

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: P1433897

Luminaire Tested: EHBR1-48-UNV-A1-L940-UPL40

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1433897
REPORT IS A COMBINATION OF REPORTS P1431834 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-48-UNV-A1-L940-UPL40
Description: Elevate Round Highbay at, 49000 lumens, 4000K 90CRI LEDs with A lens
Light Source: -
Ballast/Driver: -

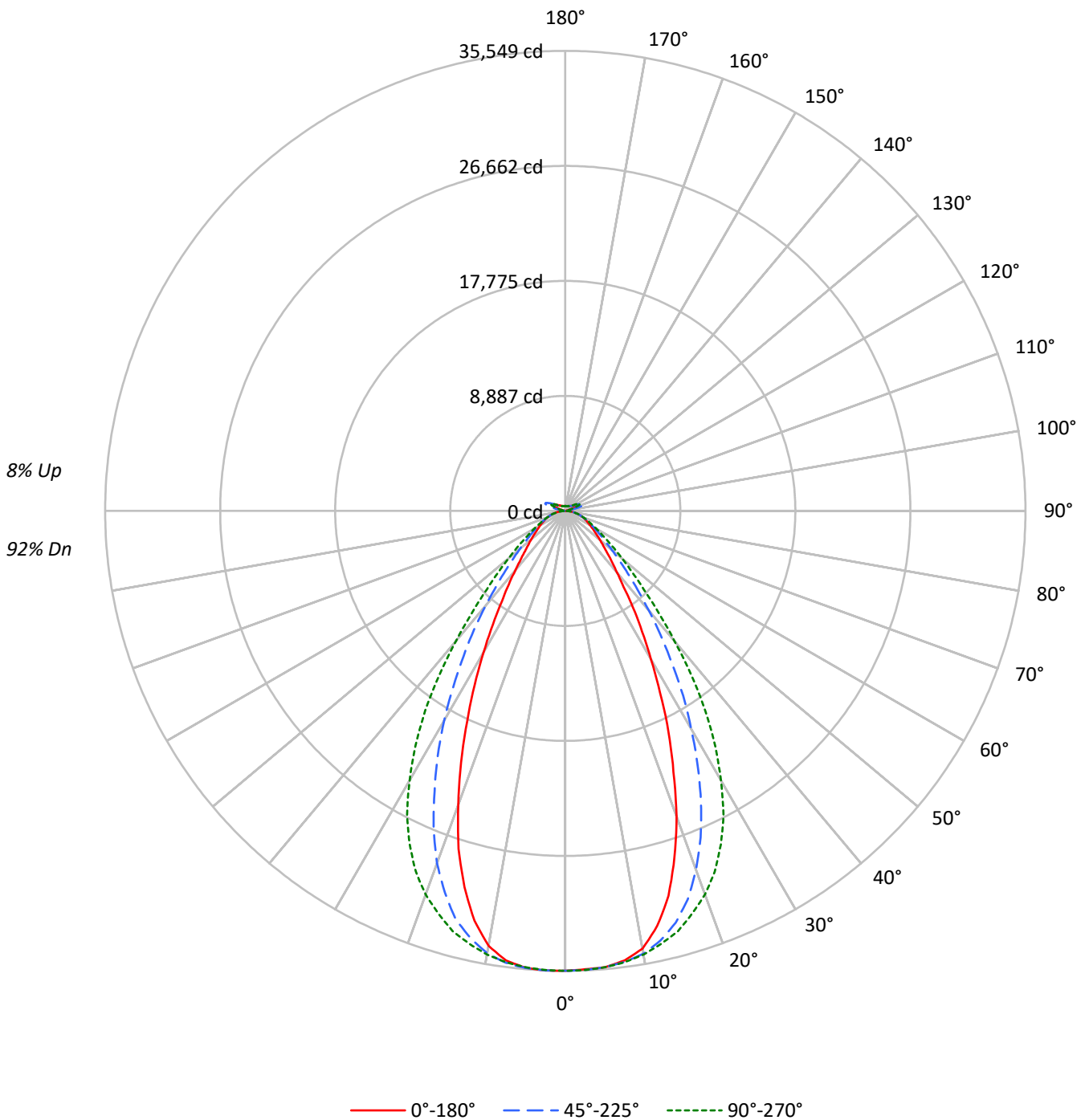
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47759.0 lumens
Efficiency: N/A
Efficacy: 165.1 lumens/watt
Spacing Criteria (0/90/45): 0.8 / 1.07 / 0.95
Luminous Opening: Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type: Direct

Input Watts (W): 289.2
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: P1433897
CATALOG NUMBER: EHBR1-48-UNV-A1-L940-UPL40

Luminous Intensity Polar Plot





TEST NUMBER: P1433897
 CATALOG NUMBER: EHBR1-48-UNV-A1-L940-UPL40

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 | 95 | 95 | 95 | 95 | 95 | 95 | 92 |
| 1 | 110 | 106 | 103 | 100 | 106 | 103 | 100 | 98 | 98 | 95 | 93 | 93 | 91 | 89 | 88 | 87 | 85 | 85 | 85 | 85 | 83 |
| 2 | 102 | 96 | 91 | 87 | 99 | 94 | 89 | 85 | 89 | 85 | 82 | 85 | 82 | 79 | 81 | 79 | 76 | 76 | 76 | 76 | 74 |
| 3 | 96 | 88 | 81 | 76 | 93 | 86 | 80 | 75 | 82 | 77 | 73 | 78 | 74 | 71 | 75 | 72 | 69 | 69 | 69 | 69 | 67 |
| 4 | 90 | 80 | 73 | 68 | 87 | 78 | 72 | 67 | 75 | 70 | 66 | 72 | 68 | 64 | 69 | 66 | 62 | 62 | 62 | 62 | 60 |
| 5 | 84 | 74 | 67 | 61 | 82 | 72 | 66 | 61 | 69 | 64 | 59 | 67 | 62 | 58 | 64 | 60 | 57 | 57 | 57 | 57 | 55 |
| 6 | 79 | 68 | 61 | 56 | 77 | 67 | 60 | 55 | 64 | 59 | 54 | 62 | 57 | 53 | 60 | 56 | 52 | 52 | 52 | 52 | 50 |
| 7 | 74 | 63 | 56 | 51 | 72 | 62 | 55 | 51 | 60 | 54 | 50 | 58 | 53 | 49 | 56 | 52 | 48 | 48 | 48 | 48 | 46 |
| 8 | 70 | 59 | 52 | 47 | 68 | 58 | 51 | 47 | 56 | 50 | 46 | 54 | 49 | 45 | 53 | 48 | 45 | 45 | 45 | 45 | 43 |
| 9 | 66 | 55 | 48 | 43 | 64 | 54 | 47 | 43 | 52 | 47 | 42 | 51 | 46 | 42 | 49 | 45 | 41 | 41 | 41 | 41 | 40 |
| 10 | 62 | 51 | 45 | 40 | 61 | 51 | 44 | 40 | 49 | 43 | 40 | 48 | 43 | 39 | 47 | 42 | 39 | 39 | 39 | 39 | 37 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° | 135° | 180° |
|-----|--------|--------|--------|--------|--------|
| 0° | 166873 | 166873 | 166873 | 166873 | 166873 |
| 5° | 165770 | 165746 | 165753 | 166045 | 165945 |
| 10° | 161673 | 163557 | 163817 | 163354 | 160615 |
| 15° | 146773 | 157014 | 160246 | 155755 | 143403 |
| 20° | 122309 | 143648 | 153462 | 140943 | 117547 |
| 25° | 94588 | 124206 | 142363 | 119670 | 89687 |
| 30° | 68947 | 101151 | 125056 | 97313 | 65441 |
| 35° | 49699 | 77964 | 102776 | 74606 | 46455 |
| 40° | 35756 | 57582 | 75741 | 55152 | 34652 |
| 45° | 28174 | 42127 | 52899 | 40300 | 27200 |
| 50° | 23376 | 31651 | 38288 | 30607 | 23021 |
| 55° | 20416 | 24992 | 28996 | 24574 | 20140 |
| 60° | 18412 | 20864 | 23104 | 20734 | 18542 |
| 65° | 17219 | 18404 | 19416 | 18461 | 17384 |
| 70° | 16353 | 16744 | 17261 | 16836 | 16515 |
| 75° | 15256 | 15161 | 15256 | 15204 | 15404 |
| 80° | 13780 | 12789 | 12506 | 12989 | 13780 |
| 85° | 9549 | 8100 | 8013 | 8228 | 9831 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 55425 cd/sqm



TEST NUMBER: P1433897
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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 3355.7 | 7.0 |
| 10°-20° | 9018.9 | 18.9 |
| 20°-30° | 10966.9 | 23.0 |
| 30°-40° | 8933.4 | 18.7 |
| 40°-50° | 5363.6 | 11.2 |
| 50°-60° | 3086.8 | 6.5 |
| 60°-70° | 1931.8 | 4.0 |
| 70°-80° | 1137.8 | 2.4 |
| 80°-90° | 339.1 | 0.7 |
| 90°-100° | 95.3 | 0.2 |
| 100°-110° | 630.1 | 1.3 |
| 110°-120° | 1165.6 | 2.4 |
| 120°-130° | 691.8 | 1.4 |
| 130°-140° | 418.4 | 0.9 |
| 140°-150° | 290.2 | 0.6 |
| 150°-160° | 189.4 | 0.4 |
| 160°-170° | 108.3 | 0.2 |
| 170°-180° | 36.0 | 0.1 |
| 0°-30° | 23341.5 | 48.9 |
| 0°-40° | 32274.8 | 67.6 |
| 0°-60° | 40725.2 | 85.3 |
| 0°-90° | 44133.9 | 92.4 |
| 90°-120° | 1891.0 | 4.0 |
| 90°-150° | 3291.5 | 6.9 |
| 90°-180° | 3625.0 | 7.6 |
| 0°-180° | 47759.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0° | 35534 | 35534 | 35534 | 35534 | 35534 | |
| 5° | 35394 | 35389 | 35391 | 35453 | 35432 | 3345 |
| 15° | 30792 | 32941 | 33619 | 32677 | 30085 | 8471 |
| 25° | 18889 | 24804 | 28430 | 23898 | 17910 | 8606 |
| 35° | 9122 | 14309 | 18863 | 13693 | 8526 | 5771 |
| 45° | 4558 | 6816 | 8559 | 6520 | 4401 | 3596 |
| 55° | 2759 | 3377 | 3918 | 3321 | 2722 | 2494 |
| 65° | 1797 | 1921 | 2027 | 1927 | 1814 | 1787 |
| 75° | 1075 | 1068 | 1075 | 1071 | 1085 | 1138 |
| 85° | 328 | 278 | 275 | 283 | 338 | 350 |
| 90° | 28 | 72 | 26 | 76 | 27 | 29 |
| 95° | 46 | 163 | 50 | 138 | 45 | 44 |
| 105° | 220 | 1102 | 289 | 1174 | 144 | 295 |
| 115° | 1009 | 1303 | 1241 | 1441 | 1057 | 930 |
| 125° | 729 | 697 | 793 | 772 | 829 | 664 |
| 135° | 534 | 535 | 501 | 559 | 578 | 417 |
| 145° | 442 | 462 | 454 | 466 | 475 | 280 |
| 155° | 393 | 404 | 403 | 405 | 423 | 183 |
| 165° | 374 | 382 | 378 | 378 | 390 | 107 |
| 175° | 376 | 379 | 376 | 375 | 384 | 36 |
| 180° | 378 | 378 | 378 | 378 | 378 | |



TEST NUMBER: P1433897
 CATALOG NUMBER: EHBR1-48-UNV-A1-L940-UPL40

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 35534.5 | 35534.5 | 35534.5 | 35534.5 | 35534.5 | 35534.5 | 35534.5 | 35534.5 | 35534.5 |
| 2.5° | 35456.3 | 35488.4 | 35501.8 | 35509.2 | 35517.3 | 35539.7 | 35549.4 | 35533.7 | 35547.1 |
| 5° | 35394.5 | 35396.8 | 35389.3 | 35422.9 | 35390.8 | 35413.2 | 35453.3 | 35437.8 | 35431.8 |
| 7.5° | 35034.4 | 35108.8 | 35152.7 | 35163.9 | 35169.8 | 35197.3 | 35225.6 | 35065.6 | 35041.8 |
| 10° | 34349.6 | 34473.9 | 34750.0 | 34828.9 | 34805.1 | 34849.8 | 34706.9 | 34288.6 | 34124.9 |
| 12.5° | 32848.4 | 33285.4 | 34002.8 | 34322.1 | 34264.1 | 34303.5 | 33816.7 | 32934.1 | 32426.5 |
| 15° | 30792.1 | 31432.9 | 32940.8 | 33570.4 | 33618.7 | 33570.4 | 32676.6 | 30956.5 | 30085.1 |
| 17.5° | 28058.5 | 29241.8 | 31461.9 | 32684.0 | 32614.0 | 32637.1 | 30940.1 | 28397.8 | 27400.5 |
| 20° | 25138.0 | 26399.5 | 29523.9 | 31562.4 | 31540.8 | 31411.3 | 28967.9 | 25615.0 | 24159.3 |
| 22.5° | 21835.0 | 23461.9 | 27303.0 | 30183.3 | 30175.1 | 29959.2 | 26566.2 | 22576.2 | 21008.8 |
| 25° | 18889.2 | 20484.8 | 24803.8 | 28493.8 | 28429.8 | 28184.2 | 23898.0 | 19544.9 | 17910.5 |
| 27.5° | 15843.8 | 17502.6 | 22135.6 | 26514.1 | 26470.2 | 26202.3 | 21347.5 | 16711.5 | 15156.0 |
| 30° | 13261.9 | 14778.7 | 19456.3 | 24335.7 | 24054.4 | 24023.8 | 18718.1 | 14088.0 | 12587.6 |
| 32.5° | 11050.0 | 12350.2 | 16930.3 | 22057.5 | 21559.6 | 21701.8 | 16097.5 | 11894.0 | 10407.0 |
| 35° | 9121.6 | 10267.0 | 14309.1 | 19422.9 | 18863.1 | 19046.9 | 13692.8 | 9759.5 | 8526.2 |
| 37.5° | 7403.1 | 8504.6 | 12087.5 | 16860.4 | 16004.5 | 16351.3 | 11577.7 | 8150.3 | 7161.9 |
| 40° | 6197.4 | 7071.2 | 9980.4 | 14048.6 | 13127.9 | 13692.8 | 9559.2 | 6798.0 | 6006.1 |
| 42.5° | 5340.0 | 5910.2 | 8237.4 | 11364.0 | 10657.8 | 11058.2 | 7878.7 | 5683.1 | 5090.7 |
| 45° | 4558.5 | 5013.3 | 6815.9 | 8967.6 | 8558.9 | 8930.3 | 6520.4 | 4845.9 | 4400.8 |
| 47.5° | 3981.8 | 4332.3 | 5610.9 | 7241.6 | 6987.8 | 7105.4 | 5445.8 | 4228.8 | 3867.2 |
| 50° | 3483.9 | 3754.8 | 4717.1 | 5844.7 | 5706.2 | 5778.4 | 4561.5 | 3679.6 | 3431.0 |
| 52.5° | 3096.9 | 3295.6 | 3956.4 | 4803.4 | 4735.0 | 4746.1 | 3887.3 | 3236.7 | 3056.6 |
| 55° | 2759.0 | 2897.4 | 3377.4 | 3934.9 | 3918.5 | 3921.5 | 3320.9 | 2868.4 | 2721.7 |
| 57.5° | 2463.5 | 2578.1 | 2902.6 | 3305.2 | 3281.4 | 3286.7 | 2875.8 | 2547.6 | 2453.0 |
| 60° | 2213.4 | 2290.1 | 2508.2 | 2793.2 | 2777.5 | 2770.9 | 2492.5 | 2261.8 | 2229.1 |
| 62.5° | 1991.7 | 2040.8 | 2191.8 | 2394.2 | 2364.5 | 2371.2 | 2191.0 | 2043.0 | 1994.6 |
| 65° | 1797.3 | 1814.5 | 1921.0 | 2046.0 | 2026.6 | 2043.0 | 1926.9 | 1825.7 | 1814.5 |
| 67.5° | 1607.6 | 1624.7 | 1687.2 | 1771.3 | 1749.0 | 1762.4 | 1688.7 | 1629.2 | 1619.5 |
| 70° | 1434.9 | 1434.2 | 1469.2 | 1514.6 | 1514.6 | 1516.8 | 1477.3 | 1441.6 | 1449.1 |
| 72.5° | 1256.3 | 1251.9 | 1262.3 | 1292.8 | 1284.6 | 1312.9 | 1271.2 | 1260.1 | 1261.5 |
| 75° | 1074.7 | 1062.1 | 1068.0 | 1083.6 | 1074.7 | 1089.6 | 1071.0 | 1085.1 | 1085.1 |
| 77.5° | 903.5 | 879.8 | 872.3 | 874.5 | 858.1 | 880.5 | 884.9 | 894.6 | 916.9 |
| 80° | 724.9 | 691.4 | 672.8 | 672.1 | 657.9 | 672.1 | 683.3 | 703.3 | 724.9 |
| 82.5° | 538.1 | 509.1 | 477.8 | 471.9 | 462.9 | 471.1 | 486.0 | 509.8 | 544.8 |
| 85° | 328.2 | 297.7 | 278.4 | 267.9 | 275.4 | 275.4 | 282.8 | 316.3 | 337.9 |
| 87.5° | 118.3 | 103.4 | 84.9 | 85.6 | 87.9 | 90.8 | 94.6 | 119.1 | 130.2 |
| 90° | 27.6 | 42.2 | 72.3 | 46.2 | 26.1 | 44.2 | 76.3 | 40.2 | 26.8 |
| 92.5° | 38.8 | 64.3 | 116.5 | 60.2 | 34.1 | 60.2 | 108.4 | 54.2 | 36.9 |
| 95° | 45.7 | 74.3 | 162.6 | 80.3 | 50.2 | 74.3 | 138.5 | 60.2 | 44.9 |
| 97.5° | 57.7 | 82.3 | 186.7 | 98.4 | 78.3 | 92.3 | 156.6 | 64.3 | 55.0 |
| 100° | 75.7 | 96.3 | 291.1 | 120.5 | 104.4 | 104.4 | 287.0 | 74.3 | 63.7 |
| 102.5° | 128.0 | 204.8 | 618.3 | 226.9 | 158.6 | 204.8 | 666.5 | 150.6 | 77.8 |
| 105° | 220.3 | 431.6 | 1102.1 | 475.8 | 289.1 | 469.7 | 1174.4 | 393.4 | 144.0 |
| 107.5° | 381.0 | 772.9 | 1453.5 | 843.1 | 548.1 | 877.3 | 1513.6 | 778.9 | 338.7 |
| 110° | 710.2 | 1025.8 | 1523.7 | 1158.3 | 877.3 | 1226.6 | 1652.2 | 1068.0 | 688.1 |



TEST NUMBER: P1433897
 CATALOG NUMBER: EHBR1-48-UNV-A1-L940-UPL40

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 959.1 | 1102.1 | 1459.5 | 1278.8 | 1142.3 | 1367.1 | 1614.1 | 1184.5 | 953.1 |
| 115° | 1009.3 | 1060.0 | 1302.9 | 1248.7 | 1240.7 | 1347.1 | 1441.4 | 1180.4 | 1057.4 |
| 117.5° | 975.9 | 967.6 | 1106.1 | 1122.3 | 1198.5 | 1232.7 | 1244.7 | 1108.2 | 1063.5 |
| 120° | 902.9 | 861.2 | 923.4 | 979.7 | 1082.1 | 1068.0 | 1047.9 | 1002.5 | 1003.3 |
| 122.5° | 813.3 | 763.6 | 791.0 | 833.2 | 935.6 | 905.4 | 885.3 | 894.1 | 921.7 |
| 125° | 728.9 | 679.3 | 696.6 | 706.7 | 793.0 | 762.8 | 771.7 | 801.8 | 829.4 |
| 127.5° | 654.7 | 621.0 | 630.4 | 618.3 | 672.6 | 658.5 | 689.3 | 724.2 | 747.0 |
| 130° | 604.5 | 575.7 | 589.0 | 560.1 | 586.9 | 590.9 | 631.8 | 660.0 | 674.8 |
| 132.5° | 563.1 | 544.3 | 560.3 | 525.4 | 533.5 | 550.3 | 588.4 | 613.3 | 621.3 |
| 135° | 533.7 | 516.9 | 535.0 | 502.2 | 500.9 | 525.0 | 559.1 | 575.1 | 577.9 |
| 137.5° | 507.7 | 493.6 | 511.7 | 487.5 | 481.6 | 505.6 | 531.7 | 543.8 | 540.4 |
| 140° | 485.0 | 472.3 | 492.3 | 474.2 | 470.2 | 494.3 | 506.3 | 521.2 | 517.2 |
| 142.5° | 459.7 | 451.7 | 475.0 | 462.9 | 458.9 | 481.8 | 487.8 | 497.8 | 494.5 |
| 145° | 442.3 | 436.3 | 461.6 | 455.7 | 453.6 | 470.5 | 466.5 | 481.2 | 475.2 |
| 147.5° | 428.6 | 423.8 | 446.4 | 444.4 | 444.4 | 456.4 | 451.1 | 463.9 | 458.6 |
| 150° | 415.2 | 410.5 | 433.0 | 431.1 | 433.0 | 441.0 | 433.8 | 449.3 | 448.1 |
| 152.5° | 401.9 | 397.2 | 417.8 | 415.0 | 417.0 | 425.0 | 418.5 | 435.3 | 434.8 |
| 155° | 392.6 | 387.8 | 404.4 | 402.9 | 402.9 | 407.7 | 405.2 | 422.7 | 423.4 |
| 157.5° | 386.8 | 383.3 | 395.9 | 394.4 | 394.4 | 397.2 | 396.6 | 412.2 | 412.9 |
| 160° | 382.3 | 378.8 | 389.3 | 387.8 | 385.9 | 390.6 | 390.1 | 403.6 | 404.3 |
| 162.5° | 377.8 | 374.2 | 386.1 | 383.3 | 382.5 | 383.3 | 382.8 | 397.1 | 397.8 |
| 165° | 374.5 | 373.0 | 381.5 | 380.0 | 378.1 | 380.0 | 378.2 | 387.8 | 390.5 |
| 167.5° | 375.3 | 372.5 | 380.3 | 378.8 | 376.8 | 374.8 | 377.0 | 384.5 | 387.3 |
| 170° | 374.0 | 373.2 | 379.0 | 375.5 | 372.8 | 373.5 | 373.8 | 381.2 | 384.0 |
| 172.5° | 375.5 | 374.7 | 380.5 | 377.0 | 374.2 | 375.0 | 373.2 | 378.7 | 383.5 |
| 175° | 375.7 | 374.2 | 378.7 | 376.5 | 375.7 | 374.5 | 374.7 | 378.2 | 383.7 |
| 177.5° | 378.4 | 376.9 | 379.5 | 377.2 | 374.5 | 375.3 | 377.5 | 381.0 | 388.5 |
| 180° | 377.5 | 377.5 | 377.5 | 377.5 | 377.5 | 377.5 | 377.5 | 377.5 | 377.5 |



TEST NUMBER: P1433897
 CATALOG NUMBER: EHBR1-48-UNV-A1-L940-UPL40

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 | 19.09 | 20.23 | 19.58 | 20.70 | 21.21 | 20.07 | 21.21 | 20.57 | 21.68 | 22.19 |
| | 3H | 20.57 | 21.58 | 21.08 | 22.07 | 22.62 | 21.33 | 22.35 | 21.84 | 22.83 | 23.38 |
| | 4H | 21.17 | 22.11 | 21.70 | 22.62 | 23.18 | 21.83 | 22.78 | 22.36 | 23.28 | 23.85 |
| | 6H | 21.63 | 22.50 | 22.17 | 23.02 | 23.60 | 22.18 | 23.06 | 22.73 | 23.57 | 24.15 |
| | 8H | 21.78 | 22.60 | 22.34 | 23.14 | 23.73 | 22.28 | 23.11 | 22.84 | 23.64 | 24.23 |
| | 12H | 21.85 | 22.64 | 22.41 | 23.17 | 23.78 | 22.32 | 23.11 | 22.88 | 23.63 | 24.24 |
| 4H | 2H | 19.61 | 20.55 | 20.14 | 21.05 | 21.62 | 20.38 | 21.33 | 20.92 | 21.83 | 22.40 |
| | 3H | 21.29 | 22.07 | 21.83 | 22.62 | 23.20 | 21.87 | 22.65 | 22.42 | 23.20 | 23.79 |
| | 4H | 22.00 | 22.71 | 22.57 | 23.26 | 23.88 | 22.49 | 23.20 | 23.06 | 23.75 | 24.37 |
| | 6H | 22.58 | 23.19 | 23.17 | 23.77 | 24.41 | 22.97 | 23.58 | 23.56 | 24.16 | 24.80 |
| | 8H | 22.77 | 23.33 | 23.36 | 23.92 | 24.56 | 23.10 | 23.67 | 23.70 | 24.25 | 24.90 |
| | 12H | 22.87 | 23.37 | 23.48 | 23.99 | 24.64 | 23.17 | 23.67 | 23.78 | 24.28 | 24.93 |
| 8H | 4H | 22.23 | 22.79 | 22.82 | 23.37 | 24.02 | 22.67 | 23.24 | 23.27 | 23.82 | 24.46 |
| | 6H | 22.92 | 23.38 | 23.54 | 24.01 | 24.66 | 23.25 | 23.72 | 23.88 | 24.34 | 25.00 |
| | 8H | 23.17 | 23.58 | 23.81 | 24.22 | 24.88 | 23.45 | 23.86 | 24.09 | 24.50 | 25.17 |
| | 12H | 23.33 | 23.70 | 23.97 | 24.32 | 25.05 | 23.57 | 23.93 | 24.21 | 24.55 | 25.29 |
| 12H | 4H | 22.23 | 22.73 | 22.84 | 23.34 | 23.99 | 22.67 | 23.17 | 23.28 | 23.78 | 24.43 |
| | 6H | 22.94 | 23.35 | 23.58 | 23.99 | 24.66 | 23.28 | 23.69 | 23.92 | 24.33 | 24.99 |
| | 8H | 23.23 | 23.59 | 23.87 | 24.22 | 24.95 | 23.51 | 23.87 | 24.15 | 24.49 | 25.23 |

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-7

Test Date: 08/04/2025

Luminaire Tested: EHBR-60-L940-N

Data in this report applies to families of products including EHBR-60-L940-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-7
 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-L940-N**
 Description: Elevate Round Highbay at, 60000 lumens, 4000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K): 3963
 CIE u': 0.2267
 CIE v': 0.5003
 Duv: -0.0016
 CIE x: 0.3810
 CIE y: 0.3738
 CIE z: 0.2453
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 580
 Purity: 26.49712
 Rf: 90.7
 Rg: 101

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 93.4 | | |
| R1: | 95.2 | R9: | 66.4 |
| R2: | 95.1 | R10: | 86.6 |
| R3: | 93.3 | R11: | 94.4 |
| R4: | 94.5 | R12: | 75.4 |
| R5: | 94.2 | R13: | 95.0 |
| R6: | 92.9 | R14: | 95.4 |
| R7: | 94.0 | R15: | 92.8 |
| R8: | 87.7 | | |



Test Conditions

Stabilization Time: 44M
 Operation Time: 1H 44M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-7

| 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



CCT = 3963K
 CIE x = 0.3810
 CIE y = 0.3738
 Duv = -0.0016

Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-7

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 | 141 | NR | 620 | 276 | NR | 750 | 5 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 167 | NR | 625 | 279 | NR | 755 | 4 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 193 | NR | 630 | 1000 | NR | 760 | 4 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 215 | NR | 635 | 628 | NR | 765 | 3 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 230 | NR | 640 | 164 | NR | 770 | 3 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 243 | NR | 645 | 161 | NR | 775 | 2 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 251 | NR | 650 | 137 | NR | 780 | 2 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 256 | NR | 655 | 111 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 262 | NR | 660 | 92 | NR | 790 | 1 | NR | 920 | 0 | NR |
| 405 | 4 | NR | 535 | 267 | NR | 665 | 76 | NR | 795 | 1 | NR | 925 | 0 | NR |
| 410 | 6 | NR | 540 | 271 | NR | 670 | 71 | NR | 800 | 1 | NR | 930 | 0 | NR |
| 415 | 11 | NR | 545 | 276 | NR | 675 | 56 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 280 | NR | 680 | 47 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 37 | NR | 555 | 285 | NR | 685 | 40 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 63 | NR | 560 | 290 | NR | 690 | 34 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 108 | NR | 565 | 294 | NR | 695 | 29 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 186 | NR | 570 | 296 | NR | 700 | 25 | NR | 830 | 0 | NR | 960 | 0 | NR |
| 445 | 323 | NR | 575 | 298 | NR | 705 | 21 | NR | 835 | 0 | NR | 965 | 0 | NR |
| 450 | 403 | NR | 580 | 299 | NR | 710 | 18 | NR | 840 | 0 | NR | 970 | 0 | NR |
| 455 | 293 | NR | 585 | 298 | NR | 715 | 15 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 214 | NR | 590 | 296 | NR | 720 | 13 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 180 | NR | 595 | 288 | NR | 725 | 11 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 132 | NR | 600 | 286 | NR | 730 | 9 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 109 | NR | 605 | 282 | NR | 735 | 8 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 110 | NR | 610 | 311 | NR | 740 | 7 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 121 | NR | 615 | 334 | NR | 745 | 6 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-472-7

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.76

| 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 | 141 | NR | 620 | 276 | NR | 750 | 5 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 167 | NR | 625 | 279 | NR | 755 | 4 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 193 | NR | 630 | 1000 | NR | 760 | 4 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 215 | NR | 635 | 628 | NR | 765 | 3 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 230 | NR | 640 | 164 | NR | 770 | 3 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 243 | NR | 645 | 161 | NR | 775 | 2 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 251 | NR | 650 | 137 | NR | 780 | 2 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 256 | NR | 655 | 111 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 262 | NR | 660 | 92 | NR | 790 | 1 | NR | 920 | 0 | NR |
| 405 | 4 | NR | 535 | 267 | NR | 665 | 76 | NR | 795 | 1 | NR | 925 | 0 | NR |
| 410 | 6 | NR | 540 | 271 | NR | 670 | 71 | NR | 800 | 1 | NR | 930 | 0 | NR |
| 415 | 11 | NR | 545 | 276 | NR | 675 | 56 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 280 | NR | 680 | 47 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 37 | NR | 555 | 285 | NR | 685 | 40 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 63 | NR | 560 | 290 | NR | 690 | 34 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 108 | NR | 565 | 294 | NR | 695 | 29 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 186 | NR | 570 | 296 | NR | 700 | 25 | NR | 830 | 0 | NR | 960 | 0 | NR |
| 445 | 323 | NR | 575 | 298 | NR | 705 | 21 | NR | 835 | 0 | NR | 965 | 0 | NR |
| 450 | 403 | NR | 580 | 299 | NR | 710 | 18 | NR | 840 | 0 | NR | 970 | 0 | NR |
| 455 | 293 | NR | 585 | 298 | NR | 715 | 15 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 214 | NR | 590 | 296 | NR | 720 | 13 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 180 | NR | 595 | 288 | NR | 725 | 11 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 132 | NR | 600 | 286 | NR | 730 | 9 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 109 | NR | 605 | 282 | NR | 735 | 8 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 110 | NR | 610 | 311 | NR | 740 | 7 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 121 | NR | 615 | 334 | NR | 745 | 6 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-472-7

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.64

| 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 | 141 | NR | 620 | 276 | NR | 750 | 5 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 167 | NR | 625 | 279 | NR | 755 | 4 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 193 | NR | 630 | 1000 | NR | 760 | 4 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 215 | NR | 635 | 628 | NR | 765 | 3 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 230 | NR | 640 | 164 | NR | 770 | 3 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 243 | NR | 645 | 161 | NR | 775 | 2 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 251 | NR | 650 | 137 | NR | 780 | 2 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 256 | NR | 655 | 111 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 262 | NR | 660 | 92 | NR | 790 | 1 | NR | 920 | 0 | NR |
| 405 | 4 | NR | 535 | 267 | NR | 665 | 76 | NR | 795 | 1 | NR | 925 | 0 | NR |
| 410 | 6 | NR | 540 | 271 | NR | 670 | 71 | NR | 800 | 1 | NR | 930 | 0 | NR |
| 415 | 11 | NR | 545 | 276 | NR | 675 | 56 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 280 | NR | 680 | 47 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 37 | NR | 555 | 285 | NR | 685 | 40 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 63 | NR | 560 | 290 | NR | 690 | 34 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 108 | NR | 565 | 294 | NR | 695 | 29 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 186 | NR | 570 | 296 | NR | 700 | 25 | NR | 830 | 0 | NR | 960 | 0 | NR |
| 445 | 323 | NR | 575 | 298 | NR | 705 | 21 | NR | 835 | 0 | NR | 965 | 0 | NR |
| 450 | 403 | NR | 580 | 299 | NR | 710 | 18 | NR | 840 | 0 | NR | 970 | 0 | NR |
| 455 | 293 | NR | 585 | 298 | NR | 715 | 15 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 214 | NR | 590 | 296 | NR | 720 | 13 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 180 | NR | 595 | 288 | NR | 725 | 11 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 132 | NR | 600 | 286 | NR | 730 | 9 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 109 | NR | 605 | 282 | NR | 735 | 8 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 110 | NR | 610 | 311 | NR | 740 | 7 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 121 | NR | 615 | 334 | NR | 745 | 6 | NR | 875 | 0 | NR | | | |

Summary

$R_f = 90.7$
 $R_g = 101$
 $CIE R_a = 93.4$
 $R_9 = 66.4$



Color Vector Graphics

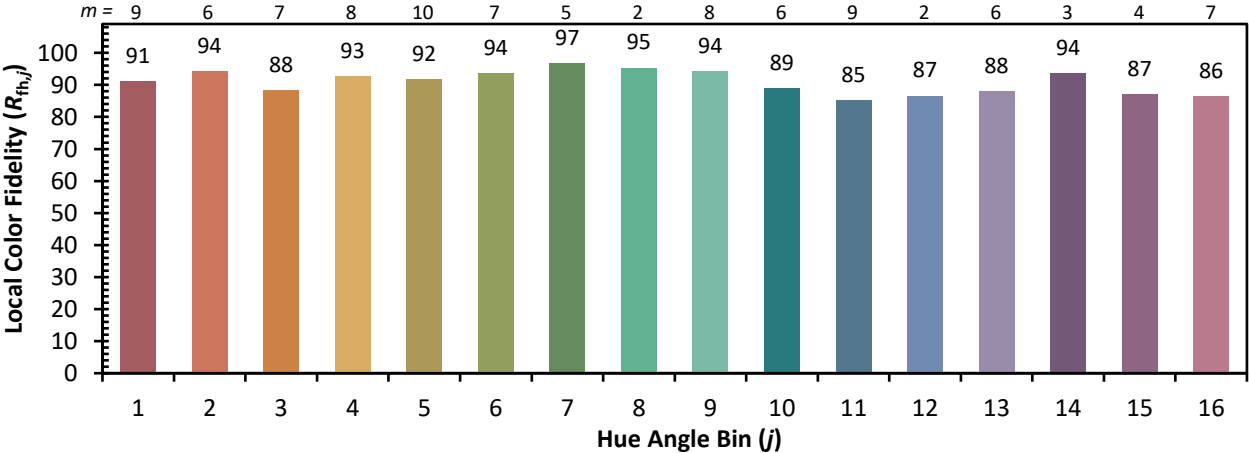


Individual Sample Fidelity Index ($R_{f,i}$)

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 90 | CES51 = 99 | CES76 = 83 |
| CES02 = 62 | CES27 = 93 | CES52 = 97 | CES77 = 87 |
| CES03 = 31 | CES28 = 94 | CES53 = 95 | CES78 = 79 |
| CES04 = 69 | CES29 = 91 | CES54 = 96 | CES79 = 94 |
| CES05 = 49 | CES30 = 98 | CES55 = 95 | CES80 = 91 |
| CES06 = 50 | CES31 = 92 | CES56 = 95 | CES81 = 80 |
| CES07 = 42 | CES32 = 84 | CES57 = 94 | CES82 = 96 |
| CES08 = 41 | CES33 = 95 | CES58 = 95 | CES83 = 95 |
| CES09 = 29 | CES34 = 90 | CES59 = 98 | CES84 = 93 |
| CES10 = 74 | CES35 = 94 | CES60 = 93 | CES85 = 82 |
| CES11 = 57 | CES36 = 84 | CES61 = 93 | CES86 = 84 |
| CES12 = 63 | CES37 = 92 | CES62 = 90 | CES87 = 90 |
| CES13 = 43 | CES38 = 93 | CES63 = 92 | CES88 = 97 |
| CES14 = 74 | CES39 = 98 | CES64 = 91 | CES89 = 84 |
| CES15 = 71 | CES40 = 96 | CES65 = 88 | CES90 = 99 |
| CES16 = 47 | CES41 = 98 | CES66 = 88 | CES91 = 74 |
| CES17 = 49 | CES42 = 89 | CES67 = 87 | CES92 = 78 |
| CES18 = 56 | CES43 = 89 | CES68 = 87 | CES93 = 87 |
| CES19 = 71 | CES44 = 99 | CES69 = 88 | CES94 = 75 |
| CES20 = 66 | CES45 = 93 | CES70 = 84 | CES95 = 83 |
| CES21 = 85 | CES46 = 95 | CES71 = 80 | CES96 = 91 |
| CES22 = 78 | CES47 = 92 | CES72 = 93 | CES97 = 93 |
| CES23 = 91 | CES48 = 96 | CES73 = 78 | CES98 = 93 |
| CES24 = 90 | CES49 = 93 | CES74 = 92 | CES99 = 94 |
| CES25 = 71 | CES50 = 99 | CES75 = 81 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)