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

Scaled data based on original data using

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P1363371

Luminaire Tested: **GSS-SB6A-740-U-SL3**

Issue Date: 02/18/2026

Report Generated By 670245763

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

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | P1363371 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB6A-740-U-SL3 |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 6SQUARE 170W 70CRI 4000K FIXTURE w/ TYPE III SPILL CONTROL DISTRIBUTION OPTIC |
| Light Source: | (156) 4000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 25764.3 lumens |
| Efficiency: | N/A |
| Efficacy: | 151.6 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type III - Medium |
| BUG Rating: | B3 - U0 - G4 |

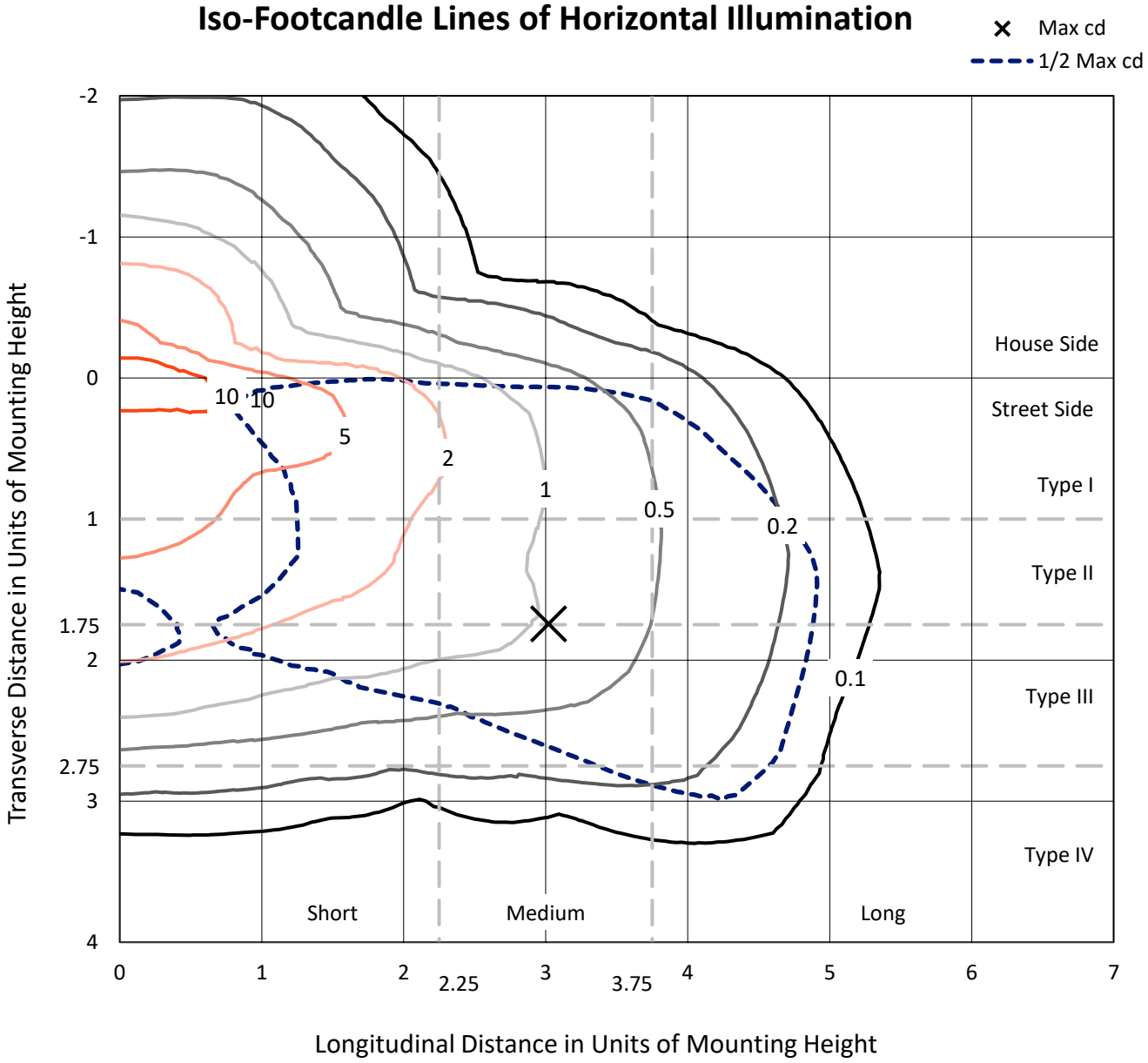
| | |
|---|---|
| Input Watts (W): | 170 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 12.0% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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

Scaled Data Report

REPORT NUMBER: P1363371
CATALOG NUMBER: GSS-SB6A-740-U-SL3

## Iso-Footcandle Lines of Horizontal Illumination



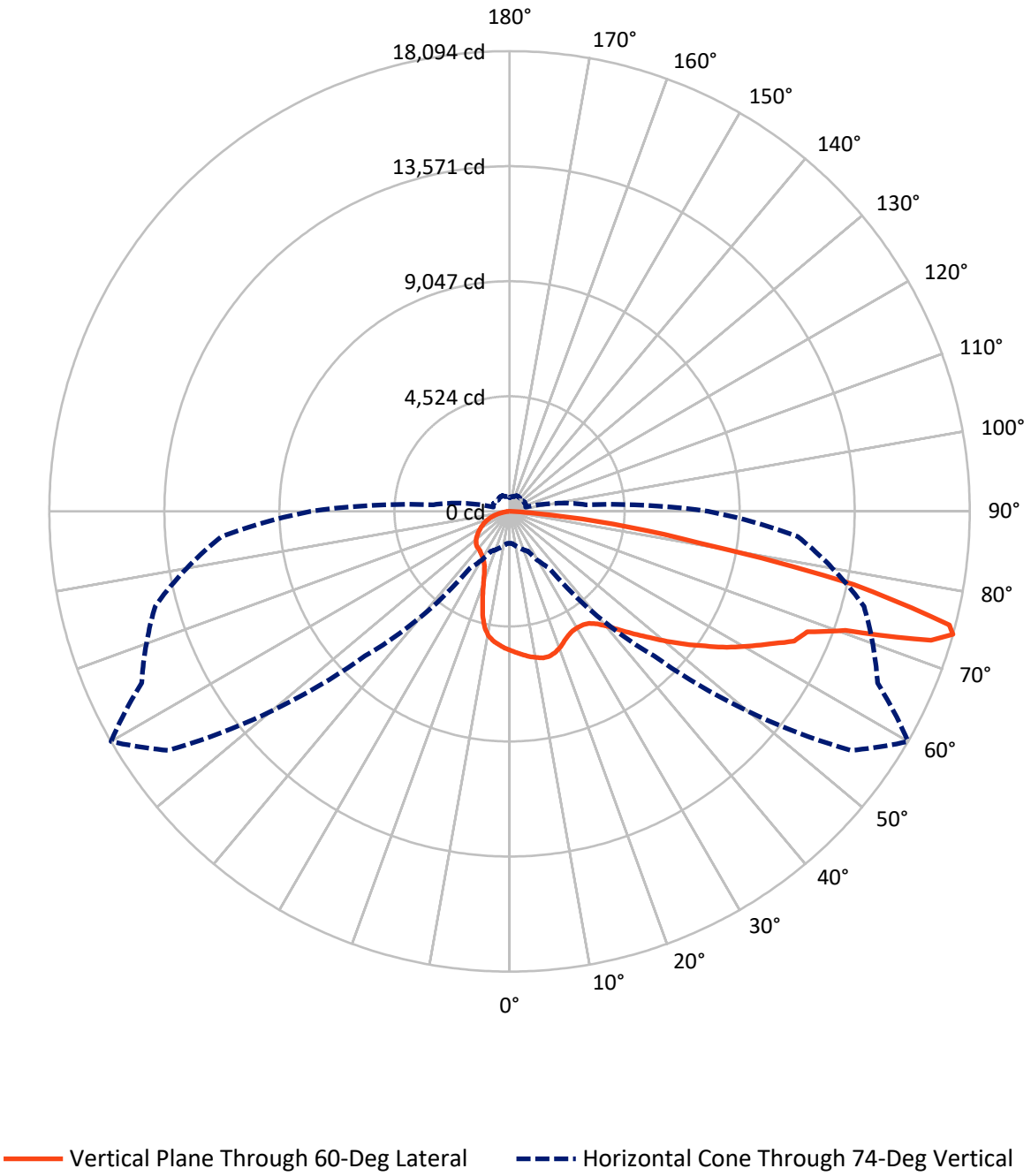

Based on 20 foot mounting height. Maximum calculated value = 13.7 fc
Type III - Medium - N/A

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

Scaled Data Report

REPORT NUMBER: P1363371
CATALOG NUMBER: GSS-SB6A-740-U-SL3

## Luminous Intensity Polar Plot



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

Scaled Data Report

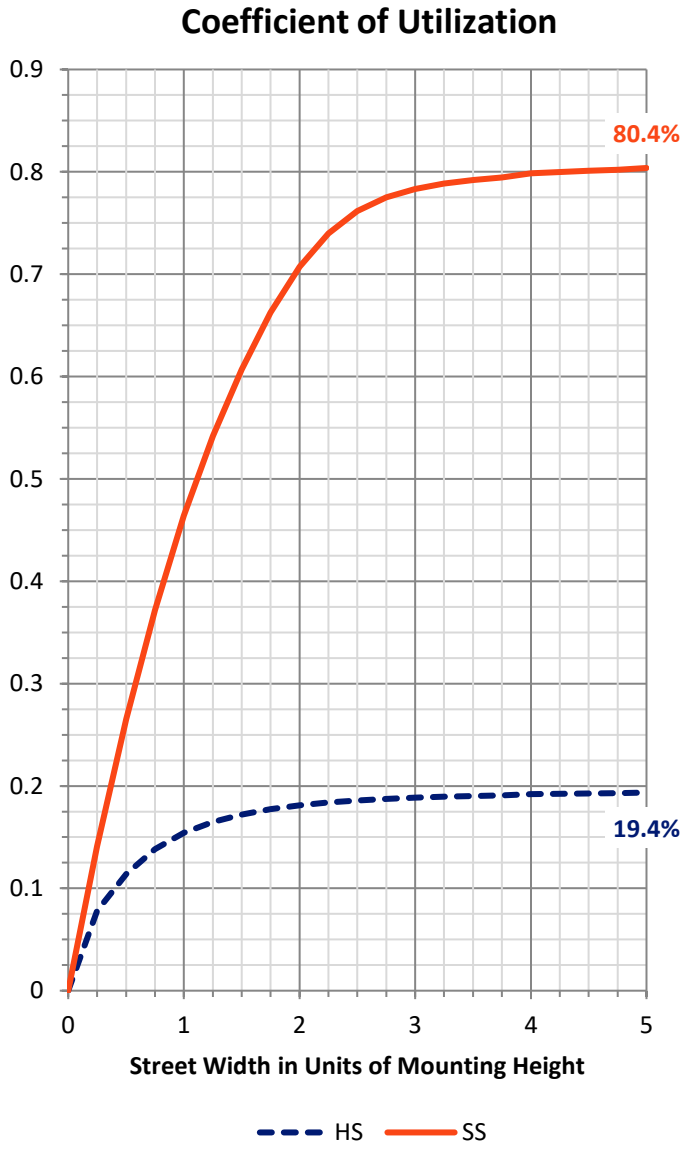
REPORT NUMBER: P1363371
CATALOG NUMBER: GSS-SB6A-740-U-SL3

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 5029.1 | 0.0 | 5029.1 |
| | % Fixture | 19.5 | 0.0 | 19.5 |
| **Street Side** | Lumens | 20735.2 | 0.0 | 20735.2 |
| | % Fixture | 80.5 | 0.0 | 80.5 |
| **Total** | Lumens | 25764.3 | 0.0 | 25764.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 502.8 | 2.0 |
| 10°-20° | 1233.9 | 4.8 |
| 20°-30° | 1844.7 | 7.2 |
| 30°-40° | 2629.7 | 10.2 |
| 40°-50° | 3781.3 | 14.7 |
| 50°-60° | 5062.9 | 19.7 |
| 60°-70° | 5945.2 | 23.1 |
| 70°-80° | 4240.5 | 16.5 |
| 80°-90° | 523.3 | 2.0 |
| 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° | 25764.3 | 100.0 |
| 0°-180° | 25764.3 | 100.0 |



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

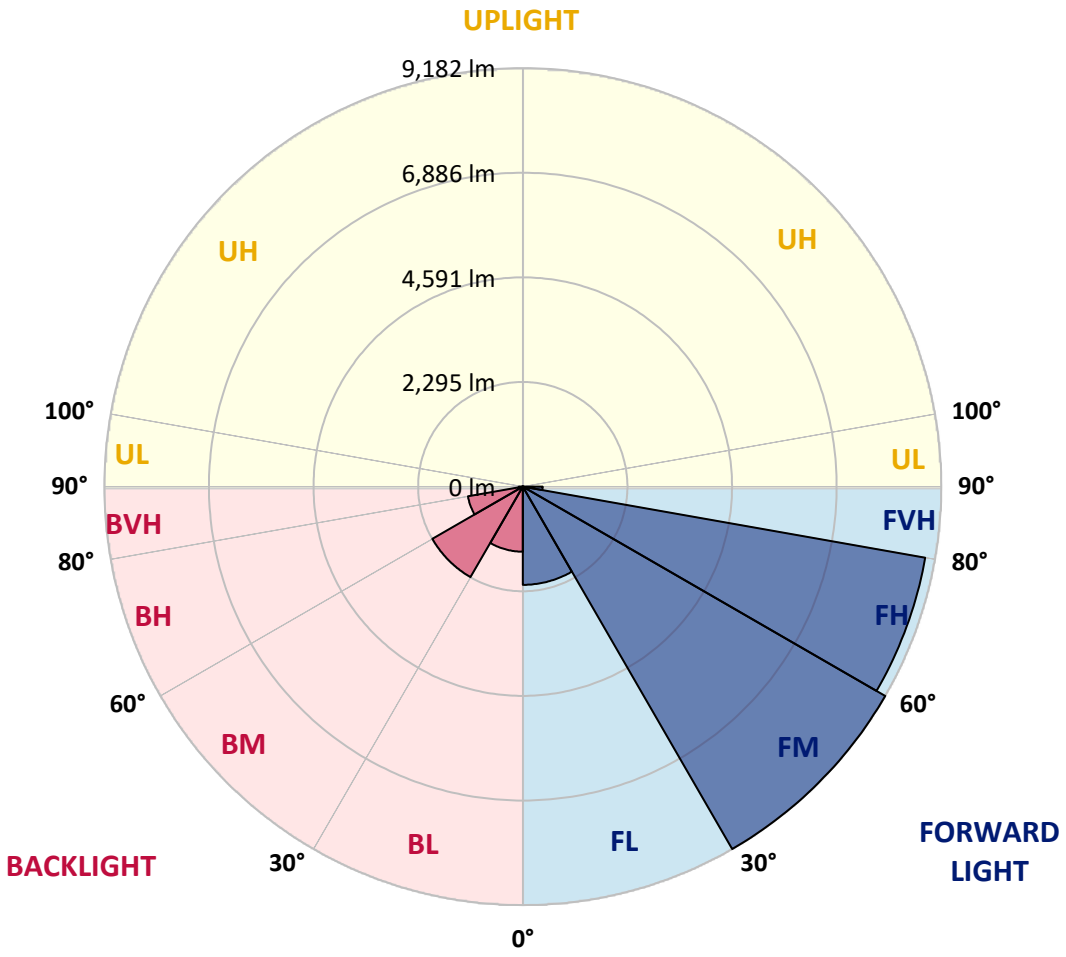
Scaled Data Report

REPORT NUMBER: P1363371
CATALOG NUMBER: GSS-SB6A-740-U-SL3

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 2154.2 | 8.4 | | | |
| FM | (30°-60°) | 9181.8 | 35.6 | | | |
| FH | (60°-80°) | 8964.2 | 34.8 | | | G4/12000 |
| FVH | (80°-90°) | 434.9 | 1.7 | | | G3/500 |
| BL | (0°-30°) | 1427.2 | 5.5 | B3/2500 | | |
| BM | (30°-60°) | 2292.1 | 8.9 | B2/2500 | | |
| BH | (60°-80°) | 1221.4 | 4.7 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 88.4 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B3-U0-G4**
Type III Medium



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

Scaled Data Report

REPORT NUMBER: P1363371
CATALOG NUMBER: GSS-SB6A-740-U-SL3

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 60° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 |
| 2.5° | 5638.0 | 5644.4 | 5618.7 | 5599.5 | 5599.5 | 5567.4 | 5567.4 | 5567.4 | 5535.3 | 5528.9 | 5484.0 |
| 5° | 5702.1 | 5695.7 | 5682.8 | 5689.3 | 5695.7 | 5682.8 | 5689.3 | 5670.0 | 5625.1 | 5612.3 | 5541.7 |
| 7.5° | 5522.5 | 5522.5 | 5554.6 | 5618.7 | 5708.5 | 5753.4 | 5779.1 | 5766.2 | 5747.0 | 5708.5 | 5605.9 |
| 10° | 4874.7 | 4919.6 | 5015.8 | 5227.5 | 5490.4 | 5708.5 | 5849.6 | 5843.2 | 5849.6 | 5798.3 | 5682.8 |
| 12.5° | 4303.8 | 4323.1 | 4412.9 | 4598.9 | 4977.3 | 5445.5 | 5836.8 | 5913.8 | 5933.0 | 5900.9 | 5759.8 |
| 15° | 3996.0 | 3989.5 | 4060.1 | 4207.6 | 4496.2 | 5009.4 | 5695.7 | 5907.3 | 6022.8 | 6016.4 | 5868.9 |
| 17.5° | 3861.3 | 3867.7 | 3906.2 | 4002.4 | 4214.0 | 4637.4 | 5445.5 | 5830.4 | 6067.7 | 6144.7 | 5971.5 |
| 20° | 3925.4 | 3906.2 | 3925.4 | 3944.6 | 4060.1 | 4393.6 | 5176.1 | 5695.7 | 6106.2 | 6266.5 | 6086.9 |
| 22.5° | 4060.1 | 4040.9 | 4034.4 | 4021.6 | 4047.3 | 4252.5 | 4932.4 | 5528.9 | 6138.2 | 6426.9 | 6221.6 |
| 25° | 4297.4 | 4278.2 | 4220.4 | 4149.9 | 4117.8 | 4207.6 | 4772.1 | 5387.8 | 6170.3 | 6651.4 | 6394.8 |
| 27.5° | 4637.4 | 4611.7 | 4528.3 | 4361.6 | 4258.9 | 4271.8 | 4720.7 | 5310.8 | 6228.0 | 6869.4 | 6561.6 |
| 30° | 5144.1 | 5131.2 | 4945.2 | 4675.8 | 4464.2 | 4387.2 | 4746.4 | 5291.6 | 6292.2 | 7119.6 | 6728.3 |
| 32.5° | 5599.5 | 5586.6 | 5445.5 | 5144.1 | 4791.3 | 4573.2 | 4810.5 | 5317.2 | 6375.6 | 7440.3 | 6972.1 |
| 35° | 5971.5 | 5945.8 | 5830.4 | 5599.5 | 5240.3 | 4855.4 | 4951.6 | 5407.0 | 6555.2 | 7863.6 | 7267.1 |
| 37.5° | 6349.9 | 6330.7 | 6170.3 | 5926.6 | 5702.1 | 5246.7 | 5189.0 | 5612.3 | 6798.9 | 8440.9 | 7696.9 |
| 40° | 6805.3 | 6779.7 | 6587.2 | 6298.6 | 6099.8 | 5779.1 | 5528.9 | 5939.4 | 7170.9 | 9101.5 | 8184.3 |
| 42.5° | 7241.5 | 7215.8 | 6991.3 | 6741.2 | 6491.0 | 6292.2 | 6010.0 | 6375.6 | 7632.7 | 9941.8 | 8761.6 |
| 45° | 7748.2 | 7748.2 | 7433.9 | 7158.1 | 6895.1 | 6651.4 | 6465.4 | 6875.9 | 8171.5 | 10891.1 | 9403.0 |
| 47.5° | 8222.8 | 8177.9 | 7870.0 | 7568.6 | 7312.0 | 6850.2 | 6901.5 | 7401.8 | 8774.4 | 11853.2 | 10095.7 |
| 50° | 8376.7 | 8363.9 | 8158.7 | 7889.3 | 7671.2 | 7093.9 | 7350.5 | 8030.4 | 9454.3 | 12770.4 | 10749.9 |
| 52.5° | 8556.3 | 8498.6 | 8203.6 | 8165.1 | 7914.9 | 7401.8 | 7902.1 | 8678.2 | 10076.5 | 13604.2 | 11275.9 |
| 55° | 8780.8 | 8716.7 | 8312.6 | 8235.6 | 8100.9 | 7748.2 | 8530.7 | 9345.3 | 10666.6 | 14252.0 | 11769.8 |
| 57.5° | 9191.3 | 9114.4 | 8543.5 | 8376.7 | 8267.7 | 8184.3 | 9242.6 | 10082.9 | 11263.1 | 14758.7 | 12193.1 |
| 60° | 9428.7 | 9364.5 | 8877.0 | 8755.2 | 8594.8 | 8787.2 | 10005.9 | 10762.8 | 11827.5 | 15150.0 | 12520.2 |
| 62.5° | 9306.8 | 9261.9 | 8921.9 | 9152.9 | 9281.1 | 9582.6 | 10878.2 | 11468.3 | 12276.5 | 15445.0 | 12533.1 |
| 65° | 8678.2 | 8588.4 | 8357.5 | 9056.6 | 10070.1 | 10923.1 | 11987.9 | 12295.7 | 12571.5 | 14649.7 | 11776.2 |
| 67.5° | 7170.9 | 7081.1 | 7215.8 | 7934.2 | 9621.1 | 12988.5 | 13514.4 | 12629.3 | 12039.2 | 13924.9 | 11667.2 |
| 70° | 3258.3 | 3110.8 | 3925.4 | 5612.3 | 7959.8 | 12539.5 | 15637.5 | 14014.7 | 12578.0 | 13860.8 | 11449.1 |
| 72.5° | 1597.1 | 1661.2 | 1917.8 | 2520.7 | 4868.3 | 9627.5 | 17241.0 | 17330.8 | 14406.0 | 14027.5 | 11603.0 |
| 74° | 1250.7 | 1270.0 | 1481.6 | 1731.8 | 2719.6 | 8036.8 | 16381.5 | 18094.0 | 15964.6 | 14425.2 | 11365.7 |
| 75° | 1077.6 | 1103.2 | 1314.9 | 1443.2 | 1751.0 | 6766.8 | 15291.1 | 17863.1 | 16676.5 | 14348.2 | 10839.7 |
| 77.5° | 788.9 | 782.5 | 936.5 | 1148.1 | 821.0 | 3014.6 | 12385.5 | 13841.5 | 14219.9 | 11686.4 | 7228.6 |
| 80° | 487.5 | 506.7 | 647.8 | 801.8 | 545.2 | 1148.1 | 7279.9 | 7562.2 | 6728.3 | 6766.8 | 3508.5 |
| 82.5° | 295.0 | 307.9 | 346.4 | 416.9 | 301.5 | 404.1 | 3296.8 | 4111.4 | 3405.9 | 2212.8 | 590.1 |
| 85° | 89.8 | 96.2 | 115.5 | 147.5 | 109.0 | 147.5 | 1109.6 | 1000.6 | 712.0 | 295.0 | 173.2 |
| 87.5° | 6.4 | 6.4 | 12.8 | 12.8 | 19.2 | 32.1 | 44.9 | 51.3 | 57.7 | 64.1 | 64.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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

Scaled Data Report

REPORT NUMBER: P1363371
CATALOG NUMBER: GSS-SB6A-740-U-SL3

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 | 5464.8 |
| 2.5° | 5484.0 | 5464.8 | 5439.1 | 5394.2 | 5362.1 | 5330.1 | 5291.6 | 5233.9 | 5214.6 | 5221.0 | 5233.9 |
| 5° | 5528.9 | 5477.6 | 5400.6 | 5298.0 | 5221.0 | 5156.9 | 5054.3 | 4970.9 | 4919.6 | 4919.6 | 4893.9 |
| 7.5° | 5573.8 | 5503.3 | 5381.4 | 5208.2 | 5073.5 | 4893.9 | 4701.5 | 4509.1 | 4374.4 | 4316.7 | 4265.3 |
| 10° | 5650.8 | 5541.7 | 5342.9 | 5112.0 | 4823.4 | 4464.2 | 4072.9 | 3675.3 | 3425.1 | 3296.8 | 3290.4 |
| 12.5° | 5702.1 | 5593.1 | 5323.7 | 4951.6 | 4406.5 | 3726.6 | 3130.1 | 2802.9 | 2700.3 | 2655.4 | 2642.6 |
| 15° | 5785.5 | 5638.0 | 5278.8 | 4656.6 | 3765.0 | 2950.5 | 2623.3 | 2527.1 | 2520.7 | 2527.1 | 2533.5 |
| 17.5° | 5856.0 | 5676.4 | 5163.3 | 4188.4 | 3021.0 | 2565.6 | 2482.2 | 2475.8 | 2520.7 | 2540.0 | 2559.2 |
| 20° | 5933.0 | 5708.5 | 4958.1 | 3534.1 | 2604.1 | 2450.2 | 2437.3 | 2475.8 | 2540.0 | 2591.3 | 2597.7 |
| 22.5° | 6042.0 | 5734.2 | 4598.9 | 2886.3 | 2405.3 | 2386.0 | 2418.1 | 2456.6 | 2495.1 | 2540.0 | 2552.8 |
| 25° | 6157.5 | 5734.2 | 4105.0 | 2443.8 | 2302.6 | 2354.0 | 2386.0 | 2354.0 | 2341.1 | 2379.6 | 2379.6 |
| 27.5° | 6247.3 | 5689.3 | 3405.9 | 2206.4 | 2232.1 | 2315.5 | 2296.2 | 2225.7 | 2212.8 | 2238.5 | 2232.1 |
| 30° | 6311.4 | 5522.5 | 2700.3 | 2078.2 | 2161.5 | 2232.1 | 2180.8 | 2142.3 | 2116.6 | 2123.1 | 2129.5 |
| 32.5° | 6407.6 | 5265.9 | 2212.8 | 1988.4 | 2103.8 | 2097.4 | 2091.0 | 2052.5 | 2020.4 | 2026.8 | 2033.3 |
| 35° | 6523.1 | 4842.6 | 1937.0 | 1924.2 | 2052.5 | 2001.2 | 2007.6 | 1962.7 | 1924.2 | 1924.2 | 1930.6 |
| 37.5° | 6670.6 | 4335.9 | 1821.6 | 1898.6 | 1969.1 | 1962.7 | 1943.5 | 1885.7 | 1828.0 | 1815.2 | 1815.2 |
| 40° | 6831.0 | 3713.7 | 1763.9 | 1885.7 | 1930.6 | 1949.9 | 1911.4 | 1840.8 | 1686.9 | 1590.7 | 1584.3 |
| 42.5° | 6933.6 | 3200.6 | 1744.6 | 1866.5 | 1924.2 | 1943.5 | 1892.1 | 1674.1 | 1526.5 | 1462.4 | 1456.0 |
| 45° | 7081.1 | 2918.4 | 1744.6 | 1815.2 | 1898.6 | 1917.8 | 1738.2 | 1590.7 | 1507.3 | 1475.2 | 1481.6 |
| 47.5° | 7228.6 | 2918.4 | 1744.6 | 1776.7 | 1828.0 | 1853.7 | 1616.3 | 1552.2 | 1475.2 | 1475.2 | 1500.9 |
| 50° | 7433.9 | 3078.7 | 1731.8 | 1719.0 | 1738.2 | 1642.0 | 1539.4 | 1488.1 | 1385.4 | 1347.0 | 1353.4 |
| 52.5° | 7741.8 | 3322.5 | 1680.5 | 1635.6 | 1642.0 | 1520.1 | 1488.1 | 1411.1 | 1308.5 | 1231.5 | 1212.3 |
| 55° | 8075.3 | 3585.5 | 1577.9 | 1539.4 | 1533.0 | 1443.2 | 1430.3 | 1347.0 | 1250.7 | 1148.1 | 1128.9 |
| 57.5° | 8440.9 | 3797.1 | 1449.6 | 1443.2 | 1423.9 | 1366.2 | 1385.4 | 1327.7 | 1193.0 | 1058.3 | 1039.1 |
| 60° | 8787.2 | 4034.4 | 1327.7 | 1340.5 | 1308.5 | 1295.6 | 1321.3 | 1282.8 | 1116.0 | 968.5 | 955.7 |
| 62.5° | 8787.2 | 4028.0 | 1218.7 | 1231.5 | 1225.1 | 1193.0 | 1237.9 | 1212.3 | 1013.4 | 891.6 | 878.7 |
| 65° | 8306.2 | 3848.4 | 1090.4 | 1122.5 | 1148.1 | 1084.0 | 1141.7 | 1096.8 | 923.6 | 827.4 | 808.2 |
| 67.5° | 8242.1 | 3777.9 | 962.1 | 994.2 | 1039.1 | 968.5 | 1007.0 | 962.1 | 840.2 | 756.9 | 744.0 |
| 70° | 8113.8 | 3617.5 | 846.7 | 885.1 | 904.4 | 827.4 | 878.7 | 846.7 | 756.9 | 692.7 | 679.9 |
| 72.5° | 8177.9 | 3476.4 | 724.8 | 769.7 | 776.1 | 705.5 | 756.9 | 744.0 | 667.1 | 622.2 | 596.5 |
| 74° | *7818.7* | *3008.2* | *654.2* | *692.7* | *679.9* | *628.6* | *673.5* | *673.5* | *602.9* | *570.9* | *538.8* |
| 75° | 7344.1 | 2668.2 | 602.9 | 641.4 | 609.3 | 577.3 | 622.2 | 628.6 | 558.0 | 558.0 | 506.7 |
| 77.5° | 4823.4 | 1789.5 | 474.6 | 500.3 | 487.5 | 468.2 | 493.9 | 487.5 | 436.2 | 423.3 | 391.3 |
| 80° | 2360.4 | 981.3 | 359.2 | 346.4 | 352.8 | 346.4 | 365.6 | 359.2 | 333.5 | 320.7 | 314.3 |
| 82.5° | 442.6 | 327.1 | 237.3 | 230.9 | 218.1 | 205.2 | 230.9 | 230.9 | 307.9 | 346.4 | 346.4 |
| 85° | 134.7 | 128.3 | 115.5 | 115.5 | 109.0 | 96.2 | 102.6 | 147.5 | 179.6 | 121.9 | 115.5 |
| 87.5° | 57.7 | 57.7 | 51.3 | 44.9 | 32.1 | 32.1 | 25.7 | 25.7 | 25.7 | 25.7 | 25.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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

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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-1

Test Date: 10/09/2024

Luminaire Tested: GSS-SB1A-740-U-5WQ

Data in this report applies to families of products including GSS-SB1A-740-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

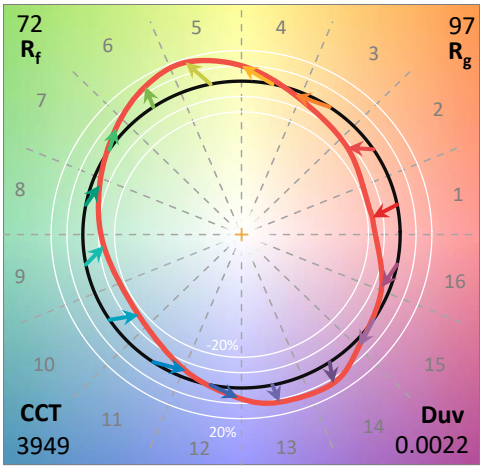
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-1 |
| 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-740-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 4000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 3949 |
| CIE u': | 0.2248 |
| CIE v': | 0.5053 |
| Duv: | 0.0022 |
| CIE x: | 0.3844 |
| CIE y: | 0.3840 |
| CIE z: | 0.2316 |
| Peak Wavelength (nm): | 440 |
| Dominant Wavelength (nm): | 578 |
| Purity: | 30.60026 |
| Rf: | 71.8 |
| Rg: | 96.5 |

| | |
|---|---|
| CRI (Ra): | 70.7 |
| R1: | 68.0 |
| R2: | 76.0 |
| R3: | 84.3 |
| R4: | 72.0 |
| R5: | 68.6 |
| R6: | 68.3 |
| R7: | 77.9 |
| R8: | 50.3 |
| R9: | -36.7 |
| R10: | 45.1 |
| R11: | 70.7 |
| R12: | 47.1 |
| R13: | 68.5 |
| R14: | 91.1 |
| R15: | 58.7 |




## Test Conditions

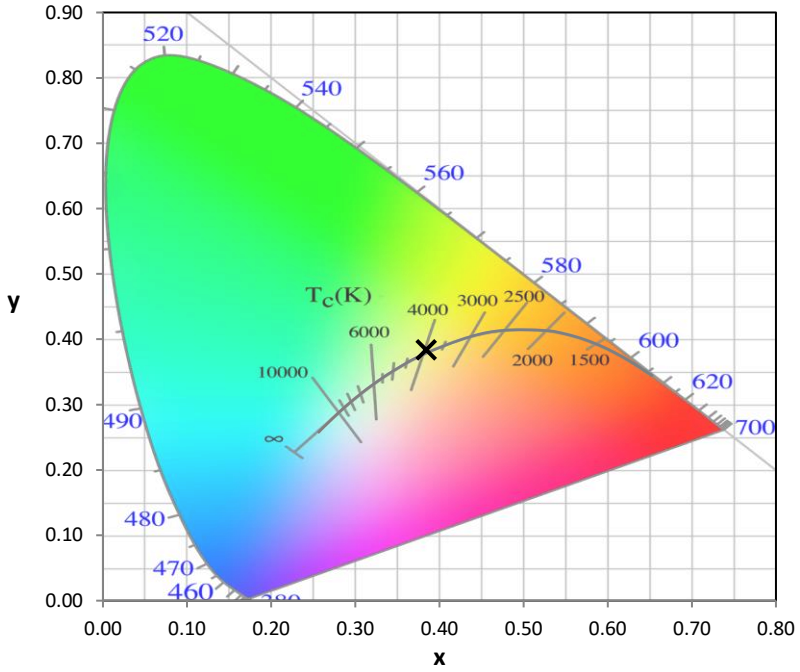
| | |
|---|---|
| Stabilization Time: | 34M |
| Operation Time: | 1H 34M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-1

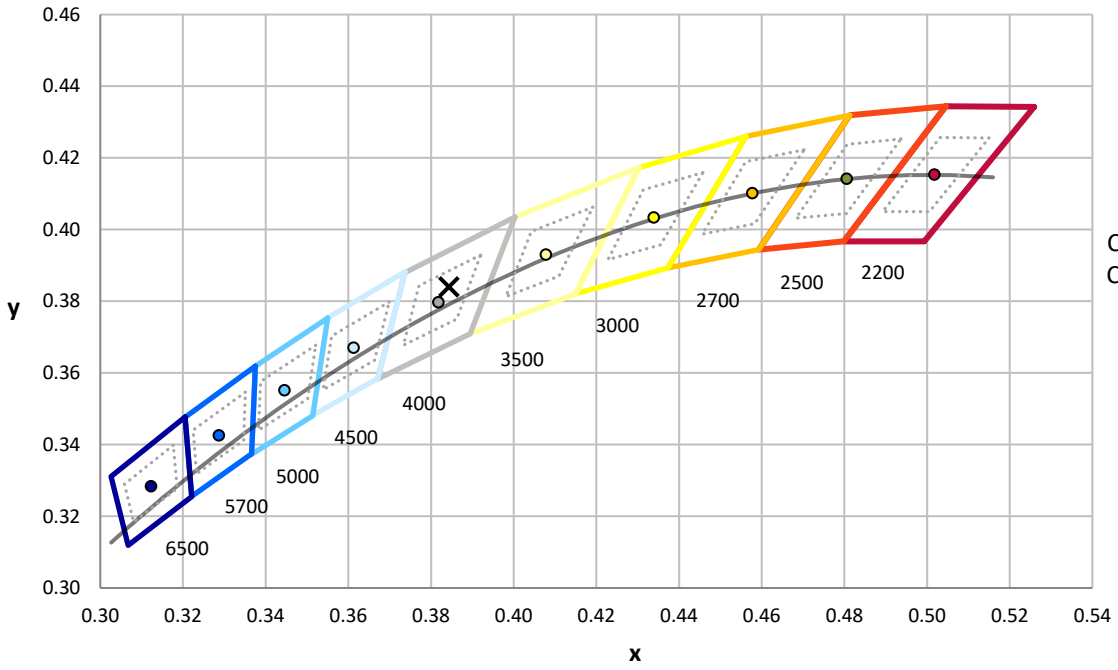
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC 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: SP1-2407-184-1

## CIE 1931 Chromaticity Diagram




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

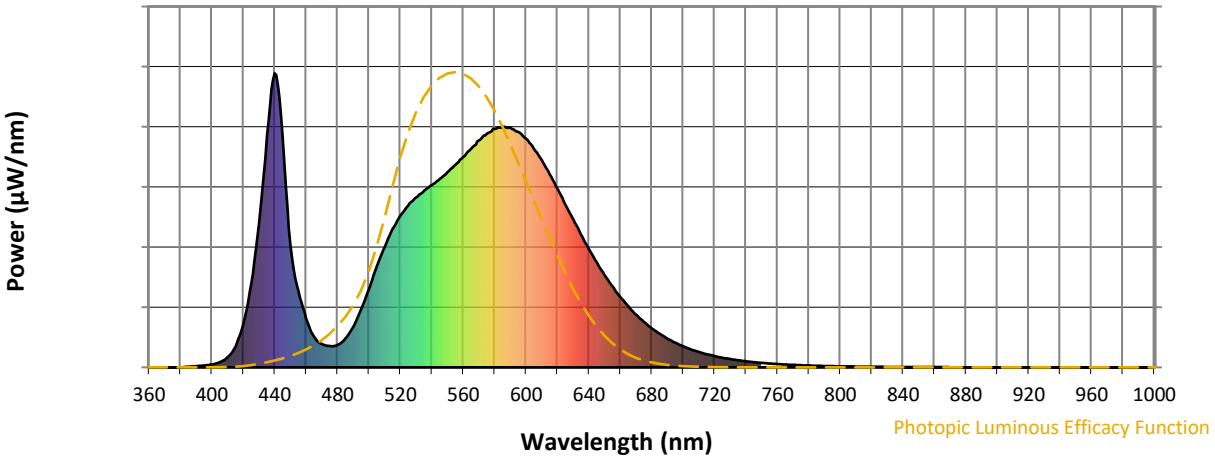



CCT = 3949K
CIE x = 0.3844
CIE y = 0.3840
Duv = 0.0022

Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-1

## Photopic Flux vs. Wavelength

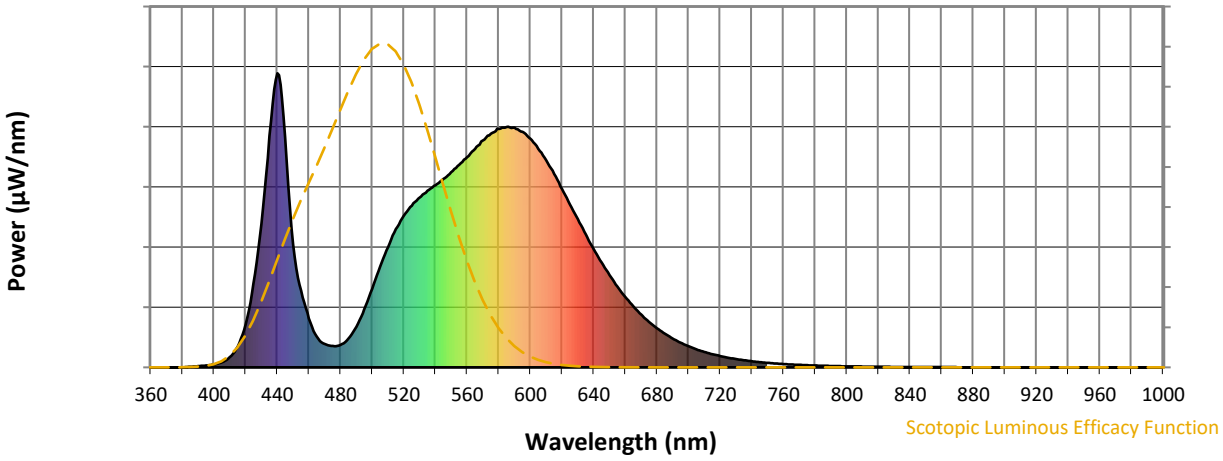



## Photopic Lumens: NR

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-1

## Scotopic Flux vs. Wavelength

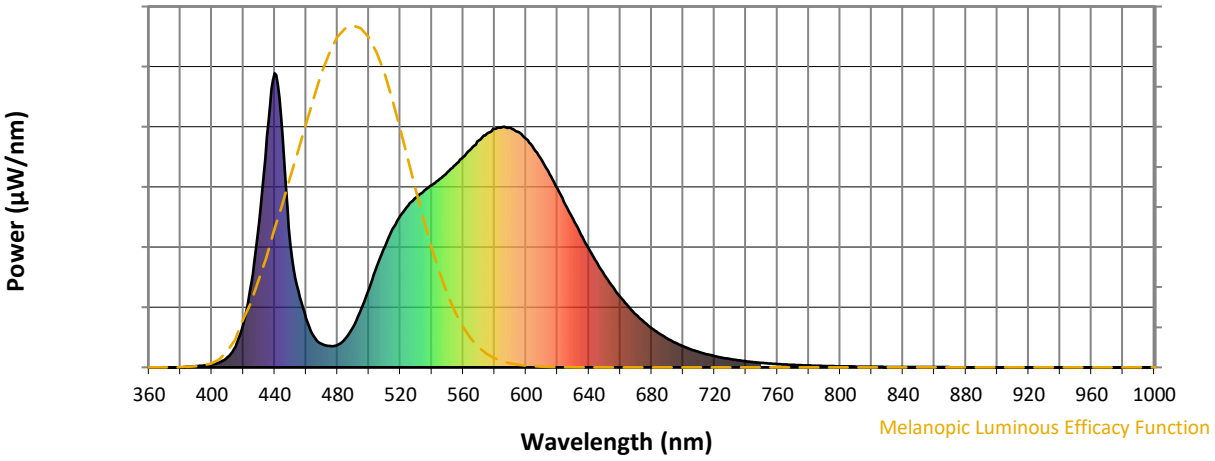



**Scotopic Lumens: NR** **S/P: 1.47**

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-1

## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.78**

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

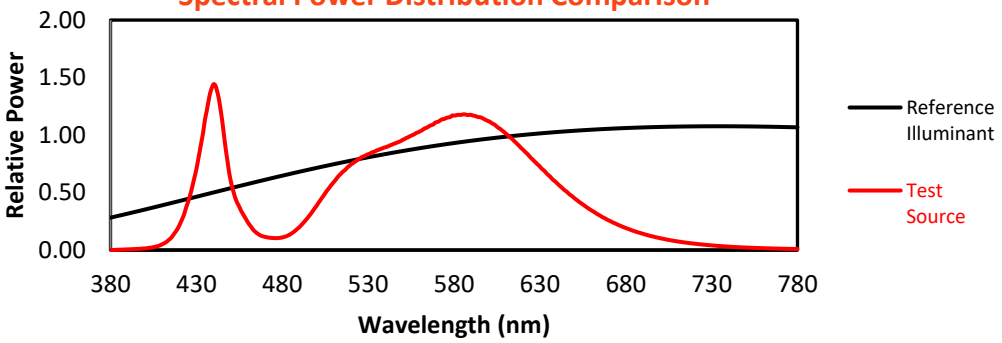
REPORT NUMBER: SP1-2407-184-1

# TM-30-18

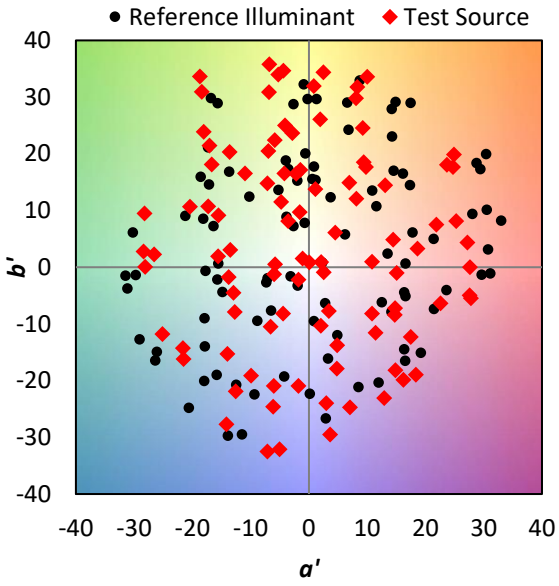
## Summary

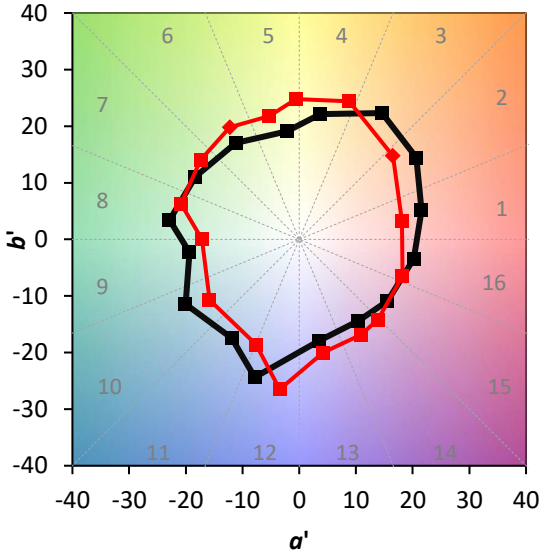
$R_f$ = 71.8
$R_g$ = 96.5
CIE $R_a$ = 70.7
$R_9$ = -36.7

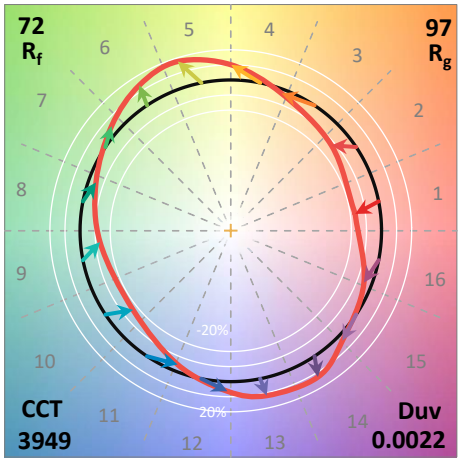
## Spectral Power Distribution Comparison

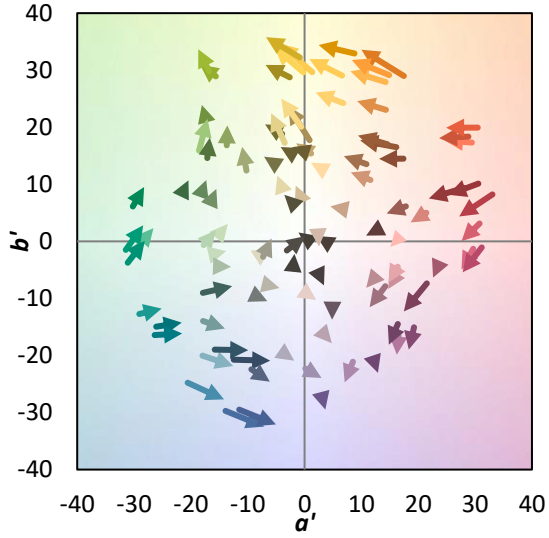



## Color Vector Graphics



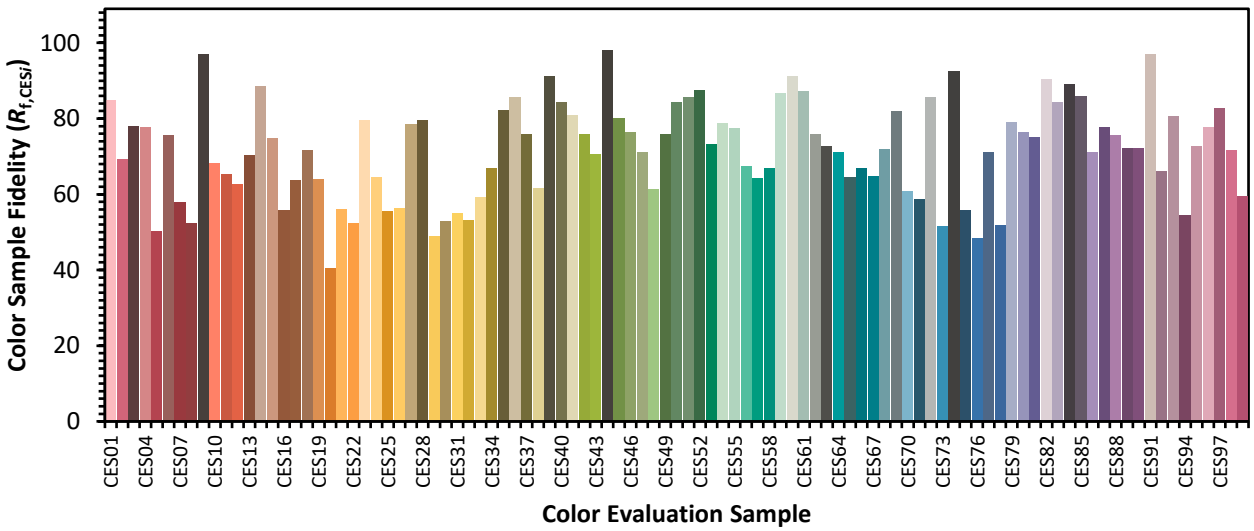



REPORT NUMBER: SP1-2407-184-1

# TM-30-18

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

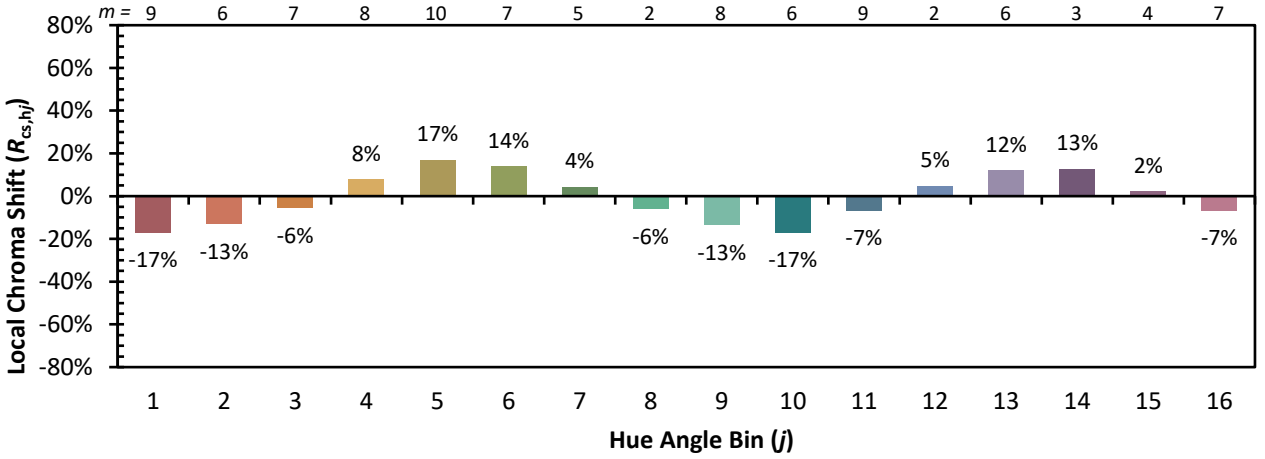
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 56 | CES51 = 86 | CES76 = 48 |
| CES02 = 61 | CES27 = 79 | CES52 = 88 | CES77 = 71 |
| CES03 = 30 | CES28 = 80 | CES53 = 73 | CES78 = 52 |
| CES04 = 70 | CES29 = 49 | CES54 = 79 | CES79 = 79 |
| CES05 = 47 | CES30 = 53 | CES55 = 77 | CES80 = 77 |
| CES06 = 50 | CES31 = 55 | CES56 = 67 | CES81 = 75 |
| CES07 = 40 | CES32 = 53 | CES57 = 64 | CES82 = 90 |
| CES08 = 39 | CES33 = 59 | CES58 = 67 | CES83 = 84 |
| CES09 = 29 | CES34 = 67 | CES59 = 87 | CES84 = 89 |
| CES10 = 74 | CES35 = 82 | CES60 = 91 | CES85 = 86 |
| CES11 = 57 | CES36 = 86 | CES61 = 87 | CES86 = 71 |
| CES12 = 63 | CES37 = 76 | CES62 = 76 | CES87 = 78 |
| CES13 = 42 | CES38 = 62 | CES63 = 73 | CES88 = 76 |
| CES14 = 74 | CES39 = 91 | CES64 = 71 | CES89 = 72 |
| CES15 = 71 | CES40 = 84 | CES65 = 64 | CES90 = 72 |
| CES16 = 46 | CES41 = 81 | CES66 = 67 | CES91 = 97 |
| CES17 = 49 | CES42 = 76 | CES67 = 65 | CES92 = 66 |
| CES18 = 56 | CES43 = 71 | CES68 = 72 | CES93 = 81 |
| CES19 = 72 | CES44 = 98 | CES69 = 82 | CES94 = 55 |
| CES20 = 65 | CES45 = 80 | CES70 = 61 | CES95 = 73 |
| CES21 = 86 | CES46 = 76 | CES71 = 59 | CES96 = 78 |
| CES22 = 78 | CES47 = 71 | CES72 = 86 | CES97 = 83 |
| CES23 = 92 | CES48 = 61 | CES73 = 52 | CES98 = 72 |
| CES24 = 91 | CES49 = 76 | CES74 = 93 | CES99 = 60 |
| CES25 = 72 | CES50 = 84 | CES75 = 56 | |

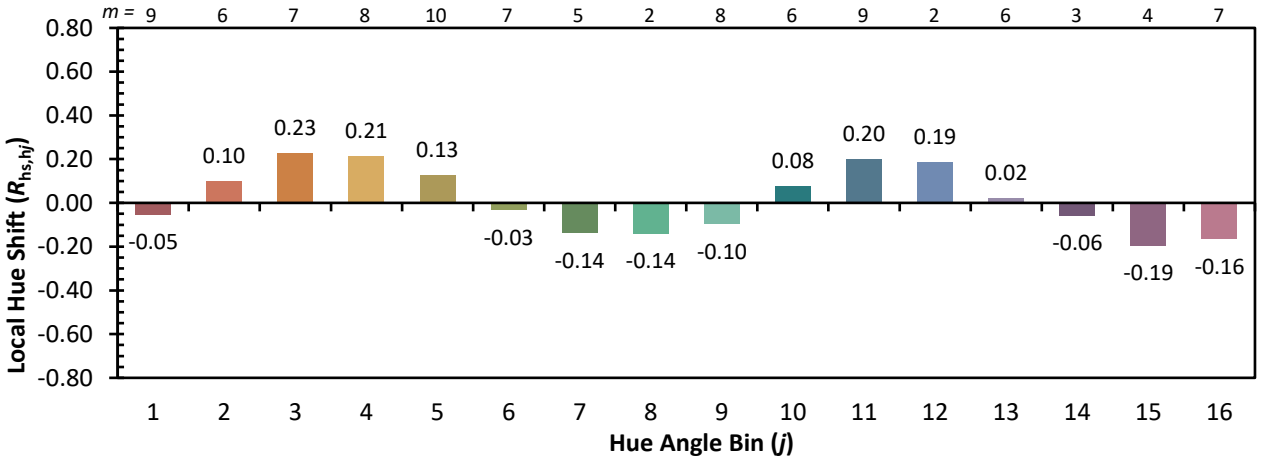


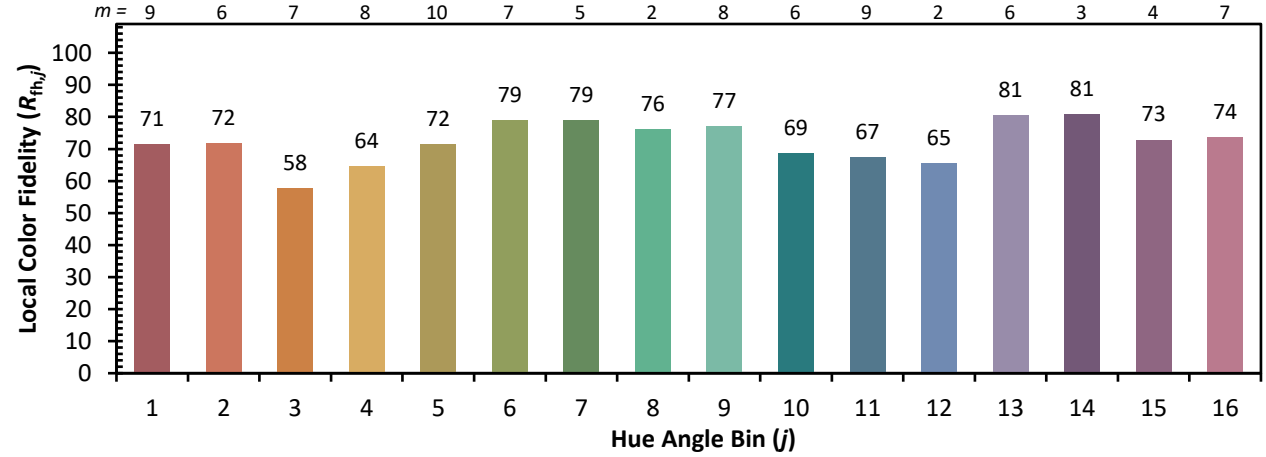
REPORT NUMBER: SP1-2407-184-1

**TM-30-18**

## Color Rendition by Hue-Angle Bin



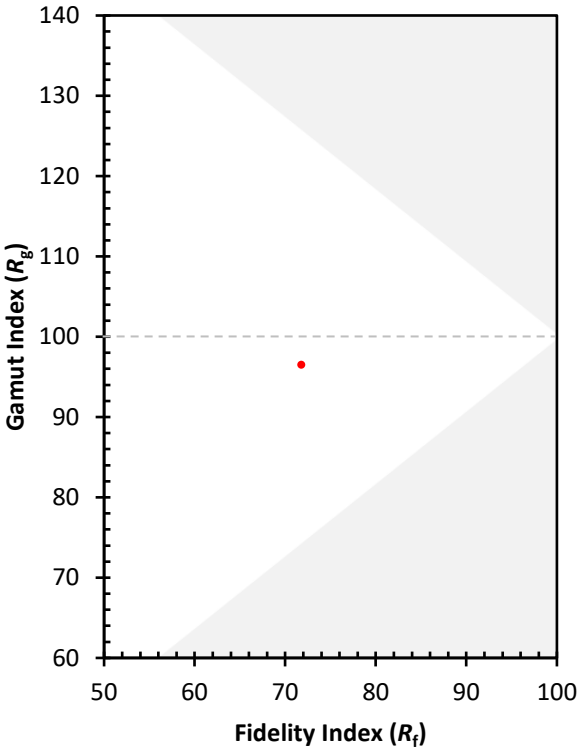



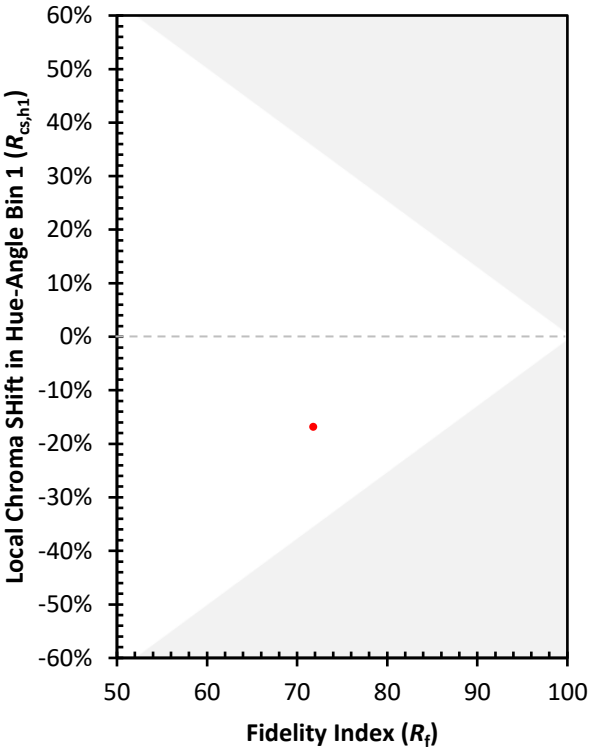



REPORT NUMBER: SP1-2407-184-1

# TM-30-18

## Measure Comparisons




(END OF REPORT)