

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: P1433668

Luminaire Tested: EHBR1-60-UNV-A1-L935-UPL15

Issue Date: 3/20/2026

**Test Information**

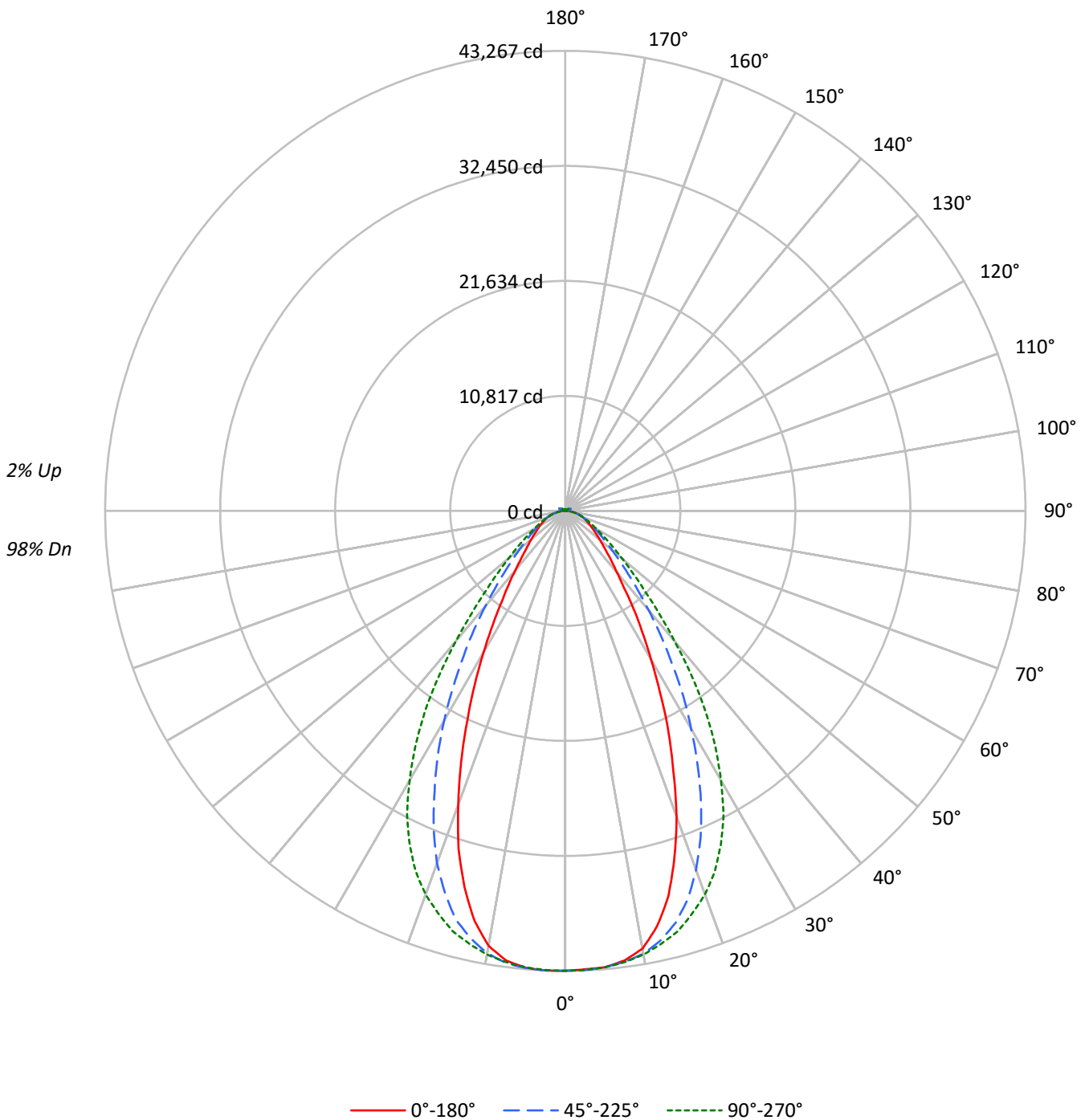
Test Method: LM-79-2019  
Report Number: P1433668  
REPORT IS A COMBINATION OF REPORTS P1431893 AND P1431635  
Test Lab: INNOVATION CENTER  
Issue Date: 3/20/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: EHBR1-60-UNV-A1-L935-UPL15  
Description: Elevate Round Highbay at, 60000 lumens, 3500K 90CRI LEDs with A lens  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 55077.7 lumens  
Efficiency: N/A  
Efficacy: 162.1 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): 339.7  
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: P1433668  
CATALOG NUMBER: EHBR1-60-UNV-A1-L935-UPL15

### Luminous Intensity Polar Plot





TEST NUMBER: P1433668  
 CATALOG NUMBER: EHBR1-60-UNV-A1-L935-UPL15

**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   | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 110 | 110 | 110 | 105 | 105 | 105 | 100 | 100 | 100 | 100 | 100 | 100 | 98 |
| 1   | 111 | 108 | 104 | 101 | 108 | 105 | 102 | 100 | 100 | 98  | 96  | 96  | 94  | 93  | 92  | 91  | 90  | 92  | 91  | 90  | 88 |
| 2   | 104 | 98  | 92  | 88  | 101 | 96  | 91  | 87  | 92  | 88  | 85  | 88  | 85  | 82  | 85  | 83  | 80  | 85  | 83  | 80  | 78 |
| 3   | 97  | 89  | 83  | 78  | 95  | 87  | 82  | 77  | 84  | 79  | 75  | 81  | 77  | 74  | 79  | 75  | 72  | 79  | 75  | 72  | 70 |
| 4   | 91  | 82  | 75  | 70  | 89  | 80  | 74  | 69  | 78  | 72  | 68  | 75  | 70  | 67  | 73  | 69  | 66  | 73  | 69  | 66  | 64 |
| 5   | 85  | 75  | 68  | 63  | 83  | 74  | 67  | 62  | 72  | 66  | 61  | 70  | 65  | 61  | 68  | 63  | 60  | 68  | 63  | 60  | 58 |
| 6   | 80  | 69  | 62  | 57  | 78  | 68  | 62  | 57  | 67  | 61  | 56  | 65  | 60  | 56  | 63  | 59  | 55  | 63  | 59  | 55  | 53 |
| 7   | 75  | 64  | 57  | 52  | 74  | 64  | 57  | 52  | 62  | 56  | 52  | 60  | 55  | 51  | 59  | 54  | 51  | 59  | 54  | 51  | 49 |
| 8   | 71  | 60  | 53  | 48  | 70  | 59  | 53  | 48  | 58  | 52  | 48  | 57  | 51  | 47  | 55  | 50  | 47  | 55  | 50  | 47  | 45 |
| 9   | 67  | 56  | 49  | 45  | 66  | 55  | 49  | 44  | 54  | 48  | 44  | 53  | 48  | 44  | 52  | 47  | 44  | 52  | 47  | 44  | 42 |
| 10  | 64  | 53  | 46  | 41  | 62  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 49  | 44  | 41  | 49  | 44  | 41  | 39 |

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

|     | 0°     | 45°    | 90°    | 135°   | 180°   |
|-----|--------|--------|--------|--------|--------|
| 0°  | 203102 | 203102 | 203102 | 203102 | 203102 |
| 5°  | 201759 | 201729 | 201738 | 202094 | 201971 |
| 10° | 196772 | 199066 | 199381 | 198819 | 195485 |
| 15° | 178637 | 191102 | 195035 | 189570 | 174535 |
| 20° | 148862 | 174834 | 186778 | 171542 | 143066 |
| 25° | 115124 | 151171 | 173271 | 145651 | 109159 |
| 30° | 83916  | 123111 | 152205 | 118439 | 79648  |
| 35° | 60489  | 94889  | 125089 | 90802  | 56540  |
| 40° | 43518  | 70084  | 92185  | 67126  | 42176  |
| 45° | 34291  | 51272  | 64384  | 49049  | 33105  |
| 50° | 28451  | 38522  | 46600  | 37252  | 28020  |
| 55° | 24848  | 30418  | 35291  | 29909  | 24512  |
| 60° | 22410  | 25393  | 28121  | 25235  | 22568  |
| 65° | 20959  | 22399  | 23632  | 22468  | 21159  |
| 70° | 19903  | 20378  | 21009  | 20492  | 20099  |
| 75° | 18568  | 18453  | 18568  | 18504  | 18748  |
| 80° | 16772  | 15566  | 15220  | 15808  | 16772  |
| 85° | 11624  | 9858   | 9753   | 10015  | 11967  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 67458 cd/sqm



TEST NUMBER: P1433668  
 CATALOG NUMBER: EHBR1-60-UNV-A1-L935-UPL15

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 4084.2  | 7.4       |
| 10°-20°   | 10976.9 | 19.9      |
| 20°-30°   | 13347.8 | 24.2      |
| 30°-40°   | 10872.8 | 19.7      |
| 40°-50°   | 6528.0  | 11.9      |
| 50°-60°   | 3756.9  | 6.8       |
| 60°-70°   | 2351.2  | 4.3       |
| 70°-80°   | 1384.8  | 2.5       |
| 80°-90°   | 407.4   | 0.7       |
| 90°-100°  | 35.7    | 0.1       |
| 100°-110° | 235.3   | 0.4       |
| 110°-120° | 435.2   | 0.8       |
| 120°-130° | 258.6   | 0.5       |
| 130°-140° | 158.0   | 0.3       |
| 140°-150° | 111.7   | 0.2       |
| 150°-160° | 74.4    | 0.1       |
| 160°-170° | 43.8    | 0.1       |
| 170°-180° | 14.9    | 0.0       |
| 0°-30°    | 28408.9 | 51.6      |
| 0°-40°    | 39281.7 | 71.3      |
| 0°-60°    | 49566.6 | 90.0      |
| 0°-90°    | 53710.0 | 97.5      |
| 90°-120°  | 706.2   | 1.3       |
| 90°-150°  | 1234.6  | 2.2       |
| 90°-180°  | 1368.0  | 2.5       |
| 0°-180°   | 55077.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°    | 45°   | 90°   | 135°  | 180°  | Flux  |
|------|-------|-------|-------|-------|-------|-------|
| 0°   | 43249 | 43249 | 43249 | 43249 | 43249 |       |
| 5°   | 43079 | 43072 | 43074 | 43150 | 43124 | 4071  |
| 15°  | 37477 | 40092 | 40917 | 39771 | 36616 | 10310 |
| 25°  | 22990 | 30189 | 34602 | 29086 | 21799 | 10475 |
| 35°  | 11102 | 17416 | 22958 | 16666 | 10377 | 7024  |
| 45°  | 5548  | 8296  | 10417 | 7936  | 5356  | 4377  |
| 55°  | 3358  | 4111  | 4769  | 4042  | 3313  | 3035  |
| 65°  | 2188  | 2338  | 2467  | 2345  | 2208  | 2175  |
| 75°  | 1308  | 1300  | 1308  | 1304  | 1321  | 1385  |
| 85°  | 400   | 339   | 335   | 344   | 411   | 426   |
| 90°  | 12    | 27    | 10    | 28    | 11    | 25    |
| 95°  | 18    | 61    | 19    | 52    | 17    | 17    |
| 105° | 84    | 411   | 108   | 438   | 55    | 111   |
| 115° | 378   | 486   | 463   | 538   | 396   | 348   |
| 125° | 274   | 260   | 296   | 289   | 311   | 250   |
| 135° | 202   | 202   | 189   | 211   | 219   | 158   |
| 145° | 171   | 177   | 174   | 180   | 184   | 108   |
| 155° | 156   | 158   | 157   | 159   | 168   | 73    |
| 165° | 154   | 154   | 152   | 154   | 160   | 44    |
| 175° | 159   | 158   | 154   | 156   | 162   | 15    |
| 180° | 158   | 158   | 158   | 158   | 158   |       |



TEST NUMBER: P1433668  
 CATALOG NUMBER: EHBR1-60-UNV-A1-L935-UPL15

**CANDELA DISTRIBUTION (FULL):**

|        | 0°      | 22.5°   | 45°     | 67.5°   | 90°     | 112.5°  | 135°    | 157.5°  | 180°    |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°     | 43249.1 | 43249.1 | 43249.1 | 43249.1 | 43249.1 | 43249.1 | 43249.1 | 43249.1 | 43249.1 |
| 2.5°   | 43153.9 | 43192.9 | 43209.2 | 43218.3 | 43228.2 | 43255.4 | 43267.2 | 43248.2 | 43264.5 |
| 5°     | 43078.8 | 43081.5 | 43072.4 | 43113.2 | 43074.2 | 43101.4 | 43150.3 | 43131.2 | 43124.1 |
| 7.5°   | 42640.3 | 42730.9 | 42784.4 | 42797.9 | 42805.2 | 42838.7 | 42873.1 | 42678.4 | 42649.4 |
| 10°    | 41806.9 | 41958.3 | 42294.3 | 42390.3 | 42361.3 | 42415.7 | 42241.8 | 41732.7 | 41533.4 |
| 12.5°  | 39979.9 | 40511.6 | 41384.8 | 41773.5 | 41702.8 | 41750.8 | 41158.3 | 40084.1 | 39466.3 |
| 15°    | 37477.1 | 38257.0 | 40092.2 | 40858.5 | 40917.4 | 40858.5 | 39770.7 | 37677.2 | 36616.5 |
| 17.5°  | 34150.0 | 35590.2 | 38292.4 | 39779.7 | 39694.5 | 39722.6 | 37657.4 | 34563.0 | 33349.2 |
| 20°    | 30595.4 | 32130.8 | 35933.5 | 38414.6 | 38388.3 | 38230.7 | 35256.9 | 31176.1 | 29404.2 |
| 22.5°  | 26575.3 | 28555.6 | 33230.5 | 36736.1 | 36726.1 | 36463.5 | 32333.8 | 27477.6 | 25569.9 |
| 25°    | 22990.1 | 24932.1 | 30188.8 | 34679.9 | 34602.0 | 34303.0 | 29086.3 | 23788.1 | 21798.9 |
| 27.5°  | 19283.4 | 21302.5 | 26941.3 | 32270.3 | 32216.9 | 31890.8 | 25982.0 | 20339.6 | 18446.4 |
| 30°    | 16141.1 | 17987.1 | 23680.3 | 29619.0 | 29276.5 | 29239.4 | 22781.7 | 17146.5 | 15320.3 |
| 32.5°  | 13448.9 | 15031.4 | 20606.0 | 26846.2 | 26240.2 | 26413.2 | 19592.3 | 14476.2 | 12666.2 |
| 35°    | 11101.9 | 12496.0 | 17415.6 | 23639.5 | 22958.3 | 23182.1 | 16665.5 | 11878.2 | 10377.2 |
| 37.5°  | 9010.4  | 10350.9 | 14711.6 | 20520.8 | 19479.0 | 19901.2 | 14091.2 | 9919.8  | 8716.8  |
| 40°    | 7542.8  | 8606.3  | 12147.3 | 17098.5 | 15978.0 | 16665.5 | 11634.6 | 8273.9  | 7310.1  |
| 42.5°  | 6499.4  | 7193.3  | 10025.7 | 13831.1 | 12971.6 | 13458.9 | 9589.2  | 6916.9  | 6195.9  |
| 45°    | 5548.2  | 6101.7  | 8295.6  | 10914.4 | 10417.1 | 10869.1 | 7936.0  | 5897.9  | 5356.2  |
| 47.5°  | 4846.2  | 5272.8  | 6829.1  | 8813.8  | 8504.9  | 8648.0  | 6628.0  | 5147.0  | 4706.8  |
| 50°    | 4240.2  | 4569.9  | 5741.1  | 7113.5  | 6945.0  | 7032.9  | 5551.8  | 4478.4  | 4175.9  |
| 52.5°  | 3769.2  | 4011.1  | 4815.4  | 5846.3  | 5762.9  | 5776.5  | 4731.1  | 3939.5  | 3720.3  |
| 55°    | 3358.0  | 3526.4  | 4110.7  | 4789.1  | 4769.2  | 4772.8  | 4041.9  | 3491.1  | 3312.6  |
| 57.5°  | 2998.3  | 3137.8  | 3532.8  | 4022.8  | 3993.8  | 4000.2  | 3500.2  | 3100.6  | 2985.6  |
| 60°    | 2694.0  | 2787.2  | 3052.7  | 3399.6  | 3380.6  | 3372.5  | 3033.7  | 2752.8  | 2713.0  |
| 62.5°  | 2424.0  | 2483.8  | 2667.7  | 2914.0  | 2877.9  | 2886.0  | 2666.8  | 2486.5  | 2427.6  |
| 65°    | 2187.6  | 2208.5  | 2338.0  | 2490.1  | 2466.6  | 2486.5  | 2345.2  | 2222.0  | 2208.5  |
| 67.5°  | 1956.6  | 1977.4  | 2053.6  | 2155.9  | 2128.7  | 2145.0  | 2055.4  | 1982.9  | 1971.1  |
| 70°    | 1746.4  | 1745.5  | 1788.1  | 1843.4  | 1843.4  | 1846.1  | 1798.1  | 1754.6  | 1763.6  |
| 72.5°  | 1529.1  | 1523.6  | 1536.3  | 1573.4  | 1563.5  | 1597.9  | 1547.2  | 1533.6  | 1535.4  |
| 75°    | 1308.0  | 1292.6  | 1299.9  | 1318.9  | 1308.0  | 1326.1  | 1303.5  | 1320.7  | 1320.7  |
| 77.5°  | 1099.7  | 1070.7  | 1061.7  | 1064.4  | 1044.5  | 1071.6  | 1077.0  | 1088.8  | 1116.0  |
| 80°    | 882.3   | 841.5   | 818.9   | 818.0   | 800.7   | 818.0   | 831.6   | 856.0   | 882.3   |
| 82.5°  | 654.9   | 619.6   | 581.5   | 574.3   | 563.5   | 573.4   | 591.5   | 620.5   | 663.1   |
| 85°    | 399.5   | 362.4   | 338.8   | 326.1   | 335.2   | 335.2   | 344.2   | 385.0   | 411.3   |
| 87.5°  | 144.0   | 125.9   | 103.2   | 104.1   | 106.9   | 110.5   | 115.0   | 144.9   | 158.5   |
| 90°    | 11.5    | 15.8    | 27.0    | 17.2    | 9.7     | 16.5    | 28.5    | 15.0    | 10.6    |
| 92.5°  | 15.1    | 24.0    | 43.4    | 22.5    | 12.8    | 22.5    | 40.4    | 20.2    | 14.4    |
| 95°    | 18.3    | 27.7    | 60.7    | 30.0    | 18.8    | 27.7    | 51.7    | 22.5    | 17.4    |
| 97.5°  | 22.7    | 30.7    | 69.7    | 36.7    | 29.2    | 34.4    | 58.5    | 24.0    | 21.1    |
| 100°   | 29.5    | 36.0    | 108.7   | 45.0    | 39.0    | 39.0    | 107.1   | 27.7    | 25.0    |
| 102.5° | 49.0    | 76.4    | 230.8   | 84.7    | 59.2    | 76.4    | 248.7   | 56.2    | 30.3    |
| 105°   | 83.5    | 161.1   | 411.3   | 177.6   | 107.9   | 175.3   | 438.3   | 146.8   | 55.0    |
| 107.5° | 143.4   | 288.4   | 542.4   | 314.7   | 204.6   | 327.4   | 564.9   | 290.7   | 127.7   |
| 110°   | 266.3   | 382.8   | 568.6   | 432.2   | 327.4   | 457.8   | 616.6   | 398.6   | 258.0   |



TEST NUMBER: P1433668  
 CATALOG NUMBER: EHBR1-60-UNV-A1-L935-UPL15

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  |
|--------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 112.5° | 359.2 | 411.3 | 544.6 | 477.2 | 426.2 | 510.2  | 602.3 | 442.0  | 356.9 |
| 115°   | 377.9 | 395.5 | 486.2 | 465.9 | 463.0 | 502.7  | 537.9 | 440.5  | 395.9 |
| 117.5° | 366.1 | 361.1 | 412.8 | 418.8 | 447.3 | 460.0  | 464.5 | 413.6  | 398.2 |
| 120°   | 338.2 | 321.4 | 344.6 | 365.6 | 403.8 | 398.6  | 391.1 | 374.8  | 375.7 |
| 122.5° | 305.3 | 285.6 | 295.2 | 310.9 | 349.1 | 337.9  | 330.4 | 334.3  | 345.9 |
| 125°   | 273.9 | 254.1 | 259.9 | 263.7 | 295.9 | 284.7  | 288.6 | 299.8  | 311.4 |
| 127.5° | 246.2 | 232.4 | 235.3 | 230.8 | 251.0 | 245.7  | 257.9 | 271.5  | 280.7 |
| 130°   | 227.5 | 216.1 | 220.4 | 209.0 | 219.7 | 221.1  | 237.1 | 247.5  | 253.7 |
| 132.5° | 212.6 | 205.0 | 211.0 | 197.3 | 200.3 | 207.3  | 221.5 | 231.4  | 234.4 |
| 135°   | 202.3 | 195.4 | 202.1 | 189.2 | 189.4 | 198.4  | 211.2 | 217.2  | 218.8 |
| 137.5° | 192.6 | 187.3 | 194.0 | 185.1 | 182.8 | 191.9  | 201.6 | 206.1  | 205.5 |
| 140°   | 185.4 | 180.0 | 187.5 | 180.7 | 179.3 | 188.2  | 192.8 | 198.8  | 197.4 |
| 142.5° | 176.6 | 173.6 | 181.6 | 177.2 | 175.6 | 184.8  | 187.1 | 190.8  | 190.2 |
| 145°   | 170.8 | 168.5 | 177.3 | 175.1 | 174.3 | 181.2  | 179.7 | 185.9  | 183.6 |
| 147.5° | 167.5 | 165.0 | 172.2 | 171.5 | 171.5 | 176.0  | 174.6 | 180.0  | 178.7 |
| 150°   | 163.1 | 160.7 | 167.9 | 167.1 | 167.9 | 170.8  | 168.8 | 175.8  | 176.0 |
| 152.5° | 158.8 | 156.3 | 162.8 | 161.1 | 161.9 | 164.9  | 163.7 | 170.6  | 171.7 |
| 155°   | 156.0 | 153.5 | 158.4 | 156.6 | 156.6 | 159.1  | 159.3 | 167.2  | 168.1 |
| 157.5° | 155.6 | 153.1 | 156.5 | 154.7 | 154.7 | 156.3  | 157.4 | 164.5  | 165.4 |
| 160°   | 155.3 | 152.6 | 155.3 | 153.5 | 152.8 | 155.2  | 156.3 | 162.6  | 163.5 |
| 162.5° | 154.8 | 152.3 | 154.7 | 153.1 | 152.2 | 153.1  | 154.2 | 161.4  | 162.3 |
| 165°   | 154.2 | 152.4 | 154.3 | 152.5 | 151.7 | 152.5  | 153.7 | 158.5  | 160.1 |
| 167.5° | 155.1 | 153.4 | 154.4 | 152.6 | 151.9 | 151.2  | 153.9 | 158.0  | 159.6 |
| 170°   | 155.3 | 154.3 | 154.6 | 152.1 | 150.5 | 151.4  | 153.3 | 157.3  | 159.0 |
| 172.5° | 157.1 | 156.2 | 156.4 | 153.9 | 152.3 | 153.2  | 154.3 | 157.7  | 160.1 |
| 175°   | 159.1 | 157.2 | 157.7 | 155.0 | 154.1 | 154.2  | 156.2 | 158.7  | 162.1 |
| 177.5° | 160.7 | 158.9 | 158.6 | 155.9 | 154.2 | 155.1  | 157.8 | 160.4  | 164.4 |
| 180°   | 157.8 | 157.8 | 157.8 | 157.8 | 157.8 | 157.8  | 157.8 | 157.8  | 157.8 |



TEST NUMBER: P1433668  
 CATALOG NUMBER: EHBR1-60-UNV-A1-L935-UPL15

**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 | 20.17            | 21.39 | 20.58 | 21.76 | 22.14 | 21.15          | 22.38 | 21.56 | 22.74 | 23.12 |
|                 | 3H   | 21.65            | 22.74 | 22.08 | 23.12 | 23.55 | 22.42          | 23.50 | 22.84 | 23.89 | 24.32 |
|                 | 4H   | 22.26            | 23.27 | 22.70 | 23.67 | 24.12 | 22.92          | 23.93 | 23.37 | 24.34 | 24.78 |
|                 | 6H   | 22.72            | 23.65 | 23.18 | 24.08 | 24.53 | 23.28          | 24.21 | 23.74 | 24.63 | 25.09 |
|                 | 8H   | 22.87            | 23.76 | 23.35 | 24.20 | 24.66 | 23.37          | 24.26 | 23.85 | 24.70 | 25.17 |
|                 | 12H  | 22.95            | 23.79 | 23.43 | 24.23 | 24.72 | 23.41          | 24.26 | 23.89 | 24.69 | 25.18 |
| 4H              | 2H   | 20.69            | 21.71 | 21.14 | 22.11 | 22.56 | 21.47          | 22.49 | 21.92 | 22.89 | 23.34 |
|                 | 3H   | 22.38            | 23.22 | 22.84 | 23.67 | 24.14 | 22.97          | 23.80 | 23.43 | 24.26 | 24.72 |
|                 | 4H   | 23.10            | 23.85 | 23.58 | 24.32 | 24.82 | 23.59          | 24.34 | 24.07 | 24.81 | 25.31 |
|                 | 6H   | 23.68            | 24.33 | 24.19 | 24.82 | 25.35 | 24.07          | 24.72 | 24.58 | 25.21 | 25.74 |
|                 | 8H   | 23.87            | 24.47 | 24.38 | 24.97 | 25.50 | 24.20          | 24.81 | 24.72 | 25.30 | 25.83 |
|                 | 12H  | 23.98            | 24.51 | 24.51 | 25.04 | 25.57 | 24.27          | 24.81 | 24.80 | 25.33 | 25.87 |
| 8H              | 4H   | 23.33            | 23.93 | 23.84 | 24.42 | 24.95 | 23.77          | 24.38 | 24.29 | 24.87 | 25.40 |
|                 | 6H   | 24.02            | 24.51 | 24.56 | 25.05 | 25.59 | 24.36          | 24.85 | 24.90 | 25.39 | 25.93 |
|                 | 8H   | 24.27            | 24.71 | 24.83 | 25.27 | 25.82 | 24.55          | 24.99 | 25.11 | 25.55 | 26.10 |
|                 | 12H  | 24.44            | 24.82 | 24.99 | 25.36 | 25.99 | 24.67          | 25.06 | 25.23 | 25.60 | 26.23 |
| 12H             | 4H   | 23.33            | 23.86 | 23.86 | 24.39 | 24.92 | 23.77          | 24.30 | 24.30 | 24.83 | 25.37 |
|                 | 6H   | 24.04            | 24.48 | 24.60 | 25.04 | 25.59 | 24.38          | 24.82 | 24.94 | 25.38 | 25.93 |
|                 | 8H   | 24.34            | 24.72 | 24.89 | 25.26 | 25.89 | 24.61          | 25.00 | 25.17 | 25.54 | 26.17 |

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  
 R2: 98.4  
 R3: 98.1  
 R4: 95.8  
 R5: 96.2  
 R6: 95.4  
 R7: 91.8  
 R8: 84.4  
 R9: 63.8  
 R10: 94.7  
 R11: 96.6  
 R12: 80.9  
 R13: 97.4  
 R14: 98.3  
 R15: 93.1



**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**

| $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /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**

| $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /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**

| $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /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)