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: P1455989

Luminaire Tested: GLAN-SB5C-760-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: | P1455989 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/21/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB5C-760-U-T2LG |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 5xLight Square PACKAGE 70CRI 5700K FIXTURE w/ TYPE II LOW GLARE |
| Light Source: | (130) 5700K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 38719.5 lumens |
| Efficiency: | N/A |
| Efficacy: | 155.2 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): | 249.5 |
| 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: P1455989
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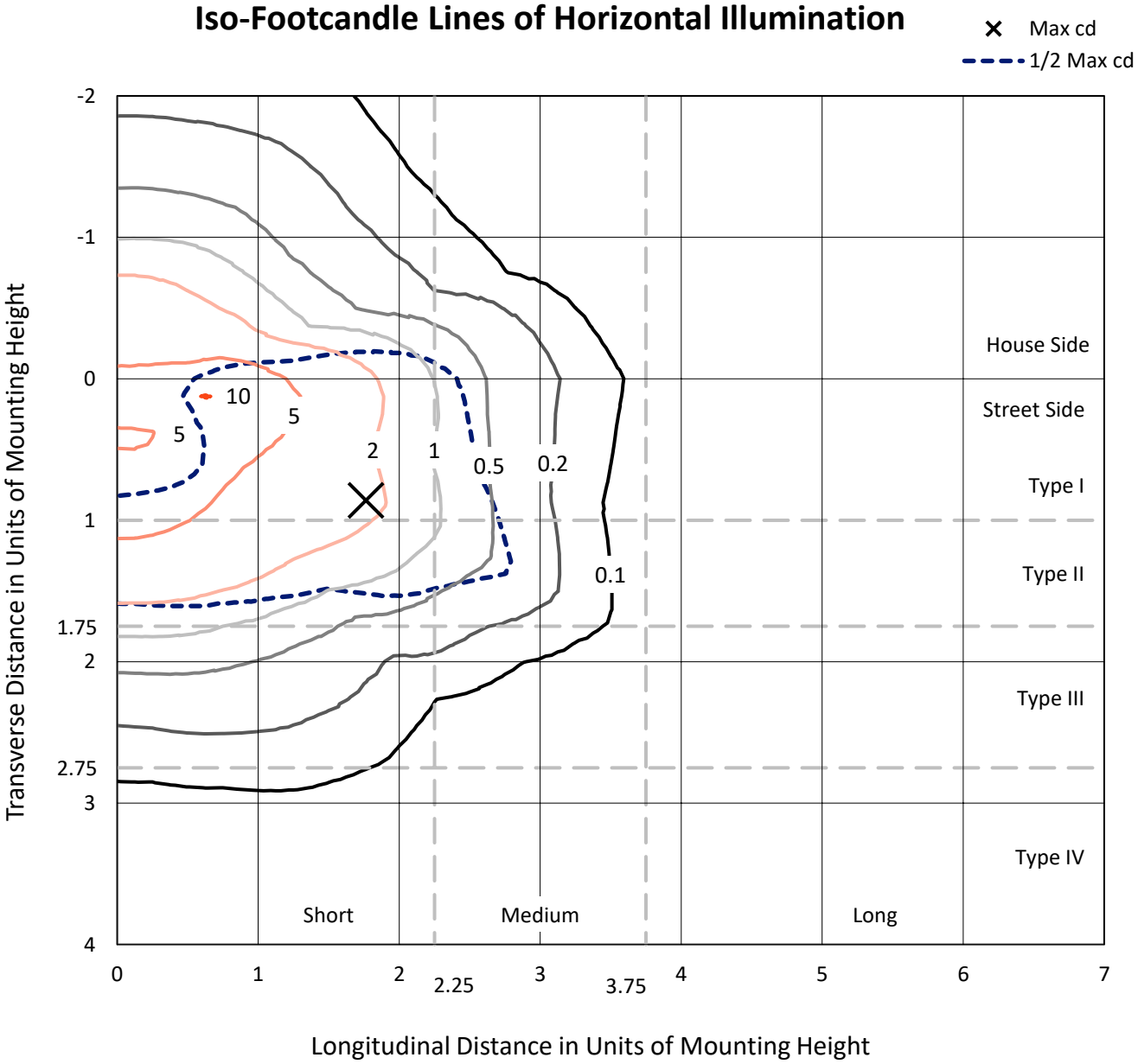
## Iso-Footcandle Lines of Horizontal Illumination




Based on 30 foot mounting height. Maximum calculated value = 10.1 fc
Type II - Short - N/A

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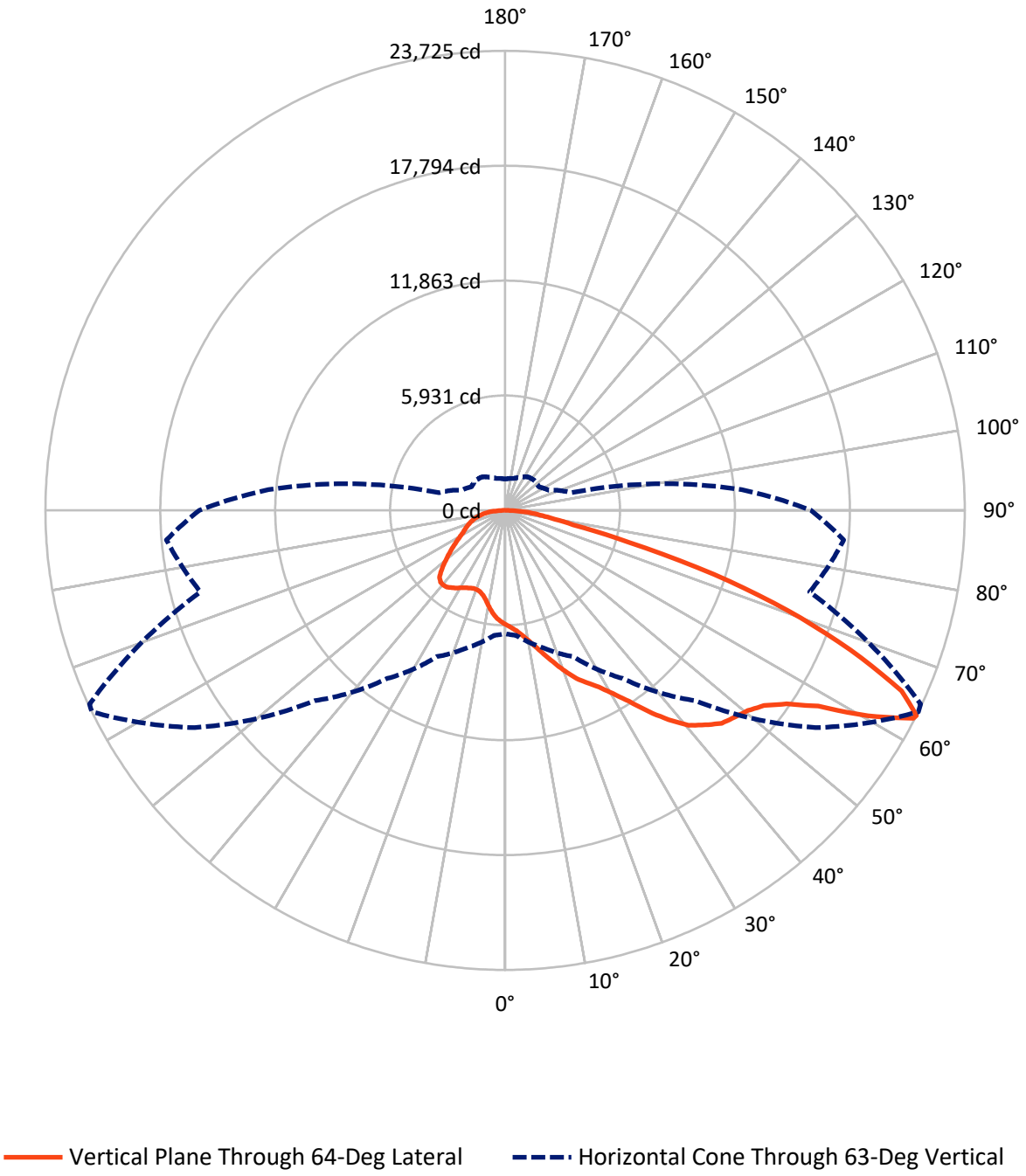
## Luminous Intensity Polar Plot



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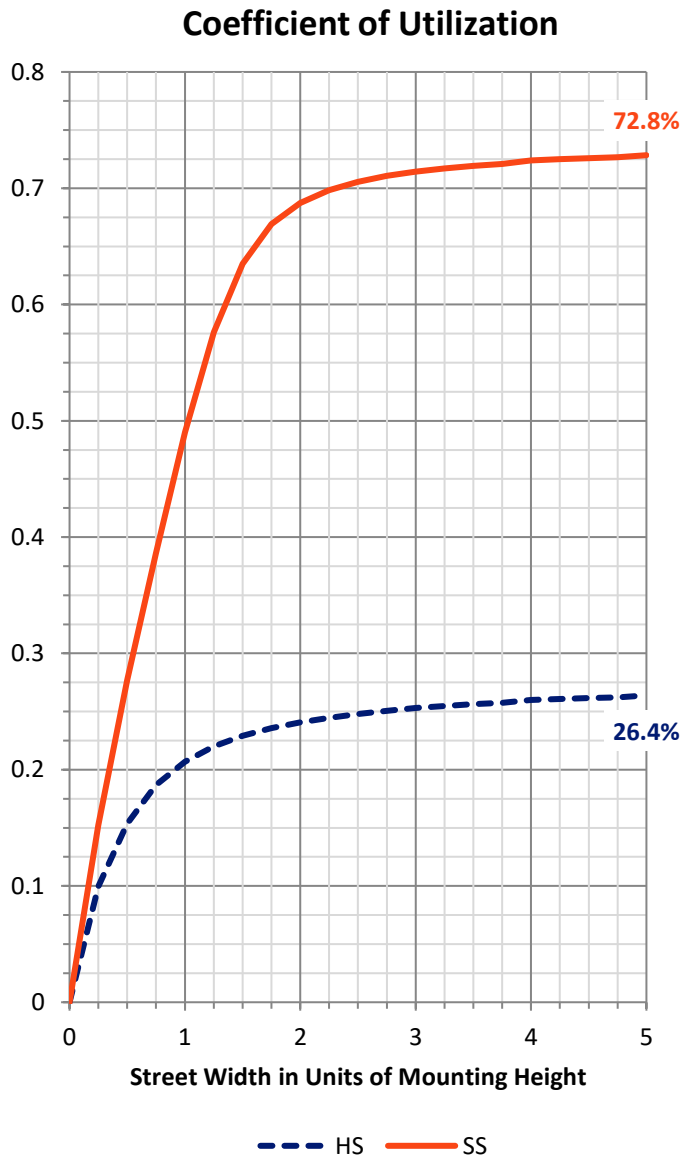
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 10402.8 | 0.0 | 10402.8 |
| | % Fixture | 26.9 | 0.0 | 26.9 |
| **Street Side** | Lumens | 28316.7 | 0.0 | 28316.7 |
| | % Fixture | 73.1 | 0.0 | 73.1 |
| **Total** | Lumens | 38719.5 | 0.0 | 38719.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 541.4 | 1.4 |
| 10°-20° | 1666.7 | 4.3 |
| 20°-30° | 3047.8 | 7.9 |
| 30°-40° | 5242.6 | 13.5 |
| 40°-50° | 7731.5 | 20.0 |
| 50°-60° | 9266.7 | 23.9 |
| 60°-70° | 7437.4 | 19.2 |
| 70°-80° | 2988.6 | 7.7 |
| 80°-90° | 796.9 | 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° | 38719.5 | 100.0 |
| 0°-180° | 38719.5 | 100.0 |



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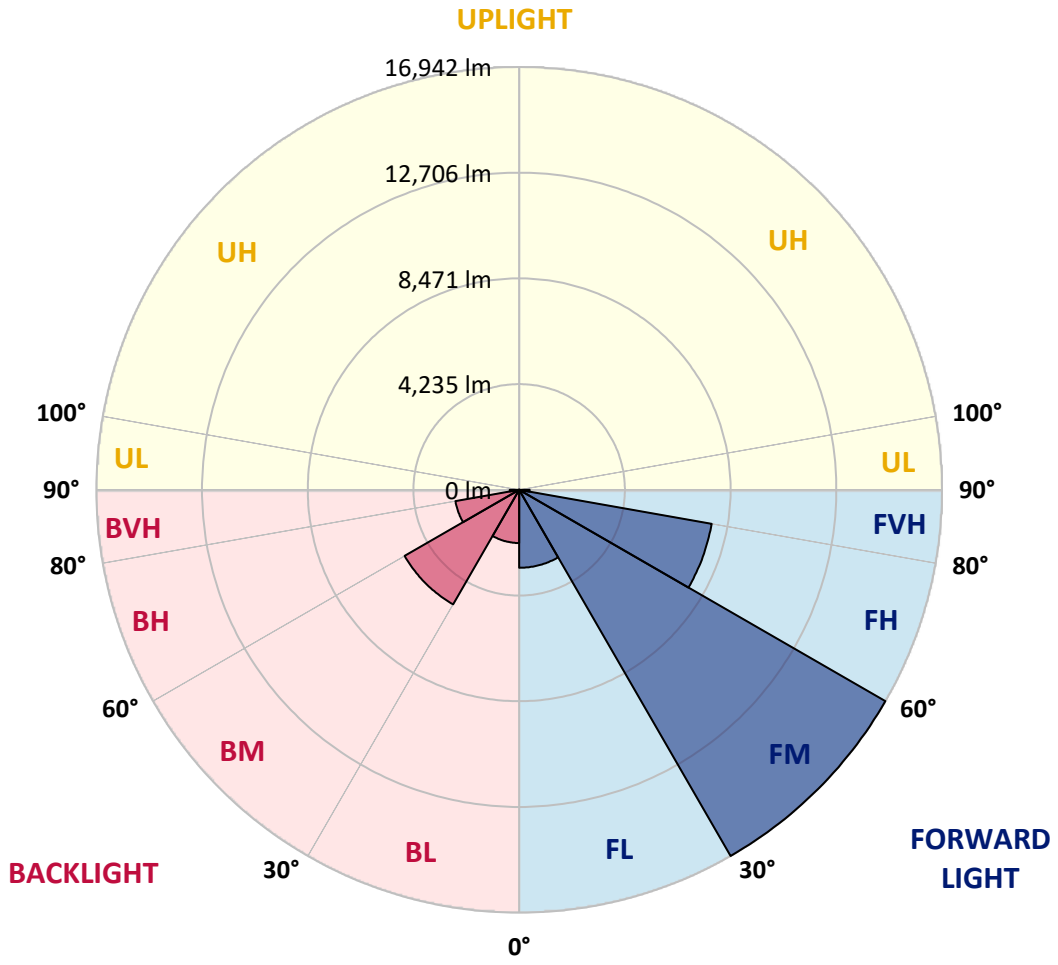
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 3123.9 | 8.1 | | | |
| FM | (30°-60°) | 16941.8 | 43.8 | | | |
| FH | (60°-80°) | 7832.2 | 20.2 | | | G4/12000 |
| FVH | (80°-90°) | 418.7 | 1.1 | | | G3/500 |
| BL | (0°-30°) | 2131.9 | 5.5 | B3/2500 | | |
| BM | (30°-60°) | 5299.0 | 13.7 | B4/8500 | | |
| BH | (60°-80°) | 2593.8 | 6.7 | B4/5000 | | G4/5000 |
| BVH | (80°-90°) | 378.2 | 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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Scaled Data Report

REPORT NUMBER: P1455989
CATALOG NUMBER: GLAN-SB5C-760-U-T2LG

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5896.5 | 5896.5 | 5896.5 | 5896.5 | 5896.5 | 5896.5 | 5896.5 | *5896.5* | 5896.5 | 5896.5 | 5896.5 |
| 2.5° | 6140.1 | 6148.8 | 6122.7 | 6114.0 | 6131.4 | 6096.6 | 6087.9 | *6053.1* | 6035.7 | 6000.9 | 5957.4 |
| 5° | 6314.0 | 6322.7 | 6305.3 | 6305.3 | 6322.7 | 6296.6 | 6287.9 | *6253.1* | 6235.7 | 6200.9 | 6114.0 |
| 7.5° | 6305.3 | 6314.0 | 6331.4 | 6401.0 | 6487.9 | 6522.7 | 6548.8 | *6522.7* | 6514.0 | 6461.8 | 6374.9 |
| 10° | 6166.1 | 6174.8 | 6218.3 | 6322.7 | 6540.1 | 6696.7 | 6861.9 | *6861.9* | 6879.3 | 6835.8 | 6679.3 |
| 12.5° | 5974.8 | 5983.5 | 6087.9 | 6253.1 | 6540.1 | 6809.7 | 7148.9 | *7288.1* | 7279.4 | 7253.3 | 7070.6 |
| 15° | 5513.9 | 5513.9 | 5670.4 | 5983.5 | 6444.5 | 6888.0 | 7392.4 | *7766.4* | 7775.1 | 7801.2 | 7583.8 |
| 17.5° | 5122.5 | 5131.2 | 5261.7 | 5540.0 | 6140.1 | 6844.5 | 7653.3 | *8296.9* | 8323.0 | 8470.8 | 8157.8 |
| 20° | 5157.3 | 5157.3 | 5200.8 | 5322.5 | 5809.6 | 6670.6 | 7801.2 | *8862.2* | 8949.2 | 9297.1 | 8905.7 |
| 22.5° | 5426.9 | 5426.9 | 5461.7 | 5453.0 | 5748.7 | 6557.5 | 7896.8 | *9427.5* | 9584.1 | 10305.9 | 9801.5 |
| 25° | 5922.6 | 5913.9 | 5879.1 | 5827.0 | 6000.9 | 6679.3 | 8114.3 | *9862.4* | 10166.8 | 11419.1 | 10836.4 |
| 27.5° | 6531.4 | 6514.0 | 6461.8 | 6374.9 | 6496.6 | 7044.5 | 8488.2 | *10323.3* | 10653.8 | 12636.7 | 11932.2 |
| 30° | 7288.1 | 7235.9 | 7183.7 | 7070.6 | 7201.1 | 7644.6 | 9044.8 | *10975.6* | 11288.7 | 14019.5 | 13254.2 |
| 32.5° | 8183.8 | 8244.7 | 8070.8 | 7914.2 | 8053.4 | 8462.1 | 9871.1 | *11749.6* | 12088.8 | 15463.2 | 14628.3 |
| 35° | 9523.2 | 9705.8 | 9653.6 | 8862.2 | 8992.7 | 9444.9 | 10836.4 | *12749.8* | 13054.1 | 16776.4 | 16037.2 |
| 37.5° | 10845.1 | 10801.6 | 10845.1 | 10184.1 | 9975.4 | 10523.3 | 11871.4 | *13706.4* | 14002.1 | 17846.2 | 17280.9 |
| 40° | 11906.1 | 12036.6 | 12036.6 | 11497.4 | 11227.8 | 11593.1 | 12810.6 | *14584.8* | 14871.8 | 18437.6 | 18176.7 |
| 42.5° | 13062.8 | 13080.2 | 13045.5 | 12575.8 | 12471.5 | 12567.1 | 13636.8 | *15141.4* | 15376.2 | 18742.0 | 18785.4 |
| 45° | 14367.4 | 14358.7 | 14210.8 | 13819.5 | 13662.9 | 13576.0 | 14150.0 | *15680.6* | 15915.4 | 18881.1 | 19115.9 |
| 47.5° | 15445.8 | 15489.3 | 15498.0 | 15080.5 | 14819.6 | 14445.7 | 14593.5 | *15950.2* | 16219.8 | 18724.6 | 19185.5 |
| 50° | 15506.7 | 15576.3 | 15906.8 | 16028.5 | 15976.3 | 15376.2 | 15002.3 | *16237.2* | 16506.8 | 18759.4 | 19437.7 |
| 52.5° | 15124.0 | 15193.6 | 15619.8 | 16124.2 | 16733.0 | 16446.0 | 15645.8 | *16733.0* | 17011.3 | 19098.5 | 20011.7 |
| 55° | 14097.8 | 14210.8 | 14845.7 | 15550.2 | 16637.3 | 17046.1 | 16785.1 | *17628.8* | 17889.7 | 19368.1 | 20681.4 |
| 57.5° | 12271.4 | 12410.6 | 13289.0 | 14410.9 | 15898.1 | 16906.9 | 18437.6 | *19063.8* | 19281.2 | 19559.5 | 20690.1 |
| 60° | 9175.3 | 9288.4 | 10662.5 | 12175.8 | 14410.9 | 16037.2 | 19420.3 | *21525.0* | 21646.8 | 18524.5 | 19516.0 |
| 62.5° | 6757.5 | 6870.6 | 7792.5 | 8879.6 | 11323.5 | 14437.0 | 19611.7 | *23655.8* | 23673.1 | 16654.7 | 17898.4 |
| 63° | *6366.2* | *6479.2* | *7314.1* | *8331.7* | *10592.9* | *13897.8* | *19550.8* | *23725.3* | *23664.4* | *16272.0* | *17541.8* |
| 65° | 4957.3 | 5157.3 | 6027.0 | 6801.0 | 7940.3 | 11062.5 | 18768.1 | *22490.4* | 22577.3 | 15141.4 | 15750.2 |
| 67.5° | 3374.4 | 3522.3 | 4626.8 | 5522.6 | 6000.9 | 7044.5 | 15393.6 | *19246.4* | 19385.5 | 13967.3 | 12567.1 |
| 70° | 2609.1 | 2678.7 | 3322.2 | 4374.6 | 4852.9 | 4478.9 | 10036.3 | *15498.0* | 15498.0 | 10906.0 | 8905.7 |
| 72.5° | 2043.8 | 2069.9 | 2504.7 | 3417.9 | 3904.9 | 3444.0 | 5592.1 | *11271.3* | 10853.8 | 6470.5 | 5940.0 |
| 75° | 1461.1 | 1495.9 | 1887.2 | 2548.2 | 3113.5 | 2713.5 | 3574.5 | *6566.2* | 6314.0 | 3722.3 | 3965.8 |
| 77.5° | 1156.7 | 1174.1 | 1408.9 | 1878.5 | 2522.1 | 2069.9 | 2722.2 | *3583.2* | 3548.4 | 2617.8 | 2548.2 |
| 80° | 913.2 | 948.0 | 1104.5 | 1348.0 | 1948.1 | 1617.6 | 2026.4 | *2365.6* | 2296.0 | 1800.3 | 1635.0 |
| 82.5° | 652.3 | 713.2 | 852.3 | 1026.2 | 1443.7 | 1156.7 | 1330.6 | *1669.8* | 1669.8 | 1356.7 | 1078.4 |
| 85° | 400.1 | 452.2 | 504.4 | 634.9 | 1026.2 | 747.9 | 704.5 | *1078.4* | 1104.5 | 1017.5 | 695.8 |
| 87.5° | 191.3 | 208.7 | 243.5 | 269.6 | 374.0 | 339.2 | 278.3 | *408.8* | 417.5 | 452.2 | 287.0 |
| 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: P1455989
CATALOG NUMBER: GLAN-SB5C-760-U-T2LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5896.5 | 5896.5 | 5896.5 | 5896.5 | 5896.5 | 5896.5 | 5896.5 | 5896.5 | 5896.5 | 5896.5 | 5896.5 |
| 2.5° | 5948.7 | 5931.3 | 5844.4 | 5757.4 | 5661.7 | 5574.8 | 5487.8 | 5418.2 | 5339.9 | 5357.3 | 5366.0 |
| 5° | 6061.8 | 6018.3 | 5827.0 | 5600.8 | 5305.1 | 5026.8 | 4757.2 | 4565.9 | 4444.2 | 4409.4 | 4339.8 |
| 7.5° | 6305.3 | 6200.9 | 5853.1 | 5374.7 | 4826.8 | 4392.0 | 4139.8 | 4026.7 | 3991.9 | 4000.6 | 3983.2 |
| 10° | 6583.6 | 6427.1 | 5887.8 | 5105.1 | 4409.4 | 4113.7 | 4078.9 | 4148.5 | 4183.2 | 4218.0 | 4226.7 |
| 12.5° | 6948.9 | 6696.7 | 5870.5 | 4809.4 | 4209.3 | 4157.2 | 4287.6 | 4418.1 | 4496.3 | 4548.5 | 4539.8 |
| 15° | 7375.0 | 7035.8 | 5818.3 | 4565.9 | 4183.2 | 4322.4 | 4487.6 | 4635.5 | 4731.2 | 4783.3 | 4757.2 |
| 17.5° | 7888.1 | 7435.9 | 5757.4 | 4409.4 | 4261.5 | 4426.8 | 4600.7 | 4748.5 | 4852.9 | 4887.7 | 4861.6 |
| 20° | 8523.0 | 7888.1 | 5653.0 | 4339.8 | 4322.4 | 4470.2 | 4626.8 | 4765.9 | 4852.9 | 4887.7 | 4852.9 |
| 22.5° | 9271.0 | 8427.4 | 5566.1 | 4339.8 | 4348.5 | 4470.2 | 4583.3 | 4687.7 | 4765.9 | 4792.0 | 4748.5 |
| 25° | 10227.6 | 9053.5 | 5531.3 | 4409.4 | 4357.2 | 4426.8 | 4487.6 | 4548.5 | 4592.0 | 4609.4 | 4592.0 |
| 27.5° | 11201.7 | 9775.4 | 5548.7 | 4496.3 | 4348.5 | 4365.9 | 4365.9 | 4374.6 | 4383.3 | 4392.0 | 4383.3 |
| 30° | 12323.6 | 10505.9 | 5618.2 | 4609.4 | 4365.9 | 4278.9 | 4252.8 | 4200.6 | 4157.2 | 4122.4 | 4087.6 |
| 32.5° | 13410.7 | 11201.7 | 5740.0 | 4774.6 | 4348.5 | 4183.2 | 4131.1 | 4000.6 | 3878.8 | 3774.5 | 3774.5 |
| 35° | 14584.8 | 11923.5 | 5957.4 | 4896.4 | 4331.1 | 4096.3 | 3948.4 | 3800.6 | 3670.1 | 3522.3 | 3522.3 |
| 37.5° | 15593.7 | 12541.0 | 6131.4 | 5035.5 | 4313.7 | 3991.9 | 3757.1 | 3591.8 | 3452.7 | 3304.8 | 3287.5 |
| 40° | 16298.1 | 12897.6 | 6235.7 | 5087.7 | 4252.8 | 3852.8 | 3574.5 | 3365.7 | 3165.7 | 2965.7 | 2957.0 |
| 42.5° | 16637.3 | 12880.2 | 6174.8 | 5070.3 | 4139.8 | 3678.8 | 3417.9 | 3139.6 | 2870.0 | 2687.4 | 2670.0 |
| 45° | 16819.9 | 12767.1 | 5940.0 | 4922.5 | 3957.1 | 3496.2 | 3217.9 | 2922.2 | 2652.6 | 2487.3 | 2452.5 |
| 47.5° | 16785.1 | 12488.8 | 5618.2 | 4557.2 | 3713.6 | 3296.2 | 3017.8 | 2713.5 | 2496.0 | 2400.4 | 2400.4 |
| 50° | 16880.8 | 12271.4 | 5253.0 | 4139.8 | 3383.1 | 3061.3 | 2835.2 | 2556.9 | 2426.5 | 2304.7 | 2261.2 |
| 52.5° | 17307.0 | 12454.1 | 4939.9 | 3748.4 | 3070.0 | 2835.2 | 2678.7 | 2443.8 | 2278.6 | 2200.3 | 2174.2 |
| 55° | 17872.3 | 12845.4 | 4644.2 | 3400.5 | 2765.6 | 2635.2 | 2556.9 | 2339.5 | 2148.2 | 2069.9 | 2026.4 |
| 57.5° | 17976.6 | 13115.0 | 4357.2 | 3061.3 | 2513.4 | 2478.6 | 2452.5 | 2156.8 | 2000.3 | 1939.4 | 1904.6 |
| 60° | 17254.8 | 12915.0 | 3983.2 | 2756.9 | 2313.4 | 2330.8 | 2261.2 | 2043.8 | 1861.2 | 1800.3 | 1765.5 |
| 62.5° | 16028.5 | 12393.2 | 3609.2 | 2496.0 | 2156.8 | 2191.6 | 2122.1 | 1904.6 | 1722.0 | 1661.1 | 1643.7 |
| 63° | *15785.0* | *12254.0* | *3522.3* | *2469.9* | *2122.1* | *2165.5* | *2104.7* | *1887.2* | *1704.6* | *1643.7* | *1617.6* |
| 65° | 14332.6 | 11419.1 | 3217.9 | 2330.8 | 2009.0 | 2009.0 | 2017.7 | 1800.3 | 1643.7 | 1617.6 | 1600.2 |
| 67.5° | 11688.7 | 9531.9 | 2887.4 | 2165.5 | 1887.2 | 1913.3 | 1956.8 | 1835.1 | 1774.2 | 1756.8 | 1739.4 |
| 70° | 8836.1 | 7175.0 | 2600.4 | 2009.0 | 1756.8 | 1843.8 | 2139.5 | 2087.3 | 1861.2 | 1704.6 | 1669.8 |
| 72.5° | 6261.8 | 4887.7 | 2348.2 | 1852.5 | 1600.2 | 1817.7 | 2217.7 | 1991.6 | 1678.5 | 1495.9 | 1461.1 |
| 75° | 4191.9 | 3148.3 | 2096.0 | 1687.2 | 1426.3 | 1678.5 | 2096.0 | 1817.7 | 1461.1 | 1417.6 | 1365.4 |
| 77.5° | 2635.2 | 2243.8 | 1843.8 | 1495.9 | 1235.0 | 1495.9 | 1904.6 | 1617.6 | 1261.1 | 1278.5 | 1200.2 |
| 80° | 1608.9 | 1600.2 | 1548.1 | 1269.8 | 991.5 | 1191.5 | 1600.2 | 1365.4 | 1008.8 | 1008.8 | 895.8 |
| 82.5° | 956.7 | 1156.7 | 1313.2 | 1052.3 | 721.8 | 852.3 | 1156.7 | 1026.2 | 843.6 | 817.5 | 765.3 |
| 85° | 643.6 | 782.7 | 1043.6 | 808.8 | 460.9 | 521.8 | 800.1 | 861.0 | 774.0 | 678.4 | 634.9 |
| 87.5° | 234.8 | 313.1 | 478.3 | 330.5 | 200.0 | 313.1 | 600.1 | 626.2 | 469.6 | 365.3 | 330.5 |
| 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: SP1-2407-184-7

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-757-U-5WQ

Data in this report applies to families of products including GSS-SB1A-757-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

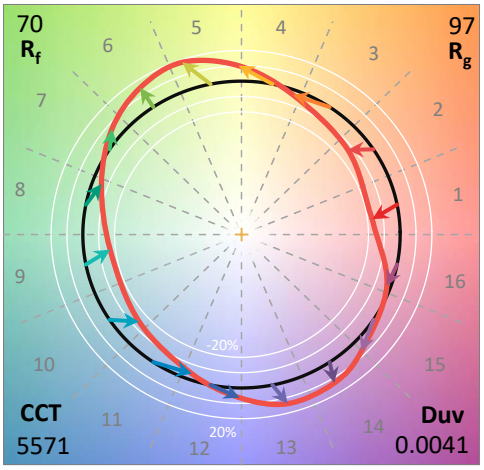
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-7 |
| 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-757-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 5700K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 5571 |
| CIE u': | 0.2033 |
| CIE v': | 0.4806 |
| Duv: | 0.0041 |
| CIE x: | 0.3308 |
| CIE y: | 0.3476 |
| CIE z: | 0.3216 |
| Peak Wavelength (nm): | 442 |
| Dominant Wavelength (nm): | 544 |
| Purity: | 3.635698 |
| Rf: | 70.4 |
| Rg: | 97.1 |

| | |
|---|---|
| CRI (Ra): | 69.9 |
| R1: | 68.8 |
| R2: | 72.5 |
| R3: | 76.8 |
| R4: | 72.0 |
| R5: | 70.9 |
| R6: | 65.6 |
| R7: | 75.5 |
| R8: | 56.8 |
| R9: | -35.4 |
| R10: | 36.7 |
| R11: | 73.9 |
| R12: | 47.8 |
| R13: | 68.0 |
| R14: | 87.0 |
| R15: | 59.8 |




## Test Conditions

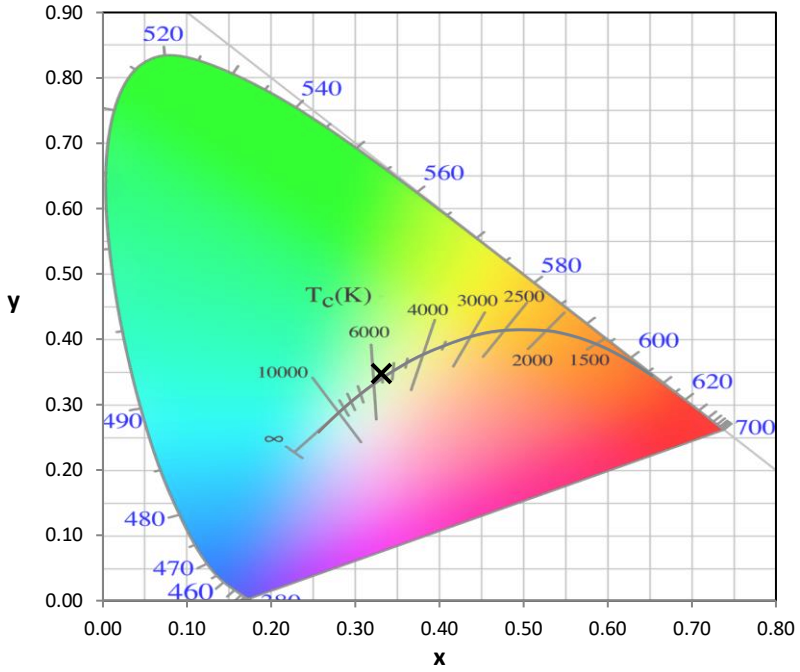
| | |
|---|---|
| Stabilization Time: | 20M |
| Operation Time: | 1H 20M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-7

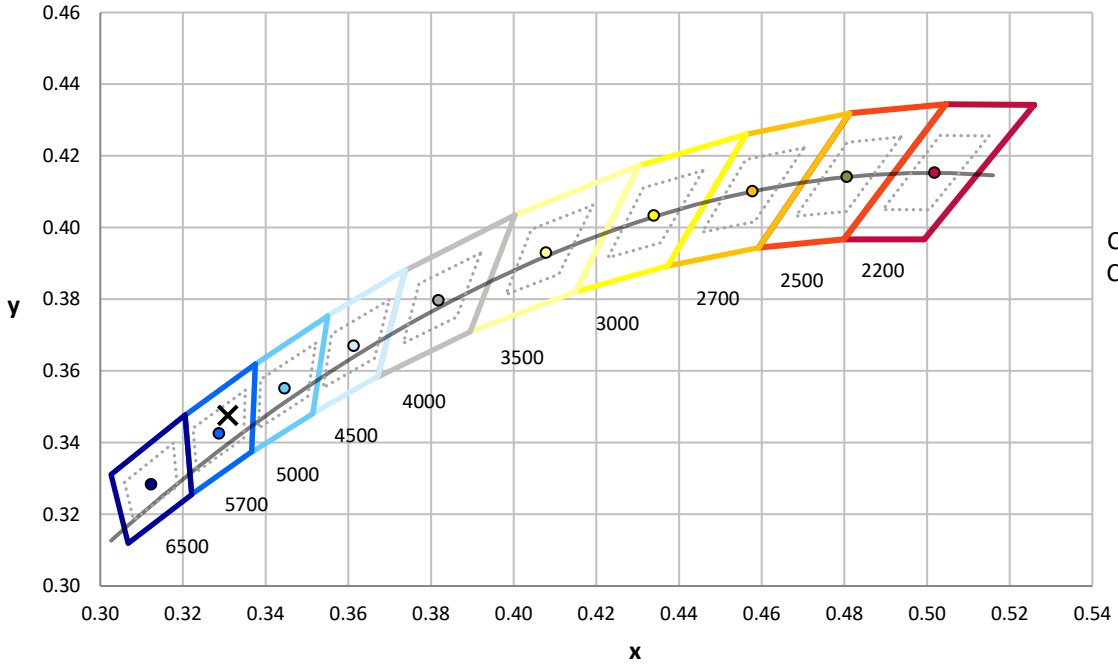
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

REPORT NUMBER: SP1-2407-184-7

## CIE 1931 Chromaticity Diagram




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

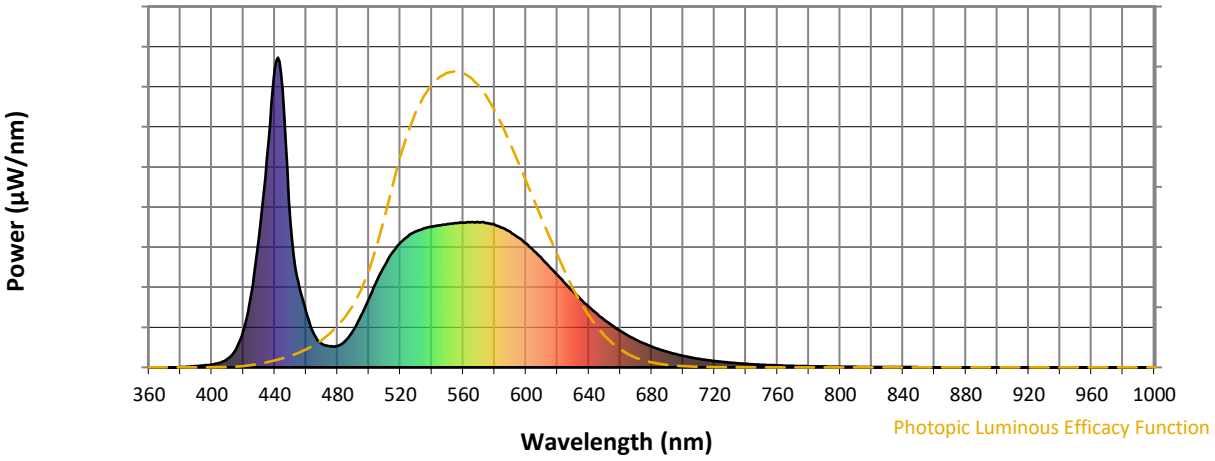



CCT = 5571K
CIE x = 0.3308
CIE y = 0.3476
Duv = 0.0041

Point lies inside the ANSI 5700K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-7

## Photopic Flux vs. Wavelength

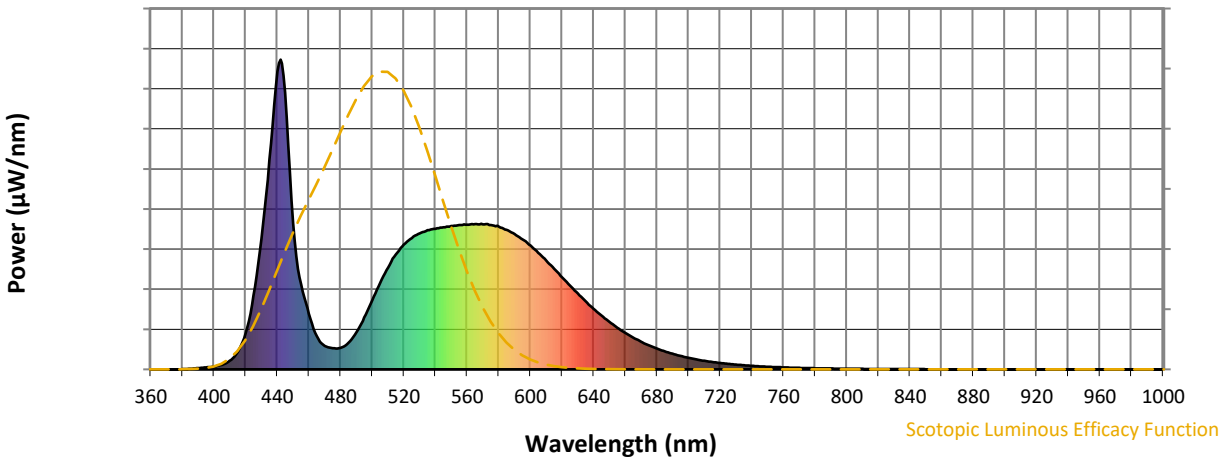



## Photopic Lumens: NR

| 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 | 120 | NR | 620 | 298 | NR | 750 | 9 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 167 | NR | 625 | 270 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 222 | NR | 630 | 245 | NR | 760 | 6 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 279 | NR | 635 | 219 | NR | 765 | 6 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 329 | NR | 640 | 196 | NR | 770 | 5 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 371 | NR | 645 | 173 | NR | 775 | 4 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 403 | NR | 650 | 153 | NR | 780 | 4 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 424 | NR | 655 | 135 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 439 | NR | 660 | 117 | NR | 790 | 3 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 449 | NR | 665 | 103 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 28 | NR | 540 | 454 | NR | 670 | 89 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 459 | NR | 675 | 77 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 118 | NR | 550 | 463 | NR | 680 | 67 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 237 | NR | 555 | 466 | NR | 685 | 58 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 420 | NR | 560 | 467 | NR | 690 | 50 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 677 | NR | 565 | 469 | NR | 695 | 43 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 962 | NR | 570 | 469 | NR | 700 | 37 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 894 | NR | 575 | 466 | NR | 705 | 32 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 472 | NR | 580 | 461 | NR | 710 | 28 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 275 | NR | 585 | 450 | NR | 715 | 24 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 180 | NR | 590 | 437 | NR | 720 | 21 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 420 | NR | 725 | 18 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 76 | NR | 600 | 400 | NR | 730 | 15 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 68 | NR | 605 | 376 | NR | 735 | 13 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 69 | NR | 610 | 352 | NR | 740 | 11 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 86 | NR | 615 | 325 | NR | 745 | 10 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2407-184-7

## Scotopic Flux vs. Wavelength

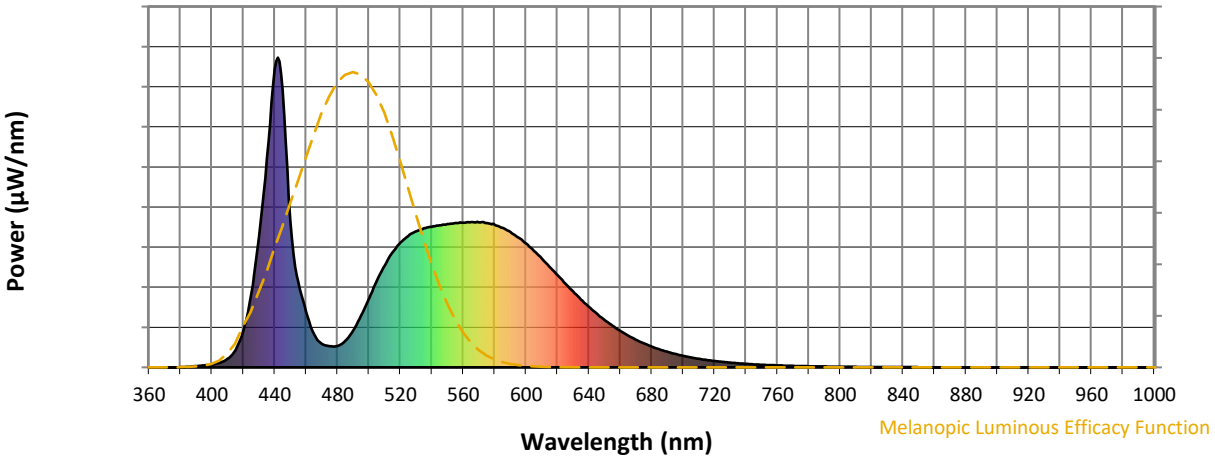



**Scotopic Lumens: NR** **S/P: 1.84**

| 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 | 120 | NR | 620 | 298 | NR | 750 | 9 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 167 | NR | 625 | 270 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 222 | NR | 630 | 245 | NR | 760 | 6 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 279 | NR | 635 | 219 | NR | 765 | 6 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 329 | NR | 640 | 196 | NR | 770 | 5 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 371 | NR | 645 | 173 | NR | 775 | 4 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 403 | NR | 650 | 153 | NR | 780 | 4 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 424 | NR | 655 | 135 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 439 | NR | 660 | 117 | NR | 790 | 3 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 449 | NR | 665 | 103 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 28 | NR | 540 | 454 | NR | 670 | 89 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 459 | NR | 675 | 77 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 118 | NR | 550 | 463 | NR | 680 | 67 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 237 | NR | 555 | 466 | NR | 685 | 58 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 420 | NR | 560 | 467 | NR | 690 | 50 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 677 | NR | 565 | 469 | NR | 695 | 43 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 962 | NR | 570 | 469 | NR | 700 | 37 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 894 | NR | 575 | 466 | NR | 705 | 32 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 472 | NR | 580 | 461 | NR | 710 | 28 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 275 | NR | 585 | 450 | NR | 715 | 24 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 180 | NR | 590 | 437 | NR | 720 | 21 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 420 | NR | 725 | 18 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 76 | NR | 600 | 400 | NR | 730 | 15 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 68 | NR | 605 | 376 | NR | 735 | 13 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 69 | NR | 610 | 352 | NR | 740 | 11 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 86 | NR | 615 | 325 | NR | 745 | 10 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2407-184-7

## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 3.71**

| 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 | 120 | NR | 620 | 298 | NR | 750 | 9 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 167 | NR | 625 | 270 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 222 | NR | 630 | 245 | NR | 760 | 6 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 279 | NR | 635 | 219 | NR | 765 | 6 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 329 | NR | 640 | 196 | NR | 770 | 5 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 371 | NR | 645 | 173 | NR | 775 | 4 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 403 | NR | 650 | 153 | NR | 780 | 4 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 424 | NR | 655 | 135 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 439 | NR | 660 | 117 | NR | 790 | 3 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 449 | NR | 665 | 103 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 28 | NR | 540 | 454 | NR | 670 | 89 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 459 | NR | 675 | 77 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 118 | NR | 550 | 463 | NR | 680 | 67 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 237 | NR | 555 | 466 | NR | 685 | 58 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 420 | NR | 560 | 467 | NR | 690 | 50 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 677 | NR | 565 | 469 | NR | 695 | 43 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 962 | NR | 570 | 469 | NR | 700 | 37 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 894 | NR | 575 | 466 | NR | 705 | 32 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 472 | NR | 580 | 461 | NR | 710 | 28 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 275 | NR | 585 | 450 | NR | 715 | 24 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 180 | NR | 590 | 437 | NR | 720 | 21 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 420 | NR | 725 | 18 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 76 | NR | 600 | 400 | NR | 730 | 15 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 68 | NR | 605 | 376 | NR | 735 | 13 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 69 | NR | 610 | 352 | NR | 740 | 11 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 86 | NR | 615 | 325 | NR | 745 | 10 | NR | 875 | 0 | NR | | | |

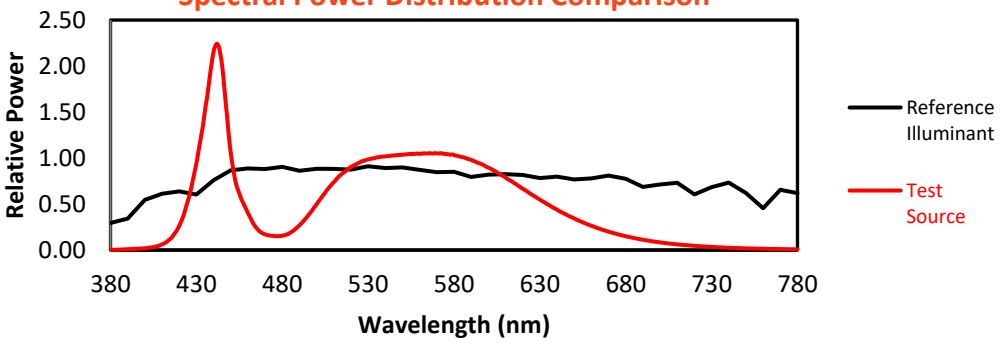
REPORT NUMBER: SP1-2407-184-7

# TM-30-18

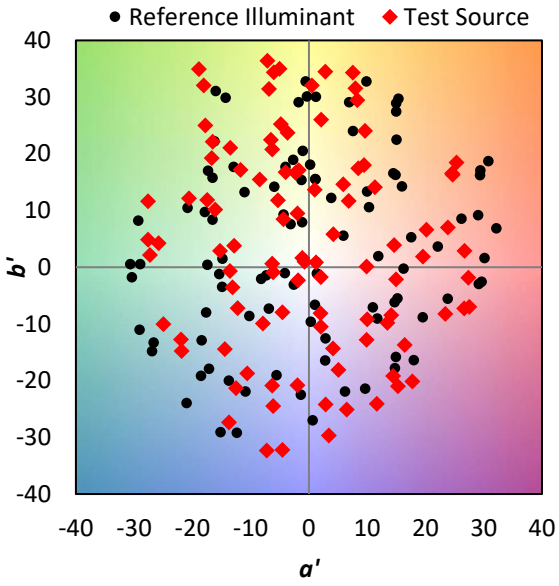
## Summary

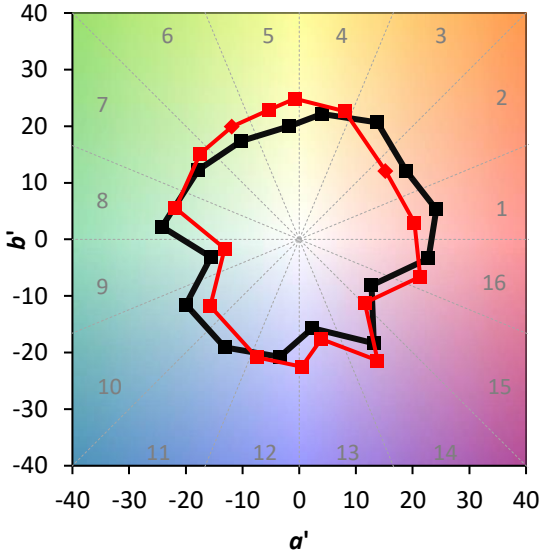
$R_f$ = 70.4
$R_g$ = 97.1
CIE $R_a$ = 69.9
$R_9$ = -35.4

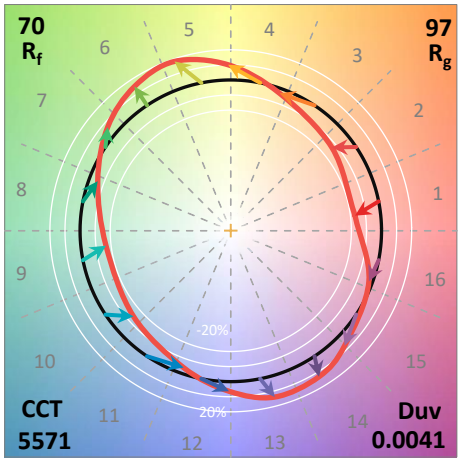
## Spectral Power Distribution Comparison

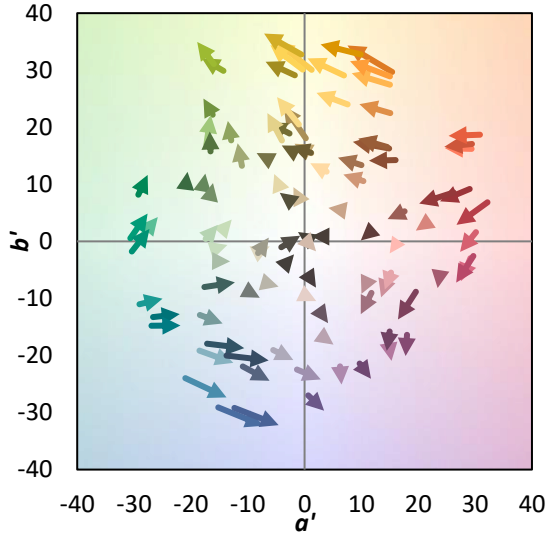



## Color Vector Graphics



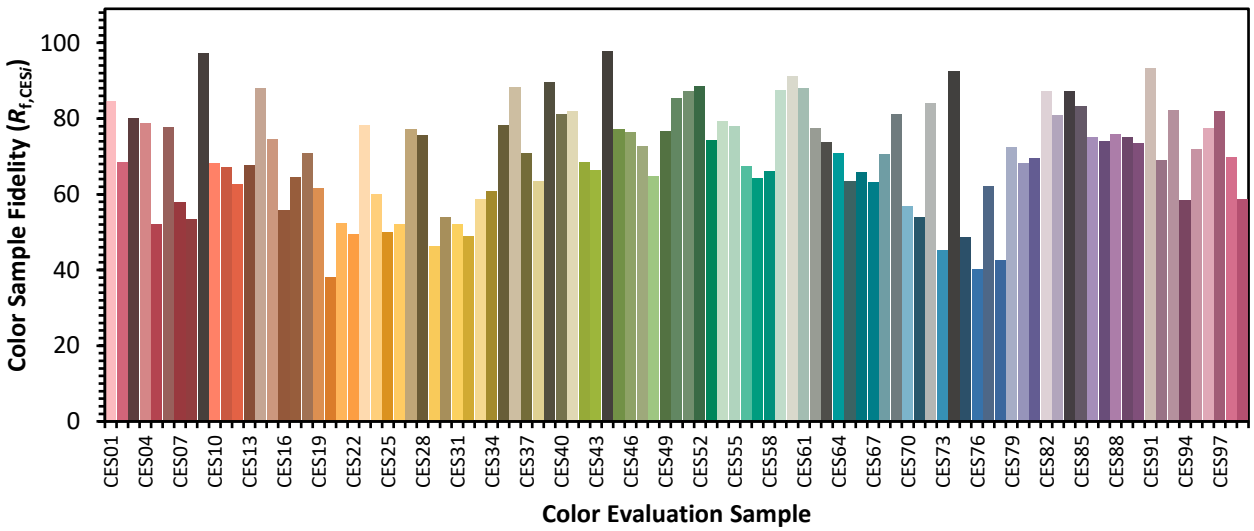



REPORT NUMBER: SP1-2407-184-7

# TM-30-18

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

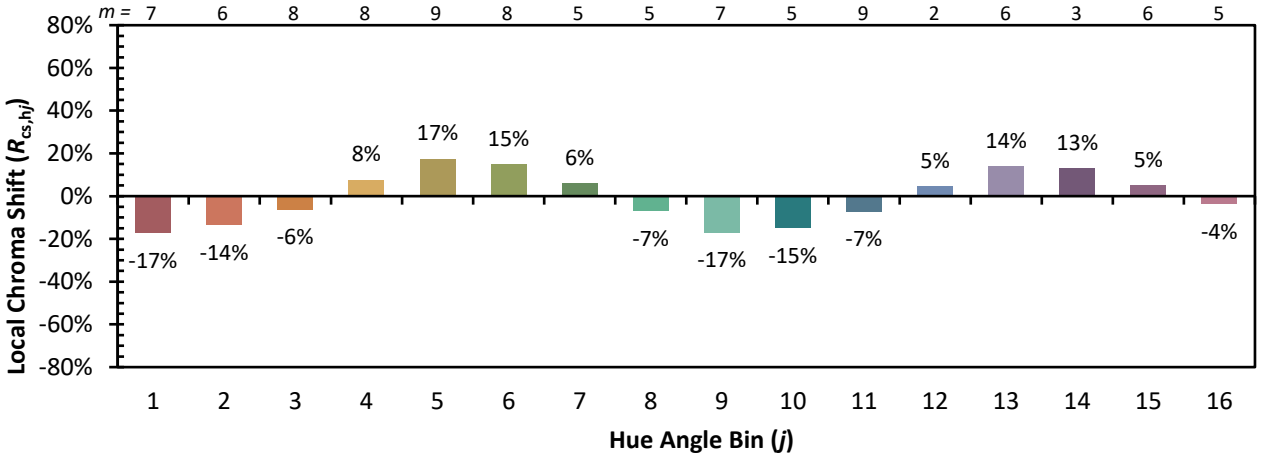
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 52 | CES51 = 87 | CES76 = 40 |
| CES02 = 59 | CES27 = 77 | CES52 = 88 | CES77 = 62 |
| CES03 = 30 | CES28 = 76 | CES53 = 74 | CES78 = 43 |
| CES04 = 68 | CES29 = 46 | CES54 = 79 | CES79 = 72 |
| CES05 = 45 | CES30 = 54 | CES55 = 78 | CES80 = 68 |
| CES06 = 49 | CES31 = 52 | CES56 = 67 | CES81 = 70 |
| CES07 = 38 | CES32 = 49 | CES57 = 64 | CES82 = 87 |
| CES08 = 37 | CES33 = 59 | CES58 = 66 | CES83 = 81 |
| CES09 = 29 | CES34 = 61 | CES59 = 87 | CES84 = 87 |
| CES10 = 72 | CES35 = 78 | CES60 = 91 | CES85 = 83 |
| CES11 = 55 | CES36 = 88 | CES61 = 88 | CES86 = 75 |
| CES12 = 61 | CES37 = 71 | CES62 = 77 | CES87 = 74 |
| CES13 = 41 | CES38 = 64 | CES63 = 74 | CES88 = 76 |
| CES14 = 74 | CES39 = 90 | CES64 = 71 | CES89 = 75 |
| CES15 = 70 | CES40 = 81 | CES65 = 63 | CES90 = 73 |
| CES16 = 46 | CES41 = 82 | CES66 = 66 | CES91 = 93 |
| CES17 = 48 | CES42 = 69 | CES67 = 63 | CES92 = 69 |
| CES18 = 55 | CES43 = 67 | CES68 = 71 | CES93 = 82 |
| CES19 = 70 | CES44 = 98 | CES69 = 81 | CES94 = 58 |
| CES20 = 63 | CES45 = 77 | CES70 = 57 | CES95 = 72 |
| CES21 = 85 | CES46 = 76 | CES71 = 54 | CES96 = 78 |
| CES22 = 77 | CES47 = 73 | CES72 = 84 | CES97 = 82 |
| CES23 = 91 | CES48 = 65 | CES73 = 45 | CES98 = 70 |
| CES24 = 90 | CES49 = 77 | CES74 = 92 | CES99 = 59 |
| CES25 = 71 | CES50 = 85 | CES75 = 49 | |

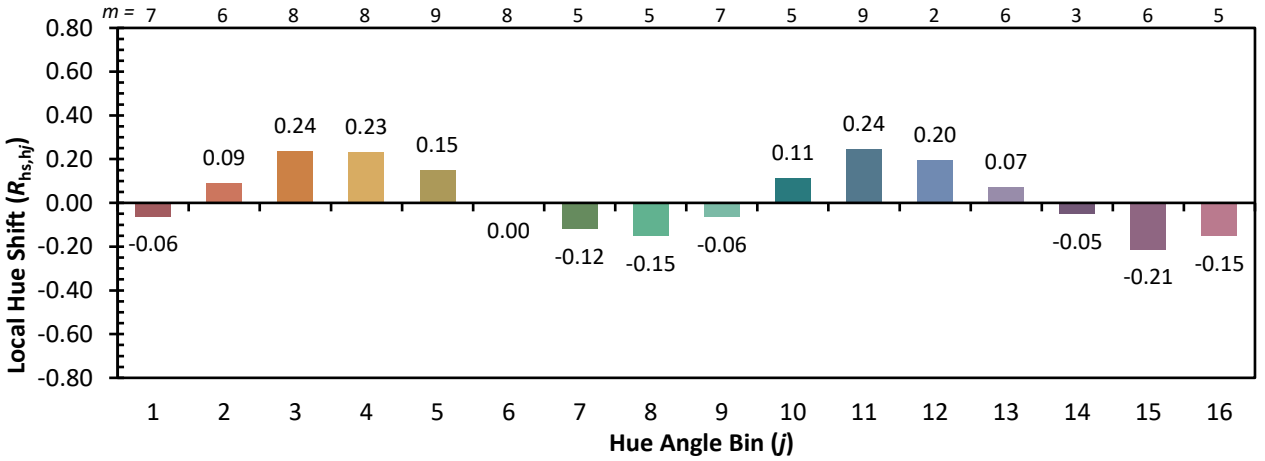


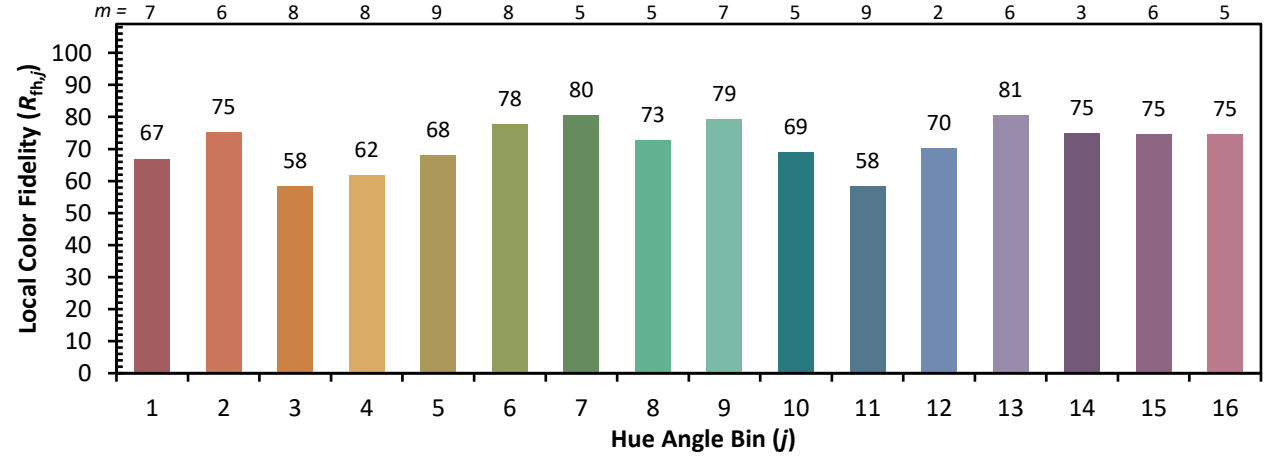
REPORT NUMBER: SP1-2407-184-7

# TM-30-18

## Color Rendition by Hue-Angle Bin



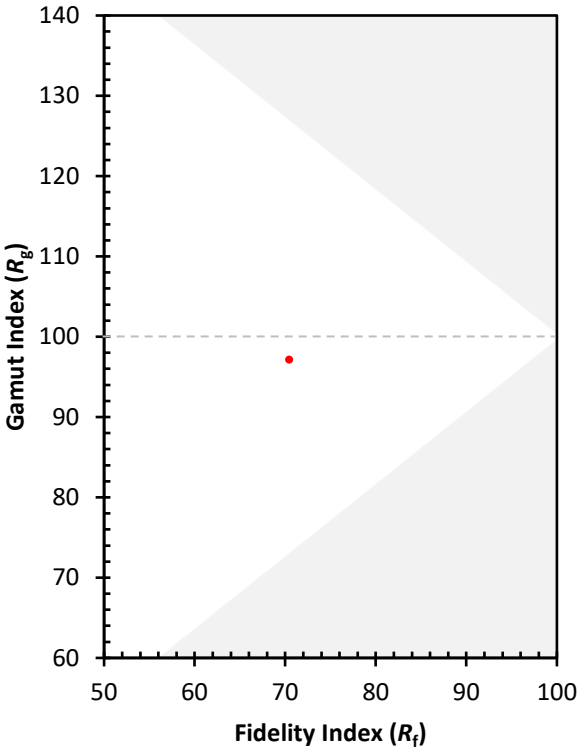



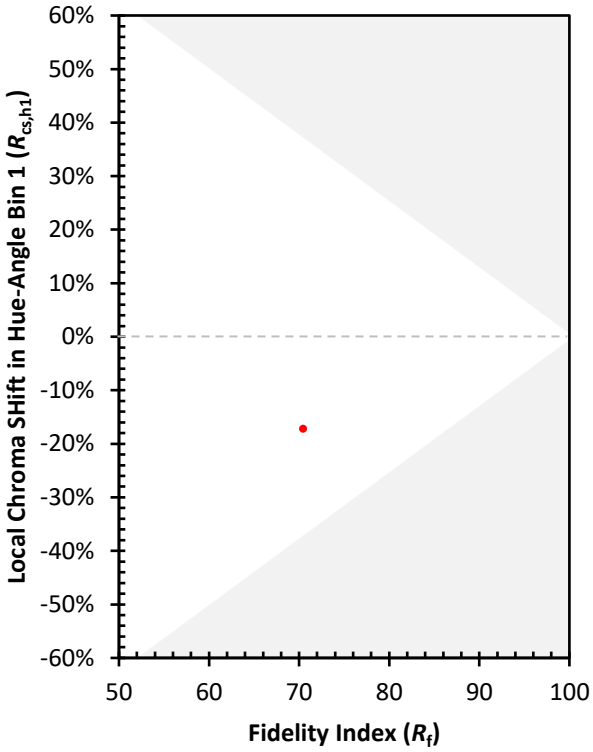



REPORT NUMBER: SP1-2407-184-7

# TM-30-18

## Measure Comparisons




(END OF REPORT)