

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: P522165

Luminaire Tested: **CST-CA10-760-727-U-T5R-HSS-HM-EX120**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522165  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA10-760-727-U-T5R-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 69497 lumens  
Efficiency: N/A  
Efficacy: 91.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B5 - U2 - G5

Input Watts (W): 761.9  
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

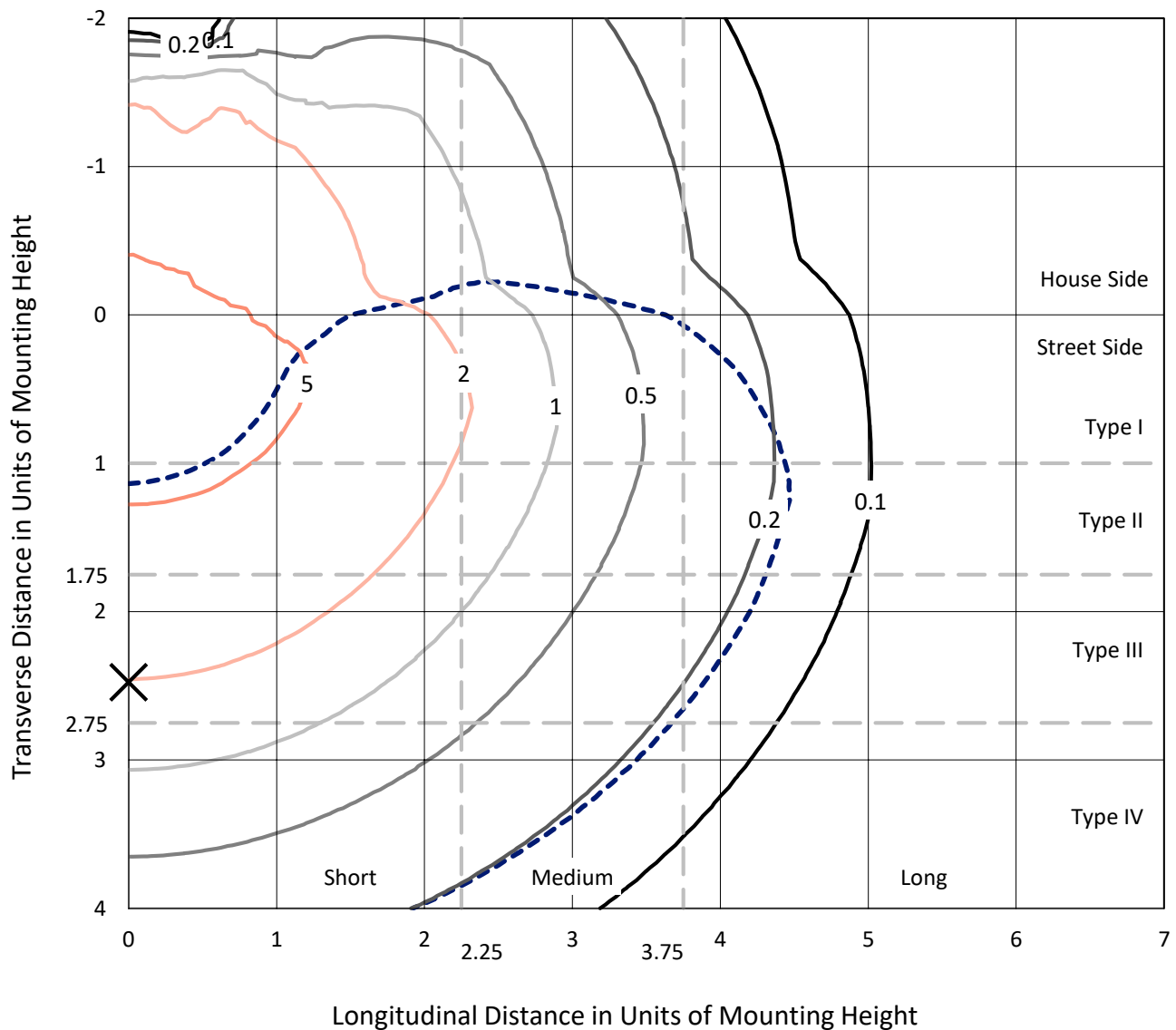


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## Iso-Footcandle Lines of Horizontal Illumination

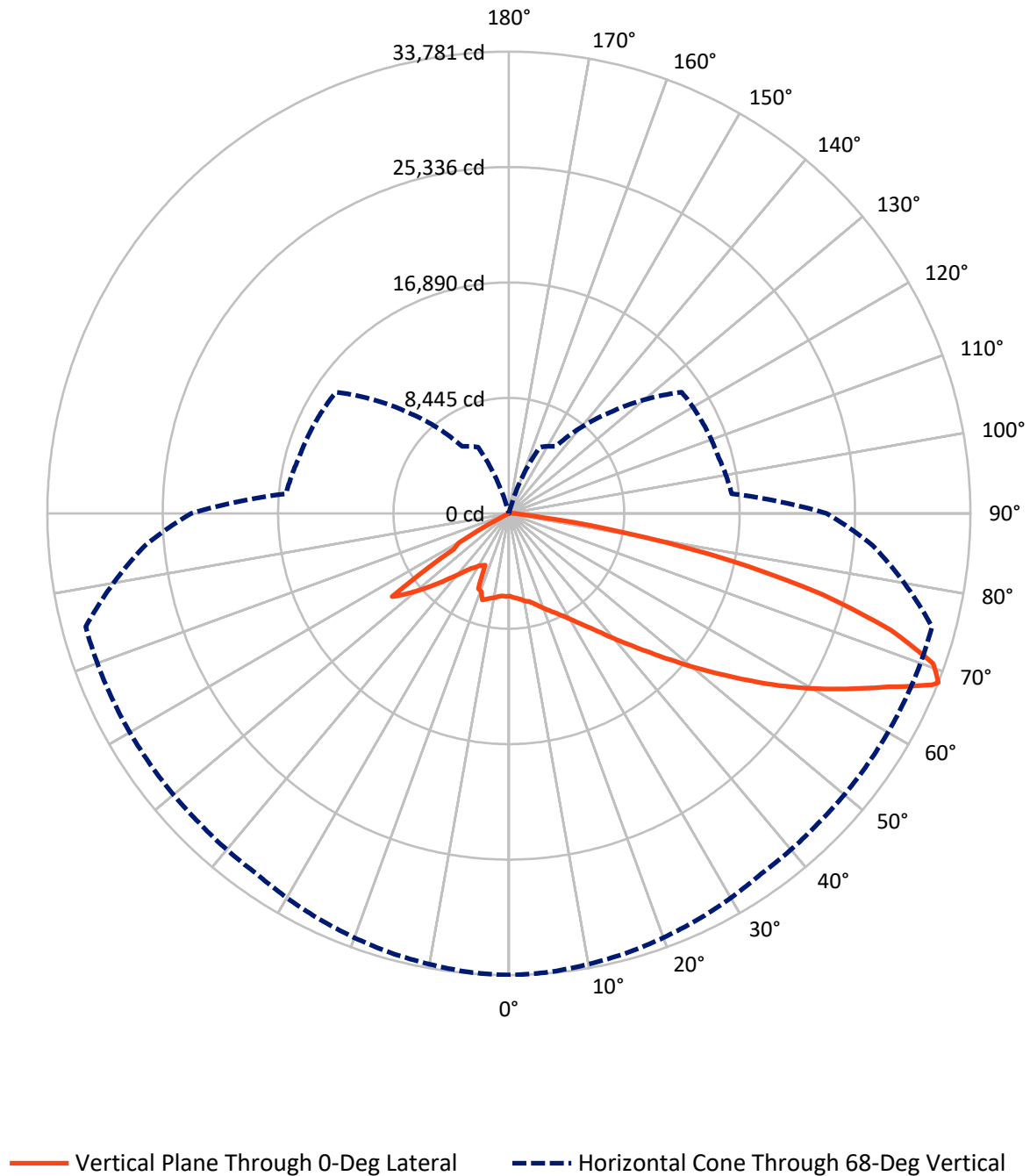
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.9 fc  
 Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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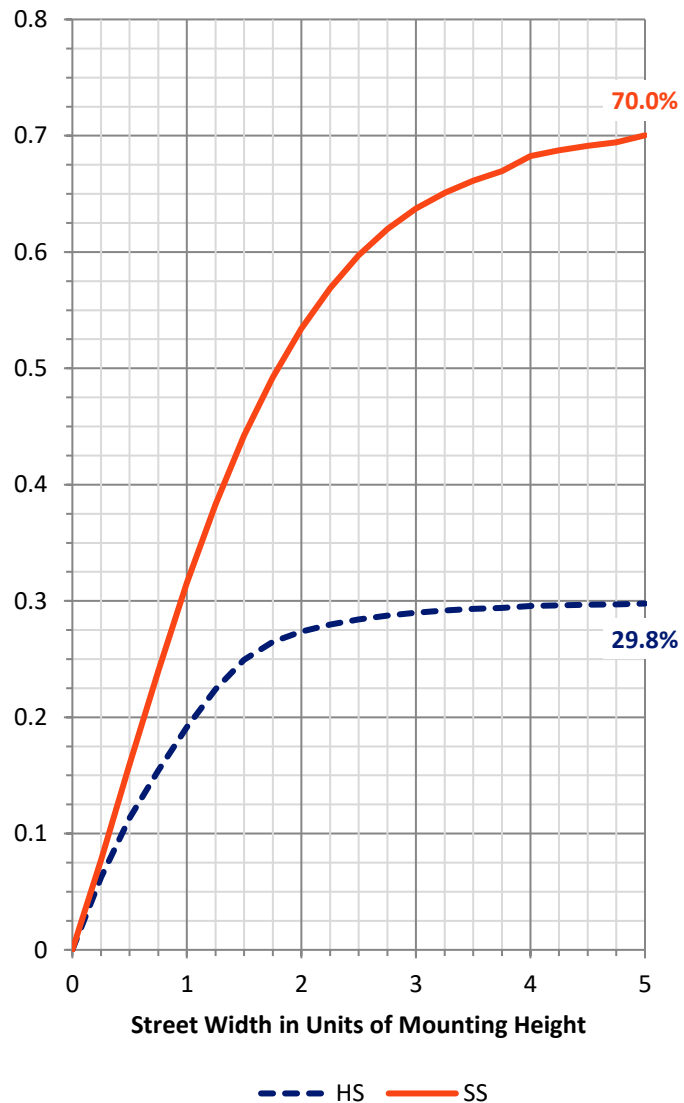
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 20716.3  | 3.2    | 20719.5 |
|                    | % Fixture | 29.8     | 0.0    | 29.8    |
| <b>Street Side</b> | Lumens    | 48749.1  | 28.5   | 48777.5 |
|                    | % Fixture | 70.1     | 0.0    | 70.2    |
| <b>Total</b>       | Lumens    | 69465.3  | 31.7   | 69497.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 588.1   | 0.8       |
| 10°-20°   | 1871.6  | 2.7       |
| 20°-30°   | 3205.8  | 4.6       |
| 30°-40°   | 5200.5  | 7.5       |
| 40°-50°   | 8770.5  | 12.6      |
| 50°-60°   | 14296.1 | 20.6      |
| 60°-70°   | 19173.4 | 27.6      |
| 70°-80°   | 14892.7 | 21.4      |
| 80°-90°   | 1466.7  | 2.1       |
| 90°-100°  | 27.9    | 0.0       |
| 100°-110° | 1.6     | 0.0       |
| 110°-120° | 0.4     | 0.0       |
| 120°-130° | 0.3     | 0.0       |
| 130°-140° | 0.4     | 0.0       |
| 140°-150° | 0.4     | 0.0       |
| 150°-160° | 0.4     | 0.0       |
| 160°-170° | 0.3     | 0.0       |
| 170°-180° | 0.1     | 0.0       |
| 0°-90°    | 69465.3 | 100.0     |
| 0°-180°   | 69497.0 | 100.0     |

**Coefficient of Utilization**



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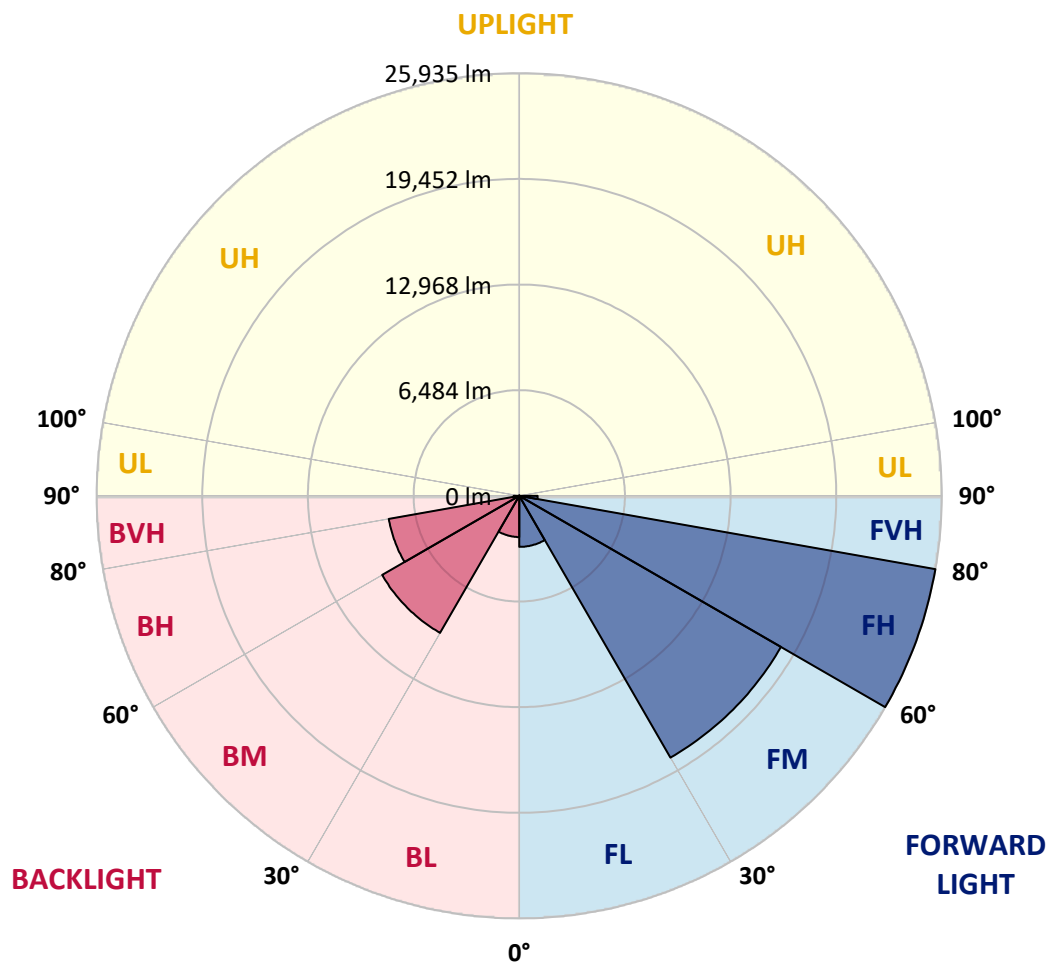
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |       |        |
|------|-------------|---------|-----------|-------------------------|-------|--------|
|      |             |         |           | B                       | U     | G      |
| FL   | (0°-30°)    | 3134.7  | 4.5       |                         |       |        |
| FM   | (30°-60°)   | 18551.2 | 26.7      |                         |       |        |
| FH   | (60°-80°)   | 25935.5 | 37.3      |                         |       | G5     |
| FVH  | (80°-90°)   | 1127.7  | 1.6       |                         |       | G5     |
| BL   | (0°-30°)    | 2530.7  | 3.6       | B4/5000                 |       |        |
| BM   | (30°-60°)   | 9715.9  | 14.0      | B5                      |       |        |
| BH   | (60°-80°)   | 8130.7  | 11.7      | B5                      |       | G5     |
| BVH  | (80°-90°)   | 339.0   | 0.5       |                         |       | G3/500 |
| UL   | (90°-100°)  | 27.9    | 0.0       |                         | U2/50 |        |
| UH   | (100°-180°) | 3.8     | 0.0       |                         | U1/10 |        |

**BUG Rating: B5-U2-G5**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     | 90°     |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°     | 6058.9  | 6058.9  | 6058.9  | 6058.9  | 6058.9  | 6058.9  | 6058.9  | 6058.9  | 6058.9  | 6058.9  | 6058.9  |
| 2.5°   | 6159.5  | 6142.2  | 6139.3  | 6173.8  | 6064.6  | 6119.2  | 6070.4  | 6110.6  | 6084.7  | 6104.8  | 6107.7  |
| 5°     | 6242.8  | 6211.2  | 6191.1  | 6231.3  | 6162.3  | 6188.2  | 6133.6  | 6150.8  | 6079.0  | 6119.2  | 6125.0  |
| 7.5°   | 6363.5  | 6311.8  | 6306.0  | 6317.5  | 6257.2  | 6277.3  | 6188.2  | 6208.3  | 6156.6  | 6133.6  | 6153.7  |
| 10°    | 6527.4  | 6478.5  | 6441.1  | 6467.0  | 6386.5  | 6398.0  | 6303.2  | 6306.0  | 6268.7  | 6225.6  | 6260.0  |
| 12.5°  | 6619.3  | 6625.1  | 6607.8  | 6627.9  | 6561.8  | 6524.5  | 6458.4  | 6435.4  | 6398.0  | 6346.3  | 6329.0  |
| 15°    | 6849.3  | 6837.8  | 6803.3  | 6834.9  | 6826.3  | 6791.8  | 6711.3  | 6659.6  | 6579.1  | 6550.3  | 6521.6  |
| 17.5°  | 7130.9  | 7093.6  | 7064.8  | 7105.1  | 7148.2  | 7076.3  | 6998.7  | 6926.9  | 6820.5  | 6763.0  | 6728.5  |
| 20°    | 7427.0  | 7401.1  | 7372.4  | 7435.6  | 7450.0  | 7395.4  | 7337.9  | 7231.5  | 7107.9  | 7033.2  | 6961.4  |
| 22.5°  | 7757.5  | 7705.8  | 7714.4  | 7797.8  | 7771.9  | 7746.0  | 7671.3  | 7585.1  | 7435.6  | 7340.8  | 7133.8  |
| 25°    | 8099.5  | 8070.8  | 8111.0  | 8148.4  | 8128.3  | 8073.7  | 8036.3  | 7973.1  | 7806.4  | 7691.4  | 7389.6  |
| 27.5°  | 8524.9  | 8478.9  | 8530.7  | 8545.1  | 8527.8  | 8513.4  | 8461.7  | 8412.8  | 8231.8  | 8102.4  | 7725.9  |
| 30°    | 9025.0  | 8970.4  | 9053.8  | 9033.7  | 9016.4  | 9027.9  | 8996.3  | 8890.0  | 8729.0  | 8553.7  | 8177.2  |
| 32.5°  | 9620.0  | 9548.2  | 9643.0  | 9599.9  | 9559.7  | 9640.1  | 9565.4  | 9464.8  | 9275.1  | 9071.0  | 8703.1  |
| 35°    | 10309.8 | 10312.7 | 10361.6 | 10289.7 | 10275.3 | 10361.6 | 10312.7 | 10189.1 | 10013.8 | 9801.1  | 9278.0  |
| 37.5°  | 11146.2 | 11123.2 | 11246.8 | 11212.3 | 11160.6 | 11275.6 | 11289.9 | 11134.7 | 10818.6 | 10608.7 | 9990.8  |
| 40°    | 12163.7 | 12157.9 | 12198.2 | 12203.9 | 12189.6 | 12244.2 | 12270.0 | 12063.1 | 11859.0 | 11542.9 | 9427.4  |
| 42.5°  | 13250.2 | 13273.1 | 13345.0 | 13293.3 | 13362.2 | 13434.1 | 13442.7 | 13270.3 | 12977.1 | 11074.4 | 10013.8 |
| 45°    | 14555.0 | 14626.9 | 14675.8 | 14664.3 | 14695.9 | 14799.4 | 14808.0 | 14716.0 | 14428.6 | 11997.0 | 11077.2 |
| 47.5°  | 16052.5 | 16121.5 | 16135.9 | 16227.8 | 16199.1 | 16345.7 | 16325.6 | 16328.4 | 16020.9 | 13281.8 | 12235.6 |
| 50°    | 17774.2 | 17805.8 | 17923.6 | 17975.4 | 17903.5 | 18101.8 | 18050.1 | 18113.3 | 17733.9 | 14753.4 | 13480.1 |
| 52.5°  | 19602.2 | 19656.8 | 19705.6 | 19901.1 | 19809.1 | 19981.6 | 19912.6 | 20059.2 | 19619.4 | 16250.8 | 14862.6 |
| 55°    | 21680.2 | 21688.9 | 21772.2 | 21970.5 | 21849.8 | 22056.8 | 21956.2 | 22010.8 | 21660.1 | 17906.4 | 16302.6 |
| 57.5°  | 23881.9 | 23853.1 | 23884.8 | 24042.8 | 23933.6 | 24088.8 | 24048.6 | 24100.3 | 23772.7 | 19648.2 | 17354.5 |
| 60°    | 26060.5 | 26017.4 | 26063.4 | 26169.8 | 26020.3 | 26287.6 | 26143.9 | 26192.8 | 25839.2 | 21427.3 | 18854.9 |
| 62.5°  | 28250.7 | 28219.1 | 28167.3 | 28273.7 | 28055.3 | 28193.2 | 28253.6 | 28173.1 | 27862.7 | 23036.9 | 20159.8 |
| 65°    | 30601.8 | 30570.2 | 30380.5 | 30446.6 | 30055.7 | 29989.6 | 30012.6 | 30038.5 | 29831.5 | 24632.1 | 21591.1 |
| 67.5°  | 33458.8 | 33412.8 | 33056.4 | 32608.0 | 32044.7 | 31921.1 | 31932.6 | 32001.6 | 32030.3 | 26684.3 | 23266.8 |
| 68°    | 33780.7 | 33697.3 | 33300.7 | 32780.5 | 32191.3 | 32047.5 | 32033.2 | 32047.5 | 32061.9 | 26701.5 | 23249.6 |
| 70°    | 32958.7 | 32927.1 | 32625.3 | 31995.8 | 31392.2 | 31047.3 | 30748.4 | 30736.9 | 30598.9 | 25336.2 | 21964.8 |
| 72.5°  | 29248.1 | 29207.8 | 28848.5 | 28403.0 | 28029.4 | 27489.0 | 27101.0 | 27124.0 | 26896.9 | 22393.0 | 19225.7 |
| 75°    | 23669.2 | 23666.3 | 23235.2 | 22861.5 | 22867.3 | 22827.0 | 22697.7 | 22924.8 | 22689.1 | 18992.8 | 16397.4 |
| 77.5°  | 16495.1 | 16552.6 | 16523.9 | 16305.4 | 16613.0 | 17038.4 | 17501.1 | 17938.0 | 17802.9 | 15003.4 | 13074.8 |
| 80°    | 8616.9  | 8777.9  | 9347.0  | 9372.8  | 9588.4  | 10002.3 | 10318.4 | 10611.6 | 10631.7 | 8513.4  | 7553.4  |
| 82.5°  | 2290.8  | 2339.6  | 2532.2  | 2477.6  | 2460.3  | 2543.7  | 2612.7  | 2621.3  | 2627.0  | 2218.9  | 2072.3  |
| 85°    | 712.8   | 732.9   | 709.9   | 678.3   | 629.5   | 574.8   | 560.5   | 457.0   | 362.2   | 298.9   | 261.6   |
| 87.5°  | 505.9   | 540.4   | 488.6   | 459.9   | 408.1   | 388.0   | 347.8   | 273.1   | 212.7   | 149.5   | 100.6   |
| 90°    | 261.6   | 267.3   | 238.6   | 204.1   | 189.7   | 178.2   | 152.3   | 109.2   | 54.6    | 28.7    | 25.9    |
| 92.5°  | 132.2   | 135.1   | 117.8   | 100.6   | 86.2    | 74.7    | 57.5    | 31.6    | 17.2    | 8.6     | 2.9     |
| 95°    | 51.7    | 54.6    | 48.9    | 43.1    | 34.5    | 25.9    | 23.0    | 17.2    | 11.5    | 5.7     | 2.9     |
| 97.5°  | 17.2    | 17.2    | 17.2    | 14.4    | 14.4    | 14.4    | 14.4    | 11.5    | 8.6     | 5.7     | 2.9     |
| 100°   | 0.0     | 0.0     | 0.0     | 2.9     | 5.7     | 8.6     | 8.6     | 8.6     | 5.7     | 2.9     | 2.9     |
| 102.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 2.9     | 5.7     | 5.7     | 5.7     | 2.9     | 2.9     |
| 105°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 2.9     | 2.9     | 2.9     | 2.9     | 2.9     | 2.9     |
| 107.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 2.9     | 2.9     | 2.9     | 2.9     | 2.9     |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 5°  | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 110°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 |
| 112.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 |
| 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 | 2.9 |
| 130°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 |
| 132.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 |
| 135°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 |
| 137.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 |
| 140°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 |
| 142.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 |
| 145°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 |
| 147.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 |
| 150°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 | 2.9 |
| 152.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 | 2.9 |
| 155°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 | 2.9 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 | 2.9 |
| 160°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 | 2.9 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 | 2.9 |
| 165°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 |
| 170°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 |
| 175°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 |
| 180°   | 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):**

|        | 95°     | 105°    | 115°    | 125°    | 135°    | 145°    | 155°    | 165°   | 175°   | 180°    |
|--------|---------|---------|---------|---------|---------|---------|---------|--------|--------|---------|
| 0°     | 6058.9  | 6058.9  | 6058.9  | 6058.9  | 6058.9  | 6058.9  | 6058.9  | 6058.9 | 6058.9 | 6058.9  |
| 2.5°   | 6093.3  | 6076.1  | 6084.7  | 6012.9  | 6030.1  | 5984.1  | 6081.8  | 6056.0 | 6044.5 | 6084.7  |
| 5°     | 6107.7  | 6044.5  | 6096.2  | 6047.4  | 6056.0  | 5989.9  | 6070.4  | 6038.7 | 6035.9 | 6058.9  |
| 7.5°   | 6113.5  | 6081.8  | 6130.7  | 6050.2  | 6076.1  | 6050.2  | 6110.6  | 6079.0 | 6107.7 | 6127.8  |
| 10°    | 6193.9  | 6176.7  | 6170.9  | 6142.2  | 6162.3  | 6104.8  | 6179.6  | 6179.6 | 6193.9 | 6248.6  |
| 12.5°  | 6311.8  | 6288.8  | 6274.4  | 6222.7  | 6242.8  | 6225.6  | 6285.9  | 6297.4 | 6323.3 | 6346.3  |
| 15°    | 6472.7  | 6432.5  | 6418.1  | 6372.1  | 6386.5  | 6383.6  | 6426.8  | 6429.6 | 6487.1 | 6484.2  |
| 17.5°  | 6679.7  | 6622.2  | 6639.4  | 6605.0  | 6607.8  | 6584.8  | 6561.8  | 6561.8 | 6613.6 | 6625.1  |
| 20°    | 6926.9  | 6599.2  | 6168.1  | 5926.6  | 5883.5  | 5915.1  | 6038.7  | 6242.8 | 5987.0 | 6058.9  |
| 22.5°  | 6481.4  | 6185.3  | 6165.2  | 6110.6  | 6076.1  | 5305.8  | 5107.5  | 5044.3 | 5374.8 | 5943.9  |
| 25°    | 6538.8  | 6412.4  | 6375.0  | 6306.0  | 5288.6  | 5279.9  | 5222.5  | 5127.6 | 4190.6 | 4170.5  |
| 27.5°  | 6843.5  | 6719.9  | 6659.6  | 5524.2  | 5501.3  | 5498.4  | 5412.2  | 4460.8 | 4245.2 | 4274.0  |
| 30°    | 7199.9  | 7056.2  | 5975.5  | 5803.0  | 5782.9  | 5736.9  | 5242.6  | 4406.2 | 4403.3 | 4406.2  |
| 32.5°  | 7610.9  | 7133.8  | 6148.0  | 6139.3  | 6150.8  | 6010.0  | 4644.7  | 4627.5 | 4624.6 | 4653.4  |
| 35°    | 8174.3  | 6619.3  | 6579.1  | 6622.2  | 6561.8  | 5196.6  | 4923.5  | 4914.9 | 4917.8 | 4903.4  |
| 37.5°  | 7800.6  | 7136.7  | 7128.1  | 7128.1  | 6987.2  | 5317.3  | 5262.7  | 5302.9 | 5297.2 | 5277.1  |
| 40°    | 7958.7  | 7763.3  | 7711.5  | 7694.3  | 5906.5  | 5736.9  | 5705.3  | 5757.1 | 5765.7 | 5780.1  |
| 42.5°  | 8726.1  | 8547.9  | 8522.1  | 8318.0  | 6426.8  | 6372.1  | 6274.4  | 6329.0 | 6323.3 | 6340.5  |
| 45°    | 9668.9  | 9548.2  | 9436.1  | 7211.4  | 7128.1  | 7059.1  | 6958.5  | 7021.7 | 7039.0 | 7027.5  |
| 47.5°  | 10766.8 | 10634.6 | 9824.1  | 7930.0  | 7927.1  | 7872.5  | 7760.4  | 7812.1 | 7803.5 | 7803.5  |
| 50°    | 11870.5 | 11726.8 | 8924.5  | 8844.0  | 8815.2  | 8729.0  | 8637.0  | 8645.7 | 8648.5 | 8677.3  |
| 52.5°  | 13103.6 | 10473.7 | 9878.7  | 9717.7  | 9740.7  | 9683.2  | 9594.1  | 7263.2 | 9551.0 | 9576.9  |
| 55°    | 12247.0 | 10962.3 | 10927.8 | 10715.1 | 10769.7 | 10695.0 | 10637.5 | 7165.4 | 9499.3 | 10496.6 |
| 57.5°  | 12109.1 | 12017.1 | 11988.4 | 11769.9 | 11838.9 | 11129.0 | 11660.7 | 7840.9 | 6570.5 | 4799.9  |
| 60°    | 13163.9 | 13066.2 | 13049.0 | 12856.4 | 12850.6 | 8844.0  | 10600.1 | 5377.7 | 4202.1 | 4230.9  |
| 62.5°  | 14187.1 | 14029.1 | 14072.2 | 13845.1 | 9760.8  | 5389.2  | 4751.1  | 120.7  | 192.6  | 204.1   |
| 65°    | 15328.2 | 15063.8 | 15106.9 | 14897.1 | 10068.4 | 5682.3  | 5136.2  | 63.2   | 54.6   | 51.7    |
| 67.5°  | 16426.2 | 15963.4 | 15742.1 | 15520.8 | 10456.4 | 5984.1  | 5351.8  | 17.2   | 0.0    | 0.0     |
| 68°    | 16371.6 | 15882.9 | 15655.9 | 15446.1 | 10416.2 | 5975.5  | 5340.3  | 17.2   | 0.0    | 0.0     |
| 70°    | 15448.9 | 15009.2 | 14793.6 | 14632.6 | 9944.8  | 5771.4  | 5124.7  | 17.2   | 0.0    | 0.0     |
| 72.5°  | 13506.0 | 13261.6 | 13123.7 | 12982.8 | 8835.3  | 5162.1  | 4595.9  | 17.2   | 0.0    | 0.0     |
| 75°    | 11476.8 | 11407.8 | 11321.5 | 11011.1 | 7363.7  | 4225.1  | 3776.7  | 17.2   | 0.0    | 0.0     |
| 77.5°  | 9094.0  | 9091.2  | 8881.3  | 8516.3  | 5544.4  | 3101.3  | 2785.1  | 14.4   | 0.0    | 0.0     |
| 80°    | 4917.8  | 5360.4  | 5199.5  | 5012.6  | 3144.4  | 1687.2  | 1606.7  | 11.5   | 0.0    | 0.0     |
| 82.5°  | 1382.5  | 1307.8  | 1256.0  | 1175.6  | 661.1   | 367.9   | 359.3   | 11.5   | 0.0    | 0.0     |
| 85°    | 192.6   | 212.7   | 235.7   | 267.3   | 152.3   | 97.7    | 86.2    | 5.7    | 0.0    | 0.0     |
| 87.5°  | 109.2   | 123.6   | 152.3   | 158.1   | 57.5    | 46.0    | 14.4    | 0.0    | 0.0    | 0.0     |
| 90°    | 23.0    | 25.9    | 28.7    | 28.7    | 11.5    | 11.5    | 0.0     | 0.0    | 0.0    | 0.0     |
| 92.5°  | 0.0     | 2.9     | 2.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0     |
| 95°    | 2.9     | 2.9     | 2.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0     |
| 97.5°  | 2.9     | 2.9     | 2.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0     |
| 100°   | 2.9     | 2.9     | 2.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0     |
| 102.5° | 2.9     | 2.9     | 2.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0     |
| 105°   | 2.9     | 2.9     | 2.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0     |
| 107.5° | 2.9     | 2.9     | 2.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0     |



REPORT NUMBER: P522165

CATALOG NUMBER: CST-CA10-760-727-U-T5R-HSS-HM-EX120

**CANDELA DISTRIBUTION (continued):**

|        | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|--------|-----|------|------|------|------|------|------|------|------|------|
| 110°   | 2.9 | 2.9  | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 112.5° | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 115°   | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 117.5° | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 120°   | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 122.5° | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 125°   | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 127.5° | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 130°   | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 132.5° | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 135°   | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 137.5° | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 140°   | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 142.5° | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 145°   | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 147.5° | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 150°   | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 152.5° | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 155°   | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 157.5° | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 160°   | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 162.5° | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 165°   | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 167.5° | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 170°   | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 172.5° | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 175°   | 2.9 | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 177.5° | 2.9 | 2.9  | 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  |

Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

STREETWORKS

Report Number: SP1-2104-215-5

Luminaire Tested: CST-CA6-230-727-U-T4

Test Date: 04/22/2021

### Test Information

Test Method: LM-79-08  
 Report Number: SP1-2104-215-5  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1  
 Measurement Geometry:  $4\pi$   
 Issue Date: 04/22/2021  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: STREETWORKS  
 Catalog Number: **CST-CA6-230-727-U-T4**  
 Description: STREETWORKS HIGH MAST LUMINAIRE

### Spectral Parameters

|                           |         |           |      |      |       |
|---------------------------|---------|-----------|------|------|-------|
| CCT (K):                  | 2613    | CRI (Ra): | 72.6 |      |       |
| CIE u':                   | 0.2668  | R1:       | 69.4 | R9:  | -28.6 |
| CIE v':                   | 0.5272  | R2:       | 84.5 | R10: | 65.5  |
| Duv:                      | -0.0012 | R3:       | 95.0 | R11: | 63.4  |
| CIE x:                    | 0.4648  | R4:       | 67.5 | R12: | 56.9  |
| CIE y:                    | 0.4082  | R5:       | 68.5 | R13: | 72.3  |
| CIE z:                    | 0.1270  | R6:       | 79.7 | R14: | 97.8  |
| Peak Wavelength (nm):     | 603     | R7:       | 75.4 |      |       |
| Dominant Wavelength (nm): | 585     | R8:       | 41.2 |      |       |
| Purity:                   | 62.2    |           |      |      |       |
|                           |         |           |      |      |       |
| Rf:                       | 75.3    |           |      |      |       |
| Rg:                       | 95.8    |           |      |      |       |



### Test Conditions

Stabilization Time: 121M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 25.5/25%  
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2104-215-5

| 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: SP1-2104-215-5

**CIE 1931 Chromaticity Diagram**



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



Point lies inside the ANSI 2700K 7-step quadrangle

REPORT NUMBER: SP1-2104-215-5

### 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       | 11220            | 0.0              | 490       | 69401            | 9.9              | 620       | 692536           | 180.2            | 750       | 31541            | 0.0              | 880       | 18253            | 0.0              |
| 365       | 10182            | 0.0              | 495       | 90053            | 16.3             | 625       | 651217           | 143.7            | 755       | 28760            | 0.0              | 885       | 21369            | 0.0              |
| 370       | 10420            | 0.0              | 500       | 121940           | 26.9             | 630       | 598624           | 108.3            | 760       | 26534            | 0.0              | 890       | 16745            | 0.0              |
| 375       | 12164            | 0.0              | 505       | 159641           | 44.7             | 635       | 546251           | 82.1             | 765       | 24261            | 0.0              | 895       | 14205            | 0.0              |
| 380       | 12715            | 0.0              | 510       | 197034           | 67.7             | 640       | 499000           | 59.6             | 770       | 21584            | 0.0              | 900       | 14113            | 0.0              |
| 385       | 11387            | 0.0              | 515       | 232805           | 96.4             | 645       | 451749           | 43.5             | 775       | 20805            | 0.0              | 905       | 13457            | 0.0              |
| 390       | 10503            | 0.0              | 520       | 263165           | 127.6            | 650       | 406338           | 29.7             | 780       | 17853            | 0.0              | 910       | 12811            | 0.0              |
| 395       | 8950             | 0.0              | 525       | 288012           | 154.6            | 655       | 360522           | 20.7             | 785       | 17033            | 0.0              | 915       | 17471            | 0.0              |
| 400       | 8271             | 0.0              | 530       | 310825           | 183.0            | 660       | 321663           | 13.4             | 790       | 16986            | 0.0              | 920       | 15483            | 0.0              |
| 405       | 7777             | 0.0              | 535       | 330894           | 205.2            | 665       | 283133           | 9.0              | 795       | 16655            | 0.0              | 925       | 19757            | 0.0              |
| 410       | 9299             | 0.0              | 540       | 349086           | 227.5            | 670       | 244093           | 5.3              | 800       | 15070            | 0.0              | 930       | 16307            | 0.0              |
| 415       | 13971            | 0.0              | 545       | 372506           | 247.9            | 675       | 210996           | 3.5              | 805       | 15366            | 0.0              | 935       | 18687            | 0.0              |
| 420       | 23461            | 0.1              | 550       | 403721           | 274.3            | 680       | 183942           | 2.1              | 810       | 15472            | 0.0              | 940       | 17986            | 0.0              |
| 425       | 41887            | 0.2              | 555       | 442032           | 301.9            | 685       | 158373           | 1.4              | 815       | 17184            | 0.0              | 945       | 15266            | 0.0              |
| 430       | 69840            | 0.6              | 560       | 485515           | 329.9            | 690       | 137120           | 0.8              | 820       | 14166            | 0.0              | 950       | 21027            | 0.0              |
| 435       | 106868           | 1.3              | 565       | 532962           | 354.4            | 695       | 116757           | 0.5              | 825       | 13854            | 0.0              | 955       | 19232            | 0.0              |
| 440       | 164642           | 2.6              | 570       | 582457           | 378.7            | 700       | 102093           | 0.3              | 830       | 14283            | 0.0              | 960       | 11261            | 0.0              |
| 445       | 256049           | 5.3              | 575       | 634550           | 394.8            | 705       | 87819            | 0.2              | 835       | 14112            | 0.0              | 965       | 20156            | 0.0              |
| 450       | 327314           | 8.5              | 580       | 686476           | 407.9            | 710       | 78011            | 0.1              | 840       | 13092            | 0.0              | 970       | 22393            | 0.0              |
| 455       | 265614           | 8.9              | 585       | 730571           | 405.9            | 715       | 70264            | 0.1              | 845       | 12158            | 0.0              | 975       | 20121            | 0.0              |
| 460       | 168394           | 6.9              | 590       | 768228           | 397.2            | 720       | 63584            | 0.0              | 850       | 14790            | 0.0              | 980       | 28091            | 0.0              |
| 465       | 127370           | 6.6              | 595       | 780593           | 370.0            | 725       | 55749            | 0.0              | 855       | 15683            | 0.0              | 985       | 27040            | 0.0              |
| 470       | 94724            | 5.9              | 600       | 791888           | 341.3            | 730       | 48683            | 0.0              | 860       | 19011            | 0.0              | 990       | 20772            | 0.0              |
| 475       | 67810            | 5.3              | 605       | 789088           | 305.6            | 735       | 42520            | 0.0              | 865       | 18194            | 0.0              | 995       | 26800            | 0.0              |
| 480       | 59825            | 5.7              | 610       | 765121           | 262.9            | 740       | 37531            | 0.0              | 870       | 15713            | 0.0              | 1000      | 28539            | 0.0              |
| 485       | 61079            | 7.2              | 615       | 735839           | 222.1            | 745       | 34522            | 0.0              | 875       | 19703            | 0.0              |           |                  |                  |

REPORT NUMBER: SP1-2104-215-5

### Scotopic Flux vs. Wavelength



Scotopic Lumens: 37163.1

S/P: 1.07

| 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       | 11220            | 0.0              | 490       | 69401            | 106.9            | 620       | 692536           | 8.7              | 750       | 31541            | 0.0              | 880       | 18253            | 0.0              |
| 365       | 10182            | 0.0              | 495       | 90053            | 145.6            | 625       | 651217           | 5.5              | 755       | 28760            | 0.0              | 885       | 21369            | 0.0              |
| 370       | 10420            | 0.0              | 500       | 121940           | 204.0            | 630       | 598624           | 3.4              | 760       | 26534            | 0.0              | 890       | 16745            | 0.0              |
| 375       | 12164            | 0.0              | 505       | 159641           | 271.4            | 635       | 546251           | 2.1              | 765       | 24261            | 0.0              | 895       | 14205            | 0.0              |
| 380       | 12715            | 0.0              | 510       | 197034           | 334.0            | 640       | 499000           | 1.3              | 770       | 21584            | 0.0              | 900       | 14113            | 0.0              |
| 385       | 11387            | 0.0              | 515       | 232805           | 385.9            | 645       | 451749           | 0.8              | 775       | 20805            | 0.0              | 905       | 13457            | 0.0              |
| 390       | 10503            | 0.0              | 520       | 263165           | 418.3            | 650       | 406338           | 0.5              | 780       | 17853            | 0.0              | 910       | 12811            | 0.0              |
| 395       | 8950             | 0.1              | 525       | 288012           | 430.9            | 655       | 360522           | 0.3              | 785       | 17033            | 0.0              | 915       | 17471            | 0.0              |
| 400       | 8271             | 0.1              | 530       | 310825           | 428.5            | 660       | 321663           | 0.2              | 790       | 16986            | 0.0              | 920       | 15483            | 0.0              |
| 405       | 7777             | 0.2              | 535       | 330894           | 412.3            | 665       | 283133           | 0.1              | 795       | 16655            | 0.0              | 925       | 19757            | 0.0              |
| 410       | 9299             | 0.6              | 540       | 349086           | 385.7            | 670       | 244093           | 0.1              | 800       | 15070            | 0.0              | 930       | 16307            | 0.0              |
| 415       | 13971            | 1.4              | 545       | 372506           | 357.2            | 675       | 210996           | 0.0              | 805       | 15366            | 0.0              | 935       | 18687            | 0.0              |
| 420       | 23461            | 3.9              | 550       | 403721           | 330.1            | 680       | 183942           | 0.0              | 810       | 15472            | 0.0              | 940       | 17986            | 0.0              |
| 425       | 41887            | 10.2             | 555       | 442032           | 302.1            | 685       | 158373           | 0.0              | 815       | 17184            | 0.0              | 945       | 15266            | 0.0              |
| 430       | 69840            | 23.8             | 560       | 485515           | 271.4            | 690       | 137120           | 0.0              | 820       | 14166            | 0.0              | 950       | 21027            | 0.0              |
| 435       | 106868           | 47.8             | 565       | 532962           | 239.1            | 695       | 116757           | 0.0              | 825       | 13854            | 0.0              | 955       | 19232            | 0.0              |
| 440       | 164642           | 92.0             | 570       | 582457           | 205.6            | 700       | 102093           | 0.0              | 830       | 14283            | 0.0              | 960       | 11261            | 0.0              |
| 445       | 256049           | 171.5            | 575       | 634550           | 172.8            | 705       | 87819            | 0.0              | 835       | 14112            | 0.0              | 965       | 20156            | 0.0              |
| 450       | 327314           | 253.7            | 580       | 686476           | 141.4            | 710       | 78011            | 0.0              | 840       | 13092            | 0.0              | 970       | 22393            | 0.0              |
| 455       | 265614           | 232.1            | 585       | 730571           | 111.7            | 715       | 70264            | 0.0              | 845       | 12158            | 0.0              | 975       | 20121            | 0.0              |
| 460       | 168394           | 162.6            | 590       | 768228           | 85.5             | 720       | 63584            | 0.0              | 850       | 14790            | 0.0              | 980       | 28091            | 0.0              |
| 465       | 127370           | 134.5            | 595       | 780593           | 62.2             | 725       | 55749            | 0.0              | 855       | 15683            | 0.0              | 985       | 27040            | 0.0              |
| 470       | 94724            | 109.1            | 600       | 791888           | 44.6             | 730       | 48683            | 0.0              | 860       | 19011            | 0.0              | 990       | 20772            | 0.0              |
| 475       | 67810            | 84.8             | 605       | 789088           | 31.0             | 735       | 42520            | 0.0              | 865       | 18194            | 0.0              | 995       | 26800            | 0.0              |
| 480       | 59825            | 80.8             | 610       | 765121           | 20.7             | 740       | 37531            | 0.0              | 870       | 15713            | 0.0              | 1000      | 28539            | 0.0              |
| 485       | 61079            | 88.5             | 615       | 735839           | 13.6             | 745       | 34522            | 0.0              | 875       | 19703            | 0.0              |           |                  |                  |



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### Melanopic Flux vs. Wavelength


**Melanopic Lumens: 13012.4      M/P: 0.38**

| 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       | 11220            | 0.0              | 490       | 69401            | 57.8             | 620       | 692536           | 0.5              | 750       | 31541            | 0.0              | 880       | 18253            | 0.0              |
| 365       | 10182            | 0.0              | 495       | 90053            | 74.3             | 625       | 651217           | 0.3              | 755       | 28760            | 0.0              | 885       | 21369            | 0.0              |
| 370       | 10420            | 0.0              | 500       | 121940           | 98.0             | 630       | 598624           | 0.2              | 760       | 26534            | 0.0              | 890       | 16745            | 0.0              |
| 375       | 12164            | 0.0              | 505       | 159641           | 122.5            | 635       | 546251           | 0.1              | 765       | 24261            | 0.0              | 895       | 14205            | 0.0              |
| 380       | 12715            | 0.0              | 510       | 197034           | 141.5            | 640       | 499000           | 0.1              | 770       | 21584            | 0.0              | 900       | 14113            | 0.0              |
| 385       | 11387            | 0.0              | 515       | 232805           | 152.1            | 645       | 451749           | 0.0              | 775       | 20805            | 0.0              | 905       | 13457            | 0.0              |
| 390       | 10503            | 0.0              | 520       | 263165           | 153.2            | 650       | 406338           | 0.0              | 780       | 17853            | 0.0              | 910       | 12811            | 0.0              |
| 395       | 8950             | 0.0              | 525       | 288012           | 146.1            | 655       | 360522           | 0.0              | 785       | 17033            | 0.0              | 915       | 17471            | 0.0              |
| 400       | 8271             | 0.1              | 530       | 310825           | 134.3            | 660       | 321663           | 0.0              | 790       | 16986            | 0.0              | 920       | 15483            | 0.0              |
| 405       | 7777             | 0.1              | 535       | 330894           | 119.1            | 665       | 283133           | 0.0              | 795       | 16655            | 0.0              | 925       | 19757            | 0.0              |
| 410       | 9299             | 0.4              | 540       | 349086           | 102.2            | 670       | 244093           | 0.0              | 800       | 15070            | 0.0              | 930       | 16307            | 0.0              |
| 415       | 13971            | 0.9              | 545       | 372506           | 86.5             | 675       | 210996           | 0.0              | 805       | 15366            | 0.0              | 935       | 18687            | 0.0              |
| 420       | 23461            | 2.7              | 550       | 403721           | 72.5             | 680       | 183942           | 0.0              | 810       | 15472            | 0.0              | 940       | 17986            | 0.0              |
| 425       | 41887            | 6.5              | 555       | 442032           | 59.6             | 685       | 158373           | 0.0              | 815       | 17184            | 0.0              | 945       | 15266            | 0.0              |
| 430       | 69840            | 14.8             | 560       | 485515           | 47.9             | 690       | 137120           | 0.0              | 820       | 14166            | 0.0              | 950       | 21027            | 0.0              |
| 435       | 106868           | 28.5             | 565       | 532962           | 37.4             | 695       | 116757           | 0.0              | 825       | 13854            | 0.0              | 955       | 19232            | 0.0              |
| 440       | 164642           | 55.0             | 570       | 582457           | 28.5             | 700       | 102093           | 0.0              | 830       | 14283            | 0.0              | 960       | 11261            | 0.0              |
| 445       | 256049           | 101.0            | 575       | 634550           | 21.1             | 705       | 87819            | 0.0              | 835       | 14112            | 0.0              | 965       | 20156            | 0.0              |
| 450       | 327314           | 150.8            | 580       | 686476           | 15.4             | 710       | 78011            | 0.0              | 840       | 13092            | 0.0              | 970       | 22393            | 0.0              |
| 455       | 265614           | 139.2            | 585       | 730571           | 10.9             | 715       | 70264            | 0.0              | 845       | 12158            | 0.0              | 975       | 20121            | 0.0              |
| 460       | 168394           | 99.2             | 590       | 768228           | 7.5              | 720       | 63584            | 0.0              | 850       | 14790            | 0.0              | 980       | 28091            | 0.0              |
| 465       | 127370           | 83.2             | 595       | 780593           | 5.0              | 725       | 55749            | 0.0              | 855       | 15683            | 0.0              | 985       | 27040            | 0.0              |
| 470       | 94724            | 67.8             | 600       | 791888           | 3.3              | 730       | 48683            | 0.0              | 860       | 19011            | 0.0              | 990       | 20772            | 0.0              |
| 475       | 67810            | 51.8             | 605       | 789088           | 2.2              | 735       | 42520            | 0.0              | 865       | 18194            | 0.0              | 995       | 26800            | 0.0              |
| 480       | 59825            | 48.1             | 610       | 765121           | 1.4              | 740       | 37531            | 0.0              | 870       | 15713            | 0.0              | 1000      | 28539            | 0.0              |
| 485       | 61079            | 50.3             | 615       | 735839           | 0.9              | 745       | 34522            | 0.0              | 875       | 19703            | 0.0              |           |                  |                  |

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TM-30-18

### Summary

$R_f = 75.3$   
 $R_g = 95.8$   
 CIE  $R_a = 72.6$   
 $R_g = -28.6$

### Spectral Power Distribution Comparison



### Color Vector Graphics



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

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 87 | CES26 = 66 | CES51 = 86 | CES76 = 63 |
| CES02 = 64 | CES27 = 88 | CES52 = 84 | CES77 = 79 |
| CES03 = 31 | CES28 = 86 | CES53 = 77 | CES78 = 66 |
| CES04 = 71 | CES29 = 65 | CES54 = 86 | CES79 = 87 |
| CES05 = 50 | CES30 = 77 | CES55 = 85 | CES80 = 85 |
| CES06 = 52 | CES31 = 69 | CES56 = 75 | CES81 = 67 |
| CES07 = 42 | CES32 = 63 | CES57 = 75 | CES82 = 93 |
| CES08 = 41 | CES33 = 74 | CES58 = 77 | CES83 = 89 |
| CES09 = 29 | CES34 = 77 | CES59 = 85 | CES84 = 90 |
| CES10 = 77 | CES35 = 88 | CES60 = 92 | CES85 = 74 |
| CES11 = 60 | CES36 = 98 | CES61 = 83 | CES86 = 59 |
| CES12 = 66 | CES37 = 86 | CES62 = 93 | CES87 = 77 |
| CES13 = 44 | CES38 = 85 | CES63 = 76 | CES88 = 79 |
| CES14 = 74 | CES39 = 95 | CES64 = 70 | CES89 = 65 |
| CES15 = 72 | CES40 = 91 | CES65 = 68 | CES90 = 78 |
| CES16 = 48 | CES41 = 89 | CES66 = 66 | CES91 = 86 |
| CES17 = 51 | CES42 = 86 | CES67 = 64 | CES92 = 59 |
| CES18 = 57 | CES43 = 75 | CES68 = 70 | CES93 = 74 |
| CES19 = 73 | CES44 = 99 | CES69 = 80 | CES94 = 50 |
| CES20 = 67 | CES45 = 83 | CES70 = 65 | CES95 = 69 |
| CES21 = 88 | CES46 = 78 | CES71 = 64 | CES96 = 77 |
| CES22 = 80 | CES47 = 80 | CES72 = 87 | CES97 = 81 |
| CES23 = 92 | CES48 = 70 | CES73 = 58 | CES98 = 76 |
| CES24 = 91 | CES49 = 76 | CES74 = 93 | CES99 = 66 |
| CES25 = 73 | CES50 = 85 | CES75 = 67 |            |



Color Rendition by Hue-Angle Bin



**Measure Comparisons**



(END OF REPORT)