

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: P1386462

Luminaire Tested: **VAL-T-SB6D-727-U-T2R**

Issue Date: 02/18/2026

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been  
influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
 Report Number: P1386462  
 Test Lab: INNOVATION CENTER(G1)  
 Issue Date: 02/18/2026  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: STREETWORKS  
 Catalog Number: VAL-T-SB6D-727-U-T2R  
 Description: GALLEON II WALL SLIM HIGH DENSITY LED ARRAYS 6SQUARE 350W 70CRI  
 2700K FIXTURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC  
 Light Source: (156) 2700K CCT, 70 CRI LEDS  
 Ballast/Driver: ELECTRONIC DRIVER  
 Luminaire Equipment:

| <u>Sample No.</u> | <u>Condition</u> | <u>Description</u> |
|-------------------|------------------|--------------------|
| a                 | good             | reflector          |
| b                 | good             | lens               |
| c                 | good             | housing            |
| d                 | good             | cord               |

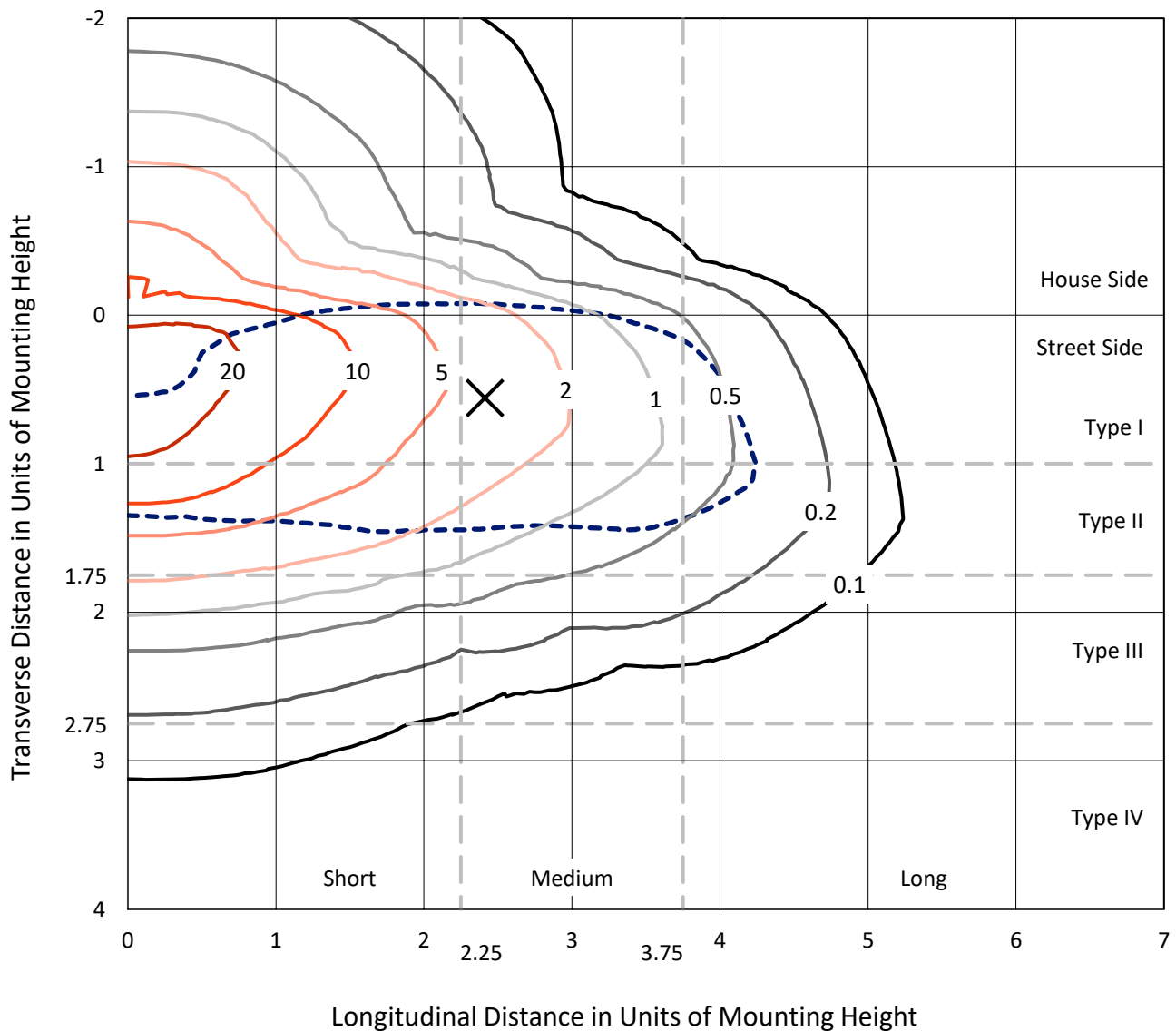
**Summary**

Lumens per Lamp: N/A  
 Luminaire Lumens: 44748.1 lumens  
 Efficiency: N/A  
 Efficacy: 127.9 lumens/watt  
 Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
 IES Classification: Type II - Medium  
 BUG Rating: B3 - U0 - G4  
  
 Input Watts (W): 350  
 Input Voltage (V): 120  
 Input Current (Ain): NR  
 Voltage Rise (V): NR  
 Power Factor: 0.98  
 Total Harmonic Distortion (THDi): --  
 Frequency (hertz): 60  
 Stabilization Time: NR  
 Operation Time: NR  
 Ambient Temperature (°C): NR  
 Test Distance: 28.75 FT

REPORT NUMBER: P1386462  
 CATALOG NUMBER: VAL-T-SB6D-727-U-T2R

## Iso-Footcandle Lines of Horizontal Illumination

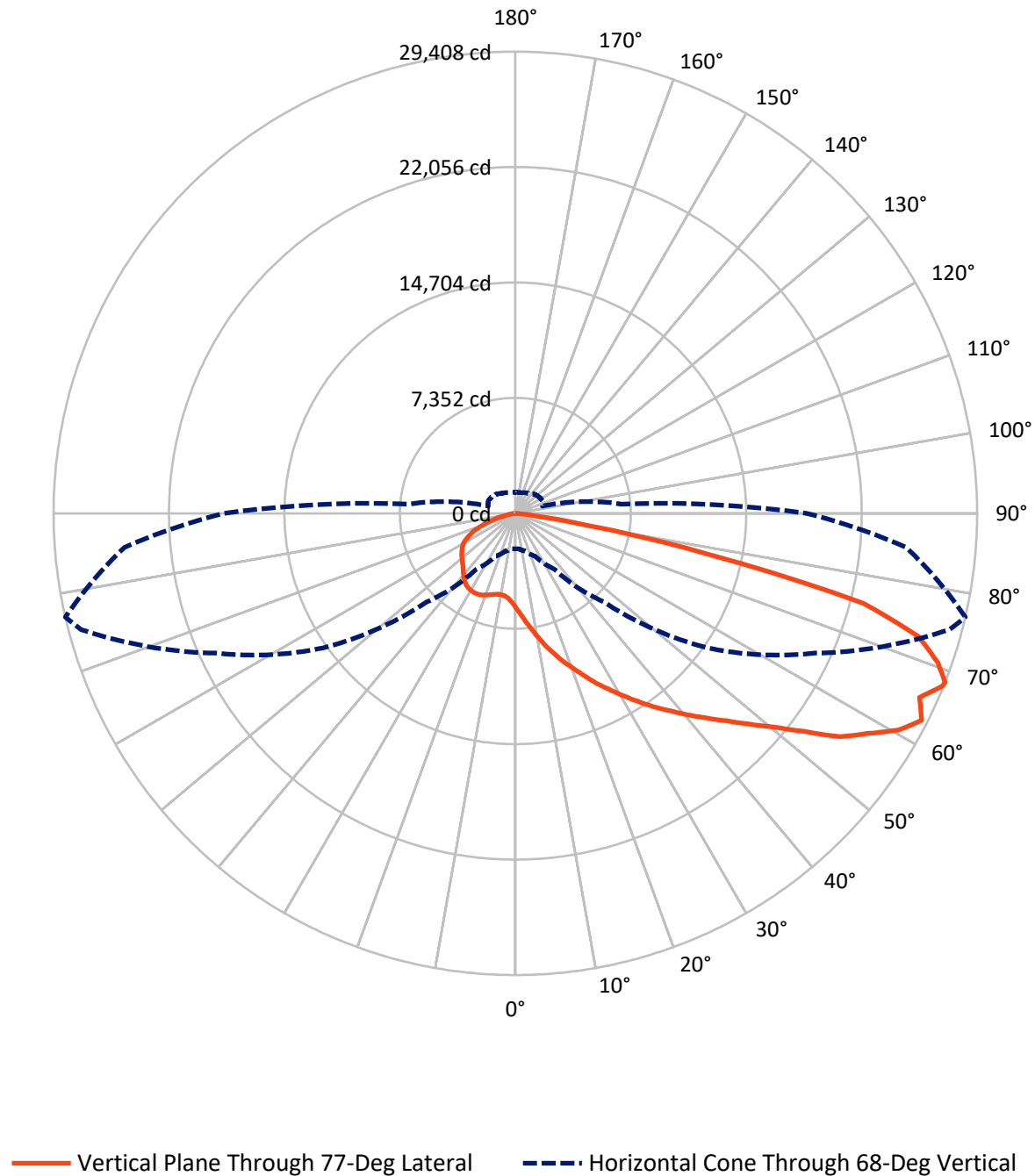
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 26.1 fc  
 Type II - Medium - N/A

REPORT NUMBER: P1386462  
CATALOG NUMBER: VAL-T-SB6D-727-U-T2R

## Luminous Intensity Polar Plot



REPORT NUMBER: P1386462

CATALOG NUMBER: VAL-T-SB6D-727-U-T2R

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 8447.2   | 0.0    | 8447.2  |
|                    | % Fixture | 18.9     | 0.0    | 18.9    |
| <b>Street Side</b> | Lumens    | 36300.9  | 0.0    | 36300.9 |
|                    | % Fixture | 81.1     | 0.0    | 81.1    |
| <b>Total</b>       | Lumens    | 44748.1  | 0.0    | 44748.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 617.6   | 1.4       |
| 10°-20°   | 2168.9  | 4.8       |
| 20°-30°   | 3964.6  | 8.9       |
| 30°-40°   | 6424.1  | 14.4      |
| 40°-50°   | 8835.9  | 19.7      |
| 50°-60°   | 9907.1  | 22.1      |
| 60°-70°   | 8349.7  | 18.7      |
| 70°-80°   | 4138.3  | 9.2       |
| 80°-90°   | 341.8   | 0.8       |
| 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°    | 44748.1 | 100.0     |
| 0°-180°   | 44748.1 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P1386462

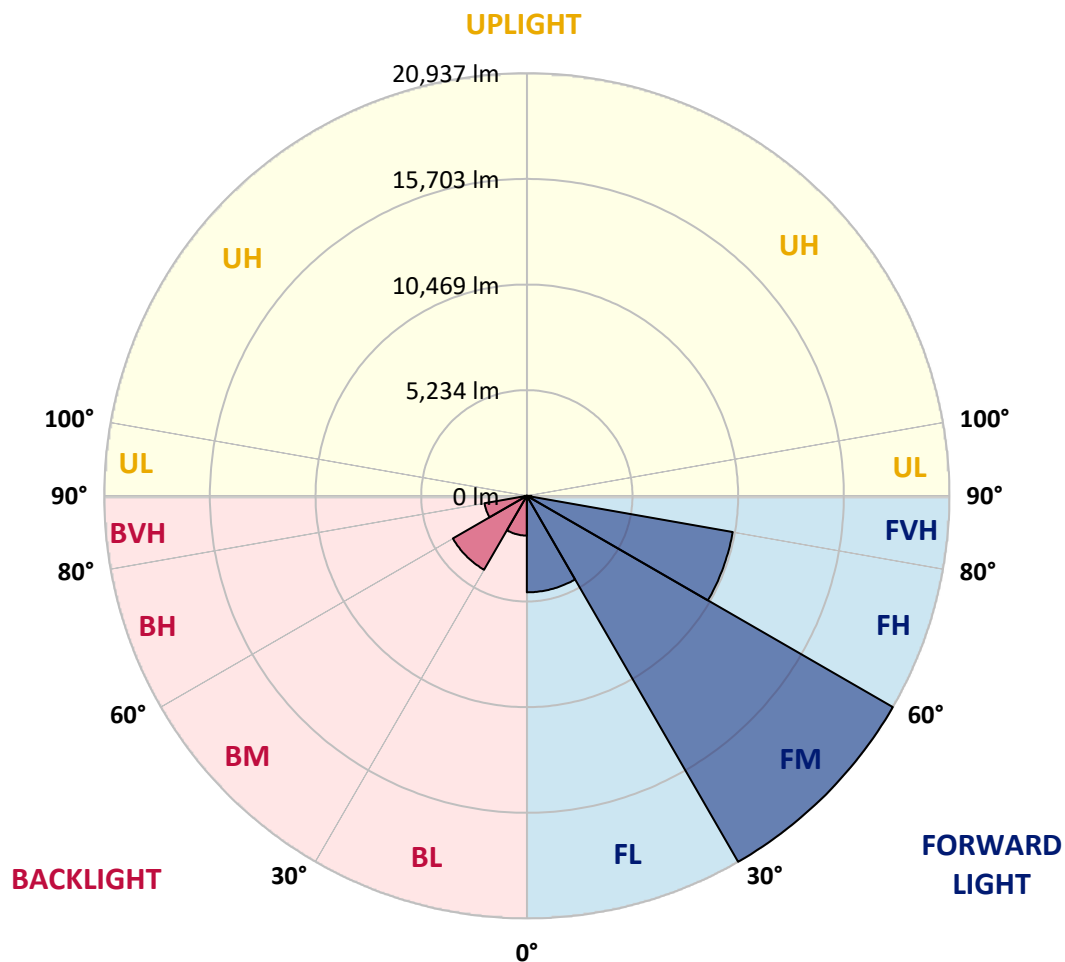
CATALOG NUMBER: VAL-T-SB6D-727-U-T2R

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

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 4781.6  | 10.7      |                         |      |          |
| FM   | (30°-60°)   | 20937.3 | 46.8      |                         |      |          |
| FH   | (60°-80°)   | 10357.3 | 23.1      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 224.7   | 0.5       |                         |      | G2/225   |
| BL   | (0°-30°)    | 1969.5  | 4.4       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 4229.8  | 9.5       | B3/5000                 |      |          |
| BH   | (60°-80°)   | 2130.8  | 4.8       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 117.1   | 0.3       |                         |      | G2/225   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

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

Type II Medium





REPORT NUMBER: P1386462

CATALOG NUMBER: VAL-T-SB6D-727-U-T2R

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 77°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6020.2  | 6020.2  | 6020.2  | 6020.2  | 6020.2  | 6020.2  | 6020.2  | 6020.2  | 6020.2  | 6020.2  | 6020.2  |
| 2.5°  | 7509.7  | 7468.3  | 7437.3  | 7333.9  | 7271.8  | 7106.3  | 6971.8  | 6744.3  | 6454.6  | 6433.9  | 6206.4  |
| 5°    | 8657.9  | 8606.2  | 8564.8  | 8420.0  | 8357.9  | 8068.3  | 7809.7  | 7406.3  | 6992.5  | 6920.1  | 6465.0  |
| 7.5°  | 9588.9  | 9526.8  | 9485.4  | 9350.9  | 9226.8  | 8999.2  | 8668.2  | 8182.1  | 7582.1  | 7447.7  | 6847.7  |
| 10°   | 10240.5 | 10240.5 | 10230.2 | 10147.4 | 10075.0 | 9857.8  | 9475.1  | 8906.2  | 8192.4  | 8037.3  | 7251.1  |
| 12.5° | 10747.4 | 10716.3 | 10757.7 | 10809.4 | 10819.8 | 10695.7 | 10344.0 | 9702.6  | 8844.1  | 8688.9  | 7675.2  |
| 15°   | 10788.8 | 10799.1 | 10954.3 | 11161.1 | 11419.7 | 11461.1 | 11171.5 | 10499.1 | 9475.1  | 9268.2  | 8171.7  |
| 17.5° | 10581.9 | 10633.6 | 10850.8 | 11192.2 | 11688.7 | 11988.7 | 11926.6 | 11326.6 | 10157.8 | 9940.5  | 8626.9  |
| 20°   | 10519.8 | 10581.9 | 10799.1 | 11223.2 | 11812.8 | 12309.3 | 12495.5 | 12061.1 | 10840.5 | 10540.5 | 9123.4  |
| 22.5° | 10892.2 | 10912.9 | 11068.0 | 11419.7 | 11988.7 | 12557.6 | 12971.3 | 12764.4 | 11564.6 | 11233.5 | 9692.3  |
| 25°   | 11905.9 | 11885.2 | 11874.9 | 11957.6 | 12381.7 | 12878.2 | 13385.1 | 13426.5 | 12319.7 | 11988.7 | 10230.2 |
| 27.5° | 13592.0 | 13674.7 | 13436.8 | 12981.7 | 13023.0 | 13405.8 | 13798.8 | 14016.1 | 13054.1 | 12692.0 | 10768.1 |
| 30°   | 15691.8 | 15681.4 | 15257.3 | 14522.9 | 13964.3 | 14098.8 | 14316.0 | 14574.6 | 13788.5 | 13457.5 | 11368.0 |
| 32.5° | 17481.3 | 17439.9 | 16984.8 | 16136.6 | 15257.3 | 14967.7 | 15050.5 | 15102.2 | 14636.7 | 14264.3 | 11978.3 |
| 35°   | 18629.5 | 18639.8 | 18205.4 | 17471.0 | 16488.3 | 16012.5 | 15805.6 | 15681.4 | 15484.9 | 15122.9 | 12702.4 |
| 37.5° | 19777.7 | 19715.6 | 19167.4 | 18298.5 | 17481.3 | 17088.2 | 16850.3 | 16322.8 | 16271.1 | 15950.4 | 13343.7 |
| 40°   | 20636.2 | 20574.1 | 20015.6 | 19022.5 | 18277.8 | 17957.1 | 17864.0 | 17067.5 | 17150.3 | 16871.0 | 14057.4 |
| 42.5° | 21029.3 | 21039.6 | 20532.8 | 19632.8 | 18867.4 | 18712.2 | 18898.4 | 17926.1 | 18081.2 | 17822.6 | 14833.2 |
| 45°   | 21039.6 | 20987.9 | 20636.2 | 19922.5 | 19343.2 | 19219.1 | 19725.9 | 18898.4 | 19095.0 | 18857.0 | 15733.2 |
| 47.5° | 20470.7 | 20470.7 | 20325.9 | 19901.8 | 19591.5 | 19601.8 | 20419.0 | 19881.1 | 20232.8 | 20056.9 | 16777.9 |
| 50°   | 19229.4 | 19332.9 | 19394.9 | 19477.7 | 19467.3 | 19870.8 | 20977.6 | 20905.1 | 21453.4 | 21401.7 | 17946.8 |
| 52.5° | 15443.5 | 15878.0 | 17439.9 | 18443.3 | 19084.6 | 19839.7 | 21587.8 | 21960.2 | 22994.6 | 23087.7 | 19632.8 |
| 55°   | 12319.7 | 12423.1 | 13736.8 | 16322.8 | 18226.1 | 19581.1 | 21805.1 | 23149.8 | 24970.3 | 25115.1 | 21174.1 |
| 57.5° | 10002.6 | 10250.9 | 11047.4 | 13519.6 | 16353.8 | 19001.9 | 21949.9 | 23791.1 | 26221.9 | 26459.9 | 22446.4 |
| 60°   | 7395.9  | 7540.7  | 8306.2  | 10354.3 | 13695.4 | 17646.8 | 22032.6 | 24380.7 | 27680.4 | 28021.8 | 24101.4 |
| 62.5° | 5440.9  | 5451.3  | 5937.4  | 7230.4  | 10809.4 | 15422.8 | 21391.3 | 24856.5 | 28642.4 | 29035.5 | 24629.0 |
| 65°   | 3516.9  | 3558.3  | 4044.5  | 5161.6  | 7302.8  | 12640.3 | 19912.1 | 22994.6 | 27701.1 | 28280.4 | 24308.3 |
| 67.5° | 2368.8  | 2441.2  | 2730.8  | 3289.4  | 4892.7  | 9019.9  | 15536.6 | 21287.9 | 28570.0 | 29335.5 | 25084.1 |
| 68°   | 2255.0  | 2265.3  | 2492.9  | 3030.8  | 4354.8  | 7985.5  | 14936.7 | 21070.7 | 28611.4 | 29407.9 | 24991.0 |
| 70°   | 1789.5  | 1810.2  | 1955.0  | 2244.6  | 2958.4  | 4892.7  | 12061.1 | 19250.1 | 27845.9 | 28549.3 | 23636.0 |
| 72.5° | 1365.4  | 1396.4  | 1489.5  | 1603.3  | 1924.0  | 2999.7  | 7054.6  | 15681.4 | 25828.9 | 26832.2 | 21401.7 |
| 75°   | 1158.5  | 1168.9  | 1241.3  | 1282.7  | 1262.0  | 1820.5  | 3961.7  | 12267.9 | 21970.6 | 22891.2 | 17574.4 |
| 77.5° | 910.3   | 941.3   | 1044.7  | 1065.4  | 962.0   | 1262.0  | 2079.1  | 7002.9  | 12898.9 | 12598.9 | 8461.4  |
| 80°   | 651.7   | 672.4   | 755.1   | 713.7   | 755.1   | 868.9   | 982.7   | 2513.6  | 5368.5  | 4685.8  | 1986.0  |
| 82.5° | 227.6   | 258.6   | 517.2   | 496.5   | 496.5   | 393.1   | 444.8   | 1096.5  | 1396.4  | 1220.6  | 496.5   |
| 85°   | 41.4    | 51.7    | 144.8   | 206.9   | 186.2   | 144.8   | 186.2   | 341.4   | 279.3   | 237.9   | 144.8   |
| 87.5° | 10.3    | 10.3    | 20.7    | 20.7    | 20.7    | 31.0    | 51.7    | 72.4    | 82.8    | 82.8    | 82.8    |
| 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: P1386462

CATALOG NUMBER: VAL-T-SB6D-727-U-T2R

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 6020.2  | 6020.2 | 6020.2 | 6020.2 | 6020.2 | 6020.2 | 6020.2 | 6020.2 | 6020.2 | 6020.2 | 6020.2 |
| 2.5°  | 6082.3  | 5927.1 | 5627.1 | 5358.2 | 5140.9 | 4934.1 | 4768.6 | 4654.8 | 4572.0 | 4530.7 | 4530.7 |
| 5°    | 6216.7  | 5885.7 | 5337.5 | 4851.3 | 4478.9 | 4230.7 | 4075.5 | 3982.4 | 3972.1 | 3961.7 | 3961.7 |
| 7.5°  | 6423.6  | 5958.1 | 5140.9 | 4530.7 | 4210.0 | 4075.5 | 4034.1 | 4023.8 | 4023.8 | 4044.5 | 4044.5 |
| 10°   | 6702.9  | 6082.3 | 5058.2 | 4416.9 | 4241.0 | 4199.6 | 4179.0 | 4210.0 | 4220.3 | 4230.7 | 4241.0 |
| 12.5° | 7033.9  | 6237.4 | 5016.8 | 4468.6 | 4365.2 | 4344.5 | 4354.8 | 4344.5 | 4375.5 | 4396.2 | 4385.8 |
| 15°   | 7354.6  | 6433.9 | 5058.2 | 4572.0 | 4489.3 | 4478.9 | 4447.9 | 4468.6 | 4458.2 | 4447.9 | 4447.9 |
| 17.5° | 7716.6  | 6661.5 | 5099.6 | 4654.8 | 4572.0 | 4530.7 | 4489.3 | 4468.6 | 4427.2 | 4416.9 | 4406.5 |
| 20°   | 8109.7  | 6889.1 | 5172.0 | 4727.2 | 4592.7 | 4499.6 | 4427.2 | 4344.5 | 4282.4 | 4251.4 | 4251.4 |
| 22.5° | 8513.1  | 7127.0 | 5234.0 | 4737.5 | 4551.3 | 4385.8 | 4261.7 | 4158.3 | 4065.2 | 4003.1 | 3972.1 |
| 25°   | 8926.8  | 7364.9 | 5254.7 | 4696.2 | 4427.2 | 4230.7 | 4065.2 | 3941.0 | 3816.9 | 3754.9 | 3734.2 |
| 27.5° | 9350.9  | 7571.8 | 5223.7 | 4592.7 | 4261.7 | 4044.5 | 3858.3 | 3723.8 | 3620.4 | 3548.0 | 3548.0 |
| 30°   | 9764.7  | 7768.3 | 5140.9 | 4447.9 | 4085.9 | 3868.6 | 3682.5 | 3558.3 | 3465.2 | 3403.2 | 3392.8 |
| 32.5° | 10240.5 | 7964.9 | 5037.5 | 4261.7 | 3910.0 | 3713.5 | 3527.3 | 3413.5 | 3330.8 | 3299.7 | 3310.1 |
| 35°   | 10716.3 | 8140.7 | 4872.0 | 4085.9 | 3723.8 | 3558.3 | 3382.5 | 3289.4 | 3258.3 | 3237.7 | 3227.3 |
| 37.5° | 11181.8 | 8264.8 | 4654.8 | 3868.6 | 3568.7 | 3372.1 | 3289.4 | 3196.3 | 3113.5 | 3010.1 | 2999.7 |
| 40°   | 11657.6 | 8368.3 | 4375.5 | 3651.4 | 3392.8 | 3237.7 | 3196.3 | 3072.2 | 2875.6 | 2699.8 | 2699.8 |
| 42.5° | 12205.9 | 8471.7 | 4075.5 | 3444.5 | 3175.6 | 3103.2 | 3092.8 | 2896.3 | 2606.7 | 2482.6 | 2472.2 |
| 45°   | 12857.5 | 8544.1 | 3806.6 | 3248.0 | 2948.0 | 2917.0 | 2999.7 | 2741.2 | 2503.2 | 2399.8 | 2410.1 |
| 47.5° | 13612.7 | 8709.6 | 3568.7 | 3030.8 | 2730.8 | 2782.5 | 2792.9 | 2596.3 | 2410.1 | 2286.0 | 2286.0 |
| 50°   | 14585.0 | 8999.2 | 3320.4 | 2751.5 | 2575.6 | 2689.4 | 2596.3 | 2451.5 | 2255.0 | 2182.6 | 2172.2 |
| 52.5° | 15878.0 | 9237.2 | 3113.5 | 2523.9 | 2472.2 | 2586.0 | 2461.9 | 2306.7 | 2141.2 | 2037.8 | 2027.4 |
| 55°   | 16860.7 | 9247.5 | 2917.0 | 2348.1 | 2399.8 | 2379.1 | 2327.4 | 2161.9 | 2037.8 | 1913.6 | 1913.6 |
| 57.5° | 17915.7 | 9185.4 | 2741.2 | 2244.6 | 2327.4 | 2234.3 | 2192.9 | 2017.1 | 1892.9 | 1799.8 | 1779.2 |
| 60°   | 19053.6 | 9071.7 | 2555.0 | 2172.2 | 2265.3 | 2130.9 | 2037.8 | 1892.9 | 1789.5 | 1717.1 | 1717.1 |
| 62.5° | 19250.1 | 8523.4 | 2327.4 | 2151.5 | 2192.9 | 2027.4 | 1882.6 | 1768.8 | 1665.4 | 1624.0 | 1624.0 |
| 65°   | 18888.1 | 7944.2 | 2068.8 | 2048.1 | 2079.1 | 1903.3 | 1737.8 | 1634.3 | 1551.6 | 1510.2 | 1499.9 |
| 67.5° | 18898.4 | 7002.9 | 1861.9 | 1924.0 | 1872.3 | 1758.5 | 1593.0 | 1499.9 | 1396.4 | 1365.4 | 1365.4 |
| 68°   | 18567.4 | 6775.3 | 1789.5 | 1903.3 | 1830.9 | 1717.1 | 1551.6 | 1448.2 | 1355.1 | 1344.7 | 1344.7 |
| 70°   | 17015.8 | 5492.6 | 1530.9 | 1758.5 | 1706.8 | 1572.3 | 1365.4 | 1313.7 | 1251.6 | 1241.3 | 1251.6 |
| 72.5° | 14864.3 | 4054.8 | 1230.9 | 1479.2 | 1520.6 | 1220.6 | 1199.9 | 1179.2 | 1106.8 | 1106.8 | 1096.5 |
| 75°   | 11626.6 | 2958.4 | 931.0  | 1168.9 | 1127.5 | 1117.1 | 1024.1 | 1013.7 | 951.6  | 941.3  | 920.6  |
| 77.5° | 5275.4  | 1510.2 | 631.0  | 775.8  | 899.9  | 993.0  | 858.5  | 827.5  | 786.1  | 786.1  | 775.8  |
| 80°   | 1479.2  | 775.8  | 424.1  | 444.8  | 548.2  | 806.8  | 672.4  | 610.3  | 641.3  | 620.6  | 537.9  |
| 82.5° | 455.1   | 320.7  | 258.6  | 279.3  | 258.6  | 465.5  | 496.5  | 382.7  | 341.4  | 362.0  | 382.7  |
| 85°   | 155.2   | 144.8  | 124.1  | 134.5  | 113.8  | 186.2  | 217.2  | 144.8  | 155.2  | 155.2  | 134.5  |
| 87.5° | 82.8    | 82.8   | 62.1   | 51.7   | 41.4   | 31.0   | 20.7   | 20.7   | 10.3   | 10.3   | 10.3   |
| 90°   | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-3

Test Date: 10/09/2024

Luminaire Tested: GSS-SB1A-727-U-5WQ

Data in this report applies to families of products including GSS-SB1A-727-U-5WQ

### Test Information

Test Method: LM-79-2019  
 Report Number: SP1-2407-184-3  
 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-727-U-5WQ**  
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI  
 2700K CCT 26 LEDS

### Spectral Parameters

|                           |          |           |      |      |       |
|---------------------------|----------|-----------|------|------|-------|
| CCT (K):                  | 2672     | CRI (Ra): | 71.1 |      |       |
| CIE u':                   | 0.2638   | R1:       | 68.3 | R9:  | -27.8 |
| CIE v':                   | 0.5276   | R2:       | 79.8 | R10: | 54.4  |
| Duv:                      | -0.0002  | R3:       | 91.2 | R11: | 65.8  |
| CIE x:                    | 0.4619   | R4:       | 69.4 | R12: | 45.6  |
| CIE y:                    | 0.4106   | R5:       | 66.5 | R13: | 69.8  |
| CIE z:                    | 0.1275   | R6:       | 72.6 | R14: | 94.5  |
| Peak Wavelength (nm):     | 601      | R7:       | 77.0 | R15: | 60.1  |
| Dominant Wavelength (nm): | 584      | R8:       | 44.1 |      |       |
| Purity:                   | 61.88407 |           |      |      |       |
| Rf:                       | 67.9     |           |      |      |       |
| Rg:                       | 98.6     |           |      |      |       |



### Test Conditions

Stabilization Time: 21M  
 Operation Time: 1H 21M  
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-3

| 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: SP1-2407-184-3

**CIE 1931 Chromaticity Diagram**



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



REPORT NUMBER: SP1-2407-184-3

### Photopic Flux vs. Wavelength



### Photopic Lumens: NR

| λ (nm) | Power W <sup>λ</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>λ</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>λ</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>λ</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>λ</sup> /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360    | 0                        | NR            | 490    | 52                       | NR            | 620    | 888                      | NR            | 750    | 27                       | NR            | 880    | 1                        | NR            |
| 365    | 0                        | NR            | 495    | 87                       | NR            | 625    | 834                      | NR            | 755    | 23                       | NR            | 885    | 1                        | NR            |
| 370    | 0                        | NR            | 500    | 135                      | NR            | 630    | 776                      | NR            | 760    | 20                       | NR            | 890    | 1                        | NR            |
| 375    | 0                        | NR            | 505    | 196                      | NR            | 635    | 712                      | NR            | 765    | 17                       | NR            | 895    | 0                        | NR            |
| 380    | 0                        | NR            | 510    | 258                      | NR            | 640    | 648                      | NR            | 770    | 15                       | NR            | 900    | 0                        | NR            |
| 385    | 1                        | NR            | 515    | 317                      | NR            | 645    | 583                      | NR            | 775    | 12                       | NR            | 905    | 0                        | NR            |
| 390    | 2                        | NR            | 520    | 368                      | NR            | 650    | 523                      | NR            | 780    | 11                       | NR            | 910    | 0                        | NR            |
| 395    | 4                        | NR            | 525    | 408                      | NR            | 655    | 465                      | NR            | 785    | 9                        | NR            | 915    | 0                        | NR            |
| 400    | 6                        | NR            | 530    | 443                      | NR            | 660    | 410                      | NR            | 790    | 8                        | NR            | 920    | 0                        | NR            |
| 405    | 11                       | NR            | 535    | 473                      | NR            | 665    | 360                      | NR            | 795    | 7                        | NR            | 925    | 0                        | NR            |
| 410    | 23                       | NR            | 540    | 498                      | NR            | 670    | 313                      | NR            | 800    | 6                        | NR            | 930    | 0                        | NR            |
| 415    | 51                       | NR            | 545    | 530                      | NR            | 675    | 272                      | NR            | 805    | 5                        | NR            | 935    | 0                        | NR            |
| 420    | 111                      | NR            | 550    | 563                      | NR            | 680    | 236                      | NR            | 810    | 4                        | NR            | 940    | 0                        | NR            |
| 425    | 214                      | NR            | 555    | 605                      | NR            | 685    | 203                      | NR            | 815    | 4                        | NR            | 945    | 0                        | NR            |
| 430    | 339                      | NR            | 560    | 651                      | NR            | 690    | 175                      | NR            | 820    | 3                        | NR            | 950    | 0                        | NR            |
| 435    | 467                      | NR            | 565    | 705                      | NR            | 695    | 150                      | NR            | 825    | 3                        | NR            | 955    | 0                        | NR            |
| 440    | 535                      | NR            | 570    | 765                      | NR            | 700    | 128                      | NR            | 830    | 3                        | NR            | 960    | 0                        | NR            |
| 445    | 372                      | NR            | 575    | 824                      | NR            | 705    | 110                      | NR            | 835    | 2                        | NR            | 965    | 0                        | NR            |
| 450    | 160                      | NR            | 580    | 882                      | NR            | 710    | 94                       | NR            | 840    | 2                        | NR            | 970    | 0                        | NR            |
| 455    | 89                       | NR            | 585    | 930                      | NR            | 715    | 80                       | NR            | 845    | 2                        | NR            | 975    | 0                        | NR            |
| 460    | 53                       | NR            | 590    | 968                      | NR            | 720    | 69                       | NR            | 850    | 1                        | NR            | 980    | 0                        | NR            |
| 465    | 31                       | NR            | 595    | 991                      | NR            | 725    | 59                       | NR            | 855    | 1                        | NR            | 985    | 0                        | NR            |
| 470    | 23                       | NR            | 600    | 999                      | NR            | 730    | 50                       | NR            | 860    | 1                        | NR            | 990    | 0                        | NR            |
| 475    | 21                       | NR            | 605    | 992                      | NR            | 735    | 43                       | NR            | 865    | 1                        | NR            | 995    | 0                        | NR            |
| 480    | 23                       | NR            | 610    | 969                      | NR            | 740    | 36                       | NR            | 870    | 1                        | NR            | 1000   | 0                        | NR            |
| 485    | 32                       | NR            | 615    | 935                      | NR            | 745    | 31                       | NR            | 875    | 1                        | NR            |        |                          |               |

REPORT NUMBER: SP1-2407-184-3

### Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.02

| $\lambda$<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               | 52                                   | NR                             | 620               | 888                                  | NR                             | 750               | 27                                   | NR                             | 880               | 1                                    | NR                             |
| 365               | 0                                    | NR                             | 495               | 87                                   | NR                             | 625               | 834                                  | NR                             | 755               | 23                                   | NR                             | 885               | 1                                    | NR                             |
| 370               | 0                                    | NR                             | 500               | 135                                  | NR                             | 630               | 776                                  | NR                             | 760               | 20                                   | NR                             | 890               | 1                                    | NR                             |
| 375               | 0                                    | NR                             | 505               | 196                                  | NR                             | 635               | 712                                  | NR                             | 765               | 17                                   | NR                             | 895               | 0                                    | NR                             |
| 380               | 0                                    | NR                             | 510               | 258                                  | NR                             | 640               | 648                                  | NR                             | 770               | 15                                   | NR                             | 900               | 0                                    | NR                             |
| 385               | 1                                    | NR                             | 515               | 317                                  | NR                             | 645               | 583                                  | NR                             | 775               | 12                                   | NR                             | 905               | 0                                    | NR                             |
| 390               | 2                                    | NR                             | 520               | 368                                  | NR                             | 650               | 523                                  | NR                             | 780               | 11                                   | NR                             | 910               | 0                                    | NR                             |
| 395               | 4                                    | NR                             | 525               | 408                                  | NR                             | 655               | 465                                  | NR                             | 785               | 9                                    | NR                             | 915               | 0                                    | NR                             |
| 400               | 6                                    | NR                             | 530               | 443                                  | NR                             | 660               | 410                                  | NR                             | 790               | 8                                    | NR                             | 920               | 0                                    | NR                             |
| 405               | 11                                   | NR                             | 535               | 473                                  | NR                             | 665               | 360                                  | NR                             | 795               | 7                                    | NR                             | 925               | 0                                    | NR                             |
| 410               | 23                                   | NR                             | 540               | 498                                  | NR                             | 670               | 313                                  | NR                             | 800               | 6                                    | NR                             | 930               | 0                                    | NR                             |
| 415               | 51                                   | NR                             | 545               | 530                                  | NR                             | 675               | 272                                  | NR                             | 805               | 5                                    | NR                             | 935               | 0                                    | NR                             |
| 420               | 111                                  | NR                             | 550               | 563                                  | NR                             | 680               | 236                                  | NR                             | 810               | 4                                    | NR                             | 940               | 0                                    | NR                             |
| 425               | 214                                  | NR                             | 555               | 605                                  | NR                             | 685               | 203                                  | NR                             | 815               | 4                                    | NR                             | 945               | 0                                    | NR                             |
| 430               | 339                                  | NR                             | 560               | 651                                  | NR                             | 690               | 175                                  | NR                             | 820               | 3                                    | NR                             | 950               | 0                                    | NR                             |
| 435               | 467                                  | NR                             | 565               | 705                                  | NR                             | 695               | 150                                  | NR                             | 825               | 3                                    | NR                             | 955               | 0                                    | NR                             |
| 440               | 535                                  | NR                             | 570               | 765                                  | NR                             | 700               | 128                                  | NR                             | 830               | 3                                    | NR                             | 960               | 0                                    | NR                             |
| 445               | 372                                  | NR                             | 575               | 824                                  | NR                             | 705               | 110                                  | NR                             | 835               | 2                                    | NR                             | 965               | 0                                    | NR                             |
| 450               | 160                                  | NR                             | 580               | 882                                  | NR                             | 710               | 94                                   | NR                             | 840               | 2                                    | NR                             | 970               | 0                                    | NR                             |
| 455               | 89                                   | NR                             | 585               | 930                                  | NR                             | 715               | 80                                   | NR                             | 845               | 2                                    | NR                             | 975               | 0                                    | NR                             |
| 460               | 53                                   | NR                             | 590               | 968                                  | NR                             | 720               | 69                                   | NR                             | 850               | 1                                    | NR                             | 980               | 0                                    | NR                             |
| 465               | 31                                   | NR                             | 595               | 991                                  | NR                             | 725               | 59                                   | NR                             | 855               | 1                                    | NR                             | 985               | 0                                    | NR                             |
| 470               | 23                                   | NR                             | 600               | 999                                  | NR                             | 730               | 50                                   | NR                             | 860               | 1                                    | NR                             | 990               | 0                                    | NR                             |
| 475               | 21                                   | NR                             | 605               | 992                                  | NR                             | 735               | 43                                   | NR                             | 865               | 1                                    | NR                             | 995               | 0                                    | NR                             |
| 480               | 23                                   | NR                             | 610               | 969                                  | NR                             | 740               | 36                                   | NR                             | 870               | 1                                    | NR                             | 1000              | 0                                    | NR                             |
| 485               | 32                                   | NR                             | 615               | 935                                  | NR                             | 745               | 31                                   | NR                             | 875               | 1                                    | NR                             |                   |                                      |                                |

REPORT NUMBER: SP1-2407-184-3

### Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 1.71

| $\lambda$<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               | 52                                     | NR                             | 620               | 888                                    | NR                             | 750               | 27                                     | NR                             | 880               | 1                                      | NR                             |
| 365               | 0                                      | NR                             | 495               | 87                                     | NR                             | 625               | 834                                    | NR                             | 755               | 23                                     | NR                             | 885               | 1                                      | NR                             |
| 370               | 0                                      | NR                             | 500               | 135                                    | NR                             | 630               | 776                                    | NR                             | 760               | 20                                     | NR                             | 890               | 1                                      | NR                             |
| 375               | 0                                      | NR                             | 505               | 196                                    | NR                             | 635               | 712                                    | NR                             | 765               | 17                                     | NR                             | 895               | 0                                      | NR                             |
| 380               | 0                                      | NR                             | 510               | 258                                    | NR                             | 640               | 648                                    | NR                             | 770               | 15                                     | NR                             | 900               | 0                                      | NR                             |
| 385               | 1                                      | NR                             | 515               | 317                                    | NR                             | 645               | 583                                    | NR                             | 775               | 12                                     | NR                             | 905               | 0                                      | NR                             |
| 390               | 2                                      | NR                             | 520               | 368                                    | NR                             | 650               | 523                                    | NR                             | 780               | 11                                     | NR                             | 910               | 0                                      | NR                             |
| 395               | 4                                      | NR                             | 525               | 408                                    | NR                             | 655               | 465                                    | NR                             | 785               | 9                                      | NR                             | 915               | 0                                      | NR                             |
| 400               | 6                                      | NR                             | 530               | 443                                    | NR                             | 660               | 410                                    | NR                             | 790               | 8                                      | NR                             | 920               | 0                                      | NR                             |
| 405               | 11                                     | NR                             | 535               | 473                                    | NR                             | 665               | 360                                    | NR                             | 795               | 7                                      | NR                             | 925               | 0                                      | NR                             |
| 410               | 23                                     | NR                             | 540               | 498                                    | NR                             | 670               | 313                                    | NR                             | 800               | 6                                      | NR                             | 930               | 0                                      | NR                             |
| 415               | 51                                     | NR                             | 545               | 530                                    | NR                             | 675               | 272                                    | NR                             | 805               | 5                                      | NR                             | 935               | 0                                      | NR                             |
| 420               | 111                                    | NR                             | 550               | 563                                    | NR                             | 680               | 236                                    | NR                             | 810               | 4                                      | NR                             | 940               | 0                                      | NR                             |
| 425               | 214                                    | NR                             | 555               | 605                                    | NR                             | 685               | 203                                    | NR                             | 815               | 4                                      | NR                             | 945               | 0                                      | NR                             |
| 430               | 339                                    | NR                             | 560               | 651                                    | NR                             | 690               | 175                                    | NR                             | 820               | 3                                      | NR                             | 950               | 0                                      | NR                             |
| 435               | 467                                    | NR                             | 565               | 705                                    | NR                             | 695               | 150                                    | NR                             | 825               | 3                                      | NR                             | 955               | 0                                      | NR                             |
| 440               | 535                                    | NR                             | 570               | 765                                    | NR                             | 700               | 128                                    | NR                             | 830               | 3                                      | NR                             | 960               | 0                                      | NR                             |
| 445               | 372                                    | NR                             | 575               | 824                                    | NR                             | 705               | 110                                    | NR                             | 835               | 2                                      | NR                             | 965               | 0                                      | NR                             |
| 450               | 160                                    | NR                             | 580               | 882                                    | NR                             | 710               | 94                                     | NR                             | 840               | 2                                      | NR                             | 970               | 0                                      | NR                             |
| 455               | 89                                     | NR                             | 585               | 930                                    | NR                             | 715               | 80                                     | NR                             | 845               | 2                                      | NR                             | 975               | 0                                      | NR                             |
| 460               | 53                                     | NR                             | 590               | 968                                    | NR                             | 720               | 69                                     | NR                             | 850               | 1                                      | NR                             | 980               | 0                                      | NR                             |
| 465               | 31                                     | NR                             | 595               | 991                                    | NR                             | 725               | 59                                     | NR                             | 855               | 1                                      | NR                             | 985               | 0                                      | NR                             |
| 470               | 23                                     | NR                             | 600               | 999                                    | NR                             | 730               | 50                                     | NR                             | 860               | 1                                      | NR                             | 990               | 0                                      | NR                             |
| 475               | 21                                     | NR                             | 605               | 992                                    | NR                             | 735               | 43                                     | NR                             | 865               | 1                                      | NR                             | 995               | 0                                      | NR                             |
| 480               | 23                                     | NR                             | 610               | 969                                    | NR                             | 740               | 36                                     | NR                             | 870               | 1                                      | NR                             | 1000              | 0                                      | NR                             |
| 485               | 32                                     | NR                             | 615               | 935                                    | NR                             | 745               | 31                                     | NR                             | 875               | 1                                      | NR                             |                   |                                        |                                |

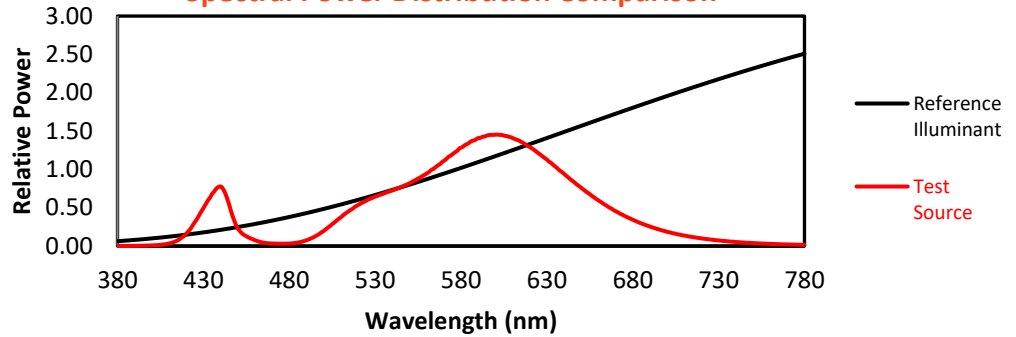
REPORT NUMBER: SP1-2407-184-3

TM-30-18

### Summary

$R_f = 67.9$   
 $R_g = 98.6$   
 $CIE R_a = 71.1$   
 $R_g = -27.8$

### Spectral Power Distribution Comparison



### Color Vector Graphics



**Individual Sample Fidelity Index ( $R_{fi}$ )**

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 53 | CES51 = 75 | CES76 = 51 |
| CES02 = 63 | CES27 = 70 | CES52 = 80 | CES77 = 79 |
| CES03 = 31 | CES28 = 81 | CES53 = 64 | CES78 = 58 |
| CES04 = 71 | CES29 = 37 | CES54 = 73 | CES79 = 82 |
| CES05 = 50 | CES30 = 33 | CES55 = 69 | CES80 = 82 |
| CES06 = 52 | CES31 = 44 | CES56 = 60 | CES81 = 69 |
| CES07 = 42 | CES32 = 47 | CES57 = 54 | CES82 = 92 |
| CES08 = 41 | CES33 = 45 | CES58 = 59 | CES83 = 82 |
| CES09 = 29 | CES34 = 67 | CES59 = 85 | CES84 = 92 |
| CES10 = 77 | CES35 = 84 | CES60 = 86 | CES85 = 87 |
| CES11 = 60 | CES36 = 68 | CES61 = 86 | CES86 = 60 |
| CES12 = 66 | CES37 = 77 | CES62 = 59 | CES87 = 79 |
| CES13 = 44 | CES38 = 40 | CES63 = 66 | CES88 = 70 |
| CES14 = 74 | CES39 = 88 | CES64 = 69 | CES89 = 66 |
| CES15 = 72 | CES40 = 82 | CES65 = 64 | CES90 = 64 |
| CES16 = 48 | CES41 = 70 | CES66 = 65 | CES91 = 81 |
| CES17 = 51 | CES42 = 76 | CES67 = 64 | CES92 = 69 |
| CES18 = 57 | CES43 = 63 | CES68 = 73 | CES93 = 81 |
| CES19 = 73 | CES44 = 97 | CES69 = 83 | CES94 = 53 |
| CES20 = 67 | CES45 = 74 | CES70 = 64 | CES95 = 77 |
| CES21 = 88 | CES46 = 67 | CES71 = 60 | CES96 = 79 |
| CES22 = 80 | CES47 = 55 | CES72 = 87 | CES97 = 78 |
| CES23 = 92 | CES48 = 42 | CES73 = 57 | CES98 = 69 |
| CES24 = 92 | CES49 = 65 | CES74 = 84 | CES99 = 60 |
| CES25 = 73 | CES50 = 74 | CES75 = 60 |            |



Color Rendition by Hue-Angle Bin



**Measure Comparisons**



(END OF REPORT)