

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: P579572

Luminaire Tested: **CST-CA10-210-760-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579572  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA10-210-760-U-T5N-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (10) 5700K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23564 lumens  
Efficiency: N/A  
Efficacy: 110.7 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U2 - G3

Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

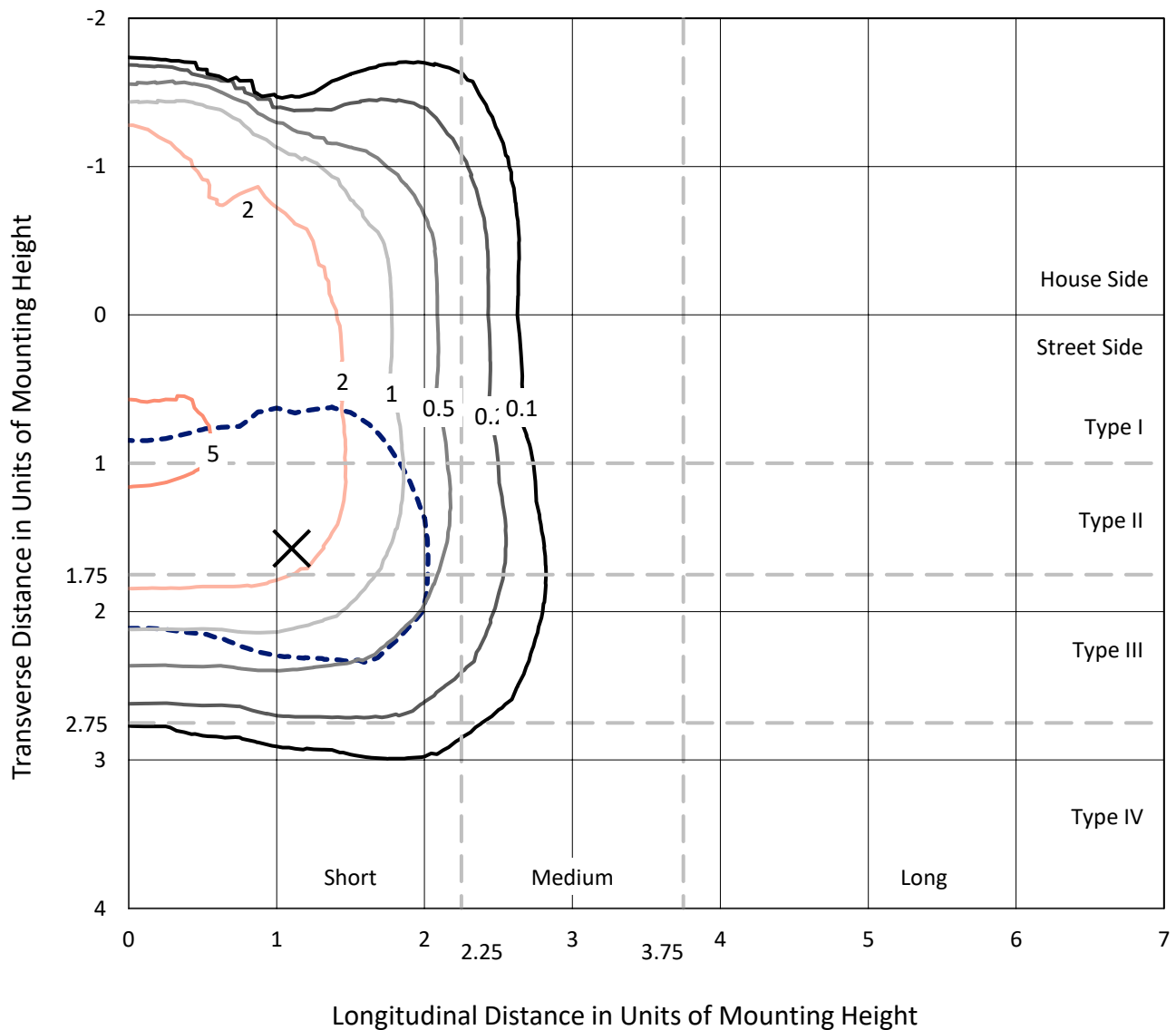


REPORT NUMBER: P579572

CATALOG NUMBER: CST-CA10-210-760-U-T5N-HSS-HM-EX180

## Iso-Footcandle Lines of Horizontal Illumination

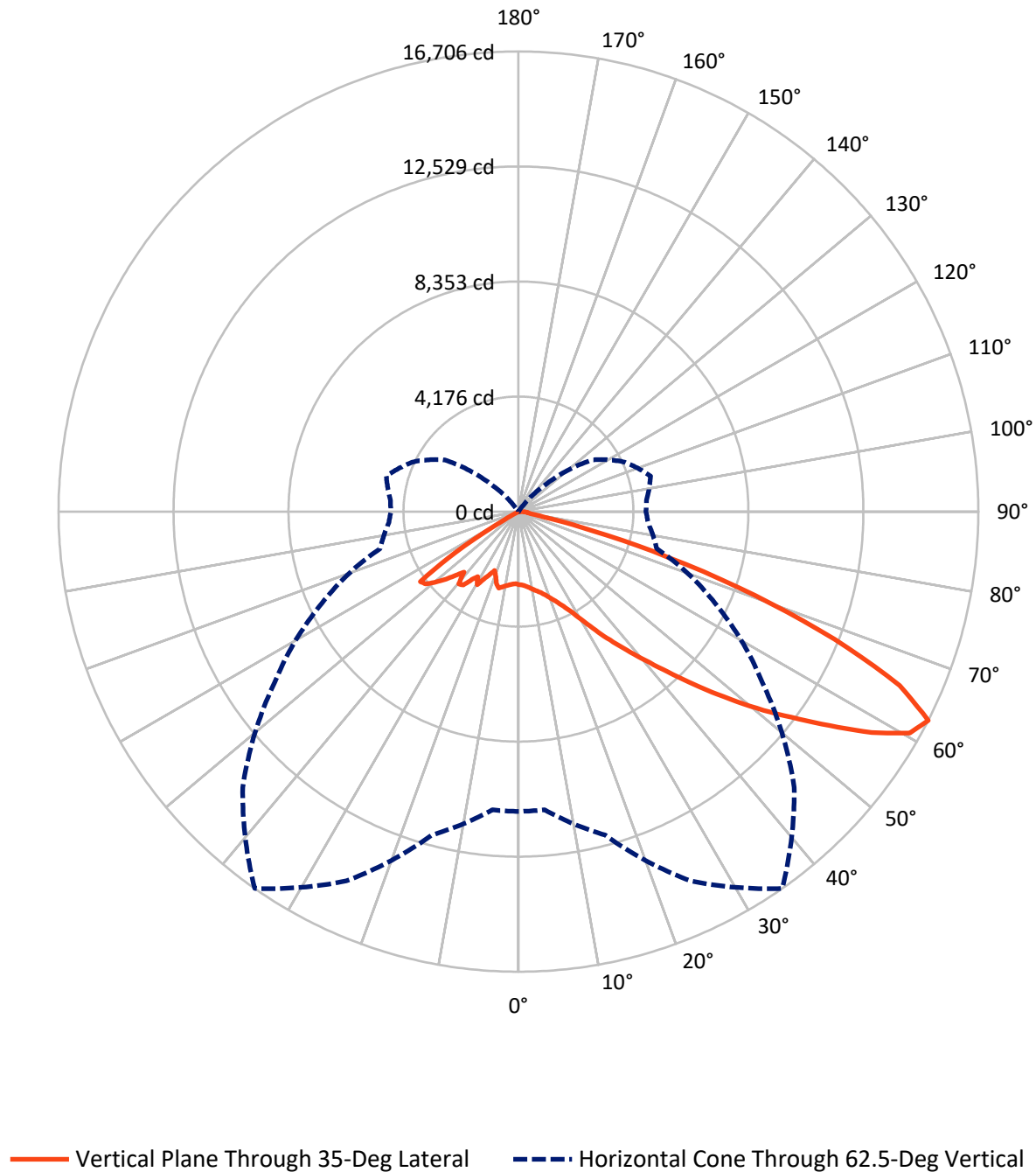
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc  
 Type III - Short - N/A

REPORT NUMBER: P579572  
CATALOG NUMBER: CST-CA10-210-760-U-T5N-HSS-HM-EX180

## Luminous Intensity Polar Plot



REPORT NUMBER: P579572

CATALOG NUMBER: CST-CA10-210-760-U-T5N-HSS-HM-EX180

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7151.8   | 0.0    | 7151.8  |
|                    | % Fixture | 30.4     | 0.0    | 30.4    |
| <b>Street Side</b> | Lumens    | 16391.8  | 20.5   | 16412.2 |
|                    | % Fixture | 69.6     | 0.1    | 69.6    |
| <b>Total</b>       | Lumens    | 23543.5  | 20.5   | 23564.0 |
|                    | % Fixture | 99.9     | 0.1    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 261.8   | 1.1       |
| 10°-20°   | 840.3   | 3.6       |
| 20°-30°   | 1535.8  | 6.5       |
| 30°-40°   | 2926.8  | 12.4      |
| 40°-50°   | 5023.6  | 21.3      |
| 50°-60°   | 6739.3  | 28.6      |
| 60°-70°   | 5123.2  | 21.7      |
| 70°-80°   | 970.1   | 4.1       |
| 80°-90°   | 122.5   | 0.5       |
| 90°-100°  | 18.0    | 0.1       |
| 100°-110° | 2.4     | 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°    | 23543.5 | 99.9      |
| 0°-180°   | 23564.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P579572

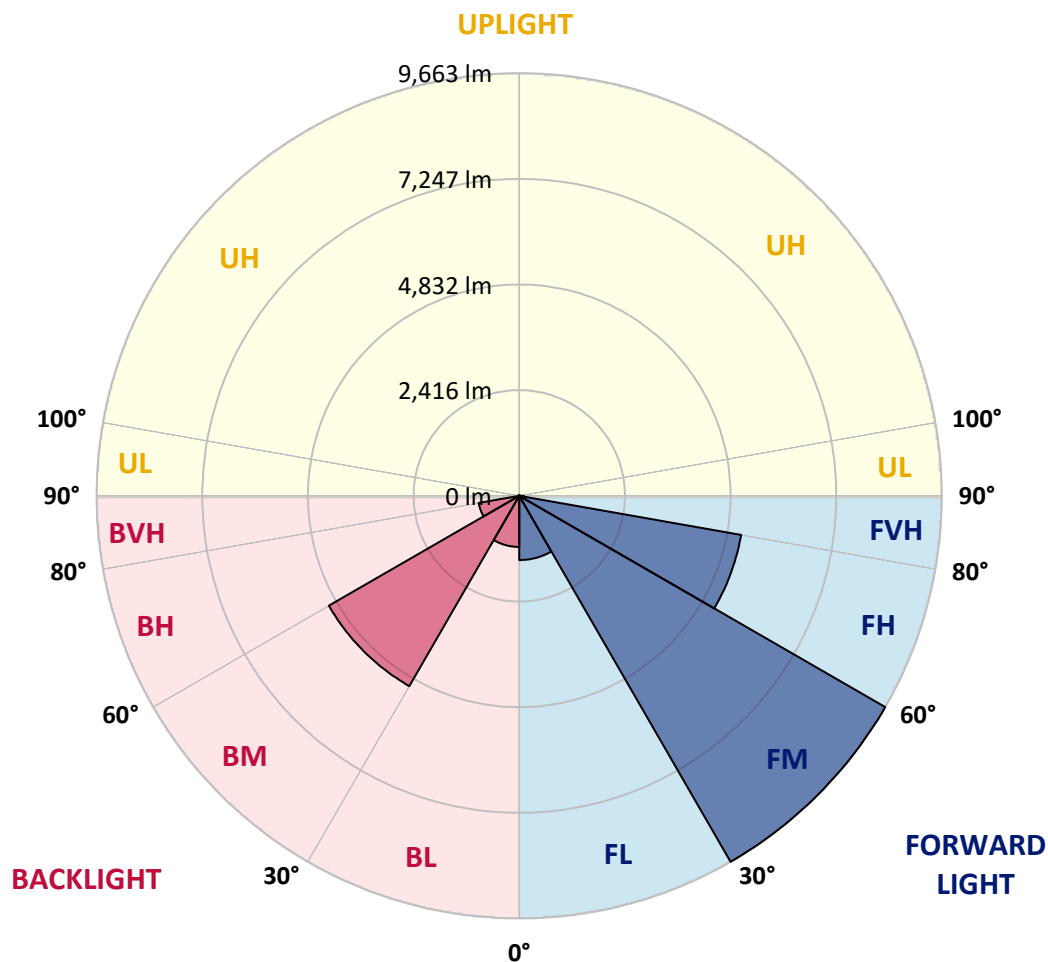
CATALOG NUMBER: CST-CA10-210-760-U-T5N-HSS-HM-EX180

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |       |         |
|------|-------------|--------|-----------|-------------------------|-------|---------|
|      |             |        |           | B                       | U     | G       |
| FL   | (0°-30°)    | 1468.9 | 6.2       |                         |       |         |
| FM   | (30°-60°)   | 9663.2 | 41.0      |                         |       |         |
| FH   | (60°-80°)   | 5151.5 | 21.9      |                         |       | G3/7500 |
| FVH  | (80°-90°)   | 108.1  | 0.5       |                         |       | G2/225  |
| BL   | (0°-30°)    | 1169.0 | 5.0       | B3/2500                 |       |         |
| BM   | (30°-60°)   | 5026.6 | 21.3      | B4/8500                 |       |         |
| BH   | (60°-80°)   | 941.8  | 4.0       | B2/1000                 |       | G2/1000 |
| BVH  | (80°-90°)   | 14.4   | 0.1       |                         |       | G1/100  |
| UL   | (90°-100°)  | 18.0   | 0.1       |                         | U2/50 |         |
| UH   | (100°-180°) | 2.5    | 0.0       |                         | U1/10 |         |

**BUG Rating: B4-U2-G3**

Type III Short



REPORT NUMBER: P579572

CATALOG NUMBER: CST-CA10-210-760-U-T5N-HSS-HM-EX180

**CANDELA DISTRIBUTION (FULL):**

|        | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°    | 75°    | 85°    | 90°    |
|--------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0°     | 2653.6  | 2653.6  | 2653.6  | 2653.6  | 2653.6  | 2653.6  | 2653.6  | 2653.6 | 2653.6 | 2653.6 | 2653.6 |
| 2.5°   | 2719.1  | 2699.1  | 2700.2  | 2718.0  | 2666.9  | 2685.8  | 2663.6  | 2685.8 | 2673.6 | 2682.5 | 2686.9 |
| 5°     | 2766.9  | 2746.9  | 2744.7  | 2763.6  | 2720.2  | 2733.6  | 2711.4  | 2726.9 | 2710.2 | 2721.4 | 2721.4 |
| 7.5°   | 2839.1  | 2819.1  | 2812.4  | 2826.9  | 2786.9  | 2796.9  | 2773.6  | 2782.4 | 2763.6 | 2778.0 | 2770.2 |
| 10°    | 2924.6  | 2902.4  | 2894.6  | 2902.4  | 2868.0  | 2873.5  | 2845.8  | 2855.8 | 2828.0 | 2844.6 | 2833.5 |
| 12.5°  | 3015.7  | 2986.8  | 2986.8  | 2993.5  | 2956.8  | 2957.9  | 2932.4  | 2937.9 | 2910.2 | 2928.0 | 2914.6 |
| 15°    | 3114.6  | 3082.3  | 3086.8  | 3093.5  | 3054.6  | 3061.2  | 3034.6  | 3043.5 | 3014.6 | 3032.4 | 3019.0 |
| 17.5°  | 3245.6  | 3211.2  | 3206.8  | 3226.7  | 3190.1  | 3202.3  | 3172.3  | 3183.4 | 3157.9 | 3163.4 | 3156.8 |
| 20°    | 3426.7  | 3383.4  | 3373.4  | 3400.0  | 3358.9  | 3367.8  | 3345.6  | 3367.8 | 3341.2 | 3301.2 | 3189.0 |
| 22.5°  | 3643.3  | 3605.5  | 3588.9  | 3606.6  | 3557.8  | 3573.3  | 3572.2  | 3607.7 | 3534.4 | 3282.3 | 3170.1 |
| 25°    | 3928.7  | 3903.2  | 3871.0  | 3873.2  | 3814.3  | 3837.7  | 3879.9  | 3907.6 | 3595.5 | 3374.5 | 3376.7 |
| 27.5°  | 4309.7  | 4284.2  | 4239.8  | 4223.1  | 4137.6  | 4194.2  | 4259.7  | 3988.7 | 3743.2 | 3799.9 | 3768.8 |
| 30°    | 4796.2  | 4791.8  | 4701.8  | 4672.9  | 4579.6  | 4650.7  | 4594.1  | 4129.8 | 4214.2 | 4293.1 | 4245.3 |
| 32.5°  | 5443.8  | 5412.7  | 5282.8  | 5230.5  | 5132.8  | 5173.9  | 4674.1  | 4607.4 | 4732.9 | 4839.6 | 4789.6 |
| 35°    | 6226.9  | 6132.5  | 6000.3  | 5897.0  | 5727.1  | 5498.2  | 4978.4  | 5108.4 | 5296.1 | 5442.7 | 5200.6 |
| 37.5°  | 7136.6  | 7034.4  | 6827.8  | 6642.3  | 6374.6  | 5661.5  | 5437.1  | 5697.1 | 5932.5 | 5773.7 | 5215.0 |
| 40°    | 8073.0  | 7981.9  | 7787.5  | 7548.7  | 7096.6  | 6168.0  | 5993.6  | 6304.6 | 6572.3 | 5662.6 | 5384.9 |
| 42.5°  | 9002.7  | 8924.9  | 8768.3  | 8532.8  | 7950.8  | 6771.2  | 6603.4  | 6937.8 | 6685.6 | 5879.2 | 5870.3 |
| 45°    | 9940.2  | 9901.3  | 9723.6  | 9522.5  | 8962.7  | 7543.1  | 7286.6  | 7547.6 | 6433.5 | 6398.0 | 6376.8 |
| 47.5°  | 10699.9 | 10706.6 | 10644.4 | 10540.0 | 10042.3 | 8390.6  | 8056.3  | 7282.1 | 6740.1 | 6778.9 | 6788.9 |
| 50°    | 11483.0 | 11433.0 | 11429.7 | 11436.3 | 11228.6 | 9482.5  | 8580.6  | 7162.2 | 7141.0 | 7137.7 | 7128.8 |
| 52.5°  | 12110.6 | 12047.3 | 12178.3 | 12282.7 | 12406.0 | 10701.0 | 8501.7  | 7568.7 | 7447.6 | 7405.4 | 7146.6 |
| 55°    | 12621.5 | 12597.1 | 12810.3 | 13163.6 | 13712.3 | 11991.7 | 9199.3  | 7965.2 | 7723.1 | 6736.7 | 6076.9 |
| 57.5°  | 12931.4 | 12967.0 | 13406.8 | 14101.0 | 15128.5 | 13061.4 | 10011.2 | 8367.3 | 6612.3 | 5933.7 | 5891.4 |
| 60°    | 12338.3 | 12526.0 | 13274.6 | 14798.6 | 16325.9 | 14067.7 | 10615.5 | 8448.4 | 5950.3 | 5587.1 | 5502.7 |
| 62.5°  | 10886.5 | 10868.7 | 12155.0 | 14798.6 | 16705.8 | 14167.7 | 10806.5 | 7874.1 | 5198.3 | 4725.2 | 4630.7 |
| 65°    | 7705.3  | 7752.0  | 9126.0  | 13335.7 | 15218.5 | 13178.0 | 9967.9  | 6694.5 | 4146.5 | 3712.1 | 3584.4 |
| 67.5°  | 4768.5  | 4765.1  | 6110.3  | 9821.3  | 12388.3 | 11033.1 | 8391.8  | 5131.7 | 2878.0 | 2468.1 | 2329.3 |
| 70°    | 1647.3  | 1693.9  | 2748.0  | 5747.1  | 9119.3  | 8643.9  | 6280.2  | 3240.1 | 1517.3 | 1081.9 | 913.0  |
| 72.5°  | 655.3   | 670.9   | 986.4   | 2562.5  | 5697.1  | 5774.8  | 3816.6  | 1573.9 | 454.3  | 288.8  | 271.0  |
| 75°    | 428.8   | 431.0   | 473.2   | 925.3   | 2764.7  | 3106.8  | 1772.8  | 452.1  | 211.0  | 193.3  | 188.8  |
| 77.5°  | 369.9   | 371.0   | 393.2   | 468.7   | 900.8   | 1208.5  | 504.3   | 267.7  | 176.6  | 158.8  | 154.4  |
| 80°    | 343.2   | 344.3   | 355.4   | 403.2   | 434.3   | 412.1   | 268.8   | 215.5  | 148.8  | 141.1  | 140.0  |
| 82.5°  | 324.3   | 328.8   | 334.3   | 363.2   | 351.0   | 309.9   | 223.3   | 174.4  | 114.4  | 122.2  | 125.5  |
| 85°    | 298.8   | 303.2   | 306.6   | 323.2   | 293.2   | 226.6   | 173.3   | 131.1  | 73.3   | 80.0   | 78.9   |
| 87.5°  | 224.4   | 226.6   | 222.2   | 219.9   | 204.4   | 158.8   | 114.4   | 83.3   | 28.9   | 26.7   | 24.4   |
| 90°    | 107.7   | 106.6   | 102.2   | 94.4    | 82.2    | 64.4    | 47.8    | 26.7   | 12.2   | 5.6    | 2.2    |
| 92.5°  | 85.5    | 84.4    | 82.2    | 74.4    | 64.4    | 47.8    | 34.4    | 18.9   | 11.1   | 4.4    | 1.1    |
| 95°    | 57.8    | 55.5    | 53.3    | 47.8    | 40.0    | 28.9    | 20.0    | 13.3   | 8.9    | 3.3    | 1.1    |
| 97.5°  | 37.8    | 36.7    | 33.3    | 28.9    | 22.2    | 15.6    | 12.2    | 10.0   | 7.8    | 3.3    | 1.1    |
| 100°   | 23.3    | 23.3    | 21.1    | 16.7    | 11.1    | 8.9     | 7.8     | 7.8    | 5.6    | 2.2    | 0.0    |
| 102.5° | 14.4    | 13.3    | 12.2    | 7.8     | 5.6     | 5.6     | 5.6     | 5.6    | 4.4    | 2.2    | 0.0    |
| 105°   | 7.8     | 7.8     | 5.6     | 4.4     | 3.3     | 2.2     | 3.3     | 4.4    | 3.3    | 1.1    | 0.0    |
| 107.5° | 2.2     | 2.2     | 2.2     | 1.1     | 1.1     | 0.0     | 1.1     | 2.2    | 2.2    | 1.1    | 0.0    |
| 110°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 1.1    | 2.2    | 1.1    | 0.0    |



REPORT NUMBER: P579572

CATALOG NUMBER: CST-CA10-210-760-U-T5N-HSS-HM-EX180

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 5°  | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 112.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 115°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 117.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 122.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 125°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 127.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 130°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 132.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 135°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 137.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 140°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 142.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 145°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 147.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 152.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

REPORT NUMBER: P579572

CATALOG NUMBER: CST-CA10-210-760-U-T5N-HSS-HM-EX180

**CANDELA DISTRIBUTION (continued):**

|        | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 2653.6 | 2653.6 | 2653.6 | 2653.6 | 2653.6 | 2653.6 | 2653.6 | 2653.6 | 2653.6 | 2653.6 |
| 2.5°   | 2681.4 | 2660.3 | 2665.8 | 2644.7 | 2641.4 | 2619.2 | 2656.9 | 2659.1 | 2649.2 | 2660.3 |
| 5°     | 2715.8 | 2690.3 | 2700.2 | 2674.7 | 2670.3 | 2641.4 | 2671.4 | 2668.0 | 2660.3 | 2669.1 |
| 7.5°   | 2764.7 | 2739.1 | 2744.7 | 2714.7 | 2709.1 | 2676.9 | 2705.8 | 2694.7 | 2684.7 | 2696.9 |
| 10°    | 2832.4 | 2803.5 | 2808.0 | 2772.4 | 2768.0 | 2730.2 | 2763.6 | 2746.9 | 2732.5 | 2749.1 |
| 12.5°  | 2915.7 | 2878.0 | 2873.5 | 2835.8 | 2832.4 | 2796.9 | 2831.3 | 2814.7 | 2800.2 | 2826.9 |
| 15°    | 3011.3 | 2961.3 | 2954.6 | 2906.8 | 2901.3 | 2864.6 | 2898.0 | 2873.5 | 2862.4 | 2896.9 |
| 17.5°  | 3139.0 | 2962.4 | 2863.5 | 2793.6 | 2753.6 | 2733.6 | 2793.6 | 2874.6 | 2850.2 | 2851.3 |
| 20°    | 3086.8 | 2896.9 | 2764.7 | 2704.7 | 2661.4 | 2468.1 | 2201.5 | 2278.2 | 2433.7 | 2510.3 |
| 22.5°  | 3071.2 | 3004.6 | 2950.2 | 2849.1 | 2419.2 | 2310.4 | 2325.9 | 2308.2 | 2014.9 | 1902.7 |
| 25°    | 3368.9 | 3292.3 | 3174.5 | 2644.7 | 2520.3 | 2495.9 | 2504.8 | 2198.2 | 1977.1 | 2009.4 |
| 27.5°  | 3749.9 | 3671.0 | 3090.1 | 2793.6 | 2769.1 | 2736.9 | 2561.4 | 2178.2 | 2208.2 | 2239.3 |
| 30°    | 4229.8 | 3815.4 | 3222.3 | 3131.2 | 3085.7 | 3052.4 | 2401.5 | 2432.6 | 2482.5 | 2521.4 |
| 32.5°  | 4697.4 | 3803.2 | 3601.1 | 3487.8 | 3431.1 | 2784.7 | 2713.6 | 2785.8 | 2836.9 | 2866.9 |
| 35°    | 4702.9 | 4238.6 | 4025.4 | 3879.9 | 3520.0 | 2993.5 | 3059.0 | 3180.1 | 3305.6 | 3328.9 |
| 37.5°  | 4830.7 | 4731.8 | 4487.5 | 4304.2 | 2618.1 | 3341.2 | 3485.6 | 3624.4 | 3749.9 | 3757.7 |
| 40°    | 5339.4 | 5232.8 | 5004.0 | 4600.8 | 2891.3 | 3407.8 | 3955.4 | 4112.0 | 4217.5 | 4212.0 |
| 42.5°  | 5847.0 | 5773.7 | 5536.0 | 4088.7 | 3257.8 | 2952.4 | 4448.6 | 4551.9 | 4618.5 | 4665.2 |
| 45°    | 6358.0 | 6284.7 | 5481.6 | 4489.7 | 3694.4 | 3233.4 | 4328.6 | 4914.0 | 4987.3 | 5010.6 |
| 47.5°  | 6756.7 | 6575.7 | 5022.8 | 5021.7 | 4239.8 | 3593.3 | 3574.4 | 5240.5 | 5305.0 | 5288.3 |
| 50°    | 7125.5 | 5870.3 | 5429.4 | 5196.1 | 4804.0 | 3932.1 | 3801.0 | 4409.7 | 5592.7 | 5568.2 |
| 52.5°  | 6483.5 | 5697.1 | 5778.2 | 4726.3 | 5257.2 | 4268.6 | 4056.5 | 3954.3 | 5081.7 | 5735.9 |
| 55°    | 5798.1 | 5909.2 | 6134.7 | 5192.8 | 3814.3 | 4377.5 | 4273.1 | 4069.8 | 3428.9 | 2885.7 |
| 57.5°  | 5917.0 | 6082.5 | 6093.6 | 5624.9 | 3947.6 | 2734.7 | 3502.2 | 3065.7 | 1937.2 | 1941.6 |
| 60°    | 5520.5 | 5735.9 | 4454.1 | 3749.9 | 2122.7 | 569.8  | 55.5   | 48.9   | 337.7  | 411.0  |
| 62.5°  | 4667.4 | 4967.3 | 4252.0 | 3266.7 | 1361.8 | 21.1   | 5.6    | 1.1    | 0.0    | 0.0    |
| 65°    | 3614.4 | 3975.4 | 3593.3 | 2819.1 | 1208.5 | 6.7    | 0.0    | 0.0    | 0.0    | 0.0    |
| 67.5°  | 2383.7 | 2709.1 | 2730.2 | 2358.1 | 1007.5 | 3.3    | 0.0    | 0.0    | 0.0    | 0.0    |
| 70°    | 998.6  | 1406.2 | 1699.5 | 1752.8 | 792.0  | 1.1    | 0.0    | 0.0    | 0.0    | 0.0    |
| 72.5°  | 288.8  | 446.5  | 817.5  | 1053.0 | 503.2  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°    | 192.2  | 205.5  | 236.6  | 474.3  | 251.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5°  | 158.8  | 162.2  | 135.5  | 130.0  | 72.2   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°    | 144.4  | 142.2  | 108.9  | 76.6   | 26.7   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5°  | 133.3  | 126.6  | 78.9   | 40.0   | 17.8   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°    | 90.0   | 88.9   | 35.5   | 24.4   | 3.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5°  | 24.4   | 31.1   | 7.8    | 3.3    | 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    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P579572

CATALOG NUMBER: CST-CA10-210-760-U-T5N-HSS-HM-EX180

**CANDELA DISTRIBUTION (continued):**

|        | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|--------|-----|------|------|------|------|------|------|------|------|------|
| 112.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 115°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 117.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 120°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 122.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 125°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 127.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 130°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 132.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 135°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 137.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 140°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 142.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 145°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 147.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 150°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 152.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 155°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 157.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 160°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 162.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 165°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 167.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 170°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 172.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 175°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 177.5° | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 180°   | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

LM-79-08: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

STREETWORKS

Report Number: SP1-2104-215-3

Luminaire Tested: CST-CA6-230-757-U-T4

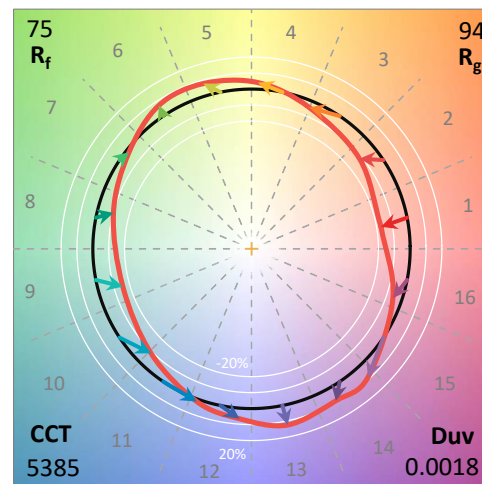
Test Date: 04/21/2021

### Test Information

Test Method: LM-79-08  
 Report Number: SP1-2104-215-3  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1  
 Measurement Geometry:  $4\pi$   
 Issue Date: 04/21/2021  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: STREETWORKS  
 Catalog Number: **CST-CA6-230-757-U-T4**  
 Description: STREETWORKS HIGH MAST LUMINAIRE

### Spectral Parameters

|                           |        |           |      |      |       |
|---------------------------|--------|-----------|------|------|-------|
| CCT (K):                  | 5385   | CRI (Ra): | 74.4 |      |       |
| CIE u':                   | 0.2065 | R1:       | 71.8 | R9:  | -25.2 |
| CIE v':                   | 0.4808 | R2:       | 79.4 | R10: | 50.6  |
| Duv:                      | 0.0018 | R3:       | 84.2 | R11: | 72.0  |
| CIE x:                    | 0.3351 | R4:       | 74.7 | R12: | 46.0  |
| CIE y:                    | 0.3467 | R5:       | 72.8 | R13: | 73.1  |
| CIE z:                    | 0.3182 | R6:       | 71.2 | R14: | 91.2  |
| Peak Wavelength (nm):     | 450    | R7:       | 82.2 |      |       |
| Dominant Wavelength (nm): | 560    | R8:       | 58.6 |      |       |
| Purity:                   | 4.7    |           |      |      |       |
| Rf:                       | 75.3   |           |      |      |       |
| Rg:                       | 94.2   |           |      |      |       |



### Test Conditions

Stabilization Time: 66M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 25.7/32%  
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2104-215-3

| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| Photometer                     | IN0058                | 1/31/2021        | 7/31/2021            |
| Power Meter                    | IN0071                | 12/1/2020        | 12/1/2021            |
| AC Power Source                | IN0063                | 12/1/2020        | 12/1/2021            |
| DC Power Source                | IN0208                | 12/1/2020        | 12/1/2021            |
| Sphere Thermometer             | IN0085                | 12/1/2020        | 12/1/2021            |
| Room Thermometer               | IN0046                | 12/1/2020        | 12/1/2021            |

REPORT NUMBER: SP1-2104-215-3

**CIE 1931 Chromaticity Diagram**



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



Point lies inside the ANSI 5700K 7-step quadrangle

REPORT NUMBER: SP1-2104-215-3

### Photopic Flux vs. Wavelength



#####

| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 16696            | 0.0              | 490       | 164243           | 23.3             | 620       | 415797           | 108.2            | 750       | 22190            | 0.0              | 880       | 22866            | 0.0              |
| 365       | 13447            | 0.0              | 495       | 207773           | 37.7             | 625       | 382869           | 84.5             | 755       | 18942            | 0.0              | 885       | 21901            | 0.0              |
| 370       | 14521            | 0.0              | 500       | 267487           | 59.0             | 630       | 344785           | 62.4             | 760       | 18760            | 0.0              | 890       | 20912            | 0.0              |
| 375       | 15598            | 0.0              | 505       | 333279           | 93.2             | 635       | 309549           | 46.5             | 765       | 19375            | 0.0              | 895       | 19858            | 0.0              |
| 380       | 16553            | 0.0              | 510       | 393084           | 135.0            | 640       | 280226           | 33.5             | 770       | 16788            | 0.0              | 900       | 21828            | 0.0              |
| 385       | 15196            | 0.0              | 515       | 446481           | 185.0            | 645       | 249624           | 24.0             | 775       | 17302            | 0.0              | 905       | 17086            | 0.0              |
| 390       | 13481            | 0.0              | 520       | 488198           | 236.7            | 650       | 224464           | 16.4             | 780       | 15672            | 0.0              | 910       | 17542            | 0.0              |
| 395       | 11977            | 0.0              | 525       | 518433           | 278.3            | 655       | 199646           | 11.5             | 785       | 14771            | 0.0              | 915       | 16185            | 0.0              |
| 400       | 11331            | 0.0              | 530       | 543281           | 319.9            | 660       | 175926           | 7.3              | 790       | 13984            | 0.0              | 920       | 17995            | 0.0              |
| 405       | 11814            | 0.0              | 535       | 561190           | 348.0            | 665       | 155139           | 4.9              | 795       | 14040            | 0.0              | 925       | 15557            | 0.0              |
| 410       | 16208            | 0.0              | 540       | 572451           | 373.0            | 670       | 134630           | 2.9              | 800       | 13342            | 0.0              | 930       | 26095            | 0.0              |
| 415       | 26808            | 0.0              | 545       | 585457           | 389.7            | 675       | 117218           | 2.0              | 805       | 14668            | 0.0              | 935       | 19199            | 0.0              |
| 420       | 50871            | 0.1              | 550       | 599090           | 407.1            | 680       | 102027           | 1.2              | 810       | 14789            | 0.0              | 940       | 23080            | 0.0              |
| 425       | 101020           | 0.5              | 555       | 616995           | 421.4            | 685       | 89213            | 0.8              | 815       | 17650            | 0.0              | 945       | 26343            | 0.0              |
| 430       | 192411           | 1.5              | 560       | 629425           | 427.7            | 690       | 78917            | 0.4              | 820       | 14937            | 0.0              | 950       | 29934            | 0.0              |
| 435       | 336902           | 4.0              | 565       | 636833           | 423.4            | 695       | 68780            | 0.3              | 825       | 16011            | 0.0              | 955       | 22346            | 0.0              |
| 440       | 581105           | 9.1              | 570       | 639836           | 416.0            | 700       | 60229            | 0.2              | 830       | 16981            | 0.0              | 960       | 16017            | 0.0              |
| 445       | 974221           | 20.3             | 575       | 636704           | 396.2            | 705       | 53321            | 0.1              | 835       | 15554            | 0.0              | 965       | 18299            | 0.0              |
| 450       | 1195987          | 31.0             | 580       | 633339           | 376.3            | 710       | 47871            | 0.1              | 840       | 16030            | 0.0              | 970       | 16401            | 0.0              |
| 455       | 889289           | 29.8             | 585       | 623206           | 346.3            | 715       | 44671            | 0.0              | 845       | 19004            | 0.0              | 975       | 23481            | 0.0              |
| 460       | 566512           | 23.2             | 590       | 607134           | 313.9            | 720       | 40236            | 0.0              | 850       | 18632            | 0.0              | 980       | 26457            | 0.0              |
| 465       | 410582           | 21.2             | 595       | 578226           | 274.1            | 725       | 35616            | 0.0              | 855       | 21549            | 0.0              | 985       | 32065            | 0.0              |
| 470       | 276356           | 17.2             | 600       | 554348           | 238.9            | 730       | 31102            | 0.0              | 860       | 21257            | 0.0              | 990       | 31414            | 0.0              |
| 475       | 187504           | 14.7             | 605       | 526616           | 203.9            | 735       | 28341            | 0.0              | 865       | 20272            | 0.0              | 995       | 30650            | 0.0              |
| 480       | 156769           | 14.9             | 610       | 490933           | 168.7            | 740       | 25553            | 0.0              | 870       | 20808            | 0.0              | 1000      | 26490            | 0.0              |
| 485       | 151040           | 17.9             | 615       | 453646           | 136.9            | 745       | 23976            | 0.0              | 875       | 22729            | 0.0              |           |                  |                  |

REPORT NUMBER: SP1-2104-215-3

### Scotopic Flux vs. Wavelength


**Scotopic Lumens: 72376.6**
**S/P: 1.89**

| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 16696            | 0.0              | 490       | 164243           | 252.9            | 620       | 415797           | 5.2              | 750       | 22190            | 0.0              | 880       | 22866            | 0.0              |
| 365       | 13447            | 0.0              | 495       | 207773           | 335.9            | 625       | 382869           | 3.2              | 755       | 18942            | 0.0              | 885       | 21901            | 0.0              |
| 370       | 14521            | 0.0              | 500       | 267487           | 447.4            | 630       | 344785           | 2.0              | 760       | 18760            | 0.0              | 890       | 20912            | 0.0              |
| 375       | 15598            | 0.0              | 505       | 333279           | 566.6            | 635       | 309549           | 1.2              | 765       | 19375            | 0.0              | 895       | 19858            | 0.0              |
| 380       | 16553            | 0.0              | 510       | 393084           | 666.2            | 640       | 280226           | 0.7              | 770       | 16788            | 0.0              | 900       | 21828            | 0.0              |
| 385       | 15196            | 0.0              | 515       | 446481           | 740.0            | 645       | 249624           | 0.4              | 775       | 17302            | 0.0              | 905       | 17086            | 0.0              |
| 390       | 13481            | 0.1              | 520       | 488198           | 776.0            | 650       | 224464           | 0.3              | 780       | 15672            | 0.0              | 910       | 17542            | 0.0              |
| 395       | 11977            | 0.1              | 525       | 518433           | 775.6            | 655       | 199646           | 0.2              | 785       | 14771            | 0.0              | 915       | 16185            | 0.0              |
| 400       | 11331            | 0.2              | 530       | 543281           | 749.0            | 660       | 175926           | 0.1              | 790       | 13984            | 0.0              | 920       | 17995            | 0.0              |
| 405       | 11814            | 0.4              | 535       | 561190           | 699.3            | 665       | 155139           | 0.1              | 795       | 14040            | 0.0              | 925       | 15557            | 0.0              |
| 410       | 16208            | 1.0              | 540       | 572451           | 632.6            | 670       | 134630           | 0.0              | 800       | 13342            | 0.0              | 930       | 26095            | 0.0              |
| 415       | 26808            | 2.8              | 545       | 585457           | 561.3            | 675       | 117218           | 0.0              | 805       | 14668            | 0.0              | 935       | 19199            | 0.0              |
| 420       | 50871            | 8.4              | 550       | 599090           | 489.9            | 680       | 102027           | 0.0              | 810       | 14789            | 0.0              | 940       | 23080            | 0.0              |
| 425       | 101020           | 24.7             | 555       | 616995           | 421.7            | 685       | 89213            | 0.0              | 815       | 17650            | 0.0              | 945       | 26343            | 0.0              |
| 430       | 192411           | 65.5             | 560       | 629425           | 351.8            | 690       | 78917            | 0.0              | 820       | 14937            | 0.0              | 950       | 29934            | 0.0              |
| 435       | 336902           | 150.6            | 565       | 636833           | 285.7            | 695       | 68780            | 0.0              | 825       | 16011            | 0.0              | 955       | 22346            | 0.0              |
| 440       | 581105           | 324.8            | 570       | 639836           | 225.8            | 700       | 60229            | 0.0              | 830       | 16981            | 0.0              | 960       | 16017            | 0.0              |
| 445       | 974221           | 652.3            | 575       | 636704           | 173.4            | 705       | 53321            | 0.0              | 835       | 15554            | 0.0              | 965       | 18299            | 0.0              |
| 450       | 1195987          | 927.0            | 580       | 633339           | 130.5            | 710       | 47871            | 0.0              | 840       | 16030            | 0.0              | 970       | 16401            | 0.0              |
| 455       | 889289           | 777.1            | 585       | 623206           | 95.2             | 715       | 44671            | 0.0              | 845       | 19004            | 0.0              | 975       | 23481            | 0.0              |
| 460       | 566512           | 547.2            | 590       | 607134           | 67.6             | 720       | 40236            | 0.0              | 850       | 18632            | 0.0              | 980       | 26457            | 0.0              |
| 465       | 410582           | 433.6            | 595       | 578226           | 46.1             | 725       | 35616            | 0.0              | 855       | 21549            | 0.0              | 985       | 32065            | 0.0              |
| 470       | 276356           | 318.2            | 600       | 554348           | 31.2             | 730       | 31102            | 0.0              | 860       | 21257            | 0.0              | 990       | 31414            | 0.0              |
| 475       | 187504           | 234.4            | 605       | 526616           | 20.7             | 735       | 28341            | 0.0              | 865       | 20272            | 0.0              | 995       | 30650            | 0.0              |
| 480       | 156769           | 211.8            | 610       | 490933           | 13.3             | 740       | 25553            | 0.0              | 870       | 20808            | 0.0              | 1000      | 26490            | 0.0              |
| 485       | 151040           | 218.9            | 615       | 453646           | 8.4              | 745       | 23976            | 0.0              | 875       | 22729            | 0.0              |           |                  |                  |

REPORT NUMBER: SP1-2104-215-3

### Melanopic Flux vs. Wavelength



**Melanopic Lumens: 29860.2**      **M/P: 0.78**

| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 16696            | 0.0              | 490       | 164243           | 136.7            | 620       | 415797           | 0.3              | 750       | 22190            | 0.0              | 880       | 22866            | 0.0              |
| 365       | 13447            | 0.0              | 495       | 207773           | 171.5            | 625       | 382869           | 0.2              | 755       | 18942            | 0.0              | 885       | 21901            | 0.0              |
| 370       | 14521            | 0.0              | 500       | 267487           | 215.0            | 630       | 344785           | 0.1              | 760       | 18760            | 0.0              | 890       | 20912            | 0.0              |
| 375       | 15598            | 0.0              | 505       | 333279           | 255.8            | 635       | 309549           | 0.1              | 765       | 19375            | 0.0              | 895       | 19858            | 0.0              |
| 380       | 16553            | 0.0              | 510       | 393084           | 282.2            | 640       | 280226           | 0.0              | 770       | 16788            | 0.0              | 900       | 21828            | 0.0              |
| 385       | 15196            | 0.0              | 515       | 446481           | 291.7            | 645       | 249624           | 0.0              | 775       | 17302            | 0.0              | 905       | 17086            | 0.0              |
| 390       | 13481            | 0.0              | 520       | 488198           | 284.2            | 650       | 224464           | 0.0              | 780       | 15672            | 0.0              | 910       | 17542            | 0.0              |
| 395       | 11977            | 0.1              | 525       | 518433           | 262.9            | 655       | 199646           | 0.0              | 785       | 14771            | 0.0              | 915       | 16185            | 0.0              |
| 400       | 11331            | 0.1              | 530       | 543281           | 234.8            | 660       | 175926           | 0.0              | 790       | 13984            | 0.0              | 920       | 17995            | 0.0              |
| 405       | 11814            | 0.2              | 535       | 561190           | 202.0            | 665       | 155139           | 0.0              | 795       | 14040            | 0.0              | 925       | 15557            | 0.0              |
| 410       | 16208            | 0.6              | 540       | 572451           | 167.5            | 670       | 134630           | 0.0              | 800       | 13342            | 0.0              | 930       | 26095            | 0.0              |
| 415       | 26808            | 1.8              | 545       | 585457           | 136.0            | 675       | 117218           | 0.0              | 805       | 14668            | 0.0              | 935       | 19199            | 0.0              |
| 420       | 50871            | 5.8              | 550       | 599090           | 107.5            | 680       | 102027           | 0.0              | 810       | 14789            | 0.0              | 940       | 23080            | 0.0              |
| 425       | 101020           | 15.7             | 555       | 616995           | 83.2             | 685       | 89213            | 0.0              | 815       | 17650            | 0.0              | 945       | 26343            | 0.0              |
| 430       | 192411           | 40.6             | 560       | 629425           | 62.1             | 690       | 78917            | 0.0              | 820       | 14937            | 0.0              | 950       | 29934            | 0.0              |
| 435       | 336902           | 89.9             | 565       | 636833           | 44.7             | 695       | 68780            | 0.0              | 825       | 16011            | 0.0              | 955       | 22346            | 0.0              |
| 440       | 581105           | 194.2            | 570       | 639836           | 31.3             | 700       | 60229            | 0.0              | 830       | 16981            | 0.0              | 960       | 16017            | 0.0              |
| 445       | 974221           | 384.3            | 575       | 636704           | 21.2             | 705       | 53321            | 0.0              | 835       | 15554            | 0.0              | 965       | 18299            | 0.0              |
| 450       | 1195987          | 551.1            | 580       | 633339           | 14.2             | 710       | 47871            | 0.0              | 840       | 16030            | 0.0              | 970       | 16401            | 0.0              |
| 455       | 889289           | 465.9            | 585       | 623206           | 9.3              | 715       | 44671            | 0.0              | 845       | 19004            | 0.0              | 975       | 23481            | 0.0              |
| 460       | 566512           | 333.8            | 590       | 607134           | 6.0              | 720       | 40236            | 0.0              | 850       | 18632            | 0.0              | 980       | 26457            | 0.0              |
| 465       | 410582           | 268.3            | 595       | 578226           | 3.7              | 725       | 35616            | 0.0              | 855       | 21549            | 0.0              | 985       | 32065            | 0.0              |
| 470       | 276356           | 197.8            | 600       | 554348           | 2.3              | 730       | 31102            | 0.0              | 860       | 21257            | 0.0              | 990       | 31414            | 0.0              |
| 475       | 187504           | 143.2            | 605       | 526616           | 1.5              | 735       | 28341            | 0.0              | 865       | 20272            | 0.0              | 995       | 30650            | 0.0              |
| 480       | 156769           | 126.0            | 610       | 490933           | 0.9              | 740       | 25553            | 0.0              | 870       | 20808            | 0.0              | 1000      | 26490            | 0.0              |
| 485       | 151040           | 124.5            | 615       | 453646           | 0.5              | 745       | 23976            | 0.0              | 875       | 22729            | 0.0              |           |                  |                  |

REPORT NUMBER: SP1-2104-215-3

TM-30-18

### Summary

$R_f = 75.3$   
 $R_g = 94.2$   
 CIE  $R_a = 74.4$   
 $R_g = -25.2$

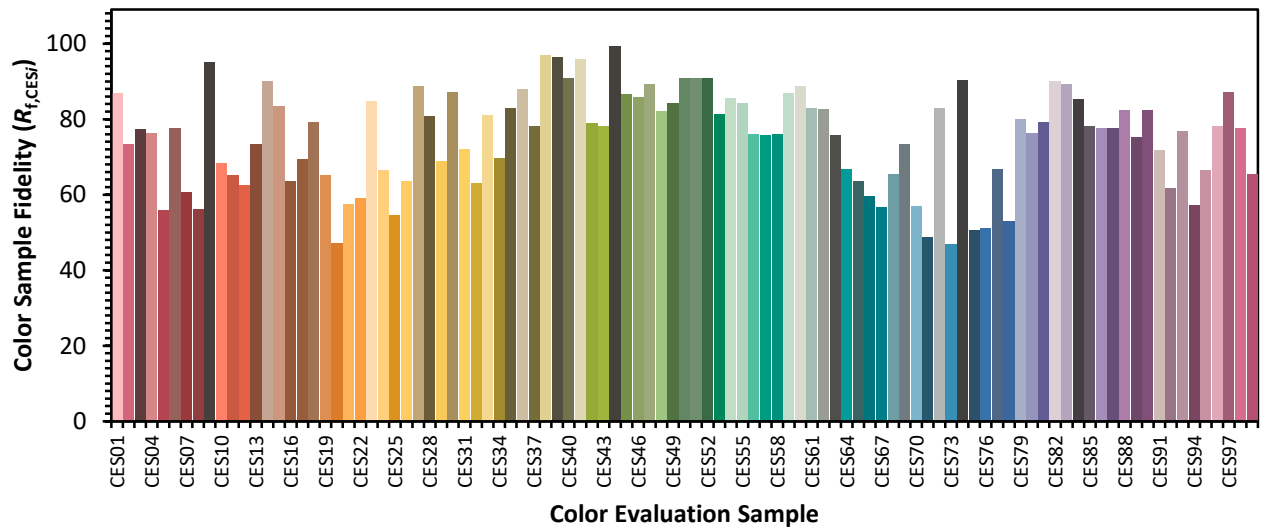


### Color Vector Graphics



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

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 64 | CES51 = 91 | CES76 = 51 |
| CES02 = 59 | CES27 = 89 | CES52 = 91 | CES77 = 67 |
| CES03 = 30 | CES28 = 81 | CES53 = 81 | CES78 = 53 |
| CES04 = 69 | CES29 = 69 | CES54 = 86 | CES79 = 80 |
| CES05 = 46 | CES30 = 87 | CES55 = 84 | CES80 = 76 |
| CES06 = 50 | CES31 = 72 | CES56 = 76 | CES81 = 79 |
| CES07 = 38 | CES32 = 63 | CES57 = 76 | CES82 = 90 |
| CES08 = 38 | CES33 = 81 | CES58 = 76 | CES83 = 89 |
| CES09 = 29 | CES34 = 70 | CES59 = 87 | CES84 = 85 |
| CES10 = 72 | CES35 = 83 | CES60 = 89 | CES85 = 78 |
| CES11 = 55 | CES36 = 88 | CES61 = 83 | CES86 = 78 |
| CES12 = 61 | CES37 = 78 | CES62 = 83 | CES87 = 77 |
| CES13 = 41 | CES38 = 97 | CES63 = 76 | CES88 = 82 |
| CES14 = 74 | CES39 = 96 | CES64 = 67 | CES89 = 75 |
| CES15 = 70 | CES40 = 91 | CES65 = 64 | CES90 = 82 |
| CES16 = 46 | CES41 = 96 | CES66 = 60 | CES91 = 72 |
| CES17 = 48 | CES42 = 79 | CES67 = 57 | CES92 = 62 |
| CES18 = 55 | CES43 = 78 | CES68 = 65 | CES93 = 77 |
| CES19 = 71 | CES44 = 99 | CES69 = 73 | CES94 = 57 |
| CES20 = 64 | CES45 = 87 | CES70 = 57 | CES95 = 66 |
| CES21 = 85 | CES46 = 86 | CES71 = 49 | CES96 = 78 |
| CES22 = 77 | CES47 = 89 | CES72 = 83 | CES97 = 87 |
| CES23 = 91 | CES48 = 82 | CES73 = 47 | CES98 = 78 |
| CES24 = 90 | CES49 = 84 | CES74 = 90 | CES99 = 65 |
| CES25 = 71 | CES50 = 91 | CES75 = 51 |            |



**Color Rendition by Hue-Angle Bin**


**Measure Comparisons**



(END OF REPORT)