

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: P1457141

Luminaire Tested: GLAN-SB5C-760-U-T4LG

Issue Date: 05/20/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1457141  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 5/21/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: STREETWORKS  
Catalog Number: GLAN-SB5C-760-U-T4LG  
Description: GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 5xLight Square  
PACKAGE 70CRI 5700K FIXTURE w/ TYPE IV LOW GLARE  
Light Source: (130) 5700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

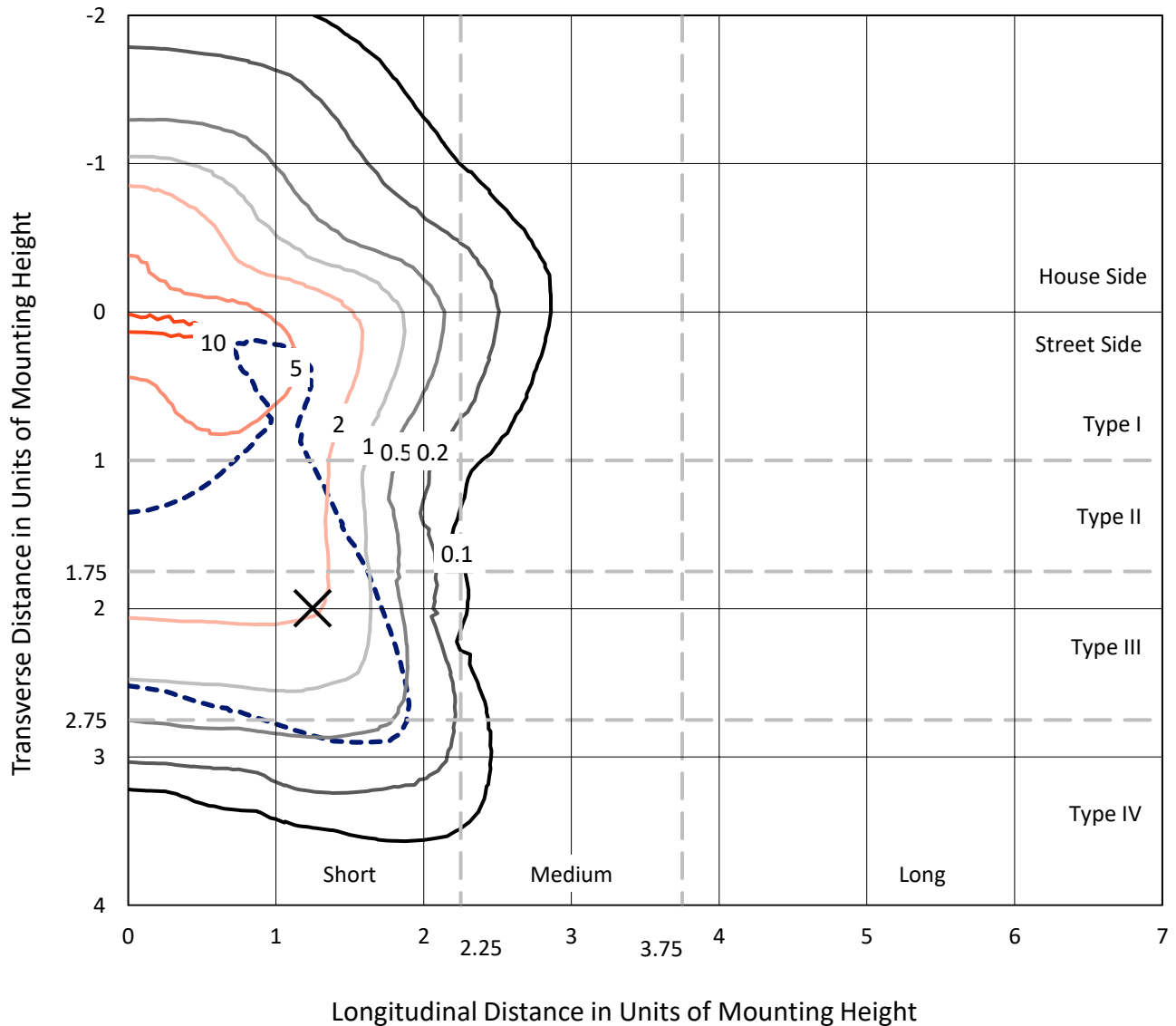
Lumens per Lamp: N/A  
Luminaire Lumens: 39169.5 lumens  
Efficiency: N/A  
Efficacy: 157.0 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 249.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.97  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT

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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

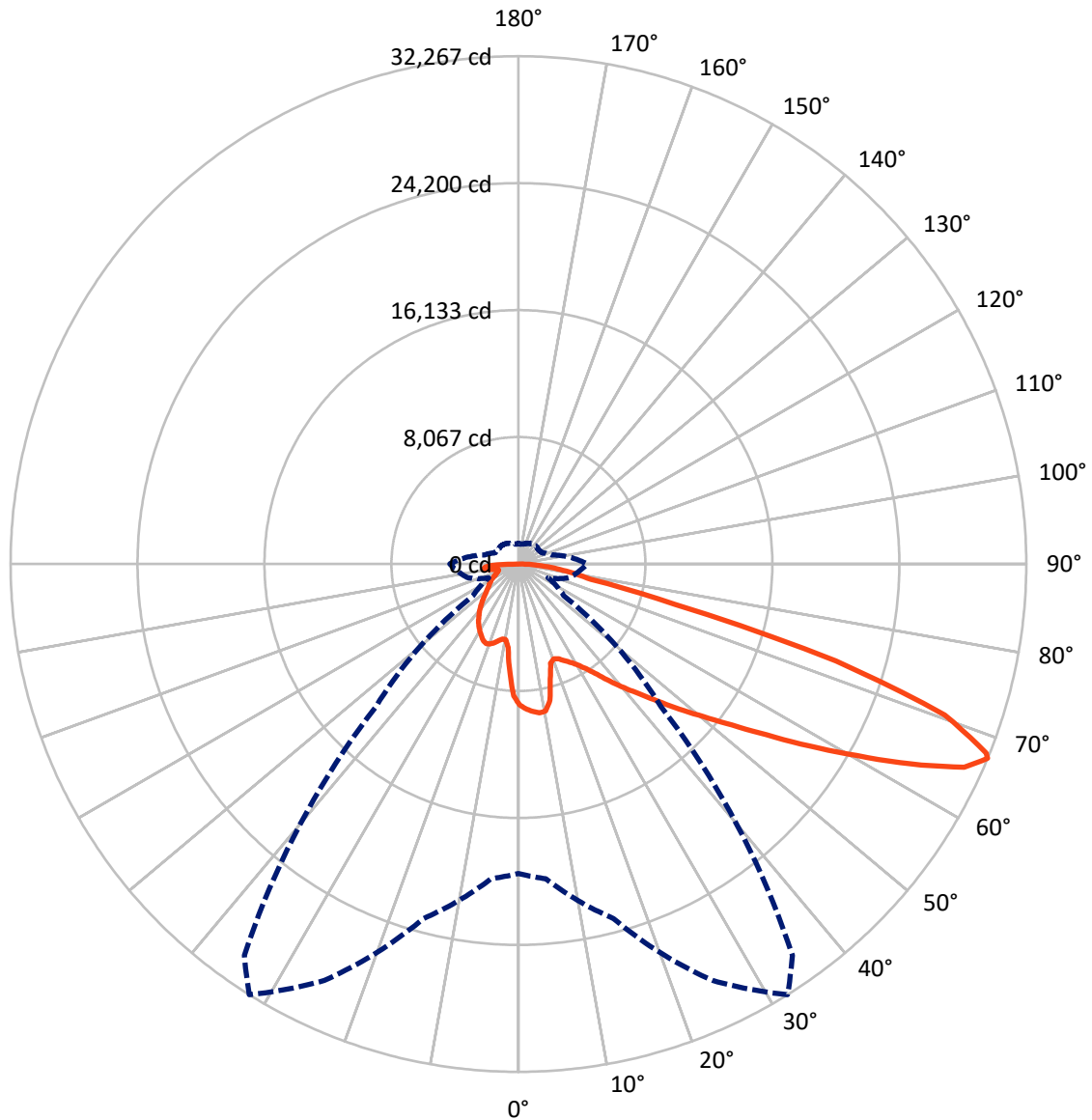


Based on 30 foot mounting height. Maximum calculated value = 10.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral      - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 9273.2   | 0.0    | 9273.2  |
|                    | % Fixture | 23.7     | 0.0    | 23.7    |
| <b>Street Side</b> | Lumens    | 29896.3  | 0.0    | 29896.3 |
|                    | % Fixture | 76.3     | 0.0    | 76.3    |
| <b>Total</b>       | Lumens    | 39169.5  | 0.0    | 39169.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 782.0   | 2.0       |
| 10°-20°   | 2076.2  | 5.3       |
| 20°-30°   | 3390.5  | 8.7       |
| 30°-40°   | 4997.3  | 12.8      |
| 40°-50°   | 6891.5  | 17.6      |
| 50°-60°   | 8706.1  | 22.2      |
| 60°-70°   | 8425.9  | 21.5      |
| 70°-80°   | 3007.1  | 7.7       |
| 80°-90°   | 893.0   | 2.3       |
| 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°    | 39169.5 | 100.0     |
| 0°-180°   | 39169.5 | 100.0     |



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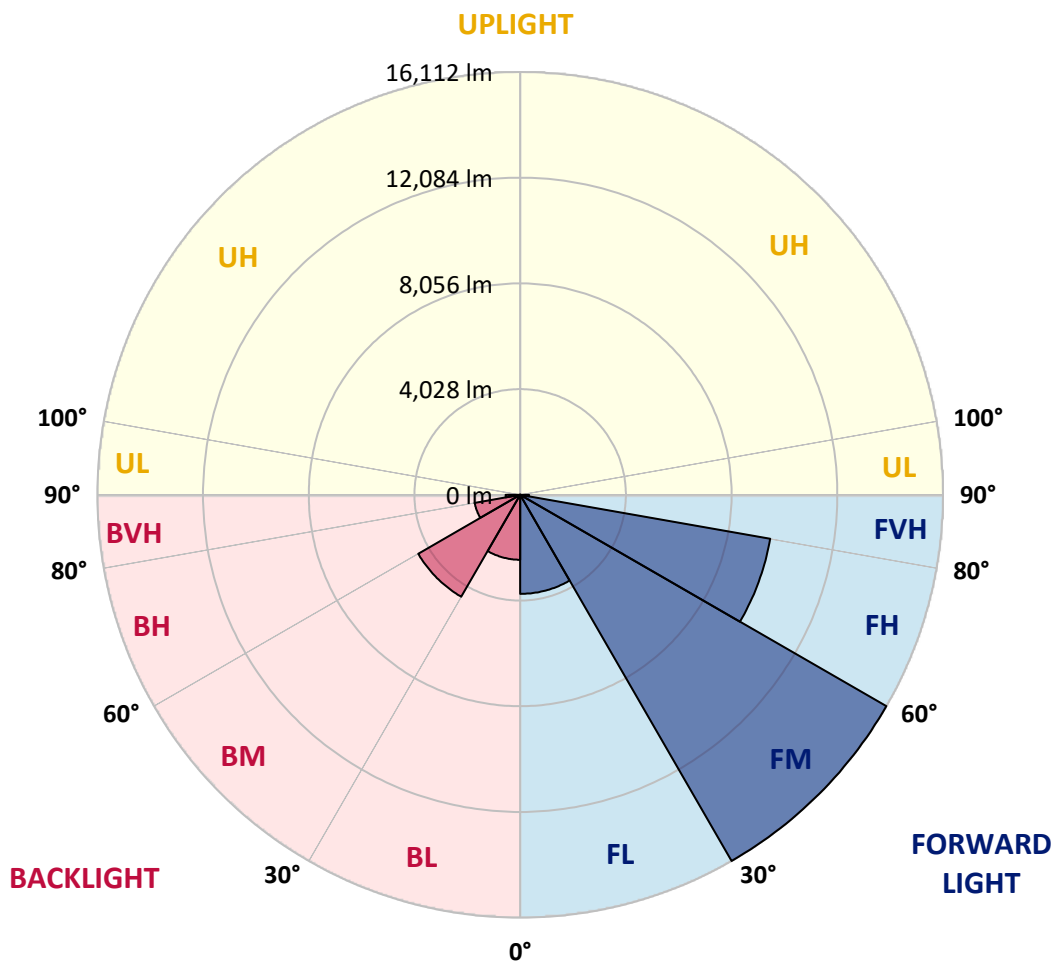
CATALOG NUMBER: GLAN-SB5C-760-U-T4LG

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

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 3774.1  | 9.6       |                         |      |          |
| FM (30°-60°)   | 16111.7 | 41.1      |                         |      |          |
| FH (60°-80°)   | 9674.0  | 24.7      |                         |      | G4/12000 |
| FVH (80°-90°)  | 336.5   | 0.9       |                         |      | G3/500   |
| BL (0°-30°)    | 2474.6  | 6.3       | B3/2500                 |      |          |
| BM (30°-60°)   | 4483.2  | 11.4      | B3/5000                 |      |          |
| BH (60°-80°)   | 1759.0  | 4.5       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 556.5   | 1.4       |                         |      | G4/750   |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 32°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 8949.4  | 8949.4  | 8949.4  | 8949.4  | 8949.4  | 8949.4  | 8949.4  | 8949.4  | 8949.4  | 8949.4  | 8949.4  |
| 2.5°  | 9288.6  | 9262.5  | 9236.5  | 9253.9  | 9219.1  | 9210.4  | 9166.9  | 9149.5  | 9097.3  | 9088.6  | 8992.9  |
| 5°    | 9480.0  | 9427.8  | 9419.1  | 9436.5  | 9401.7  | 9401.7  | 9366.9  | 9340.8  | 9262.5  | 9219.1  | 9079.9  |
| 7.5°  | 9480.0  | 9471.3  | 9488.7  | 9549.6  | 9558.3  | 9558.3  | 9558.3  | 9567.0  | 9488.7  | 9427.8  | 9210.4  |
| 10°   | 8940.8  | 8853.8  | 9045.1  | 9349.5  | 9497.4  | 9584.3  | 9740.9  | 9836.6  | 9775.7  | 9732.2  | 9436.5  |
| 12.5° | 7331.8  | 7340.5  | 7644.9  | 8297.2  | 8888.6  | 9140.8  | 9793.1  | 10141.0 | 10167.1 | 10097.5 | 9723.5  |
| 15°   | 6218.5  | 6262.0  | 6418.6  | 6888.2  | 7566.6  | 7940.6  | 9488.7  | 10410.6 | 10619.3 | 10549.7 | 10071.4 |
| 17.5° | 5879.3  | 5905.4  | 5975.0  | 6244.6  | 6627.3  | 6931.7  | 8662.4  | 10584.5 | 11167.2 | 11080.3 | 10462.8 |
| 20°   | 5827.1  | 5844.5  | 5931.5  | 6157.6  | 6418.6  | 6592.5  | 7818.8  | 10445.4 | 11680.4 | 11645.6 | 10819.4 |
| 22.5° | 5835.8  | 5853.2  | 5966.3  | 6279.4  | 6549.0  | 6696.9  | 7549.2  | 10123.6 | 12219.6 | 12254.4 | 11184.6 |
| 25°   | 5853.2  | 5861.9  | 6035.9  | 6453.3  | 6792.5  | 6975.2  | 7723.1  | 9836.6  | 12671.9 | 12967.6 | 11584.7 |
| 27.5° | 5948.9  | 5975.0  | 6209.8  | 6679.5  | 7079.5  | 7288.3  | 8131.9  | 9932.2  | 13167.6 | 13776.4 | 12063.1 |
| 30°   | 6209.8  | 6227.2  | 6514.2  | 7001.3  | 7436.1  | 7653.6  | 8619.0  | 10314.9 | 13776.4 | 14611.3 | 12532.7 |
| 32.5° | 6618.6  | 6636.0  | 6966.5  | 7470.9  | 7940.6  | 8201.5  | 9253.9  | 11045.5 | 14454.8 | 15489.8 | 13002.4 |
| 35°   | 7183.9  | 7192.6  | 7566.6  | 8105.8  | 8601.6  | 8897.3  | 9993.1  | 11871.7 | 15159.3 | 16237.7 | 13350.2 |
| 37.5° | 7853.6  | 7914.5  | 8297.2  | 8862.5  | 9445.2  | 9714.8  | 10862.8 | 12837.1 | 15785.5 | 16872.6 | 13550.3 |
| 40°   | 8775.5  | 8792.9  | 9166.9  | 9714.8  | 10332.3 | 10593.2 | 11732.6 | 13750.3 | 16472.6 | 17246.6 | 13732.9 |
| 42.5° | 9723.5  | 9871.4  | 10184.5 | 10793.3 | 11254.2 | 11462.9 | 12724.0 | 14585.3 | 17020.5 | 17264.0 | 13654.6 |
| 45°   | 10993.3 | 11106.4 | 11419.5 | 11958.7 | 12419.6 | 12663.2 | 13793.8 | 15350.6 | 17298.8 | 17116.1 | 13480.7 |
| 47.5° | 12445.7 | 12515.3 | 12767.5 | 13254.6 | 13767.7 | 13941.7 | 14907.1 | 15785.5 | 17403.2 | 17011.8 | 13402.4 |
| 50°   | 14159.1 | 14159.1 | 14341.7 | 14759.2 | 15228.8 | 15472.4 | 15933.3 | 16046.4 | 17707.6 | 16829.1 | 13602.5 |
| 52.5° | 15602.8 | 15672.4 | 15915.9 | 16507.3 | 16977.0 | 17255.3 | 16733.5 | 16446.5 | 17090.1 | 15811.6 | 13663.3 |
| 55°   | 16985.7 | 17064.0 | 17611.9 | 18351.2 | 19151.3 | 19455.7 | 17733.6 | 16246.4 | 15011.4 | 14324.3 | 13245.9 |
| 57.5° | 18307.7 | 18472.9 | 19160.0 | 20603.7 | 21812.6 | 21786.6 | 19003.4 | 14454.8 | 12254.4 | 12680.6 | 12332.7 |
| 60°   | 20151.5 | 20325.4 | 21421.3 | 23239.0 | 24717.5 | 24100.0 | 19020.8 | 12028.3 | 9549.6  | 10123.6 | 10619.3 |
| 62.5° | 21690.9 | 21986.6 | 23595.6 | 26622.2 | 27979.0 | 27013.6 | 17446.6 | 9210.4  | 6340.3  | 7062.1  | 8210.2  |
| 65°   | 21551.7 | 21943.1 | 24439.2 | 29109.6 | 31136.1 | 30240.3 | 15141.9 | 5827.1  | 3270.2  | 4827.0  | 5748.9  |
| 67°   | 19655.7 | 20081.9 | 23317.3 | 29196.6 | 32266.7 | 30353.3 | 12784.9 | 3522.4  | 2078.6  | 3348.4  | 3992.0  |
| 67.5° | 18568.6 | 19194.8 | 22760.6 | 29031.3 | 32058.0 | 29875.0 | 11723.9 | 2948.4  | 1956.9  | 3113.6  | 3635.4  |
| 70°   | 11419.5 | 12428.3 | 17081.4 | 25665.5 | 28735.6 | 25004.5 | 6514.2  | 1669.9  | 1591.6  | 2087.3  | 2513.5  |
| 72.5° | 3435.4  | 3739.8  | 6592.5  | 16463.9 | 21090.8 | 18533.8 | 2931.0  | 1287.2  | 1426.3  | 1678.6  | 1939.5  |
| 75°   | 1669.9  | 1782.9  | 2722.2  | 6731.7  | 10271.4 | 10219.2 | 1635.1  | 1104.5  | 1322.0  | 1409.0  | 1530.7  |
| 77.5° | 1069.8  | 1139.3  | 1696.0  | 3765.9  | 4705.2  | 4192.1  | 1182.8  | 965.4   | 1174.1  | 1156.7  | 1139.3  |
| 80°   | 669.7   | 704.5   | 1087.2  | 2183.0  | 3470.2  | 2896.2  | 869.7   | 791.4   | 1008.9  | 895.8   | 808.8   |
| 82.5° | 434.9   | 478.3   | 695.8   | 1330.7  | 2478.7  | 2156.9  | 574.0   | 565.3   | 834.9   | 713.2   | 626.2   |
| 85°   | 287.0   | 321.8   | 443.6   | 782.8   | 1469.8  | 1539.4  | 374.0   | 391.4   | 643.6   | 539.2   | 478.3   |
| 87.5° | 104.4   | 130.5   | 226.1   | 347.9   | 687.1   | 852.3   | 156.6   | 147.9   | 313.1   | 252.2   | 200.0   |
| 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: P1457141

CATALOG NUMBER: GLAN-SB5C-760-U-T4LG

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 8949.4  | 8949.4 | 8949.4 | 8949.4 | 8949.4 | 8949.4 | 8949.4 | 8949.4 | 8949.4 | 8949.4 | 8949.4 |
| 2.5°  | 8975.5  | 8949.4 | 8827.7 | 8723.3 | 8645.0 | 8540.7 | 8427.6 | 8297.2 | 8210.2 | 8227.6 | 8201.5 |
| 5°    | 9019.0  | 8949.4 | 8714.6 | 8358.0 | 8010.1 | 7575.3 | 7018.7 | 6688.2 | 6435.9 | 6305.5 | 6340.3 |
| 7.5°  | 9114.7  | 8992.9 | 8497.2 | 7775.3 | 6870.8 | 5983.7 | 5435.8 | 5122.7 | 4974.8 | 4913.9 | 4905.2 |
| 10°   | 9279.9  | 9071.2 | 8218.9 | 6870.8 | 5688.0 | 5087.9 | 4887.8 | 4800.9 | 4783.5 | 4783.5 | 4774.8 |
| 12.5° | 9480.0  | 9149.5 | 7749.2 | 5992.4 | 5122.7 | 4905.2 | 4870.4 | 4879.1 | 4905.2 | 4931.3 | 4887.8 |
| 15°   | 9723.5  | 9184.3 | 7166.5 | 5461.9 | 5009.6 | 4957.4 | 5009.6 | 5070.5 | 5114.0 | 5148.8 | 5105.3 |
| 17.5° | 9967.0  | 9149.5 | 6618.6 | 5209.6 | 5027.0 | 5096.6 | 5200.9 | 5296.6 | 5322.7 | 5374.9 | 5340.1 |
| 20°   | 10141.0 | 9027.7 | 6148.9 | 5114.0 | 5070.5 | 5227.0 | 5357.5 | 5461.9 | 5514.0 | 5548.8 | 5514.0 |
| 22.5° | 10271.4 | 8871.2 | 5809.7 | 5018.3 | 5070.5 | 5261.8 | 5418.4 | 5540.1 | 5601.0 | 5635.8 | 5592.3 |
| 25°   | 10384.5 | 8653.7 | 5548.8 | 4879.1 | 4966.1 | 5148.8 | 5322.7 | 5444.5 | 5531.4 | 5583.6 | 5557.5 |
| 27.5° | 10523.6 | 8479.8 | 5305.3 | 4670.4 | 4748.7 | 4922.6 | 5105.3 | 5253.1 | 5418.4 | 5505.3 | 5488.0 |
| 30°   | 10680.2 | 8392.8 | 5070.5 | 4444.3 | 4496.5 | 4670.4 | 4887.8 | 5087.9 | 5314.0 | 5427.1 | 5427.1 |
| 32.5° | 10862.8 | 8331.9 | 4853.1 | 4226.9 | 4270.3 | 4461.7 | 4670.4 | 4853.1 | 5096.6 | 5279.2 | 5270.5 |
| 35°   | 10941.1 | 8262.4 | 4679.1 | 4026.8 | 4113.8 | 4270.3 | 4435.6 | 4557.3 | 4809.6 | 5027.0 | 5044.4 |
| 37.5° | 11019.4 | 8236.3 | 4592.1 | 3870.3 | 3939.8 | 4061.6 | 4148.6 | 4209.5 | 4444.3 | 4670.4 | 4679.1 |
| 40°   | 11115.1 | 8358.0 | 4653.0 | 3765.9 | 3705.0 | 3826.8 | 3870.3 | 3905.1 | 4026.8 | 4174.7 | 4174.7 |
| 42.5° | 11054.2 | 8445.0 | 4792.2 | 3670.2 | 3418.0 | 3557.2 | 3574.6 | 3565.9 | 3574.6 | 3583.3 | 3574.6 |
| 45°   | 10897.6 | 8358.0 | 4792.2 | 3522.4 | 3113.6 | 3261.5 | 3252.8 | 3209.3 | 3139.7 | 2957.1 | 2931.0 |
| 47.5° | 10862.8 | 8305.9 | 4609.5 | 3278.9 | 2809.2 | 2931.0 | 2948.4 | 2861.4 | 2661.4 | 2470.0 | 2409.1 |
| 50°   | 11010.7 | 8401.5 | 4322.5 | 2983.1 | 2548.3 | 2652.7 | 2696.1 | 2548.3 | 2322.2 | 2122.1 | 2087.3 |
| 52.5° | 11228.1 | 8523.3 | 3905.1 | 2661.4 | 2330.9 | 2435.2 | 2487.4 | 2322.2 | 2087.3 | 1930.8 | 1913.4 |
| 55°   | 11202.0 | 8523.3 | 3435.4 | 2365.6 | 2165.6 | 2243.9 | 2330.9 | 2156.9 | 1974.3 | 1887.3 | 1878.6 |
| 57.5° | 10636.7 | 8201.5 | 3087.5 | 2156.9 | 2009.1 | 2078.6 | 2191.7 | 2026.5 | 1852.5 | 1869.9 | 1896.0 |
| 60°   | 9532.2  | 7366.6 | 2826.6 | 2017.8 | 1869.9 | 1939.5 | 2061.2 | 1869.9 | 1643.8 | 1582.9 | 1582.9 |
| 62.5° | 7853.6  | 6070.7 | 2617.9 | 1878.6 | 1739.4 | 1826.4 | 1887.3 | 1635.1 | 1487.2 | 1417.6 | 1417.6 |
| 65°   | 5888.0  | 4696.5 | 2400.4 | 1765.5 | 1626.4 | 1722.1 | 1652.5 | 1530.7 | 1382.9 | 1330.7 | 1339.4 |
| 67°   | 4366.0  | 3644.1 | 2217.8 | 1669.9 | 1556.8 | 1600.3 | 1548.1 | 1461.1 | 1313.3 | 1269.8 | 1313.3 |
| 67.5° | 3922.5  | 3461.5 | 2174.3 | 1643.8 | 1539.4 | 1574.2 | 1522.0 | 1452.4 | 1295.9 | 1252.4 | 1295.9 |
| 70°   | 2696.1  | 2661.4 | 1939.5 | 1522.0 | 1443.7 | 1409.0 | 1435.0 | 1348.1 | 1217.6 | 1200.2 | 1243.7 |
| 72.5° | 2052.5  | 2122.1 | 1739.4 | 1417.6 | 1339.4 | 1295.9 | 1356.8 | 1269.8 | 1139.3 | 1165.4 | 1208.9 |
| 75°   | 1609.0  | 1713.4 | 1556.8 | 1269.8 | 1217.6 | 1226.3 | 1348.1 | 1313.3 | 1208.9 | 1235.0 | 1243.7 |
| 77.5° | 1191.5  | 1382.9 | 1330.7 | 1104.5 | 1061.1 | 1182.8 | 1522.0 | 1626.4 | 1443.7 | 1400.3 | 1339.4 |
| 80°   | 869.7   | 991.5  | 1121.9 | 913.2  | 887.1  | 1139.3 | 1878.6 | 2078.6 | 1782.9 | 1609.0 | 1565.5 |
| 82.5° | 643.6   | 695.8  | 921.9  | 730.6  | 643.6  | 1017.6 | 2087.3 | 2443.9 | 2122.1 | 1791.6 | 1739.4 |
| 85°   | 461.0   | 539.2  | 730.6  | 539.2  | 426.2  | 834.9  | 2043.8 | 2391.7 | 2104.7 | 1696.0 | 1652.5 |
| 87.5° | 165.2   | 234.8  | 313.1  | 243.5  | 217.4  | 574.0  | 1687.3 | 1722.1 | 1313.3 | 600.1  | 608.8  |
| 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-757-U-5WQ

Data in this report applies to families of products including GSS-SB1A-757-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: 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 | R9:  | -35.4 |
| R2:       | 72.5 | R10: | 36.7  |
| R3:       | 76.8 | R11: | 73.9  |
| R4:       | 72.0 | R12: | 47.8  |
| R5:       | 70.9 | R13: | 68.0  |
| R6:       | 65.6 | R14: | 87.0  |
| R7:       | 75.5 | R15: | 59.8  |
| R8:       | 56.8 |      |       |



**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           |

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**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**

| $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /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                      |                   |                             |                         |

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.84**

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

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**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 3.71**

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

**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)