

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: P1433216

Luminaire Tested: EHBR1-36-UNV-A1-L930-UPL40

Issue Date: 3/20/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1433216  
REPORT IS A COMBINATION OF REPORTS P1431770 AND P1431635  
Test Lab: INNOVATION CENTER  
Issue Date: 3/20/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: EHBR1-36-UNV-A1-L930-UPL40  
Description: Elevate Round Highbay at, 36000 lumens, 3000K 90CRI LEDs with A lens  
Light Source: -  
Ballast/Driver: -

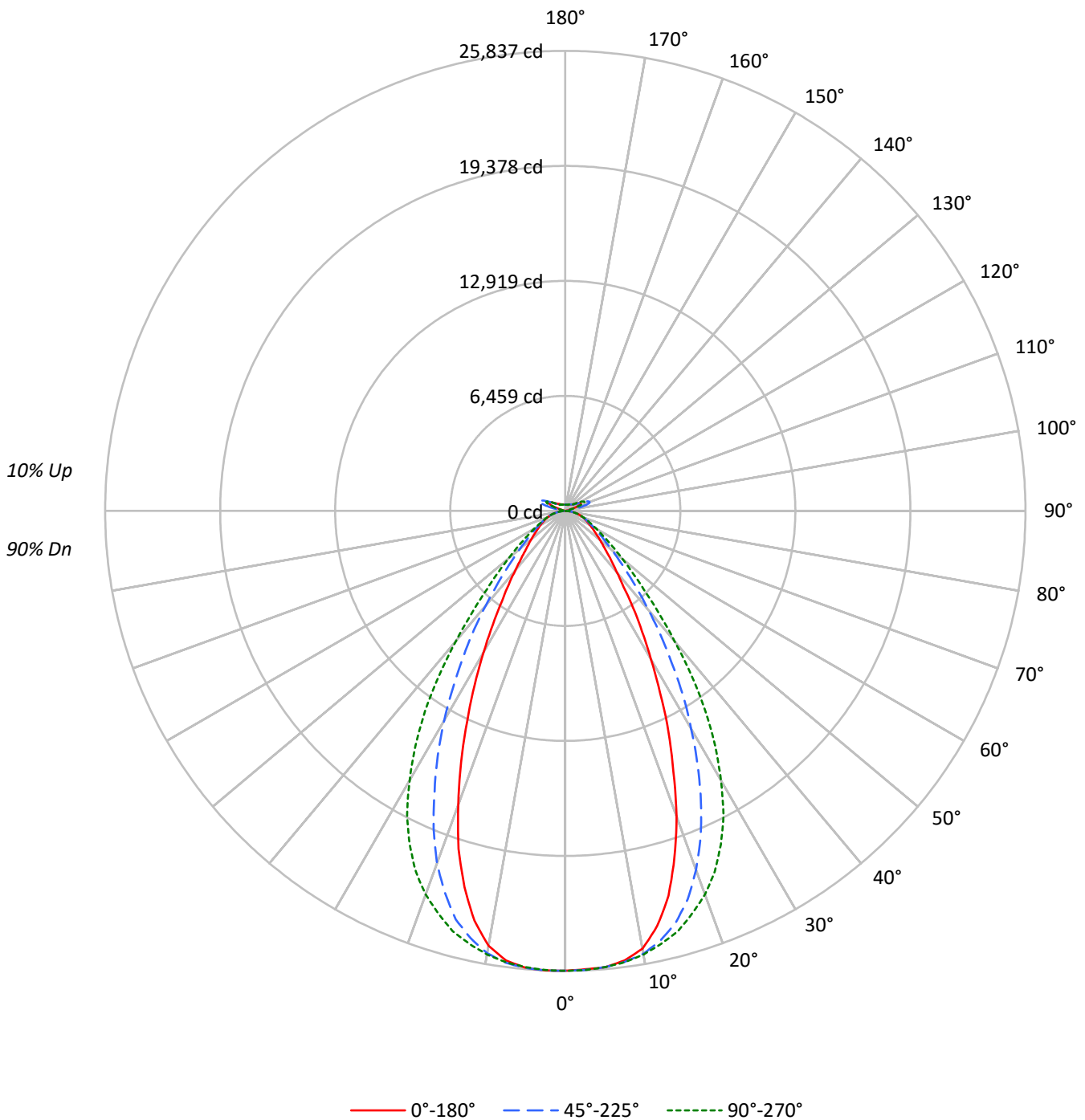
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 35540.5 lumens  
Efficiency: N/A  
Efficacy: 160.1 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): 222  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P1433216  
CATALOG NUMBER: EHBR1-36-UNV-A1-L930-UPL40

### Luminous Intensity Polar Plot





TEST NUMBER: P1433216  
 CATALOG NUMBER: EHBR1-36-UNV-A1-L930-UPL40

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |    | 20 |    |    |    | 20 |    |    |    |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |    | 30 |    |    |    | 10 |    | 0  |    |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |
| 0   | 117 | 117 | 117 | 117 | 113 | 113 | 113 | 113 | 106 | 106 | 106 | 99 | 99 | 99 | 93 | 93 | 93 | 90 |    |    |
| 1   | 109 | 106 | 102 | 100 | 106 | 102 | 100 | 97  | 97  | 94  | 92  | 91 | 89 | 88 | 86 | 85 | 84 | 81 |    |    |
| 2   | 102 | 96  | 91  | 86  | 99  | 93  | 88  | 84  | 88  | 84  | 81  | 84 | 81 | 78 | 79 | 77 | 75 | 72 |    |    |
| 3   | 95  | 87  | 81  | 76  | 92  | 85  | 79  | 75  | 81  | 76  | 72  | 77 | 73 | 70 | 73 | 70 | 67 | 65 |    |    |
| 4   | 89  | 80  | 73  | 68  | 86  | 78  | 71  | 67  | 74  | 69  | 65  | 71 | 66 | 63 | 68 | 64 | 61 | 59 |    |    |
| 5   | 83  | 73  | 66  | 61  | 81  | 72  | 65  | 60  | 69  | 63  | 59  | 66 | 61 | 57 | 63 | 59 | 56 | 54 |    |    |
| 6   | 78  | 67  | 60  | 55  | 76  | 66  | 59  | 55  | 63  | 58  | 53  | 61 | 56 | 52 | 59 | 54 | 51 | 49 |    |    |
| 7   | 74  | 63  | 55  | 50  | 71  | 61  | 55  | 50  | 59  | 53  | 49  | 57 | 52 | 48 | 55 | 50 | 47 | 45 |    |    |
| 8   | 69  | 58  | 51  | 46  | 67  | 57  | 51  | 46  | 55  | 49  | 45  | 53 | 48 | 44 | 51 | 47 | 44 | 42 |    |    |
| 9   | 65  | 54  | 47  | 43  | 64  | 53  | 47  | 42  | 52  | 46  | 42  | 50 | 45 | 41 | 48 | 44 | 40 | 39 |    |    |
| 10  | 62  | 51  | 44  | 40  | 60  | 50  | 44  | 39  | 48  | 43  | 39  | 47 | 42 | 38 | 46 | 41 | 38 | 36 |    |    |

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

|     | 0°     | 45°    | 90°    | 135°   | 180°   |
|-----|--------|--------|--------|--------|--------|
| 0°  | 121280 | 121280 | 121280 | 121280 | 121280 |
| 5°  | 120478 | 120460 | 120466 | 120679 | 120605 |
| 10° | 117501 | 118870 | 119058 | 118722 | 116731 |
| 15° | 106671 | 114115 | 116463 | 113199 | 104222 |
| 20° | 88891  | 104400 | 111533 | 102435 | 85430  |
| 25° | 68745  | 90270  | 103467 | 86974  | 65183  |
| 30° | 50109  | 73514  | 90888  | 70725  | 47561  |
| 35° | 36120  | 56662  | 74696  | 54222  | 33762  |
| 40° | 25987  | 41850  | 55047  | 40083  | 25185  |
| 45° | 20477  | 30617  | 38446  | 29289  | 19768  |
| 50° | 16989  | 23003  | 27827  | 22244  | 16732  |
| 55° | 14838  | 18163  | 21074  | 17860  | 14637  |
| 60° | 13382  | 15163  | 16792  | 15069  | 13476  |
| 65° | 12515  | 13375  | 14111  | 13417  | 12634  |
| 70° | 11886  | 12169  | 12544  | 12237  | 12002  |
| 75° | 11088  | 11019  | 11088  | 11050  | 11196  |
| 80° | 10014  | 9295   | 9090   | 9438   | 10014  |
| 85° | 6942   | 5886   | 5825   | 5982   | 7146   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 40282 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 2438.8  | 6.9       |
| 10°-20°   | 6554.7  | 18.4      |
| 20°-30°   | 7970.5  | 22.4      |
| 30°-40°   | 6492.6  | 18.3      |
| 40°-50°   | 3898.1  | 11.0      |
| 50°-60°   | 2243.4  | 6.3       |
| 60°-70°   | 1404.0  | 4.0       |
| 70°-80°   | 826.9   | 2.3       |
| 80°-90°   | 247.9   | 0.7       |
| 90°-100°  | 91.1    | 0.3       |
| 100°-110° | 602.7   | 1.7       |
| 110°-120° | 1114.9  | 3.1       |
| 120°-130° | 661.6   | 1.9       |
| 130°-140° | 399.7   | 1.1       |
| 140°-150° | 276.7   | 0.8       |
| 150°-160° | 180.1   | 0.5       |
| 160°-170° | 102.7   | 0.3       |
| 170°-180° | 34.0    | 0.1       |
| 0°-30°    | 16964.1 | 47.7      |
| 0°-40°    | 23456.6 | 66.0      |
| 0°-60°    | 29598.2 | 83.3      |
| 0°-90°    | 32077.0 | 90.3      |
| 90°-120°  | 1808.7  | 5.1       |
| 90°-150°  | 3146.7  | 8.9       |
| 90°-180°  | 3463.0  | 9.7       |
| 0°-180°   | 35540.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°    | 45°   | 90°   | 135°  | 180°  | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0°   | 25826 | 25826 | 25826 | 25826 | 25826 |      |
| 5°   | 25724 | 25720 | 25721 | 25767 | 25751 | 2431 |
| 15°  | 22379 | 23941 | 24433 | 23749 | 21865 | 6157 |
| 25°  | 13728 | 18027 | 20662 | 17369 | 13017 | 6255 |
| 35°  | 6629  | 10400 | 13709 | 9952  | 6197  | 4194 |
| 45°  | 3313  | 4954  | 6220  | 4739  | 3198  | 2613 |
| 55°  | 2005  | 2455  | 2848  | 2414  | 1978  | 1813 |
| 65°  | 1306  | 1396  | 1473  | 1400  | 1319  | 1299 |
| 75°  | 781   | 776   | 781   | 778   | 789   | 827  |
| 85°  | 239   | 202   | 200   | 206   | 246   | 255  |
| 90°  | 26    | 69    | 25    | 73    | 26    | 24   |
| 95°  | 43    | 156   | 48    | 132   | 43    | 42   |
| 105° | 210   | 1054  | 276   | 1123  | 137   | 281  |
| 115° | 965   | 1246  | 1187  | 1379  | 1011  | 889  |
| 125° | 697   | 666   | 758   | 738   | 793   | 635  |
| 135° | 510   | 511   | 478   | 534   | 552   | 399  |
| 145° | 422   | 440   | 433   | 445   | 453   | 267  |
| 155° | 373   | 385   | 384   | 385   | 402   | 174  |
| 165° | 354   | 362   | 359   | 358   | 370   | 101  |
| 175° | 354   | 358   | 356   | 354   | 362   | 34   |
| 180° | 356   | 356   | 356   | 356   | 356   |      |



TEST NUMBER: P1433216  
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**CANDELA DISTRIBUTION (FULL):**

|        | 0°      | 22.5°   | 45°     | 67.5°   | 90°     | 112.5°  | 135°    | 157.5°  | 180°    |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°     | 25825.7 | 25825.7 | 25825.7 | 25825.7 | 25825.7 | 25825.7 | 25825.7 | 25825.7 | 25825.7 |
| 2.5°   | 25768.9 | 25792.2 | 25801.9 | 25807.3 | 25813.3 | 25829.5 | 25836.6 | 25825.1 | 25834.9 |
| 5°     | 25724.0 | 25725.6 | 25720.2 | 25744.6 | 25721.3 | 25737.5 | 25766.8 | 25755.4 | 25751.0 |
| 7.5°   | 25462.2 | 25516.3 | 25548.2 | 25556.3 | 25560.7 | 25580.6 | 25601.2 | 25484.9 | 25467.6 |
| 10°    | 24964.6 | 25054.9 | 25255.5 | 25312.9 | 25295.6 | 25328.1 | 25224.2 | 24920.2 | 24801.2 |
| 12.5°  | 23873.6 | 24191.1 | 24712.5 | 24944.5 | 24902.4 | 24931.1 | 24577.3 | 23935.8 | 23566.8 |
| 15°    | 22379.0 | 22844.7 | 23940.7 | 24398.3 | 24433.4 | 24398.3 | 23748.6 | 22498.5 | 21865.2 |
| 17.5°  | 20392.2 | 21252.4 | 22865.9 | 23754.0 | 23703.2 | 23719.9 | 22486.7 | 20638.9 | 19914.1 |
| 20°    | 18269.7 | 19186.6 | 21457.3 | 22938.8 | 22923.2 | 22829.0 | 21053.3 | 18616.4 | 17558.4 |
| 22.5°  | 15869.2 | 17051.6 | 19843.3 | 21936.6 | 21930.6 | 21773.8 | 19307.7 | 16407.9 | 15268.8 |
| 25°    | 13728.3 | 14888.0 | 18026.9 | 20708.7 | 20662.2 | 20483.7 | 17368.6 | 14204.8 | 13017.0 |
| 27.5°  | 11514.9 | 12720.6 | 16087.8 | 19269.9 | 19237.9 | 19043.2 | 15514.9 | 12145.5 | 11015.0 |
| 30°    | 9638.5  | 10740.8 | 14140.4 | 17686.6 | 17482.2 | 17460.0 | 13603.9 | 10238.8 | 9148.4  |
| 32.5°  | 8030.9  | 8975.8  | 12304.6 | 16030.9 | 15669.0 | 15772.4 | 11699.3 | 8644.2  | 7563.6  |
| 35°    | 6629.4  | 7461.9  | 10399.5 | 14116.1 | 13709.3 | 13843.0 | 9951.6  | 7092.9  | 6196.6  |
| 37.5°  | 5380.4  | 6180.9  | 8784.9  | 12253.7 | 11631.7 | 11883.8 | 8414.4  | 5923.5  | 5205.1  |
| 40°    | 4504.2  | 5139.2  | 7253.6  | 10210.2 | 9541.1  | 9951.6  | 6947.4  | 4940.7  | 4365.2  |
| 42.5°  | 3881.0  | 4295.4  | 5986.8  | 8259.2  | 7745.8  | 8036.8  | 5726.0  | 4130.3  | 3699.8  |
| 45°    | 3313.1  | 3643.6  | 4953.7  | 6517.4  | 6220.4  | 6490.4  | 4738.9  | 3521.9  | 3198.4  |
| 47.5°  | 2893.9  | 3148.7  | 4077.9  | 5263.1  | 5078.6  | 5164.1  | 3957.8  | 3073.5  | 2810.6  |
| 50°    | 2532.0  | 2728.8  | 3428.3  | 4247.8  | 4147.2  | 4199.6  | 3315.2  | 2674.2  | 2493.6  |
| 52.5°  | 2250.8  | 2395.1  | 2875.4  | 3491.0  | 3441.2  | 3449.3  | 2825.2  | 2352.4  | 2221.5  |
| 55°    | 2005.2  | 2105.8  | 2454.6  | 2859.8  | 2847.9  | 2850.0  | 2413.6  | 2084.6  | 1978.1  |
| 57.5°  | 1790.4  | 1873.7  | 2109.5  | 2402.2  | 2384.9  | 2388.6  | 2090.1  | 1851.5  | 1782.8  |
| 60°    | 1608.7  | 1664.4  | 1822.8  | 2030.0  | 2018.7  | 2013.8  | 1811.5  | 1643.8  | 1620.0  |
| 62.5°  | 1447.5  | 1483.2  | 1593.0  | 1740.1  | 1718.5  | 1723.4  | 1592.5  | 1484.8  | 1449.6  |
| 65°    | 1306.3  | 1318.7  | 1396.1  | 1487.0  | 1472.9  | 1484.8  | 1400.4  | 1326.8  | 1318.7  |
| 67.5°  | 1168.4  | 1180.8  | 1226.2  | 1287.3  | 1271.1  | 1280.8  | 1227.3  | 1184.1  | 1177.0  |
| 70°    | 1042.9  | 1042.4  | 1067.8  | 1100.7  | 1100.7  | 1102.3  | 1073.7  | 1047.7  | 1053.1  |
| 72.5°  | 913.1   | 909.8   | 917.3   | 939.5   | 933.6   | 954.1   | 923.8   | 915.7   | 916.8   |
| 75°    | 781.1   | 771.9   | 776.2   | 787.6   | 781.1   | 791.9   | 778.4   | 788.7   | 788.7   |
| 77.5°  | 656.7   | 639.4   | 634.0   | 635.6   | 623.7   | 639.9   | 643.1   | 650.2   | 666.4   |
| 80°    | 526.8   | 502.5   | 489.0   | 488.4   | 478.2   | 488.4   | 496.5   | 511.2   | 526.8   |
| 82.5°  | 391.1   | 370.0   | 347.3   | 342.9   | 336.4   | 342.4   | 353.2   | 370.5   | 395.9   |
| 85°    | 238.6   | 216.4   | 202.3   | 194.7   | 200.2   | 200.2   | 205.6   | 229.9   | 245.6   |
| 87.5°  | 86.0    | 75.2    | 61.7    | 62.2    | 63.8    | 66.0    | 68.7    | 86.5    | 94.6    |
| 90°    | 26.0    | 40.4    | 69.2    | 44.2    | 25.0    | 42.2    | 73.0    | 38.4    | 25.5    |
| 92.5°  | 37.0    | 61.5    | 111.4   | 57.6    | 32.6    | 57.6    | 103.7   | 51.9    | 35.1    |
| 95°    | 43.3    | 71.0    | 155.5   | 76.8    | 48.0    | 71.0    | 132.5   | 57.6    | 42.8    |
| 97.5°  | 54.8    | 78.7    | 178.6   | 94.1    | 74.9    | 88.3    | 149.8   | 61.5    | 52.4    |
| 100°   | 72.1    | 92.1    | 278.5   | 115.2   | 99.9    | 99.9    | 274.6   | 71.0    | 60.6    |
| 102.5° | 122.1   | 195.9   | 591.4   | 217.0   | 151.7   | 195.9   | 637.5   | 144.0   | 74.1    |
| 105°   | 210.4   | 412.9   | 1054.2  | 455.1   | 276.5   | 449.3   | 1123.4  | 376.3   | 137.4   |
| 107.5° | 364.0   | 739.3   | 1390.3  | 806.5   | 524.3   | 839.2   | 1447.8  | 745.1   | 323.7   |
| 110°   | 679.0   | 981.2   | 1457.5  | 1108.0  | 839.2   | 1173.3  | 1580.3  | 1021.6  | 657.8   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   |
|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 917.1 | 1054.2 | 1396.1 | 1223.2 | 1092.6 | 1307.7 | 1543.9 | 1133.0 | 911.3  |
| 115°   | 965.0 | 1013.9 | 1246.3 | 1194.4 | 1186.7 | 1288.5 | 1378.8 | 1129.1 | 1011.1 |
| 117.5° | 932.9 | 925.5  | 1058.1 | 1073.5 | 1146.4 | 1179.1 | 1190.6 | 1060.0 | 1016.9 |
| 120°   | 863.2 | 823.8  | 883.3  | 937.1  | 1035.1 | 1021.6 | 1002.4 | 958.8  | 959.3  |
| 122.5° | 777.4 | 730.2  | 756.6  | 796.9  | 894.9  | 866.0  | 846.9  | 855.0  | 881.1  |
| 125°   | 696.7 | 649.6  | 666.3  | 675.9  | 758.5  | 729.7  | 738.0  | 766.7  | 792.8  |
| 127.5° | 625.7 | 593.9  | 602.9  | 591.4  | 643.3  | 629.9  | 659.2  | 692.3  | 714.0  |
| 130°   | 577.7 | 550.3  | 563.2  | 535.8  | 561.2  | 565.1  | 604.0  | 630.9  | 644.9  |
| 132.5° | 537.9 | 520.1  | 535.4  | 502.2  | 509.9  | 525.9  | 562.3  | 585.9  | 593.6  |
| 135°   | 509.6 | 493.7  | 511.0  | 479.8  | 478.4  | 501.4  | 534.1  | 549.4  | 551.9  |
| 137.5° | 484.7 | 471.2  | 488.5  | 465.4  | 459.7  | 482.7  | 507.7  | 519.3  | 515.9  |
| 140°   | 462.7 | 450.6  | 469.8  | 452.5  | 448.7  | 471.8  | 483.3  | 497.3  | 493.4  |
| 142.5° | 438.4 | 430.7  | 453.1  | 441.6  | 437.7  | 459.5  | 465.3  | 474.8  | 471.5  |
| 145°   | 421.6 | 415.8  | 440.2  | 434.5  | 432.6  | 448.5  | 444.7  | 458.6  | 452.9  |
| 147.5° | 407.9 | 403.5  | 425.4  | 423.6  | 423.6  | 435.1  | 429.8  | 441.8  | 436.7  |
| 150°   | 395.0 | 390.6  | 412.5  | 410.6  | 412.5  | 420.2  | 413.0  | 427.6  | 426.2  |
| 152.5° | 382.0 | 377.7  | 397.7  | 395.2  | 397.2  | 404.8  | 398.3  | 414.1  | 413.3  |
| 155°   | 372.9 | 368.6  | 384.8  | 383.7  | 383.7  | 388.1  | 385.3  | 401.7  | 402.3  |
| 157.5° | 366.9 | 363.9  | 376.2  | 375.2  | 375.2  | 377.7  | 376.8  | 391.3  | 391.8  |
| 160°   | 362.2 | 359.2  | 369.6  | 368.6  | 366.7  | 371.1  | 370.2  | 382.7  | 383.3  |
| 162.5° | 357.6 | 354.5  | 366.3  | 363.9  | 363.3  | 363.9  | 363.1  | 376.2  | 376.8  |
| 165°   | 354.3 | 353.2  | 361.6  | 360.6  | 358.7  | 360.6  | 358.3  | 367.1  | 369.6  |
| 167.5° | 354.9 | 352.4  | 360.3  | 359.2  | 357.3  | 355.4  | 357.0  | 363.9  | 366.3  |
| 170°   | 353.4 | 352.9  | 358.9  | 355.9  | 353.4  | 354.0  | 353.8  | 360.6  | 363.1  |
| 172.5° | 354.5 | 354.0  | 360.0  | 357.0  | 354.5  | 355.0  | 352.9  | 357.8  | 362.2  |
| 175°   | 354.2 | 353.2  | 357.8  | 356.2  | 355.7  | 354.3  | 354.0  | 357.0  | 361.9  |
| 177.5° | 356.6 | 355.6  | 358.3  | 356.7  | 354.3  | 354.9  | 356.5  | 359.4  | 366.3  |
| 180°   | 356.5 | 356.5  | 356.5  | 356.5  | 356.5  | 356.5  | 356.5  | 356.5  | 356.5  |



TEST NUMBER: P1433216  
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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 | 17.81            | 18.92 | 18.34 | 19.43 | 19.99 | 18.79          | 19.90 | 19.32 | 20.41 | 20.97 |
|                 | 3H   | 19.29            | 20.27 | 19.83 | 20.80 | 21.40 | 20.05          | 21.04 | 20.60 | 21.56 | 22.16 |
|                 | 4H   | 19.89            | 20.81 | 20.45 | 21.35 | 21.96 | 20.55          | 21.47 | 21.11 | 22.01 | 22.63 |
|                 | 6H   | 20.35            | 21.20 | 20.93 | 21.75 | 22.38 | 20.90          | 21.75 | 21.48 | 22.31 | 22.93 |
|                 | 8H   | 20.50            | 21.30 | 21.09 | 21.87 | 22.51 | 21.00          | 21.80 | 21.59 | 22.37 | 23.01 |
|                 | 12H  | 20.57            | 21.34 | 21.16 | 21.90 | 22.56 | 21.04          | 21.80 | 21.63 | 22.37 | 23.02 |
| 4H              | 2H   | 18.33            | 19.25 | 18.89 | 19.79 | 20.40 | 19.11          | 20.03 | 19.67 | 20.57 | 21.18 |
|                 | 3H   | 20.01            | 20.77 | 20.58 | 21.35 | 21.98 | 20.59          | 21.35 | 21.17 | 21.94 | 22.57 |
|                 | 4H   | 20.72            | 21.41 | 21.32 | 22.00 | 22.66 | 21.21          | 21.90 | 21.81 | 22.49 | 23.16 |
|                 | 6H   | 21.30            | 21.89 | 21.92 | 22.51 | 23.19 | 21.69          | 22.28 | 22.31 | 22.89 | 23.58 |
|                 | 8H   | 21.48            | 22.04 | 22.11 | 22.65 | 23.34 | 21.82          | 22.37 | 22.45 | 22.99 | 23.68 |
|                 | 12H  | 21.59            | 22.08 | 22.23 | 22.72 | 23.42 | 21.89          | 22.37 | 22.53 | 23.02 | 23.71 |
| 8H              | 4H   | 20.94            | 21.49 | 21.57 | 22.11 | 22.80 | 21.39          | 21.94 | 22.01 | 22.56 | 23.25 |
|                 | 6H   | 21.63            | 22.08 | 22.29 | 22.74 | 23.44 | 21.97          | 22.42 | 22.63 | 23.08 | 23.78 |
|                 | 8H   | 21.88            | 22.29 | 22.56 | 22.96 | 23.67 | 22.17          | 22.57 | 22.84 | 23.24 | 23.95 |
|                 | 12H  | 22.05            | 22.40 | 22.72 | 23.05 | 23.84 | 22.28          | 22.64 | 22.95 | 23.29 | 24.07 |
| 12H             | 4H   | 20.94            | 21.43 | 21.58 | 22.07 | 22.77 | 21.38          | 21.87 | 22.03 | 22.52 | 23.21 |
|                 | 6H   | 21.66            | 22.06 | 22.33 | 22.73 | 23.44 | 21.99          | 22.39 | 22.66 | 23.06 | 23.77 |
|                 | 8H   | 21.95            | 22.30 | 22.62 | 22.95 | 23.73 | 22.23          | 22.58 | 22.89 | 23.23 | 24.01 |

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-5

Test Date: 08/01/2025

Luminaire Tested: EHBR-60-L930-N

Data in this report applies to families of products including EHBR-60-L930-N

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2506-472-5  
 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-L930-N**  
 Description: Elevate Round Highbay at, 60000 lumens, 3000K 90CRI LEDs with N lens

**Spectral Parameters**

CCT (K): 2996  
 CIE u': 0.2519  
 CIE v': 0.5169  
 Duv: -0.0033  
 CIE x: 0.4325  
 CIE y: 0.3945  
 CIE z: 0.1730  
 Peak Wavelength (nm): 630  
 Dominant Wavelength (nm): 584  
 Purity: 48.21818  
 Rf: 91.3  
 Rg: 102

|           |      |      |      |
|-----------|------|------|------|
| CRI (Ra): | 94.4 |      |      |
| R1:       | 96.8 | R9:  | 61.4 |
| R2:       | 98.1 | R10: | 94.4 |
| R3:       | 97.8 | R11: | 95.7 |
| R4:       | 95.6 | R12: | 88.5 |
| R5:       | 96.9 | R13: | 97.3 |
| R6:       | 95.7 | R14: | 97.8 |
| R7:       | 90.9 | R15: | 92.3 |
| R8:       | 83.0 |      |      |



**Test Conditions**

Stabilization Time: 40M  
 Operation Time: 1H 40M  
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-5

| 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: SP1-2506-472-5

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3000K 7-step quadrangle

REPORT NUMBER: SP1-2506-472-5

**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               | 101                         | NR                      | 620               | 317                         | NR                      | 750               | 7                           | NR                      | 880               | 0                           | NR                      |
| 365               | 0                           | NR                      | 495               | 121                         | NR                      | 625               | 320                         | NR                      | 755               | 6                           | NR                      | 885               | 0                           | NR                      |
| 370               | 0                           | NR                      | 500               | 141                         | NR                      | 630               | 1000                        | NR                      | 760               | 5                           | NR                      | 890               | 0                           | NR                      |
| 375               | 0                           | NR                      | 505               | 158                         | NR                      | 635               | 651                         | NR                      | 765               | 4                           | NR                      | 895               | 0                           | NR                      |
| 380               | 0                           | NR                      | 510               | 171                         | NR                      | 640               | 207                         | NR                      | 770               | 4                           | NR                      | 900               | 0                           | NR                      |
| 385               | 0                           | NR                      | 515               | 182                         | NR                      | 645               | 201                         | NR                      | 775               | 3                           | NR                      | 905               | 0                           | NR                      |
| 390               | 0                           | NR                      | 520               | 189                         | NR                      | 650               | 174                         | NR                      | 780               | 3                           | NR                      | 910               | 0                           | NR                      |
| 395               | 1                           | NR                      | 525               | 194                         | NR                      | 655               | 146                         | NR                      | 785               | 2                           | NR                      | 915               | 0                           | NR                      |
| 400               | 1                           | NR                      | 530               | 199                         | NR                      | 660               | 124                         | NR                      | 790               | 2                           | NR                      | 920               | 0                           | NR                      |
| 405               | 3                           | NR                      | 535               | 205                         | NR                      | 665               | 105                         | NR                      | 795               | 2                           | NR                      | 925               | 0                           | NR                      |
| 410               | 4                           | NR                      | 540               | 210                         | NR                      | 670               | 96                          | NR                      | 800               | 1                           | NR                      | 930               | 0                           | NR                      |
| 415               | 7                           | NR                      | 545               | 216                         | NR                      | 675               | 79                          | NR                      | 805               | 1                           | NR                      | 935               | 0                           | NR                      |
| 420               | 13                          | NR                      | 550               | 222                         | NR                      | 680               | 67                          | NR                      | 810               | 1                           | NR                      | 940               | 0                           | NR                      |
| 425               | 22                          | NR                      | 555               | 230                         | NR                      | 685               | 58                          | NR                      | 815               | 1                           | NR                      | 945               | 0                           | NR                      |
| 430               | 37                          | NR                      | 560               | 240                         | NR                      | 690               | 49                          | NR                      | 820               | 1                           | NR                      | 950               | 0                           | NR                      |
| 435               | 60                          | NR                      | 565               | 248                         | NR                      | 695               | 42                          | NR                      | 825               | 1                           | NR                      | 955               | 0                           | NR                      |
| 440               | 101                         | NR                      | 570               | 258                         | NR                      | 700               | 36                          | NR                      | 830               | 1                           | NR                      | 960               | 0                           | NR                      |
| 445               | 172                         | NR                      | 575               | 268                         | NR                      | 705               | 30                          | NR                      | 835               | 1                           | NR                      | 965               | 0                           | NR                      |
| 450               | 223                         | NR                      | 580               | 278                         | NR                      | 710               | 26                          | NR                      | 840               | 1                           | NR                      | 970               | 0                           | NR                      |
| 455               | 167                         | NR                      | 585               | 287                         | NR                      | 715               | 22                          | NR                      | 845               | 0                           | NR                      | 975               | 0                           | NR                      |
| 460               | 126                         | NR                      | 590               | 295                         | NR                      | 720               | 19                          | NR                      | 850               | 0                           | NR                      | 980               | 0                           | NR                      |
| 465               | 111                         | NR                      | 595               | 298                         | NR                      | 725               | 16                          | NR                      | 855               | 0                           | NR                      | 985               | 0                           | NR                      |
| 470               | 86                          | NR                      | 600               | 303                         | NR                      | 730               | 14                          | NR                      | 860               | 0                           | NR                      | 990               | 0                           | NR                      |
| 475               | 74                          | NR                      | 605               | 307                         | NR                      | 735               | 12                          | NR                      | 865               | 0                           | NR                      | 995               | 0                           | NR                      |
| 480               | 77                          | NR                      | 610               | 341                         | NR                      | 740               | 10                          | NR                      | 870               | 0                           | NR                      | 1000              | 0                           | NR                      |
| 485               | 86                          | NR                      | 615               | 368                         | NR                      | 745               | 8                           | NR                      | 875               | 0                           | NR                      |                   |                             |                         |

REPORT NUMBER: SP1-2506-472-5

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.44**

| $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) | $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) | $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) | $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) | $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) |
|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|
| 360            | 0                        | NR                   | 490            | 101                      | NR                   | 620            | 317                      | NR                   | 750            | 7                        | NR                   | 880            | 0                        | NR                   |
| 365            | 0                        | NR                   | 495            | 121                      | NR                   | 625            | 320                      | NR                   | 755            | 6                        | NR                   | 885            | 0                        | NR                   |
| 370            | 0                        | NR                   | 500            | 141                      | NR                   | 630            | 1000                     | NR                   | 760            | 5                        | NR                   | 890            | 0                        | NR                   |
| 375            | 0                        | NR                   | 505            | 158                      | NR                   | 635            | 651                      | NR                   | 765            | 4                        | NR                   | 895            | 0                        | NR                   |
| 380            | 0                        | NR                   | 510            | 171                      | NR                   | 640            | 207                      | NR                   | 770            | 4                        | NR                   | 900            | 0                        | NR                   |
| 385            | 0                        | NR                   | 515            | 182                      | NR                   | 645            | 201                      | NR                   | 775            | 3                        | NR                   | 905            | 0                        | NR                   |
| 390            | 0                        | NR                   | 520            | 189                      | NR                   | 650            | 174                      | NR                   | 780            | 3                        | NR                   | 910            | 0                        | NR                   |
| 395            | 1                        | NR                   | 525            | 194                      | NR                   | 655            | 146                      | NR                   | 785            | 2                        | NR                   | 915            | 0                        | NR                   |
| 400            | 1                        | NR                   | 530            | 199                      | NR                   | 660            | 124                      | NR                   | 790            | 2                        | NR                   | 920            | 0                        | NR                   |
| 405            | 3                        | NR                   | 535            | 205                      | NR                   | 665            | 105                      | NR                   | 795            | 2                        | NR                   | 925            | 0                        | NR                   |
| 410            | 4                        | NR                   | 540            | 210                      | NR                   | 670            | 96                       | NR                   | 800            | 1                        | NR                   | 930            | 0                        | NR                   |
| 415            | 7                        | NR                   | 545            | 216                      | NR                   | 675            | 79                       | NR                   | 805            | 1                        | NR                   | 935            | 0                        | NR                   |
| 420            | 13                       | NR                   | 550            | 222                      | NR                   | 680            | 67                       | NR                   | 810            | 1                        | NR                   | 940            | 0                        | NR                   |
| 425            | 22                       | NR                   | 555            | 230                      | NR                   | 685            | 58                       | NR                   | 815            | 1                        | NR                   | 945            | 0                        | NR                   |
| 430            | 37                       | NR                   | 560            | 240                      | NR                   | 690            | 49                       | NR                   | 820            | 1                        | NR                   | 950            | 0                        | NR                   |
| 435            | 60                       | NR                   | 565            | 248                      | NR                   | 695            | 42                       | NR                   | 825            | 1                        | NR                   | 955            | 0                        | NR                   |
| 440            | 101                      | NR                   | 570            | 258                      | NR                   | 700            | 36                       | NR                   | 830            | 1                        | NR                   | 960            | 0                        | NR                   |
| 445            | 172                      | NR                   | 575            | 268                      | NR                   | 705            | 30                       | NR                   | 835            | 1                        | NR                   | 965            | 0                        | NR                   |
| 450            | 223                      | NR                   | 580            | 278                      | NR                   | 710            | 26                       | NR                   | 840            | 1                        | NR                   | 970            | 0                        | NR                   |
| 455            | 167                      | NR                   | 585            | 287                      | NR                   | 715            | 22                       | NR                   | 845            | 0                        | NR                   | 975            | 0                        | NR                   |
| 460            | 126                      | NR                   | 590            | 295                      | NR                   | 720            | 19                       | NR                   | 850            | 0                        | NR                   | 980            | 0                        | NR                   |
| 465            | 111                      | NR                   | 595            | 298                      | NR                   | 725            | 16                       | NR                   | 855            | 0                        | NR                   | 985            | 0                        | NR                   |
| 470            | 86                       | NR                   | 600            | 303                      | NR                   | 730            | 14                       | NR                   | 860            | 0                        | NR                   | 990            | 0                        | NR                   |
| 475            | 74                       | NR                   | 605            | 307                      | NR                   | 735            | 12                       | NR                   | 865            | 0                        | NR                   | 995            | 0                        | NR                   |
| 480            | 77                       | NR                   | 610            | 341                      | NR                   | 740            | 10                       | NR                   | 870            | 0                        | NR                   | 1000           | 0                        | NR                   |
| 485            | 86                       | NR                   | 615            | 368                      | NR                   | 745            | 8                        | NR                   | 875            | 0                        | NR                   |                |                          |                      |

REPORT NUMBER: SP1-2506-472-5

Melanopic Flux vs. Wavelength



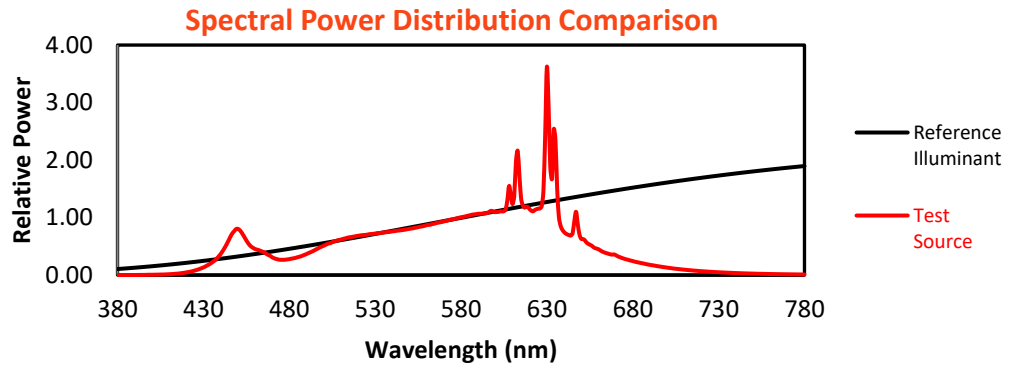
Melanopic Lumens: NR

M/P: 2.85

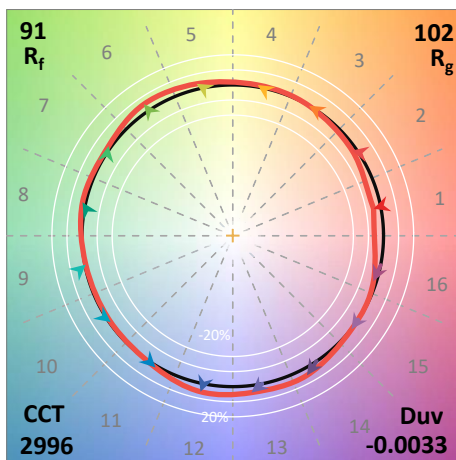
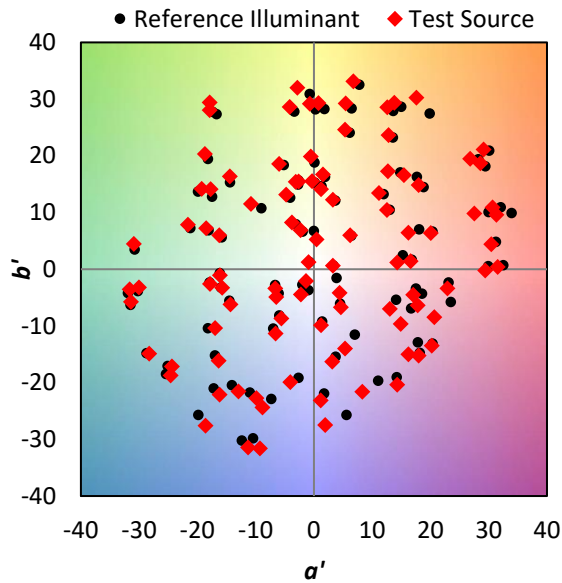
| λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360    | 0                        | NR            | 490    | 101                      | NR            | 620    | 317                      | NR            | 750    | 7                        | NR            | 880    | 0                        | NR            |
| 365    | 0                        | NR            | 495    | 121                      | NR            | 625    | 320                      | NR            | 755    | 6                        | NR            | 885    | 0                        | NR            |
| 370    | 0                        | NR            | 500    | 141                      | NR            | 630    | 1000                     | NR            | 760    | 5                        | NR            | 890    | 0                        | NR            |
| 375    | 0                        | NR            | 505    | 158                      | NR            | 635    | 651                      | NR            | 765    | 4                        | NR            | 895    | 0                        | NR            |
| 380    | 0                        | NR            | 510    | 171                      | NR            | 640    | 207                      | NR            | 770    | 4                        | NR            | 900    | 0                        | NR            |
| 385    | 0                        | NR            | 515    | 182                      | NR            | 645    | 201                      | NR            | 775    | 3                        | NR            | 905    | 0                        | NR            |
| 390    | 0                        | NR            | 520    | 189                      | NR            | 650    | 174                      | NR            | 780    | 3                        | NR            | 910    | 0                        | NR            |
| 395    | 1                        | NR            | 525    | 194                      | NR            | 655    | 146                      | NR            | 785    | 2                        | NR            | 915    | 0                        | NR            |
| 400    | 1                        | NR            | 530    | 199                      | NR            | 660    | 124                      | NR            | 790    | 2                        | NR            | 920    | 0                        | NR            |
| 405    | 3                        | NR            | 535    | 205                      | NR            | 665    | 105                      | NR            | 795    | 2                        | NR            | 925    | 0                        | NR            |
| 410    | 4                        | NR            | 540    | 210                      | NR            | 670    | 96                       | NR            | 800    | 1                        | NR            | 930    | 0                        | NR            |
| 415    | 7                        | NR            | 545    | 216                      | NR            | 675    | 79                       | NR            | 805    | 1                        | NR            | 935    | 0                        | NR            |
| 420    | 13                       | NR            | 550    | 222                      | NR            | 680    | 67                       | NR            | 810    | 1                        | NR            | 940    | 0                        | NR            |
| 425    | 22                       | NR            | 555    | 230                      | NR            | 685    | 58                       | NR            | 815    | 1                        | NR            | 945    | 0                        | NR            |
| 430    | 37                       | NR            | 560    | 240                      | NR            | 690    | 49                       | NR            | 820    | 1                        | NR            | 950    | 0                        | NR            |
| 435    | 60                       | NR            | 565    | 248                      | NR            | 695    | 42                       | NR            | 825    | 1                        | NR            | 955    | 0                        | NR            |
| 440    | 101                      | NR            | 570    | 258                      | NR            | 700    | 36                       | NR            | 830    | 1                        | NR            | 960    | 0                        | NR            |
| 445    | 172                      | NR            | 575    | 268                      | NR            | 705    | 30                       | NR            | 835    | 1                        | NR            | 965    | 0                        | NR            |
| 450    | 223                      | NR            | 580    | 278                      | NR            | 710    | 26                       | NR            | 840    | 1                        | NR            | 970    | 0                        | NR            |
| 455    | 167                      | NR            | 585    | 287                      | NR            | 715    | 22                       | NR            | 845    | 0                        | NR            | 975    | 0                        | NR            |
| 460    | 126                      | NR            | 590    | 295                      | NR            | 720    | 19                       | NR            | 850    | 0                        | NR            | 980    | 0                        | NR            |
| 465    | 111                      | NR            | 595    | 298                      | NR            | 725    | 16                       | NR            | 855    | 0                        | NR            | 985    | 0                        | NR            |
| 470    | 86                       | NR            | 600    | 303                      | NR            | 730    | 14                       | NR            | 860    | 0                        | NR            | 990    | 0                        | NR            |
| 475    | 74                       | NR            | 605    | 307                      | NR            | 735    | 12                       | NR            | 865    | 0                        | NR            | 995    | 0                        | NR            |
| 480    | 77                       | NR            | 610    | 341                      | NR            | 740    | 10                       | NR            | 870    | 0                        | NR            | 1000   | 0                        | NR            |
| 485    | 86                       | NR            | 615    | 368                      | NR            | 745    | 8                        | NR            | 875    | 0                        | NR            |        |                          |               |

**Summary**

$R_f = 91.3$   
 $R_g = 102$   
 $CIE R_a = 94.4$   
 $R_9 = 61.4$



**Color Vector Graphics**



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

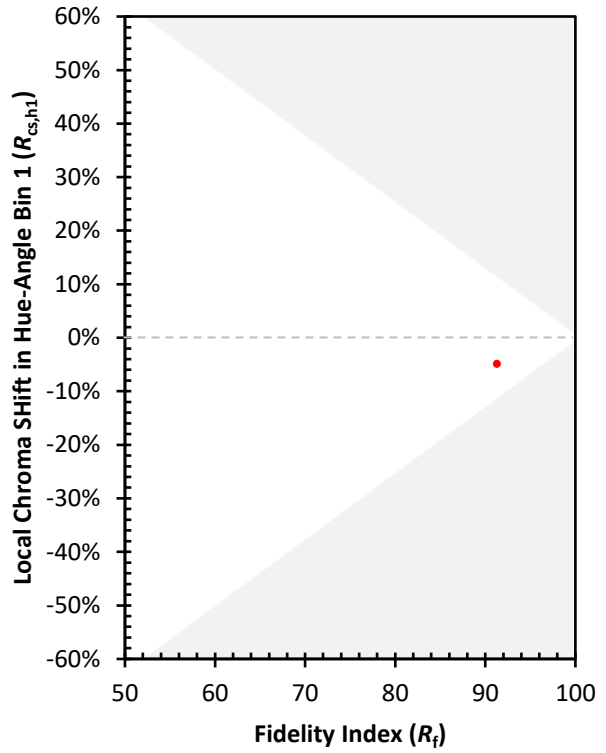
|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 91 | CES51 = 96 | CES76 = 89 |
| CES02 = 63 | CES27 = 96 | CES52 = 95 | CES77 = 85 |
| CES03 = 32 | CES28 = 96 | CES53 = 93 | CES78 = 86 |
| CES04 = 70 | CES29 = 90 | CES54 = 98 | CES79 = 89 |
| CES05 = 51 | CES30 = 96 | CES55 = 98 | CES80 = 91 |
| CES06 = 51 | CES31 = 90 | CES56 = 95 | CES81 = 72 |
| CES07 = 44 | CES32 = 84 | CES57 = 95 | CES82 = 95 |
| CES08 = 42 | CES33 = 91 | CES58 = 95 | CES83 = 93 |
| CES09 = 29 | CES34 = 92 | CES59 = 99 | CES84 = 96 |
| CES10 = 76 | CES35 = 96 | CES60 = 96 | CES85 = 80 |
| CES11 = 59 | CES36 = 90 | CES61 = 96 | CES86 = 77 |
| CES12 = 65 | CES37 = 94 | CES62 = 95 | CES87 = 91 |
| CES13 = 44 | CES38 = 99 | CES63 = 94 | CES88 = 96 |
| CES14 = 74 | CES39 = 97 | CES64 = 96 | CES89 = 82 |
| CES15 = 72 | CES40 = 94 | CES65 = 92 | CES90 = 97 |
| CES16 = 48 | CES41 = 94 | CES66 = 95 | CES91 = 82 |
| CES17 = 50 | CES42 = 91 | CES67 = 94 | CES92 = 78 |
| CES18 = 57 | CES43 = 88 | CES68 = 93 | CES93 = 87 |
| CES19 = 72 | CES44 = 99 | CES69 = 94 | CES94 = 73 |
| CES20 = 67 | CES45 = 93 | CES70 = 90 | CES95 = 85 |
| CES21 = 86 | CES46 = 93 | CES71 = 90 | CES96 = 92 |
| CES22 = 79 | CES47 = 86 | CES72 = 96 | CES97 = 93 |
| CES23 = 92 | CES48 = 95 | CES73 = 85 | CES98 = 94 |
| CES24 = 91 | CES49 = 91 | CES74 = 90 | CES99 = 93 |
| CES25 = 72 | CES50 = 96 | CES75 = 90 |            |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)