

Signify Classified - Internal  
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: STREETWORKS

Report Number: P1064111

Luminaire Tested: **GLAN-SA6C-760-U-T4BC**

Issue Date: 08/07/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P1064111  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/07/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GLAN-SA6C-760-U-T4BC  
Description: GALLEON II AREA AND ROADWAY LUMINAIRE 1050mA 6xLight Square PACKAGE  
70CRI 5700K FIXTURE w/ TYPE IV ANGLED BACKLIGHT CONTROL  
Light Source: (84) 5700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33787.9 lumens  
Efficiency: N/A  
Efficacy: 119.6 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G5

Input Watts (W): 282.5  
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



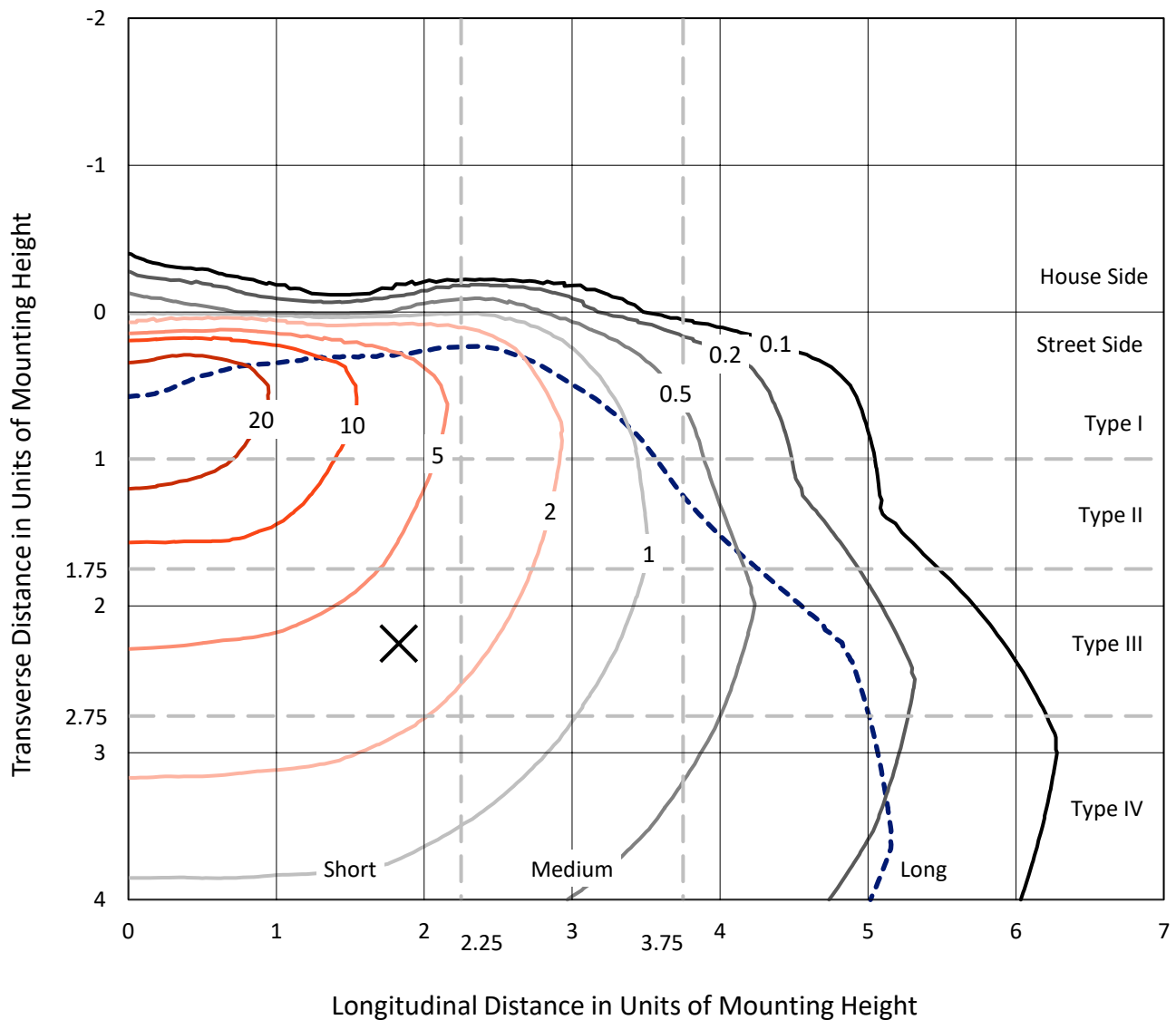
REPORT NUMBER: P1064111

CATALOG NUMBER: GLAN-SA6C-760-U-T4BC

## Iso-Footcandle Lines of Horizontal Illumination

✗ Max cd

--- 1/2 Max cd

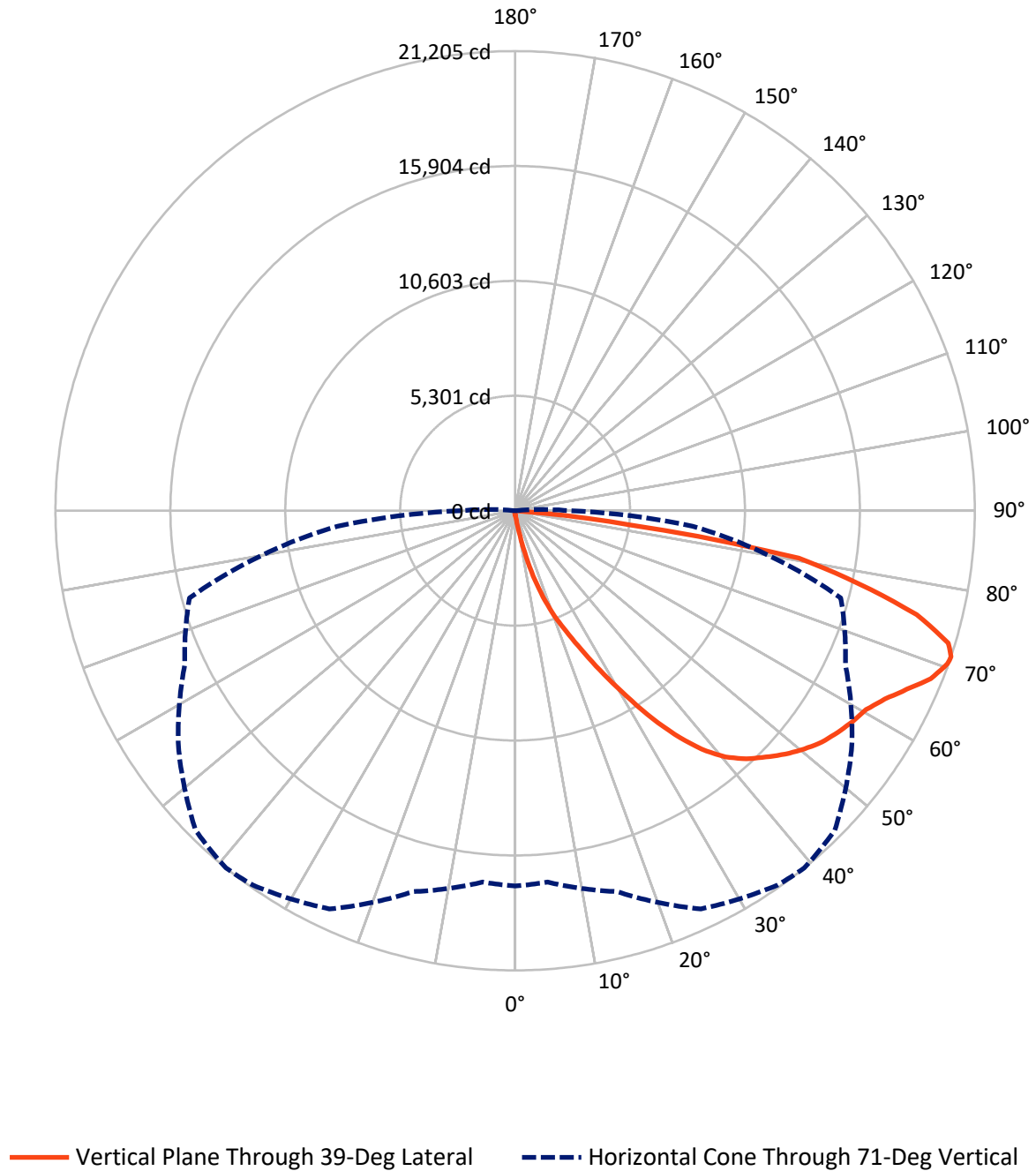


Based on 15 foot mounting height. Maximum calculated value = 34.7 fc  
Type IV - Short - N/A

REPORT NUMBER: P1064111

CATALOG NUMBER: GLAN-SA6C-760-U-T4BC

## Luminous Intensity Polar Plot



REPORT NUMBER: P1064111

CATALOG NUMBER: GLAN-SA6C-760-U-T4BC

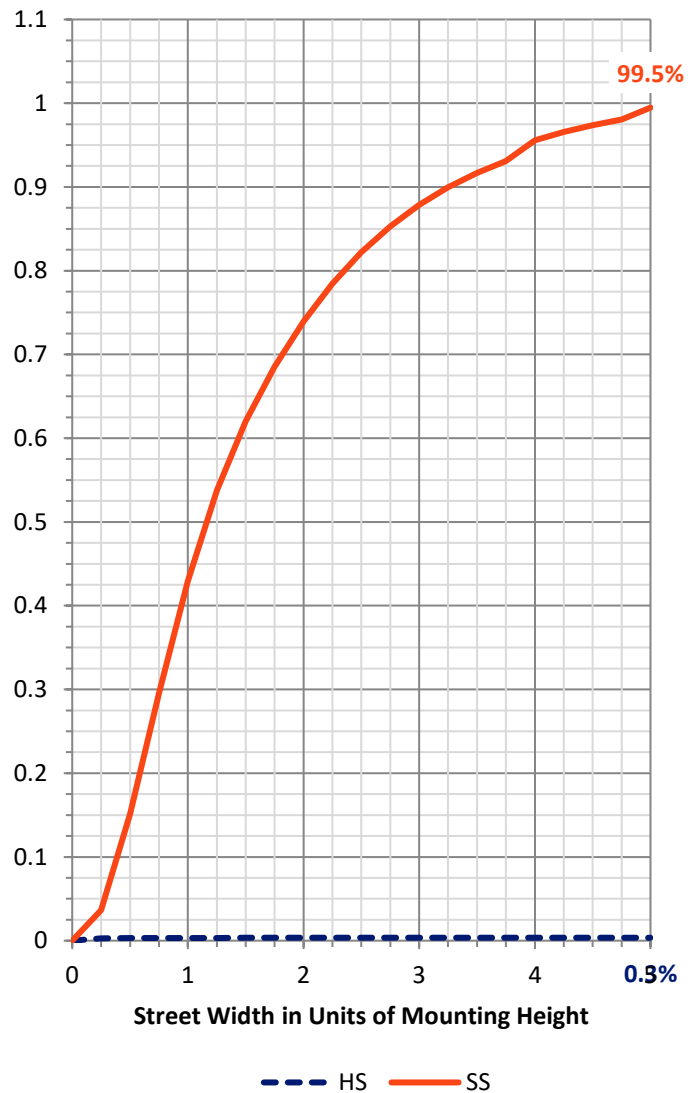
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 120.1    | 0.0    | 120.1   |
|                    | % Fixture | 0.4      | 0.0    | 0.4     |
| <b>Street Side</b> | Lumens    | 33667.8  | 0.0    | 33667.8 |
|                    | % Fixture | 99.6     | 0.0    | 99.6    |
| <b>Total</b>       | Lumens    | 33787.9  | 0.0    | 33787.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 28.2    | 0.1       |
| 10°-20°   | 361.1   | 1.1       |
| 20°-30°   | 1286.1  | 3.8       |
| 30°-40°   | 3099.5  | 9.2       |
| 40°-50°   | 5187.3  | 15.4      |
| 50°-60°   | 6662.4  | 19.7      |
| 60°-70°   | 8431.3  | 25.0      |
| 70°-80°   | 7516.9  | 22.2      |
| 80°-90°   | 1215.1  | 3.6       |
| 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°    | 33787.9 | 100.0     |
| 0°-180°   | 33787.9 | 100.0     |



REPORT NUMBER: P1064111

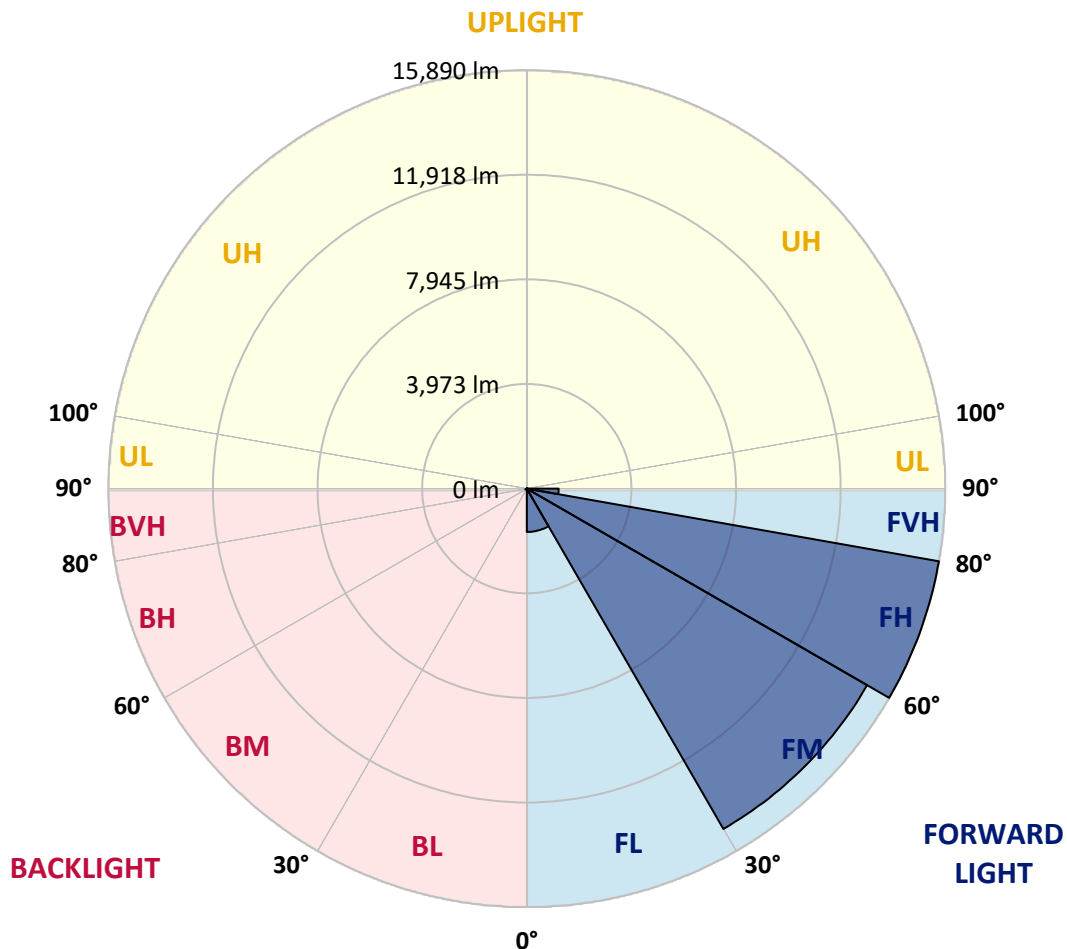
CATALOG NUMBER: GLAN-SA6C-760-U-T4BC

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|---------|-----------|-------------------------|------|--------|
|      |             |         |           | B                       | U    | G      |
| FL   | (0°-30°)    | 1646.4  | 4.9       |                         |      |        |
| FM   | (30°-60°)   | 14921.4 | 44.2      |                         |      |        |
| FH   | (60°-80°)   | 15890.5 | 47.0      |                         |      | G5     |
| FVH  | (80°-90°)   | 1209.6  | 3.6       |                         |      | G5     |
| BL   | (0°-30°)    | 29.0    | 0.1       | B0/110                  |      |        |
| BM   | (30°-60°)   | 27.8    | 0.1       | B0/220                  |      |        |
| BH   | (60°-80°)   | 57.7    | 0.2       | B0/110                  |      | G0/110 |
| BVH  | (80°-90°)   | 5.5     | 0.0       |                         |      | G0/10  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |        |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |        |

**BUG Rating: B0-U0-G5**

Type IV Short



REPORT NUMBER: P1064111

CATALOG NUMBER: GLAN-SA6C-760-U-T4BC

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 39°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 185.3   | 185.3   | 185.3   | 185.3   | 185.3   | 185.3   | 185.3   | 185.3   | 185.3   | 185.3   | 185.3   |
| 2.5°  | 212.7   | 212.7   | 212.7   | 205.9   | 205.9   | 203.6   | 201.3   | 201.3   | 196.7   | 194.4   | 189.8   |
| 5°    | 322.5   | 315.6   | 299.6   | 290.5   | 272.2   | 260.7   | 249.3   | 233.3   | 217.3   | 205.9   | 192.1   |
| 7.5°  | 729.6   | 745.6   | 693.0   | 594.7   | 494.0   | 450.6   | 377.4   | 304.2   | 251.6   | 217.3   | 194.4   |
| 10°   | 1859.5  | 1850.4  | 1672.0  | 1475.3  | 1139.1  | 1004.1  | 786.8   | 496.3   | 324.8   | 237.9   | 196.7   |
| 12.5° | 3163.3  | 3154.1  | 2943.7  | 2676.1  | 2232.4  | 1951.0  | 1539.3  | 926.3   | 466.6   | 269.9   | 196.7   |
| 15°   | 4258.9  | 4222.3  | 4156.0  | 3890.6  | 3371.4  | 3135.8  | 2591.5  | 1637.7  | 754.8   | 324.8   | 201.3   |
| 17.5° | 4983.9  | 4951.9  | 4890.2  | 4794.1  | 4464.7  | 4185.7  | 3748.8  | 2573.2  | 1221.4  | 420.9   | 210.4   |
| 20°   | 5649.5  | 5626.7  | 5576.3  | 5558.0  | 5345.3  | 5196.7  | 4835.3  | 3648.2  | 1903.0  | 571.8   | 224.2   |
| 22.5° | 6564.4  | 6516.4  | 6537.0  | 6427.2  | 6219.1  | 6040.7  | 5818.8  | 4773.5  | 2735.6  | 823.4   | 249.3   |
| 25°   | 7685.2  | 7662.3  | 7605.1  | 7527.4  | 7239.2  | 7083.6  | 6742.8  | 5834.8  | 3666.5  | 1152.8  | 276.8   |
| 27.5° | 9039.3  | 9014.1  | 9000.4  | 8822.0  | 8490.3  | 8321.1  | 7845.3  | 6836.6  | 4714.0  | 1614.8  | 313.4   |
| 30°   | 10599.2 | 10610.6 | 10521.4 | 10292.7 | 9906.1  | 9668.3  | 9178.8  | 7886.5  | 5786.8  | 2156.9  | 352.2   |
| 32.5° | 12214.0 | 12191.1 | 12053.9 | 11784.0 | 11438.6 | 11216.7 | 10594.6 | 9037.0  | 6912.1  | 2872.8  | 398.0   |
| 35°   | 13954.6 | 13911.1 | 13549.7 | 13241.0 | 12945.9 | 12666.9 | 12099.6 | 10372.7 | 8037.4  | 3675.6  | 459.7   |
| 37.5° | 15711.2 | 15507.6 | 14782.6 | 14391.4 | 14187.9 | 13959.2 | 13430.8 | 11797.7 | 9155.9  | 4572.2  | 535.2   |
| 40°   | 17037.8 | 16880.0 | 16020.0 | 15299.5 | 15137.1 | 14942.7 | 14549.3 | 13028.2 | 10345.3 | 5535.2  | 626.7   |
| 42.5° | 17772.0 | 17685.1 | 16912.0 | 16200.7 | 15818.7 | 15647.2 | 15310.9 | 14103.3 | 11520.9 | 6598.7  | 759.4   |
| 45°   | 18085.4 | 17950.4 | 17433.5 | 17101.8 | 16493.4 | 16209.8 | 15809.5 | 14915.2 | 12749.2 | 7806.4  | 944.6   |
| 47.5° | 17989.3 | 17911.5 | 17541.0 | 17662.2 | 17220.8 | 16779.3 | 16191.5 | 15537.4 | 13799.0 | 9192.5  | 1198.5  |
| 50°   | 17385.5 | 17319.1 | 17204.8 | 17861.2 | 17806.3 | 17284.8 | 16685.6 | 16029.1 | 14656.8 | 10622.0 | 1591.9  |
| 52.5° | 16237.3 | 16209.8 | 16502.6 | 17705.7 | 18138.0 | 17730.8 | 17161.3 | 16463.7 | 15457.3 | 12115.6 | 2154.6  |
| 55°   | 14757.4 | 14869.5 | 15706.6 | 17463.2 | 18307.2 | 18060.2 | 17582.2 | 16870.8 | 16100.0 | 13451.4 | 2984.9  |
| 57.5° | 14149.0 | 14178.7 | 15224.0 | 17291.7 | 18382.7 | 18350.7 | 17991.6 | 17259.7 | 16690.1 | 14519.5 | 4252.0  |
| 60°   | 14860.3 | 14814.6 | 15365.8 | 17422.1 | 18533.7 | 18611.4 | 18355.3 | 17621.1 | 17202.5 | 15436.7 | 5940.0  |
| 62.5° | 16145.8 | 16120.6 | 16296.7 | 17977.9 | 18975.1 | 19132.9 | 18860.8 | 17881.8 | 17655.4 | 16040.6 | 7865.9  |
| 65°   | 17294.0 | 17241.4 | 17568.5 | 18963.7 | 19750.5 | 19862.6 | 19624.7 | 18327.8 | 17854.4 | 16479.7 | 9675.1  |
| 67.5° | 17790.3 | 17778.9 | 18304.9 | 19901.5 | 20564.8 | 20686.0 | 20477.8 | 18943.1 | 17808.6 | 16619.2 | 10473.4 |
| 70°   | 17563.9 | 17520.4 | 18362.1 | 20299.4 | 21024.5 | 21161.7 | 20960.5 | 19171.8 | 17312.3 | 16177.8 | 9290.9  |
| 71°   | 17314.6 | 17197.9 | 18190.6 | 20272.0 | 21088.5 | 21205.2 | 20853.0 | 18963.7 | 16813.7 | 15551.1 | 8218.1  |
| 72.5° | 16541.5 | 16562.1 | 17719.4 | 19986.1 | 20935.3 | 20901.0 | 20244.5 | 18218.0 | 16212.1 | 14128.4 | 6601.0  |
| 75°   | 14638.5 | 14759.7 | 16193.8 | 18785.3 | 19567.5 | 19130.6 | 18126.5 | 16793.1 | 15004.4 | 10130.3 | 4583.7  |
| 77.5° | 11962.4 | 12143.1 | 13719.0 | 16475.1 | 16253.3 | 16209.8 | 16168.6 | 14796.3 | 12813.2 | 5441.4  | 3188.4  |
| 80°   | 5711.3  | 6102.4  | 8275.3  | 11761.1 | 12776.6 | 13268.4 | 12959.6 | 11923.5 | 9908.4  | 2591.5  | 1905.3  |
| 82.5° | 372.8   | 368.2   | 521.5   | 988.1   | 4165.1  | 5384.2  | 8554.4  | 8522.3  | 6907.5  | 1262.6  | 777.7   |
| 85°   | 176.1   | 180.7   | 199.0   | 226.4   | 263.0   | 288.2   | 398.0   | 2333.0  | 3305.1  | 601.5   | 169.3   |
| 87.5° | 102.9   | 105.2   | 123.5   | 157.8   | 205.9   | 228.7   | 272.2   | 350.0   | 430.0   | 331.7   | 36.6    |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |

REPORT NUMBER: P1064111

CATALOG NUMBER: GLAN-SA6C-760-U-T4BC

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°   | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 185.3  | 185.3 | 185.3 | 185.3 | 185.3 | 185.3 | 185.3 | 185.3 | 185.3 | 185.3 | 185.3 |
| 2.5°  | 187.6  | 185.3 | 178.4 | 171.5 | 164.7 | 160.1 | 157.8 | 160.1 | 160.1 | 162.4 | 162.4 |
| 5°    | 187.6  | 180.7 | 169.3 | 155.5 | 146.4 | 137.2 | 132.7 | 130.4 | 132.7 | 132.7 | 132.7 |
| 7.5°  | 185.3  | 173.8 | 157.8 | 141.8 | 130.4 | 118.9 | 114.4 | 112.1 | 112.1 | 114.4 | 114.4 |
| 10°   | 180.7  | 169.3 | 148.7 | 130.4 | 116.7 | 102.9 | 96.1  | 89.2  | 89.2  | 89.2  | 91.5  |
| 12.5° | 178.4  | 162.4 | 137.2 | 118.9 | 100.6 | 84.6  | 70.9  | 64.0  | 66.3  | 66.3  | 66.3  |
| 15°   | 173.8  | 155.5 | 130.4 | 107.5 | 84.6  | 64.0  | 52.6  | 45.7  | 48.0  | 50.3  | 48.0  |
| 17.5° | 173.8  | 153.2 | 121.2 | 93.8  | 66.3  | 48.0  | 38.9  | 34.3  | 34.3  | 36.6  | 36.6  |
| 20°   | 173.8  | 148.7 | 114.4 | 80.1  | 50.3  | 36.6  | 27.4  | 25.2  | 25.2  | 29.7  | 32.0  |
| 22.5° | 178.4  | 148.7 | 105.2 | 66.3  | 41.2  | 27.4  | 20.6  | 18.3  | 20.6  | 25.2  | 27.4  |
| 25°   | 185.3  | 146.4 | 96.1  | 59.5  | 34.3  | 20.6  | 16.0  | 11.4  | 13.7  | 18.3  | 20.6  |
| 27.5° | 192.1  | 144.1 | 86.9  | 52.6  | 27.4  | 16.0  | 11.4  | 9.1   | 6.9   | 9.1   | 9.1   |
| 30°   | 199.0  | 144.1 | 77.8  | 43.5  | 22.9  | 11.4  | 6.9   | 4.6   | 2.3   | 0.0   | 0.0   |
| 32.5° | 203.6  | 139.5 | 70.9  | 34.3  | 18.3  | 9.1   | 4.6   | 2.3   | 0.0   | 0.0   | 0.0   |
| 35°   | 208.1  | 134.9 | 61.8  | 27.4  | 13.7  | 6.9   | 2.3   | 0.0   | 0.0   | 0.0   | 0.0   |
| 37.5° | 212.7  | 128.1 | 52.6  | 22.9  | 11.4  | 4.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 40°   | 217.3  | 118.9 | 43.5  | 20.6  | 6.9   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 42.5° | 221.9  | 112.1 | 36.6  | 16.0  | 4.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 45°   | 233.3  | 107.5 | 29.7  | 13.7  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 47.5° | 253.9  | 102.9 | 27.4  | 9.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 50°   | 283.6  | 98.4  | 25.2  | 6.9   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 52.5° | 324.8  | 96.1  | 22.9  | 4.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 55°   | 398.0  | 93.8  | 20.6  | 4.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 57.5° | 523.8  | 91.5  | 20.6  | 4.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 60°   | 802.8  | 86.9  | 20.6  | 4.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 62.5° | 1434.1 | 84.6  | 18.3  | 4.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 65°   | 2500.0 | 86.9  | 18.3  | 4.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 67.5° | 3584.1 | 91.5  | 16.0  | 6.9   | 2.3   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 70°   | 3067.2 | 80.1  | 16.0  | 9.1   | 4.6   | 2.3   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 71°   | 2500.0 | 70.9  | 16.0  | 9.1   | 4.6   | 2.3   | 2.3   | 0.0   | 0.0   | 0.0   | 0.0   |
| 72.5° | 1607.9 | 54.9  | 13.7  | 9.1   | 4.6   | 4.6   | 2.3   | 0.0   | 0.0   | 0.0   | 0.0   |
| 75°   | 679.3  | 45.7  | 13.7  | 9.1   | 6.9   | 4.6   | 4.6   | 2.3   | 0.0   | 0.0   | 0.0   |
| 77.5° | 290.5  | 34.3  | 13.7  | 11.4  | 9.1   | 6.9   | 6.9   | 4.6   | 2.3   | 0.0   | 0.0   |
| 80°   | 109.8  | 27.4  | 16.0  | 13.7  | 11.4  | 11.4  | 9.1   | 4.6   | 2.3   | 0.0   | 0.0   |
| 82.5° | 50.3   | 22.9  | 16.0  | 13.7  | 13.7  | 11.4  | 9.1   | 6.9   | 4.6   | 0.0   | 0.0   |
| 85°   | 32.0   | 20.6  | 16.0  | 13.7  | 13.7  | 11.4  | 11.4  | 6.9   | 4.6   | 0.0   | 0.0   |
| 87.5° | 25.2   | 20.6  | 16.0  | 16.0  | 13.7  | 13.7  | 9.1   | 6.9   | 2.3   | 0.0   | 0.0   |
| 90°   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 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: SP1-2407-184-7

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-760-U-5WQ

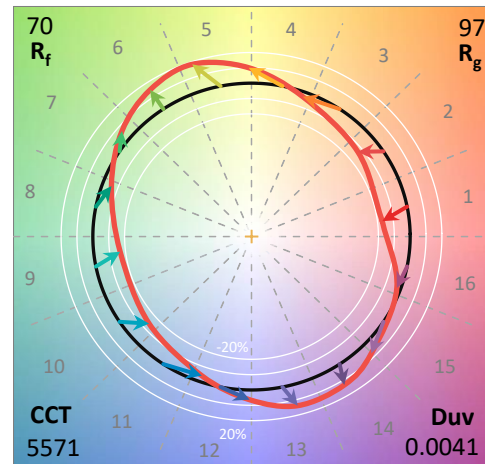
Data in this report applies to families of products including GSS-SB1A-760-U-5WQ

### Test Information

Test Method: LM-79-2019  
 Report Number: SP1-2407-184-7  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry:  $4\pi$   
 Issue Date: 10/15/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: McGraw-Edison  
 Catalog Number: **GSS-SB1A-70-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     | CRI (Ra): | 69.9 |      |       |
| CIE u':                   | 0.2033   | R1:       | 68.8 | R9:  | -35.4 |
| CIE v':                   | 0.4806   | R2:       | 72.5 | R10: | 36.7  |
| Duv:                      | 0.0041   | R3:       | 76.8 | R11: | 73.9  |
| CIE x:                    | 0.3308   | R4:       | 72.0 | R12: | 47.8  |
| CIE y:                    | 0.3476   | R5:       | 70.9 | R13: | 68.0  |
| CIE z:                    | 0.3216   | R6:       | 65.6 | R14: | 87.0  |
| Peak Wavelength (nm):     | 442      | R7:       | 75.5 | R15: | 59.8  |
| Dominant Wavelength (nm): | 544      | R8:       | 56.8 |      |       |
| Purity:                   | 3.635698 |           |      |      |       |
| Rf:                       | 70.4     |           |      |      |       |
| Rg:                       | 97.1     |           |      |      |       |



### Test Conditions

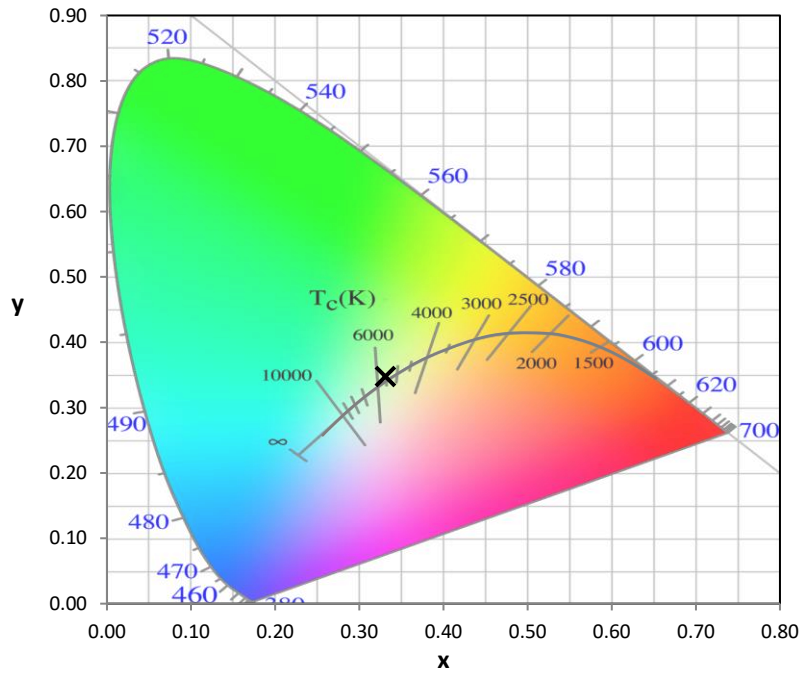
Stabilization Time: 20M  
 Operation Time: 1H 20M  
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-7

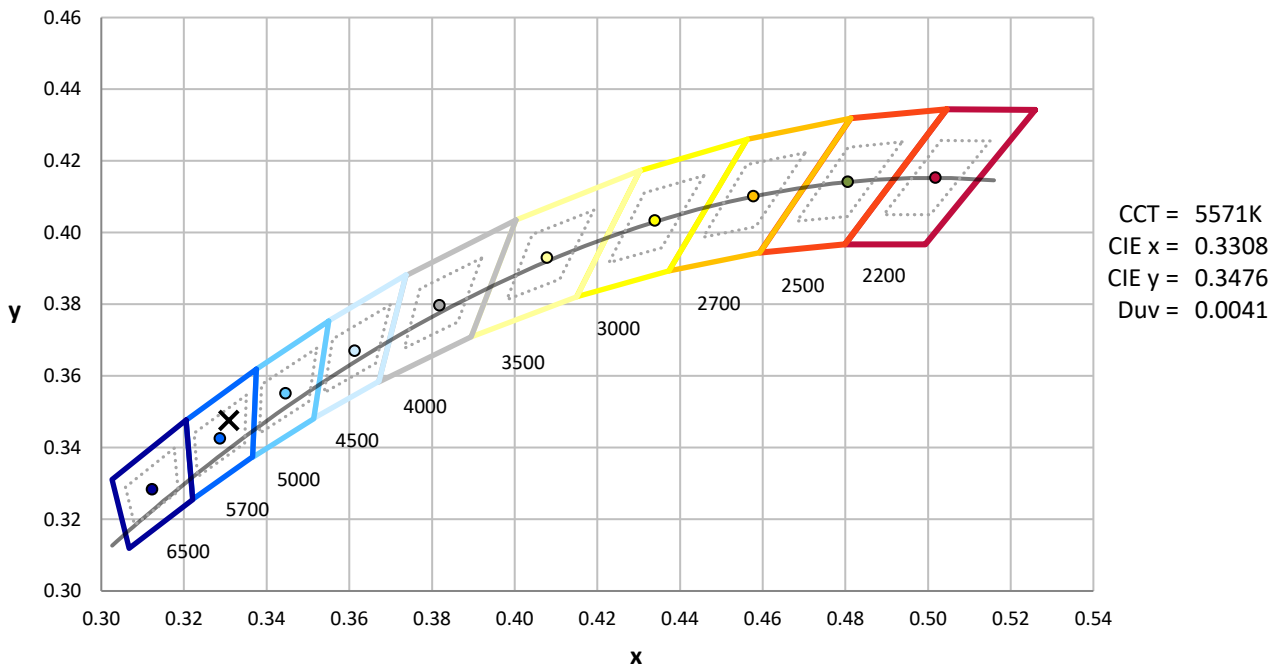
| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| 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**



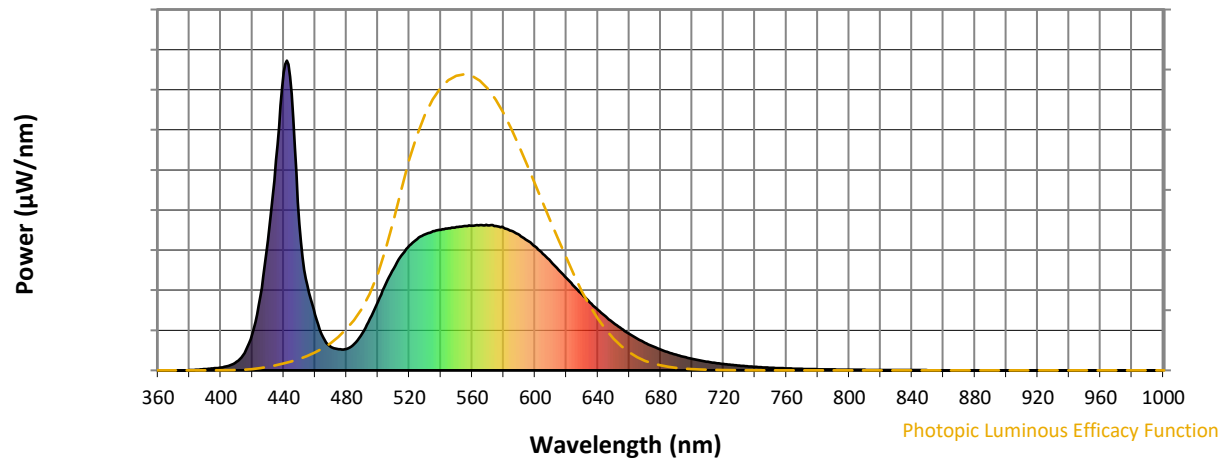
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 5700K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-7

### Photopic Flux vs. Wavelength

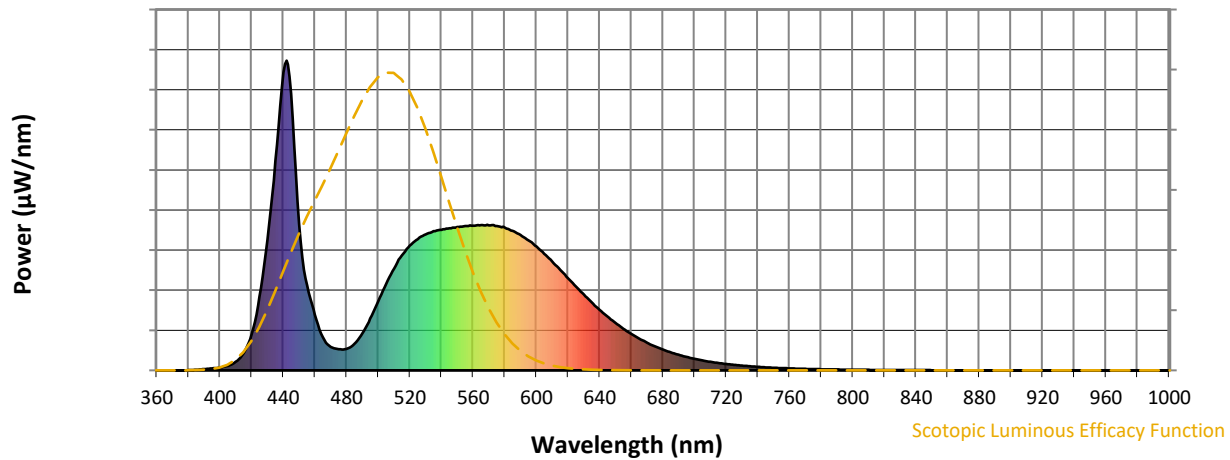


### Photopic Lumens: NR

| λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(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



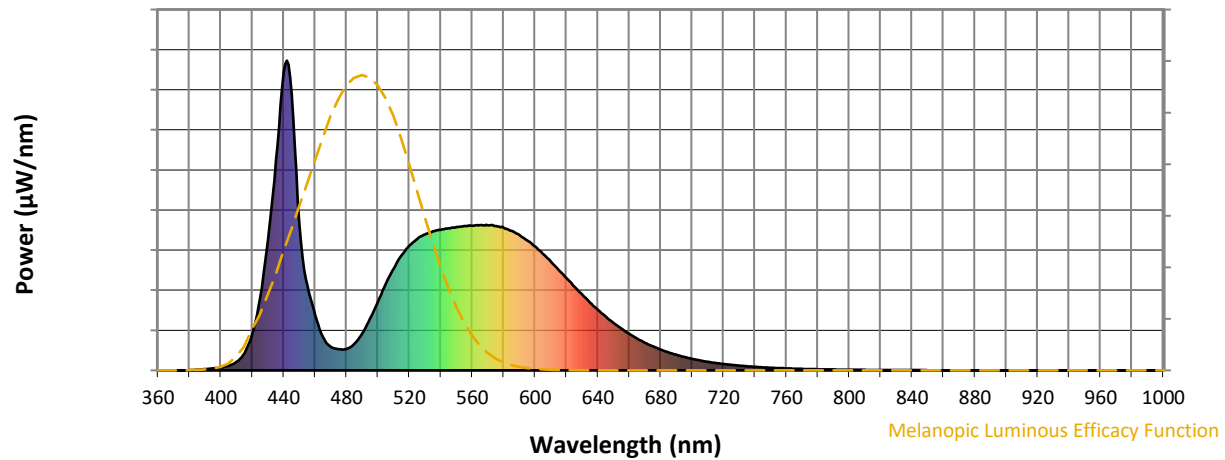
Scotopic Lumens: NR

S/P: 1.84

| λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>(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

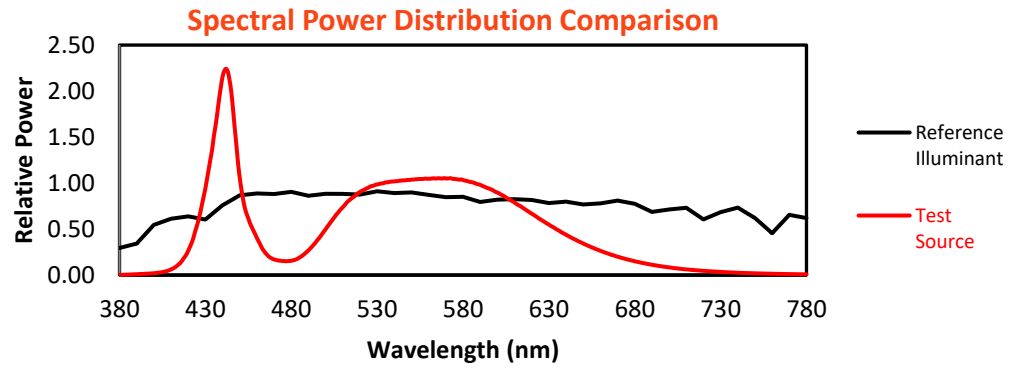
| $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}^\wedge/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) |
|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|
| 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

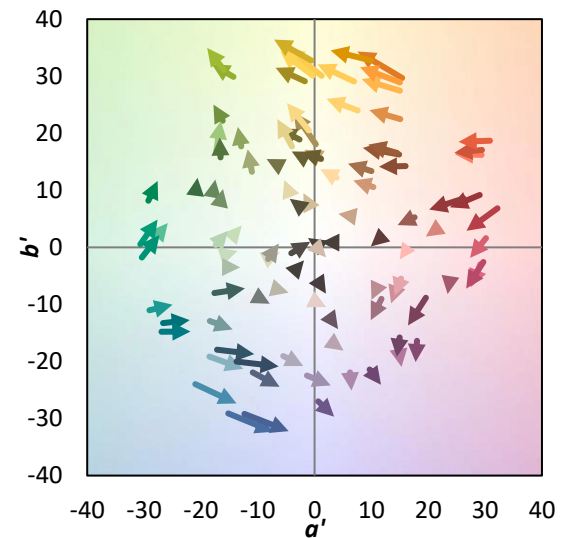
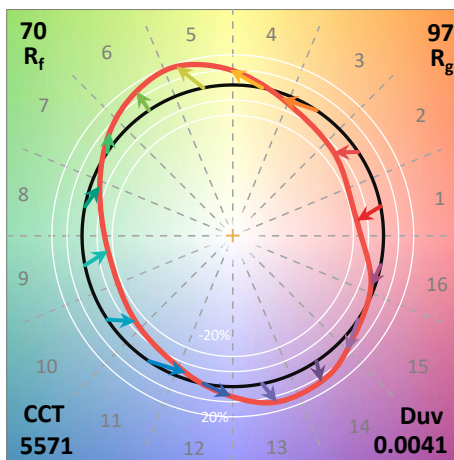
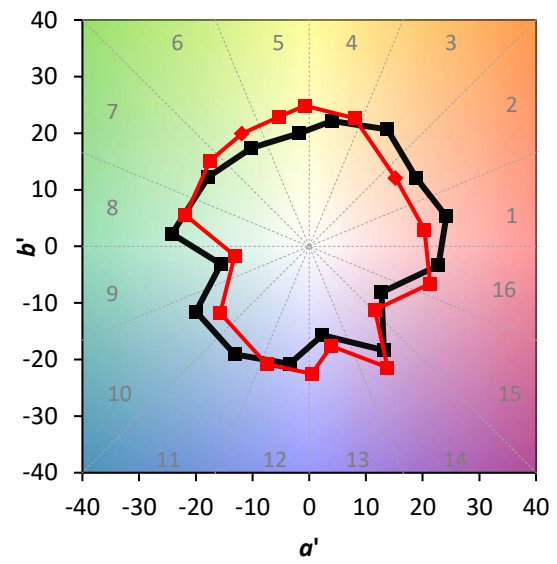
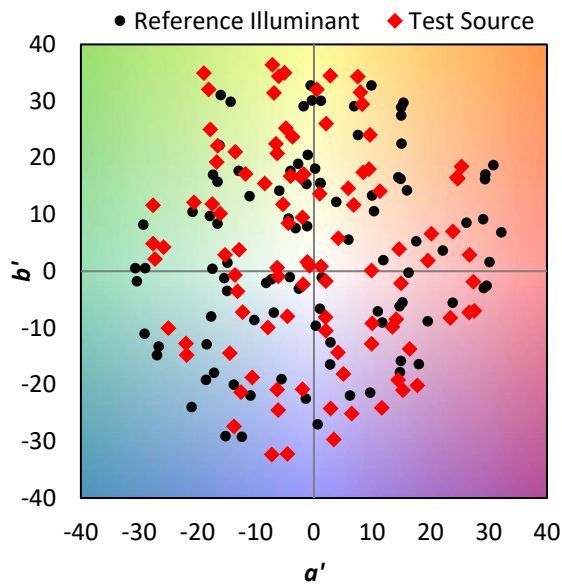
TM-30-18

### Summary

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



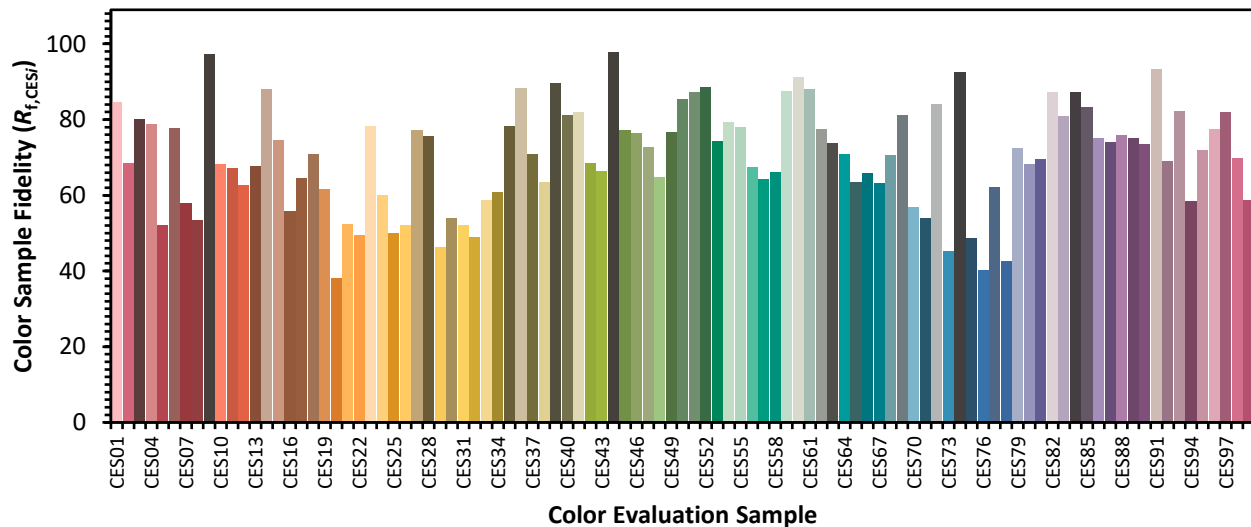
### Color Vector Graphics



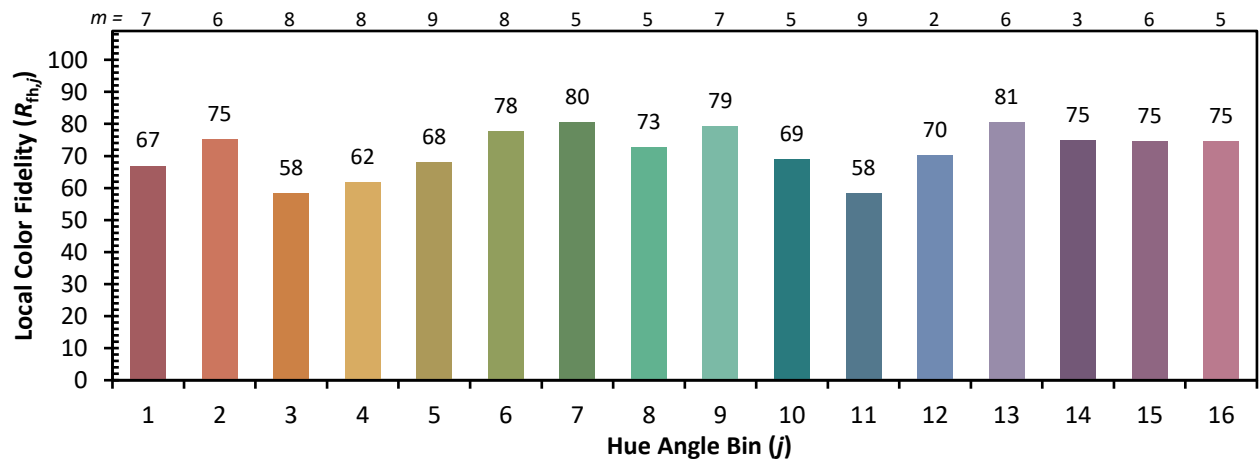
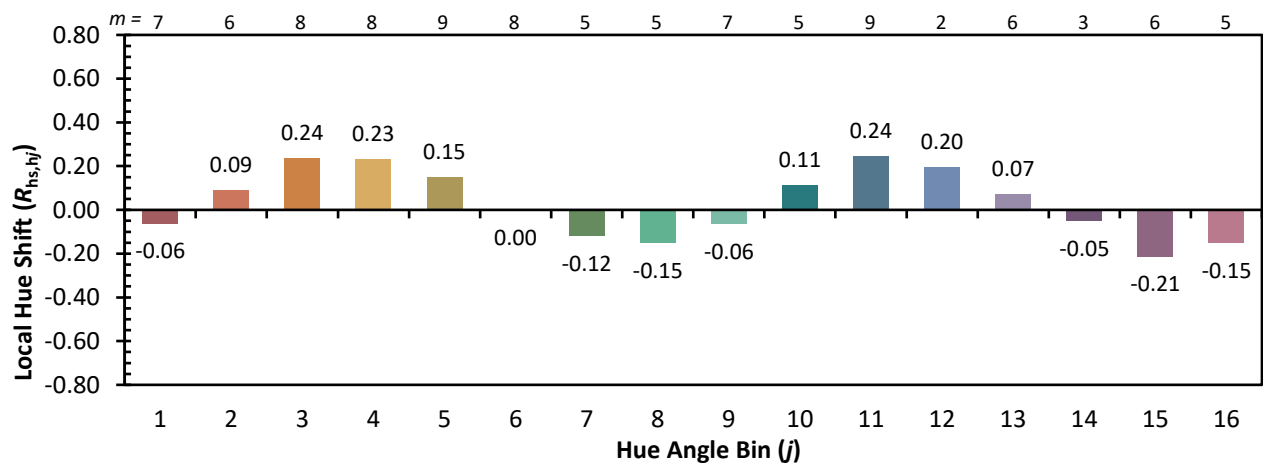
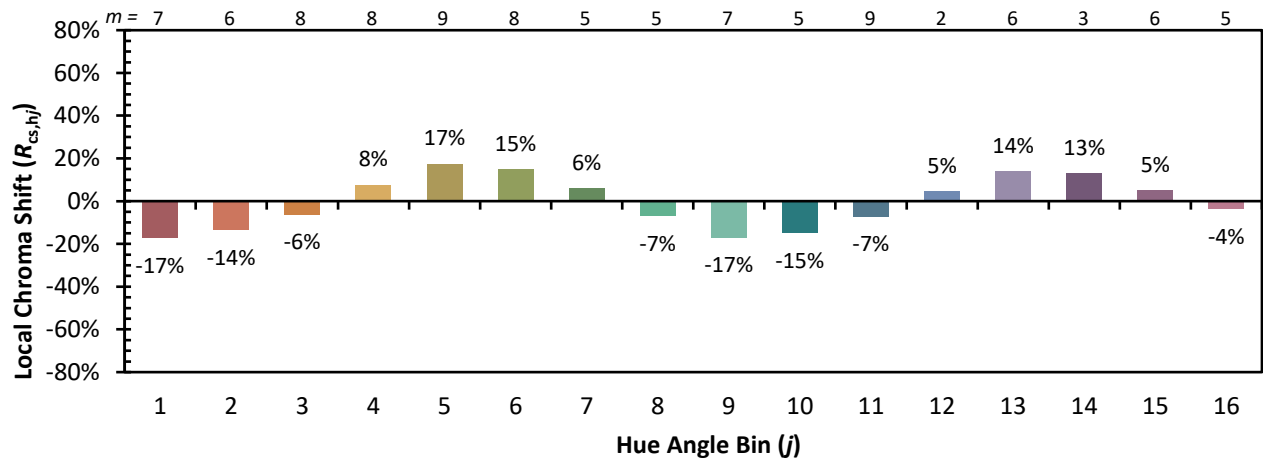


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

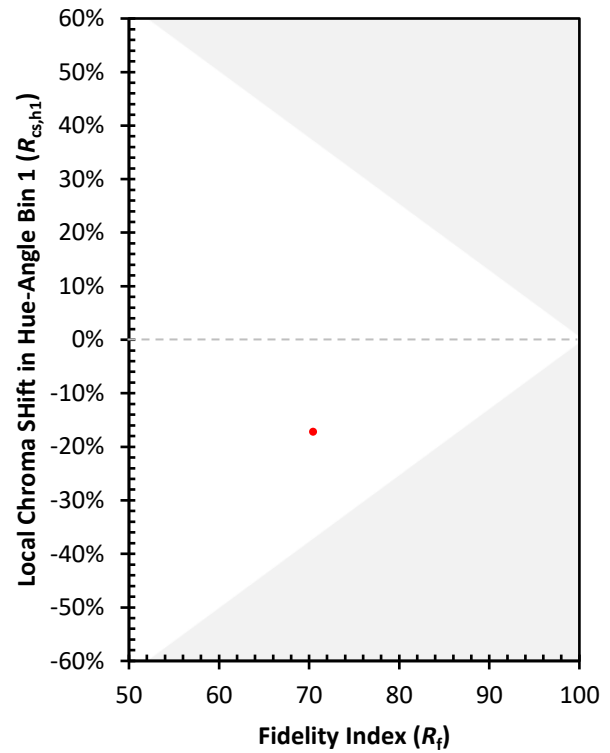
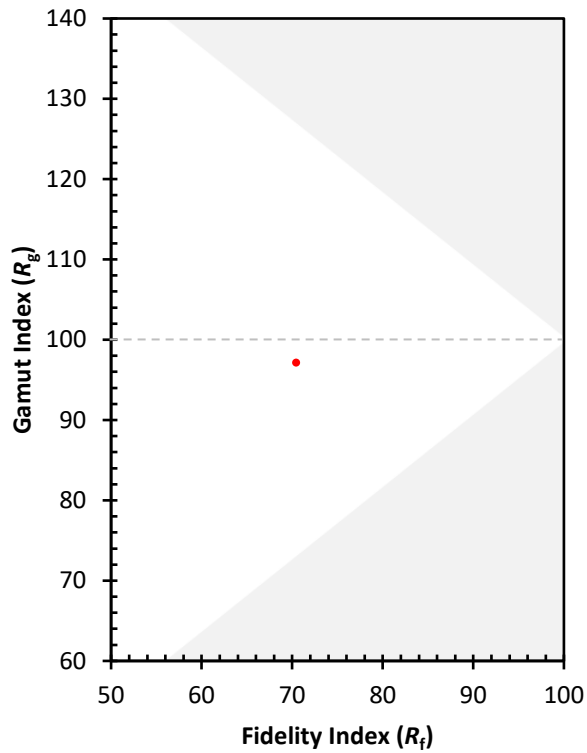
|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 52 | CES51 = 87 | CES76 = 40 |
| CES02 = 59 | CES27 = 77 | CES52 = 88 | CES77 = 62 |
| CES03 = 30 | CES28 = 76 | CES53 = 74 | CES78 = 43 |
| CES04 = 68 | CES29 = 46 | CES54 = 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 |            |



Color Rendition by Hue-Angle Bin



**Measure Comparisons**



(END OF REPORT)