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

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Peachtree City, GA 30269

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: STREETWORKS

Report Number: P1456101

Luminaire Tested: GLAN-SB6C-835-U-T2LG

Issue Date: 05/20/2026

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: | P1456101 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/22/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB6C-835-U-T2LG |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 6xLight Square PACKAGE 80CRI 3500K FIXTURE w/ TYPE II LOW GLARE |
| Light Source: | (156) 3500K CCT, 80 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 40764.5 lumens |
| Efficiency: | N/A |
| Efficacy: | 135.5 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B4 - U0 - G4 |

| | |
|---|---|
| Input Watts (W): | 300.9 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.97 |
| Total Harmonic Distortion (THDi): | NR |
| 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: P1456101
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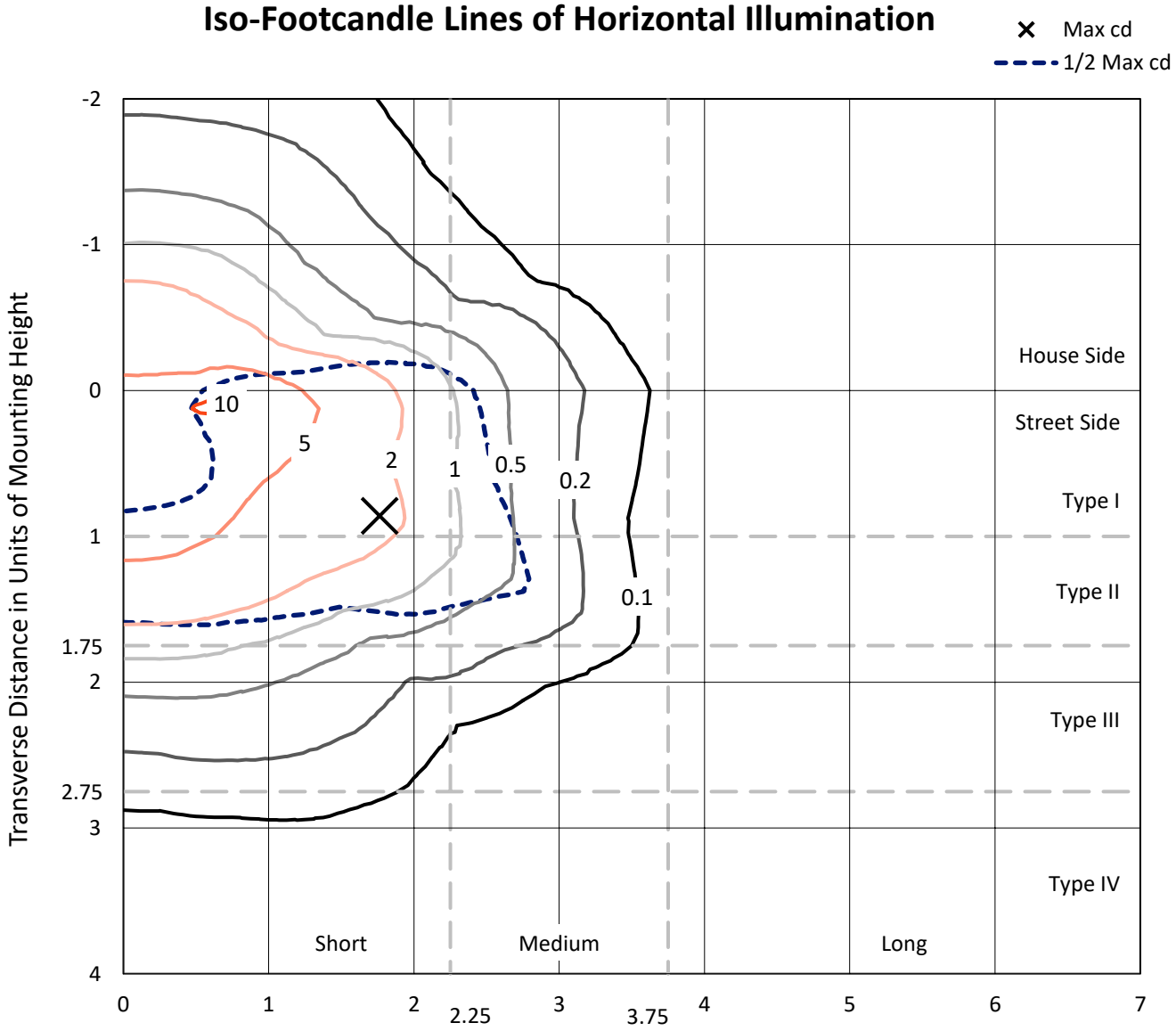
## Iso-Footcandle Lines of Horizontal Illumination




Based on 30 foot mounting height. Maximum calculated value = 10.6 fc
Type II - Short - N/A

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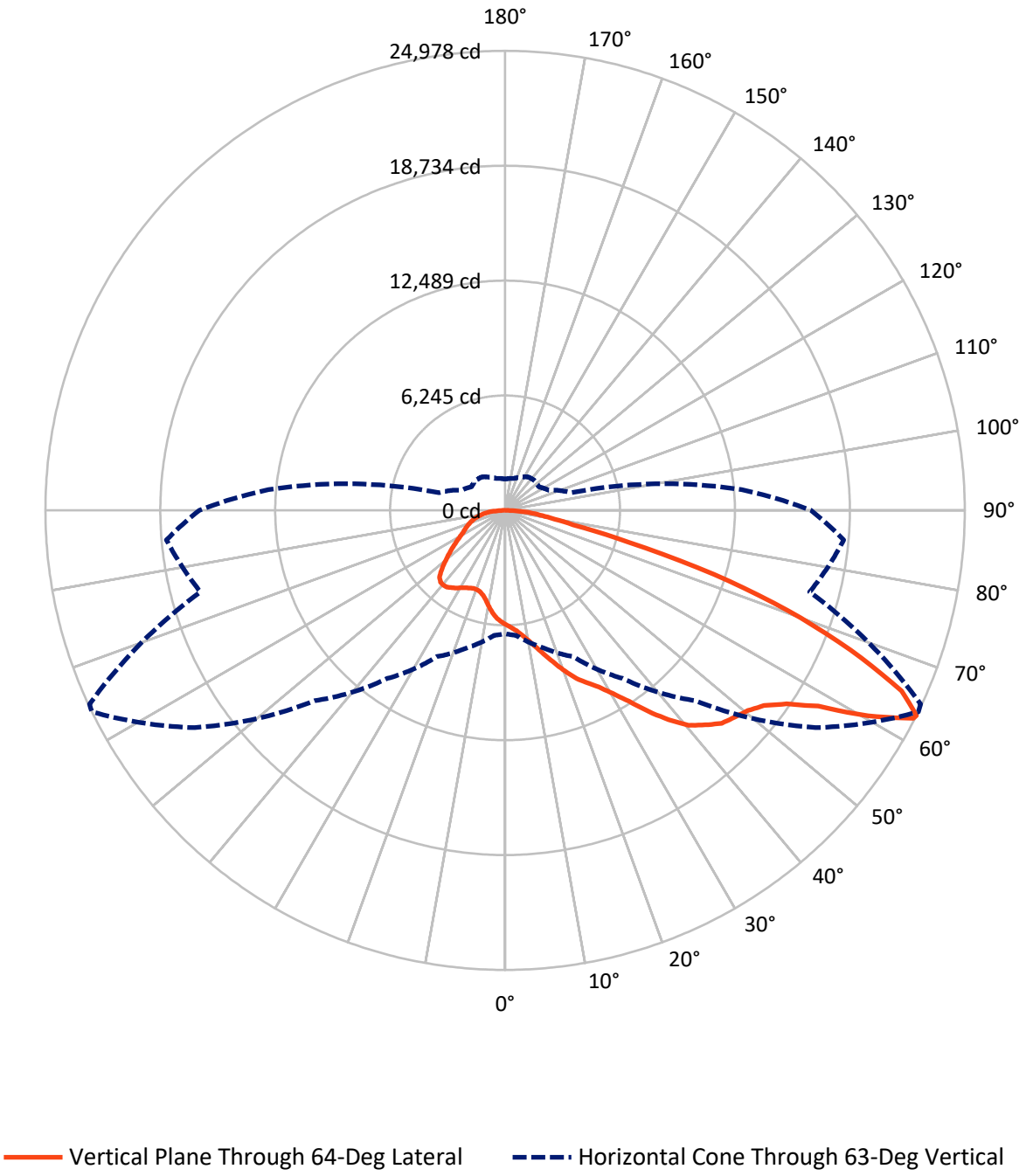
## Luminous Intensity Polar Plot



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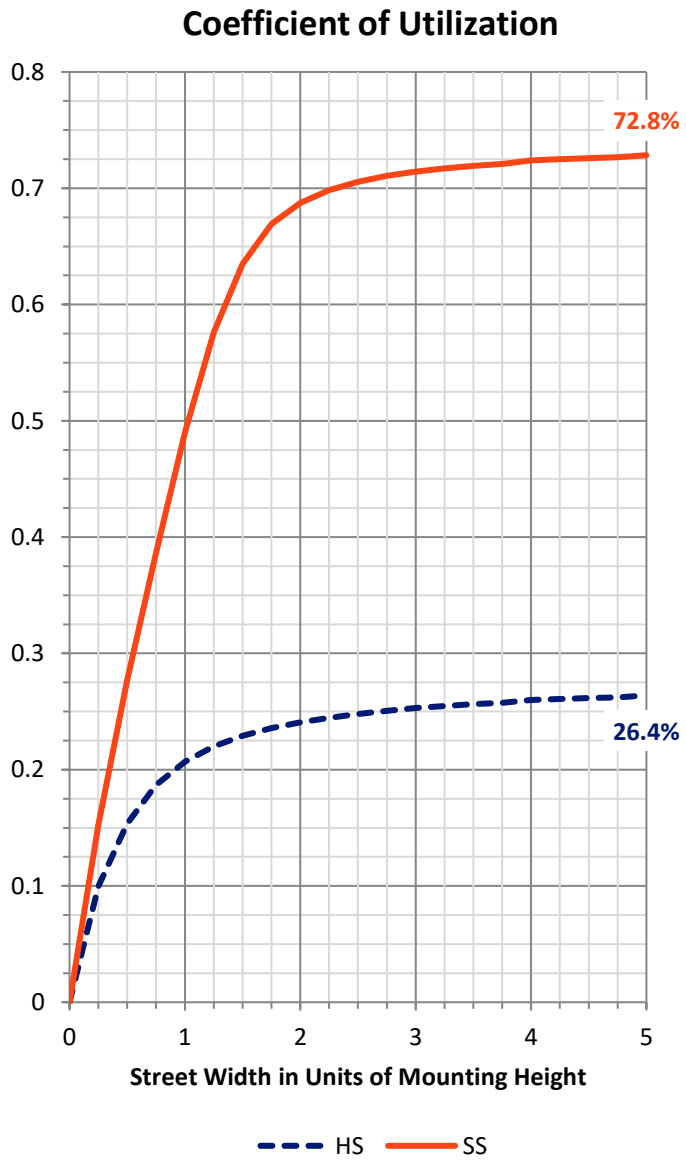
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 10952.3 | 0.0 | 10952.3 |
| | % Fixture | 26.9 | 0.0 | 26.9 |
| **Street Side** | Lumens | 29812.2 | 0.0 | 29812.2 |
| | % Fixture | 73.1 | 0.0 | 73.1 |
| **Total** | Lumens | 40764.5 | 0.0 | 40764.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 570.0 | 1.4 |
| 10°-20° | 1754.7 | 4.3 |
| 20°-30° | 3208.7 | 7.9 |
| 30°-40° | 5519.5 | 13.5 |
| 40°-50° | 8139.8 | 20.0 |
| 50°-60° | 9756.1 | 23.9 |
| 60°-70° | 7830.2 | 19.2 |
| 70°-80° | 3146.4 | 7.7 |
| 80°-90° | 839.0 | 2.1 |
| 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° | 40764.5 | 100.0 |
| 0°-180° | 40764.5 | 100.0 |



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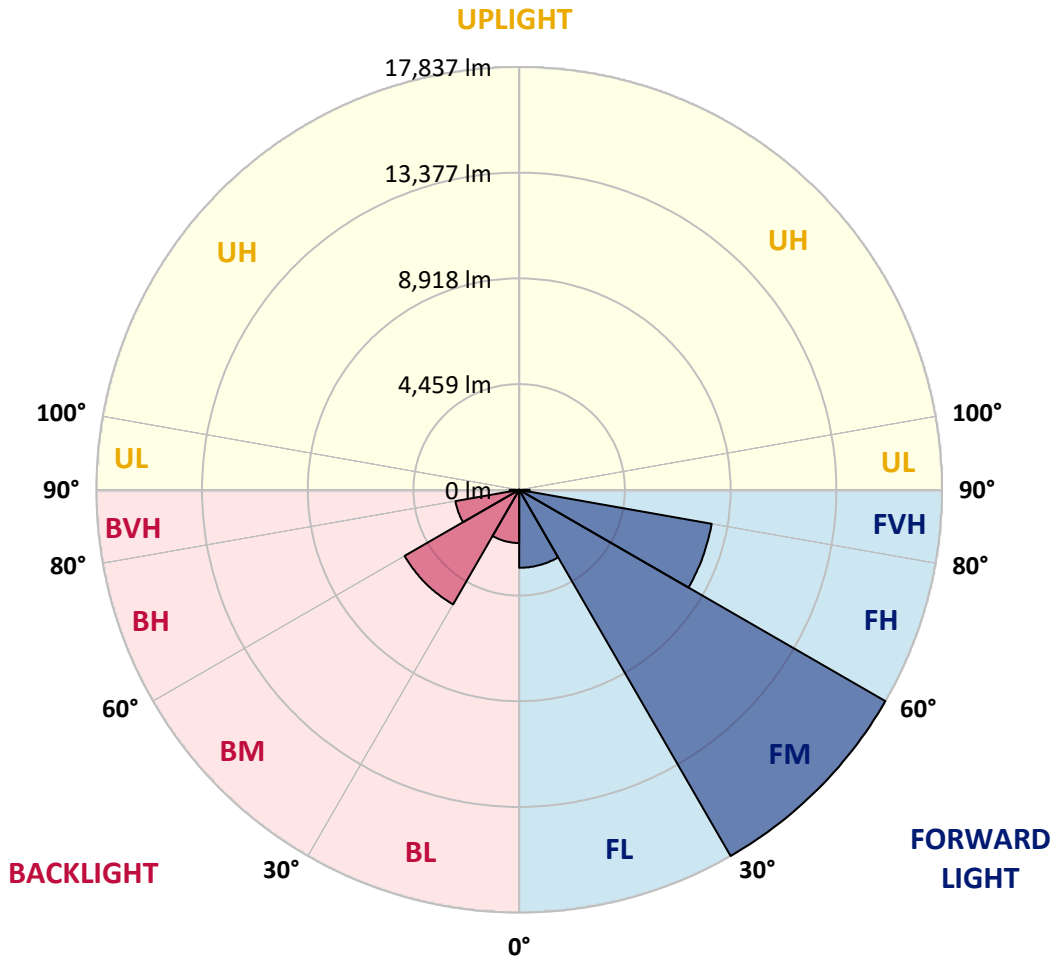
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 3288.9 | 8.1 | | | |
| FM | (30°-60°) | 17836.6 | 43.8 | | | |
| FH | (60°-80°) | 8245.9 | 20.2 | | | G4/12000 |
| FVH | (80°-90°) | 440.8 | 1.1 | | | G3/500 |
| BL | (0°-30°) | 2244.5 | 5.5 | B3/2500 | | |
| BM | (30°-60°) | 5578.9 | 13.7 | B4/8500 | | |
| BH | (60°-80°) | 2730.7 | 6.7 | B4/5000 | | G4/5000 |
| BVH | (80°-90°) | 398.2 | 1.0 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B4-U0-G4**
Type II Short



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REPORT NUMBER: P1456101
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 6208.0 | 6208.0 | 6208.0 | 6208.0 | 6208.0 | 6208.0 | 6208.0 | *6208.0* | 6208.0 | 6208.0 | 6208.0 |
| 2.5° | 6464.4 | 6473.5 | 6446.0 | 6436.9 | 6455.2 | 6418.6 | 6409.4 | *6372.8* | 6354.5 | 6317.9 | 6272.1 |
| 5° | 6647.5 | 6656.6 | 6638.3 | 6638.3 | 6656.6 | 6629.2 | 6620.0 | *6583.4* | 6565.1 | 6528.4 | 6436.9 |
| 7.5° | 6638.3 | 6647.5 | 6665.8 | 6739.0 | 6830.6 | 6867.2 | 6894.7 | *6867.2* | 6858.1 | 6803.1 | 6711.6 |
| 10° | 6491.8 | 6501.0 | 6546.8 | 6656.6 | 6885.5 | 7050.4 | 7224.3 | *7224.3* | 7242.6 | 7196.9 | 7032.0 |
| 12.5° | 6290.4 | 6299.5 | 6409.4 | 6583.4 | 6885.5 | 7169.4 | 7526.5 | *7673.0* | 7663.8 | 7636.4 | 7444.1 |
| 15° | 5805.1 | 5805.1 | 5969.9 | 6299.5 | 6784.8 | 7251.8 | 7782.9 | *8176.6* | 8185.7 | 8213.2 | 7984.3 |
| 17.5° | 5393.1 | 5402.2 | 5539.6 | 5832.6 | 6464.4 | 7206.0 | 8057.5 | *8735.1* | 8762.6 | 8918.2 | 8588.6 |
| 20° | 5429.7 | 5429.7 | 5475.5 | 5603.7 | 6116.4 | 7022.9 | 8213.2 | *9330.3* | 9421.8 | 9788.1 | 9376.1 |
| 22.5° | 5713.5 | 5713.5 | 5750.2 | 5741.0 | 6052.3 | 6903.9 | 8313.9 | *9925.4* | 10090.2 | 10850.2 | 10319.2 |
| 25° | 6235.4 | 6226.3 | 6189.7 | 6134.7 | 6317.9 | 7032.0 | 8542.8 | *10383.3* | 10703.7 | 12022.2 | 11408.8 |
| 27.5° | 6876.4 | 6858.1 | 6803.1 | 6711.6 | 6839.8 | 7416.6 | 8936.6 | *10868.5* | 11216.5 | 13304.1 | 12562.5 |
| 30° | 7673.0 | 7618.0 | 7563.1 | 7444.1 | 7581.4 | 8048.4 | 9522.6 | *11555.3* | 11884.9 | 14760.0 | 13954.2 |
| 32.5° | 8616.1 | 8680.2 | 8497.1 | 8332.2 | 8478.7 | 8909.1 | 10392.4 | *12370.2* | 12727.3 | 16279.9 | 15400.9 |
| 35° | 10026.2 | 10218.4 | 10163.5 | 9330.3 | 9467.6 | 9943.7 | 11408.8 | *13423.1* | 13743.6 | 17662.5 | 16884.2 |
| 37.5° | 11417.9 | 11372.1 | 11417.9 | 10722.0 | 10502.3 | 11079.1 | 12498.4 | *14430.3* | 14741.7 | 18788.7 | 18193.6 |
| 40° | 12535.0 | 12672.3 | 12672.3 | 12104.6 | 11820.8 | 12205.4 | 13487.2 | *15355.1* | 15657.3 | 19411.4 | 19136.7 |
| 42.5° | 13752.8 | 13771.1 | 13734.5 | 13240.0 | 13130.1 | 13230.9 | 14357.1 | *15941.1* | 16188.3 | 19731.8 | 19777.6 |
| 45° | 15126.2 | 15117.1 | 14961.4 | 14549.4 | 14384.6 | 14293.0 | 14897.3 | *16508.8* | 16756.0 | 19878.3 | 20125.6 |
| 47.5° | 16261.6 | 16307.4 | 16316.5 | 15877.0 | 15602.3 | 15208.6 | 15364.3 | *16792.7* | 17076.5 | 19713.5 | 20198.8 |
| 50° | 16325.7 | 16398.9 | 16746.9 | 16875.1 | 16820.1 | 16188.3 | 15794.6 | *17094.8* | 17378.7 | 19750.2 | 20464.3 |
| 52.5° | 15922.8 | 15996.1 | 16444.7 | 16975.8 | 17616.7 | 17314.6 | 16472.2 | *17616.7* | 17909.7 | 20107.2 | 21068.7 |
| 55° | 14842.4 | 14961.4 | 15629.8 | 16371.5 | 17516.0 | 17946.4 | 17671.7 | *18559.8* | 18834.5 | 20391.1 | 21773.7 |
| 57.5° | 12919.5 | 13066.0 | 13990.8 | 15172.0 | 16737.7 | 17799.9 | 19411.4 | *20070.6* | 20299.5 | 20592.5 | 21782.9 |
| 60° | 9659.9 | 9778.9 | 11225.6 | 12818.8 | 15172.0 | 16884.2 | 20446.0 | *22661.9* | 22790.0 | 19502.9 | 20546.7 |
| 62.5° | 7114.4 | 7233.5 | 8204.0 | 9348.6 | 11921.5 | 15199.5 | 20647.5 | *24905.2* | 24923.5 | 17534.3 | 18843.7 |
| 63° | *6702.4* | *6821.4* | *7700.5* | *8771.7* | *11152.4* | *14631.8* | *20583.4* | *24978.4* | *24914.3* | *17131.4* | *18468.3* |
| 65° | 5219.1 | 5429.7 | 6345.3 | 7160.2 | 8359.7 | 11646.8 | 19759.3 | *23678.2* | 23769.8 | 15941.1 | 16582.1 |
| 67.5° | 3552.6 | 3708.3 | 4871.2 | 5814.3 | 6317.9 | 7416.6 | 16206.7 | *20262.9* | 20409.4 | 14705.0 | 13230.9 |
| 70° | 2746.9 | 2820.1 | 3497.7 | 4605.6 | 5109.2 | 4715.5 | 10566.4 | *16316.5* | 16316.5 | 11482.0 | 9376.1 |
| 72.5° | 2151.7 | 2179.2 | 2637.0 | 3598.4 | 4111.2 | 3625.9 | 5887.5 | *11866.6* | 11427.1 | 6812.3 | 6253.8 |
| 75° | 1538.3 | 1574.9 | 1986.9 | 2682.8 | 3278.0 | 2856.8 | 3763.2 | *6913.0* | 6647.5 | 3918.9 | 4175.3 |
| 77.5° | 1217.8 | 1236.1 | 1483.3 | 1977.8 | 2655.3 | 2179.2 | 2865.9 | *3772.4* | 3735.8 | 2756.0 | 2682.8 |
| 80° | 961.4 | 998.0 | 1162.9 | 1419.2 | 2051.0 | 1703.1 | 2133.4 | *2490.5* | 2417.3 | 1895.4 | 1721.4 |
| 82.5° | 686.7 | 750.8 | 897.3 | 1080.4 | 1519.9 | 1217.8 | 1400.9 | *1758.0* | 1758.0 | 1428.4 | 1135.4 |
| 85° | 421.2 | 476.1 | 531.1 | 668.4 | 1080.4 | 787.4 | 741.7 | *1135.4* | 1162.9 | 1071.3 | 732.5 |
| 87.5° | 201.4 | 219.8 | 256.4 | 283.8 | 393.7 | 357.1 | 293.0 | *430.3* | 439.5 | 476.1 | 302.2 |
| 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: P1456101
CATALOG NUMBER: GLAN-SB6C-835-U-T2LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 6208.0 | 6208.0 | 6208.0 | 6208.0 | 6208.0 | 6208.0 | 6208.0 | 6208.0 | 6208.0 | 6208.0 | 6208.0 |
| 2.5° | 6262.9 | 6244.6 | 6153.0 | 6061.5 | 5960.8 | 5869.2 | 5777.6 | 5704.4 | 5622.0 | 5640.3 | 5649.4 |
| 5° | 6381.9 | 6336.2 | 6134.7 | 5896.7 | 5585.3 | 5292.3 | 5008.5 | 4807.1 | 4678.9 | 4642.2 | 4569.0 |
| 7.5° | 6638.3 | 6528.4 | 6162.2 | 5658.6 | 5081.7 | 4623.9 | 4358.4 | 4239.4 | 4202.7 | 4211.9 | 4193.6 |
| 10° | 6931.3 | 6766.5 | 6198.8 | 5374.8 | 4642.2 | 4330.9 | 4294.3 | 4367.6 | 4404.2 | 4440.8 | 4450.0 |
| 12.5° | 7315.9 | 7050.4 | 6180.5 | 5063.4 | 4431.7 | 4376.7 | 4514.1 | 4651.4 | 4733.8 | 4788.7 | 4779.6 |
| 15° | 7764.5 | 7407.5 | 6125.6 | 4807.1 | 4404.2 | 4550.7 | 4724.7 | 4880.3 | 4981.0 | 5036.0 | 5008.5 |
| 17.5° | 8304.8 | 7828.6 | 6061.5 | 4642.2 | 4486.6 | 4660.6 | 4843.7 | 4999.3 | 5109.2 | 5145.8 | 5118.4 |
| 20° | 8973.2 | 8304.8 | 5951.6 | 4569.0 | 4550.7 | 4706.3 | 4871.2 | 5017.7 | 5109.2 | 5145.8 | 5109.2 |
| 22.5° | 9760.6 | 8872.5 | 5860.0 | 4569.0 | 4578.2 | 4706.3 | 4825.4 | 4935.2 | 5017.7 | 5045.1 | 4999.3 |
| 25° | 10767.8 | 9531.7 | 5823.4 | 4642.2 | 4587.3 | 4660.6 | 4724.7 | 4788.7 | 4834.5 | 4852.8 | 4834.5 |
| 27.5° | 11793.3 | 10291.7 | 5841.7 | 4733.8 | 4578.2 | 4596.5 | 4596.5 | 4605.6 | 4614.8 | 4623.9 | 4614.8 |
| 30° | 12974.5 | 11060.8 | 5915.0 | 4852.8 | 4596.5 | 4504.9 | 4477.4 | 4422.5 | 4376.7 | 4340.1 | 4303.5 |
| 32.5° | 14119.0 | 11793.3 | 6043.2 | 5026.8 | 4578.2 | 4404.2 | 4349.2 | 4211.9 | 4083.7 | 3973.8 | 3973.8 |
| 35° | 15355.1 | 12553.3 | 6272.1 | 5155.0 | 4559.8 | 4312.6 | 4157.0 | 4001.3 | 3864.0 | 3708.3 | 3708.3 |
| 37.5° | 16417.3 | 13203.4 | 6455.2 | 5301.5 | 4541.5 | 4202.7 | 3955.5 | 3781.6 | 3635.1 | 3479.4 | 3461.1 |
| 40° | 17158.9 | 13578.8 | 6565.1 | 5356.4 | 4477.4 | 4056.2 | 3763.2 | 3543.5 | 3332.9 | 3122.3 | 3113.1 |
| 42.5° | 17516.0 | 13560.5 | 6501.0 | 5338.1 | 4358.4 | 3873.1 | 3598.4 | 3305.4 | 3021.6 | 2829.3 | 2811.0 |
| 45° | 17708.3 | 13441.5 | 6253.8 | 5182.5 | 4166.1 | 3680.8 | 3387.8 | 3076.5 | 2792.7 | 2618.7 | 2582.1 |
| 47.5° | 17671.7 | 13148.5 | 5915.0 | 4797.9 | 3909.7 | 3470.2 | 3177.2 | 2856.8 | 2627.9 | 2527.1 | 2527.1 |
| 50° | 17772.4 | 12919.5 | 5530.4 | 4358.4 | 3561.8 | 3223.0 | 2985.0 | 2692.0 | 2554.6 | 2426.4 | 2380.6 |
| 52.5° | 18221.0 | 13111.8 | 5200.8 | 3946.4 | 3232.2 | 2985.0 | 2820.1 | 2572.9 | 2399.0 | 2316.5 | 2289.1 |
| 55° | 18816.2 | 13523.9 | 4889.5 | 3580.1 | 2911.7 | 2774.4 | 2692.0 | 2463.0 | 2261.6 | 2179.2 | 2133.4 |
| 57.5° | 18926.1 | 13807.7 | 4587.3 | 3223.0 | 2646.2 | 2609.5 | 2582.1 | 2270.8 | 2106.0 | 2041.9 | 2005.2 |
| 60° | 18166.1 | 13597.1 | 4193.6 | 2902.5 | 2435.6 | 2453.9 | 2380.6 | 2151.7 | 1959.4 | 1895.4 | 1858.7 |
| 62.5° | 16875.1 | 13047.7 | 3799.9 | 2627.9 | 2270.8 | 2307.4 | 2234.1 | 2005.2 | 1812.9 | 1748.9 | 1730.5 |
| 63° | *16618.7* | *12901.2* | *3708.3* | *2600.4* | *2234.1* | *2279.9* | *2215.8* | *1986.9* | *1794.6* | *1730.5* | *1703.1* |
| 65° | 15089.6 | 12022.2 | 3387.8 | 2453.9 | 2115.1 | 2115.1 | 2124.3 | 1895.4 | 1730.5 | 1703.1 | 1684.8 |
| 67.5° | 12306.1 | 10035.3 | 3039.9 | 2279.9 | 1986.9 | 2014.4 | 2060.2 | 1932.0 | 1867.9 | 1849.6 | 1831.3 |
| 70° | 9302.8 | 7554.0 | 2737.7 | 2115.1 | 1849.6 | 1941.1 | 2252.5 | 2197.5 | 1959.4 | 1794.6 | 1758.0 |
| 72.5° | 6592.5 | 5145.8 | 2472.2 | 1950.3 | 1684.8 | 1913.7 | 2334.9 | 2096.8 | 1767.2 | 1574.9 | 1538.3 |
| 75° | 4413.3 | 3314.6 | 2206.7 | 1776.3 | 1501.6 | 1767.2 | 2206.7 | 1913.7 | 1538.3 | 1492.5 | 1437.5 |
| 77.5° | 2774.4 | 2362.3 | 1941.1 | 1574.9 | 1300.2 | 1574.9 | 2005.2 | 1703.1 | 1327.7 | 1346.0 | 1263.6 |
| 80° | 1693.9 | 1684.8 | 1629.8 | 1336.8 | 1043.8 | 1254.4 | 1684.8 | 1437.5 | 1062.1 | 1062.1 | 943.1 |
| 82.5° | 1007.2 | 1217.8 | 1382.6 | 1107.9 | 760.0 | 897.3 | 1217.8 | 1080.4 | 888.2 | 860.7 | 805.8 |
| 85° | 677.6 | 824.1 | 1098.8 | 851.5 | 485.3 | 549.4 | 842.4 | 906.5 | 814.9 | 714.2 | 668.4 |
| 87.5° | 247.2 | 329.6 | 503.6 | 347.9 | 210.6 | 329.6 | 631.8 | 659.3 | 494.4 | 384.6 | 347.9 |
| 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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# LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-10

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-835-U-5WQ

Data in this report applies to families of products including GSS-SB1A-835-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

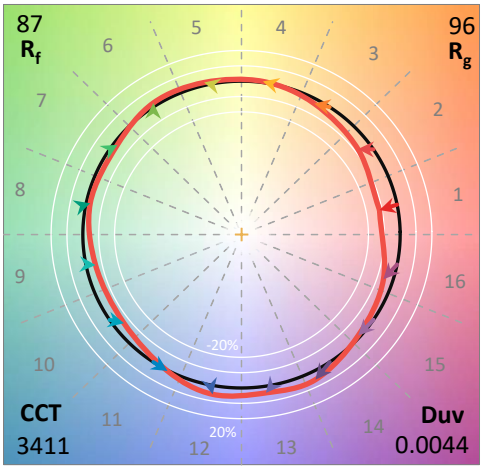
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-10 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/15/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGraw-Edison |
| Catalog Number: | **GSS-SB1A-835-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI 3500K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 3411 |
| CIE u': | 0.2360 |
| CIE v': | 0.5189 |
| Duv: | 0.0044 |
| CIE x: | 0.4154 |
| CIE y: | 0.4059 |
| CIE z: | 0.1787 |
| Peak Wavelength (nm): | 601 |
| Dominant Wavelength (nm): | 579 |
| Purity: | 46.51914 |
| Rf: | 86.6 |
| Rg: | 95.9 |

| | |
|---|---|
| CRI (Ra): | 83.5 |
| R1: | 81.1 |
| R2: | 88.9 |
| R3: | 97.2 |
| R4: | 83.8 |
| R5: | 81.7 |
| R6: | 86.9 |
| R7: | 86.1 |
| R8: | 62.2 |
| R9: | 6.3 |
| R10: | 75.4 |
| R11: | 84.1 |
| R12: | 69.7 |
| R13: | 82.8 |
| R14: | 98.5 |
| R15: | 72.6 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 35M |
| Operation Time: | 1H 35M |
| Sphere Temperature (°C): | 25.2 |

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| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC Power Source | IN0208 | 10/24/2023 | 10/24/2024 |
| Sphere Thermometer | IN0085 | 10/24/2023 | 10/24/2024 |
| Room Thermometer | IN0046 | 10/24/2023 | 10/24/2024 |

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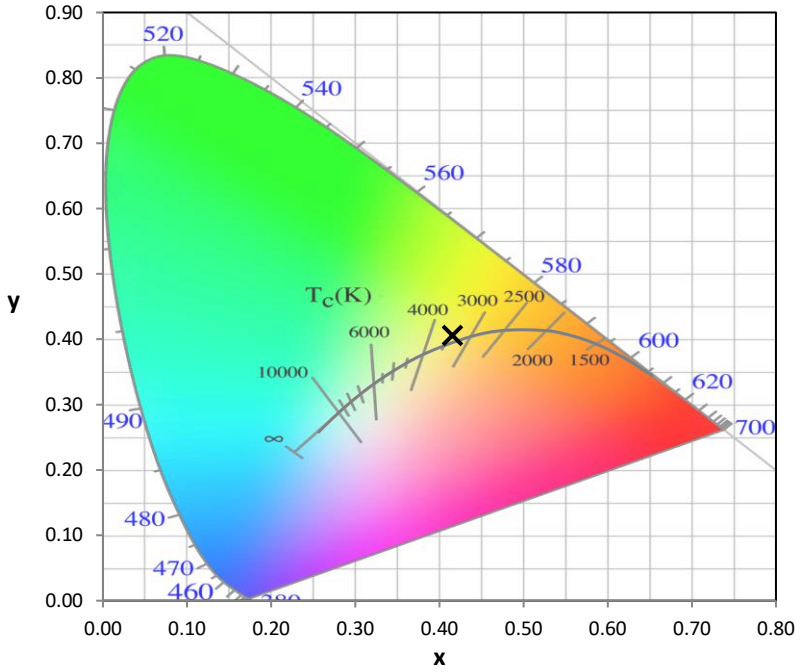
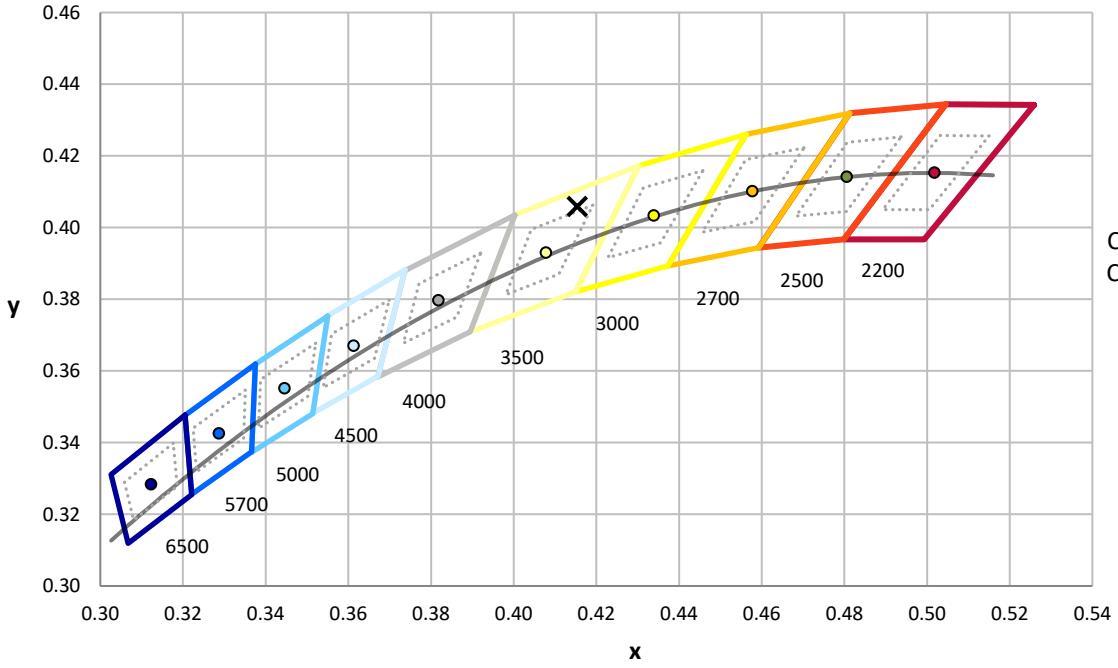
## CIE 1931 Chromaticity Diagram




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




CCT = 3411K
CIE x = 0.4154
CIE y = 0.4059
Duv = 0.0044

Point lies inside the ANSI 3500K 7-step quadrangle

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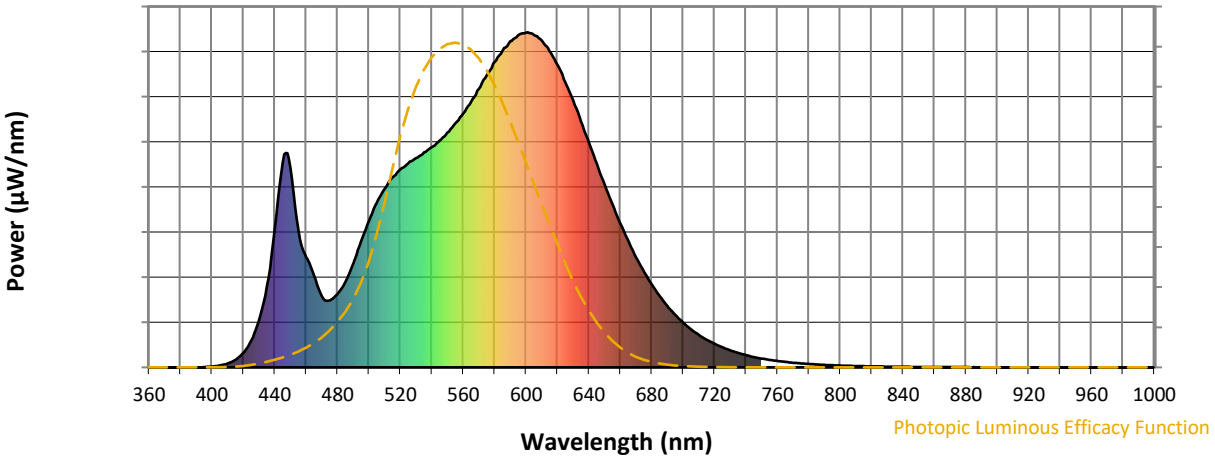
## Photopic Flux vs. Wavelength




## Photopic Lumens: NR

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 311 | NR | 620 | 903 | NR | 750 | 26 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 376 | NR | 625 | 851 | NR | 755 | 22 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 438 | NR | 630 | 797 | NR | 760 | 19 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 491 | NR | 635 | 735 | NR | 765 | 16 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 533 | NR | 640 | 672 | NR | 770 | 14 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 566 | NR | 645 | 607 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 592 | NR | 650 | 546 | NR | 780 | 10 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 608 | NR | 655 | 487 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 625 | NR | 660 | 429 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 642 | NR | 665 | 378 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 12 | NR | 540 | 657 | NR | 670 | 329 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 22 | NR | 545 | 677 | NR | 675 | 286 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 43 | NR | 550 | 701 | NR | 680 | 248 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 80 | NR | 555 | 728 | NR | 685 | 213 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 140 | NR | 560 | 757 | NR | 690 | 184 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 243 | NR | 565 | 793 | NR | 695 | 156 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 412 | NR | 570 | 831 | NR | 700 | 134 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 610 | NR | 575 | 872 | NR | 705 | 114 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 597 | NR | 580 | 911 | NR | 710 | 97 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 412 | NR | 585 | 944 | NR | 715 | 83 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 330 | NR | 590 | 974 | NR | 720 | 70 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 274 | NR | 595 | 992 | NR | 725 | 60 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 211 | NR | 600 | 999 | NR | 730 | 51 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 200 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 220 | NR | 610 | 975 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 255 | NR | 615 | 944 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

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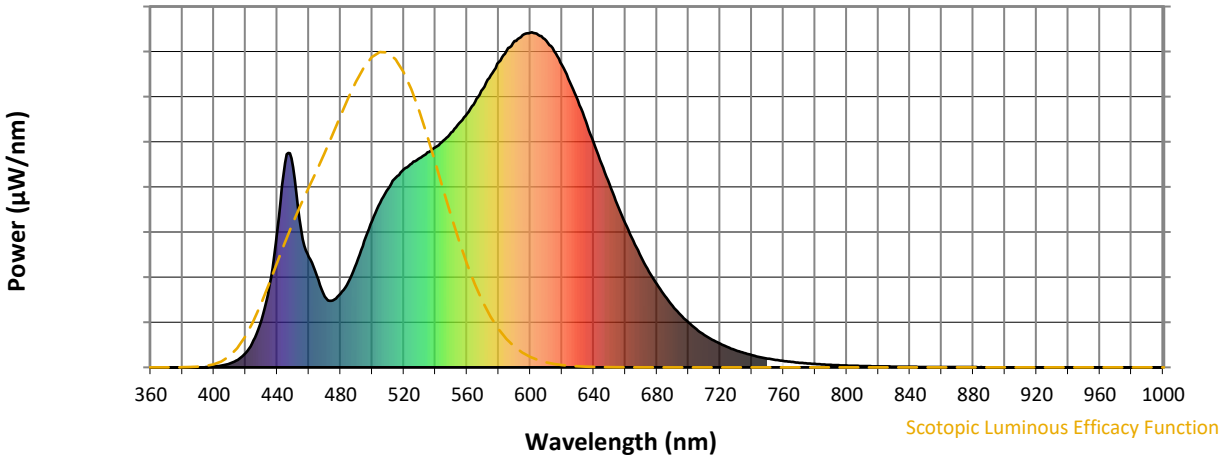
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.48**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 311 | NR | 620 | 903 | NR | 750 | 26 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 376 | NR | 625 | 851 | NR | 755 | 22 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 438 | NR | 630 | 797 | NR | 760 | 19 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 491 | NR | 635 | 735 | NR | 765 | 16 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 533 | NR | 640 | 672 | NR | 770 | 14 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 566 | NR | 645 | 607 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 592 | NR | 650 | 546 | NR | 780 | 10 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 608 | NR | 655 | 487 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 625 | NR | 660 | 429 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 642 | NR | 665 | 378 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 12 | NR | 540 | 657 | NR | 670 | 329 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 22 | NR | 545 | 677 | NR | 675 | 286 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 43 | NR | 550 | 701 | NR | 680 | 248 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 80 | NR | 555 | 728 | NR | 685 | 213 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 140 | NR | 560 | 757 | NR | 690 | 184 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 243 | NR | 565 | 793 | NR | 695 | 156 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 412 | NR | 570 | 831 | NR | 700 | 134 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 610 | NR | 575 | 872 | NR | 705 | 114 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 597 | NR | 580 | 911 | NR | 710 | 97 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 412 | NR | 585 | 944 | NR | 715 | 83 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 330 | NR | 590 | 974 | NR | 720 | 70 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 274 | NR | 595 | 992 | NR | 725 | 60 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 211 | NR | 600 | 999 | NR | 730 | 51 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 200 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 220 | NR | 610 | 975 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 255 | NR | 615 | 944 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

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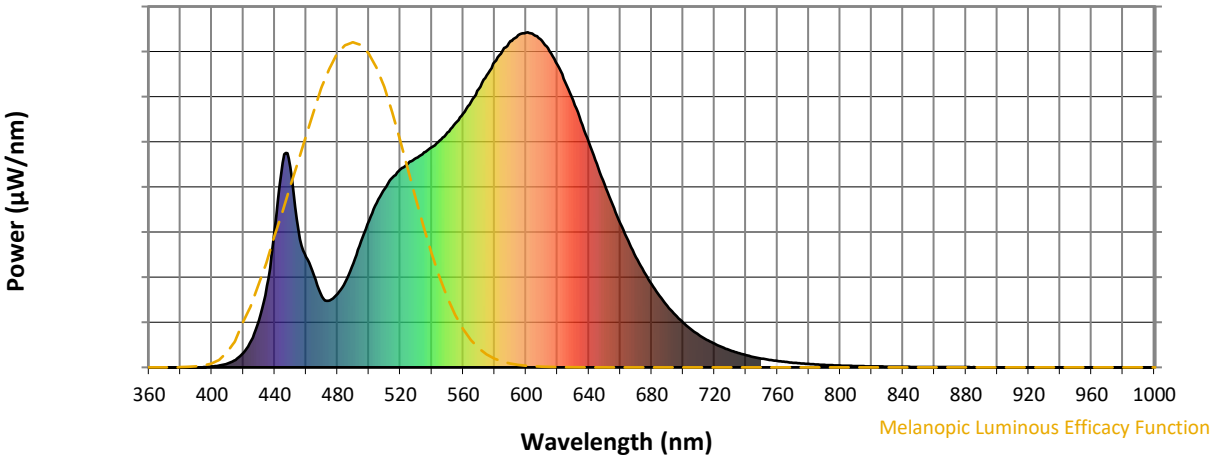
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.88**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 311 | NR | 620 | 903 | NR | 750 | 26 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 376 | NR | 625 | 851 | NR | 755 | 22 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 438 | NR | 630 | 797 | NR | 760 | 19 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 491 | NR | 635 | 735 | NR | 765 | 16 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 533 | NR | 640 | 672 | NR | 770 | 14 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 566 | NR | 645 | 607 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 592 | NR | 650 | 546 | NR | 780 | 10 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 608 | NR | 655 | 487 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 625 | NR | 660 | 429 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 642 | NR | 665 | 378 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 12 | NR | 540 | 657 | NR | 670 | 329 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 22 | NR | 545 | 677 | NR | 675 | 286 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 43 | NR | 550 | 701 | NR | 680 | 248 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 80 | NR | 555 | 728 | NR | 685 | 213 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 140 | NR | 560 | 757 | NR | 690 | 184 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 243 | NR | 565 | 793 | NR | 695 | 156 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 412 | NR | 570 | 831 | NR | 700 | 134 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 610 | NR | 575 | 872 | NR | 705 | 114 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 597 | NR | 580 | 911 | NR | 710 | 97 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 412 | NR | 585 | 944 | NR | 715 | 83 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 330 | NR | 590 | 974 | NR | 720 | 70 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 274 | NR | 595 | 992 | NR | 725 | 60 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 211 | NR | 600 | 999 | NR | 730 | 51 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 200 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 220 | NR | 610 | 975 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 255 | NR | 615 | 944 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

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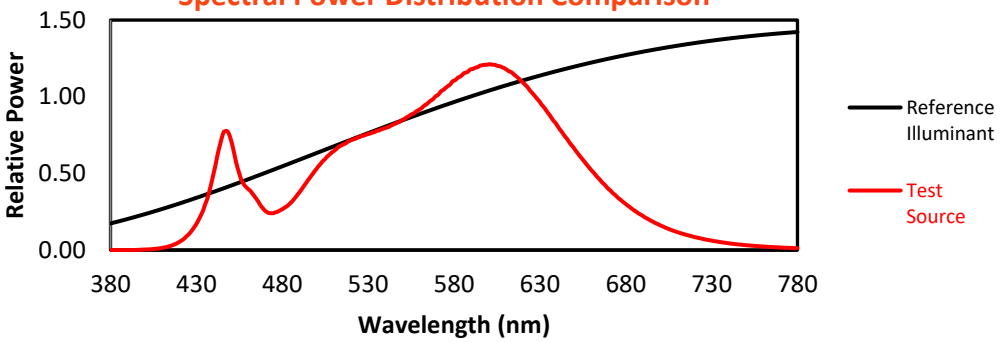
## TM-30-18

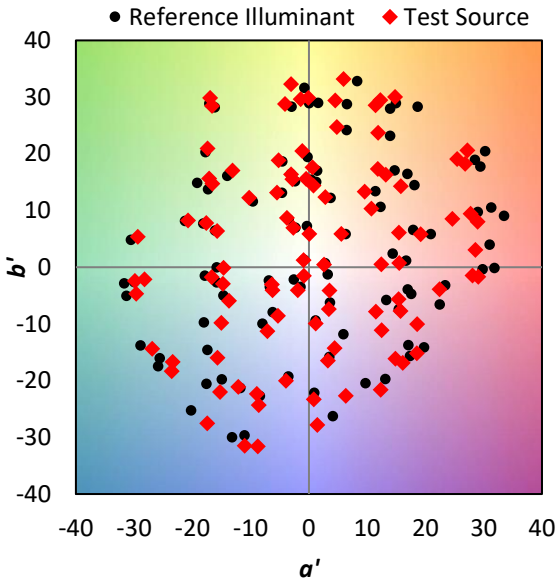
### Summary

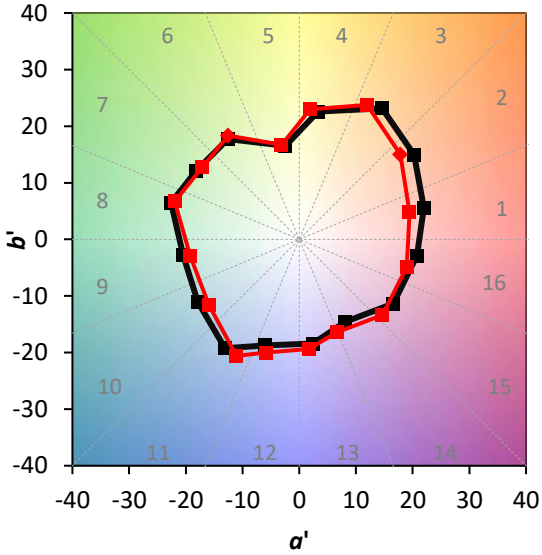
$R_f$ = 86.6
$R_g$ = 95.9
CIE $R_a$ = 83.5
$R_9$ = 6.3

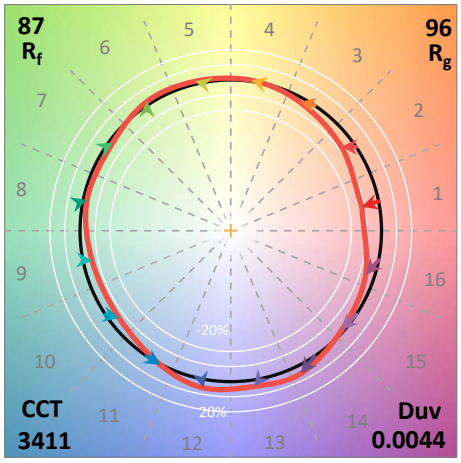
### Spectral Power Distribution Comparison

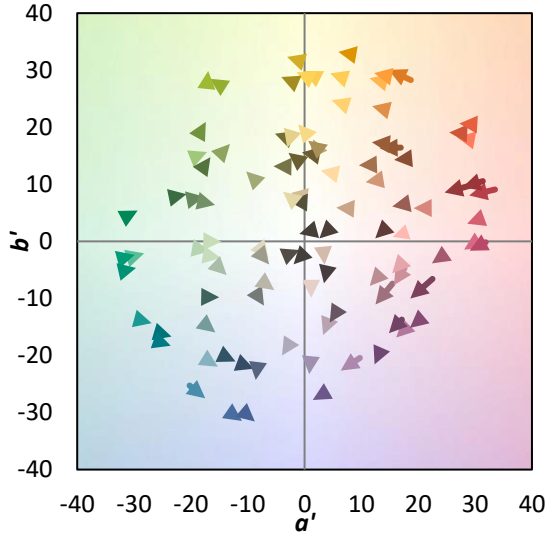



### Color Vector Graphics



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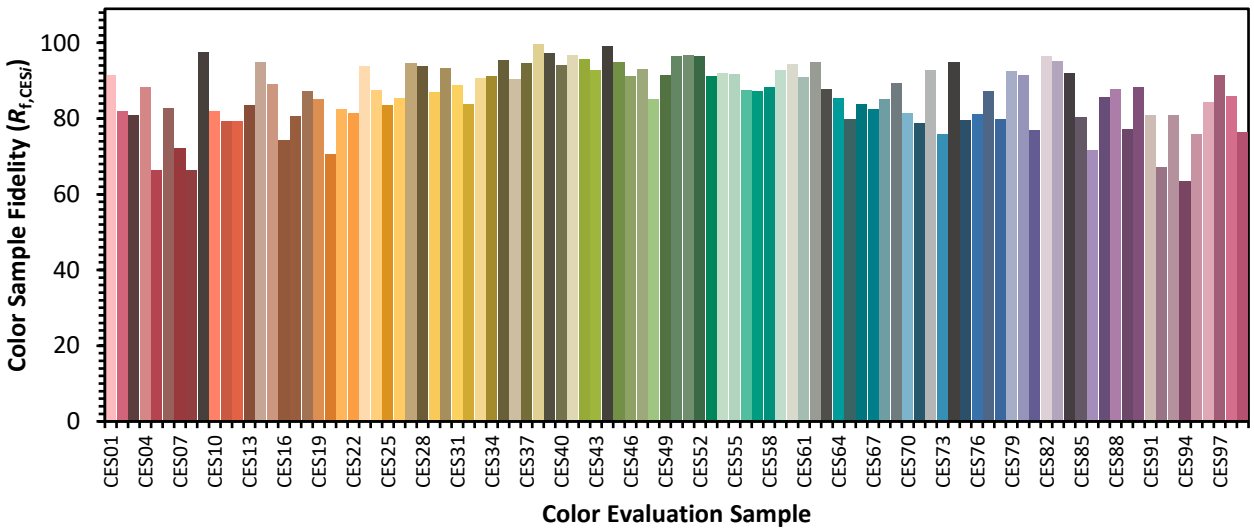
# TM-30-18

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

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 85 | CES51 = 97 | CES76 = 81 |
| CES02 = 62 | CES27 = 95 | CES52 = 96 | CES77 = 87 |
| CES03 = 31 | CES28 = 94 | CES53 = 91 | CES78 = 80 |
| CES04 = 70 | CES29 = 87 | CES54 = 92 | CES79 = 93 |
| CES05 = 49 | CES30 = 93 | CES55 = 92 | CES80 = 91 |
| CES06 = 51 | CES31 = 89 | CES56 = 88 | CES81 = 77 |
| CES07 = 41 | CES32 = 84 | CES57 = 87 | CES82 = 96 |
| CES08 = 40 | CES33 = 91 | CES58 = 88 | CES83 = 95 |
| CES09 = 29 | CES34 = 91 | CES59 = 93 | CES84 = 92 |
| CES10 = 75 | CES35 = 95 | CES60 = 94 | CES85 = 80 |
| CES11 = 58 | CES36 = 90 | CES61 = 91 | CES86 = 72 |
| CES12 = 64 | CES37 = 95 | CES62 = 95 | CES87 = 86 |
| CES13 = 43 | CES38 = 100 | CES63 = 88 | CES88 = 88 |
| CES14 = 74 | CES39 = 97 | CES64 = 85 | CES89 = 77 |
| CES15 = 71 | CES40 = 94 | CES65 = 80 | CES90 = 88 |
| CES16 = 47 | CES41 = 97 | CES66 = 84 | CES91 = 81 |
| CES17 = 49 | CES42 = 96 | CES67 = 82 | CES92 = 67 |
| CES18 = 56 | CES43 = 93 | CES68 = 85 | CES93 = 81 |
| CES19 = 72 | CES44 = 99 | CES69 = 89 | CES94 = 63 |
| CES20 = 66 | CES45 = 95 | CES70 = 81 | CES95 = 76 |
| CES21 = 86 | CES46 = 91 | CES71 = 79 | CES96 = 84 |
| CES22 = 78 | CES47 = 93 | CES72 = 93 | CES97 = 92 |
| CES23 = 91 | CES48 = 85 | CES73 = 76 | CES98 = 86 |
| CES24 = 90 | CES49 = 92 | CES74 = 95 | CES99 = 77 |
| CES25 = 72 | CES50 = 96 | CES75 = 80 | |



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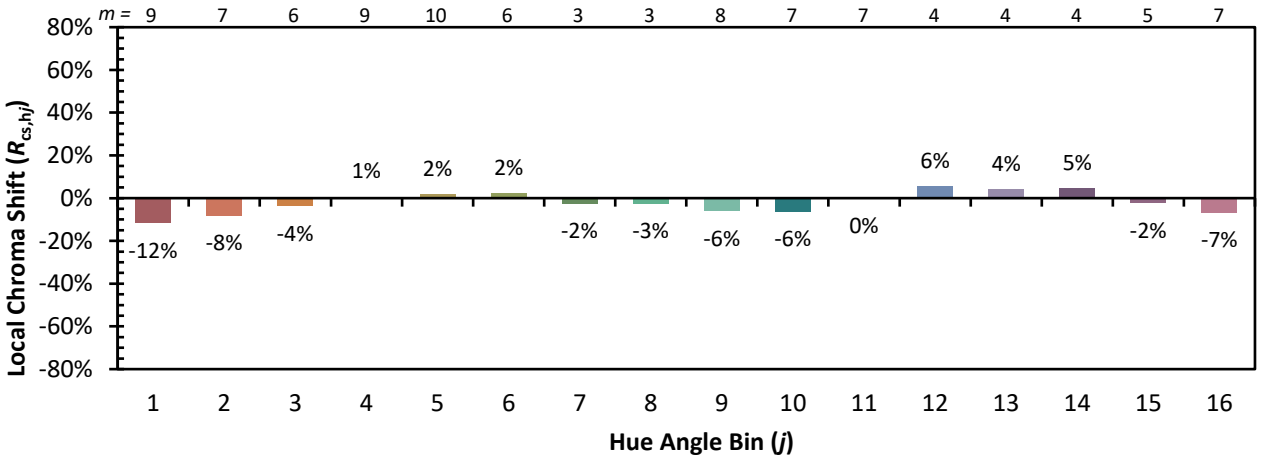
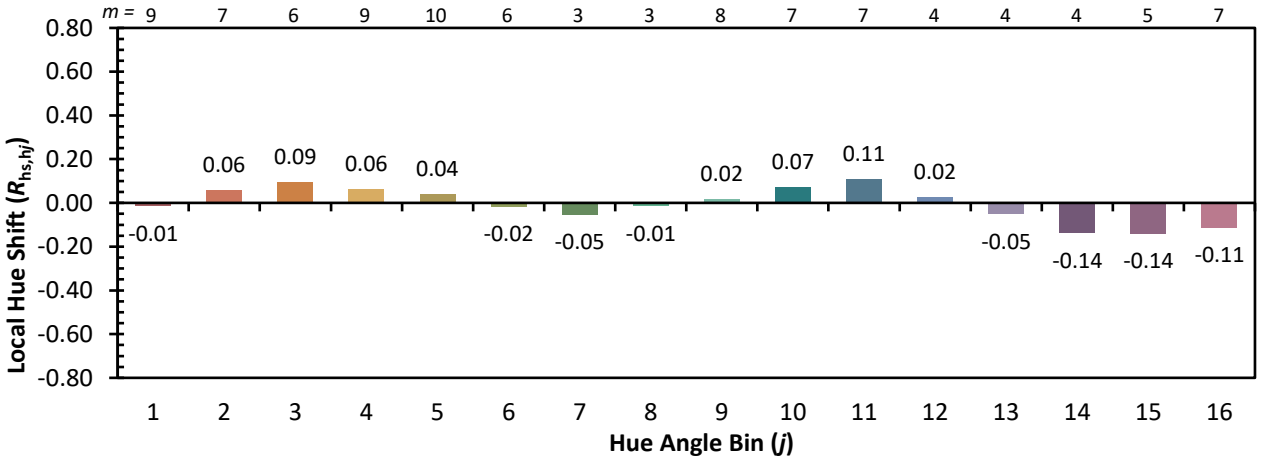
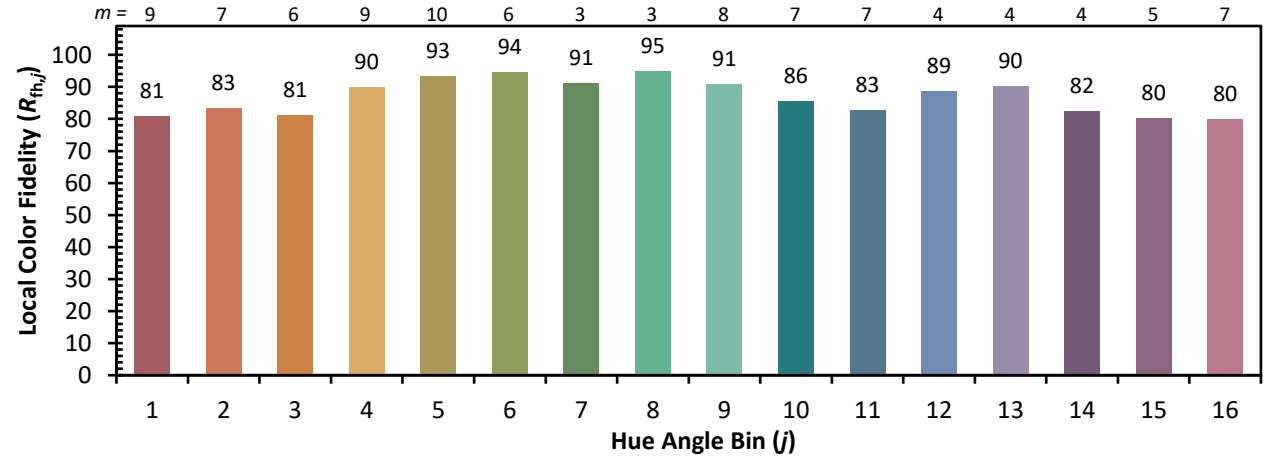
# TM-30-18

## Color Rendition by Hue-Angle Bin



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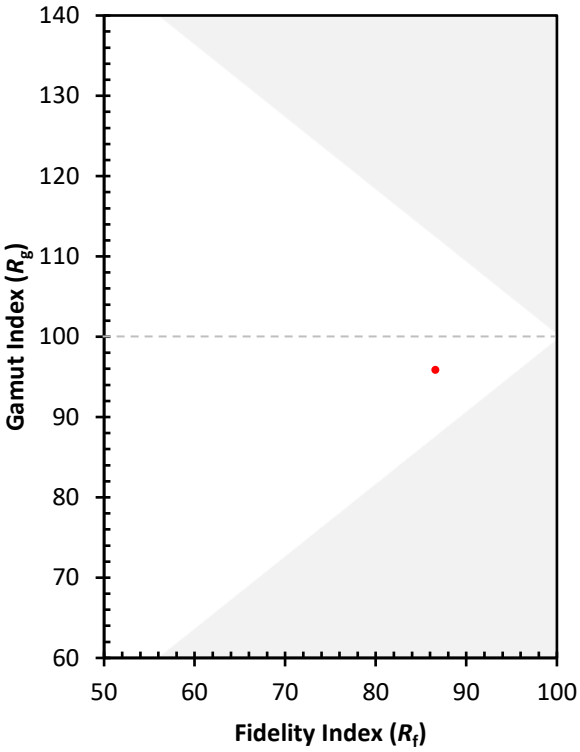
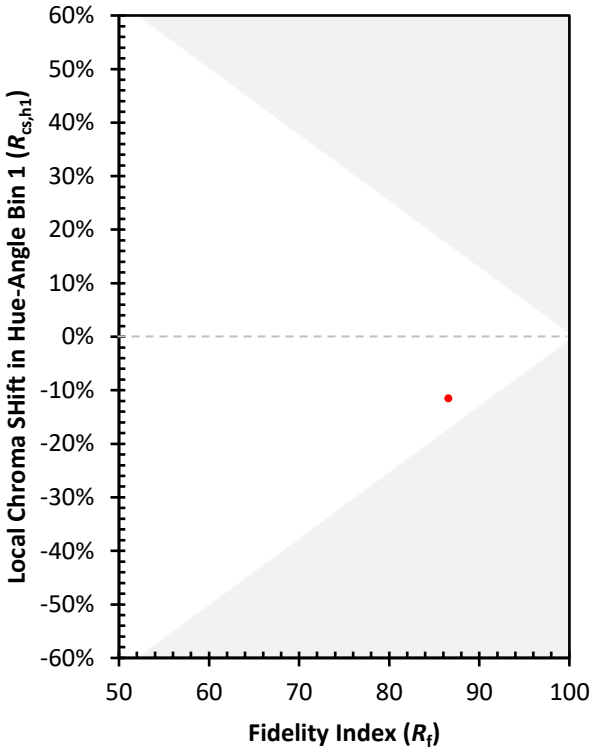
## TM-30-18

### Measure Comparisons




(END OF REPORT)