

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:

Luminaire Tested: EHBR1-24-UNV-A1-L950-UPL18

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number:
REPORT IS A COMBINATION OF REPORTS P1431702 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-24-UNV-A1-L950-UPL18
Description: Elevate Round Highbay at, 24000 lumens, 5000K 90CRI LEDs with A lens
Light Source: -
Ballast/Driver: -

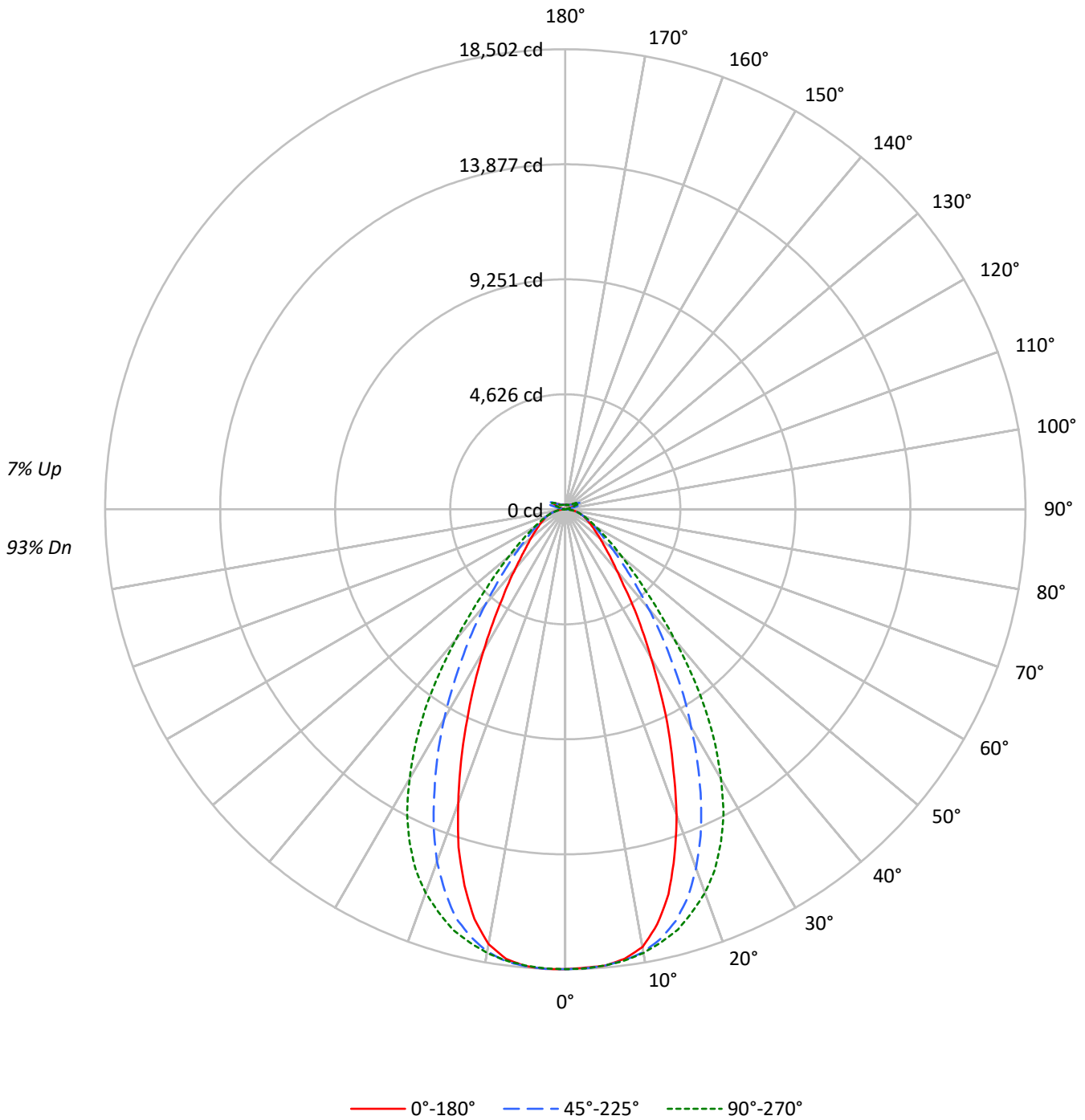
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24689.4 lumens
Efficiency: N/A
Efficacy: 176.1 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): 140.2
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:
CATALOG NUMBER: EHBR1-24-UNV-A1-L950-UPL18

Luminous Intensity Polar Plot





TEST NUMBER:

CATALOG NUMBER: EHBR1-24-UNV-A1-L950-UPL18

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | | | | |
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | | | 0 | |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 101 | 101 | 101 | 96 | 96 | 96 | 96 | 96 | 96 | 93 |
| 1 | 110 | 106 | 103 | 100 | 107 | 103 | 101 | 98 | 98 | 96 | 94 | 93 | 91 | 90 | 89 | 87 | 86 | 86 | 86 | 86 | 83 |
| 2 | 103 | 96 | 91 | 87 | 100 | 94 | 89 | 85 | 90 | 86 | 82 | 85 | 82 | 80 | 82 | 79 | 77 | 77 | 77 | 77 | 75 |
| 3 | 96 | 88 | 82 | 77 | 93 | 86 | 80 | 75 | 82 | 77 | 73 | 79 | 75 | 71 | 75 | 72 | 69 | 69 | 69 | 69 | 67 |
| 4 | 90 | 80 | 74 | 68 | 87 | 79 | 72 | 67 | 75 | 70 | 66 | 73 | 68 | 64 | 70 | 66 | 63 | 63 | 63 | 63 | 61 |
| 5 | 84 | 74 | 67 | 62 | 82 | 72 | 66 | 61 | 70 | 64 | 60 | 67 | 62 | 58 | 65 | 61 | 57 | 57 | 57 | 57 | 55 |
| 6 | 79 | 68 | 61 | 56 | 77 | 67 | 60 | 55 | 65 | 59 | 54 | 62 | 57 | 53 | 60 | 56 | 53 | 53 | 53 | 53 | 51 |
| 7 | 74 | 63 | 56 | 51 | 72 | 62 | 55 | 51 | 60 | 54 | 50 | 58 | 53 | 49 | 56 | 52 | 48 | 48 | 48 | 48 | 47 |
| 8 | 70 | 59 | 52 | 47 | 68 | 58 | 51 | 47 | 56 | 50 | 46 | 55 | 49 | 45 | 53 | 48 | 45 | 45 | 45 | 45 | 43 |
| 9 | 66 | 55 | 48 | 43 | 65 | 54 | 48 | 43 | 53 | 47 | 43 | 51 | 46 | 42 | 50 | 45 | 42 | 42 | 42 | 42 | 40 |
| 10 | 63 | 51 | 45 | 40 | 61 | 51 | 44 | 40 | 49 | 44 | 40 | 48 | 43 | 39 | 47 | 42 | 39 | 39 | 39 | 39 | 37 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° | 135° | 180° |
|-----|-------|-------|-------|-------|-------|
| 0° | 86848 | 86848 | 86848 | 86848 | 86848 |
| 5° | 86275 | 86262 | 86265 | 86418 | 86365 |
| 10° | 84142 | 85123 | 85258 | 85017 | 83591 |
| 15° | 76387 | 81717 | 83399 | 81062 | 74633 |
| 20° | 63655 | 74761 | 79869 | 73354 | 61177 |
| 25° | 49228 | 64642 | 74092 | 62282 | 46677 |
| 30° | 35883 | 52643 | 65085 | 50646 | 34059 |
| 35° | 25866 | 40576 | 53489 | 38828 | 24177 |
| 40° | 18609 | 29968 | 39419 | 28703 | 18035 |
| 45° | 14664 | 21925 | 27532 | 20974 | 14156 |
| 50° | 12166 | 16473 | 19926 | 15930 | 11982 |
| 55° | 10625 | 13007 | 15091 | 12789 | 10482 |
| 60° | 9583 | 10858 | 12025 | 10791 | 9650 |
| 65° | 8962 | 9578 | 10105 | 9607 | 9048 |
| 70° | 8511 | 8715 | 8984 | 8762 | 8595 |
| 75° | 7940 | 7890 | 7940 | 7913 | 8016 |
| 80° | 7172 | 6657 | 6509 | 6760 | 7172 |
| 85° | 4972 | 4213 | 4172 | 4283 | 5118 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 28846 cd/sqm



TEST NUMBER:

CATALOG NUMBER: EHBR1-24-UNV-A1-L950-UPL18

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1746.5 | 7.1 |
| 10°-20° | 4693.8 | 19.0 |
| 20°-30° | 5707.7 | 23.1 |
| 30°-40° | 4649.3 | 18.8 |
| 40°-50° | 2791.5 | 11.3 |
| 50°-60° | 1606.5 | 6.5 |
| 60°-70° | 1005.4 | 4.1 |
| 70°-80° | 592.1 | 2.4 |
| 80°-90° | 176.2 | 0.7 |
| 90°-100° | 45.2 | 0.2 |
| 100°-110° | 298.9 | 1.2 |
| 110°-120° | 552.9 | 2.2 |
| 120°-130° | 328.2 | 1.3 |
| 130°-140° | 198.6 | 0.8 |
| 140°-150° | 137.9 | 0.6 |
| 150°-160° | 90.0 | 0.4 |
| 160°-170° | 51.6 | 0.2 |
| 170°-180° | 17.1 | 0.1 |
| 0°-30° | 12148.0 | 49.2 |
| 0°-40° | 16797.3 | 68.0 |
| 0°-60° | 21195.2 | 85.8 |
| 0°-90° | 22969.0 | 93.0 |
| 90°-120° | 897.0 | 3.6 |
| 90°-150° | 1561.6 | 6.3 |
| 90°-180° | 1720.0 | 7.0 |
| 0°-180° | 24689.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0° | 18494 | 18494 | 18494 | 18494 | 18494 | |
| 5° | 18421 | 18418 | 18419 | 18452 | 18440 | 1741 |
| 15° | 16026 | 17144 | 17497 | 17006 | 15658 | 4409 |
| 25° | 9831 | 12909 | 14796 | 12438 | 9321 | 4479 |
| 35° | 4747 | 7447 | 9817 | 7126 | 4437 | 3003 |
| 45° | 2372 | 3547 | 4454 | 3394 | 2290 | 1871 |
| 55° | 1436 | 1758 | 2039 | 1728 | 1416 | 1298 |
| 65° | 935 | 1000 | 1055 | 1003 | 944 | 930 |
| 75° | 559 | 556 | 559 | 557 | 565 | 592 |
| 85° | 171 | 145 | 143 | 147 | 176 | 182 |
| 90° | 13 | 34 | 12 | 36 | 13 | 15 |
| 95° | 22 | 77 | 24 | 66 | 21 | 21 |
| 105° | 104 | 523 | 137 | 557 | 68 | 140 |
| 115° | 479 | 618 | 588 | 684 | 502 | 441 |
| 125° | 346 | 330 | 376 | 366 | 394 | 315 |
| 135° | 253 | 254 | 238 | 265 | 274 | 198 |
| 145° | 210 | 219 | 216 | 222 | 226 | 133 |
| 155° | 187 | 192 | 192 | 193 | 201 | 87 |
| 165° | 178 | 182 | 180 | 180 | 186 | 51 |
| 175° | 179 | 180 | 179 | 179 | 183 | 17 |
| 180° | 180 | 180 | 180 | 180 | 180 | |



TEST NUMBER:

CATALOG NUMBER: EHBR1-24-UNV-A1-L950-UPL18

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 18493.7 | 18493.7 | 18493.7 | 18493.7 | 18493.7 | 18493.7 | 18493.7 | 18493.7 | 18493.7 |
| 2.5° | 18453.1 | 18469.8 | 18476.7 | 18480.6 | 18484.8 | 18496.5 | 18501.5 | 18493.4 | 18500.3 |
| 5° | 18421.0 | 18422.1 | 18418.2 | 18435.7 | 18419.0 | 18430.6 | 18451.6 | 18443.4 | 18440.3 |
| 7.5° | 18233.5 | 18272.2 | 18295.1 | 18300.9 | 18304.0 | 18318.3 | 18333.0 | 18249.8 | 18237.3 |
| 10° | 17877.1 | 17941.8 | 18085.5 | 18126.5 | 18114.2 | 18137.4 | 18063.0 | 17845.3 | 17760.1 |
| 12.5° | 17095.9 | 17323.2 | 17696.6 | 17862.8 | 17832.6 | 17853.1 | 17599.7 | 17140.4 | 16876.2 |
| 15° | 16025.6 | 16359.1 | 17143.8 | 17471.5 | 17496.7 | 17471.5 | 17006.3 | 16111.2 | 15657.6 |
| 17.5° | 14602.9 | 15218.8 | 16374.2 | 17010.2 | 16973.8 | 16985.9 | 16102.7 | 14779.5 | 14260.5 |
| 20° | 13082.9 | 13739.5 | 15365.6 | 16426.5 | 16415.3 | 16347.9 | 15076.3 | 13331.2 | 12573.6 |
| 22.5° | 11363.9 | 12210.7 | 14209.8 | 15708.7 | 15704.5 | 15592.2 | 13826.2 | 11749.7 | 10934.0 |
| 25° | 9830.8 | 10661.3 | 12909.0 | 14829.5 | 14796.1 | 14668.4 | 12437.7 | 10172.0 | 9321.4 |
| 27.5° | 8245.8 | 9109.2 | 11520.4 | 13799.1 | 13776.3 | 13636.9 | 11110.2 | 8697.4 | 7887.9 |
| 30° | 6902.1 | 7691.5 | 10125.9 | 12665.4 | 12519.0 | 12503.1 | 9741.8 | 7332.0 | 6551.2 |
| 32.5° | 5750.9 | 6427.6 | 8811.3 | 11479.8 | 11220.6 | 11294.6 | 8377.9 | 6190.1 | 5416.3 |
| 35° | 4747.3 | 5343.4 | 7447.1 | 10108.6 | 9817.2 | 9912.9 | 7126.4 | 5079.3 | 4437.4 |
| 37.5° | 3852.9 | 4426.2 | 6290.8 | 8774.9 | 8329.4 | 8509.9 | 6025.5 | 4241.8 | 3727.4 |
| 40° | 3225.4 | 3680.1 | 5194.3 | 7311.5 | 6832.3 | 7126.4 | 4975.0 | 3538.0 | 3125.9 |
| 42.5° | 2779.2 | 3075.9 | 4287.1 | 5914.4 | 5546.8 | 5755.2 | 4100.5 | 2957.7 | 2649.5 |
| 45° | 2372.5 | 2609.1 | 3547.3 | 4667.1 | 4454.5 | 4647.7 | 3393.5 | 2522.0 | 2290.4 |
| 47.5° | 2072.3 | 2254.8 | 2920.2 | 3768.9 | 3636.7 | 3698.0 | 2834.2 | 2200.9 | 2012.6 |
| 50° | 1813.2 | 1954.1 | 2455.0 | 3041.8 | 2969.7 | 3007.4 | 2374.1 | 1915.0 | 1785.7 |
| 52.5° | 1611.7 | 1715.1 | 2059.1 | 2500.0 | 2464.3 | 2470.1 | 2023.1 | 1684.6 | 1590.8 |
| 55° | 1435.9 | 1508.0 | 1757.8 | 2047.9 | 2039.4 | 2040.9 | 1728.3 | 1492.8 | 1416.5 |
| 57.5° | 1282.1 | 1341.7 | 1510.6 | 1720.2 | 1707.8 | 1710.5 | 1496.7 | 1325.8 | 1276.7 |
| 60° | 1152.0 | 1191.9 | 1305.3 | 1453.7 | 1445.6 | 1442.1 | 1297.2 | 1177.1 | 1160.1 |
| 62.5° | 1036.5 | 1062.1 | 1140.8 | 1246.1 | 1230.6 | 1234.0 | 1140.3 | 1063.3 | 1038.1 |
| 65° | 935.4 | 944.4 | 999.7 | 1064.8 | 1054.7 | 1063.3 | 1002.8 | 950.1 | 944.4 |
| 67.5° | 836.7 | 845.6 | 878.1 | 921.9 | 910.3 | 917.2 | 878.8 | 847.9 | 842.9 |
| 70° | 746.8 | 746.5 | 764.7 | 788.3 | 788.3 | 789.4 | 768.8 | 750.3 | 754.2 |
| 72.5° | 653.8 | 651.5 | 657.0 | 672.8 | 668.6 | 683.3 | 661.6 | 655.8 | 656.5 |
| 75° | 559.3 | 552.7 | 555.8 | 564.0 | 559.3 | 567.0 | 557.4 | 564.7 | 564.7 |
| 77.5° | 470.2 | 457.9 | 454.0 | 455.2 | 446.6 | 458.2 | 460.6 | 465.6 | 477.2 |
| 80° | 377.3 | 359.8 | 350.2 | 349.8 | 342.4 | 349.8 | 355.6 | 366.1 | 377.3 |
| 82.5° | 280.0 | 265.0 | 248.6 | 245.6 | 240.9 | 245.2 | 252.9 | 265.4 | 283.6 |
| 85° | 170.9 | 155.0 | 144.8 | 139.5 | 143.4 | 143.4 | 147.2 | 164.6 | 175.9 |
| 87.5° | 61.6 | 53.8 | 44.1 | 44.5 | 45.7 | 47.3 | 49.2 | 62.0 | 67.8 |
| 90° | 13.1 | 20.0 | 34.3 | 21.9 | 12.4 | 20.9 | 36.1 | 19.0 | 12.7 |
| 92.5° | 18.5 | 30.5 | 55.2 | 28.5 | 16.2 | 28.5 | 51.4 | 25.7 | 17.5 |
| 95° | 21.6 | 35.2 | 77.1 | 38.1 | 23.8 | 35.2 | 65.7 | 28.5 | 21.3 |
| 97.5° | 27.4 | 39.0 | 88.5 | 46.6 | 37.2 | 43.8 | 74.2 | 30.5 | 26.1 |
| 100° | 36.0 | 45.7 | 138.1 | 57.1 | 49.5 | 49.5 | 136.2 | 35.2 | 30.3 |
| 102.5° | 60.8 | 97.1 | 293.3 | 107.6 | 75.3 | 97.1 | 316.2 | 71.4 | 36.9 |
| 105° | 104.5 | 204.8 | 522.8 | 225.7 | 137.1 | 222.8 | 557.1 | 186.7 | 68.4 |
| 107.5° | 180.7 | 366.6 | 689.4 | 400.0 | 260.0 | 416.2 | 718.0 | 369.5 | 160.7 |
| 110° | 336.9 | 486.6 | 722.8 | 549.5 | 416.2 | 581.8 | 783.7 | 506.6 | 326.4 |



TEST NUMBER:

CATALOG NUMBER: EHBR1-24-UNV-A1-L950-UPL18

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|--------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 112.5° | 455.0 | 522.8 | 692.3 | 606.6 | 541.9 | 648.5 | 765.6 | 561.8 | 452.1 |
| 115° | 478.8 | 502.8 | 618.0 | 592.3 | 588.5 | 639.0 | 683.7 | 560.0 | 501.6 |
| 117.5° | 463.1 | 459.0 | 524.7 | 532.3 | 568.5 | 584.7 | 590.5 | 525.7 | 504.5 |
| 120° | 428.3 | 408.5 | 438.1 | 464.7 | 513.2 | 506.6 | 497.1 | 475.5 | 475.9 |
| 122.5° | 386.0 | 362.3 | 375.2 | 395.2 | 443.7 | 429.4 | 420.0 | 424.1 | 437.3 |
| 125° | 345.9 | 322.2 | 330.4 | 335.2 | 376.1 | 361.9 | 366.1 | 380.3 | 393.6 |
| 127.5° | 310.7 | 294.6 | 299.0 | 293.3 | 319.0 | 312.4 | 327.0 | 343.6 | 354.5 |
| 130° | 286.9 | 273.1 | 279.4 | 265.7 | 278.5 | 280.3 | 299.7 | 313.1 | 320.2 |
| 132.5° | 267.3 | 258.3 | 265.9 | 249.3 | 253.1 | 261.2 | 279.3 | 291.1 | 294.9 |
| 135° | 253.4 | 245.4 | 253.9 | 238.3 | 237.8 | 249.2 | 265.4 | 273.0 | 274.3 |
| 137.5° | 241.0 | 234.3 | 242.9 | 231.4 | 228.6 | 240.0 | 252.4 | 258.1 | 256.6 |
| 140° | 230.3 | 224.2 | 233.8 | 225.1 | 223.3 | 234.7 | 240.4 | 247.4 | 245.6 |
| 142.5° | 218.2 | 214.4 | 225.5 | 219.8 | 217.9 | 228.7 | 231.6 | 236.4 | 235.0 |
| 145° | 210.2 | 207.3 | 219.3 | 216.4 | 215.5 | 223.5 | 221.6 | 228.7 | 225.8 |
| 147.5° | 203.7 | 201.4 | 212.1 | 211.1 | 211.1 | 216.9 | 214.3 | 220.5 | 218.0 |
| 150° | 197.3 | 195.1 | 205.8 | 204.9 | 205.8 | 209.6 | 206.2 | 213.6 | 213.0 |
| 152.5° | 191.1 | 188.8 | 198.6 | 197.3 | 198.2 | 202.0 | 198.9 | 206.9 | 206.8 |
| 155° | 186.8 | 184.4 | 192.2 | 191.5 | 191.5 | 193.8 | 192.6 | 201.1 | 201.4 |
| 157.5° | 184.1 | 182.4 | 188.2 | 187.5 | 187.5 | 188.8 | 188.7 | 196.1 | 196.5 |
| 160° | 182.0 | 180.2 | 185.3 | 184.4 | 183.5 | 185.8 | 185.6 | 192.0 | 192.4 |
| 162.5° | 180.0 | 178.2 | 183.7 | 182.4 | 182.0 | 182.4 | 182.2 | 189.1 | 189.4 |
| 165° | 178.4 | 177.6 | 181.6 | 180.9 | 179.9 | 180.9 | 180.1 | 184.7 | 186.0 |
| 167.5° | 178.8 | 177.5 | 181.0 | 180.2 | 179.3 | 178.4 | 179.6 | 183.2 | 184.5 |
| 170° | 178.2 | 177.8 | 180.5 | 178.8 | 177.5 | 177.8 | 178.0 | 181.6 | 182.9 |
| 172.5° | 179.0 | 178.6 | 181.3 | 179.6 | 178.2 | 178.7 | 177.8 | 180.5 | 182.8 |
| 175° | 179.2 | 178.5 | 180.5 | 179.4 | 179.0 | 178.4 | 178.6 | 180.3 | 183.0 |
| 177.5° | 180.5 | 179.8 | 181.0 | 179.8 | 178.4 | 178.8 | 180.0 | 181.7 | 185.3 |
| 180° | 180.0 | 180.0 | 180.0 | 180.0 | 180.0 | 180.0 | 180.0 | 180.0 | 180.0 |



TEST NUMBER: CATALOG
 CATALOG NUMBER: EHBR1-24-UNV-A1-L950-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 | 16.87 | 18.02 | 17.35 | 18.48 | 18.97 | 17.85 | 19.00 | 18.34 | 19.46 | 19.95 |
| | 3H | 18.35 | 19.37 | 18.85 | 19.84 | 20.38 | 19.11 | 20.13 | 19.61 | 20.61 | 21.14 |
| | 4H | 18.95 | 19.90 | 19.47 | 20.39 | 20.94 | 19.61 | 20.57 | 20.13 | 21.06 | 21.61 |
| | 6H | 19.41 | 20.29 | 19.95 | 20.80 | 21.36 | 19.96 | 20.84 | 20.50 | 21.35 | 21.91 |
| | 8H | 19.56 | 20.39 | 20.11 | 20.92 | 21.49 | 20.06 | 20.89 | 20.61 | 21.42 | 21.99 |
| | 12H | 19.63 | 20.43 | 20.19 | 20.95 | 21.54 | 20.10 | 20.89 | 20.65 | 21.41 | 22.01 |
| 4H | 2H | 17.39 | 18.34 | 17.91 | 18.83 | 19.38 | 18.17 | 19.12 | 18.69 | 19.61 | 20.16 |
| | 3H | 19.07 | 19.86 | 19.60 | 20.39 | 20.96 | 19.65 | 20.44 | 20.19 | 20.98 | 21.55 |
| | 4H | 19.78 | 20.49 | 20.34 | 21.04 | 21.65 | 20.28 | 20.98 | 20.83 | 21.53 | 22.14 |
| | 6H | 20.36 | 20.97 | 20.94 | 21.55 | 22.17 | 20.75 | 21.36 | 21.33 | 21.94 | 22.56 |
| | 8H | 20.55 | 21.12 | 21.13 | 21.69 | 22.32 | 20.89 | 21.46 | 21.47 | 22.03 | 22.66 |
| | 12H | 20.66 | 21.16 | 21.26 | 21.76 | 22.40 | 20.95 | 21.46 | 21.55 | 22.06 | 22.69 |
| 8H | 4H | 20.01 | 20.58 | 20.59 | 21.15 | 21.78 | 20.45 | 21.02 | 21.04 | 21.60 | 22.23 |
| | 6H | 20.70 | 21.16 | 21.31 | 21.78 | 22.42 | 21.04 | 21.50 | 21.65 | 22.12 | 22.76 |
| | 8H | 20.95 | 21.37 | 21.58 | 22.00 | 22.65 | 21.23 | 21.65 | 21.86 | 22.28 | 22.93 |
| | 12H | 21.12 | 21.48 | 21.74 | 22.09 | 22.82 | 21.35 | 21.72 | 21.98 | 22.33 | 23.05 |
| 12H | 4H | 20.01 | 20.51 | 20.61 | 21.11 | 21.75 | 20.45 | 20.96 | 21.05 | 21.56 | 22.19 |
| | 6H | 20.72 | 21.14 | 21.35 | 21.77 | 22.42 | 21.06 | 21.47 | 21.69 | 22.10 | 22.75 |
| | 8H | 21.01 | 21.38 | 21.64 | 21.99 | 22.72 | 21.29 | 21.66 | 21.92 | 22.27 | 22.99 |

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-8

Test Date: 08/04/2025

Luminaire Tested: EHBR-60-L950-N

Data in this report applies to families of products including EHBR-60-L950-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-8
 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-L950-N**
 Description: Elevate Round Highbay at, 60000 lumens, 5000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K): 4901
 CIE u': 0.2131
 CIE v': 0.4853
 Duv: -0.0008
 CIE x: 0.3477
 CIE y: 0.3520
 CIE z: 0.3003
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 574
 Purity: 9.953987
 Rf: 90.7
 Rg: 100.5

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 94.3 | | |
| R1: | 95.8 | R9: | 72.3 |
| R2: | 96.5 | R10: | 89.1 |
| R3: | 94.4 | R11: | 94.9 |
| R4: | 95.3 | R12: | 68.4 |
| R5: | 94.1 | R13: | 96.4 |
| R6: | 92.5 | R14: | 96.4 |
| R7: | 95.5 | R15: | 93.9 |
| R8: | 90.1 | | |



Test Conditions

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

REPORT NUMBER: SP1-2506-472-8

| 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



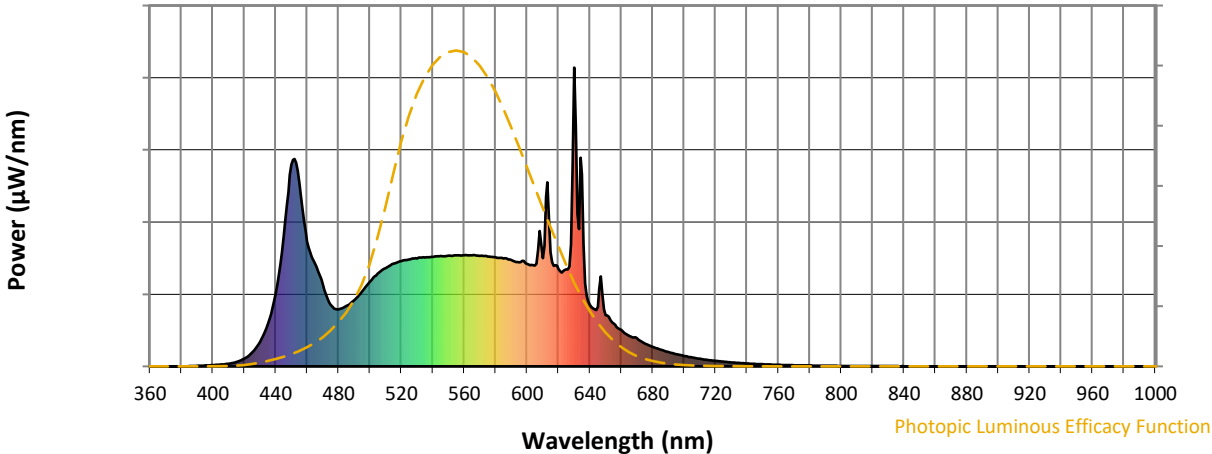
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-8

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 | 221 | NR | 620 | 326 | NR | 750 | 7 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 250 | NR | 625 | 325 | NR | 755 | 6 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 284 | NR | 630 | 1000 | NR | 760 | 5 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 311 | NR | 635 | 643 | NR | 765 | 4 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 329 | NR | 640 | 206 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 344 | NR | 645 | 199 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 353 | NR | 650 | 172 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 3 | NR | 525 | 357 | NR | 655 | 143 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 5 | NR | 530 | 362 | NR | 660 | 122 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 365 | NR | 665 | 102 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 9 | NR | 540 | 367 | NR | 670 | 94 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 15 | NR | 545 | 369 | NR | 675 | 76 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 26 | NR | 550 | 370 | NR | 680 | 65 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 47 | NR | 555 | 372 | NR | 685 | 56 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 81 | NR | 560 | 372 | NR | 690 | 48 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 143 | NR | 565 | 371 | NR | 695 | 41 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 243 | NR | 570 | 370 | NR | 700 | 35 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 434 | NR | 575 | 367 | NR | 705 | 30 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 675 | NR | 580 | 365 | NR | 710 | 25 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 615 | NR | 585 | 361 | NR | 715 | 22 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 418 | NR | 590 | 356 | NR | 720 | 19 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 344 | NR | 595 | 348 | NR | 725 | 16 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 272 | NR | 600 | 343 | NR | 730 | 13 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 206 | NR | 605 | 337 | NR | 735 | 11 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 190 | NR | 610 | 362 | NR | 740 | 10 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 202 | NR | 615 | 381 | NR | 745 | 8 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-472-8

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 2.04

| 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 | 221 | NR | 620 | 326 | NR | 750 | 7 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 250 | NR | 625 | 325 | NR | 755 | 6 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 284 | NR | 630 | 1000 | NR | 760 | 5 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 311 | NR | 635 | 643 | NR | 765 | 4 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 329 | NR | 640 | 206 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 344 | NR | 645 | 199 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 353 | NR | 650 | 172 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 3 | NR | 525 | 357 | NR | 655 | 143 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 5 | NR | 530 | 362 | NR | 660 | 122 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 365 | NR | 665 | 102 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 9 | NR | 540 | 367 | NR | 670 | 94 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 15 | NR | 545 | 369 | NR | 675 | 76 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 26 | NR | 550 | 370 | NR | 680 | 65 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 47 | NR | 555 | 372 | NR | 685 | 56 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 81 | NR | 560 | 372 | NR | 690 | 48 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 143 | NR | 565 | 371 | NR | 695 | 41 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 243 | NR | 570 | 370 | NR | 700 | 35 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 434 | NR | 575 | 367 | NR | 705 | 30 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 675 | NR | 580 | 365 | NR | 710 | 25 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 615 | NR | 585 | 361 | NR | 715 | 22 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 418 | NR | 590 | 356 | NR | 720 | 19 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 344 | NR | 595 | 348 | NR | 725 | 16 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 272 | NR | 600 | 343 | NR | 730 | 13 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 206 | NR | 605 | 337 | NR | 735 | 11 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 190 | NR | 610 | 362 | NR | 740 | 10 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 202 | NR | 615 | 381 | NR | 745 | 8 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2506-472-8

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 4.41

| 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 | 221 | NR | 620 | 326 | NR | 750 | 7 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 250 | NR | 625 | 325 | NR | 755 | 6 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 284 | NR | 630 | 1000 | NR | 760 | 5 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 311 | NR | 635 | 643 | NR | 765 | 4 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 329 | NR | 640 | 206 | NR | 770 | 4 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 344 | NR | 645 | 199 | NR | 775 | 3 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 353 | NR | 650 | 172 | NR | 780 | 3 | NR | 910 | 0 | NR |
| 395 | 3 | NR | 525 | 357 | NR | 655 | 143 | NR | 785 | 2 | NR | 915 | 0 | NR |
| 400 | 5 | NR | 530 | 362 | NR | 660 | 122 | NR | 790 | 2 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 365 | NR | 665 | 102 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 9 | NR | 540 | 367 | NR | 670 | 94 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 15 | NR | 545 | 369 | NR | 675 | 76 | NR | 805 | 1 | NR | 935 | 0 | NR |
| 420 | 26 | NR | 550 | 370 | NR | 680 | 65 | NR | 810 | 1 | NR | 940 | 0 | NR |
| 425 | 47 | NR | 555 | 372 | NR | 685 | 56 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 81 | NR | 560 | 372 | NR | 690 | 48 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 143 | NR | 565 | 371 | NR | 695 | 41 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 243 | NR | 570 | 370 | NR | 700 | 35 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 434 | NR | 575 | 367 | NR | 705 | 30 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 675 | NR | 580 | 365 | NR | 710 | 25 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 615 | NR | 585 | 361 | NR | 715 | 22 | NR | 845 | 0 | NR | 975 | 0 | NR |
| 460 | 418 | NR | 590 | 356 | NR | 720 | 19 | NR | 850 | 0 | NR | 980 | 0 | NR |
| 465 | 344 | NR | 595 | 348 | NR | 725 | 16 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 272 | NR | 600 | 343 | NR | 730 | 13 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 206 | NR | 605 | 337 | NR | 735 | 11 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 190 | NR | 610 | 362 | NR | 740 | 10 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 202 | NR | 615 | 381 | NR | 745 | 8 | NR | 875 | 0 | NR | | | |

Summary

$R_f = 90.7$
 $R_g = 100.5$
 CIE $R_a = 94.3$
 $R_9 = 72.3$



Color Vector Graphics



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

| | | | |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 91 | CES51 = 98 | CES76 = 83 |
| CES02 = 61 | CES27 = 92 | CES52 = 98 | CES77 = 87 |
| CES03 = 31 | CES28 = 94 | CES53 = 97 | CES78 = 80 |
| CES04 = 69 | CES29 = 94 | CES54 = 93 | CES79 = 94 |
| CES05 = 48 | CES30 = 93 | CES55 = 92 | CES80 = 91 |
| CES06 = 50 | CES31 = 95 | CES56 = 95 | CES81 = 84 |
| CES07 = 41 | CES32 = 86 | CES57 = 94 | CES82 = 96 |
| CES08 = 40 | CES33 = 99 | CES58 = 94 | CES83 = 96 |
| CES09 = 29 | CES34 = 90 | CES59 = 97 | CES84 = 93 |
| CES10 = 73 | CES35 = 94 | CES60 = 92 | CES85 = 83 |
| CES11 = 56 | CES36 = 81 | CES61 = 92 | CES86 = 86 |
| CES12 = 62 | CES37 = 92 | CES62 = 86 | CES87 = 91 |
| CES13 = 43 | CES38 = 88 | CES63 = 92 | CES88 = 98 |
| CES14 = 74 | CES39 = 99 | CES64 = 89 | CES89 = 87 |
| CES15 = 71 | CES40 = 97 | CES65 = 88 | CES90 = 98 |
| CES16 = 47 | CES41 = 97 | CES66 = 85 | CES91 = 73 |
| CES17 = 48 | CES42 = 90 | CES67 = 84 | CES92 = 79 |
| CES18 = 56 | CES43 = 91 | CES68 = 86 | CES93 = 87 |
| CES19 = 70 | CES44 = 99 | CES69 = 87 | CES94 = 78 |
| CES20 = 65 | CES45 = 95 | CES70 = 83 | CES95 = 83 |
| CES21 = 85 | CES46 = 97 | CES71 = 77 | CES96 = 92 |
| CES22 = 77 | CES47 = 95 | CES72 = 92 | CES97 = 95 |
| CES23 = 91 | CES48 = 93 | CES73 = 77 | CES98 = 95 |
| CES24 = 90 | CES49 = 95 | CES74 = 92 | CES99 = 94 |
| CES25 = 70 | CES50 = 98 | CES75 = 79 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)