

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: P1432973

Luminaire Tested: EHBR1-36-UNV-ASM-L850-UPL18

Issue Date: 3/20/2026

**Test Information**

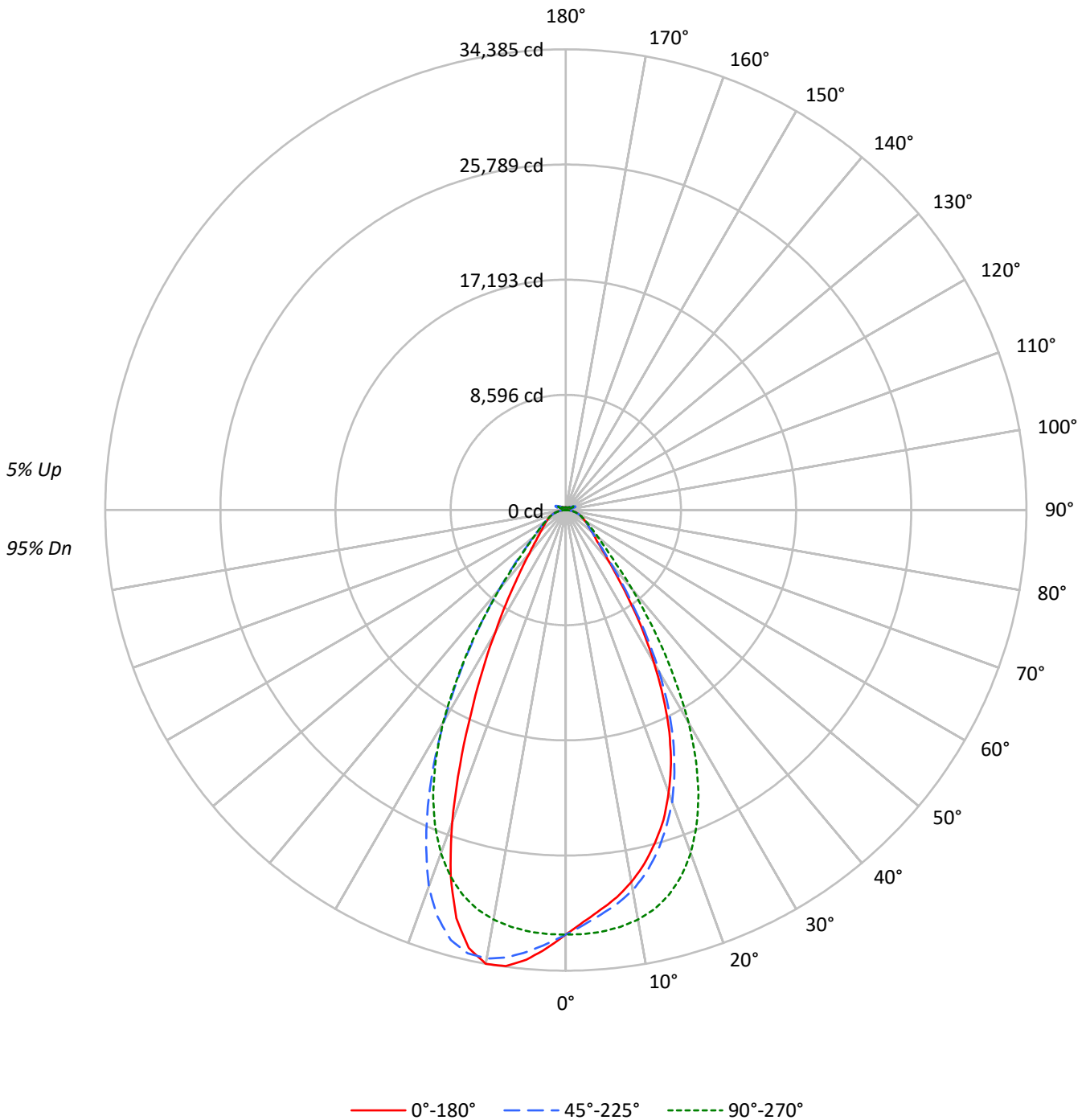
Test Method: LM-79-2019  
Report Number: P1432973  
REPORT IS A COMBINATION OF REPORTS P1431774 AND P1431635  
Test Lab: INNOVATION CENTER  
Issue Date: 3/20/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: EHBR1-36-UNV-ASM-L850-UPL18  
Description: Elevate Round Highbay at, 36000 lumens, 5000K 80CRI LEDs with ASM lens  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37244.8 lumens  
Efficiency: N/A  
Efficacy: 183.2 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): 203.3  
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: P1432973  
CATALOG NUMBER: EHBR1-36-UNV-ASM-L850-UPL18

### Luminous Intensity Polar Plot





TEST NUMBER: P1432973

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**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 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |  |  |  |  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |
| 0   | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 108 | 108 | 108 | 103 | 103 | 103 | 98 | 98 | 98 | 95 |    |    |    |    |    |    |    |    |   |  |  |  |  |
| 1   | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99  | 100 | 97  | 95  | 95  | 93  | 92  | 91 | 89 | 88 | 86 |    |    |    |    |    |    |    |    |   |  |  |  |  |
| 2   | 104 | 98  | 93  | 89  | 101 | 96  | 91  | 87  | 91  | 88  | 85  | 88  | 85  | 82  | 84 | 82 | 80 | 77 |    |    |    |    |    |    |    |    |   |  |  |  |  |
| 3   | 97  | 90  | 84  | 79  | 95  | 88  | 82  | 78  | 84  | 80  | 76  | 81  | 77  | 74  | 78 | 75 | 72 | 70 |    |    |    |    |    |    |    |    |   |  |  |  |  |
| 4   | 91  | 82  | 76  | 71  | 89  | 81  | 75  | 70  | 78  | 73  | 69  | 75  | 71  | 67  | 73 | 69 | 66 | 64 |    |    |    |    |    |    |    |    |   |  |  |  |  |
| 5   | 86  | 76  | 69  | 64  | 84  | 75  | 69  | 64  | 72  | 67  | 63  | 70  | 65  | 62  | 68 | 64 | 61 | 59 |    |    |    |    |    |    |    |    |   |  |  |  |  |
| 6   | 81  | 71  | 64  | 59  | 79  | 70  | 63  | 59  | 68  | 62  | 58  | 66  | 61  | 57  | 64 | 59 | 56 | 54 |    |    |    |    |    |    |    |    |   |  |  |  |  |
| 7   | 77  | 66  | 59  | 54  | 75  | 65  | 59  | 54  | 63  | 57  | 53  | 62  | 56  | 53  | 60 | 55 | 52 | 50 |    |    |    |    |    |    |    |    |   |  |  |  |  |
| 8   | 72  | 62  | 55  | 50  | 71  | 61  | 54  | 50  | 59  | 54  | 49  | 58  | 53  | 49  | 56 | 52 | 48 | 47 |    |    |    |    |    |    |    |    |   |  |  |  |  |
| 9   | 69  | 58  | 51  | 47  | 67  | 57  | 51  | 47  | 56  | 50  | 46  | 54  | 49  | 46  | 53 | 49 | 45 | 44 |    |    |    |    |    |    |    |    |   |  |  |  |  |
| 10  | 65  | 54  | 48  | 44  | 64  | 54  | 48  | 44  | 53  | 47  | 43  | 51  | 46  | 43  | 50 | 46 | 42 | 41 |    |    |    |    |    |    |    |    |   |  |  |  |  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°     | 45°    | 90°    | 135°   | 180°   |
|-----|--------|--------|--------|--------|--------|
| 0°  | 148812 | 148812 | 148812 | 148812 | 148812 |
| 5°  | 140231 | 141870 | 147907 | 155000 | 157788 |
| 10° | 132717 | 135528 | 146088 | 159976 | 161839 |
| 15° | 122595 | 125869 | 141775 | 158335 | 150399 |
| 20° | 109197 | 112875 | 132595 | 145541 | 120600 |
| 25° | 91512  | 94975  | 117357 | 122076 | 83558  |
| 30° | 68469  | 72438  | 95290  | 94338  | 54361  |
| 35° | 45582  | 48334  | 68345  | 67241  | 35205  |
| 40° | 28746  | 30721  | 44187  | 44471  | 24265  |
| 45° | 20482  | 21334  | 28037  | 29241  | 18797  |
| 50° | 17060  | 17196  | 20821  | 21362  | 15972  |
| 55° | 15059  | 15095  | 16999  | 17447  | 14550  |
| 60° | 13944  | 13825  | 14719  | 15030  | 13860  |
| 65° | 13310  | 13191  | 13419  | 13680  | 13367  |
| 70° | 12928  | 12704  | 12718  | 12961  | 13097  |
| 75° | 12291  | 11919  | 11893  | 12316  | 12670  |
| 80° | 11183  | 10402  | 10447  | 11183  | 11962  |
| 85° | 8144   | 6759   | 6759   | 7728   | 8539   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 112.5°  
 Vertical Angle: 45°  
 Luminance: 39418 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 3013.1  | 8.1       |
| 10°-20°   | 8197.3  | 22.0      |
| 20°-30°   | 9613.8  | 25.8      |
| 30°-40°   | 6685.8  | 18.0      |
| 40°-50°   | 3322.5  | 8.9       |
| 50°-60°   | 1987.2  | 5.3       |
| 60°-70°   | 1398.7  | 3.8       |
| 70°-80°   | 901.0   | 2.4       |
| 80°-90°   | 289.4   | 0.8       |
| 90°-100°  | 49.3    | 0.1       |
| 100°-110° | 317.9   | 0.9       |
| 110°-120° | 586.5   | 1.6       |
| 120°-130° | 349.2   | 0.9       |
| 130°-140° | 212.1   | 0.6       |
| 140°-150° | 147.7   | 0.4       |
| 150°-160° | 97.4    | 0.3       |
| 160°-170° | 56.9    | 0.2       |
| 170°-180° | 19.1    | 0.1       |
| 0°-30°    | 20824.1 | 55.9      |
| 0°-40°    | 27509.9 | 73.9      |
| 0°-60°    | 32819.6 | 88.1      |
| 0°-90°    | 35408.7 | 95.1      |
| 90°-120°  | 953.7   | 2.6       |
| 90°-150°  | 1662.7  | 4.5       |
| 90°-180°  | 1836.0  | 4.9       |
| 0°-180°   | 37244.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°    | 45°   | 90°   | 135°  | 180°  | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0°   | 31688 | 31688 | 31688 | 31688 | 31688 |      |
| 5°   | 29942 | 30292 | 31580 | 33095 | 33690 | 2808 |
| 15°  | 25720 | 26407 | 29744 | 33218 | 31553 | 7172 |
| 25°  | 18275 | 18966 | 23436 | 24378 | 16686 | 8246 |
| 35°  | 8366  | 8871  | 12544 | 12341 | 6461  | 5329 |
| 45°  | 3314  | 3452  | 4536  | 4731  | 3041  | 2679 |
| 55°  | 2035  | 2040  | 2297  | 2358  | 1966  | 1847 |
| 65°  | 1389  | 1377  | 1401  | 1428  | 1395  | 1380 |
| 75°  | 866   | 840   | 838   | 868   | 892   | 914  |
| 85°  | 280   | 232   | 232   | 266   | 294   | 288  |
| 90°  | 14    | 37    | 14    | 40    | 18    | 20   |
| 95°  | 23    | 82    | 26    | 71    | 27    | 22   |
| 105° | 111   | 553   | 146   | 591   | 77    | 148  |
| 115° | 507   | 655   | 624   | 725   | 535   | 467  |
| 125° | 366   | 352   | 400   | 390   | 421   | 334  |
| 135° | 268   | 271   | 254   | 284   | 294   | 210  |
| 145° | 225   | 236   | 232   | 236   | 242   | 142  |
| 155° | 203   | 208   | 208   | 208   | 217   | 94   |
| 165° | 196   | 200   | 199   | 199   | 207   | 56   |
| 175° | 197   | 200   | 201   | 201   | 207   | 19   |
| 180° | 201   | 201   | 201   | 201   | 201   |      |



TEST NUMBER: P1432973  
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**CANDELA DISTRIBUTION (FULL):**

|        | 0°      | 22.5°   | 45°     | 67.5°   | 90°     | 112.5°  | 135°    | 157.5°  | 180°    |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°     | 31688.5 | 31688.5 | 31688.5 | 31688.5 | 31688.5 | 31688.5 | 31688.5 | 31688.5 | 31688.5 |
| 2.5°   | 30747.9 | 30768.1 | 30983.1 | 31263.0 | 31670.0 | 32079.5 | 32411.0 | 32629.7 | 32737.8 |
| 5°     | 29941.5 | 30053.2 | 30291.5 | 30805.5 | 31580.4 | 32400.4 | 33095.0 | 33549.6 | 33690.3 |
| 7.5°   | 29155.9 | 29220.8 | 29619.5 | 30268.9 | 31365.8 | 32643.4 | 33675.5 | 34206.1 | 34335.7 |
| 10°    | 28197.5 | 28344.3 | 28794.7 | 29560.6 | 31038.4 | 32796.6 | 33989.2 | 34369.5 | 34385.0 |
| 12.5°  | 27069.7 | 27264.0 | 27729.2 | 28695.4 | 30516.1 | 32742.0 | 33884.0 | 33759.3 | 33475.8 |
| 15°    | 25719.7 | 25890.2 | 26406.6 | 27527.3 | 29743.7 | 32418.2 | 33217.9 | 32202.4 | 31552.9 |
| 17.5°  | 24261.4 | 24416.0 | 24864.6 | 26098.7 | 28655.1 | 31812.1 | 31827.5 | 29818.5 | 28593.3 |
| 20°    | 22443.2 | 22564.4 | 23199.1 | 24410.1 | 27252.1 | 30840.0 | 29913.0 | 26238.4 | 24786.8 |
| 22.5°  | 20508.5 | 20621.9 | 21185.9 | 22446.1 | 25493.2 | 29529.1 | 27246.7 | 22636.9 | 20656.4 |
| 25°    | 18274.8 | 18336.6 | 18966.5 | 20106.2 | 23436.1 | 27923.0 | 24378.5 | 18712.8 | 16686.5 |
| 27.5°  | 15762.0 | 15867.1 | 16526.1 | 17690.1 | 21016.5 | 25887.2 | 21324.4 | 15291.4 | 13422.0 |
| 30°    | 13170.0 | 13344.2 | 13933.5 | 14975.9 | 18328.9 | 23277.5 | 18145.9 | 12177.7 | 10456.3 |
| 32.5°  | 10751.0 | 10876.3 | 11296.4 | 12385.6 | 15319.9 | 20719.5 | 15093.4 | 9757.5  | 8299.3  |
| 35°    | 8365.9  | 8491.2  | 8871.0  | 9940.5  | 12543.7 | 17519.0 | 12341.1 | 7667.0  | 6461.4  |
| 37.5°  | 6394.9  | 6616.5  | 6860.1  | 7728.2  | 9844.2  | 14495.1 | 9837.7  | 6173.9  | 5240.9  |
| 40°    | 4982.4  | 5018.1  | 5324.7  | 5880.2  | 7658.7  | 11333.9 | 7708.0  | 4928.4  | 4205.8  |
| 42.5°  | 3988.3  | 4085.2  | 4217.1  | 4633.0  | 5803.0  | 8666.5  | 6058.5  | 4044.8  | 3572.3  |
| 45°    | 3313.9  | 3351.9  | 3451.7  | 3731.1  | 4536.2  | 6377.6  | 4731.1  | 3412.5  | 3041.2  |
| 47.5°  | 2899.2  | 2882.5  | 2946.7  | 3155.8  | 3694.2  | 4929.0  | 3834.4  | 2927.1  | 2666.8  |
| 50°    | 2542.6  | 2532.5  | 2562.8  | 2702.4  | 3103.0  | 3782.1  | 3183.7  | 2555.1  | 2380.4  |
| 52.5°  | 2265.7  | 2274.6  | 2277.6  | 2364.4  | 2665.6  | 3084.5  | 2711.3  | 2277.0  | 2159.4  |
| 55°    | 2035.1  | 2046.4  | 2039.9  | 2104.1  | 2297.2  | 2593.1  | 2357.8  | 2047.6  | 1966.3  |
| 57.5°  | 1855.1  | 1846.8  | 1837.9  | 1872.4  | 2017.3  | 2199.8  | 2047.6  | 1852.1  | 1798.1  |
| 60°    | 1676.3  | 1668.5  | 1662.0  | 1684.5  | 1769.5  | 1905.1  | 1806.9  | 1681.6  | 1666.2  |
| 62.5°  | 1523.0  | 1518.2  | 1517.7  | 1513.4  | 1578.9  | 1664.4  | 1597.8  | 1528.3  | 1514.6  |
| 65°    | 1389.3  | 1383.9  | 1376.8  | 1370.2  | 1400.6  | 1480.1  | 1427.9  | 1390.4  | 1395.2  |
| 67.5°  | 1255.6  | 1255.6  | 1243.1  | 1233.0  | 1262.6  | 1304.3  | 1281.7  | 1260.3  | 1265.7  |
| 70°    | 1134.4  | 1134.9  | 1114.7  | 1107.1  | 1115.9  | 1160.5  | 1137.3  | 1140.3  | 1149.2  |
| 72.5°  | 1004.2  | 990.0   | 975.1   | 974.5   | 975.7   | 1010.2  | 1002.4  | 1009.5  | 1019.0  |
| 75°    | 865.8   | 849.1   | 839.6   | 829.0   | 837.8   | 863.9   | 867.6   | 877.7   | 892.5   |
| 77.5°  | 732.1   | 706.5   | 698.8   | 693.4   | 687.5   | 717.2   | 728.5   | 742.1   | 764.1   |
| 80°    | 588.3   | 560.3   | 547.2   | 539.6   | 549.6   | 563.3   | 588.3   | 598.3   | 629.3   |
| 82.5°  | 435.0   | 414.1   | 398.1   | 397.5   | 402.3   | 414.7   | 436.1   | 455.2   | 473.0   |
| 85°    | 279.9   | 246.6   | 232.3   | 237.7   | 232.3   | 251.4   | 265.6   | 288.2   | 293.5   |
| 87.5°  | 101.0   | 79.1    | 75.4    | 83.2    | 81.4    | 87.3    | 99.8    | 108.7   | 109.3   |
| 90°    | 13.7    | 21.7    | 36.8    | 23.8    | 13.7    | 23.3    | 40.0    | 23.7    | 17.8    |
| 92.5°  | 19.7    | 32.8    | 58.9    | 30.7    | 17.7    | 31.3    | 56.1    | 30.7    | 22.8    |
| 95°    | 22.7    | 37.8    | 82.1    | 40.9    | 26.3    | 38.4    | 71.2    | 33.7    | 26.8    |
| 97.5°  | 29.4    | 41.8    | 94.2    | 49.9    | 40.5    | 47.4    | 80.3    | 35.8    | 31.9    |
| 100°   | 38.4    | 48.9    | 146.6   | 61.6    | 53.5    | 53.5    | 145.8   | 40.8    | 36.0    |
| 102.5° | 64.6    | 103.2   | 310.7   | 114.9   | 80.7    | 104.4   | 336.6   | 79.7    | 42.9    |
| 105°   | 110.9   | 217.1   | 553.3   | 239.8   | 146.2   | 237.3   | 591.3   | 201.5   | 76.8    |
| 107.5° | 191.5   | 388.2   | 730.0   | 424.1   | 276.0   | 441.7   | 761.5   | 394.8   | 174.5   |
| 110°   | 356.6   | 515.0   | 765.3   | 582.1   | 441.2   | 616.9   | 830.9   | 539.8   | 349.6   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  |
|--------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 112.5° | 481.4 | 553.3 | 733.1 | 642.5 | 574.1 | 687.4  | 811.8 | 598.1  | 482.5 |
| 115°   | 506.6 | 532.2 | 654.6 | 627.4 | 624.0 | 677.3  | 725.2 | 596.2  | 534.9 |
| 117.5° | 489.5 | 485.8 | 555.9 | 564.5 | 602.8 | 619.9  | 626.6 | 559.9  | 537.9 |
| 120°   | 453.2 | 432.5 | 464.3 | 493.1 | 544.4 | 537.4  | 528.5 | 506.5  | 507.7 |
| 122.5° | 407.9 | 383.8 | 398.4 | 420.1 | 471.5 | 456.4  | 446.9 | 452.7  | 466.4 |
| 125°   | 366.2 | 341.4 | 351.7 | 357.4 | 400.0 | 385.0  | 390.2 | 406.4  | 420.7 |
| 127.5° | 329.0 | 312.3 | 318.5 | 313.1 | 340.2 | 333.2  | 348.8 | 367.2  | 379.4 |
| 130°   | 303.8 | 289.7 | 297.9 | 284.5 | 297.5 | 298.9  | 319.6 | 335.6  | 343.1 |
| 132.5° | 283.3 | 274.2 | 284.0 | 267.5 | 270.9 | 278.4  | 298.1 | 312.0  | 316.7 |
| 135°   | 268.2 | 260.7 | 270.9 | 256.0 | 254.4 | 265.3  | 283.6 | 292.2  | 294.5 |
| 137.5° | 255.7 | 249.2 | 260.0 | 248.5 | 244.9 | 255.8  | 269.5 | 276.7  | 275.4 |
| 140°   | 244.8 | 239.3 | 250.6 | 241.4 | 239.5 | 250.4  | 256.4 | 264.6  | 263.9 |
| 142.5° | 232.8 | 228.8 | 242.1 | 236.1 | 234.1 | 243.9  | 247.0 | 253.2  | 251.9 |
| 145°   | 225.0 | 222.0 | 235.8 | 232.1 | 231.7 | 239.2  | 236.4 | 244.2  | 242.3 |
| 147.5° | 218.2 | 216.2 | 228.3 | 226.6 | 226.6 | 232.1  | 229.1 | 235.8  | 233.9 |
| 150°   | 212.3 | 210.3 | 221.8 | 220.2 | 221.2 | 225.2  | 220.6 | 228.3  | 228.4 |
| 152.5° | 206.5 | 203.8 | 214.3 | 212.8 | 213.7 | 217.8  | 213.7 | 222.4  | 222.0 |
| 155°   | 202.6 | 200.0 | 208.4 | 207.3 | 207.9 | 209.9  | 207.9 | 216.5  | 217.1 |
| 157.5° | 200.3 | 198.1 | 204.6 | 204.0 | 204.0 | 205.6  | 204.6 | 212.3  | 212.9 |
| 160°   | 198.5 | 196.9 | 202.4 | 201.8 | 201.4 | 203.3  | 202.9 | 209.5  | 210.1 |
| 162.5° | 196.7 | 195.1 | 201.5 | 200.5 | 200.5 | 200.5  | 200.7 | 207.3  | 208.4 |
| 165°   | 195.8 | 195.2 | 199.7 | 199.7 | 199.2 | 200.3  | 199.4 | 204.7  | 206.9 |
| 167.5° | 195.8 | 194.8 | 199.8 | 199.8 | 199.4 | 198.4  | 199.7 | 204.5  | 206.7 |
| 170°   | 196.0 | 195.4 | 199.4 | 199.0 | 198.0 | 198.7  | 198.8 | 203.6  | 205.8 |
| 172.5° | 197.2 | 196.7 | 201.3 | 200.3 | 199.9 | 199.9  | 199.6 | 203.4  | 206.6 |
| 175°   | 197.4 | 196.9 | 200.5 | 200.5 | 201.1 | 200.6  | 200.8 | 203.5  | 206.8 |
| 177.5° | 199.0 | 198.4 | 200.5 | 200.5 | 200.0 | 201.2  | 202.4 | 205.2  | 209.3 |
| 180°   | 201.2 | 201.2 | 201.2 | 201.2 | 201.2 | 201.2  | 201.2 | 201.2  | 201.2 |



TEST NUMBER: P1432973  
 CATALOG NUMBER: EHBR1-36-UNV-ASM-L850-UPL18

**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 | 17.48            | 18.61 | 17.93 | 19.03 | 19.47 | 18.25          | 19.38 | 18.70 | 19.79 | 20.24 |
|                 | 3H   | 19.30            | 20.30 | 19.77 | 20.74 | 21.22 | 19.81          | 20.81 | 20.28 | 21.25 | 21.73 |
|                 | 4H   | 20.03            | 20.97 | 20.52 | 21.42 | 21.93 | 20.45          | 21.39 | 20.94 | 21.84 | 22.35 |
|                 | 6H   | 20.60            | 21.47 | 21.11 | 21.94 | 22.45 | 20.95          | 21.81 | 21.45 | 22.28 | 22.80 |
|                 | 8H   | 20.79            | 21.60 | 21.30 | 22.09 | 22.62 | 21.11          | 21.92 | 21.62 | 22.41 | 22.94 |
|                 | 12H  | 20.89            | 21.67 | 21.41 | 22.15 | 22.70 | 21.19          | 21.97 | 21.71 | 22.45 | 23.00 |
| 4H              | 2H   | 18.00            | 18.94 | 18.49 | 19.39 | 19.89 | 18.63          | 19.56 | 19.12 | 20.02 | 20.52 |
|                 | 3H   | 20.04            | 20.81 | 20.54 | 21.31 | 21.84 | 20.43          | 21.21 | 20.94 | 21.71 | 22.23 |
|                 | 4H   | 20.90            | 21.60 | 21.42 | 22.11 | 22.67 | 21.22          | 21.92 | 21.74 | 22.43 | 22.99 |
|                 | 6H   | 21.60            | 22.20 | 22.15 | 22.74 | 23.32 | 21.86          | 22.46 | 22.41 | 23.00 | 23.58 |
|                 | 8H   | 21.82            | 22.38 | 22.38 | 22.92 | 23.51 | 22.06          | 22.62 | 22.61 | 23.16 | 23.75 |
|                 | 12H  | 21.96            | 22.45 | 22.53 | 23.02 | 23.61 | 22.18          | 22.67 | 22.75 | 23.24 | 23.83 |
| 8H              | 4H   | 21.16            | 21.72 | 21.72 | 22.26 | 22.85 | 21.47          | 22.03 | 22.02 | 22.56 | 23.15 |
|                 | 6H   | 21.98            | 22.43 | 22.56 | 23.02 | 23.61 | 22.23          | 22.68 | 22.82 | 23.27 | 23.87 |
|                 | 8H   | 22.28            | 22.69 | 22.88 | 23.28 | 23.89 | 22.51          | 22.92 | 23.12 | 23.52 | 24.12 |
|                 | 12H  | 22.48            | 22.84 | 23.08 | 23.42 | 24.10 | 22.70          | 23.05 | 23.29 | 23.63 | 24.31 |
| 12H             | 4H   | 21.17            | 21.66 | 21.74 | 22.23 | 22.82 | 21.48          | 21.97 | 22.05 | 22.54 | 23.13 |
|                 | 6H   | 22.02            | 22.42 | 22.62 | 23.02 | 23.63 | 22.27          | 22.68 | 22.88 | 23.28 | 23.89 |
|                 | 8H   | 22.36            | 22.72 | 22.96 | 23.30 | 23.98 | 22.60          | 22.96 | 23.20 | 23.54 | 24.22 |

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 <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /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 <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /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

| $\lambda$<br>(nm) | Power<br>$\text{W}^{\wedge}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^{\wedge}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^{\wedge}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^{\wedge}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^{\wedge}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) |
|-------------------|--|--------------------------------|-------------------|--|--------------------------------|-------------------|--|--------------------------------|-------------------|--|--------------------------------|-------------------|--|--------------------------------|
| 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**

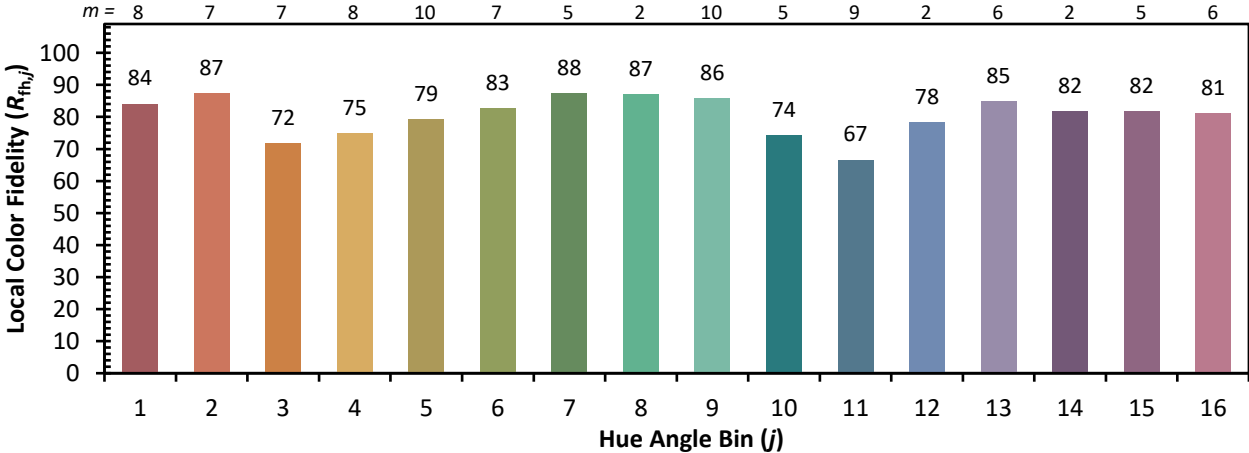


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

|            |            |            |            |
|------------|------------|------------|------------|
| 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)