 15 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 205 | NR | 595 | 325 | NR | 725 | 13 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 130 | NR | 600 | 313 | NR | 730 | 11 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 90 | NR | 605 | 301 | NR | 735 | 10 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 78 | NR | 610 | 323 | NR | 740 | 8 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 77 | NR | 615 | 340 | NR | 745 | 7 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-472-4

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.71

| 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 | 89 | NR | 620 | 280 | NR | 750 | 6 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 121 | NR | 625 | 280 | NR | 755 | 5 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 168 | NR | 630 | 1000 | NR | 760 | 5 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 224 | NR | 635 | 626 | NR | 765 | 4 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 275 | NR | 640 | 163 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 321 | NR | 645 | 160 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 3 | NR | 520 | 354 | NR | 650 | 136 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 5 | NR | 525 | 375 | NR | 655 | 111 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 388 | NR | 660 | 93 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 10 | NR | 535 | 395 | NR | 665 | 76 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 15 | NR | 540 | 397 | NR | 670 | 72 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 28 | NR | 545 | 398 | NR | 675 | 57 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 53 | NR | 550 | 396 | NR | 680 | 49 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 97 | NR | 555 | 395 | NR | 685 | 42 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 163 | NR | 560 | 392 | NR | 690 | 37 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 261 | NR | 565 | 388 | NR | 695 | 32 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 409 | NR | 570 | 381 | NR | 700 | 27 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 637 | NR | 575 | 374 | NR | 705 | 23 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 699 | NR | 580 | 365 | NR | 710 | 20 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 436 | NR | 585 | 354 | NR | 715 | 17 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 274 | NR | 590 | 342 | NR | 720 | 15 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 205 | NR | 595 | 325 | NR | 725 | 13 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 130 | NR | 600 | 313 | NR | 730 | 11 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 90 | NR | 605 | 301 | NR | 735 | 10 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 78 | NR | 610 | 323 | NR | 740 | 8 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 77 | NR | 615 | 340 | NR | 745 | 7 | NR | 875 | 0 | NR | | | |

Summary

$R_f = 80$
 $R_g = 102.3$
 $CIE R_a = 82.3$
 $R_9 = 43.9$



Color Vector Graphics



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

| | | | |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 67 | CES51 = 92 | CES76 = 54 |
| CES02 = 60 | CES27 = 88 | CES52 = 91 | CES77 = 71 |
| CES03 = 31 | CES28 = 81 | CES53 = 82 | CES78 = 55 |
| CES04 = 69 | CES29 = 66 | CES54 = 92 | CES79 = 81 |
| CES05 = 47 | CES30 = 80 | CES55 = 90 | CES80 = 75 |
| CES06 = 50 | CES31 = 69 | CES56 = 81 | CES81 = 79 |
| CES07 = 40 | CES32 = 61 | CES57 = 80 | CES82 = 90 |
| CES08 = 39 | CES33 = 76 | CES58 = 81 | CES83 = 87 |
| CES09 = 29 | CES34 = 68 | CES59 = 93 | CES84 = 87 |
| CES10 = 73 | CES35 = 82 | CES60 = 94 | CES85 = 82 |
| CES11 = 56 | CES36 = 95 | CES61 = 91 | CES86 = 83 |
| CES12 = 62 | CES37 = 75 | CES62 = 89 | CES87 = 78 |
| CES13 = 42 | CES38 = 87 | CES63 = 80 | CES88 = 85 |
| CES14 = 74 | CES39 = 94 | CES64 = 79 | CES89 = 81 |
| CES15 = 71 | CES40 = 87 | CES65 = 75 | CES90 = 86 |
| CES16 = 46 | CES41 = 91 | CES66 = 72 | CES91 = 80 |
| CES17 = 48 | CES42 = 71 | CES67 = 69 | CES92 = 77 |
| CES18 = 56 | CES43 = 72 | CES68 = 75 | CES93 = 86 |
| CES19 = 70 | CES44 = 99 | CES69 = 80 | CES94 = 71 |
| CES20 = 65 | CES45 = 81 | CES70 = 66 | CES95 = 79 |
| CES21 = 85 | CES46 = 83 | CES71 = 59 | CES96 = 86 |
| CES22 = 77 | CES47 = 83 | CES72 = 87 | CES97 = 85 |
| CES23 = 91 | CES48 = 83 | CES73 = 56 | CES98 = 82 |
| CES24 = 90 | CES49 = 82 | CES74 = 95 | CES99 = 84 |
| CES25 = 71 | CES50 = 91 | CES75 = 58 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)