

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: P1433551

Luminaire Tested: EHBR1-36-UNV-ASM-L935-UPL30

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1433551
REPORT IS A COMBINATION OF REPORTS P1431776 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-36-UNV-ASM-L935-UPL30
Description: Elevate Round Highbay at, 36000 lumens, 3500K 90CRI LEDs with ASM lens
Light Source: -
Ballast/Driver: -

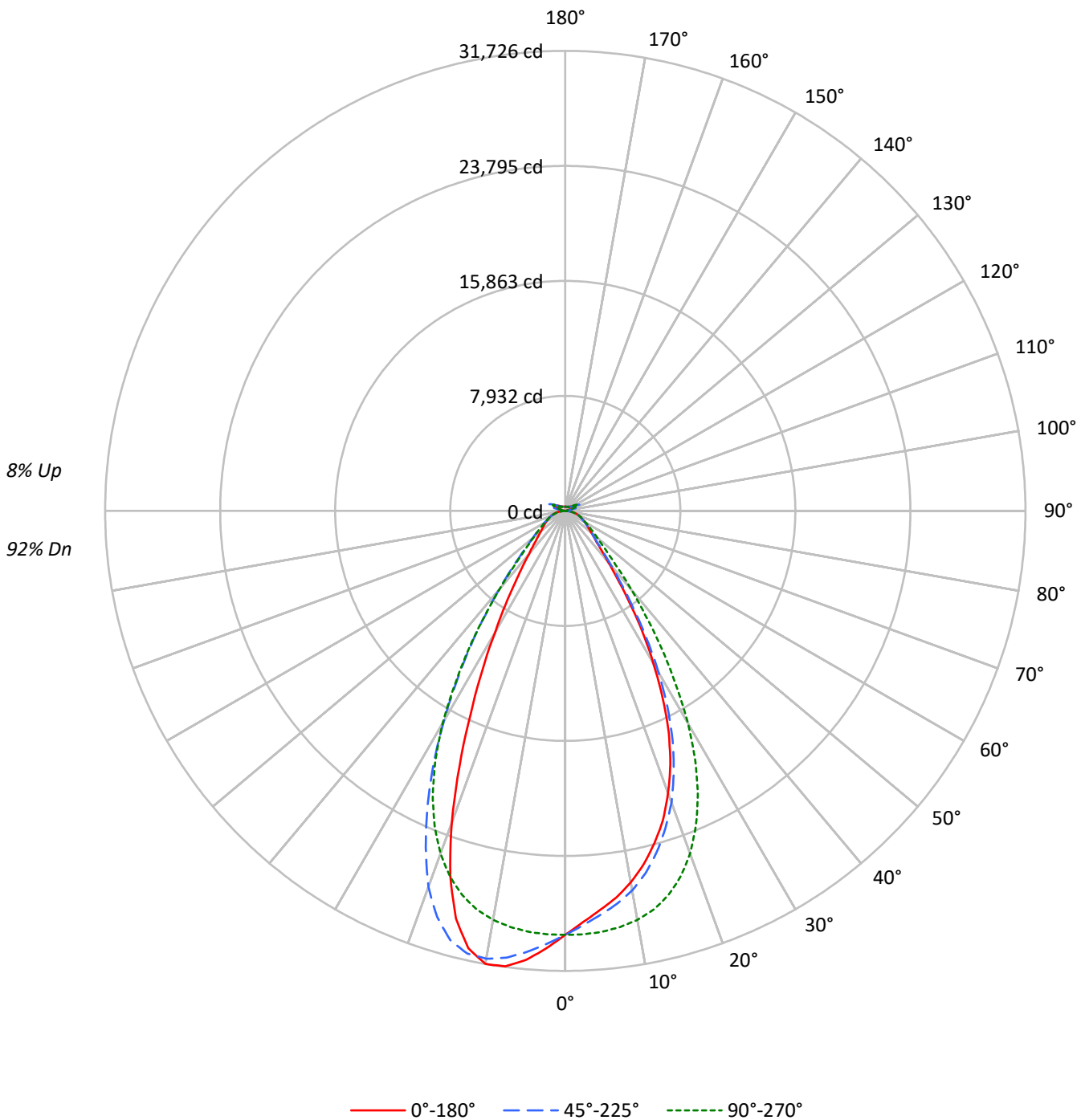
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35456.4 lumens
Efficiency: N/A
Efficacy: 166.2 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): 213.4
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: P1433551
CATALOG NUMBER: EHBR1-36-UNV-ASM-L935-UPL30

Luminous Intensity Polar Plot





TEST NUMBER: P1433551

CATALOG NUMBER: EHBR1-36-UNV-ASM-L935-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 | 95 | 95 | 95 | 95 | 95 | 95 | 92 |
| 1 | 110 | 106 | 103 | 101 | 107 | 104 | 101 | 98 | 98 | 96 | 94 | 93 | 91 | 90 | 88 | 87 | 86 | 88 | 87 | 86 | 83 |
| 2 | 103 | 97 | 92 | 88 | 100 | 95 | 90 | 86 | 90 | 86 | 83 | 86 | 83 | 80 | 82 | 79 | 77 | 82 | 79 | 77 | 75 |
| 3 | 97 | 89 | 83 | 78 | 94 | 87 | 81 | 77 | 83 | 78 | 75 | 79 | 75 | 72 | 76 | 73 | 70 | 76 | 73 | 70 | 68 |
| 4 | 91 | 82 | 75 | 70 | 88 | 80 | 74 | 69 | 77 | 72 | 67 | 74 | 69 | 66 | 71 | 67 | 64 | 71 | 67 | 64 | 62 |
| 5 | 85 | 75 | 69 | 63 | 83 | 74 | 68 | 63 | 71 | 66 | 62 | 69 | 64 | 60 | 66 | 62 | 59 | 66 | 62 | 59 | 57 |
| 6 | 80 | 70 | 63 | 58 | 78 | 69 | 62 | 58 | 66 | 61 | 57 | 64 | 59 | 56 | 62 | 58 | 55 | 62 | 58 | 55 | 53 |
| 7 | 76 | 65 | 58 | 53 | 74 | 64 | 58 | 53 | 62 | 56 | 52 | 60 | 55 | 51 | 58 | 54 | 51 | 58 | 54 | 51 | 49 |
| 8 | 72 | 61 | 54 | 49 | 70 | 60 | 54 | 49 | 58 | 52 | 48 | 56 | 51 | 48 | 55 | 50 | 47 | 55 | 50 | 47 | 45 |
| 9 | 68 | 57 | 50 | 46 | 66 | 56 | 50 | 46 | 55 | 49 | 45 | 53 | 48 | 45 | 52 | 47 | 44 | 52 | 47 | 44 | 42 |
| 10 | 64 | 54 | 47 | 43 | 63 | 53 | 47 | 43 | 51 | 46 | 42 | 50 | 45 | 42 | 49 | 44 | 41 | 49 | 44 | 41 | 40 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° | 135° | 180° |
|-----|--------|--------|--------|--------|--------|
| 0° | 137303 | 137303 | 137303 | 137303 | 137303 |
| 5° | 129385 | 130898 | 136468 | 143012 | 145585 |
| 10° | 122452 | 125046 | 134790 | 147604 | 149323 |
| 15° | 113113 | 116134 | 130810 | 146090 | 138768 |
| 20° | 100752 | 104145 | 122340 | 134286 | 111273 |
| 25° | 84435 | 87630 | 108281 | 112635 | 77096 |
| 30° | 63174 | 66836 | 87920 | 87042 | 50157 |
| 35° | 42057 | 44596 | 63059 | 62041 | 32482 |
| 40° | 26523 | 28345 | 40770 | 41032 | 22389 |
| 45° | 18898 | 19684 | 25868 | 26980 | 17343 |
| 50° | 15741 | 15866 | 19210 | 19710 | 14737 |
| 55° | 13895 | 13928 | 15684 | 16098 | 13425 |
| 60° | 12866 | 12755 | 13581 | 13868 | 12788 |
| 65° | 12280 | 12170 | 12380 | 12621 | 12333 |
| 70° | 11928 | 11722 | 11734 | 11959 | 12084 |
| 75° | 11340 | 10996 | 10973 | 11364 | 11690 |
| 80° | 10318 | 9598 | 9639 | 10318 | 11037 |
| 85° | 7512 | 6235 | 6235 | 7131 | 7879 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
 Vertical Angle: 45°
 Luminance: 36369 cd/sqm



TEST NUMBER: P1433551
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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 2780.1 | 7.8 |
| 10°-20° | 7563.3 | 21.3 |
| 20°-30° | 8870.2 | 25.0 |
| 30°-40° | 6168.7 | 17.4 |
| 40°-50° | 3065.6 | 8.6 |
| 50°-60° | 1833.5 | 5.2 |
| 60°-70° | 1290.5 | 3.6 |
| 70°-80° | 831.3 | 2.3 |
| 80°-90° | 268.9 | 0.8 |
| 90°-100° | 74.3 | 0.2 |
| 100°-110° | 483.7 | 1.4 |
| 110°-120° | 893.3 | 2.5 |
| 120°-130° | 531.1 | 1.5 |
| 130°-140° | 321.5 | 0.9 |
| 140°-150° | 222.7 | 0.6 |
| 150°-160° | 145.7 | 0.4 |
| 160°-170° | 84.0 | 0.2 |
| 170°-180° | 28.0 | 0.1 |
| 0°-30° | 19213.6 | 54.2 |
| 0°-40° | 25382.3 | 71.6 |
| 0°-60° | 30281.4 | 85.4 |
| 0°-90° | 32672.1 | 92.1 |
| 90°-120° | 1451.3 | 4.1 |
| 90°-150° | 2526.6 | 7.1 |
| 90°-180° | 2784.0 | 7.9 |
| 0°-180° | 35456.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0° | 29238 | 29238 | 29238 | 29238 | 29238 | |
| 5° | 27626 | 27949 | 29138 | 30535 | 31085 | 2591 |
| 15° | 23730 | 24364 | 27443 | 30649 | 29113 | 6618 |
| 25° | 16862 | 17500 | 21624 | 22493 | 15396 | 7608 |
| 35° | 7719 | 8185 | 11574 | 11387 | 5962 | 4917 |
| 45° | 3058 | 3185 | 4185 | 4365 | 2806 | 2472 |
| 55° | 1878 | 1882 | 2120 | 2176 | 1814 | 1704 |
| 65° | 1282 | 1270 | 1292 | 1317 | 1287 | 1273 |
| 75° | 799 | 775 | 773 | 800 | 824 | 843 |
| 85° | 258 | 214 | 214 | 245 | 271 | 266 |
| 90° | 20 | 56 | 20 | 60 | 24 | 22 |
| 95° | 34 | 125 | 40 | 108 | 38 | 33 |
| 105° | 168 | 844 | 222 | 900 | 114 | 225 |
| 115° | 772 | 998 | 951 | 1105 | 813 | 711 |
| 125° | 558 | 535 | 609 | 593 | 638 | 508 |
| 135° | 408 | 411 | 385 | 430 | 445 | 319 |
| 145° | 339 | 355 | 349 | 357 | 365 | 215 |
| 155° | 302 | 312 | 311 | 311 | 325 | 141 |
| 165° | 289 | 295 | 294 | 294 | 304 | 82 |
| 175° | 289 | 294 | 294 | 293 | 300 | 28 |
| 180° | 294 | 294 | 294 | 294 | 294 | |



TEST NUMBER: P1433551
 CATALOG NUMBER: EHBR1-36-UNV-ASM-L935-UPL30

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 29237.8 | 29237.8 | 29237.8 | 29237.8 | 29237.8 | 29237.8 | 29237.8 | 29237.8 | 29237.8 |
| 2.5° | 28369.9 | 28388.5 | 28586.9 | 28845.1 | 29220.7 | 29598.5 | 29904.4 | 30106.2 | 30205.9 |
| 5° | 27625.8 | 27728.9 | 27948.8 | 28423.1 | 29138.0 | 29894.6 | 30535.4 | 30954.9 | 31084.8 |
| 7.5° | 26901.1 | 26960.9 | 27328.7 | 27927.9 | 28940.0 | 30118.8 | 31071.1 | 31560.7 | 31680.2 |
| 10° | 26016.7 | 26152.2 | 26567.7 | 27274.5 | 28637.9 | 30260.2 | 31360.6 | 31711.4 | 31725.7 |
| 12.5° | 24976.2 | 25155.5 | 25584.7 | 26476.2 | 28156.0 | 30209.8 | 31263.5 | 31148.4 | 30886.8 |
| 15° | 23730.5 | 23887.9 | 24364.3 | 25398.4 | 27443.3 | 29911.0 | 30648.9 | 29711.9 | 29112.7 |
| 17.5° | 22385.1 | 22527.6 | 22941.6 | 24080.3 | 26438.9 | 29351.8 | 29366.0 | 27512.4 | 26381.9 |
| 20° | 20707.5 | 20819.3 | 21404.9 | 22522.2 | 25144.5 | 28454.9 | 27599.6 | 24209.2 | 22869.8 |
| 22.5° | 18922.4 | 19027.0 | 19547.4 | 20710.2 | 23521.6 | 27245.4 | 25139.5 | 20886.2 | 19058.9 |
| 25° | 16861.5 | 16918.5 | 17499.7 | 18551.2 | 21623.6 | 25763.4 | 22493.1 | 17265.6 | 15396.0 |
| 27.5° | 14543.0 | 14639.9 | 15248.0 | 16322.0 | 19391.1 | 23885.1 | 19675.2 | 14108.7 | 12383.9 |
| 30° | 12151.4 | 12312.1 | 12855.9 | 13817.6 | 16911.4 | 21477.2 | 16742.5 | 11235.9 | 9647.6 |
| 32.5° | 9919.5 | 10035.2 | 10422.8 | 11427.7 | 14135.0 | 19117.0 | 13926.1 | 9002.8 | 7657.4 |
| 35° | 7718.9 | 7834.5 | 8184.9 | 9171.7 | 11573.6 | 16164.1 | 11386.7 | 7074.1 | 5961.7 |
| 37.5° | 5900.3 | 6104.8 | 6329.5 | 7130.6 | 9082.9 | 13374.1 | 9076.9 | 5696.4 | 4835.5 |
| 40° | 4597.1 | 4630.0 | 4912.9 | 5425.5 | 7066.4 | 10457.3 | 7111.9 | 4547.2 | 3880.5 |
| 42.5° | 3679.9 | 3769.2 | 3891.0 | 4274.7 | 5354.2 | 7996.3 | 5590.0 | 3732.0 | 3296.1 |
| 45° | 3057.6 | 3092.7 | 3184.8 | 3442.5 | 4185.3 | 5884.3 | 4365.2 | 3148.6 | 2806.0 |
| 47.5° | 2674.9 | 2659.5 | 2718.8 | 2911.8 | 3408.5 | 4547.8 | 3537.9 | 2700.7 | 2460.6 |
| 50° | 2345.9 | 2336.6 | 2364.6 | 2493.4 | 2863.0 | 3489.6 | 2937.5 | 2357.5 | 2196.3 |
| 52.5° | 2090.5 | 2098.7 | 2101.4 | 2181.5 | 2459.4 | 2846.0 | 2501.7 | 2100.9 | 1992.4 |
| 55° | 1877.7 | 1888.2 | 1882.2 | 1941.4 | 2119.5 | 2392.5 | 2175.5 | 1889.2 | 1814.2 |
| 57.5° | 1711.6 | 1704.0 | 1695.7 | 1727.6 | 1861.3 | 2029.6 | 1889.2 | 1708.9 | 1659.0 |
| 60° | 1546.7 | 1539.5 | 1533.4 | 1554.3 | 1632.7 | 1757.7 | 1667.2 | 1551.5 | 1537.3 |
| 62.5° | 1405.2 | 1400.8 | 1400.3 | 1396.4 | 1456.7 | 1535.7 | 1474.2 | 1410.1 | 1397.5 |
| 65° | 1281.8 | 1276.8 | 1270.3 | 1264.2 | 1292.2 | 1365.7 | 1317.4 | 1282.9 | 1287.3 |
| 67.5° | 1158.5 | 1158.5 | 1147.0 | 1137.6 | 1165.0 | 1203.4 | 1182.6 | 1162.8 | 1167.8 |
| 70° | 1046.6 | 1047.2 | 1028.5 | 1021.4 | 1029.6 | 1070.7 | 1049.3 | 1052.1 | 1060.3 |
| 72.5° | 926.5 | 913.4 | 899.7 | 899.2 | 900.3 | 932.1 | 924.9 | 931.4 | 940.2 |
| 75° | 798.8 | 783.4 | 774.6 | 764.9 | 773.0 | 797.1 | 800.5 | 809.8 | 823.5 |
| 77.5° | 675.5 | 651.8 | 644.8 | 639.8 | 634.3 | 661.7 | 672.1 | 684.7 | 705.0 |
| 80° | 542.8 | 517.0 | 504.9 | 497.8 | 507.1 | 519.8 | 542.8 | 552.0 | 580.6 |
| 82.5° | 401.3 | 382.1 | 367.3 | 366.8 | 371.1 | 382.7 | 402.4 | 420.0 | 436.4 |
| 85° | 258.2 | 227.5 | 214.3 | 219.3 | 214.3 | 231.9 | 245.1 | 265.9 | 270.8 |
| 87.5° | 93.2 | 73.0 | 69.6 | 76.8 | 75.1 | 80.6 | 92.1 | 100.3 | 100.9 |
| 90° | 20.5 | 32.8 | 55.8 | 35.9 | 20.5 | 34.9 | 60.0 | 34.0 | 24.3 |
| 92.5° | 29.7 | 49.7 | 89.6 | 46.6 | 26.6 | 47.1 | 84.6 | 44.7 | 32.0 |
| 95° | 34.3 | 57.4 | 124.9 | 62.0 | 39.5 | 57.9 | 107.6 | 49.3 | 38.2 |
| 97.5° | 44.0 | 63.5 | 143.4 | 75.8 | 61.0 | 71.7 | 121.4 | 52.4 | 45.8 |
| 100° | 57.9 | 74.2 | 223.2 | 93.3 | 80.9 | 80.9 | 221.2 | 60.1 | 51.9 |
| 102.5° | 97.8 | 157.2 | 473.5 | 174.6 | 122.4 | 158.2 | 512.0 | 119.0 | 62.7 |
| 105° | 168.5 | 330.7 | 843.6 | 365.1 | 222.2 | 361.0 | 900.5 | 304.8 | 113.9 |
| 107.5° | 291.3 | 591.7 | 1112.9 | 646.0 | 420.3 | 672.7 | 1160.0 | 599.6 | 262.8 |
| 110° | 543.2 | 785.2 | 1166.6 | 887.1 | 672.1 | 939.9 | 1266.0 | 820.8 | 530.1 |



TEST NUMBER: P1433551
 CATALOG NUMBER: EHBR1-36-UNV-ASM-L935-UPL30

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|--------|-------|-------|--------|-------|-------|--------|--------|--------|-------|
| 112.5° | 733.6 | 843.6 | 1117.5 | 979.3 | 874.9 | 1047.4 | 1236.8 | 909.8 | 732.8 |
| 115° | 771.9 | 811.3 | 997.7 | 956.3 | 950.6 | 1032.0 | 1104.7 | 906.8 | 812.6 |
| 117.5° | 745.8 | 740.7 | 847.2 | 860.0 | 918.4 | 944.5 | 954.3 | 851.5 | 817.2 |
| 120° | 690.5 | 659.4 | 707.5 | 751.0 | 829.3 | 818.6 | 804.3 | 770.1 | 771.2 |
| 122.5° | 621.5 | 584.6 | 606.7 | 639.4 | 717.8 | 694.7 | 679.9 | 687.7 | 708.2 |
| 125° | 557.5 | 520.1 | 535.0 | 543.3 | 608.8 | 585.7 | 592.9 | 617.0 | 638.1 |
| 127.5° | 500.7 | 475.6 | 484.3 | 475.6 | 517.2 | 506.4 | 529.9 | 557.2 | 575.2 |
| 130° | 462.3 | 440.8 | 452.6 | 431.7 | 451.6 | 454.2 | 485.4 | 508.5 | 519.9 |
| 132.5° | 430.6 | 416.8 | 430.7 | 405.1 | 410.7 | 422.4 | 452.2 | 472.3 | 479.0 |
| 135° | 407.6 | 395.8 | 410.7 | 387.3 | 385.2 | 402.5 | 429.7 | 442.6 | 445.3 |
| 137.5° | 388.2 | 377.9 | 393.4 | 375.5 | 370.3 | 387.7 | 408.2 | 418.5 | 416.1 |
| 140° | 370.8 | 362.2 | 378.6 | 364.8 | 361.7 | 379.0 | 388.3 | 400.1 | 398.2 |
| 142.5° | 351.9 | 345.8 | 365.4 | 356.2 | 353.1 | 368.9 | 373.4 | 382.3 | 379.8 |
| 145° | 339.3 | 334.7 | 355.2 | 350.0 | 349.0 | 360.8 | 357.1 | 368.5 | 365.0 |
| 147.5° | 328.1 | 325.0 | 343.5 | 341.4 | 341.4 | 350.0 | 345.4 | 355.2 | 351.7 |
| 150° | 318.5 | 315.4 | 333.3 | 331.2 | 332.7 | 338.9 | 332.2 | 343.5 | 343.0 |
| 152.5° | 308.8 | 305.2 | 321.5 | 319.4 | 320.9 | 327.1 | 320.9 | 333.8 | 332.8 |
| 155° | 302.2 | 298.5 | 311.9 | 310.8 | 311.3 | 314.4 | 311.3 | 324.1 | 324.6 |
| 157.5° | 297.6 | 295.0 | 305.3 | 304.7 | 304.7 | 306.8 | 305.3 | 316.6 | 317.1 |
| 160° | 294.2 | 292.1 | 300.7 | 300.2 | 299.2 | 302.3 | 301.3 | 311.1 | 311.6 |
| 162.5° | 290.7 | 288.6 | 298.7 | 297.2 | 297.2 | 297.2 | 296.8 | 306.5 | 307.6 |
| 165° | 288.7 | 288.1 | 295.3 | 295.3 | 294.3 | 295.8 | 293.8 | 301.1 | 303.7 |
| 167.5° | 288.7 | 287.1 | 294.8 | 294.8 | 293.8 | 292.3 | 293.5 | 299.7 | 302.4 |
| 170° | 288.2 | 287.7 | 293.8 | 292.8 | 291.3 | 291.9 | 291.5 | 297.7 | 300.4 |
| 172.5° | 289.4 | 288.8 | 295.6 | 294.0 | 293.0 | 293.0 | 291.6 | 296.3 | 300.4 |
| 175° | 288.9 | 288.4 | 293.6 | 293.6 | 294.1 | 293.1 | 292.7 | 295.8 | 300.0 |
| 177.5° | 291.0 | 290.5 | 293.6 | 293.6 | 292.6 | 293.7 | 294.7 | 297.9 | 303.6 |
| 180° | 293.7 | 293.7 | 293.7 | 293.7 | 293.7 | 293.7 | 293.7 | 293.7 | 293.7 |



TEST NUMBER: P1433551
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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 | 16.97 | 18.06 | 17.47 | 18.53 | 19.04 | 17.73 | 18.82 | 18.24 | 19.30 | 19.81 |
| | 3H | 18.78 | 19.75 | 19.30 | 20.24 | 20.80 | 19.29 | 20.26 | 19.81 | 20.75 | 21.31 |
| | 4H | 19.52 | 20.42 | 20.06 | 20.93 | 21.50 | 19.94 | 20.84 | 20.48 | 21.35 | 21.92 |
| | 6H | 20.09 | 20.92 | 20.64 | 21.44 | 22.02 | 20.43 | 21.26 | 20.98 | 21.79 | 22.37 |
| | 8H | 20.27 | 21.06 | 20.83 | 21.60 | 22.19 | 20.59 | 21.38 | 21.15 | 21.92 | 22.51 |
| | 12H | 20.37 | 21.12 | 20.93 | 21.65 | 22.27 | 20.67 | 21.42 | 21.23 | 21.95 | 22.57 |
| 4H | 2H | 17.48 | 18.39 | 18.02 | 18.89 | 19.47 | 18.11 | 19.02 | 18.65 | 19.52 | 20.10 |
| | 3H | 19.52 | 20.27 | 20.07 | 20.82 | 21.41 | 19.92 | 20.66 | 20.47 | 21.22 | 21.81 |
| | 4H | 20.38 | 21.06 | 20.95 | 21.62 | 22.25 | 20.70 | 21.38 | 21.27 | 21.94 | 22.57 |
| | 6H | 21.08 | 21.66 | 21.67 | 22.24 | 22.89 | 21.34 | 21.92 | 21.93 | 22.50 | 23.15 |
| | 8H | 21.30 | 21.84 | 21.90 | 22.43 | 23.08 | 21.54 | 22.08 | 22.14 | 22.67 | 23.32 |
| | 12H | 21.44 | 21.91 | 22.05 | 22.53 | 23.19 | 21.66 | 22.13 | 22.27 | 22.75 | 23.41 |
| 8H | 4H | 20.64 | 21.18 | 21.24 | 21.77 | 22.42 | 20.95 | 21.49 | 21.54 | 22.07 | 22.72 |
| | 6H | 21.46 | 21.90 | 22.09 | 22.53 | 23.19 | 21.71 | 22.15 | 22.34 | 22.78 | 23.44 |
| | 8H | 21.76 | 22.15 | 22.41 | 22.80 | 23.47 | 21.99 | 22.38 | 22.64 | 23.03 | 23.70 |
| | 12H | 21.96 | 22.30 | 22.60 | 22.93 | 23.67 | 22.17 | 22.52 | 22.82 | 23.14 | 23.89 |
| 12H | 4H | 20.65 | 21.13 | 21.26 | 21.74 | 22.40 | 20.95 | 21.43 | 21.57 | 22.05 | 22.70 |
| | 6H | 21.50 | 21.89 | 22.14 | 22.53 | 23.20 | 21.75 | 22.15 | 22.40 | 22.79 | 23.46 |
| | 8H | 21.84 | 22.19 | 22.49 | 22.81 | 23.56 | 22.08 | 22.42 | 22.72 | 23.05 | 23.79 |

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-6

Test Date: 08/01/2025

Luminaire Tested: EHBR-60-L935-N

Data in this report applies to families of products including EHBR-60-L935-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-6
 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-L935-N**
 Description: Elevate Round Highbay at, 60000 lumens, 3500K 90CRI LEDs with N lens

Spectral Parameters

CCT (K): 3406
 CIE u': 0.2394
 CIE v': 0.5094
 Duv: -0.0028
 CIE x: 0.4076
 CIE y: 0.3856
 CIE z: 0.2068
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 582
 Purity: 38.0517
 Rf: 91.3
 Rg: 100

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 94.6 | | |
| R1: | 96.6 | R9: | 63.8 |
| R2: | 98.4 | R10: | 94.7 |
| R3: | 98.1 | R11: | 96.6 |
| R4: | 95.8 | R12: | 80.9 |
| R5: | 96.2 | R13: | 97.4 |
| R6: | 95.4 | R14: | 98.3 |
| R7: | 91.8 | R15: | 93.1 |
| R8: | 84.4 | | |



Test Conditions

Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-6

| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | 76INCH SPHERE IN0058 | 6/16/2025 | 12/16/2025 |
| Power Meter | XITRON INXT2011004 | 1/21/2025 | 1/21/2026 |
| AC Power Source | CHROMA 61603 IN0063 | 10/22/2024 | 10/22/2025 |
| DC Power Source | AGILENT E3634A IN0208 | 10/22/2024 | 10/22/2025 |
| Sphere Thermometer | ONSET IN0085 | 10/22/2024 | 10/22/2025 |
| Room Thermometer | ONSET IN0046 | 10/22/2024 | 10/22/2025 |

REPORT NUMBER: SP1-2506-472-6

CIE 1931 Chromaticity Diagram



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



CCT = 3406K
 CIE x = 0.4076
 CIE y = 0.3856
 Duv = -0.0028

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-6

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 | 140 | NR | 620 | 338 | NR | 750 | 8 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 159 | NR | 625 | 339 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 182 | NR | 630 | 1000 | NR | 760 | 5 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 202 | NR | 635 | 653 | NR | 765 | 5 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 216 | NR | 640 | 222 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 228 | NR | 645 | 214 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 236 | NR | 650 | 185 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 242 | NR | 655 | 157 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 248 | NR | 660 | 133 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 3 | NR | 535 | 253 | NR | 665 | 113 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 4 | NR | 540 | 258 | NR | 670 | 103 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 7 | NR | 545 | 264 | NR | 675 | 85 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 13 | NR | 550 | 270 | NR | 680 | 72 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 22 | NR | 555 | 278 | NR | 685 | 62 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 38 | NR | 560 | 286 | NR | 690 | 53 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 65 | NR | 565 | 295 | NR | 695 | 45 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 108 | NR | 570 | 303 | NR | 700 | 39 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 193 | NR | 575 | 311 | NR | 705 | 33 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 312 | NR | 580 | 319 | NR | 710 | 28 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 300 | NR | 585 | 326 | NR | 715 | 24 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 214 | NR | 590 | 332 | NR | 720 | 20 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 184 | NR | 595 | 333 | NR | 725 | 17 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 153 | NR | 600 | 336 | NR | 730 | 15 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 122 | NR | 605 | 337 | NR | 735 | 12 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 115 | NR | 610 | 367 | NR | 740 | 10 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 125 | NR | 615 | 390 | NR | 745 | 9 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-472-6

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.62

| 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 | 140 | NR | 620 | 338 | NR | 750 | 8 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 159 | NR | 625 | 339 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 182 | NR | 630 | 1000 | NR | 760 | 5 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 202 | NR | 635 | 653 | NR | 765 | 5 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 216 | NR | 640 | 222 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 228 | NR | 645 | 214 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 236 | NR | 650 | 185 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 242 | NR | 655 | 157 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 248 | NR | 660 | 133 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 3 | NR | 535 | 253 | NR | 665 | 113 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 4 | NR | 540 | 258 | NR | 670 | 103 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 7 | NR | 545 | 264 | NR | 675 | 85 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 13 | NR | 550 | 270 | NR | 680 | 72 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 22 | NR | 555 | 278 | NR | 685 | 62 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 38 | NR | 560 | 286 | NR | 690 | 53 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 65 | NR | 565 | 295 | NR | 695 | 45 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 108 | NR | 570 | 303 | NR | 700 | 39 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 193 | NR | 575 | 311 | NR | 705 | 33 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 312 | NR | 580 | 319 | NR | 710 | 28 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 300 | NR | 585 | 326 | NR | 715 | 24 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 214 | NR | 590 | 332 | NR | 720 | 20 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 184 | NR | 595 | 333 | NR | 725 | 17 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 153 | NR | 600 | 336 | NR | 730 | 15 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 122 | NR | 605 | 337 | NR | 735 | 12 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 115 | NR | 610 | 367 | NR | 740 | 10 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 125 | NR | 615 | 390 | NR | 745 | 9 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-472-6

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.3

| 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 | 140 | NR | 620 | 338 | NR | 750 | 8 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 159 | NR | 625 | 339 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 182 | NR | 630 | 1000 | NR | 760 | 5 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 202 | NR | 635 | 653 | NR | 765 | 5 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 216 | NR | 640 | 222 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 228 | NR | 645 | 214 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 236 | NR | 650 | 185 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 242 | NR | 655 | 157 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 248 | NR | 660 | 133 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 3 | NR | 535 | 253 | NR | 665 | 113 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 4 | NR | 540 | 258 | NR | 670 | 103 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 7 | NR | 545 | 264 | NR | 675 | 85 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 13 | NR | 550 | 270 | NR | 680 | 72 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 22 | NR | 555 | 278 | NR | 685 | 62 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 38 | NR | 560 | 286 | NR | 690 | 53 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 65 | NR | 565 | 295 | NR | 695 | 45 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 108 | NR | 570 | 303 | NR | 700 | 39 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 193 | NR | 575 | 311 | NR | 705 | 33 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 312 | NR | 580 | 319 | NR | 710 | 28 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 300 | NR | 585 | 326 | NR | 715 | 24 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 214 | NR | 590 | 332 | NR | 720 | 20 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 184 | NR | 595 | 333 | NR | 725 | 17 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 153 | NR | 600 | 336 | NR | 730 | 15 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 122 | NR | 605 | 337 | NR | 735 | 12 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 115 | NR | 610 | 367 | NR | 740 | 10 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 125 | NR | 615 | 390 | NR | 745 | 9 | NR | 875 | 0 | NR | | | |

Summary

$R_f = 91.3$
 $R_g = 100$
 $CIE R_a = 94.6$
 $R_9 = 63.8$

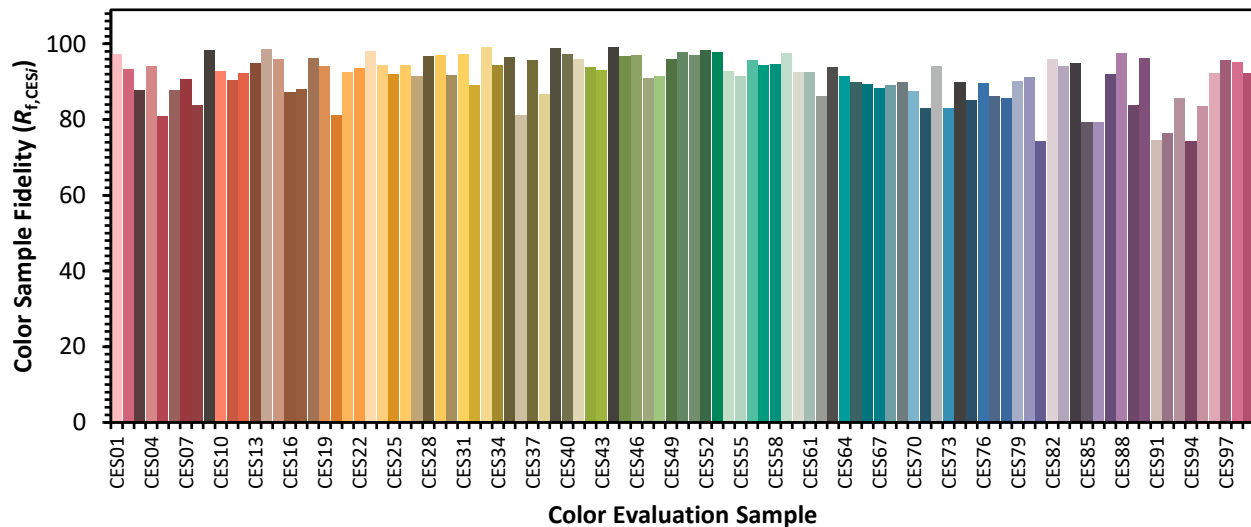


Color Vector Graphics



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

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 94 | CES51 = 97 | CES76 = 90 |
| CES02 = 63 | CES27 = 92 | CES52 = 98 | CES77 = 86 |
| CES03 = 31 | CES28 = 97 | CES53 = 98 | CES78 = 86 |
| CES04 = 70 | CES29 = 97 | CES54 = 93 | CES79 = 90 |
| CES05 = 50 | CES30 = 92 | CES55 = 92 | CES80 = 91 |
| CES06 = 51 | CES31 = 97 | CES56 = 96 | CES81 = 74 |
| CES07 = 43 | CES32 = 89 | CES57 = 94 | CES82 = 96 |
| CES08 = 41 | CES33 = 99 | CES58 = 95 | CES83 = 94 |
| CES09 = 29 | CES34 = 94 | CES59 = 98 | CES84 = 95 |
| CES10 = 75 | CES35 = 97 | CES60 = 92 | CES85 = 79 |
| CES11 = 58 | CES36 = 81 | CES61 = 93 | CES86 = 79 |
| CES12 = 64 | CES37 = 96 | CES62 = 86 | CES87 = 92 |
| CES13 = 44 | CES38 = 87 | CES63 = 94 | CES88 = 98 |
| CES14 = 74 | CES39 = 99 | CES64 = 91 | CES89 = 84 |
| CES15 = 72 | CES40 = 97 | CES65 = 90 | CES90 = 96 |
| CES16 = 48 | CES41 = 96 | CES66 = 89 | CES91 = 75 |
| CES17 = 49 | CES42 = 94 | CES67 = 88 | CES92 = 76 |
| CES18 = 56 | CES43 = 93 | CES68 = 89 | CES93 = 86 |
| CES19 = 71 | CES44 = 99 | CES69 = 90 | CES94 = 74 |
| CES20 = 67 | CES45 = 97 | CES70 = 88 | CES95 = 83 |
| CES21 = 86 | CES46 = 97 | CES71 = 83 | CES96 = 92 |
| CES22 = 78 | CES47 = 91 | CES72 = 94 | CES97 = 96 |
| CES23 = 91 | CES48 = 91 | CES73 = 83 | CES98 = 95 |
| CES24 = 90 | CES49 = 96 | CES74 = 90 | CES99 = 92 |
| CES25 = 71 | CES50 = 98 | CES75 = 85 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)