

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P638649

Luminaire Tested: GWS-SA4F-730-U-SLR-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P638649
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-43)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA4F-730-U-SLR-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (64) 3000K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24241.1 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

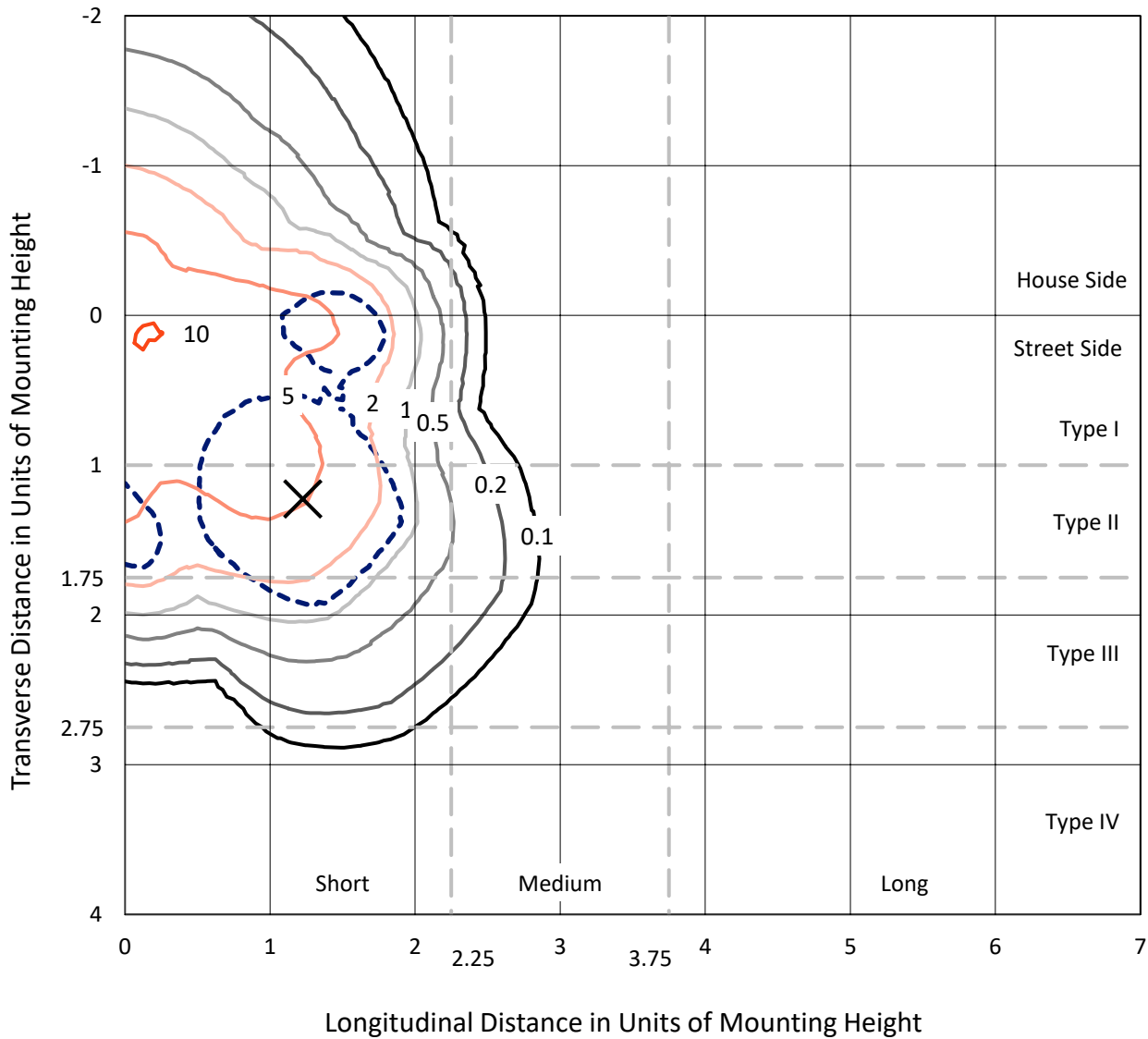
Input Watts (W): 225.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

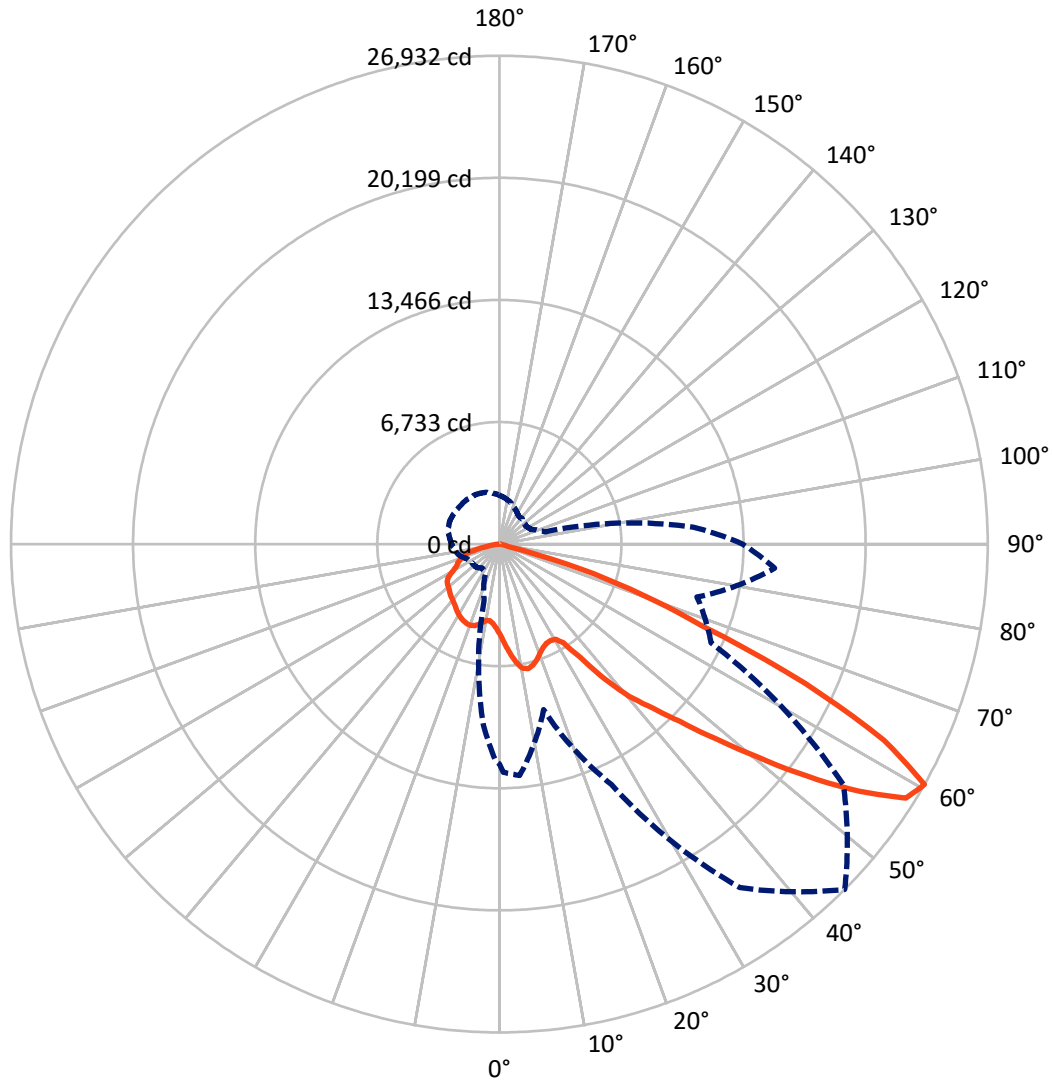
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 8497.4 | 0.0 | 8497.4 |
| | % Fixture | 35.1 | 0.0 | 35.1 |
| Street Side | Lumens | 15743.7 | 0.0 | 15743.7 |
| | % Fixture | 64.9 | 0.0 | 64.9 |
| Total | Lumens | 24241.1 | 0.0 | 24241.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 485.9 | 2.0 |
| 10°-20° | 1535.3 | 6.3 |
| 20°-30° | 2494.0 | 10.3 |
| 30°-40° | 3517.2 | 14.5 |
| 40°-50° | 4860.7 | 20.1 |
| 50°-60° | 6257.2 | 25.8 |
| 60°-70° | 3964.6 | 16.4 |
| 70°-80° | 1017.3 | 4.2 |
| 80°-90° | 108.8 | 0.4 |
| 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° | 24241.1 | 100.0 |
| 0°-180° | 24241.1 | 100.0 |

Coefficient of Utilization



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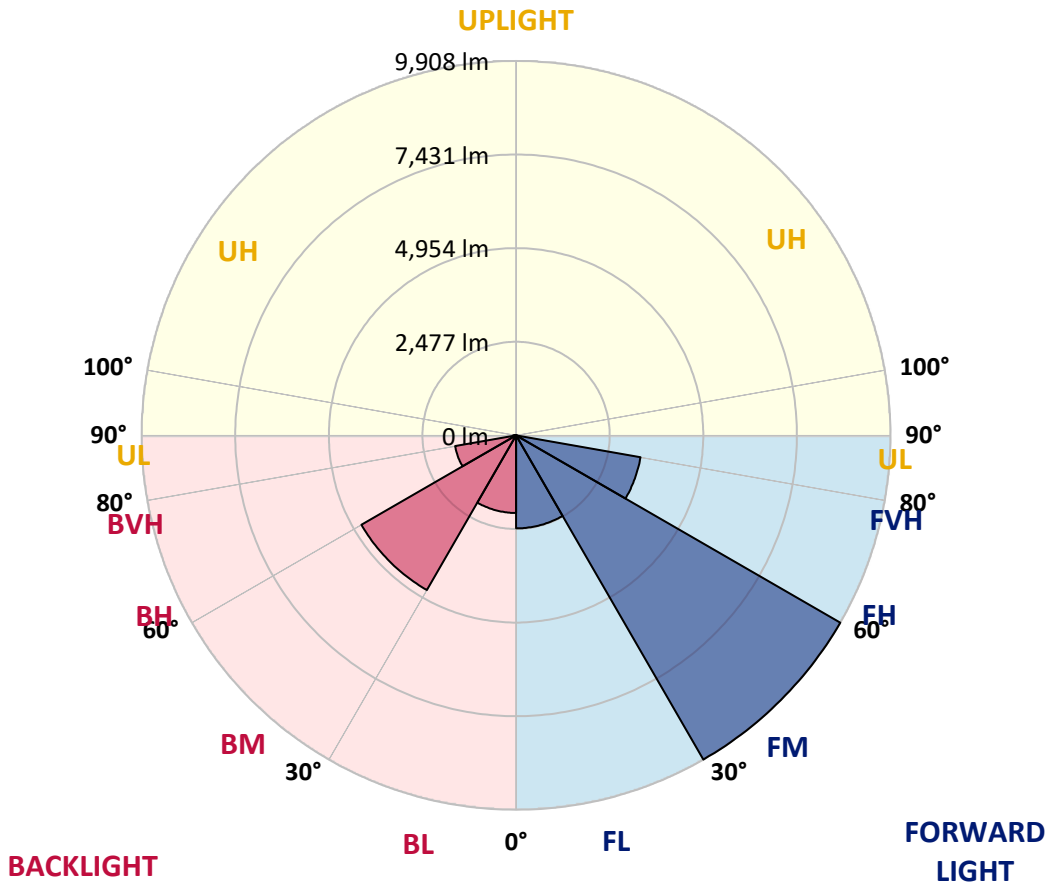
CATALOG NUMBER: GWS-SA4F-730-U-SLR-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2461.4 | 10.2 | | | |
| FM (30°-60°) | 9908.4 | 40.9 | | | |
| FH (60°-80°) | 3344.4 | 13.8 | | | G2/5000 |
| FVH (80°-90°) | 29.5 | 0.1 | | | G1/100 |
| BL (0°-30°) | 2053.8 | 8.5 | B3/2500 | | |
| BM (30°-60°) | 4726.8 | 19.5 | B3/5000 | | |
| BH (60°-80°) | 1637.5 | 6.8 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 79.2 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 1° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 |
| 2.5° | 5208.6 | 5244.2 | 5266.4 | 5308.6 | 5384.1 | 5426.3 | 5472.9 | 5421.8 | 5435.2 | 5428.5 | 5346.3 |
| 5° | 5517.4 | 5559.6 | 5617.3 | 5741.7 | 5881.6 | 5959.4 | 6032.7 | 6021.6 | 5952.7 | 5837.2 | 5755.0 |
| 7.5° | 5806.1 | 5855.0 | 5954.9 | 6157.0 | 6363.6 | 6483.6 | 6572.4 | 6514.7 | 6456.9 | 6274.8 | 6068.2 |
| 10° | 6032.7 | 6061.5 | 6197.0 | 6468.0 | 6707.9 | 6843.4 | 6952.2 | 6938.9 | 6858.9 | 6654.6 | 6376.9 |
| 12.5° | 6245.9 | 6265.9 | 6412.5 | 6683.5 | 6898.9 | 6958.9 | 7047.7 | 7076.6 | 7050.0 | 6896.7 | 6623.5 |
| 15° | 6474.7 | 6512.4 | 6647.9 | 6854.5 | 6952.2 | 6890.0 | 6921.1 | 7001.1 | 7076.6 | 7076.6 | 6825.6 |
| 17.5° | 6687.9 | 6721.2 | 6858.9 | 6947.8 | 6854.5 | 6690.1 | 6699.0 | 6801.2 | 6981.1 | 7169.9 | 7010.0 |
| 20° | 6876.7 | 6907.8 | 7043.3 | 6958.9 | 6663.5 | 6423.6 | 6416.9 | 6541.3 | 6832.3 | 7229.9 | 7207.7 |
| 22.5° | 7083.3 | 7127.7 | 7241.0 | 6967.8 | 6485.8 | 6181.5 | 6179.3 | 6308.1 | 6701.2 | 7289.8 | 7434.2 |
| 25° | 7376.5 | 7445.3 | 7503.1 | 7045.5 | 6390.3 | 6023.8 | 6052.7 | 6174.8 | 6659.0 | 7387.6 | 7769.6 |
| 27.5° | 7811.8 | 7867.3 | 7862.9 | 7207.7 | 6385.8 | 5959.4 | 6019.3 | 6161.5 | 6734.5 | 7560.8 | 8122.8 |
| 30° | 8282.7 | 8311.6 | 8264.9 | 7434.2 | 6488.0 | 5999.3 | 6088.2 | 6257.0 | 6925.6 | 7847.3 | 8642.5 |
| 32.5° | 8804.7 | 8840.2 | 8751.4 | 7774.0 | 6725.7 | 6294.8 | 6490.2 | 6572.4 | 7194.3 | 8260.5 | 9193.4 |
| 35° | 9404.4 | 9473.2 | 9288.9 | 8222.7 | 7425.3 | 7372.0 | 7656.3 | 7549.7 | 7765.2 | 8749.1 | 9782.0 |
| 37.5° | 10035.2 | 10037.4 | 9773.1 | 8886.8 | 8798.0 | 8889.1 | 9457.7 | 9124.5 | 8975.7 | 9293.3 | 10381.7 |
| 40° | 10570.5 | 10557.2 | 10150.7 | 9782.0 | 9993.0 | 10355.0 | 11041.4 | 10530.5 | 10139.6 | 10024.1 | 10879.2 |
| 42.5° | 11105.8 | 11056.9 | 10646.0 | 10350.6 | 10817.0 | 11561.1 | 12336.3 | 11709.9 | 10885.9 | 10688.2 | 11370.1 |
| 45° | 11789.9 | 11774.3 | 11279.0 | 10577.1 | 11561.1 | 12911.6 | 13940.0 | 12924.9 | 11327.9 | 11074.7 | 12187.5 |
| 47.5° | 12893.8 | 12818.3 | 11896.5 | 10559.4 | 12258.6 | 14710.7 | 16010.1 | 14455.3 | 11636.6 | 11083.6 | 13506.9 |
| 50° | 13973.3 | 13880.0 | 12633.9 | 10557.2 | 12978.2 | 16576.5 | 18453.4 | 16314.4 | 11952.0 | 11136.9 | 14848.4 |
| 52.5° | 15063.9 | 15063.9 | 13844.5 | 10808.1 | 13733.4 | 18659.9 | 21276.5 | 18631.1 | 12489.6 | 11834.3 | 16498.7 |
| 55° | 15712.5 | 15885.7 | 15206.0 | 11232.4 | 14617.4 | 21112.1 | 24068.4 | 21132.1 | 13320.3 | 13093.7 | 18022.5 |
| 57.5° | 14888.4 | 15212.7 | 15115.0 | 10937.0 | 15139.4 | 22913.4 | 26436.2 | 23028.9 | 13731.2 | 13242.5 | 17793.7 |
| 60° | 12132.0 | 12582.9 | 12807.2 | 9444.4 | 14624.1 | 23122.2 | 26931.5 | 23153.3 | 12882.7 | 11276.8 | 15241.6 |
| 62.5° | 8065.0 | 8436.0 | 8778.0 | 6747.9 | 12660.6 | 20801.1 | 23819.7 | 20807.8 | 10759.3 | 8416.0 | 10559.4 |
| 65° | 3955.9 | 4231.3 | 4600.0 | 3989.2 | 9890.8 | 17380.5 | 18571.1 | 16814.2 | 7782.9 | 4711.1 | 5386.3 |
| 67.5° | 1035.1 | 1112.8 | 1163.9 | 1548.1 | 7085.5 | 12487.3 | 12112.0 | 12298.5 | 4999.8 | 1539.3 | 1408.2 |
| 70° | 537.5 | 542.0 | 539.7 | 639.7 | 4788.8 | 7936.2 | 8347.1 | 7723.0 | 3489.4 | 644.1 | 555.3 |
| 72.5° | 384.3 | 386.5 | 379.8 | 430.9 | 2312.2 | 4546.7 | 4711.1 | 4660.0 | 1828.0 | 382.0 | 379.8 |
| 75° | 251.0 | 253.2 | 248.8 | 253.2 | 348.7 | 517.5 | 477.5 | 502.0 | 304.3 | 242.1 | 242.1 |
| 77.5° | 148.8 | 151.0 | 148.8 | 153.3 | 148.8 | 148.8 | 137.7 | 137.7 | 131.0 | 131.0 | 133.3 |
| 80° | 100.0 | 100.0 | 97.7 | 102.2 | 93.3 | 93.3 | 88.8 | 86.6 | 80.0 | 77.7 | 77.7 |
| 82.5° | 60.0 | 62.2 | 60.0 | 60.0 | 55.5 | 55.5 | 51.1 | 48.9 | 42.2 | 42.2 | 40.0 |
| 85° | 31.1 | 31.1 | 28.9 | 28.9 | 24.4 | 22.2 | 17.8 | 17.8 | 13.3 | 11.1 | 11.1 |
| 87.5° | 4.4 | 4.4 | 2.2 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 |



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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 |
| 2.5° | 5324.1 | 5279.7 | 5213.1 | 5148.6 | 5088.7 | 5026.5 | 4955.4 | 4882.1 | 4819.9 | 4755.5 | 4722.2 |
| 5° | 5646.2 | 5555.1 | 5381.9 | 5228.6 | 5090.9 | 4977.6 | 4855.4 | 4751.1 | 4653.3 | 4573.4 | 4533.4 |
| 7.5° | 5937.2 | 5795.0 | 5532.9 | 5290.8 | 5104.2 | 4948.7 | 4779.9 | 4624.4 | 4493.4 | 4395.7 | 4357.9 |
| 10° | 6205.9 | 6037.1 | 5692.8 | 5386.3 | 5168.6 | 4995.4 | 4788.8 | 4577.8 | 4404.6 | 4275.7 | 4244.6 |
| 12.5° | 6423.6 | 6230.3 | 5819.4 | 5464.0 | 5206.4 | 5019.8 | 4837.7 | 4655.5 | 4484.5 | 4317.9 | 4291.3 |
| 15° | 6616.8 | 6388.0 | 5914.9 | 5512.9 | 5193.1 | 4955.4 | 4802.1 | 4779.9 | 4779.9 | 4591.1 | 4537.8 |
| 17.5° | 6783.4 | 6532.4 | 5992.7 | 5535.1 | 5108.7 | 4764.4 | 4671.1 | 4864.3 | 5082.0 | 4946.5 | 4826.6 |
| 20° | 6974.4 | 6670.1 | 6057.1 | 5535.1 | 4953.2 | 4522.3 | 4513.4 | 4842.1 | 5164.2 | 5166.4 | 5039.8 |
| 22.5° | 7167.7 | 6830.1 | 6132.6 | 5515.1 | 4739.9 | 4242.4 | 4406.8 | 4753.3 | 5039.8 | 5162.0 | 5075.3 |
| 25° | 7480.9 | 7052.2 | 6252.6 | 5499.6 | 4491.2 | 4051.4 | 4311.3 | 4635.6 | 4877.7 | 5006.5 | 4951.0 |
| 27.5° | 7878.4 | 7345.4 | 6434.7 | 5524.0 | 4244.6 | 3938.1 | 4209.1 | 4482.3 | 4702.2 | 4815.5 | 4775.5 |
| 30° | 8322.7 | 7683.0 | 6630.2 | 5566.2 | 4066.9 | 3880.4 | 4086.9 | 4306.8 | 4502.3 | 4615.6 | 4597.8 |
| 32.5° | 8889.1 | 8049.5 | 6799.0 | 5508.5 | 3967.0 | 3851.5 | 3958.1 | 4115.8 | 4304.6 | 4375.7 | 4391.2 |
| 35° | 9566.5 | 8453.7 | 6927.8 | 5281.9 | 3875.9 | 3820.4 | 3818.2 | 3915.9 | 4049.2 | 4162.4 | 4173.6 |
| 37.5° | 10190.7 | 8926.8 | 7069.9 | 4893.2 | 3711.6 | 3742.6 | 3653.8 | 3711.6 | 3842.6 | 3955.9 | 4000.3 |
| 40° | 10808.1 | 9406.6 | 7267.6 | 4397.9 | 3496.1 | 3569.4 | 3465.0 | 3505.0 | 3609.4 | 3758.2 | 3829.3 |
| 42.5° | 11407.9 | 9839.7 | 7476.4 | 3891.5 | 3280.6 | 3327.3 | 3249.6 | 3289.5 | 3398.4 | 3584.9 | 3664.9 |
| 45° | 12060.9 | 10426.1 | 7638.6 | 3413.9 | 3094.1 | 3074.1 | 3011.9 | 3069.6 | 3234.0 | 3438.3 | 3533.9 |
| 47.5° | 13295.8 | 11350.1 | 7745.2 | 3096.3 | 2994.1 | 2849.7 | 2778.7 | 2903.1 | 3089.6 | 3296.2 | 3411.7 |
| 50° | 14804.0 | 12687.2 | 7714.1 | 2894.2 | 2907.5 | 2618.7 | 2594.3 | 2758.7 | 2958.6 | 3174.0 | 3300.6 |
| 52.5° | 15999.0 | 13999.9 | 7360.9 | 2700.9 | 2738.7 | 2472.1 | 2401.1 | 2641.0 | 2832.0 | 3051.9 | 3182.9 |
| 55° | 16911.9 | 14442.0 | 6277.0 | 2472.1 | 2463.3 | 2365.5 | 2216.7 | 2518.8 | 2705.4 | 2909.7 | 3051.9 |
| 57.5° | 16167.8 | 13458.0 | 4653.3 | 2156.7 | 2103.4 | 2154.5 | 2010.1 | 2312.2 | 2549.9 | 2752.0 | 2878.6 |
| 60° | 13418.0 | 10730.4 | 2592.1 | 1910.2 | 1759.2 | 1883.5 | 1861.3 | 2094.6 | 2381.1 | 2594.3 | 2703.1 |
| 62.5° | 9109.0 | 7145.5 | 1537.0 | 1510.4 | 1426.0 | 1603.7 | 1721.4 | 1874.7 | 2156.7 | 2330.0 | 2432.2 |
| 65° | 4540.0 | 3471.7 | 1021.7 | 1130.6 | 1141.7 | 1319.4 | 1541.5 | 1710.3 | 1945.7 | 2123.4 | 2225.6 |
| 67.5° | 1317.1 | 1079.5 | 777.4 | 864.0 | 984.0 | 1126.1 | 1303.8 | 1503.7 | 1732.5 | 1943.5 | 2063.5 |
| 70° | 568.6 | 575.3 | 617.5 | 719.7 | 837.4 | 984.0 | 1161.7 | 1357.1 | 1550.4 | 1712.5 | 1803.6 |
| 72.5° | 402.0 | 417.6 | 464.2 | 568.6 | 679.7 | 819.6 | 997.3 | 1186.1 | 1326.0 | 1490.4 | 1585.9 |
| 75° | 257.7 | 268.8 | 306.5 | 386.5 | 468.7 | 604.2 | 773.0 | 946.2 | 1090.6 | 1208.3 | 1299.4 |
| 77.5° | 142.2 | 144.4 | 175.5 | 222.1 | 277.6 | 364.3 | 488.7 | 624.1 | 730.8 | 797.4 | 879.6 |
| 80° | 82.2 | 82.2 | 97.7 | 126.6 | 159.9 | 213.2 | 282.1 | 348.7 | 413.1 | 455.3 | 495.3 |
| 82.5° | 44.4 | 44.4 | 51.1 | 68.9 | 86.6 | 117.7 | 157.7 | 191.0 | 231.0 | 253.2 | 279.9 |
| 85° | 13.3 | 13.3 | 17.8 | 24.4 | 31.1 | 44.4 | 62.2 | 80.0 | 97.7 | 113.3 | 128.8 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 |
| 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: GWS-SA4F-730-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

| | 185° | 195° | 205° | 215° | 225° | 235° | 245° | 255° | 265° | 270° | 275° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 |
| 2.5° | 4715.5 | 4684.4 | 4666.6 | 4644.4 | 4651.1 | 4631.1 | 4620.0 | 4626.7 | 4586.7 | 4626.7 | 4666.6 |
| 5° | 4517.8 | 4473.4 | 4437.9 | 4409.0 | 4395.7 | 4369.0 | 4353.5 | 4353.5 | 4329.0 | 4369.0 | 4417.9 |
| 7.5° | 4344.6 | 4309.0 | 4291.3 | 4273.5 | 4253.5 | 4229.1 | 4202.4 | 4193.5 | 4178.0 | 4220.2 | 4262.4 |
| 10° | 4229.1 | 4233.5 | 4244.6 | 4269.1 | 4264.6 | 4249.1 | 4209.1 | 4186.9 | 4186.9 | 4235.7 | 4300.2 |
| 12.5° | 4282.4 | 4329.0 | 4355.7 | 4400.1 | 4409.0 | 4395.7 | 4355.7 | 4337.9 | 4382.3 | 4455.6 | 4562.3 |
| 15° | 4489.0 | 4520.1 | 4542.3 | 4577.8 | 4575.6 | 4564.5 | 4533.4 | 4546.7 | 4693.3 | 4835.5 | 4931.0 |
| 17.5° | 4713.3 | 4677.8 | 4673.3 | 4695.5 | 4702.2 | 4688.9 | 4671.1 | 4731.1 | 4973.2 | 5106.4 | 5155.3 |
| 20° | 4875.4 | 4753.3 | 4726.6 | 4735.5 | 4753.3 | 4746.6 | 4746.6 | 4844.3 | 5095.3 | 5157.5 | 5095.3 |
| 22.5° | 4924.3 | 4751.1 | 4711.1 | 4713.3 | 4737.7 | 4739.9 | 4751.1 | 4853.2 | 4999.8 | 5002.0 | 4906.5 |
| 25° | 4846.6 | 4680.0 | 4651.1 | 4655.5 | 4684.4 | 4682.2 | 4686.6 | 4744.4 | 4808.8 | 4782.1 | 4711.1 |
| 27.5° | 4700.0 | 4555.6 | 4546.7 | 4571.1 | 4608.9 | 4588.9 | 4575.6 | 4591.1 | 4622.2 | 4588.9 | 4526.7 |
| 30° | 4533.4 | 4411.2 | 4415.7 | 4462.3 | 4502.3 | 4469.0 | 4435.6 | 4444.5 | 4446.8 | 4411.2 | 4340.1 |
| 32.5° | 4357.9 | 4266.8 | 4282.4 | 4331.3 | 4377.9 | 4342.4 | 4306.8 | 4302.4 | 4260.2 | 4218.0 | 4149.1 |
| 35° | 4182.4 | 4146.9 | 4166.9 | 4206.9 | 4246.9 | 4218.0 | 4195.8 | 4182.4 | 4091.4 | 4029.2 | 3971.4 |
| 37.5° | 4022.5 | 4049.2 | 4084.7 | 4109.1 | 4122.5 | 4120.2 | 4106.9 | 4075.8 | 3955.9 | 3882.6 | 3807.1 |
| 40° | 3880.4 | 3962.5 | 4000.3 | 4011.4 | 4031.4 | 4027.0 | 4024.7 | 3980.3 | 3822.6 | 3744.9 | 3658.2 |
| 42.5° | 3751.5 | 3867.0 | 3931.4 | 3942.6 | 3953.7 | 3955.9 | 3949.2 | 3884.8 | 3704.9 | 3613.8 | 3531.6 |
| 45° | 3627.1 | 3778.2 | 3860.4 | 3849.3 | 3864.8 | 3864.8 | 3871.5 | 3787.1 | 3589.4 | 3496.1 | 3409.5 |
| 47.5° | 3518.3 | 3696.0 | 3771.5 | 3758.2 | 3767.1 | 3773.7 | 3780.4 | 3682.7 | 3462.8 | 3373.9 | 3285.1 |
| 50° | 3418.4 | 3607.2 | 3671.6 | 3676.0 | 3676.0 | 3691.6 | 3689.3 | 3593.8 | 3356.2 | 3260.7 | 3171.8 |
| 52.5° | 3311.7 | 3516.1 | 3584.9 | 3613.8 | 3622.7 | 3629.4 | 3598.3 | 3487.2 | 3247.3 | 3131.8 | 3049.6 |
| 55° | 3187.4 | 3422.8 | 3485.0 | 3522.8 | 3540.5 | 3536.1 | 3493.9 | 3380.6 | 3136.3 | 3020.8 | 2927.5 |
| 57.5° | 2998.6 | 3222.9 | 3311.7 | 3329.5 | 3358.4 | 3340.6 | 3291.8 | 3196.2 | 2958.6 | 2843.1 | 2747.6 |
| 60° | 2792.0 | 2954.1 | 3025.2 | 3040.8 | 3018.6 | 3025.2 | 3018.6 | 2927.5 | 2720.9 | 2629.8 | 2532.1 |
| 62.5° | 2521.0 | 2665.4 | 2740.9 | 2760.9 | 2723.1 | 2747.6 | 2738.7 | 2625.4 | 2418.8 | 2323.3 | 2236.7 |
| 65° | 2316.7 | 2474.4 | 2563.2 | 2574.3 | 2563.2 | 2574.3 | 2543.2 | 2405.5 | 2210.1 | 2112.3 | 2023.5 |
| 67.5° | 2156.7 | 2318.9 | 2412.2 | 2443.3 | 2432.2 | 2429.9 | 2381.1 | 2221.2 | 2019.0 | 1912.4 | 1799.1 |
| 70° | 1881.3 | 2023.5 | 2143.4 | 2218.9 | 2218.9 | 2176.7 | 2083.4 | 1934.6 | 1772.5 | 1681.4 | 1592.6 |
| 72.5° | 1665.9 | 1845.8 | 1963.5 | 2041.2 | 2056.8 | 2032.4 | 1901.3 | 1743.6 | 1557.0 | 1466.0 | 1372.7 |
| 75° | 1372.7 | 1548.1 | 1674.8 | 1776.9 | 1796.9 | 1770.3 | 1619.2 | 1463.7 | 1290.5 | 1201.6 | 1108.4 |
| 77.5° | 917.3 | 1021.7 | 1123.9 | 1217.2 | 1197.2 | 1215.0 | 1112.8 | 995.1 | 888.5 | 821.8 | 779.6 |
| 80° | 517.5 | 586.4 | 617.5 | 668.6 | 668.6 | 668.6 | 601.9 | 546.4 | 486.4 | 448.7 | 406.5 |
| 82.5° | 293.2 | 337.6 | 350.9 | 393.1 | 404.3 | 406.5 | 362.0 | 326.5 | 288.8 | 268.8 | 239.9 |
| 85° | 135.5 | 159.9 | 162.1 | 186.6 | 195.5 | 213.2 | 193.2 | 168.8 | 146.6 | 137.7 | 119.9 |
| 87.5° | 4.4 | 13.3 | 17.8 | 33.3 | 44.4 | 51.1 | 55.5 | 55.5 | 46.6 | 42.2 | 35.5 |
| 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: P638649

CATALOG NUMBER: GWS-SA4F-730-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

| | 285° | 295° | 305° | 315° | 325° | 335° | 345° | 355° | 359° | 360° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 0° | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 | 4979.8 |
| 2.5° | 4715.5 | 4768.8 | 4831.0 | 4875.4 | 4955.4 | 5022.0 | 5090.9 | 5166.4 | 5221.9 | 5208.6 |
| 5° | 4477.9 | 4566.7 | 4680.0 | 4784.4 | 4933.2 | 5084.2 | 5250.8 | 5421.8 | 5521.8 | 5517.4 |
| 7.5° | 4344.6 | 4471.2 | 4608.9 | 4748.8 | 4924.3 | 5142.0 | 5397.4 | 5663.9 | 5799.4 | 5806.1 |
| 10° | 4415.7 | 4551.1 | 4644.4 | 4762.2 | 4946.5 | 5219.7 | 5526.2 | 5846.1 | 6001.6 | 6032.7 |
| 12.5° | 4640.0 | 4628.9 | 4622.2 | 4706.6 | 4928.7 | 5275.2 | 5650.6 | 6032.7 | 6208.1 | 6245.9 |
| 15° | 4853.2 | 4624.4 | 4486.7 | 4544.5 | 4848.8 | 5310.8 | 5772.8 | 6237.0 | 6434.7 | 6474.7 |
| 17.5° | 4893.2 | 4546.7 | 4291.3 | 4331.3 | 4722.2 | 5321.9 | 5890.5 | 6436.9 | 6650.1 | 6687.9 |
| 20° | 4782.1 | 4446.8 | 4149.1 | 4093.6 | 4562.3 | 5293.0 | 5963.8 | 6603.5 | 6836.7 | 6876.7 |
| 22.5° | 4642.2 | 4357.9 | 4042.5 | 3898.1 | 4366.8 | 5264.1 | 6046.0 | 6779.0 | 7047.7 | 7083.3 |
| 25° | 4495.6 | 4244.6 | 3942.6 | 3722.7 | 4144.7 | 5246.4 | 6183.7 | 7010.0 | 7334.3 | 7376.5 |
| 27.5° | 4340.1 | 4106.9 | 3855.9 | 3638.3 | 3940.3 | 5268.6 | 6379.2 | 7383.1 | 7751.8 | 7811.8 |
| 30° | 4173.6 | 3969.2 | 3800.4 | 3609.4 | 3800.4 | 5288.6 | 6594.6 | 7765.2 | 8198.3 | 8282.7 |
| 32.5° | 4000.3 | 3842.6 | 3742.6 | 3622.7 | 3713.8 | 5241.9 | 6783.4 | 8193.8 | 8731.4 | 8804.7 |
| 35° | 3827.1 | 3713.8 | 3669.4 | 3647.1 | 3598.3 | 5070.9 | 6936.7 | 8627.0 | 9340.0 | 9404.4 |
| 37.5° | 3664.9 | 3580.5 | 3567.2 | 3591.6 | 3420.6 | 4791.0 | 7114.4 | 9177.8 | 9937.5 | 10035.2 |
| 40° | 3513.9 | 3436.1 | 3433.9 | 3429.5 | 3225.1 | 4409.0 | 7354.2 | 9737.5 | 10526.1 | 10570.5 |
| 42.5° | 3373.9 | 3276.2 | 3294.0 | 3240.7 | 3065.2 | 3995.9 | 7580.8 | 10215.1 | 11074.7 | 11105.8 |
| 45° | 3249.6 | 3120.7 | 3140.7 | 3074.1 | 2989.7 | 3562.7 | 7780.7 | 10779.3 | 11769.9 | 11789.9 |
| 47.5° | 3129.6 | 2991.9 | 2936.4 | 2931.9 | 2976.3 | 3162.9 | 7976.2 | 11865.4 | 12858.3 | 12893.8 |
| 50° | 3018.6 | 2869.7 | 2712.0 | 2809.8 | 2894.2 | 2863.1 | 8220.5 | 13029.3 | 13982.2 | 13973.3 |
| 52.5° | 2911.9 | 2716.5 | 2492.1 | 2680.9 | 2680.9 | 2641.0 | 8151.6 | 13735.6 | 14910.6 | 15063.9 |
| 55° | 2789.8 | 2469.9 | 2263.4 | 2465.5 | 2367.8 | 2441.1 | 6932.2 | 13966.6 | 15494.8 | 15712.5 |
| 57.5° | 2547.7 | 2165.6 | 1985.7 | 2094.6 | 1948.0 | 2263.4 | 4979.8 | 12820.5 | 14501.9 | 14888.4 |
| 60° | 2314.4 | 1941.3 | 1823.6 | 1803.6 | 1612.6 | 1845.8 | 3227.3 | 10037.4 | 11936.5 | 12132.0 |
| 62.5° | 2041.2 | 1748.1 | 1648.1 | 1494.8 | 1297.2 | 1343.8 | 1954.6 | 6605.7 | 8020.6 | 8065.0 |
| 65° | 1834.7 | 1583.7 | 1392.7 | 1210.5 | 1061.7 | 975.1 | 1155.0 | 3185.1 | 4009.2 | 3955.9 |
| 67.5° | 1574.8 | 1357.1 | 1175.0 | 1043.9 | 921.8 | 812.9 | 768.5 | 946.2 | 1070.6 | 1035.1 |
| 70° | 1401.5 | 1192.8 | 1017.3 | 892.9 | 779.6 | 670.8 | 593.0 | 557.5 | 546.4 | 537.5 |
| 72.5° | 1208.3 | 1026.2 | 844.0 | 724.1 | 617.5 | 517.5 | 446.5 | 404.3 | 393.1 | 384.3 |
| 75° | 964.0 | 793.0 | 626.4 | 513.1 | 419.8 | 348.7 | 302.1 | 266.5 | 259.9 | 251.0 |
| 77.5° | 637.5 | 508.6 | 373.2 | 304.3 | 248.8 | 211.0 | 179.9 | 157.7 | 153.3 | 148.8 |
| 80° | 350.9 | 293.2 | 228.8 | 184.4 | 148.8 | 128.8 | 117.7 | 104.4 | 102.2 | 100.0 |
| 82.5° | 208.8 | 175.5 | 131.0 | 104.4 | 86.6 | 77.7 | 71.1 | 64.4 | 62.2 | 60.0 |
| 85° | 104.4 | 82.2 | 57.8 | 48.9 | 44.4 | 40.0 | 40.0 | 33.3 | 31.1 | 31.1 |
| 87.5° | 26.7 | 22.2 | 13.3 | 11.1 | 11.1 | 11.1 | 8.9 | 6.7 | 6.7 | 4.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



LM-79-2008: Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-2-R4

Test Date: 10/03/2019

Luminaire Tested: SA1C-730-U-5WQ

Data in this report applies to families of products SA1C-730-U-5WQ .

Test Information

Test Method: LM-79-2008
 Report Number: SP1-1908-441-2-R4
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 10/28/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: McGRAW-EDISON
 Catalog Number: **SA1C-730-U-5WQ**
 Description: McGRAW EDISON ROADWAY AND AREA LUMINAIRE

THIS IS A REVISION OF SP1-1908-441-2-R3. TO UPDATE THE CATALOG INFORMATION.TESTED IN SITU. (1) 70 CRI, 3000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

Spectral Parameters

CCT (K): 2993
 CIE u': 0.2508
 CIE v': 0.5215
 Duv: 0.0000
 CIE x: 0.4374
 CIE y: 0.4043
 CIE z: 0.1583
 Peak Wavelength (nm): 593
 Dominant Wavelength (nm): 582
 Purity: 53

| | | | |
|-----------|------|------|-------|
| CRI (Ra): | 71.8 | | |
| R1: | 67.5 | R9: | -38.3 |
| R2: | 82.9 | R10: | 62.5 |
| R3: | 94.7 | R11: | 63.7 |
| R4: | 67.7 | R12: | 57.8 |
| R5: | 67.9 | R13: | 70.4 |
| R6: | 77.6 | R14: | 97.3 |
| R7: | 76.0 | | |
| R8: | 40.5 | | |

Rf: 75.7
 Rg: 93.9



Test Conditions

Stabilization Time: 53M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 25.0./44%
 Sphere Temperature (°C): 25.7

REPORT NUMBER: SP1-1908-441-2-R4

| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/28/2019 | 12/28/2019 |
| Power Meter | IN0071 | 12/5/2018 | 12/5/2019 |
| AC Power Source | IN0063 | 12/5/2018 | 12/5/2019 |
| DC Power Source | IN0208 | 12/5/2018 | 12/5/2019 |
| Sphere Thermometer | IN0085 | 12/5/2018 | 12/5/2019 |
| Room Thermometer | IN0046 | 12/5/2018 | 12/5/2019 |

REPORT NUMBER: SP1-1908-441-2-R4

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: SP1-1908-441-2-R4

Photopic Flux vs. Wavelength



#####

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

REPORT NUMBER: SP1-1908-441-2-R4

Scotopic Flux vs. Wavelength



Scotopic Lumens: 8494.8

S/P: 1.23

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

REPORT NUMBER: SP1-1908-441-2-R4

Melanopic Flux vs. Wavelength



Melanopic Lumens: 3101.5 M/P: 0.45

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

REPORT NUMBER: SP1-1908-441-2-R4

TM-30-18

Summary

$R_f = 75.7$
 $R_g = 93.9$
 CIE $R_a = 71.8$
 $R_9 = -38.3$



Color Vector Graphics



REPORT NUMBER: SP1-1908-441-2-R4

TM-30-18

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

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 67 | CES51 = 87 | CES76 = 63 |
| CES02 = 63 | CES27 = 88 | CES52 = 86 | CES77 = 80 |
| CES03 = 31 | CES28 = 87 | CES53 = 78 | CES78 = 67 |
| CES04 = 71 | CES29 = 66 | CES54 = 84 | CES79 = 87 |
| CES05 = 49 | CES30 = 73 | CES55 = 84 | CES80 = 86 |
| CES06 = 51 | CES31 = 70 | CES56 = 75 | CES81 = 71 |
| CES07 = 41 | CES32 = 65 | CES57 = 74 | CES82 = 94 |
| CES08 = 40 | CES33 = 73 | CES58 = 76 | CES83 = 90 |
| CES09 = 29 | CES34 = 79 | CES59 = 85 | CES84 = 89 |
| CES10 = 76 | CES35 = 89 | CES60 = 93 | CES85 = 77 |
| CES11 = 59 | CES36 = 97 | CES61 = 84 | CES86 = 61 |
| CES12 = 65 | CES37 = 87 | CES62 = 91 | CES87 = 78 |
| CES13 = 43 | CES38 = 81 | CES63 = 77 | CES88 = 77 |
| CES14 = 74 | CES39 = 95 | CES64 = 72 | CES89 = 67 |
| CES15 = 71 | CES40 = 92 | CES65 = 68 | CES90 = 76 |
| CES16 = 47 | CES41 = 88 | CES66 = 69 | CES91 = 89 |
| CES17 = 50 | CES42 = 89 | CES67 = 67 | CES92 = 58 |
| CES18 = 56 | CES43 = 79 | CES68 = 72 | CES93 = 74 |
| CES19 = 73 | CES44 = 99 | CES69 = 81 | CES94 = 49 |
| CES20 = 66 | CES45 = 85 | CES70 = 66 | CES95 = 68 |
| CES21 = 87 | CES46 = 80 | CES71 = 67 | CES96 = 76 |
| CES22 = 79 | CES47 = 82 | CES72 = 88 | CES97 = 82 |
| CES23 = 92 | CES48 = 69 | CES73 = 59 | CES98 = 75 |
| CES24 = 91 | CES49 = 80 | CES74 = 95 | CES99 = 62 |
| CES25 = 73 | CES50 = 87 | CES75 = 69 | |



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Color Rendition by Hue-Angle Bin



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Measure Comparisons



(END OF REPORT)