

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: P1383413

Luminaire Tested: **VAL-T-SB6C-730-U-SL2**

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: P1383413  
 Test Lab: INNOVATION CENTER(G1)  
 Issue Date: 02/18/2026  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: STREETWORKS  
 Catalog Number: VAL-T-SB6C-730-U-SL2  
 Description: GALLEON II WALL SLIM HIGH DENSITY LED ARRAYS 6SQUARE 300W 70CRI  
 3000K FIXTURE w/ TYPE II SPILL CONTROL DISTRIBUTION OPTIC  
 Light Source: (156) 3000K 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               |

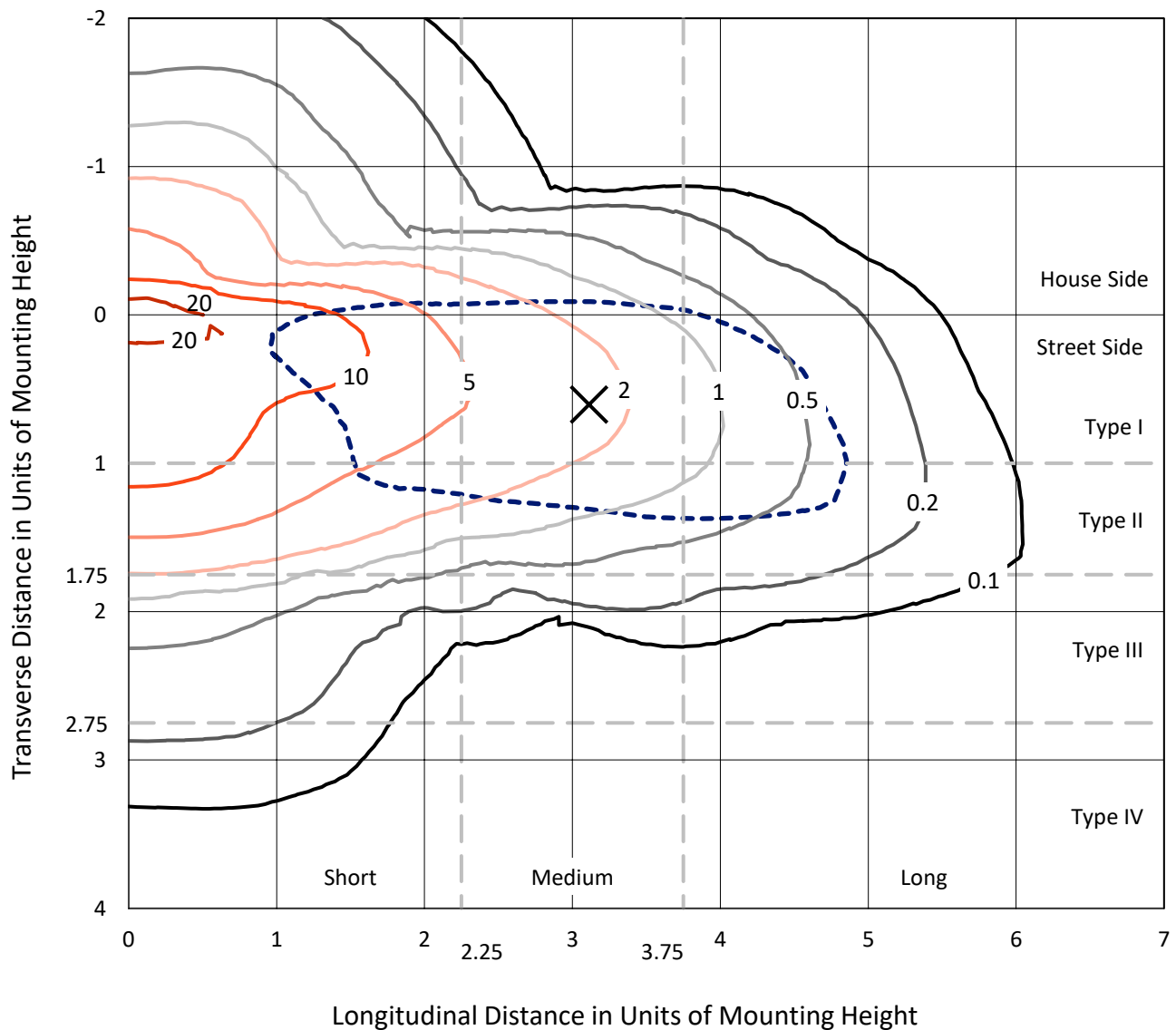
**Summary**

Lumens per Lamp: N/A  
 Luminaire Lumens: 42560.7 lumens  
 Efficiency: N/A  
 Efficacy: 141.9 lumens/watt  
 Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
 IES Classification: Type II - Medium  
 BUG Rating: B4 - U0 - G4  
  
 Input Watts (W): 300  
 Input Voltage (V): 120  
 Input Current (Ain): NR  
 Voltage Rise (V): NR  
 Power Factor: 0.98  
 Total Harmonic Distortion (THDi): 6.3%  
 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

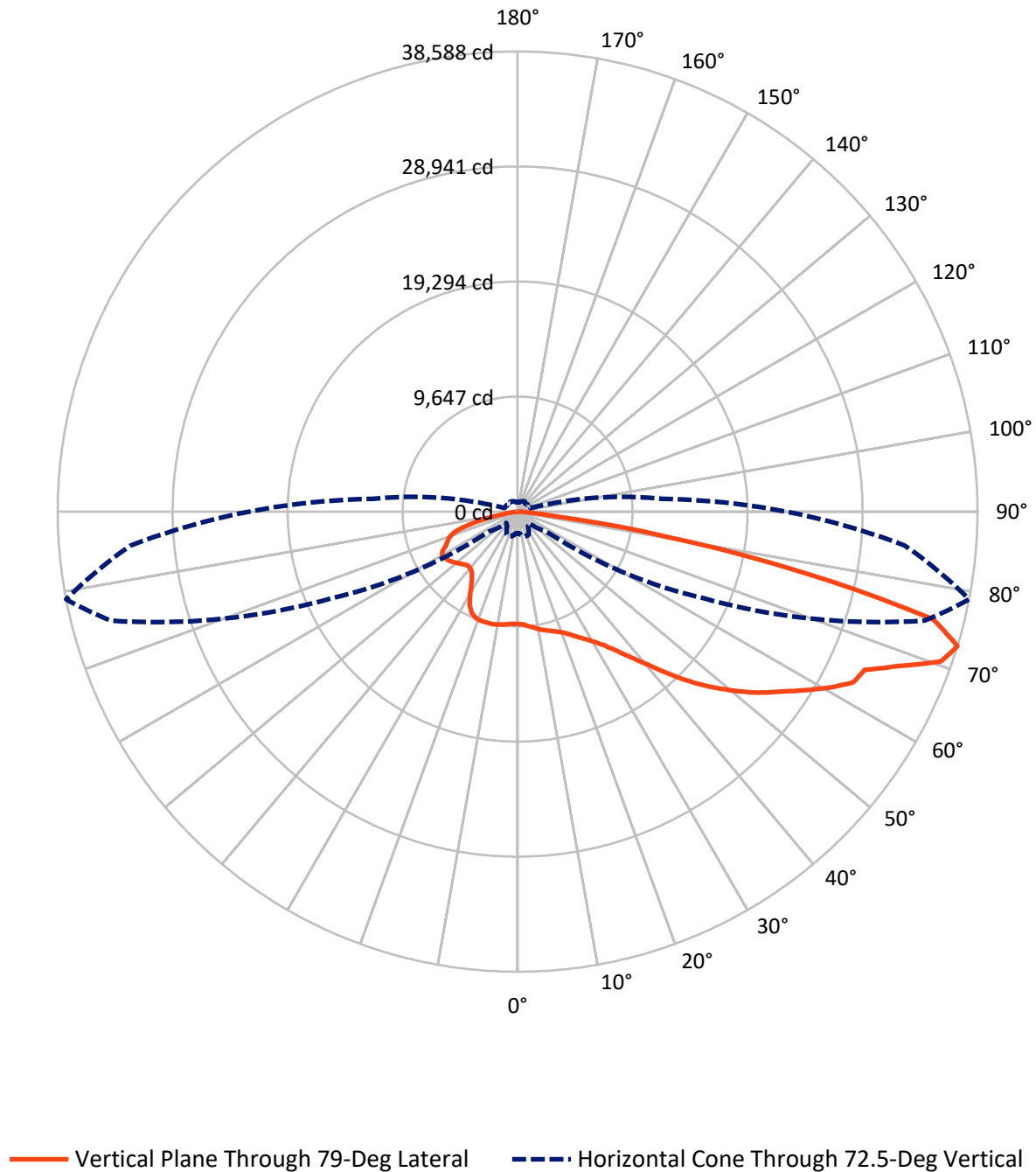
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 23.7 fc  
 Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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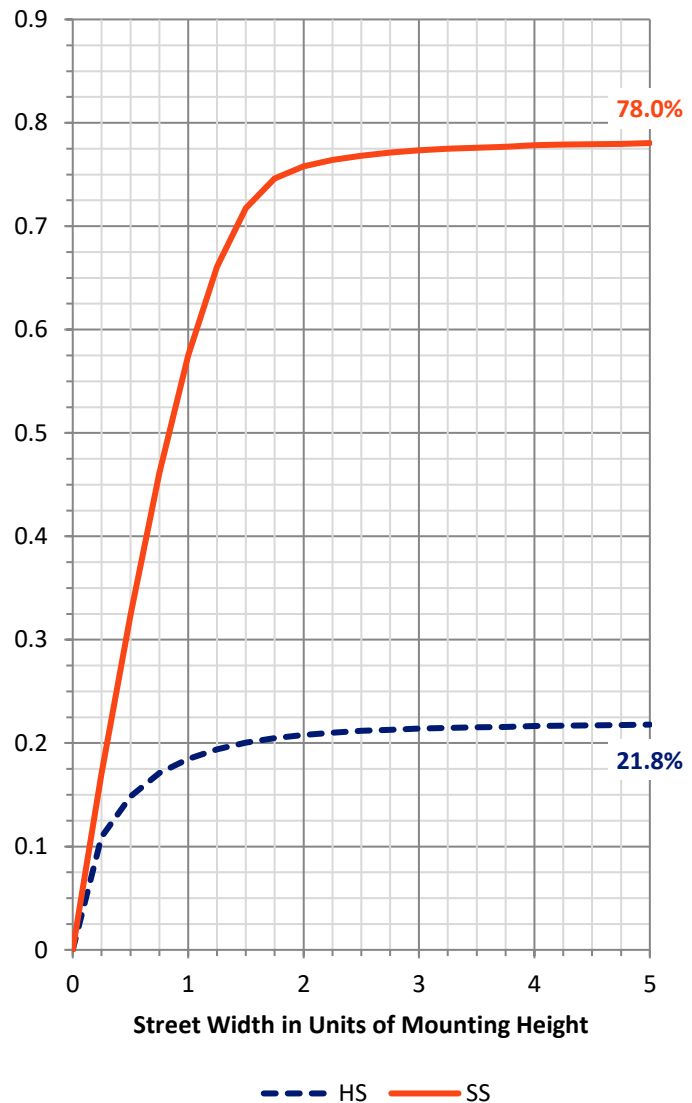
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 9349.2   | 0.0    | 9349.2  |
|                    | % Fixture | 22.0     | 0.0    | 22.0    |
| <b>Street Side</b> | Lumens    | 33211.5  | 0.0    | 33211.5 |
|                    | % Fixture | 78.0     | 0.0    | 78.0    |
| <b>Total</b>       | Lumens    | 42560.7  | 0.0    | 42560.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 875.0   | 2.1       |
| 10°-20°   | 2173.0  | 5.1       |
| 20°-30°   | 3421.3  | 8.0       |
| 30°-40°   | 5105.7  | 12.0      |
| 40°-50°   | 7259.6  | 17.1      |
| 50°-60°   | 9170.2  | 21.5      |
| 60°-70°   | 8583.5  | 20.2      |
| 70°-80°   | 5452.3  | 12.8      |
| 80°-90°   | 520.1   | 1.2       |
| 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°    | 42560.7 | 100.0     |
| 0°-180°   | 42560.7 | 100.0     |

**Coefficient of Utilization**



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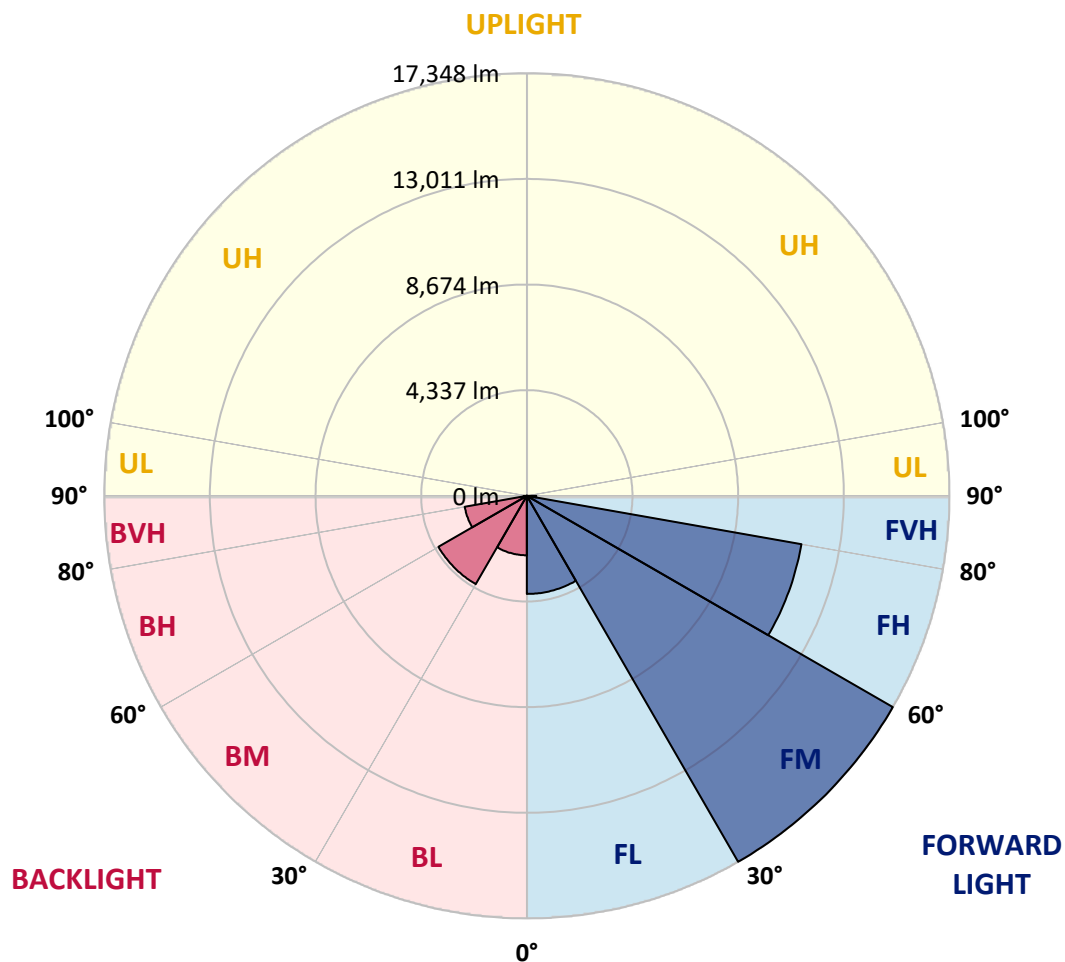
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 4028.5  | 9.5       |                         |      |          |
| FM   | (30°-60°)   | 17347.8 | 40.8      |                         |      |          |
| FH   | (60°-80°)   | 11447.7 | 26.9      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 387.4   | 0.9       |                         |      | G3/500   |
| BL   | (0°-30°)    | 2440.8  | 5.7       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 4187.7  | 9.8       | B3/5000                 |      |          |
| BH   | (60°-80°)   | 2588.0  | 6.1       | B4/5000                 |      | G4/5000  |
| BVH  | (80°-90°)   | 132.7   | 0.3       |                         |      | G2/225   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B4-U0-G4**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 79°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 9425.5  | 9425.5  | 9425.5  | 9425.5  | 9425.5  | 9425.5  | 9425.5  | 9425.5  | 9425.5  | 9425.5  | 9425.5  |
| 2.5°  | 9647.1  | 9657.2  | 9616.9  | 9616.9  | 9626.9  | 9586.7  | 9536.3  | 9526.2  | 9486.0  | 9486.0  | 9486.0  |
| 5°    | 9697.4  | 9697.4  | 9687.4  | 9737.7  | 9757.9  | 9788.1  | 9747.8  | 9717.6  | 9657.2  | 9657.2  | 9576.6  |
| 7.5°  | 9163.7  | 9143.6  | 9224.1  | 9455.8  | 9697.4  | 9828.3  | 9908.9  | 9908.9  | 9878.7  | 9828.3  | 9757.9  |
| 10°   | 8156.7  | 8186.9  | 8307.8  | 8619.9  | 9063.0  | 9657.2  | 9979.4  | 10110.3 | 10060.0 | 10039.8 | 9919.0  |
| 12.5° | 7623.0  | 7612.9  | 7703.6  | 7935.2  | 8317.8  | 9042.9  | 9838.4  | 10251.3 | 10261.4 | 10211.0 | 10070.0 |
| 15°   | 7562.6  | 7532.4  | 7572.7  | 7653.2  | 7905.0  | 8489.0  | 9415.5  | 10301.6 | 10402.3 | 10382.2 | 10221.1 |
| 17.5° | 7905.0  | 7894.9  | 7834.5  | 7814.3  | 7804.3  | 8126.5  | 9002.6  | 10261.4 | 10593.7 | 10573.5 | 10392.3 |
| 20°   | 8499.1  | 8448.8  | 8338.0  | 8237.3  | 8025.8  | 8056.0  | 8680.4  | 10211.0 | 10855.5 | 10825.3 | 10644.0 |
| 22.5° | 9133.5  | 9153.7  | 9053.0  | 8811.3  | 8438.7  | 8267.5  | 8579.7  | 10140.5 | 11207.9 | 11187.8 | 10946.1 |
| 25°   | 9908.9  | 9888.8  | 9767.9  | 9496.0  | 9002.6  | 8630.0  | 8690.4  | 10120.4 | 11610.7 | 11630.9 | 11338.9 |
| 27.5° | 10704.4 | 10684.3 | 10533.2 | 10190.9 | 9616.9  | 9073.1  | 8942.2  | 10200.9 | 12124.3 | 12114.2 | 11751.7 |
| 30°   | 11590.6 | 11600.7 | 11409.3 | 10946.1 | 10251.3 | 9626.9  | 9345.0  | 10412.4 | 12637.9 | 12668.1 | 12225.0 |
| 32.5° | 12386.1 | 12436.5 | 12325.7 | 11892.7 | 11026.7 | 10200.9 | 9838.4  | 10754.8 | 13322.6 | 13373.0 | 12829.2 |
| 35°   | 12889.6 | 12919.8 | 12909.8 | 12708.4 | 11852.4 | 10855.5 | 10331.8 | 11187.8 | 14148.4 | 14339.7 | 13634.8 |
| 37.5° | 13373.0 | 13443.5 | 13453.6 | 13302.5 | 12658.0 | 11630.9 | 10915.9 | 11792.0 | 15205.7 | 15517.9 | 14692.2 |
| 40°   | 13896.6 | 13876.5 | 14017.5 | 13836.2 | 13383.1 | 12456.6 | 11520.1 | 12476.8 | 16373.9 | 16887.4 | 15930.8 |
| 42.5° | 14208.8 | 14259.2 | 14440.4 | 14400.1 | 13947.0 | 13221.9 | 12204.9 | 13242.1 | 17834.0 | 18589.3 | 17431.2 |
| 45°   | 14410.2 | 14460.6 | 14722.4 | 14762.7 | 14521.0 | 13745.6 | 12849.4 | 13977.2 | 19173.3 | 20351.5 | 19042.4 |
| 47.5° | 14480.7 | 14510.9 | 14853.3 | 15014.4 | 14913.7 | 14077.9 | 13352.9 | 14813.0 | 20492.5 | 22013.1 | 20653.6 |
| 50°   | 14198.7 | 14309.5 | 14752.6 | 15115.1 | 15185.6 | 14249.1 | 13785.9 | 15699.2 | 21912.4 | 23624.3 | 22274.9 |
| 52.5° | 13765.7 | 13826.1 | 14359.9 | 15135.3 | 15356.8 | 14531.0 | 14319.6 | 16635.7 | 23251.7 | 25235.5 | 23664.6 |
| 55°   | 12919.8 | 13040.7 | 13705.3 | 14802.9 | 15457.5 | 14903.6 | 15014.4 | 17693.0 | 24641.4 | 26645.3 | 25175.1 |
| 57.5° | 10523.2 | 10734.6 | 11832.3 | 13383.1 | 15185.6 | 15638.8 | 16051.6 | 19002.1 | 26161.9 | 28276.6 | 26524.5 |
| 60°   | 6595.9  | 6877.8  | 8025.8  | 10533.2 | 13644.9 | 16071.8 | 17703.1 | 20704.0 | 27974.5 | 29988.5 | 28024.9 |
| 62.5° | 3574.9  | 3564.8  | 3907.2  | 5387.5  | 9838.4  | 14943.9 | 19123.0 | 23654.5 | 30310.8 | 31579.6 | 28901.0 |
| 65°   | 3101.6  | 3101.6  | 3141.8  | 3131.8  | 4249.6  | 11026.7 | 17713.2 | 25416.7 | 31922.0 | 32002.5 | 28155.8 |
| 67.5° | 2789.4  | 2789.4  | 2849.8  | 2698.8  | 2316.1  | 4934.3  | 12960.1 | 24369.5 | 34590.5 | 34540.2 | 29112.4 |
| 70°   | 2457.1  | 2467.2  | 2567.9  | 2477.2  | 1863.0  | 2003.9  | 7089.3  | 22194.3 | 36584.4 | 37661.9 | 31015.7 |
| 72.5° | 1802.5  | 1863.0  | 2155.0  | 2155.0  | 1530.6  | 1349.4  | 2880.0  | 17209.7 | 35335.7 | 38588.3 | 32596.7 |
| 75°   | 1268.8  | 1278.9  | 1429.9  | 1540.7  | 1208.4  | 1017.1  | 1399.7  | 11520.1 | 32415.4 | 36000.3 | 31186.9 |
| 77.5° | 966.7   | 976.8   | 1027.1  | 1228.5  | 825.7   | 745.2   | 966.7   | 6293.8  | 23382.6 | 24309.0 | 20230.7 |
| 80°   | 644.5   | 634.4   | 704.9   | 866.0   | 584.1   | 503.5   | 624.3   | 2104.6  | 13121.2 | 12517.0 | 8448.8  |
| 82.5° | 322.2   | 332.3   | 382.7   | 453.2   | 342.4   | 302.1   | 362.5   | 1087.6  | 5145.8  | 2990.8  | 1228.5  |
| 85°   | 90.6    | 110.8   | 130.9   | 181.3   | 141.0   | 130.9   | 171.2   | 382.7   | 654.6   | 483.4   | 332.3   |
| 87.5° | 10.1    | 10.1    | 20.1    | 20.1    | 20.1    | 30.2    | 50.4    | 80.6    | 110.8   | 110.8   | 110.8   |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |



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CATALOG NUMBER: VAL-T-SB6C-730-U-SL2

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°     | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 9425.5  | 9425.5  | 9425.5 | 9425.5 | 9425.5 | 9425.5 | 9425.5 | 9425.5 | 9425.5 | 9425.5 | 9425.5 |
| 2.5°  | 9465.8  | 9435.6  | 9395.3 | 9334.9 | 9334.9 | 9264.4 | 9224.1 | 9143.6 | 9173.8 | 9133.5 | 9113.4 |
| 5°    | 9556.5  | 9516.2  | 9425.5 | 9324.8 | 9224.1 | 9073.1 | 8952.3 | 8781.1 | 8760.9 | 8720.6 | 8660.2 |
| 7.5°  | 9717.6  | 9616.9  | 9506.1 | 9274.5 | 9083.2 | 8740.8 | 8468.9 | 8126.5 | 7935.2 | 7814.3 | 7824.4 |
| 10°   | 9878.7  | 9747.8  | 9516.2 | 9214.1 | 8801.2 | 8237.3 | 7532.4 | 6857.7 | 6344.1 | 6052.1 | 6112.5 |
| 12.5° | 9989.5  | 9848.5  | 9536.3 | 9053.0 | 8287.6 | 7159.8 | 5850.7 | 4894.0 | 4521.4 | 4330.1 | 4330.1 |
| 15°   | 10100.2 | 9919.0  | 9506.1 | 8710.6 | 7320.9 | 5397.5 | 4360.3 | 3997.8 | 3897.1 | 3836.7 | 3816.5 |
| 17.5° | 10241.2 | 10029.7 | 9415.5 | 8076.2 | 5770.1 | 4219.3 | 3856.8 | 3746.0 | 3746.0 | 3736.0 | 3715.8 |
| 20°   | 10412.4 | 10160.7 | 9304.7 | 7069.2 | 4430.8 | 3786.3 | 3685.6 | 3665.5 | 3685.6 | 3675.6 | 3665.5 |
| 22.5° | 10674.2 | 10321.8 | 9022.7 | 5679.5 | 3806.5 | 3584.9 | 3574.9 | 3474.2 | 3494.3 | 3514.4 | 3504.4 |
| 25°   | 11006.5 | 10523.2 | 8489.0 | 4340.2 | 3494.3 | 3454.0 | 3353.3 | 3262.7 | 3252.6 | 3262.7 | 3262.7 |
| 27.5° | 11318.7 | 10674.2 | 7623.0 | 3574.9 | 3272.8 | 3262.7 | 3172.1 | 3091.5 | 3091.5 | 3101.6 | 3101.6 |
| 30°   | 11661.1 | 10764.9 | 6293.8 | 3182.1 | 3141.8 | 3091.5 | 3061.3 | 3031.1 | 3041.1 | 3071.4 | 3071.4 |
| 32.5° | 12114.2 | 10855.5 | 4994.7 | 2960.6 | 3010.9 | 2940.4 | 2960.6 | 2950.5 | 2970.7 | 3021.0 | 3031.1 |
| 35°   | 12668.1 | 10895.8 | 3997.8 | 2829.7 | 2829.7 | 2769.3 | 2779.3 | 2739.0 | 2739.0 | 2769.3 | 2789.4 |
| 37.5° | 13403.2 | 10915.9 | 3363.4 | 2759.2 | 2688.7 | 2658.5 | 2638.3 | 2588.0 | 2517.5 | 2467.2 | 2477.2 |
| 40°   | 14198.7 | 10966.3 | 3021.0 | 2708.8 | 2628.3 | 2618.2 | 2577.9 | 2507.4 | 2306.0 | 2144.9 | 2134.8 |
| 42.5° | 15256.1 | 11107.2 | 2849.8 | 2628.3 | 2628.3 | 2628.3 | 2567.9 | 2255.7 | 2094.6 | 1983.8 | 1973.7 |
| 45°   | 16323.5 | 11479.8 | 2759.2 | 2557.8 | 2618.2 | 2628.3 | 2356.4 | 2165.1 | 2034.1 | 1913.3 | 1883.1 |
| 47.5° | 17511.8 | 12013.5 | 2718.9 | 2517.5 | 2547.7 | 2567.9 | 2215.4 | 2124.8 | 1973.7 | 1832.7 | 1802.5 |
| 50°   | 18690.0 | 12577.5 | 2678.6 | 2447.0 | 2447.0 | 2316.1 | 2185.2 | 2084.5 | 1933.4 | 1782.4 | 1762.3 |
| 52.5° | 19938.7 | 13232.0 | 2638.3 | 2326.2 | 2316.1 | 2175.1 | 2155.0 | 2074.4 | 1913.3 | 1722.0 | 1681.7 |
| 55°   | 21026.2 | 13826.1 | 2567.9 | 2185.2 | 2175.1 | 2034.1 | 2134.8 | 2034.1 | 1792.5 | 1570.9 | 1530.6 |
| 57.5° | 22063.4 | 14309.5 | 2477.2 | 2034.1 | 2054.3 | 1923.4 | 2054.3 | 1953.6 | 1681.7 | 1460.2 | 1440.0 |
| 60°   | 23050.3 | 14813.0 | 2356.4 | 1903.2 | 1903.2 | 1822.7 | 1953.6 | 1822.7 | 1570.9 | 1349.4 | 1319.2 |
| 62.5° | 23342.3 | 14651.9 | 2155.0 | 1762.3 | 1752.2 | 1691.8 | 1822.7 | 1671.6 | 1429.9 | 1228.5 | 1198.3 |
| 65°   | 22335.3 | 13826.1 | 1913.3 | 1621.3 | 1591.1 | 1540.7 | 1631.3 | 1490.4 | 1268.8 | 1107.7 | 1097.6 |
| 67.5° | 22476.3 | 13503.9 | 1641.4 | 1440.0 | 1409.8 | 1369.5 | 1399.7 | 1289.0 | 1117.8 | 996.9  | 986.9  |
| 70°   | 22657.6 | 13151.5 | 1389.7 | 1268.8 | 1198.3 | 1127.8 | 1198.3 | 1107.7 | 986.9  | 886.2  | 876.1  |
| 72.5° | 22516.6 | 12174.7 | 1148.0 | 1067.4 | 1017.1 | 936.5  | 1027.1 | 956.7  | 856.0  | 775.4  | 755.3  |
| 75°   | 20482.4 | 9788.1  | 936.5  | 876.1  | 815.7  | 765.3  | 825.7  | 805.6  | 725.0  | 715.0  | 644.5  |
| 77.5° | 13775.8 | 6273.6  | 725.0  | 674.7  | 654.6  | 604.2  | 644.5  | 614.3  | 574.0  | 533.7  | 503.5  |
| 80°   | 5971.5  | 2809.5  | 523.6  | 473.3  | 453.2  | 422.9  | 463.2  | 453.2  | 433.0  | 402.8  | 392.7  |
| 82.5° | 856.0   | 664.6   | 352.5  | 322.2  | 271.9  | 251.8  | 271.9  | 292.0  | 422.9  | 513.6  | 503.5  |
| 85°   | 241.7   | 201.4   | 171.2  | 151.1  | 120.8  | 100.7  | 110.8  | 181.3  | 241.7  | 151.1  | 130.9  |
| 87.5° | 110.8   | 100.7   | 80.6   | 50.4   | 30.2   | 30.2   | 20.1   | 10.1   | 10.1   | 0.0    | 0.0    |
| 90°   | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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



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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-4

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-730-U-5WQ

Data in this report applies to families of products including GSS-SB1A-730-U-5WQ

### Test Information

Test Method: LM-79-2019  
 Report Number: SP1-2407-184-4  
 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-730-U-5WQ**  
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI  
 3000K CCT 26 LEDS

### Spectral Parameters

CCT (K): 2985  
 CIE  $u'$ : 0.2504  
 CIE  $v'$ : 0.5243  
 Duv: 0.0019  
 CIE x: 0.4408  
 CIE y: 0.4101  
 CIE z: 0.1491  
 Peak Wavelength (nm): 595  
 Dominant Wavelength (nm): 582  
 Purity: 55.41818  
 R<sub>f</sub>: 73.8  
 R<sub>g</sub>: 94.4

CRI (Ra): 70.8  
 R1: 66.3  
 R2: 80.6  
 R3: 94.5  
 R4: 68.2  
 R5: 66.5  
 R6: 74.7  
 R7: 76.2  
 R8: 39.6  
 R9: -43.2  
 R10: 57.6  
 R11: 64.8  
 R12: 53.5  
 R13: 68.7  
 R14: 97.0  
 R15: 56.4



### Test Conditions

Stabilization Time: 36M  
 Operation Time: 1H 36M  
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-4

| 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 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-4

### Photopic Flux vs. Wavelength



### Photopic Lumens: NR

| $\lambda$<br>(nm) | Power<br>$\text{W}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>$\text{W}/\text{nm}$ | Lumens<br>( $\phi/\text{nm}$ ) |
|-------------------|-------------------------------|--------------------------------|-------------------|-------------------------------|--------------------------------|-------------------|-------------------------------|--------------------------------|-------------------|-------------------------------|--------------------------------|-------------------|-------------------------------|--------------------------------|
| 360               | 0                             | NR                             | 490               | 142                           | NR                             | 620               | 803                           | NR                             | 750               | 17                            | NR                             | 880               | 0                             | NR                             |
| 365               | 0                             | NR                             | 495               | 189                           | NR                             | 625               | 734                           | NR                             | 755               | 15                            | NR                             | 885               | 0                             | NR                             |
| 370               | 0                             | NR                             | 500               | 240                           | NR                             | 630               | 670                           | NR                             | 760               | 13                            | NR                             | 890               | 0                             | NR                             |
| 375               | 0                             | NR                             | 505               | 290                           | NR                             | 635               | 600                           | NR                             | 765               | 11                            | NR                             | 895               | 0                             | NR                             |
| 380               | 0                             | NR                             | 510               | 335                           | NR                             | 640               | 535                           | NR                             | 770               | 9                             | NR                             | 900               | 0                             | NR                             |
| 385               | 0                             | NR                             | 515               | 375                           | NR                             | 645               | 473                           | NR                             | 775               | 8                             | NR                             | 905               | 0                             | NR                             |
| 390               | 1                             | NR                             | 520               | 408                           | NR                             | 650               | 415                           | NR                             | 780               | 7                             | NR                             | 910               | 0                             | NR                             |
| 395               | 2                             | NR                             | 525               | 434                           | NR                             | 655               | 362                           | NR                             | 785               | 6                             | NR                             | 915               | 0                             | NR                             |
| 400               | 4                             | NR                             | 530               | 461                           | NR                             | 660               | 313                           | NR                             | 790               | 5                             | NR                             | 920               | 0                             | NR                             |
| 405               | 8                             | NR                             | 535               | 486                           | NR                             | 665               | 271                           | NR                             | 795               | 4                             | NR                             | 925               | 0                             | NR                             |
| 410               | 16                            | NR                             | 540               | 514                           | NR                             | 670               | 231                           | NR                             | 800               | 4                             | NR                             | 930               | 0                             | NR                             |
| 415               | 33                            | NR                             | 545               | 549                           | NR                             | 675               | 198                           | NR                             | 805               | 3                             | NR                             | 935               | 0                             | NR                             |
| 420               | 69                            | NR                             | 550               | 591                           | NR                             | 680               | 169                           | NR                             | 810               | 3                             | NR                             | 940               | 0                             | NR                             |
| 425               | 131                           | NR                             | 555               | 640                           | NR                             | 685               | 144                           | NR                             | 815               | 2                             | NR                             | 945               | 0                             | NR                             |
| 430               | 227                           | NR                             | 560               | 695                           | NR                             | 690               | 123                           | NR                             | 820               | 2                             | NR                             | 950               | 0                             | NR                             |
| 435               | 369                           | NR                             | 565               | 757                           | NR                             | 695               | 104                           | NR                             | 825               | 2                             | NR                             | 955               | 0                             | NR                             |
| 440               | 517                           | NR                             | 570               | 822                           | NR                             | 700               | 88                            | NR                             | 830               | 2                             | NR                             | 960               | 0                             | NR                             |
| 445               | 498                           | NR                             | 575               | 882                           | NR                             | 705               | 75                            | NR                             | 835               | 1                             | NR                             | 965               | 0                             | NR                             |
| 450               | 315                           | NR                             | 580               | 935                           | NR                             | 710               | 63                            | NR                             | 840               | 1                             | NR                             | 970               | 0                             | NR                             |
| 455               | 204                           | NR                             | 585               | 972                           | NR                             | 715               | 54                            | NR                             | 845               | 1                             | NR                             | 975               | 0                             | NR                             |
| 460               | 145                           | NR                             | 590               | 996                           | NR                             | 720               | 46                            | NR                             | 850               | 1                             | NR                             | 980               | 0                             | NR                             |
| 465               | 100                           | NR                             | 595               | 1000                          | NR                             | 725               | 39                            | NR                             | 855               | 1                             | NR                             | 985               | 0                             | NR                             |
| 470               | 78                            | NR                             | 600               | 989                           | NR                             | 730               | 33                            | NR                             | 860               | 1                             | NR                             | 990               | 0                             | NR                             |
| 475               | 76                            | NR                             | 605               | 960                           | NR                             | 735               | 28                            | NR                             | 865               | 1                             | NR                             | 995               | 0                             | NR                             |
| 480               | 83                            | NR                             | 610               | 918                           | NR                             | 740               | 24                            | NR                             | 870               | 1                             | NR                             | 1000              | 0                             | NR                             |
| 485               | 105                           | NR                             | 615               | 864                           | NR                             | 745               | 20                            | NR                             | 875               | 1                             | NR                             |                   |                               |                                |

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### Scotopic Flux vs. Wavelength

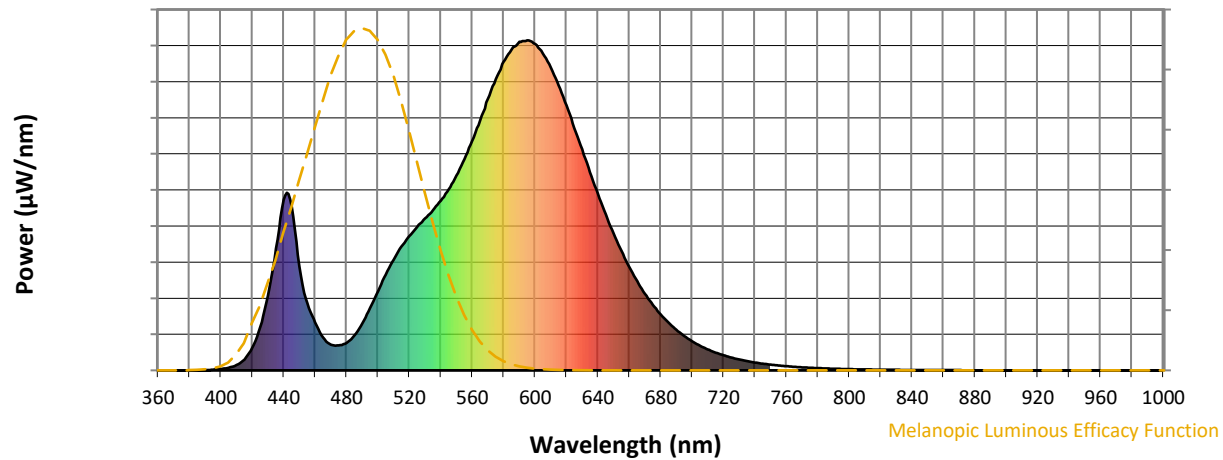


Scotopic Lumens: NR

S/P: 1.19

| $\lambda$<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               | 142                                  | NR                             | 620               | 803                                  | NR                             | 750               | 17                                   | NR                             | 880               | 0                                    | NR                             |
| 365               | 0                                    | NR                             | 495               | 189                                  | NR                             | 625               | 734                                  | NR                             | 755               | 15                                   | NR                             | 885               | 0                                    | NR                             |
| 370               | 0                                    | NR                             | 500               | 240                                  | NR                             | 630               | 670                                  | NR                             | 760               | 13                                   | NR                             | 890               | 0                                    | NR                             |
| 375               | 0                                    | NR                             | 505               | 290                                  | NR                             | 635               | 600                                  | NR                             | 765               | 11                                   | NR                             | 895               | 0                                    | NR                             |
| 380               | 0                                    | NR                             | 510               | 335                                  | NR                             | 640               | 535                                  | NR                             | 770               | 9                                    | NR                             | 900               | 0                                    | NR                             |
| 385               | 0                                    | NR                             | 515               | 375                                  | NR                             | 645               | 473                                  | NR                             | 775               | 8                                    | NR                             | 905               | 0                                    | NR                             |
| 390               | 1                                    | NR                             | 520               | 408                                  | NR                             | 650               | 415                                  | NR                             | 780               | 7                                    | NR                             | 910               | 0                                    | NR                             |
| 395               | 2                                    | NR                             | 525               | 434                                  | NR                             | 655               | 362                                  | NR                             | 785               | 6                                    | NR                             | 915               | 0                                    | NR                             |
| 400               | 4                                    | NR                             | 530               | 461                                  | NR                             | 660               | 313                                  | NR                             | 790               | 5                                    | NR                             | 920               | 0                                    | NR                             |
| 405               | 8                                    | NR                             | 535               | 486                                  | NR                             | 665               | 271                                  | NR                             | 795               | 4                                    | NR                             | 925               | 0                                    | NR                             |
| 410               | 16                                   | NR                             | 540               | 514                                  | NR                             | 670               | 231                                  | NR                             | 800               | 4                                    | NR                             | 930               | 0                                    | NR                             |
| 415               | 33                                   | NR                             | 545               | 549                                  | NR                             | 675               | 198                                  | NR                             | 805               | 3                                    | NR                             | 935               | 0                                    | NR                             |
| 420               | 69                                   | NR                             | 550               | 591                                  | NR                             | 680               | 169                                  | NR                             | 810               | 3                                    | NR                             | 940               | 0                                    | NR                             |
| 425               | 131                                  | NR                             | 555               | 640                                  | NR                             | 685               | 144                                  | NR                             | 815               | 2                                    | NR                             | 945               | 0                                    | NR                             |
| 430               | 227                                  | NR                             | 560               | 695                                  | NR                             | 690               | 123                                  | NR                             | 820               | 2                                    | NR                             | 950               | 0                                    | NR                             |
| 435               | 369                                  | NR                             | 565               | 757                                  | NR                             | 695               | 104                                  | NR                             | 825               | 2                                    | NR                             | 955               | 0                                    | NR                             |
| 440               | 517                                  | NR                             | 570               | 822                                  | NR                             | 700               | 88                                   | NR                             | 830               | 2                                    | NR                             | 960               | 0                                    | NR                             |
| 445               | 498                                  | NR                             | 575               | 882                                  | NR                             | 705               | 75                                   | NR                             | 835               | 1                                    | NR                             | 965               | 0                                    | NR                             |
| 450               | 315                                  | NR                             | 580               | 935                                  | NR                             | 710               | 63                                   | NR                             | 840               | 1                                    | NR                             | 970               | 0                                    | NR                             |
| 455               | 204                                  | NR                             | 585               | 972                                  | NR                             | 715               | 54                                   | NR                             | 845               | 1                                    | NR                             | 975               | 0                                    | NR                             |
| 460               | 145                                  | NR                             | 590               | 996                                  | NR                             | 720               | 46                                   | NR                             | 850               | 1                                    | NR                             | 980               | 0                                    | NR                             |
| 465               | 100                                  | NR                             | 595               | 1000                                 | NR                             | 725               | 39                                   | NR                             | 855               | 1                                    | NR                             | 985               | 0                                    | NR                             |
| 470               | 78                                   | NR                             | 600               | 989                                  | NR                             | 730               | 33                                   | NR                             | 860               | 1                                    | NR                             | 990               | 0                                    | NR                             |
| 475               | 76                                   | NR                             | 605               | 960                                  | NR                             | 735               | 28                                   | NR                             | 865               | 1                                    | NR                             | 995               | 0                                    | NR                             |
| 480               | 83                                   | NR                             | 610               | 918                                  | NR                             | 740               | 24                                   | NR                             | 870               | 1                                    | NR                             | 1000              | 0                                    | NR                             |
| 485               | 105                                  | NR                             | 615               | 864                                  | NR                             | 745               | 20                                   | NR                             | 875               | 1                                    | NR                             |                   |                                      |                                |

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**Melanopic Flux vs. Wavelength**

**Melanopic Lumens: NR**
**M/P: 2.13**

| $\lambda$<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               | 142                                  | NR                             | 620               | 803                                  | NR                             | 750               | 17                                   | NR                             | 880               | 0                                    | NR                             |
| 365               | 0                                    | NR                             | 495               | 189                                  | NR                             | 625               | 734                                  | NR                             | 755               | 15                                   | NR                             | 885               | 0                                    | NR                             |
| 370               | 0                                    | NR                             | 500               | 240                                  | NR                             | 630               | 670                                  | NR                             | 760               | 13                                   | NR                             | 890               | 0                                    | NR                             |
| 375               | 0                                    | NR                             | 505               | 290                                  | NR                             | 635               | 600                                  | NR                             | 765               | 11                                   | NR                             | 895               | 0                                    | NR                             |
| 380               | 0                                    | NR                             | 510               | 335                                  | NR                             | 640               | 535                                  | NR                             | 770               | 9                                    | NR                             | 900               | 0                                    | NR                             |
| 385               | 0                                    | NR                             | 515               | 375                                  | NR                             | 645               | 473                                  | NR                             | 775               | 8                                    | NR                             | 905               | 0                                    | NR                             |
| 390               | 1                                    | NR                             | 520               | 408                                  | NR                             | 650               | 415                                  | NR                             | 780               | 7                                    | NR                             | 910               | 0                                    | NR                             |
| 395               | 2                                    | NR                             | 525               | 434                                  | NR                             | 655               | 362                                  | NR                             | 785               | 6                                    | NR                             | 915               | 0                                    | NR                             |
| 400               | 4                                    | NR                             | 530               | 461                                  | NR                             | 660               | 313                                  | NR                             | 790               | 5                                    | NR                             | 920               | 0                                    | NR                             |
| 405               | 8                                    | NR                             | 535               | 486                                  | NR                             | 665               | 271                                  | NR                             | 795               | 4                                    | NR                             | 925               | 0                                    | NR                             |
| 410               | 16                                   | NR                             | 540               | 514                                  | NR                             | 670               | 231                                  | NR                             | 800               | 4                                    | NR                             | 930               | 0                                    | NR                             |
| 415               | 33                                   | NR                             | 545               | 549                                  | NR                             | 675               | 198                                  | NR                             | 805               | 3                                    | NR                             | 935               | 0                                    | NR                             |
| 420               | 69                                   | NR                             | 550               | 591                                  | NR                             | 680               | 169                                  | NR                             | 810               | 3                                    | NR                             | 940               | 0                                    | NR                             |
| 425               | 131                                  | NR                             | 555               | 640                                  | NR                             | 685               | 144                                  | NR                             | 815               | 2                                    | NR                             | 945               | 0                                    | NR                             |
| 430               | 227                                  | NR                             | 560               | 695                                  | NR                             | 690               | 123                                  | NR                             | 820               | 2                                    | NR                             | 950               | 0                                    | NR                             |
| 435               | 369                                  | NR                             | 565               | 757                                  | NR                             | 695               | 104                                  | NR                             | 825               | 2                                    | NR                             | 955               | 0                                    | NR                             |
| 440               | 517                                  | NR                             | 570               | 822                                  | NR                             | 700               | 88                                   | NR                             | 830               | 2                                    | NR                             | 960               | 0                                    | NR                             |
| 445               | 498                                  | NR                             | 575               | 882                                  | NR                             | 705               | 75                                   | NR                             | 835               | 1                                    | NR                             | 965               | 0                                    | NR                             |
| 450               | 315                                  | NR                             | 580               | 935                                  | NR                             | 710               | 63                                   | NR                             | 840               | 1                                    | NR                             | 970               | 0                                    | NR                             |
| 455               | 204                                  | NR                             | 585               | 972                                  | NR                             | 715               | 54                                   | NR                             | 845               | 1                                    | NR                             | 975               | 0                                    | NR                             |
| 460               | 145                                  | NR                             | 590               | 996                                  | NR                             | 720               | 46                                   | NR                             | 850               | 1                                    | NR                             | 980               | 0                                    | NR                             |
| 465               | 100                                  | NR                             | 595               | 1000                                 | NR                             | 725               | 39                                   | NR                             | 855               | 1                                    | NR                             | 985               | 0                                    | NR                             |
| 470               | 78                                   | NR                             | 600               | 989                                  | NR                             | 730               | 33                                   | NR                             | 860               | 1                                    | NR                             | 990               | 0                                    | NR                             |
| 475               | 76                                   | NR                             | 605               | 960                                  | NR                             | 735               | 28                                   | NR                             | 865               | 1                                    | NR                             | 995               | 0                                    | NR                             |
| 480               | 83                                   | NR                             | 610               | 918                                  | NR                             | 740               | 24                                   | NR                             | 870               | 1                                    | NR                             | 1000              | 0                                    | NR                             |
| 485               | 105                                  | NR                             | 615               | 864                                  | NR                             | 745               | 20                                   | NR                             | 875               | 1                                    | NR                             |                   |                                      |                                |

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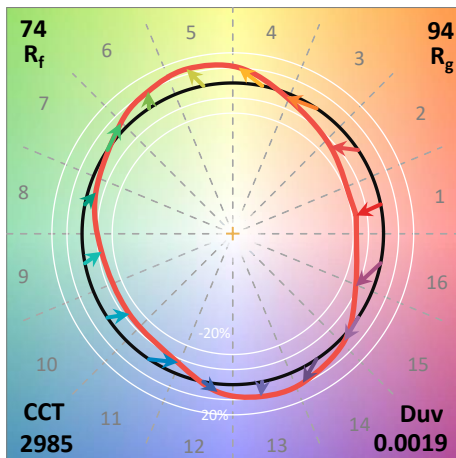
TM-30-18

### Summary

$R_f = 73.8$   
 $R_g = 94.4$   
 $CIE\ R_a = 70.8$   
 $R_g = -43.2$

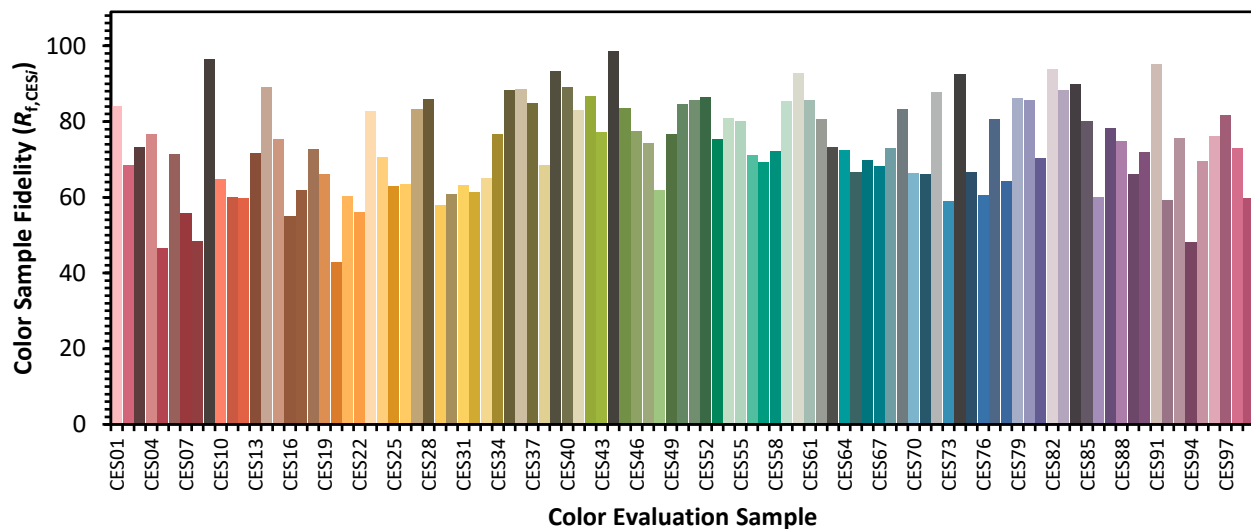


### Color Vector Graphics

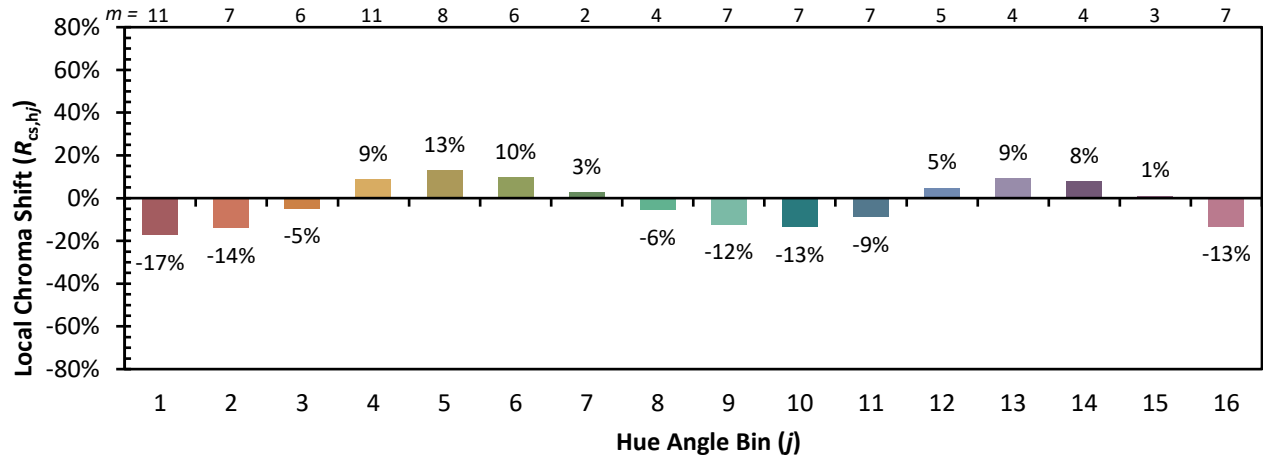


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 63 | CES51 = 86 | CES76 = 61 |
| CES02 = 62 | CES27 = 83 | CES52 = 86 | CES77 = 81 |
| CES03 = 31 | CES28 = 86 | CES53 = 75 | CES78 = 64 |
| CES04 = 71 | CES29 = 58 | CES54 = 81 | CES79 = 86 |
| CES05 = 49 | CES30 = 61 | CES55 = 80 | CES80 = 86 |
| CES06 = 51 | CES31 = 63 | CES56 = 71 | CES81 = 70 |
| CES07 = 41 | CES32 = 61 | CES57 = 69 | CES82 = 94 |
| CES08 = 40 | CES33 = 65 | CES58 = 72 | CES83 = 88 |
| CES09 = 29 | CES34 = 77 | CES59 = 85 | CES84 = 90 |
| CES10 = 76 | CES35 = 88 | CES60 = 93 | CES85 = 80 |
| CES11 = 59 | CES36 = 89 | CES61 = 86 | CES86 = 60 |
| CES12 = 65 | CES37 = 85 | CES62 = 81 | CES87 = 78 |
| CES13 = 43 | CES38 = 69 | CES63 = 73 | CES88 = 75 |
| CES14 = 74 | CES39 = 93 | CES64 = 72 | CES89 = 66 |
| CES15 = 71 | CES40 = 89 | CES65 = 67 | CES90 = 72 |
| CES16 = 47 | CES41 = 83 | CES66 = 70 | CES91 = 95 |
| CES17 = 50 | CES42 = 87 | CES67 = 68 | CES92 = 59 |
| CES18 = 56 | CES43 = 77 | CES68 = 73 | CES93 = 76 |
| CES19 = 73 | CES44 = 99 | CES69 = 83 | CES94 = 48 |
| CES20 = 66 | CES45 = 83 | CES70 = 66 | CES95 = 70 |
| CES21 = 87 | CES46 = 77 | CES71 = 66 | CES96 = 76 |
| CES22 = 79 | CES47 = 74 | CES72 = 88 | CES97 = 82 |
| CES23 = 92 | CES48 = 62 | CES73 = 59 | CES98 = 73 |
| CES24 = 91 | CES49 = 77 | CES74 = 93 | CES99 = 60 |
| CES25 = 73 | CES50 = 85 | CES75 = 67 |            |



Color Rendition by Hue-Angle Bin



**Measure Comparisons**



(END OF REPORT)