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: P1455999

Luminaire Tested: GLAN-SB8A-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: | P1455999 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/21/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB8A-760-U-T2LG |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 350mA 8xLight Square PACKAGE 70CRI 5700K FIXTURE w/ TYPE II LOW GLARE |
| Light Source: | (208) 5700K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 37125.2 lumens |
| Efficiency: | N/A |
| Efficacy: | 163.5 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1.5' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B4 - U0 - G4 |

| | |
|---|---|
| Input Watts (W): | 227.1 |
| 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: P1455999
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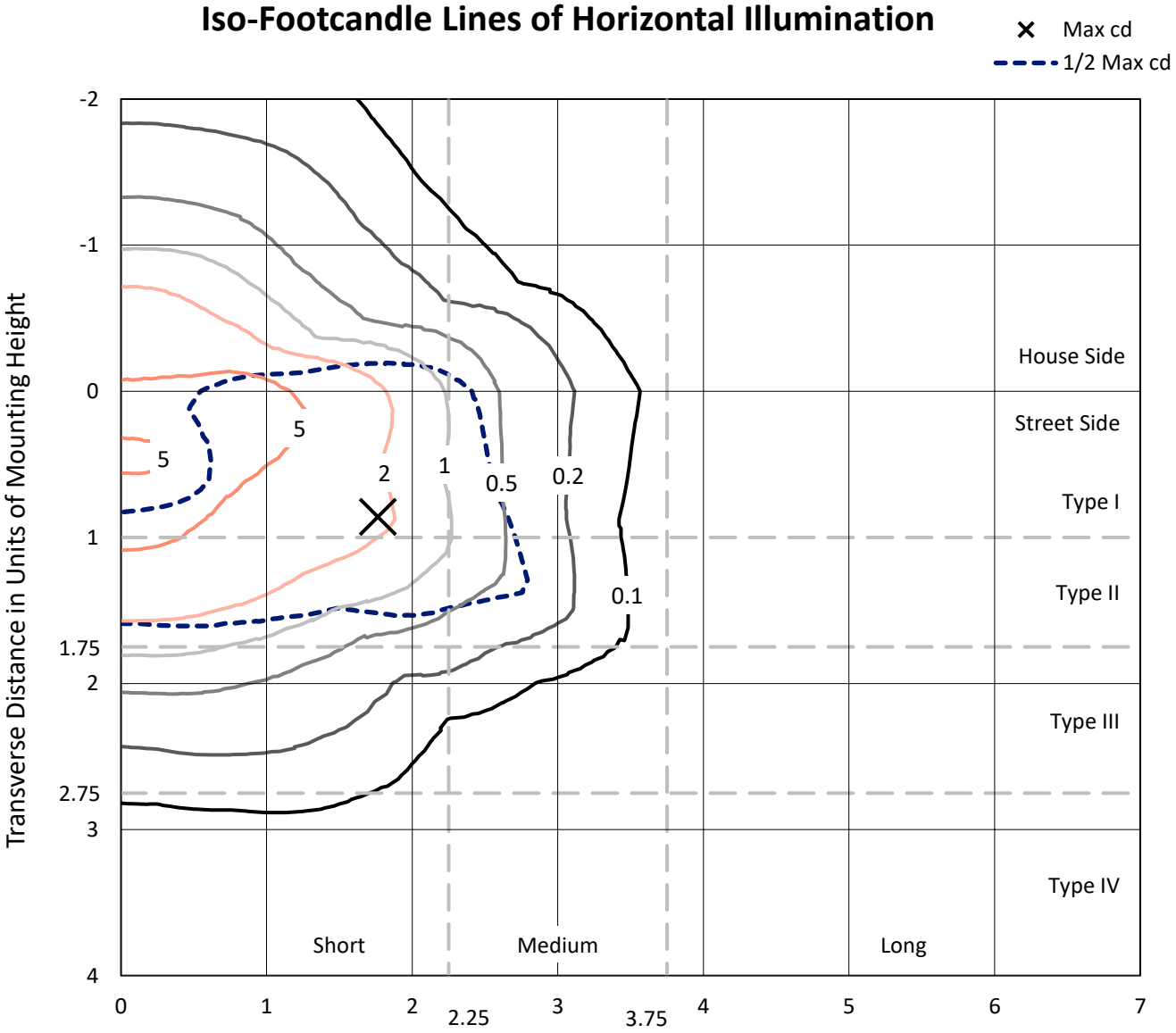
## Iso-Footcandle Lines of Horizontal Illumination




Based on 30 foot mounting height. Maximum calculated value = 9.7 fc
Type II - Short - N/A

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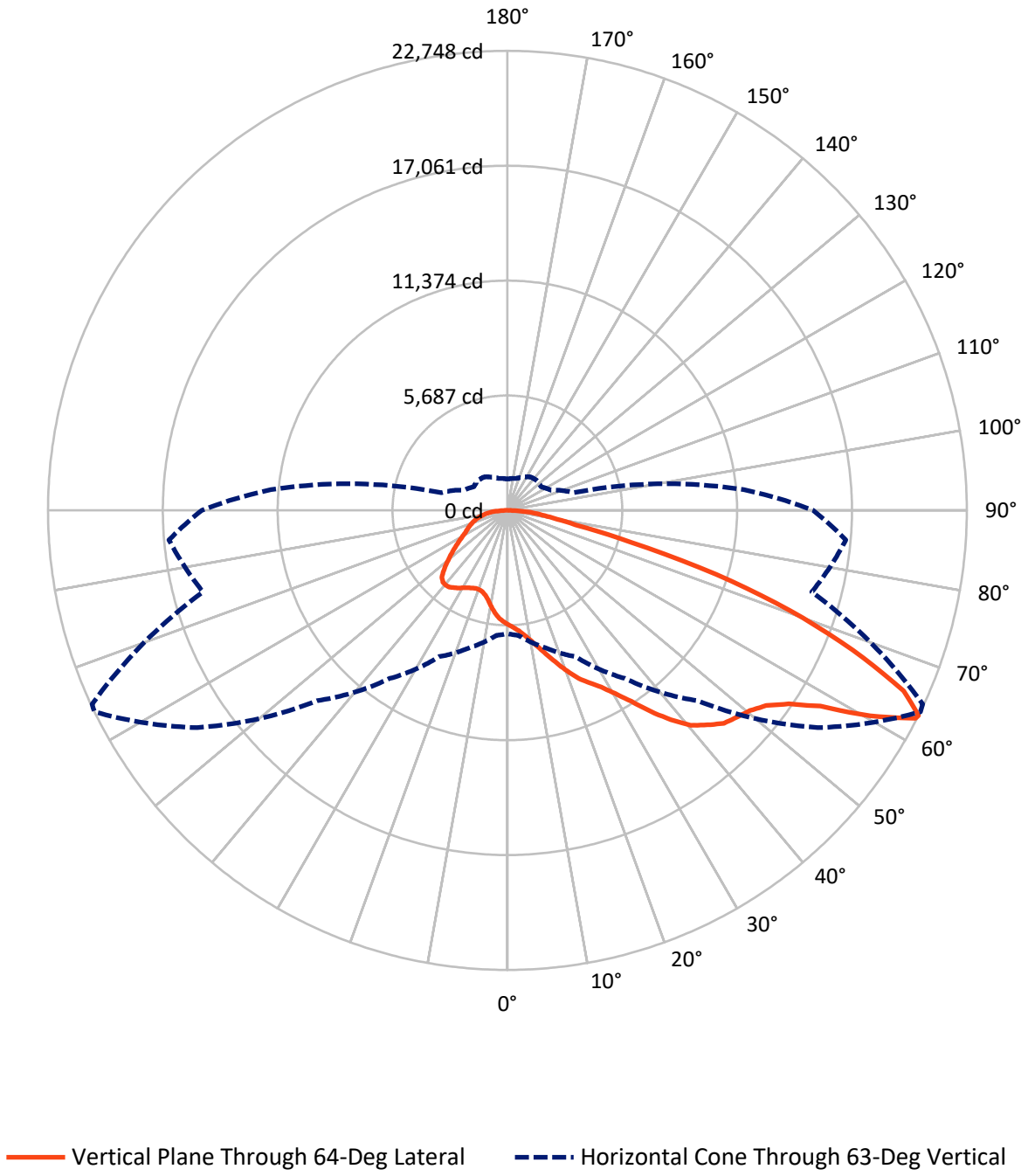
## Luminous Intensity Polar Plot



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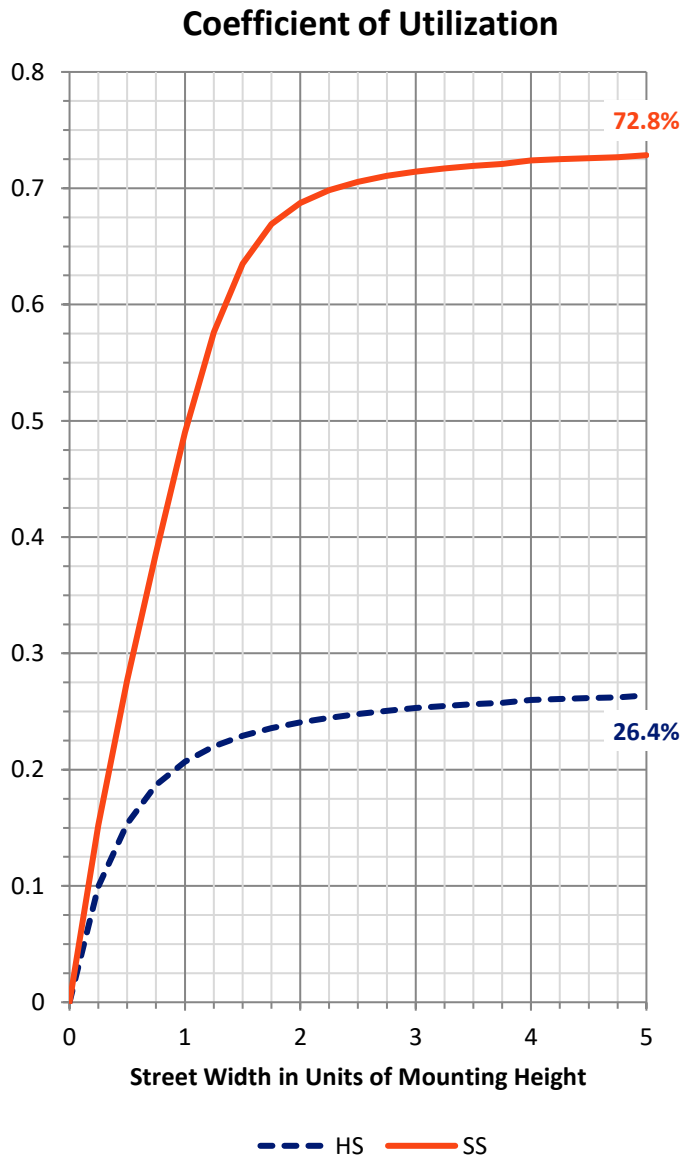
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 9974.5 | 0.0 | 9974.5 |
| | % Fixture | 26.9 | 0.0 | 26.9 |
| **Street Side** | Lumens | 27150.7 | 0.0 | 27150.7 |
| | % Fixture | 73.1 | 0.0 | 73.1 |
| **Total** | Lumens | 37125.2 | 0.0 | 37125.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 519.1 | 1.4 |
| 10°-20° | 1598.1 | 4.3 |
| 20°-30° | 2922.3 | 7.9 |
| 30°-40° | 5026.8 | 13.5 |
| 40°-50° | 7413.1 | 20.0 |
| 50°-60° | 8885.1 | 23.9 |
| 60°-70° | 7131.2 | 19.2 |
| 70°-80° | 2865.5 | 7.7 |
| 80°-90° | 764.1 | 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° | 37125.2 | 100.0 |
| 0°-180° | 37125.2 | 100.0 |



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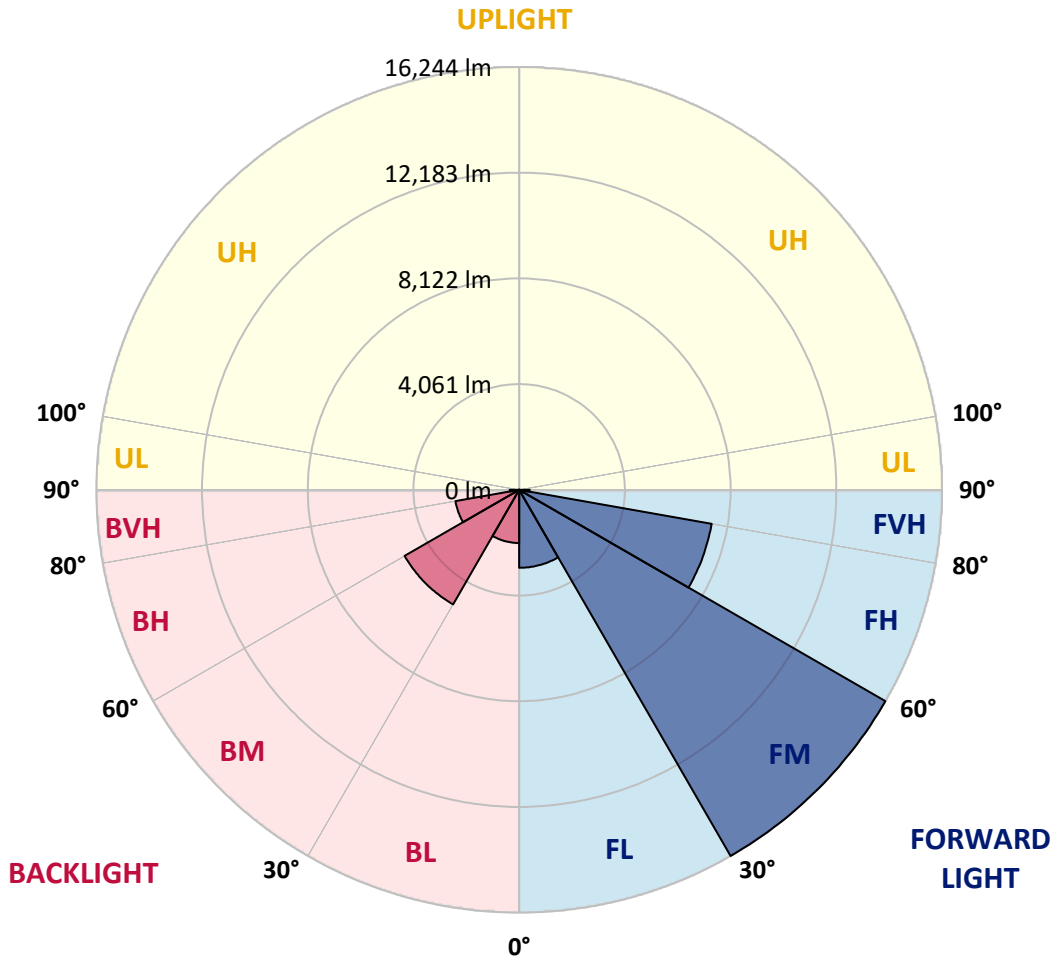
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 2995.3 | 8.1 | | | |
| FM | (30°-60°) | 16244.2 | 43.8 | | | |
| FH | (60°-80°) | 7509.7 | 20.2 | | | G4/12000 |
| FVH | (80°-90°) | 401.4 | 1.1 | | | G3/500 |
| BL | (0°-30°) | 2044.1 | 5.5 | B3/2500 | | |
| BM | (30°-60°) | 5080.8 | 13.7 | B4/8500 | | |
| BH | (60°-80°) | 2486.9 | 6.7 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 362.6 | 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: P1455999
CATALOG NUMBER: GLAN-SB8A-760-U-T2LG

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5653.7 | 5653.7 | 5653.7 | 5653.7 | 5653.7 | 5653.7 | 5653.7 | *5653.7* | 5653.7 | 5653.7 | 5653.7 |
| 2.5° | 5887.2 | 5895.6 | 5870.6 | 5862.2 | 5878.9 | 5845.5 | 5837.2 | *5803.8* | 5787.2 | 5753.8 | 5712.1 |
| 5° | 6054.0 | 6062.3 | 6045.7 | 6045.7 | 6062.3 | 6037.3 | 6029.0 | *5995.6* | 5979.0 | 5945.6 | 5862.2 |
| 7.5° | 6045.7 | 6054.0 | 6070.7 | 6137.4 | 6220.8 | 6254.1 | 6279.2 | *6254.1* | 6245.8 | 6195.8 | 6112.4 |
| 10° | 5912.2 | 5920.6 | 5962.3 | 6062.3 | 6270.8 | 6420.9 | 6579.4 | *6579.4* | 6596.0 | 6554.3 | 6404.2 |
| 12.5° | 5728.8 | 5737.1 | 5837.2 | 5995.6 | 6270.8 | 6529.3 | 6854.5 | *6988.0* | 6979.6 | 6954.6 | 6779.5 |
| 15° | 5286.8 | 5286.8 | 5436.9 | 5737.1 | 6179.1 | 6604.4 | 7088.0 | *7446.6* | 7454.9 | 7480.0 | 7271.5 |
| 17.5° | 4911.6 | 4919.9 | 5045.0 | 5311.9 | 5887.2 | 6562.7 | 7338.2 | *7955.3* | 7980.3 | 8122.0 | 7821.8 |
| 20° | 4944.9 | 4944.9 | 4986.6 | 5103.4 | 5570.4 | 6395.9 | 7480.0 | *8497.3* | 8580.7 | 8914.2 | 8539.0 |
| 22.5° | 5203.4 | 5203.4 | 5236.8 | 5228.5 | 5512.0 | 6287.5 | 7571.7 | *9039.3* | 9189.4 | 9881.5 | 9397.9 |
| 25° | 5678.8 | 5670.4 | 5637.1 | 5587.0 | 5753.8 | 6404.2 | 7780.2 | *9456.3* | 9748.1 | 10948.9 | 10390.2 |
| 27.5° | 6262.5 | 6245.8 | 6195.8 | 6112.4 | 6229.1 | 6754.5 | 8138.7 | *9898.2* | 10215.1 | 12116.4 | 11440.9 |
| 30° | 6988.0 | 6937.9 | 6887.9 | 6779.5 | 6904.6 | 7329.9 | 8672.4 | *10523.6* | 10823.8 | 13442.2 | 12708.4 |
| 32.5° | 7846.9 | 7905.2 | 7738.5 | 7588.4 | 7721.8 | 8113.7 | 9464.6 | *11265.8* | 11591.0 | 14826.5 | 14026.0 |
| 35° | 9131.0 | 9306.2 | 9256.1 | 8497.3 | 8622.4 | 9056.0 | 10390.2 | *12224.8* | 12516.6 | 16085.6 | 15376.8 |
| 37.5° | 10398.6 | 10356.9 | 10398.6 | 9764.8 | 9564.7 | 10090.0 | 11382.5 | *13142.0* | 13425.6 | 17111.3 | 16569.3 |
| 40° | 11415.9 | 11541.0 | 11541.0 | 11024.0 | 10765.5 | 11115.7 | 12283.1 | *13984.3* | 14259.4 | 17678.4 | 17428.2 |
| 42.5° | 12525.0 | 12541.6 | 12508.3 | 12058.0 | 11957.9 | 12049.6 | 13075.3 | *14517.9* | 14743.1 | 17970.2 | 18011.9 |
| 45° | 13775.8 | 13767.4 | 13625.7 | 13250.4 | 13100.3 | 13017.0 | 13567.3 | *15035.0* | 15260.1 | 18103.7 | 18328.8 |
| 47.5° | 14809.8 | 14851.5 | 14859.8 | 14459.6 | 14209.4 | 13850.8 | 13992.6 | *15293.5* | 15552.0 | 17953.6 | 18395.5 |
| 50° | 14868.2 | 14934.9 | 15251.8 | 15368.5 | 15318.5 | 14743.1 | 14384.5 | *15568.6* | 15827.1 | 17986.9 | 18637.3 |
| 52.5° | 14501.3 | 14568.0 | 14976.6 | 15460.2 | 16044.0 | 15768.8 | 15001.6 | *16044.0* | 16310.8 | 18312.1 | 19187.7 |
| 55° | 13517.3 | 13625.7 | 14234.4 | 14909.9 | 15952.2 | 16344.2 | 16094.0 | *16902.9* | 17153.0 | 18570.6 | 19829.8 |
| 57.5° | 11766.1 | 11899.5 | 12741.8 | 13817.5 | 15243.4 | 16210.7 | 17678.4 | *18278.8* | 18487.2 | 18754.1 | 19838.1 |
| 60° | 8797.5 | 8905.9 | 10223.4 | 11674.4 | 13817.5 | 15376.8 | 18620.7 | *20638.7* | 20755.4 | 17761.8 | 18712.4 |
| 62.5° | 6479.3 | 6587.7 | 7471.6 | 8514.0 | 10857.2 | 13842.5 | 18804.1 | *22681.7* | 22698.4 | 15968.9 | 17161.4 |
| 63° | *6104.0* | *6212.4* | *7013.0* | *7988.6* | *10156.7* | *13325.5* | *18745.7* | *22748.4* | *22690.0* | *15602.0* | *16819.5* |
| 65° | 4753.1 | 4944.9 | 5778.8 | 6521.0 | 7613.4 | 10607.0 | 17995.2 | *21564.3* | 21647.7 | 14517.9 | 15101.7 |
| 67.5° | 3235.5 | 3377.2 | 4436.3 | 5295.2 | 5753.8 | 6754.5 | 14759.8 | *18453.9* | 18587.3 | 13392.2 | 12049.6 |
| 70° | 2501.7 | 2568.4 | 3185.4 | 4194.4 | 4653.1 | 4294.5 | 9623.0 | *14859.8* | 14859.8 | 10456.9 | 8539.0 |
| 72.5° | 1959.6 | 1984.6 | 2401.6 | 3277.2 | 3744.1 | 3302.2 | 5361.9 | *10807.2* | 10406.9 | 6204.1 | 5695.4 |
| 75° | 1400.9 | 1434.3 | 1809.5 | 2443.3 | 2985.3 | 2601.7 | 3427.3 | *6295.8* | 6054.0 | 3569.0 | 3802.5 |
| 77.5° | 1109.1 | 1125.7 | 1350.9 | 1801.2 | 2418.3 | 1984.6 | 2610.1 | *3435.6* | 3402.3 | 2510.0 | 2443.3 |
| 80° | 875.6 | 908.9 | 1059.0 | 1292.5 | 1867.9 | 1551.0 | 1943.0 | *2268.2* | 2201.5 | 1726.1 | 1567.7 |
| 82.5° | 625.4 | 683.8 | 817.2 | 984.0 | 1384.2 | 1109.1 | 1275.8 | *1601.1* | 1601.1 | 1300.9 | 1034.0 |
| 85° | 383.6 | 433.6 | 483.7 | 608.7 | 984.0 | 717.1 | 675.4 | *1034.0* | 1059.0 | 975.6 | 667.1 |
| 87.5° | 183.5 | 200.1 | 233.5 | 258.5 | 358.6 | 325.2 | 266.8 | *391.9* | 400.3 | 433.6 | 275.2 |
| 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: P1455999
CATALOG NUMBER: GLAN-SB8A-760-U-T2LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5653.7 | 5653.7 | 5653.7 | 5653.7 | 5653.7 | 5653.7 | 5653.7 | 5653.7 | 5653.7 | 5653.7 | 5653.7 |
| 2.5° | 5703.8 | 5687.1 | 5603.7 | 5520.3 | 5428.6 | 5345.2 | 5261.8 | 5195.1 | 5120.1 | 5136.7 | 5145.1 |
| 5° | 5812.2 | 5770.5 | 5587.0 | 5370.2 | 5086.7 | 4819.9 | 4561.4 | 4377.9 | 4261.2 | 4227.8 | 4161.1 |
| 7.5° | 6045.7 | 5945.6 | 5612.0 | 5153.4 | 4628.1 | 4211.1 | 3969.3 | 3860.9 | 3827.5 | 3835.9 | 3819.2 |
| 10° | 6312.5 | 6162.4 | 5645.4 | 4894.9 | 4227.8 | 3944.3 | 3910.9 | 3977.6 | 4011.0 | 4044.3 | 4052.7 |
| 12.5° | 6662.7 | 6420.9 | 5628.7 | 4611.4 | 4036.0 | 3986.0 | 4111.1 | 4236.1 | 4311.2 | 4361.2 | 4352.9 |
| 15° | 7071.3 | 6746.1 | 5578.7 | 4377.9 | 4011.0 | 4144.4 | 4302.8 | 4444.6 | 4536.3 | 4586.4 | 4561.4 |
| 17.5° | 7563.3 | 7129.7 | 5520.3 | 4227.8 | 4086.0 | 4244.5 | 4411.3 | 4553.0 | 4653.1 | 4686.4 | 4661.4 |
| 20° | 8172.1 | 7563.3 | 5420.3 | 4161.1 | 4144.4 | 4286.2 | 4436.3 | 4569.7 | 4653.1 | 4686.4 | 4653.1 |
| 22.5° | 8889.2 | 8080.3 | 5336.9 | 4161.1 | 4169.4 | 4286.2 | 4394.6 | 4494.6 | 4569.7 | 4594.7 | 4553.0 |
| 25° | 9806.5 | 8680.7 | 5303.5 | 4227.8 | 4177.8 | 4244.5 | 4302.8 | 4361.2 | 4402.9 | 4419.6 | 4402.9 |
| 27.5° | 10740.4 | 9372.9 | 5320.2 | 4311.2 | 4169.4 | 4186.1 | 4186.1 | 4194.4 | 4202.8 | 4211.1 | 4202.8 |
| 30° | 11816.2 | 10073.3 | 5386.9 | 4419.6 | 4186.1 | 4102.7 | 4077.7 | 4027.7 | 3986.0 | 3952.6 | 3919.3 |
| 32.5° | 12858.5 | 10740.4 | 5503.6 | 4578.0 | 4169.4 | 4011.0 | 3961.0 | 3835.9 | 3719.1 | 3619.1 | 3619.1 |
| 35° | 13984.3 | 11432.6 | 5712.1 | 4694.8 | 4152.7 | 3927.6 | 3785.8 | 3644.1 | 3519.0 | 3377.2 | 3377.2 |
| 37.5° | 14951.6 | 12024.6 | 5878.9 | 4828.2 | 4136.1 | 3827.5 | 3602.4 | 3443.9 | 3310.5 | 3168.8 | 3152.1 |
| 40° | 15627.0 | 12366.5 | 5979.0 | 4878.2 | 4077.7 | 3694.1 | 3427.3 | 3227.1 | 3035.3 | 2843.5 | 2835.2 |
| 42.5° | 15952.2 | 12349.8 | 5920.6 | 4861.6 | 3969.3 | 3527.3 | 3277.2 | 3010.3 | 2751.8 | 2576.7 | 2560.0 |
| 45° | 16127.3 | 12241.4 | 5695.4 | 4719.8 | 3794.2 | 3352.2 | 3085.4 | 2801.9 | 2543.4 | 2384.9 | 2351.6 |
| 47.5° | 16094.0 | 11974.6 | 5386.9 | 4369.6 | 3560.7 | 3160.4 | 2893.6 | 2601.7 | 2393.3 | 2301.5 | 2301.5 |
| 50° | 16185.7 | 11766.1 | 5036.7 | 3969.3 | 3243.8 | 2935.3 | 2718.5 | 2451.6 | 2326.5 | 2209.8 | 2168.1 |
| 52.5° | 16594.3 | 11941.2 | 4736.5 | 3594.0 | 2943.6 | 2718.5 | 2568.4 | 2343.2 | 2184.8 | 2109.7 | 2084.7 |
| 55° | 17136.3 | 12316.5 | 4452.9 | 3260.5 | 2651.8 | 2526.7 | 2451.6 | 2243.2 | 2059.7 | 1984.6 | 1943.0 |
| 57.5° | 17236.4 | 12575.0 | 4177.8 | 2935.3 | 2409.9 | 2376.6 | 2351.6 | 2068.0 | 1917.9 | 1859.6 | 1826.2 |
| 60° | 16544.3 | 12383.2 | 3819.2 | 2643.4 | 2218.1 | 2234.8 | 2168.1 | 1959.6 | 1784.5 | 1726.1 | 1692.8 |
| 62.5° | 15368.5 | 11882.9 | 3460.6 | 2393.3 | 2068.0 | 2101.4 | 2034.7 | 1826.2 | 1651.1 | 1592.7 | 1576.0 |
| 63° | *15135.0* | *11749.4* | *3377.2* | *2368.2* | *2034.7* | *2076.4* | *2018.0* | *1809.5* | *1634.4* | *1576.0* | *1551.0* |
| 65° | 13742.4 | 10948.9 | 3085.4 | 2234.8 | 1926.3 | 1926.3 | 1934.6 | 1726.1 | 1576.0 | 1551.0 | 1534.3 |
| 67.5° | 11207.4 | 9139.4 | 2768.5 | 2076.4 | 1809.5 | 1834.5 | 1876.2 | 1759.5 | 1701.1 | 1684.4 | 1667.8 |
| 70° | 8472.3 | 6879.6 | 2493.3 | 1926.3 | 1684.4 | 1767.8 | 2051.4 | 2001.3 | 1784.5 | 1634.4 | 1601.1 |
| 72.5° | 6004.0 | 4686.4 | 2251.5 | 1776.2 | 1534.3 | 1742.8 | 2126.4 | 1909.6 | 1609.4 | 1434.3 | 1400.9 |
| 75° | 4019.3 | 3018.7 | 2009.7 | 1617.7 | 1367.6 | 1609.4 | 2009.7 | 1742.8 | 1400.9 | 1359.2 | 1309.2 |
| 77.5° | 2526.7 | 2151.4 | 1767.8 | 1434.3 | 1184.1 | 1434.3 | 1826.2 | 1551.0 | 1209.1 | 1225.8 | 1150.8 |
| 80° | 1542.7 | 1534.3 | 1484.3 | 1217.5 | 950.6 | 1142.4 | 1534.3 | 1309.2 | 967.3 | 967.3 | 858.9 |
| 82.5° | 917.3 | 1109.1 | 1259.2 | 1009.0 | 692.1 | 817.2 | 1109.1 | 984.0 | 808.9 | 783.9 | 733.8 |
| 85° | 617.1 | 750.5 | 1000.7 | 775.5 | 442.0 | 500.3 | 767.2 | 825.5 | 742.2 | 650.4 | 608.7 |
| 87.5° | 225.1 | 300.2 | 458.6 | 316.9 | 191.8 | 300.2 | 575.4 | 600.4 | 450.3 | 350.2 | 316.9 |
| 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: SP1-2407-184-7

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

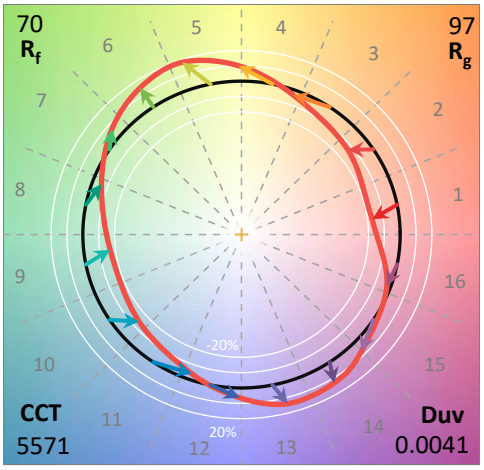
## Test Information

| | |
|---|---|
| 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

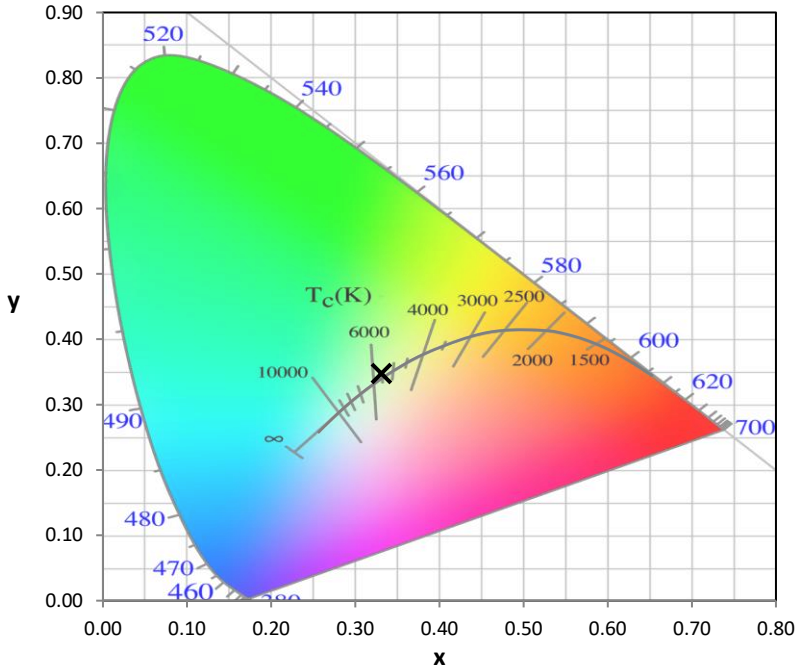
| | |
|---|---|
| Stabilization Time: | 20M |
| Operation Time: | 1H 20M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-7

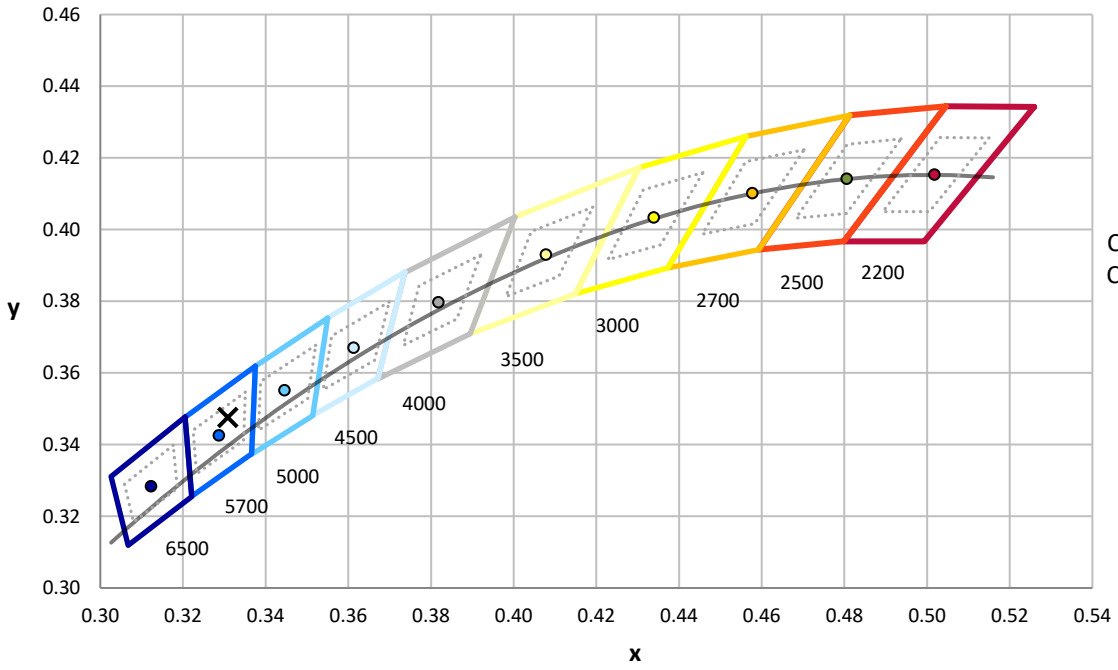
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

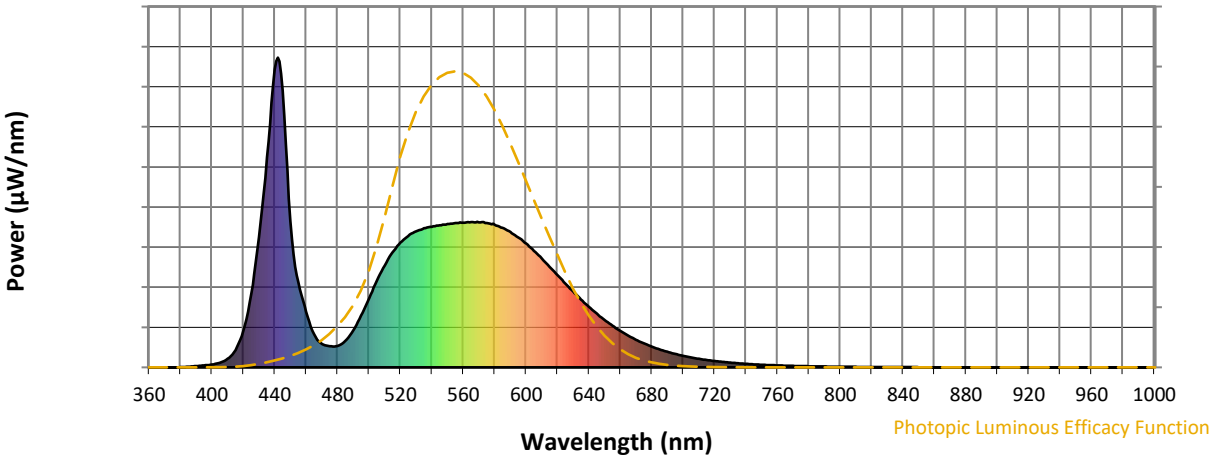



CCT = 5571K
CIE x = 0.3308
CIE y = 0.3476
Duv = 0.0041

Point lies inside the ANSI 5700K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-7

## Photopic Flux vs. Wavelength

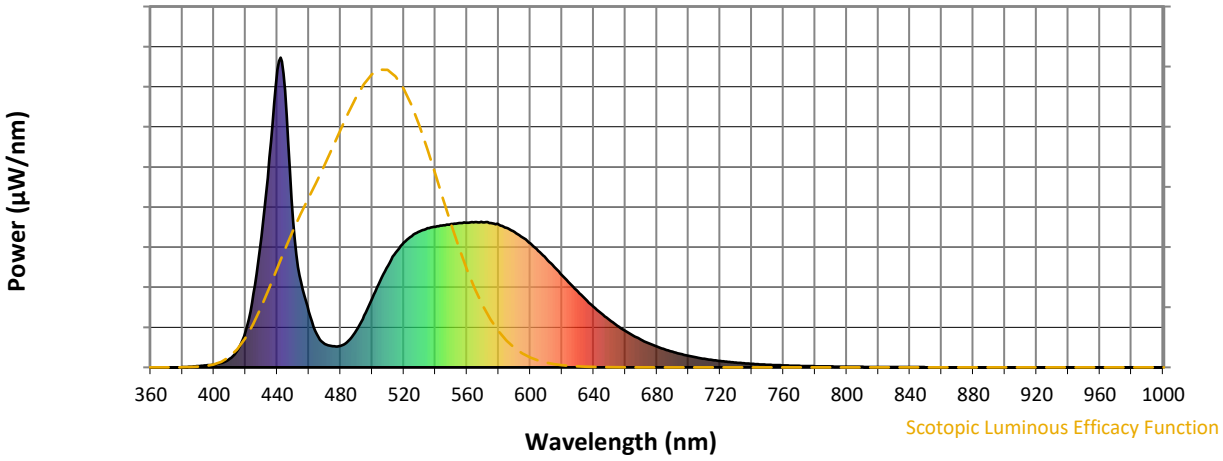



## Photopic Lumens: NR

| 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

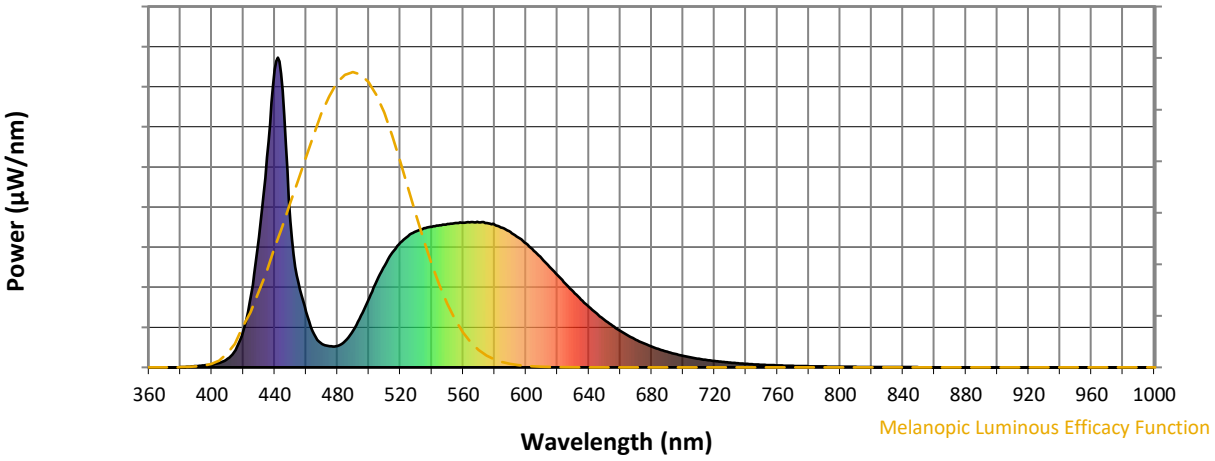



**Scotopic Lumens: NR** **S/P: 1.84**

| 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 | | | |

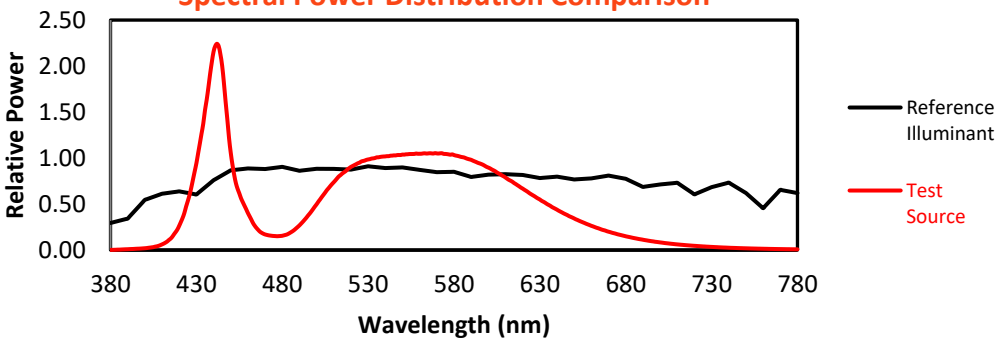
REPORT NUMBER: SP1-2407-184-7

# TM-30-18

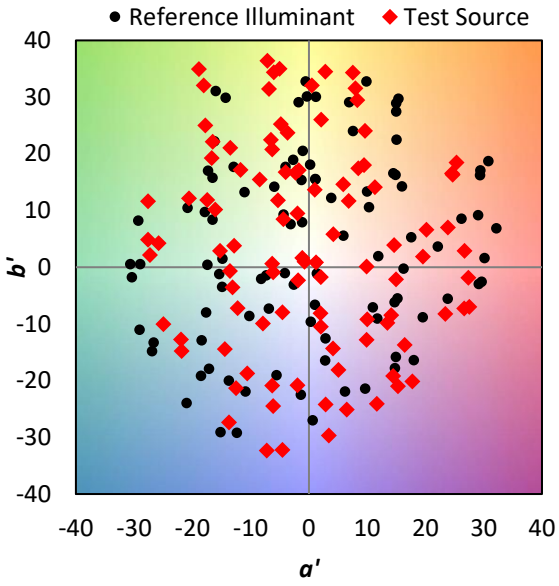
## Summary

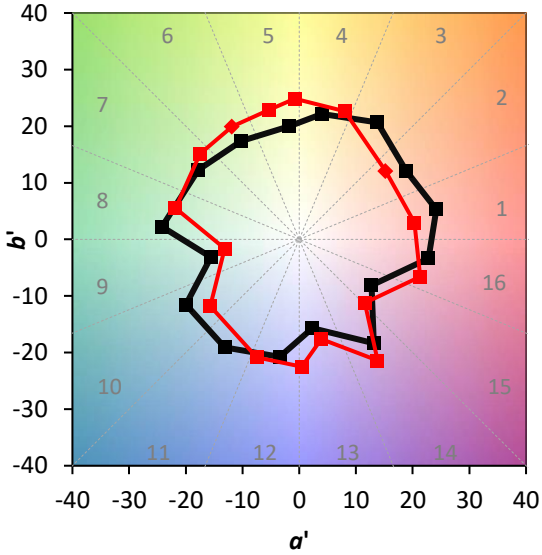
$R_f$ = 70.4
$R_g$ = 97.1
CIE $R_a$ = 69.9
$R_9$ = -35.4

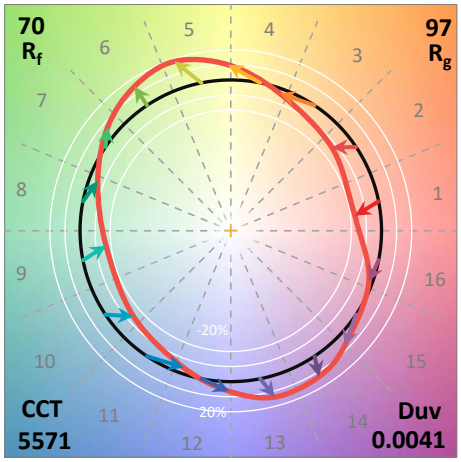
## Spectral Power Distribution Comparison

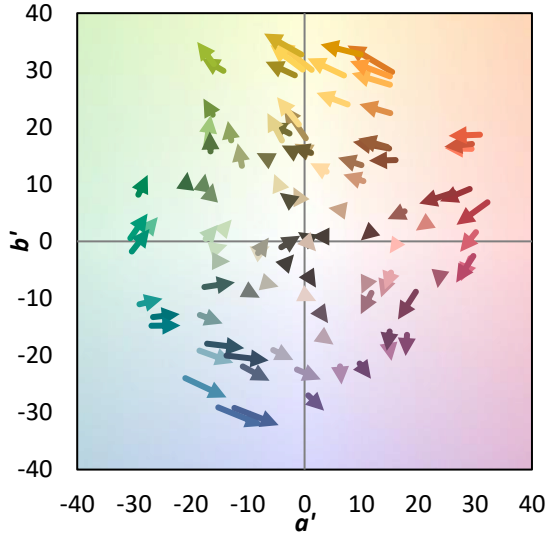



## Color Vector Graphics



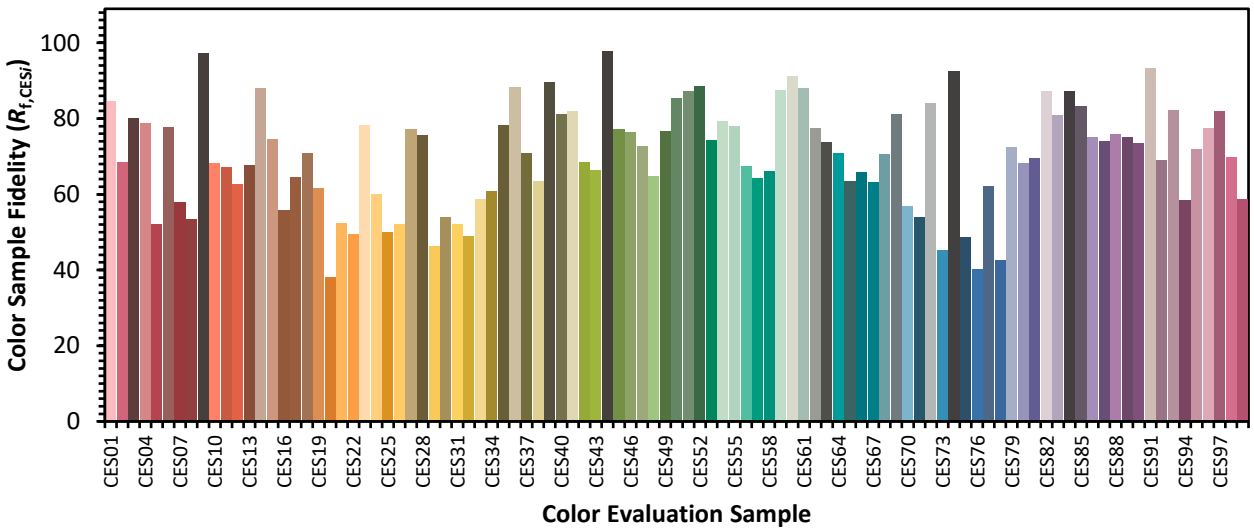



REPORT NUMBER: SP1-2407-184-7

# TM-30-18

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

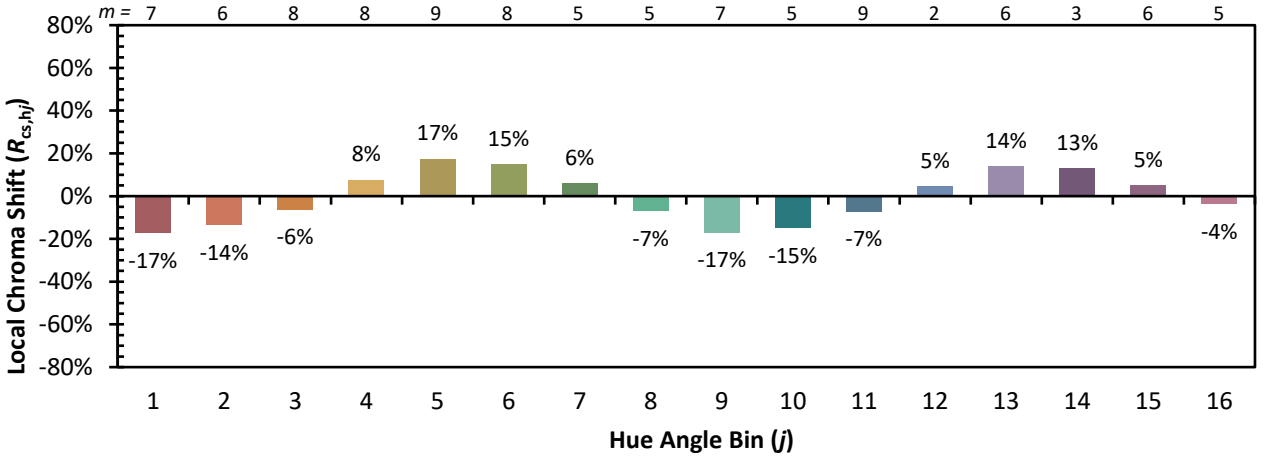
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 52 | CES51 = 87 | CES76 = 40 |
| CES02 = 59 | CES27 = 77 | CES52 = 88 | CES77 = 62 |
| CES03 = 30 | CES28 = 76 | CES53 = 74 | CES78 = 43 |
| CES04 = 68 | CES29 = 46 | CES54 = 79 | CES79 = 72 |
| CES05 = 45 | CES30 = 54 | CES55 = 78 | CES80 = 68 |
| CES06 = 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 | |

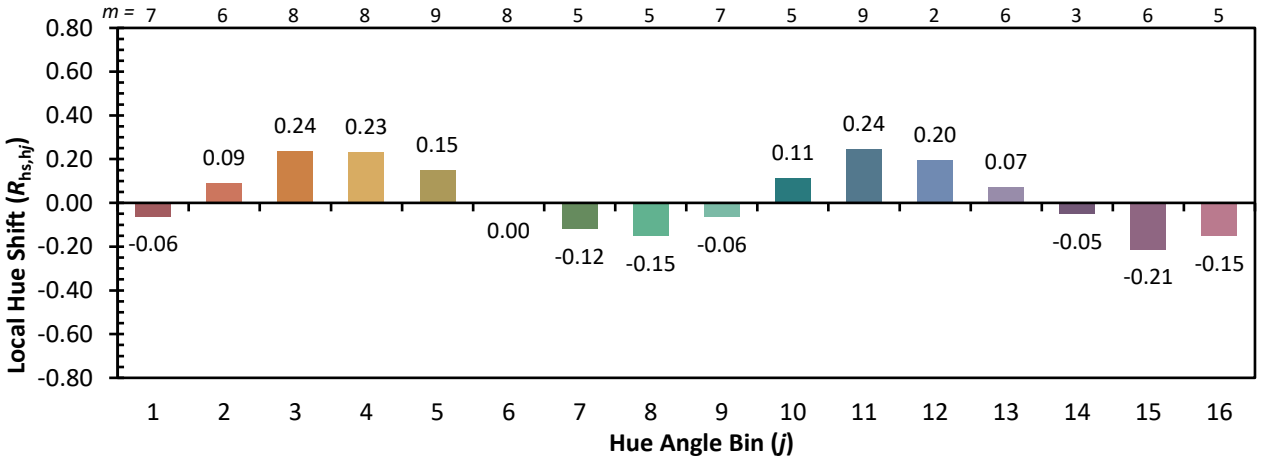


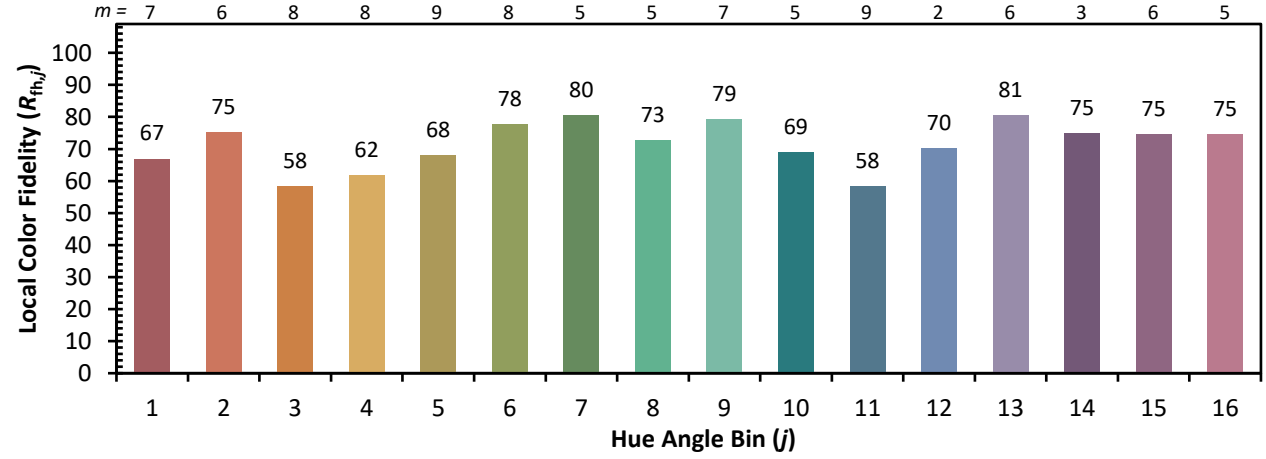
REPORT NUMBER: SP1-2407-184-7

**TM-30-18**

## Color Rendition by Hue-Angle Bin



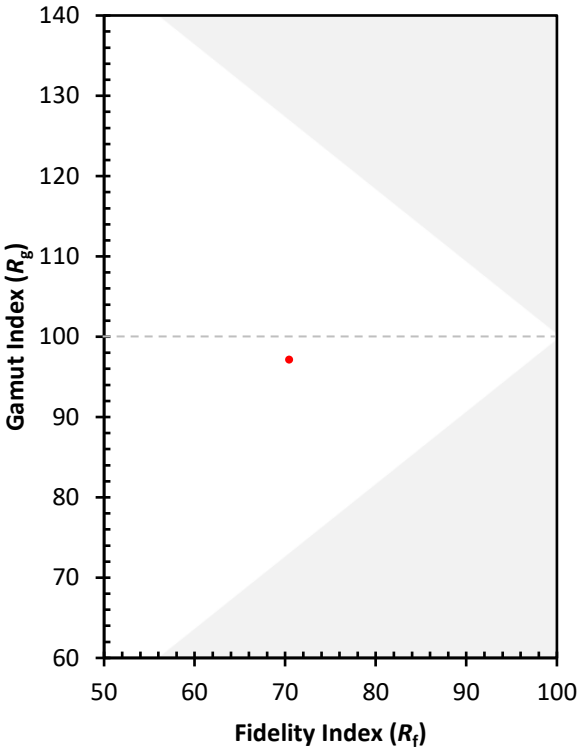



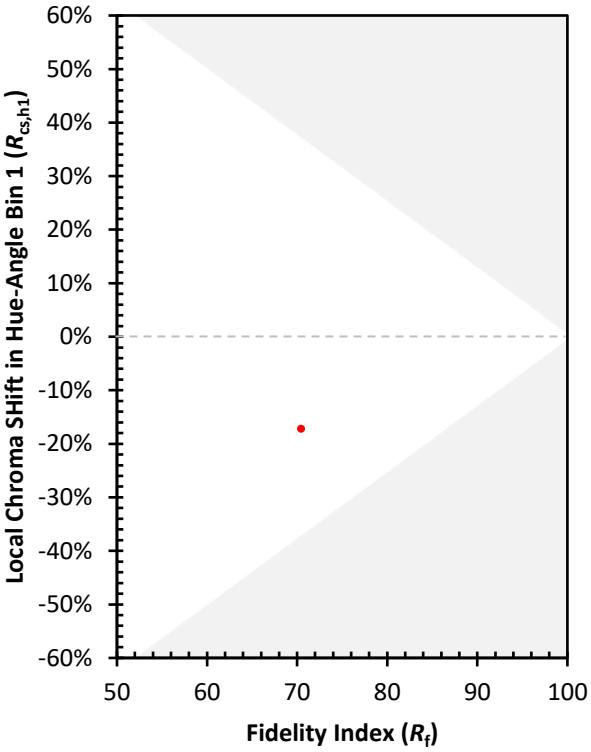



REPORT NUMBER: SP1-2407-184-7

# TM-30-18

## Measure Comparisons




(END OF REPORT)