Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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Scaled data based on original data using

LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P1199325

Luminaire Tested: GPC-SB2A-760-U-AFL-HSS

Issue Date: 10/30/2025

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1199325 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/15/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB2A-760-U-AFL-HSS |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (2) 70 CRI, 5700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE FRONTLIN |
| | OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 8090 lumens |
| Efficiency: | N/A |
| Efficacy: | 141.2 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B1 - U0 - G1 |

| | |
|---|---|
| Input Watts (W): | 57.3 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.484 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.994 |
| Total Harmonic Distortion (THDi): | 9.038 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

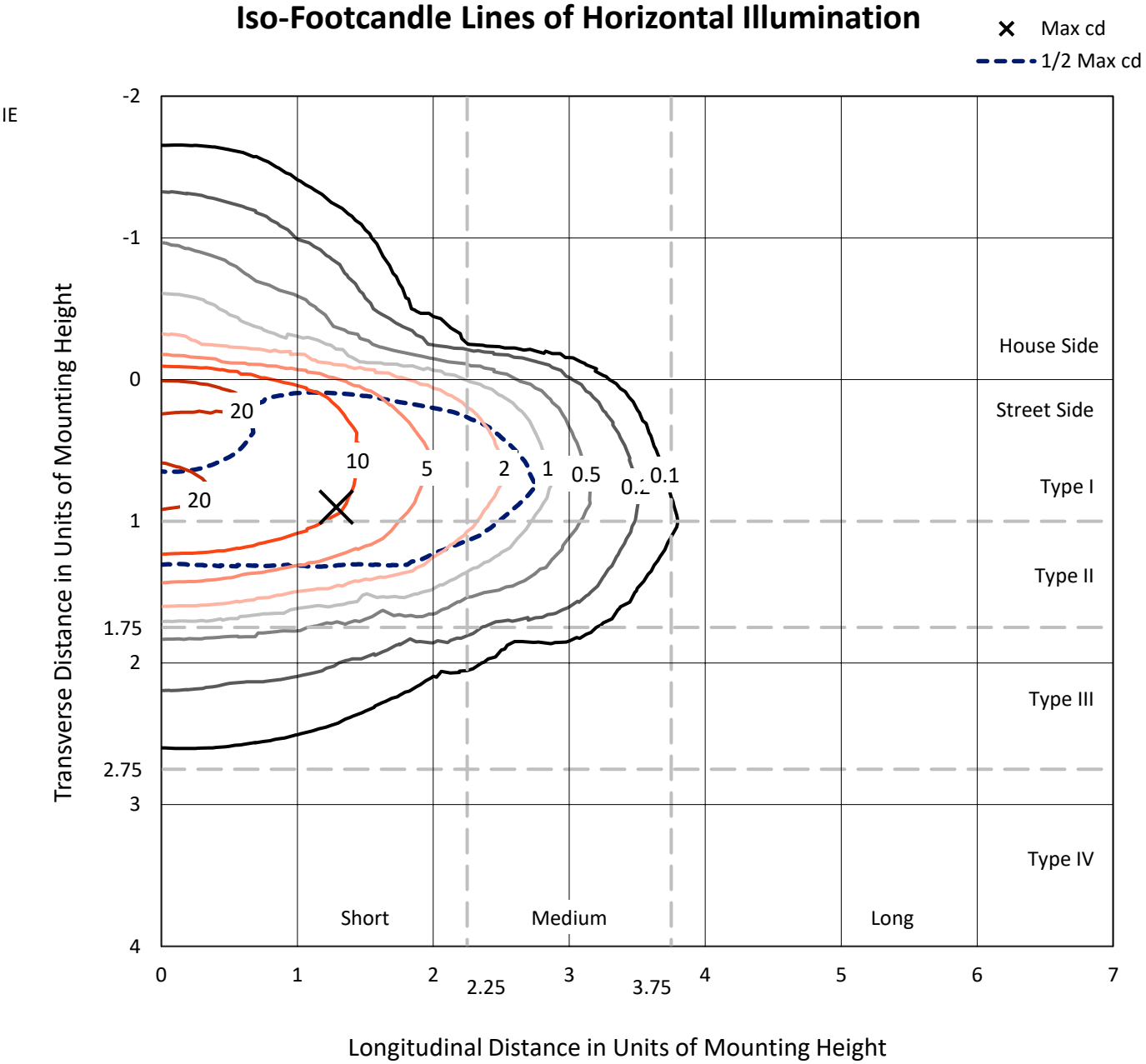


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Scaled Data Report

REPORT NUMBER: P1199325
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## Iso-Footcandle Lines of Horizontal Illumination



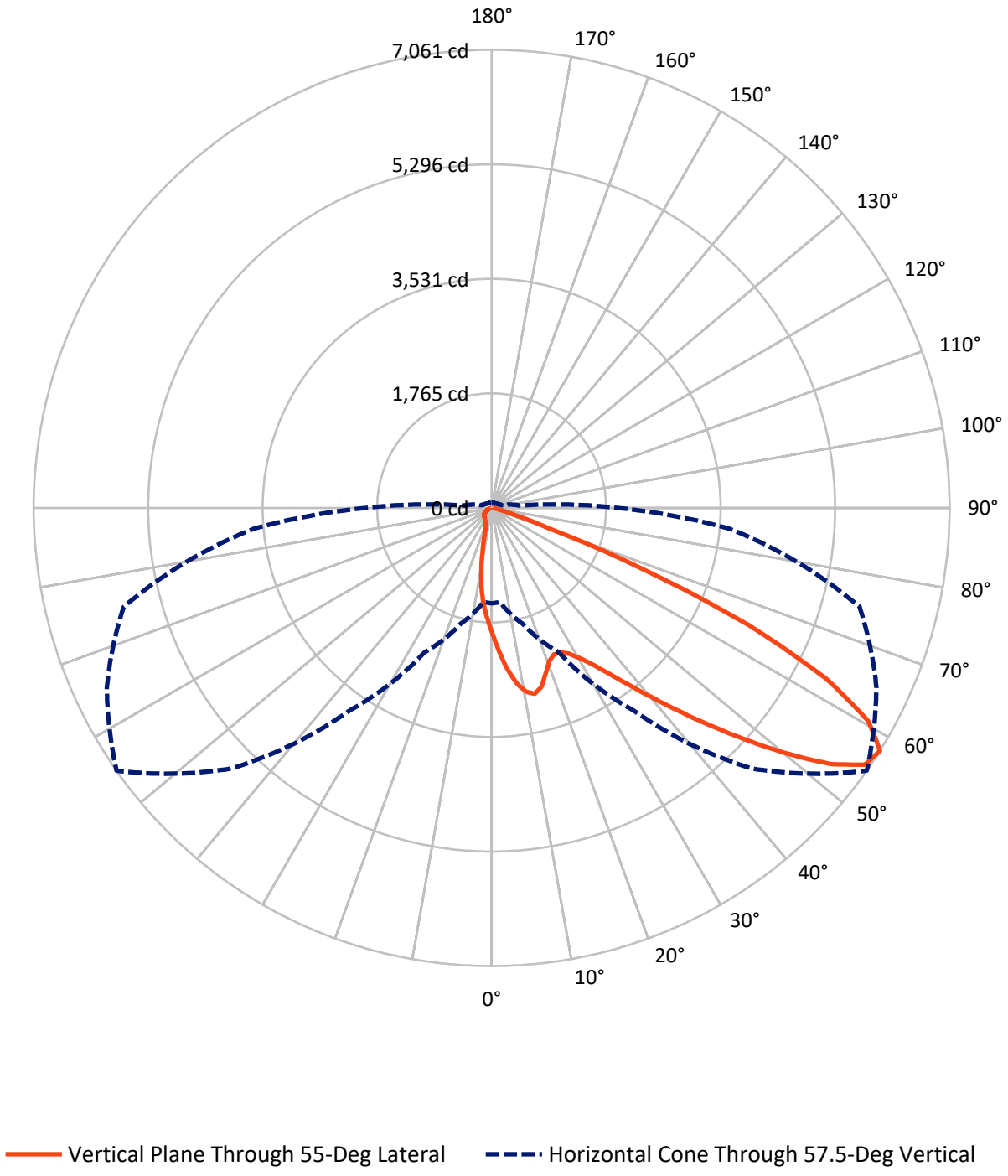

Based on 10 foot mounting height. Maximum calculated value = 27.9 fc
Type II - Short - N/A

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## Luminous Intensity Polar Plot



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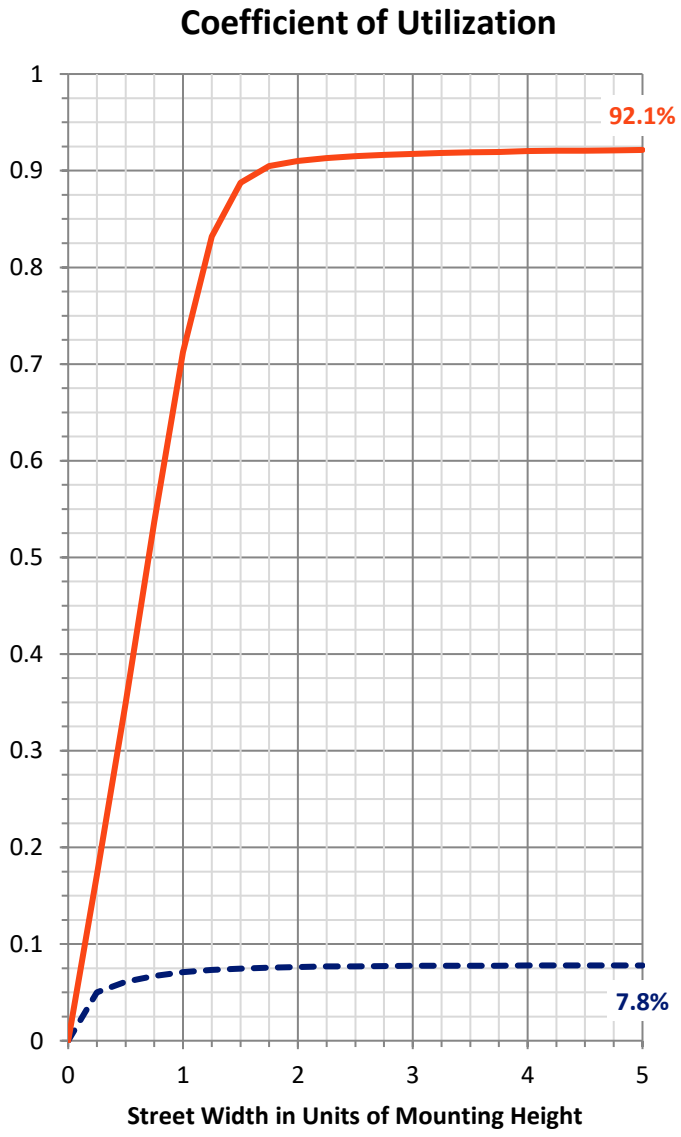
REPORT NUMBER: P1199325
CATALOG NUMBER: GPC-SB2A-760-U-AFL-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 631.8 | 0.0 | 631.8 |
| | % Fixture | 7.8 | 0.0 | 7.8 |
| **Street Side** | Lumens | 7458.2 | 0.0 | 7458.2 |
| | % Fixture | 92.2 | 0.0 | 92.2 |
| **Total** | Lumens | 8090.0 | 0.0 | 8090.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 181.4 | 2.2 |
| 10°-20° | 438.1 | 5.4 |
| 20°-30° | 701.0 | 8.7 |
| 30°-40° | 1186.5 | 14.7 |
| 40°-50° | 1948.0 | 24.1 |
| 50°-60° | 2141.0 | 26.5 |
| 60°-70° | 1228.1 | 15.2 |
| 70°-80° | 250.9 | 3.1 |
| 80°-90° | 14.8 | 0.2 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 8090.0 | 100.0 |
| 0°-180° | 8090.0 | 100.0 |



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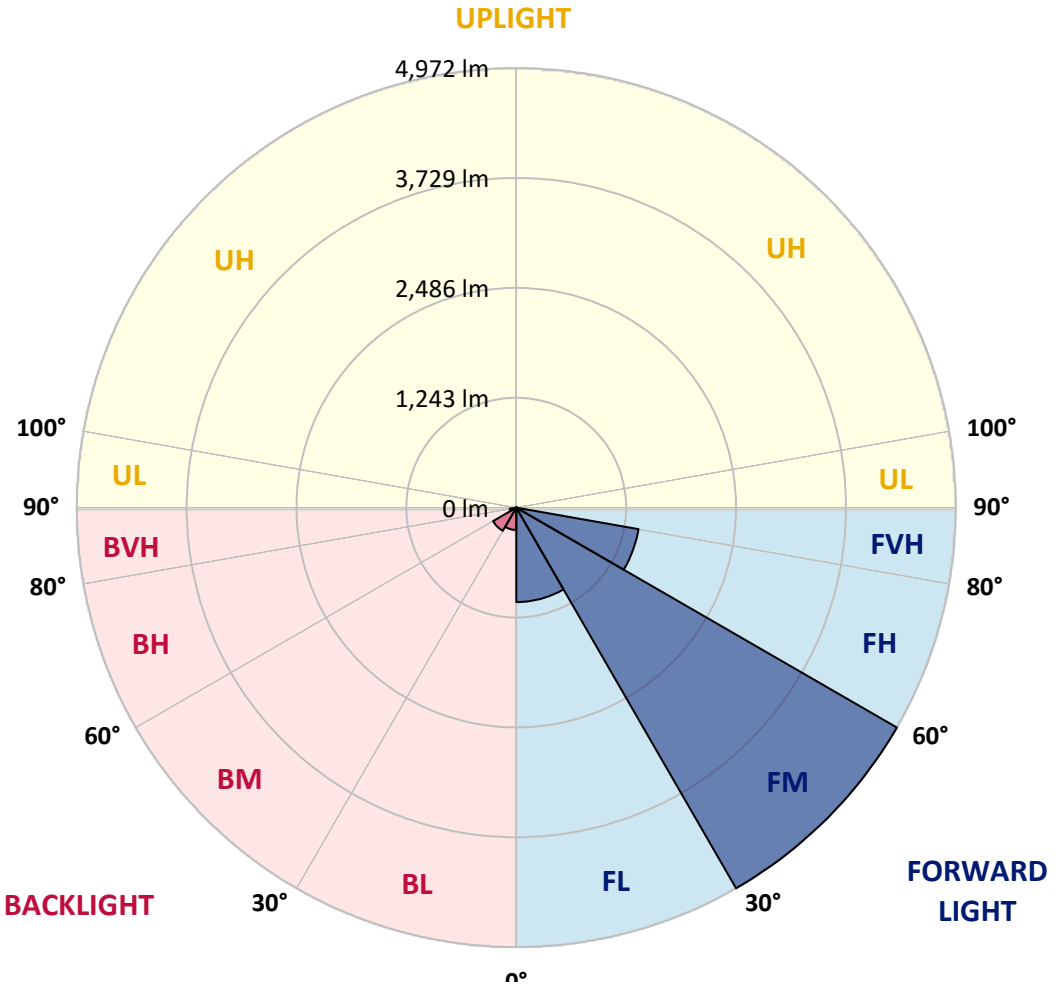
Scaled Data Report

REPORT NUMBER: P1199325
CATALOG NUMBER: GPC-SB2A-760-U-AFL-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1068.3 | 13.2 | | | |
| FM | (30°-60°) | 4972.2 | 61.5 | | | |
| FH | (60°-80°) | 1403.9 | 17.4 | | | G1/1800 |
| FVH | (80°-90°) | 13.8 | 0.2 | | | G1/100 |
| BL | (0°-30°) | 252.2 | 3.1 | B1/500 | | |
| BM | (30°-60°) | 303.4 | 3.8 | B1/1000 | | |
| BH | (60°-80°) | 75.1 | 0.9 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 1.0 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G1**
Type II Short



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REPORT NUMBER: P1199325
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1949.5 | 1949.5 | 1949.5 | 1949.5 | 1949.5 | 1949.5 | 1949.5 | 1949.5 | 1949.5 | 1949.5 | 1949.5 |
| 2.5° | 2418.9 | 2388.5 | 2384.0 | 2378.0 | 2320.1 | 2276.7 | 2213.9 | 2145.0 | 2067.7 | 1988.9 | 1954.0 |
| 5° | 2794.5 | 2770.6 | 2766.1 | 2738.2 | 2672.3 | 2598.5 | 2486.7 | 2345.6 | 2201.4 | 2031.8 | 1959.0 |
| 7.5° | 2867.4 | 2862.9 | 2883.3 | 2882.3 | 2873.4 | 2815.0 | 2720.7 | 2552.6 | 2336.1 | 2084.7 | 1971.9 |
| 10° | 2542.6 | 2554.1 | 2615.0 | 2668.3 | 2812.5 | 2896.3 | 2875.8 | 2737.2 | 2474.8 | 2145.0 | 1986.4 |
| 12.5° | 2246.8 | 2233.3 | 2276.7 | 2337.1 | 2504.7 | 2754.1 | 2940.2 | 2891.3 | 2633.4 | 2213.4 | 2007.9 |
| 15° | 2061.2 | 2055.7 | 2080.2 | 2108.1 | 2235.8 | 2487.2 | 2865.4 | 3016.5 | 2786.1 | 2294.2 | 2040.3 |
| 17.5° | 2001.9 | 1997.4 | 2004.9 | 2011.8 | 2094.7 | 2289.2 | 2687.3 | 3093.3 | 2932.2 | 2386.5 | 2076.2 |
| 20° | 2050.3 | 2044.3 | 2043.3 | 2037.8 | 2072.2 | 2204.9 | 2526.2 | 3098.8 | 3063.4 | 2470.3 | 2107.1 |
| 22.5° | 2191.4 | 2184.4 | 2160.0 | 2138.1 | 2141.0 | 2216.4 | 2454.3 | 3044.0 | 3162.2 | 2548.6 | 2126.6 |
| 25° | 2447.3 | 2435.9 | 2385.0 | 2311.2 | 2264.3 | 2296.2 | 2465.3 | 2971.6 | 3256.5 | 2610.0 | 2117.1 |
| 27.5° | 2767.6 | 2752.6 | 2687.3 | 2577.5 | 2470.3 | 2431.4 | 2544.6 | 2921.7 | 3334.8 | 2656.9 | 2096.7 |
| 30° | 3081.4 | 3061.9 | 2997.6 | 2912.3 | 2755.6 | 2632.9 | 2687.8 | 2943.7 | 3428.1 | 2705.7 | 2069.7 |
| 32.5° | 3420.1 | 3401.6 | 3316.3 | 3210.6 | 3080.9 | 2915.8 | 2883.8 | 3050.9 | 3542.3 | 2774.1 | 2050.8 |
| 35° | 3848.6 | 3819.7 | 3698.4 | 3554.3 | 3416.6 | 3249.5 | 3149.2 | 3236.0 | 3694.5 | 2878.3 | 2061.2 |
| 37.5° | 4336.5 | 4297.6 | 4166.9 | 3967.8 | 3788.2 | 3601.2 | 3472.5 | 3490.4 | 3917.4 | 3018.0 | 2093.7 |
| 40° | 4796.4 | 4761.0 | 4640.3 | 4452.7 | 4227.2 | 4000.2 | 3863.1 | 3823.2 | 4225.2 | 3188.1 | 2150.5 |
| 42.5° | 5072.3 | 5040.3 | 4989.5 | 4910.1 | 4720.1 | 4488.6 | 4315.5 | 4229.2 | 4589.4 | 3391.7 | 2219.9 |
| 45° | 5087.7 | 5059.8 | 5128.1 | 5220.4 | 5183.0 | 5028.9 | 4817.9 | 4659.7 | 4955.0 | 3582.7 | 2291.7 |
| 47.5° | 4840.3 | 4821.3 | 5028.9 | 5351.1 | 5511.8 | 5576.6 | 5382.1 | 5054.3 | 5256.8 | 3719.9 | 2321.1 |
| 50° | 4165.9 | 4158.9 | 4585.9 | 5177.5 | 5637.0 | 6056.5 | 5977.2 | 5421.5 | 5490.8 | 3790.7 | 2293.2 |
| 52.5° | 3612.1 | 3586.7 | 3835.6 | 4621.8 | 5454.9 | 6308.9 | 6558.8 | 5781.6 | 5654.4 | 3804.2 | 2227.8 |
| 55° | 2739.7 | 2717.2 | 3029.5 | 3692.0 | 4867.7 | 6219.1 | 6984.3 | 6153.3 | 5771.6 | 3769.8 | 2110.6 |
| 57.5° | 1469.6 | 1455.6 | 1850.2 | 2457.3 | 3805.2 | 5680.4 | 7061.2 | 6546.4 | 5870.4 | 3678.5 | 1946.5 |
| 60° | 572.2 | 569.7 | 717.3 | 1192.2 | 2312.7 | 4621.3 | 6673.6 | 6782.3 | 5932.3 | 3566.3 | 1809.3 |
| 62.5° | 346.2 | 353.7 | 377.6 | 535.3 | 1021.6 | 2870.9 | 5780.1 | 6513.9 | 5973.7 | 3463.5 | 1696.1 |
| 65° | 286.3 | 286.8 | 289.8 | 367.6 | 489.4 | 1201.2 | 4351.4 | 5631.0 | 5871.4 | 3280.4 | 1535.4 |
| 67.5° | 245.4 | 249.9 | 261.4 | 291.8 | 345.2 | 526.8 | 2505.2 | 4361.9 | 5249.4 | 2854.4 | 1285.0 |
| 70° | 193.6 | 199.5 | 214.0 | 239.9 | 266.4 | 329.7 | 925.9 | 2902.3 | 4010.2 | 2151.5 | 971.8 |
| 72.5° | 163.1 | 162.6 | 170.1 | 195.0 | 211.5 | 232.0 | 356.2 | 1626.2 | 2330.6 | 1027.1 | 480.9 |
| 75° | 126.2 | 131.2 | 140.7 | 163.1 | 173.1 | 168.1 | 193.1 | 594.1 | 835.1 | 311.3 | 163.6 |
| 77.5° | 98.8 | 102.8 | 111.2 | 133.2 | 143.2 | 119.2 | 111.2 | 212.5 | 268.4 | 111.7 | 73.8 |
| 80° | 44.4 | 47.9 | 75.8 | 98.3 | 116.7 | 82.3 | 60.4 | 108.7 | 119.2 | 50.9 | 37.4 |
| 82.5° | 8.0 | 13.5 | 44.4 | 51.9 | 59.9 | 53.4 | 31.4 | 56.4 | 58.4 | 20.5 | 13.0 |
| 85° | 0.5 | 1.0 | 15.5 | 19.0 | 23.9 | 17.5 | 9.5 | 22.4 | 19.5 | 7.0 | 5.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.5 | 0.5 | 2.5 | 3.0 | 4.0 | 3.0 | 2.5 | 2.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Scaled Data Report

REPORT NUMBER: P1199325
CATALOG NUMBER: GPC-SB2A-760-U-AFL-HSS

**CANDELA DISTRIBUTION (continued):**

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1949.5 | 1949.5 | 1949.5 | 1949.5 | 1949.5 | 1949.5 | 1949.5 | 1949.5 | 1949.5 | 1949.5 |
| 2.5° | 1918.1 | 1847.2 | 1778.4 | 1722.0 | 1689.1 | 1633.2 | 1596.3 | 1590.3 | 1574.9 | 1588.3 |
| 5° | 1881.1 | 1754.4 | 1626.2 | 1511.5 | 1417.2 | 1295.5 | 1204.7 | 1166.3 | 1132.9 | 1144.4 |
| 7.5° | 1863.7 | 1663.7 | 1464.1 | 1268.1 | 1066.5 | 872.0 | 727.3 | 667.0 | 621.1 | 627.5 |
| 10° | 1840.2 | 1569.4 | 1256.6 | 957.3 | 687.4 | 495.4 | 395.6 | 358.7 | 338.2 | 338.7 |
| 12.5° | 1822.3 | 1456.6 | 1015.7 | 649.0 | 418.5 | 316.3 | 285.3 | 276.4 | 270.4 | 270.9 |
| 15° | 1813.3 | 1323.9 | 777.7 | 432.5 | 299.3 | 267.9 | 260.4 | 256.4 | 252.4 | 251.9 |
| 17.5° | 1798.3 | 1176.3 | 569.2 | 315.8 | 261.9 | 250.9 | 244.4 | 239.9 | 235.0 | 234.0 |
| 20° | 1775.9 | 1008.7 | 416.0 | 266.9 | 245.4 | 237.0 | 228.0 | 222.0 | 216.0 | 215.0 |
| 22.5° | 1734.5 | 831.6 | 319.8 | 246.9 | 233.5 | 224.0 | 213.0 | 206.0 | 200.0 | 199.0 |
| 25° | 1657.7 | 665.5 | 269.4 | 234.5 | 223.0 | 211.5 | 199.5 | 190.1 | 184.6 | 183.6 |
| 27.5° | 1560.4 | 522.8 | 244.4 | 223.0 | 209.5 | 199.0 | 185.6 | 176.6 | 171.6 | 170.6 |
| 30° | 1445.7 | 402.6 | 230.0 | 210.0 | 193.6 | 184.6 | 172.6 | 165.1 | 162.1 | 162.1 |
| 32.5° | 1321.9 | 321.8 | 224.0 | 197.0 | 179.6 | 169.6 | 160.1 | 157.1 | 156.1 | 155.6 |
| 35° | 1205.7 | 279.4 | 221.0 | 186.6 | 167.1 | 157.6 | 153.6 | 154.1 | 156.1 | 156.1 |
| 37.5° | 1102.4 | 265.9 | 219.5 | 179.1 | 156.1 | 147.7 | 150.2 | 154.6 | 152.6 | 152.6 |
| 40° | 1009.2 | 267.4 | 218.5 | 173.6 | 147.2 | 142.2 | 147.2 | 143.7 | 138.7 | 138.2 |
| 42.5° | 937.8 | 279.9 | 216.5 | 169.1 | 141.7 | 138.2 | 136.2 | 130.7 | 130.2 | 131.2 |
| 45° | 886.0 | 290.8 | 216.0 | 167.1 | 135.7 | 129.2 | 126.7 | 121.2 | 131.2 | 133.7 |
| 47.5° | 824.6 | 290.8 | 216.0 | 160.1 | 125.7 | 123.2 | 119.2 | 113.2 | 123.2 | 125.7 |
| 50° | 745.3 | 272.4 | 207.5 | 152.1 | 117.7 | 116.2 | 109.2 | 101.8 | 99.8 | 101.3 |
| 52.5° | 645.0 | 238.9 | 186.1 | 141.2 | 109.7 | 106.8 | 98.3 | 92.8 | 91.3 | 91.3 |
| 55° | 530.8 | 200.0 | 157.1 | 125.2 | 101.3 | 95.8 | 89.8 | 87.3 | 85.8 | 84.8 |
| 57.5° | *431.5* | *164.1* | *126.2* | *111.2* | *93.3* | *86.3* | *84.3* | *81.3* | *78.8* | *77.3* |
| 60° | 354.2 | 129.2 | 104.3 | 98.8 | 85.3 | 78.8 | 78.3 | 74.3 | 67.8 | 66.8 |
| 62.5° | 273.4 | 94.8 | 87.8 | 85.8 | 77.3 | 71.8 | 70.8 | 62.9 | 52.9 | 50.9 |
| 65° | 193.1 | 73.8 | 70.8 | 75.3 | 68.8 | 63.9 | 61.4 | 49.4 | 38.9 | 37.4 |
| 67.5° | 135.7 | 61.9 | 55.9 | 65.8 | 59.9 | 53.4 | 51.9 | 41.9 | 32.4 | 31.4 |
| 70° | 96.8 | 50.4 | 45.9 | 56.4 | 47.9 | 46.9 | 43.9 | 34.9 | 26.4 | 25.4 |
| 72.5° | 68.3 | 38.4 | 35.4 | 48.9 | 32.9 | 40.4 | 35.9 | 26.9 | 20.0 | 19.0 |
| 75° | 50.4 | 27.4 | 24.9 | 28.4 | 23.9 | 30.4 | 25.4 | 18.0 | 12.5 | 12.0 |
| 77.5° | 36.9 | 17.5 | 15.0 | 14.0 | 14.0 | 19.0 | 14.0 | 7.5 | 5.5 | 5.0 |
| 80° | 25.9 | 8.0 | 7.0 | 6.0 | 5.5 | 4.5 | 2.0 | 1.0 | 0.5 | 0.5 |
| 82.5° | 15.5 | 3.5 | 3.5 | 2.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 3.5 | 1.5 | 1.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |


HS
SS

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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

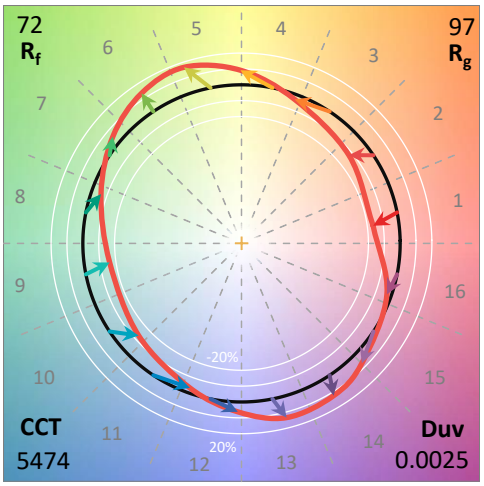
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-9-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-760-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

***THIS IS A REVISION OF SP1-1908-441-4-R3. TO UPDATE THE CATALOG INFORMATION.***TESTED IN SITU. ROADWAY AND AREA LUMINAIRE. (1) 70 CRI, 5000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 5474 | CRI (Ra): | 71.7 | | |
| CIE u': | 0.2052 | R1: | 70.6 | R9: | -27.1 |
| CIE v': | 0.4804 | R2: | 74.6 | R10: | 40.8 |
| Duv: | 0.0025 | R3: | 78.3 | R11: | 74.6 |
| CIE x: | 0.3330 | R4: | 73.8 | R12: | 50.4 |
| CIE y: | 0.3466 | R5: | 72.4 | R13: | 70.0 |
| CIE z: | 0.3204 | R6: | 67.5 | R14: | 87.8 |
| Peak Wavelength (nm): | 442 | R7: | 77.5 | | |
| Dominant Wavelength (nm): | 554 | R8: | 58.9 | | |
| Purity: | 4.1 | | | | |

| | |
|---|---|
| Rf: | 72.1 |
| Rg: | 97.2 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 240M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 24.6/31% |
| Sphere Temperature (°C): | 25.9 |

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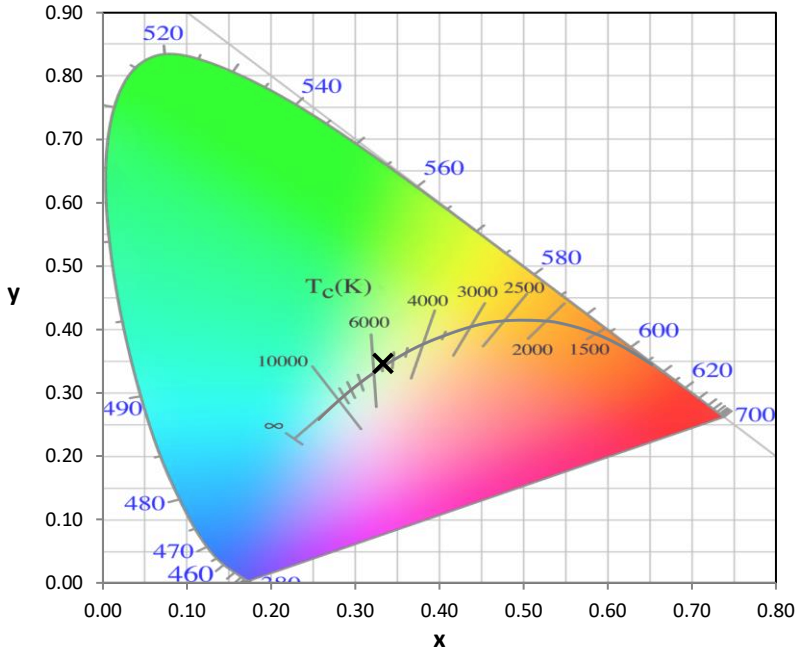
REPORT NUMBER: SP1-1908-441-9-R4

| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/28/2019 | 12/28/2019 |
| Power Meter | IN0071 | 12/5/2018 | 12/5/2019 |
| AC Power Source | IN0063 | 12/5/2018 | 12/5/2019 |
| DC Power Source | IN0208 | 12/5/2018 | 12/5/2019 |
| Sphere Thermometer | IN0085 | 12/5/2018 | 12/5/2019 |
| Room Thermometer | IN0046 | 12/5/2018 | 12/5/2019 |

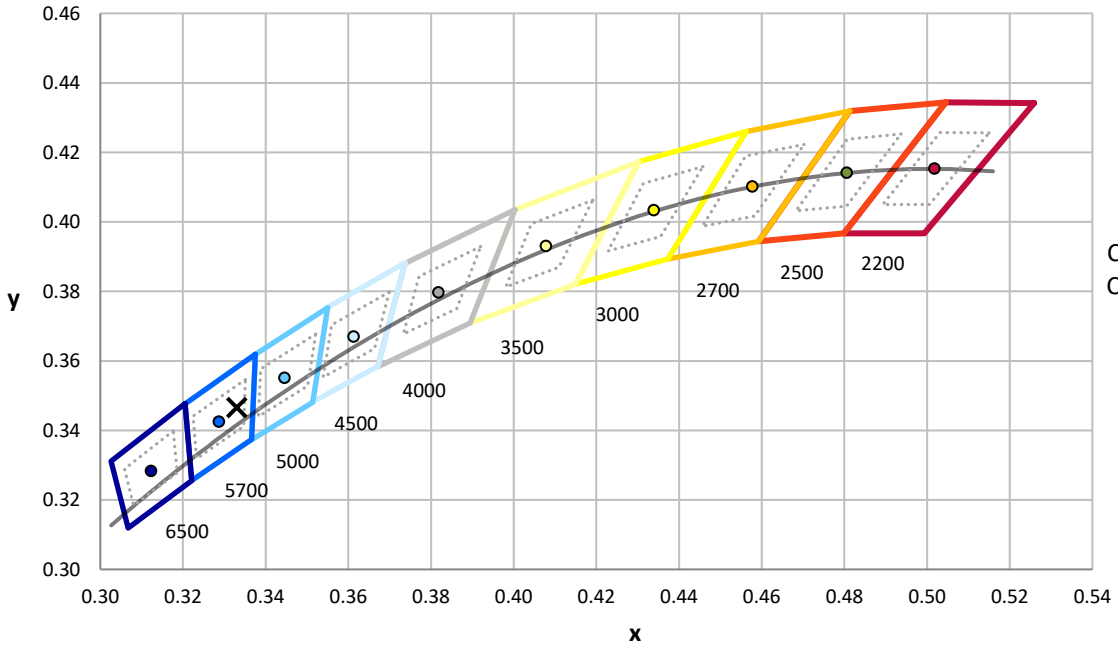
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REPORT NUMBER: SP1-1908-441-9-R4

## CIE 1931 Chromaticity Diagram




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



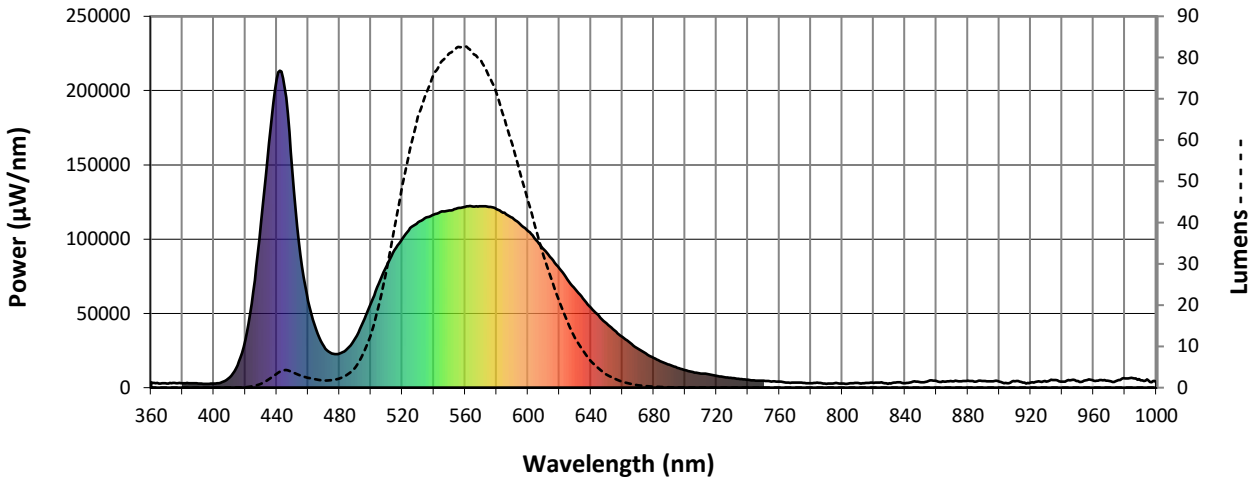

CCT = 5474K
CIE x = 0.3330
CIE y = 0.3466
Duv = 0.0025

Point lies inside the ANSI 5700K 4-step quadrangle

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-9-R4

## Photopic Flux vs. Wavelength



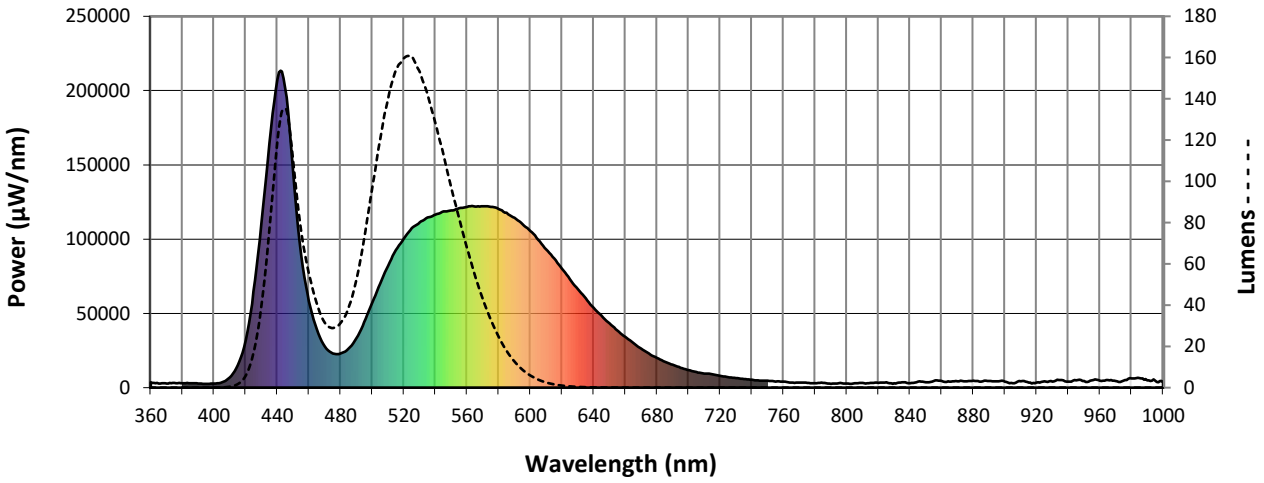

**Photopic Lumens: 7459.9**

| λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 3540 | 0.0 | 490 | 33363 | 4.7 | 620 | 80193 | 20.9 | 750 | 4663 | 0.0 | 880 | 4678 | 0.0 |
| 365 | 2862 | 0.0 | 495 | 44177 | 8.0 | 625 | 73091 | 16.1 | 755 | 4147 | 0.0 | 885 | 4128 | 0.0 |
| 370 | 2865 | 0.0 | 500 | 57019 | 12.6 | 630 | 66269 | 12.0 | 760 | 4040 | 0.0 | 890 | 4504 | 0.0 |
| 375 | 3254 | 0.0 | 505 | 70030 | 19.6 | 635 | 60012 | 9.0 | 765 | 3474 | 0.0 | 895 | 4371 | 0.0 |
| 380 | 3076 | 0.0 | 510 | 81972 | 28.2 | 640 | 53914 | 6.4 | 770 | 3469 | 0.0 | 900 | 4082 | 0.0 |
| 385 | 2904 | 0.0 | 515 | 92590 | 38.4 | 645 | 48385 | 4.7 | 775 | 3181 | 0.0 | 905 | 2982 | 0.0 |
| 390 | 2689 | 0.0 | 520 | 100305 | 48.6 | 650 | 43219 | 3.2 | 780 | 2969 | 0.0 | 910 | 4351 | 0.0 |
| 395 | 2619 | 0.0 | 525 | 107452 | 57.7 | 655 | 38562 | 2.2 | 785 | 3132 | 0.0 | 915 | 3365 | 0.0 |
| 400 | 2679 | 0.0 | 530 | 111373 | 65.6 | 660 | 34110 | 1.4 | 790 | 2507 | 0.0 | 920 | 3430 | 0.0 |
| 405 | 3515 | 0.0 | 535 | 114505 | 71.0 | 665 | 30085 | 1.0 | 795 | 2968 | 0.0 | 925 | 4264 | 0.0 |
| 410 | 6934 | 0.0 | 540 | 116408 | 75.8 | 670 | 26205 | 0.6 | 800 | 2758 | 0.0 | 930 | 4095 | 0.0 |
| 415 | 14943 | 0.0 | 545 | 118700 | 79.0 | 675 | 22906 | 0.4 | 805 | 2872 | 0.0 | 935 | 5048 | 0.0 |
| 420 | 31939 | 0.1 | 550 | 119209 | 81.0 | 680 | 20058 | 0.2 | 810 | 3094 | 0.0 | 940 | 4074 | 0.0 |
| 425 | 64701 | 0.3 | 555 | 120742 | 82.5 | 685 | 17413 | 0.1 | 815 | 3222 | 0.0 | 945 | 4949 | 0.0 |
| 430 | 110939 | 0.9 | 560 | 121594 | 82.6 | 690 | 15447 | 0.1 | 820 | 3238 | 0.0 | 950 | 4387 | 0.0 |
| 435 | 164597 | 1.9 | 565 | 121913 | 81.1 | 695 | 13398 | 0.1 | 825 | 3524 | 0.0 | 955 | 4978 | 0.0 |
| 440 | 207696 | 3.3 | 570 | 122147 | 79.4 | 700 | 11777 | 0.0 | 830 | 2921 | 0.0 | 960 | 4706 | 0.0 |
| 445 | 201830 | 4.2 | 575 | 121605 | 75.7 | 705 | 10412 | 0.0 | 835 | 3595 | 0.0 | 965 | 5083 | 0.0 |
| 450 | 145410 | 3.8 | 580 | 120248 | 71.5 | 710 | 9544 | 0.0 | 840 | 3016 | 0.0 | 970 | 4522 | 0.0 |
| 455 | 89594 | 3.0 | 585 | 117717 | 65.4 | 715 | 8940 | 0.0 | 845 | 4032 | 0.0 | 975 | 4740 | 0.0 |
| 460 | 58321 | 2.4 | 590 | 114359 | 59.1 | 720 | 7897 | 0.0 | 850 | 3579 | 0.0 | 980 | 6122 | 0.0 |
| 465 | 39318 | 2.0 | 595 | 109974 | 52.1 | 725 | 7045 | 0.0 | 855 | 4571 | 0.0 | 985 | 6450 | 0.0 |
| 470 | 27693 | 1.7 | 600 | 105269 | 45.4 | 730 | 6483 | 0.0 | 860 | 4485 | 0.0 | 990 | 4875 | 0.0 |
| 475 | 23081 | 1.8 | 605 | 99453 | 38.5 | 735 | 5838 | 0.0 | 865 | 3978 | 0.0 | 995 | 4764 | 0.0 |
| 480 | 23002 | 2.2 | 610 | 92921 | 31.9 | 740 | 5261 | 0.0 | 870 | 4298 | 0.0 | 1000 | 3640 | 0.0 |
| 485 | 26201 | 3.1 | 615 | 86989 | 26.3 | 745 | 4760 | 0.0 | 875 | 4356 | 0.0 | | | |

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## Scotopic Flux vs. Wavelength



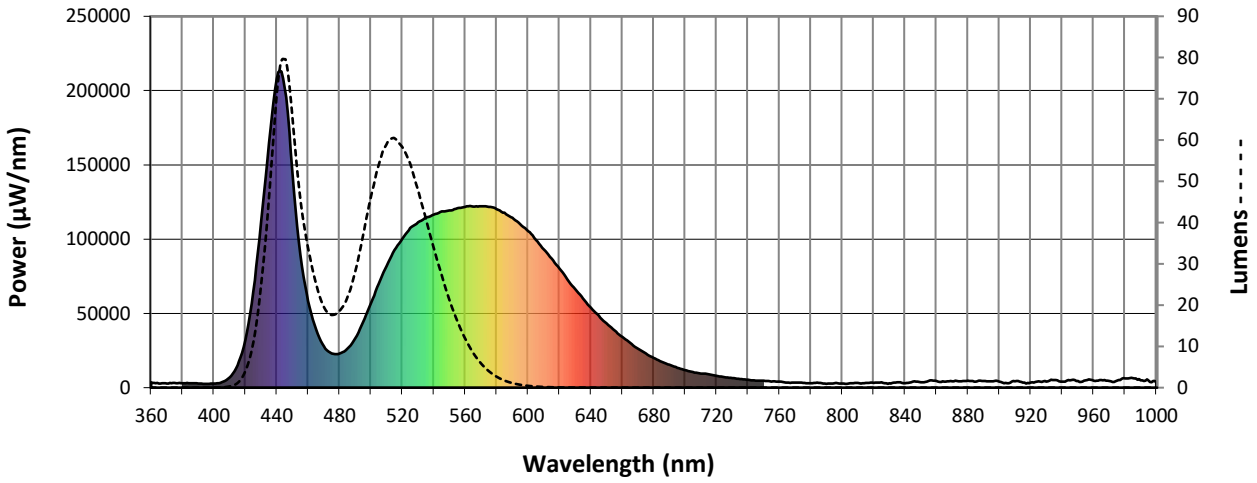

**Scotopic Lumens: 13759.3** **S/P: 1.85**

| λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 3540 | 0.0 | 490 | 33363 | 27.8 | 620 | 80193 | 0.1 | 750 | 4663 | 0.0 | 880 | 4678 | 0.0 |
| 365 | 2862 | 0.0 | 495 | 44177 | 36.5 | 625 | 73091 | 0.0 | 755 | 4147 | 0.0 | 885 | 4128 | 0.0 |
| 370 | 2865 | 0.0 | 500 | 57019 | 45.8 | 630 | 66269 | 0.0 | 760 | 4040 | 0.0 | 890 | 4504 | 0.0 |
| 375 | 3254 | 0.0 | 505 | 70030 | 53.7 | 635 | 60012 | 0.0 | 765 | 3474 | 0.0 | 895 | 4371 | 0.0 |
| 380 | 3076 | 0.0 | 510 | 81972 | 58.9 | 640 | 53914 | 0.0 | 770 | 3469 | 0.0 | 900 | 4082 | 0.0 |
| 385 | 2904 | 0.0 | 515 | 92590 | 60.5 | 645 | 48385 | 0.0 | 775 | 3181 | 0.0 | 905 | 2982 | 0.0 |
| 390 | 2689 | 0.0 | 520 | 100305 | 58.4 | 650 | 43219 | 0.0 | 780 | 2969 | 0.0 | 910 | 4351 | 0.0 |
| 395 | 2619 | 0.0 | 525 | 107452 | 54.5 | 655 | 38562 | 0.0 | 785 | 3132 | 0.0 | 915 | 3365 | 0.0 |
| 400 | 2679 | 0.0 | 530 | 111373 | 48.1 | 660 | 34110 | 0.0 | 790 | 2507 | 0.0 | 920 | 3430 | 0.0 |
| 405 | 3515 | 0.1 | 535 | 114505 | 41.2 | 665 | 30085 | 0.0 | 795 | 2968 | 0.0 | 925 | 4264 | 0.0 |
| 410 | 6934 | 0.3 | 540 | 116408 | 34.1 | 670 | 26205 | 0.0 | 800 | 2758 | 0.0 | 930 | 4095 | 0.0 |
| 415 | 14943 | 1.0 | 545 | 118700 | 27.6 | 675 | 22906 | 0.0 | 805 | 2872 | 0.0 | 935 | 5048 | 0.0 |
| 420 | 31939 | 3.6 | 550 | 119209 | 21.4 | 680 | 20058 | 0.0 | 810 | 3094 | 0.0 | 940 | 4074 | 0.0 |
| 425 | 64701 | 10.1 | 555 | 120742 | 16.3 | 685 | 17413 | 0.0 | 815 | 3222 | 0.0 | 945 | 4949 | 0.0 |
| 430 | 110939 | 23.4 | 560 | 121594 | 12.0 | 690 | 15447 | 0.0 | 820 | 3238 | 0.0 | 950 | 4387 | 0.0 |
| 435 | 164597 | 43.9 | 565 | 121913 | 8.6 | 695 | 13398 | 0.0 | 825 | 3524 | 0.0 | 955 | 4978 | 0.0 |
| 440 | 207696 | 69.4 | 570 | 122147 | 6.0 | 700 | 11777 | 0.0 | 830 | 2921 | 0.0 | 960 | 4706 | 0.0 |
| 445 | 201830 | 79.6 | 575 | 121605 | 4.0 | 705 | 10412 | 0.0 | 835 | 3595 | 0.0 | 965 | 5083 | 0.0 |
| 450 | 145410 | 67.0 | 580 | 120248 | 2.7 | 710 | 9544 | 0.0 | 840 | 3016 | 0.0 | 970 | 4522 | 0.0 |
| 455 | 89594 | 46.9 | 585 | 117717 | 1.7 | 715 | 8940 | 0.0 | 845 | 4032 | 0.0 | 975 | 4740 | 0.0 |
| 460 | 58321 | 34.4 | 590 | 114359 | 1.1 | 720 | 7897 | 0.0 | 850 | 3579 | 0.0 | 980 | 6122 | 0.0 |
| 465 | 39318 | 25.7 | 595 | 109974 | 0.7 | 725 | 7045 | 0.0 | 855 | 4571 | 0.0 | 985 | 6450 | 0.0 |
| 470 | 27693 | 19.8 | 600 | 105269 | 0.4 | 730 | 6483 | 0.0 | 860 | 4485 | 0.0 | 990 | 4875 | 0.0 |
| 475 | 23081 | 17.6 | 605 | 99453 | 0.3 | 735 | 5838 | 0.0 | 865 | 3978 | 0.0 | 995 | 4764 | 0.0 |
| 480 | 23002 | 18.5 | 610 | 92921 | 0.2 | 740 | 5261 | 0.0 | 870 | 4298 | 0.0 | 1000 | 3640 | 0.0 |
| 485 | 26201 | 21.6 | 615 | 86989 | 0.1 | 745 | 4760 | 0.0 | 875 | 4356 | 0.0 | | | |

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 5527.6** **M/P: 0.74**

| λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 3540 | 0.0 | 490 | 33363 | 51.4 | 620 | 80193 | 1.0 | 750 | 4663 | 0.0 | 880 | 4678 | 0.0 |
| 365 | 2862 | 0.0 | 495 | 44177 | 71.4 | 625 | 73091 | 0.6 | 755 | 4147 | 0.0 | 885 | 4128 | 0.0 |
| 370 | 2865 | 0.0 | 500 | 57019 | 95.4 | 630 | 66269 | 0.4 | 760 | 4040 | 0.0 | 890 | 4504 | 0.0 |
| 375 | 3254 | 0.0 | 505 | 70030 | 119.1 | 635 | 60012 | 0.2 | 765 | 3474 | 0.0 | 895 | 4371 | 0.0 |
| 380 | 3076 | 0.0 | 510 | 81972 | 138.9 | 640 | 53914 | 0.1 | 770 | 3469 | 0.0 | 900 | 4082 | 0.0 |
| 385 | 2904 | 0.0 | 515 | 92590 | 153.5 | 645 | 48385 | 0.1 | 775 | 3181 | 0.0 | 905 | 2982 | 0.0 |
| 390 | 2689 | 0.0 | 520 | 100305 | 159.4 | 650 | 43219 | 0.0 | 780 | 2969 | 0.0 | 910 | 4351 | 0.0 |
| 395 | 2619 | 0.0 | 525 | 107452 | 160.7 | 655 | 38562 | 0.0 | 785 | 3132 | 0.0 | 915 | 3365 | 0.0 |
| 400 | 2679 | 0.0 | 530 | 111373 | 153.5 | 660 | 34110 | 0.0 | 790 | 2507 | 0.0 | 920 | 3430 | 0.0 |
| 405 | 3515 | 0.1 | 535 | 114505 | 142.7 | 665 | 30085 | 0.0 | 795 | 2968 | 0.0 | 925 | 4264 | 0.0 |
| 410 | 6934 | 0.4 | 540 | 116408 | 128.6 | 670 | 26205 | 0.0 | 800 | 2758 | 0.0 | 930 | 4095 | 0.0 |
| 415 | 14943 | 1.5 | 545 | 118700 | 113.8 | 675 | 22906 | 0.0 | 805 | 2872 | 0.0 | 935 | 5048 | 0.0 |
| 420 | 31939 | 5.3 | 550 | 119209 | 97.5 | 680 | 20058 | 0.0 | 810 | 3094 | 0.0 | 940 | 4074 | 0.0 |
| 425 | 64701 | 15.8 | 555 | 120742 | 82.5 | 685 | 17413 | 0.0 | 815 | 3222 | 0.0 | 945 | 4949 | 0.0 |
| 430 | 110939 | 37.8 | 560 | 121594 | 68.0 | 690 | 15447 | 0.0 | 820 | 3238 | 0.0 | 950 | 4387 | 0.0 |
| 435 | 164597 | 73.6 | 565 | 121913 | 54.7 | 695 | 13398 | 0.0 | 825 | 3524 | 0.0 | 955 | 4978 | 0.0 |
| 440 | 207696 | 116.1 | 570 | 122147 | 43.1 | 700 | 11777 | 0.0 | 830 | 2921 | 0.0 | 960 | 4706 | 0.0 |
| 445 | 201830 | 135.1 | 575 | 121605 | 33.1 | 705 | 10412 | 0.0 | 835 | 3595 | 0.0 | 965 | 5083 | 0.0 |
| 450 | 145410 | 112.7 | 580 | 120248 | 24.8 | 710 | 9544 | 0.0 | 840 | 3016 | 0.0 | 970 | 4522 | 0.0 |
| 455 | 89594 | 78.3 | 585 | 117717 | 18.0 | 715 | 8940 | 0.0 | 845 | 4032 | 0.0 | 975 | 4740 | 0.0 |
| 460 | 58321 | 56.3 | 590 | 114359 | 12.7 | 720 | 7897 | 0.0 | 850 | 3579 | 0.0 | 980 | 6122 | 0.0 |
| 465 | 39318 | 41.5 | 595 | 109974 | 8.8 | 725 | 7045 | 0.0 | 855 | 4571 | 0.0 | 985 | 6450 | 0.0 |
| 470 | 27693 | 31.9 | 600 | 105269 | 5.9 | 730 | 6483 | 0.0 | 860 | 4485 | 0.0 | 990 | 4875 | 0.0 |
| 475 | 23081 | 28.9 | 605 | 99453 | 3.9 | 735 | 5838 | 0.0 | 865 | 3978 | 0.0 | 995 | 4764 | 0.0 |
| 480 | 23002 | 31.1 | 610 | 92921 | 2.5 | 740 | 5261 | 0.0 | 870 | 4298 | 0.0 | 1000 | 3640 | 0.0 |
| 485 | 26201 | 38.0 | 615 | 86989 | 1.6 | 745 | 4760 | 0.0 | 875 | 4356 | 0.0 | | | |

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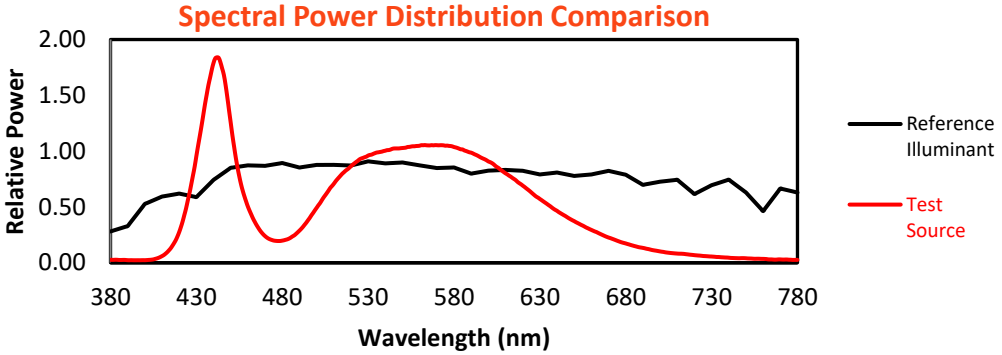
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# TM-30-18

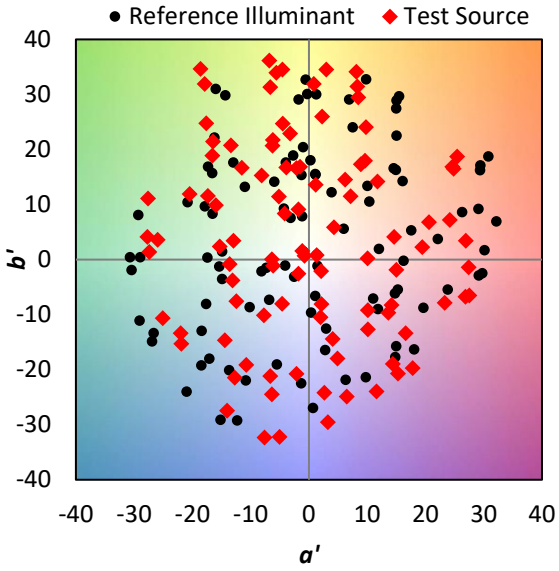
## Summary

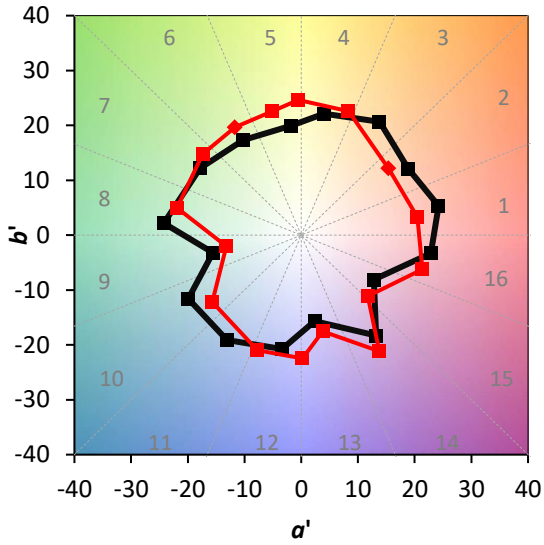
$R_f$ = 72.1
$R_g$ = 97.2
CIE $R_a$ = 71.7
$R_9$ = -27.1

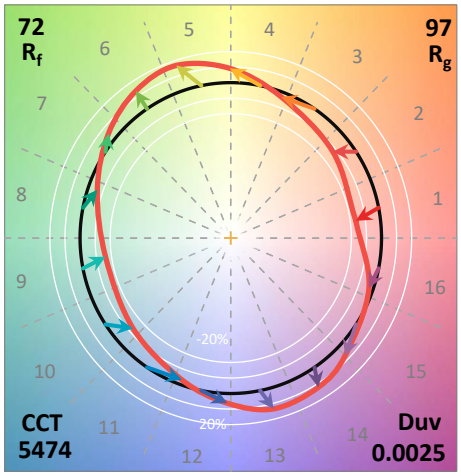
## Spectral Power Distribution Comparison

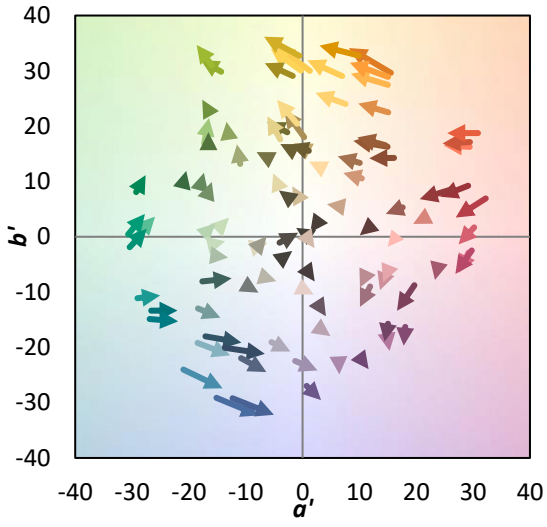



## Color Vector Graphics



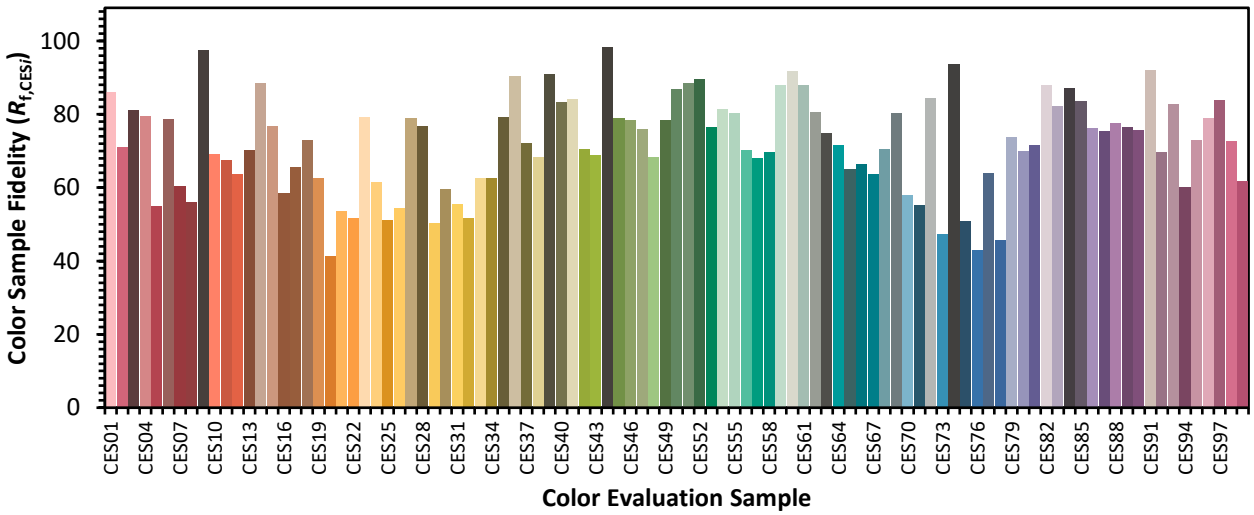
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Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 54 | CES51 = 88 | CES76 = 43 |
| CES02 = 59 | CES27 = 79 | CES52 = 90 | CES77 = 64 |
| CES03 = 30 | CES28 = 77 | CES53 = 77 | CES78 = 46 |
| CES04 = 69 | CES29 = 50 | CES54 = 81 | CES79 = 74 |
| CES05 = 46 | CES30 = 59 | CES55 = 80 | CES80 = 70 |
| CES06 = 50 | CES31 = 55 | CES56 = 70 | CES81 = 71 |
| CES07 = 38 | CES32 = 52 | CES57 = 68 | CES82 = 88 |
| CES08 = 38 | CES33 = 63 | CES58 = 70 | CES83 = 82 |
| CES09 = 29 | CES34 = 63 | CES59 = 88 | CES84 = 87 |
| CES10 = 72 | CES35 = 79 | CES60 = 92 | CES85 = 84 |
| CES11 = 55 | CES36 = 90 | CES61 = 88 | CES86 = 76 |
| CES12 = 61 | CES37 = 72 | CES62 = 81 | CES87 = 75 |
| CES13 = 41 | CES38 = 68 | CES63 = 75 | CES88 = 77 |
| CES14 = 74 | CES39 = 91 | CES64 = 72 | CES89 = 76 |
| CES15 = 70 | CES40 = 83 | CES65 = 65 | CES90 = 76 |
| CES16 = 46 | CES41 = 84 | CES66 = 66 | CES91 = 92 |
| CES17 = 48 | CES42 = 70 | CES67 = 64 | CES92 = 70 |
| CES18 = 55 | CES43 = 69 | CES68 = 71 | CES93 = 83 |
| CES19 = 70 | CES44 = 98 | CES69 = 80 | CES94 = 60 |
| CES20 = 64 | CES45 = 79 | CES70 = 58 | CES95 = 73 |
| CES21 = 85 | CES46 = 78 | CES71 = 55 | CES96 = 79 |
| CES22 = 77 | CES47 = 76 | CES72 = 84 | CES97 = 84 |
| CES23 = 91 | CES48 = 68 | CES73 = 47 | CES98 = 73 |
| CES24 = 90 | CES49 = 78 | CES74 = 94 | CES99 = 62 |
| CES25 = 71 | CES50 = 87 | CES75 = 51 | |

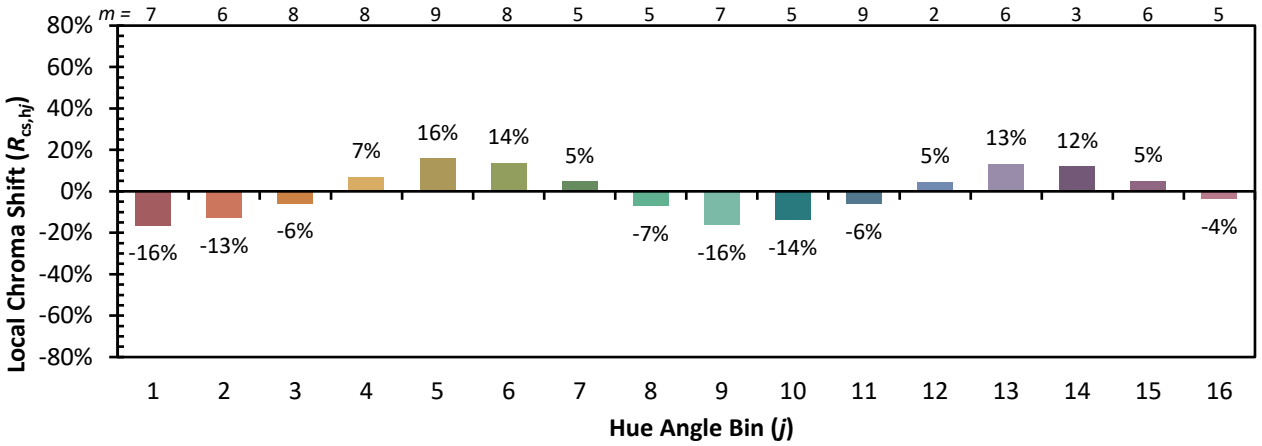


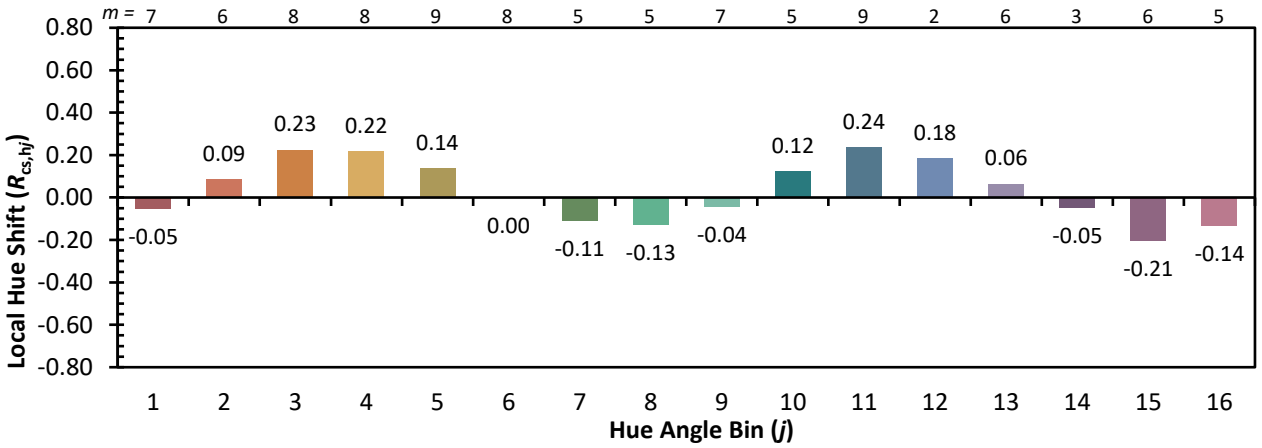
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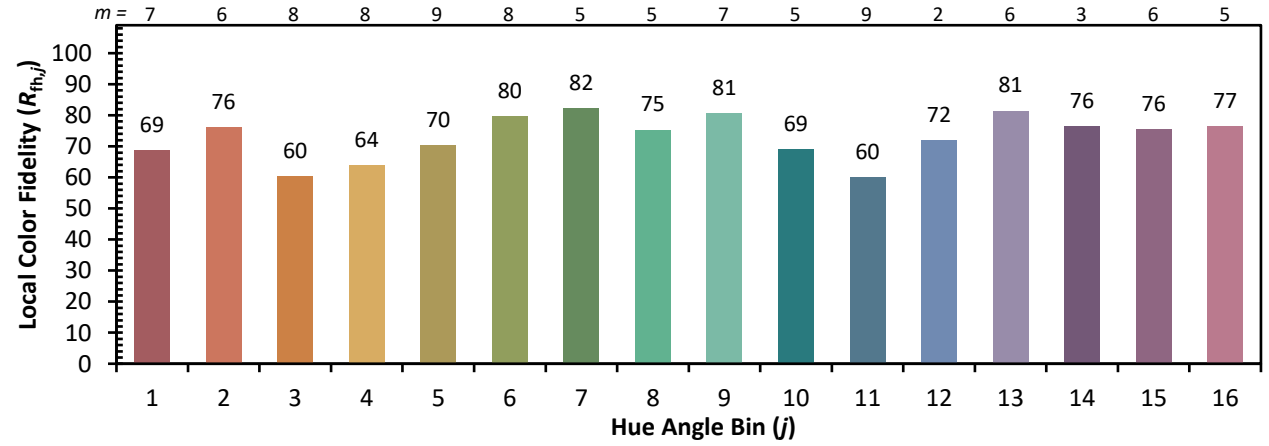
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**TM-30-18**

## Color Rendition by Hue-Angle Bin



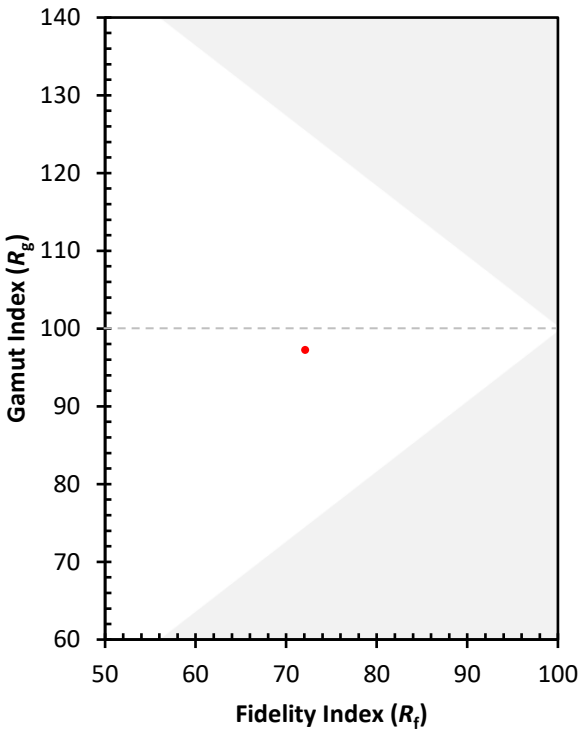



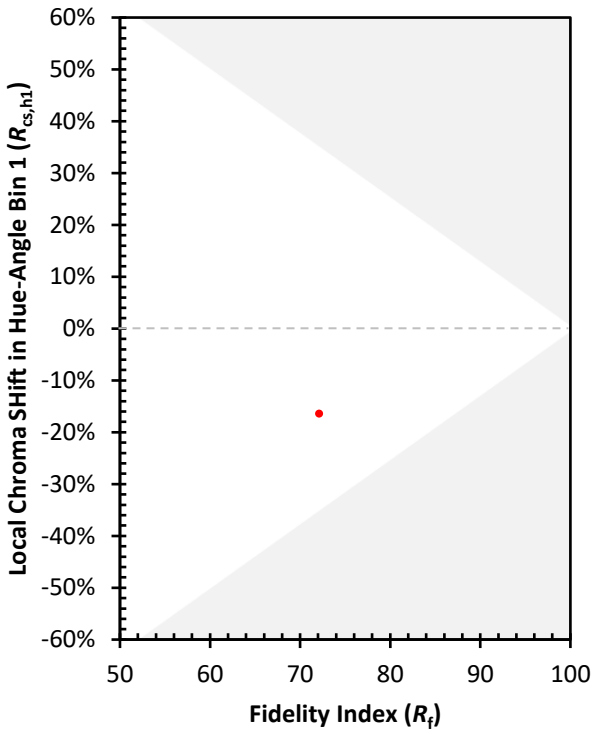
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### Measure Comparisons




(END OF REPORT)