

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: P579460

Luminaire Tested: **CST-CA8-330-730-U-T5-HSS-HM-EX120**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579460  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA8-330-730-U-T5-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (8) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 35333 lumens  
Efficiency: N/A  
Efficacy: 106.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U2 - G5

Input Watts (W): 331.5  
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

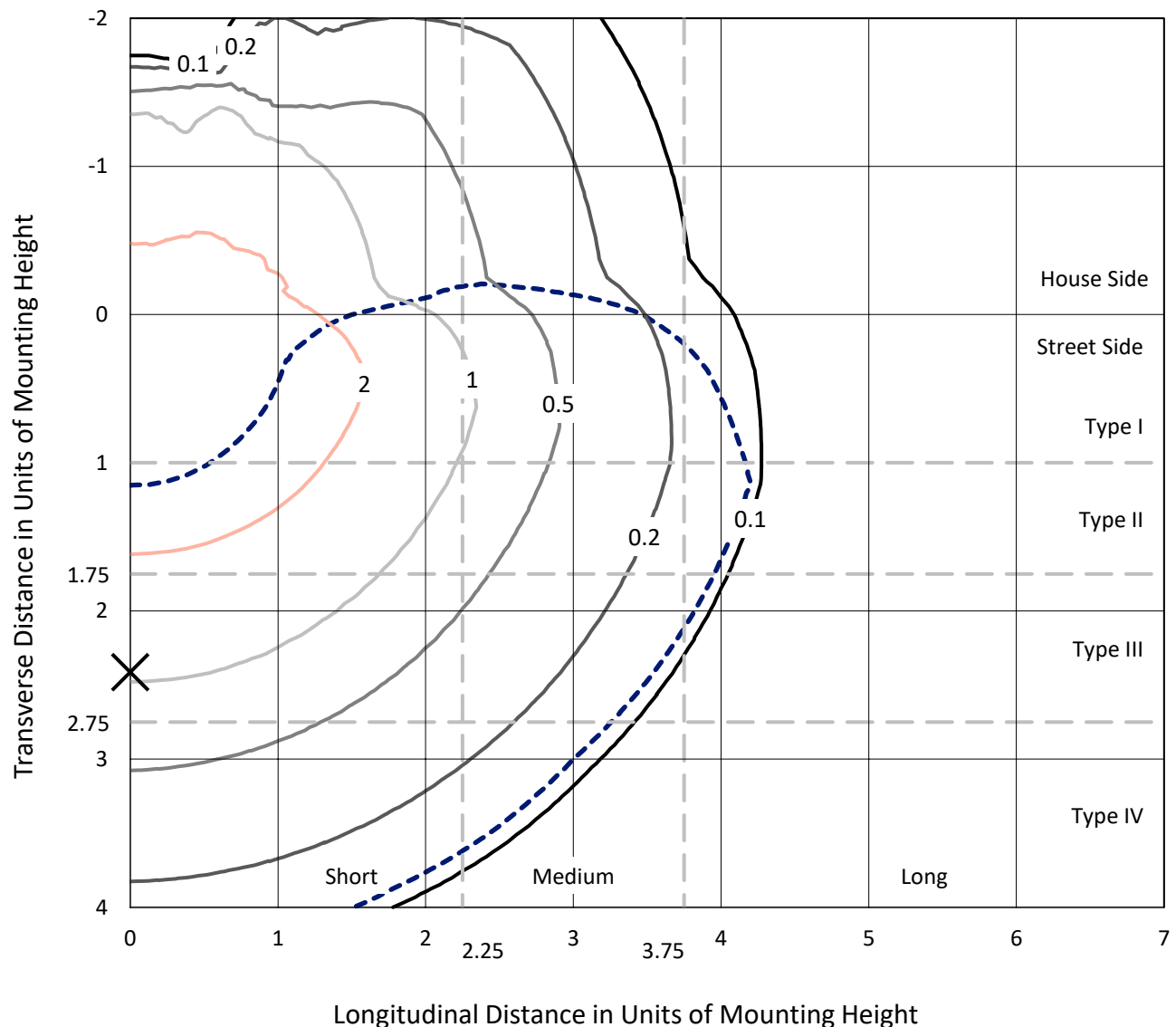


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## Iso-Footcandle Lines of Horizontal Illumination

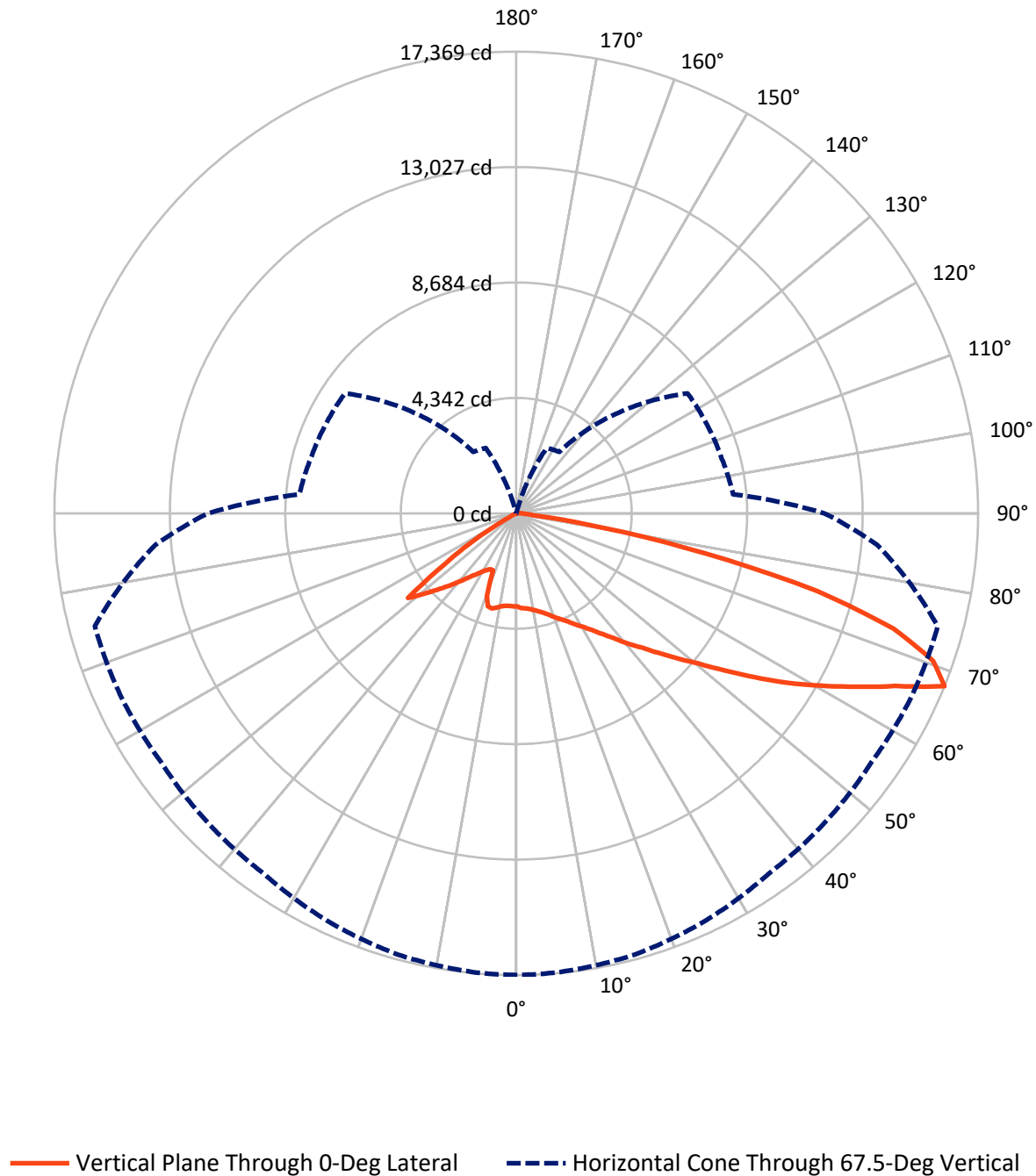
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.9 fc  
 Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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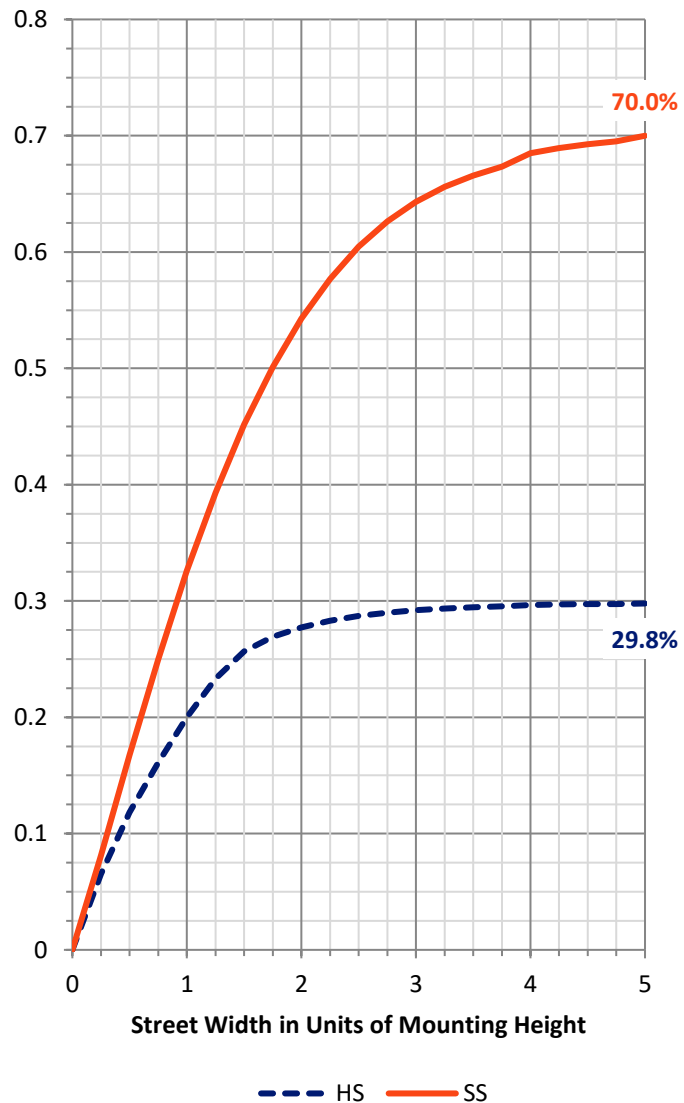
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 10547.1  | 3.5    | 10550.6 |
|                    | % Fixture | 29.9     | 0.0    | 29.9    |
| <b>Street Side</b> | Lumens    | 24742.6  | 39.8   | 24782.3 |
|                    | % Fixture | 70.0     | 0.1    | 70.1    |
| <b>Total</b>       | Lumens    | 35289.7  | 43.3   | 35333.0 |
|                    | % Fixture | 99.9     | 0.1    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 337.5   | 1.0       |
| 10°-20°   | 1044.9  | 3.0       |
| 20°-30°   | 1753.6  | 5.0       |
| 30°-40°   | 2843.6  | 8.0       |
| 40°-50°   | 4646.7  | 13.2      |
| 50°-60°   | 7282.3  | 20.6      |
| 60°-70°   | 9753.2  | 27.6      |
| 70°-80°   | 7108.7  | 20.1      |
| 80°-90°   | 519.1   | 1.5       |
| 90°-100°  | 33.2    | 0.1       |
| 100°-110° | 9.4     | 0.0       |
| 110°-120° | 0.7     | 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°    | 35289.7 | 99.9      |
| 0°-180°   | 35333.0 | 100.0     |

**Coefficient of Utilization**



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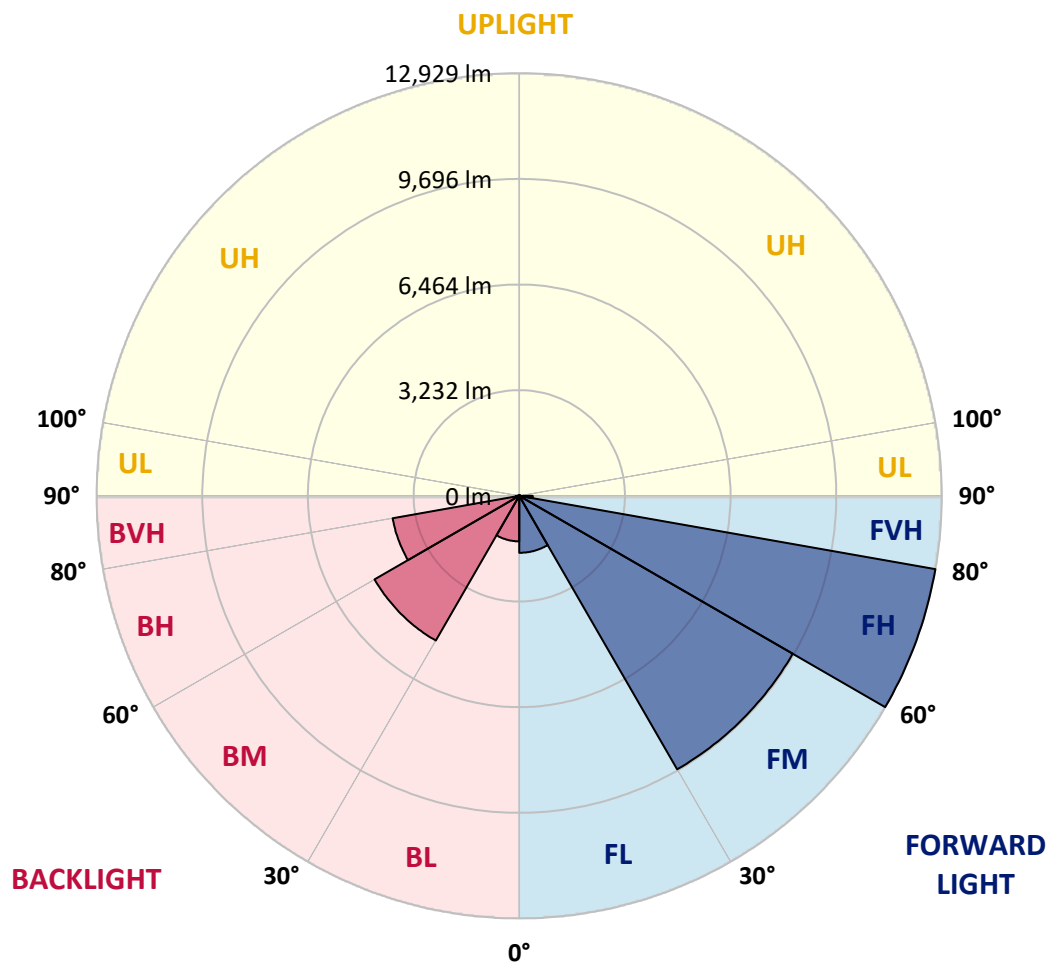
CATALOG NUMBER: CST-CA8-330-730-U-T5-HSS-HM-EX120

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

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |       |         |
|------|-------------|---------|-----------|-------------------------|-------|---------|
|      |             |         |           | B                       | U     | G       |
| FL   | (0°-30°)    | 1742.8  | 4.9       |                         |       |         |
| FM   | (30°-60°)   | 9660.7  | 27.3      |                         |       |         |
| FH   | (60°-80°)   | 12928.6 | 36.6      |                         |       | G5      |
| FVH  | (80°-90°)   | 410.5   | 1.2       |                         |       | G3/500  |
| BL   | (0°-30°)    | 1393.3  | 3.9       | B3/2500                 |       |         |
| BM   | (30°-60°)   | 5111.9  | 14.5      | B4/8500                 |       |         |
| BH   | (60°-80°)   | 3933.3  | 11.1      | B4/5000                 |       | G4/5000 |
| BVH  | (80°-90°)   | 108.6   | 0.3       |                         |       | G2/225  |
| UL   | (90°-100°)  | 33.2    | 0.1       |                         | U2/50 |         |
| UH   | (100°-180°) | 10.1    | 0.0       |                         | U2/50 |         |

**BUG Rating: B4-U2-G5**

Type IV Short



REPORT NUMBER: P579460

CATALOG NUMBER: CST-CA8-330-730-U-T5-HSS-HM-EX120

**CANDELA DISTRIBUTION (FULL):**

|        | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     | 90°     |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°     | 3501.1  | 3501.1  | 3501.1  | 3501.1  | 3501.1  | 3501.1  | 3501.1  | 3501.1  | 3501.1  | 3501.1  | 3501.1  |
| 2.5°   | 3567.9  | 3547.1  | 3548.6  | 3567.9  | 3510.0  | 3529.3  | 3504.1  | 3523.4  | 3510.0  | 3514.5  | 3523.4  |
| 5°     | 3590.2  | 3567.9  | 3569.4  | 3593.2  | 3541.2  | 3557.5  | 3523.4  | 3533.8  | 3521.9  | 3527.8  | 3527.8  |
| 7.5°   | 3634.8  | 3609.5  | 3608.0  | 3622.9  | 3569.4  | 3575.4  | 3544.2  | 3545.7  | 3527.8  | 3539.7  | 3533.8  |
| 10°    | 3701.6  | 3680.8  | 3666.0  | 3674.9  | 3627.4  | 3624.4  | 3584.3  | 3585.8  | 3563.5  | 3576.9  | 3566.5  |
| 12.5°  | 3783.3  | 3755.1  | 3752.1  | 3755.1  | 3703.1  | 3691.2  | 3649.6  | 3652.6  | 3612.5  | 3633.3  | 3621.4  |
| 15°    | 3887.3  | 3842.7  | 3842.7  | 3859.1  | 3792.2  | 3783.3  | 3732.8  | 3735.8  | 3694.2  | 3710.5  | 3698.7  |
| 17.5°  | 4015.0  | 3972.0  | 3964.5  | 3976.4  | 3918.5  | 3906.6  | 3854.6  | 3851.7  | 3805.6  | 3810.1  | 3799.7  |
| 20°    | 4179.9  | 4136.8  | 4119.0  | 4148.7  | 4075.9  | 4067.0  | 4004.6  | 3998.7  | 3949.7  | 3936.3  | 3930.4  |
| 22.5°  | 4332.9  | 4298.8  | 4289.8  | 4322.5  | 4246.8  | 4239.3  | 4179.9  | 4172.5  | 4126.5  | 4107.1  | 3989.8  |
| 25°    | 4505.2  | 4497.8  | 4494.8  | 4505.2  | 4433.9  | 4419.1  | 4373.0  | 4362.6  | 4324.0  | 4300.2  | 4157.6  |
| 27.5°  | 4728.0  | 4725.1  | 4716.2  | 4717.6  | 4652.3  | 4638.9  | 4595.8  | 4588.4  | 4548.3  | 4521.6  | 4338.9  |
| 30°    | 4961.2  | 4961.2  | 4941.9  | 4952.3  | 4919.7  | 4898.9  | 4864.7  | 4838.0  | 4812.7  | 4784.5  | 4554.2  |
| 32.5°  | 5230.1  | 5228.6  | 5210.8  | 5242.0  | 5218.2  | 5218.2  | 5197.4  | 5169.2  | 5124.6  | 5111.3  | 4832.0  |
| 35°    | 5576.2  | 5553.9  | 5546.5  | 5597.0  | 5589.6  | 5602.9  | 5595.5  | 5565.8  | 5528.7  | 5497.5  | 5158.8  |
| 37.5°  | 5959.4  | 5953.5  | 5975.8  | 6007.0  | 6023.3  | 6059.0  | 6036.7  | 6035.2  | 6029.3  | 5950.5  | 5071.2  |
| 40°    | 6431.8  | 6406.5  | 6437.7  | 6454.1  | 6442.2  | 6500.1  | 6480.8  | 6497.2  | 6541.7  | 5908.9  | 5065.2  |
| 42.5°  | 6902.7  | 6880.4  | 6902.7  | 6982.9  | 6965.1  | 7034.9  | 7026.0  | 7089.8  | 7115.1  | 5996.6  | 5476.7  |
| 45°    | 7482.0  | 7456.7  | 7474.6  | 7569.6  | 7578.5  | 7663.2  | 7709.2  | 7770.1  | 7782.0  | 6564.0  | 5972.8  |
| 47.5°  | 8147.4  | 8105.8  | 8140.0  | 8184.6  | 8319.7  | 8400.0  | 8444.5  | 8518.8  | 8594.5  | 7247.3  | 6537.3  |
| 50°    | 8881.2  | 8878.3  | 8915.4  | 8992.6  | 9147.1  | 9227.3  | 9304.6  | 9381.8  | 9506.6  | 8009.3  | 7170.0  |
| 52.5°  | 9814.1  | 9794.8  | 9858.6  | 9931.4  | 10068.1 | 10191.4 | 10283.5 | 10363.7 | 10497.3 | 8780.2  | 7854.8  |
| 55°    | 10880.6 | 10813.7 | 10935.5 | 11058.8 | 11116.8 | 11262.3 | 11326.2 | 11393.0 | 11520.8 | 9591.3  | 8254.4  |
| 57.5°  | 12031.8 | 12015.4 | 12100.1 | 12144.7 | 12269.4 | 12360.0 | 12394.2 | 12467.0 | 12465.5 | 10435.0 | 8934.7  |
| 60°    | 13165.1 | 13147.3 | 13246.8 | 13273.6 | 13373.1 | 13454.8 | 13442.9 | 13508.3 | 13532.0 | 11226.7 | 9601.7  |
| 62.5°  | 14357.9 | 14328.2 | 14420.3 | 14426.2 | 14366.8 | 14499.0 | 14485.7 | 14540.6 | 14519.8 | 12000.6 | 10258.2 |
| 65°    | 15662.1 | 15684.4 | 15714.1 | 15592.3 | 15449.7 | 15564.1 | 15561.1 | 15665.1 | 15739.3 | 13082.0 | 11137.6 |
| 67.5°  | 17368.8 | 17340.6 | 17187.6 | 16893.5 | 16547.4 | 16431.5 | 16308.2 | 16384.0 | 16404.8 | 13619.7 | 11587.6 |
| 70°    | 16632.1 | 16569.7 | 16501.4 | 16201.3 | 15783.9 | 15489.8 | 15298.2 | 15378.4 | 15463.1 | 12871.0 | 10883.6 |
| 72.5°  | 14836.2 | 14681.7 | 14363.9 | 14099.5 | 13858.8 | 13572.1 | 13338.9 | 13478.6 | 13664.2 | 11416.8 | 9637.3  |
| 75°    | 11705.0 | 11560.9 | 11329.2 | 11149.4 | 11020.2 | 11017.2 | 11006.8 | 11115.3 | 11088.5 | 9270.4  | 7835.5  |
| 77.5°  | 7248.8  | 7550.3  | 7764.2  | 7611.2  | 7664.7  | 7554.8  | 7796.9  | 7939.5  | 8068.7  | 6645.7  | 5582.1  |
| 80°    | 3346.6  | 3423.9  | 3802.6  | 3704.6  | 3625.9  | 3603.6  | 3618.4  | 3866.5  | 3939.3  | 2982.7  | 2498.4  |
| 82.5°  | 763.5   | 732.3   | 759.0   | 704.1   | 701.1   | 668.4   | 672.9   | 672.9   | 649.1   | 549.6   | 460.5   |
| 85°    | 386.2   | 395.1   | 398.1   | 381.7   | 337.2   | 303.0   | 280.7   | 237.7   | 205.0   | 175.3   | 148.5   |
| 87.5°  | 258.5   | 265.9   | 270.3   | 248.1   | 222.8   | 194.6   | 176.8   | 144.1   | 114.4   | 71.3    | 55.0    |
| 90°    | 176.8   | 175.3   | 170.8   | 158.9   | 142.6   | 121.8   | 98.0    | 68.3    | 40.1    | 14.9    | 10.4    |
| 92.5°  | 126.3   | 123.3   | 121.8   | 111.4   | 99.5    | 83.2    | 63.9    | 43.1    | 22.3    | 10.4    | 5.9     |
| 95°    | 83.2    | 81.7    | 81.7    | 75.8    | 66.8    | 55.0    | 43.1    | 28.2    | 16.3    | 8.9     | 5.9     |
| 97.5°  | 57.9    | 56.4    | 56.4    | 53.5    | 47.5    | 40.1    | 29.7    | 19.3    | 13.4    | 8.9     | 5.9     |
| 100°   | 40.1    | 40.1    | 40.1    | 37.1    | 34.2    | 28.2    | 22.3    | 14.9    | 11.9    | 8.9     | 5.9     |
| 102.5° | 26.7    | 26.7    | 28.2    | 26.7    | 23.8    | 19.3    | 14.9    | 11.9    | 10.4    | 7.4     | 5.9     |
| 105°   | 17.8    | 17.8    | 17.8    | 17.8    | 16.3    | 13.4    | 11.9    | 10.4    | 8.9     | 7.4     | 5.9     |
| 107.5° | 11.9    | 11.9    | 11.9    | 11.9    | 10.4    | 8.9     | 8.9     | 8.9     | 7.4     | 7.4     | 5.9     |
| 110°   | 7.4     | 7.4     | 7.4     | 8.9     | 7.4     | 7.4     | 7.4     | 7.4     | 7.4     | 5.9     | 5.9     |



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CATALOG NUMBER: CST-CA8-330-730-U-T5-HSS-HM-EX120

**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 |



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**CANDELA DISTRIBUTION (continued):**

|        | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 3501.1 | 3501.1 | 3501.1 | 3501.1 | 3501.1 | 3501.1 | 3501.1 | 3501.1 | 3501.1 | 3501.1 |
| 2.5°   | 3516.0 | 3495.2 | 3505.6 | 3484.8 | 3475.8 | 3456.5 | 3493.7 | 3496.6 | 3493.7 | 3499.6 |
| 5°     | 3520.4 | 3496.6 | 3508.5 | 3484.8 | 3480.3 | 3458.0 | 3495.2 | 3495.2 | 3486.2 | 3490.7 |
| 7.5°   | 3530.8 | 3505.6 | 3514.5 | 3486.2 | 3486.2 | 3459.5 | 3504.1 | 3501.1 | 3493.7 | 3504.1 |
| 10°    | 3566.5 | 3536.7 | 3536.7 | 3510.0 | 3513.0 | 3484.8 | 3539.7 | 3539.7 | 3533.8 | 3551.6 |
| 12.5°  | 3621.4 | 3584.3 | 3585.8 | 3548.6 | 3554.6 | 3532.3 | 3599.1 | 3602.1 | 3602.1 | 3631.8 |
| 15°    | 3692.7 | 3636.3 | 3642.2 | 3602.1 | 3614.0 | 3587.3 | 3646.7 | 3643.7 | 3651.1 | 3694.2 |
| 17.5°  | 3780.4 | 3718.0 | 3666.0 | 3535.3 | 3458.0 | 3461.0 | 3637.8 | 3719.5 | 3624.4 | 3652.6 |
| 20°    | 3817.5 | 3514.5 | 3349.6 | 3302.1 | 3291.7 | 3126.8 | 2789.6 | 2841.6 | 3159.5 | 3297.6 |
| 22.5°  | 3567.9 | 3471.4 | 3455.0 | 3394.1 | 2944.1 | 2819.3 | 2840.1 | 2810.4 | 2498.4 | 2321.7 |
| 25°    | 3689.7 | 3625.9 | 3588.7 | 3052.5 | 2951.5 | 2929.2 | 2914.4 | 2632.1 | 2293.5 | 2309.8 |
| 27.5°  | 3862.1 | 3778.9 | 3333.2 | 3065.9 | 3085.2 | 3051.0 | 2964.9 | 2367.7 | 2357.3 | 2384.1 |
| 30°    | 4065.6 | 3856.1 | 3248.6 | 3223.3 | 3245.6 | 3201.0 | 2492.5 | 2468.7 | 2468.7 | 2495.5 |
| 32.5°  | 4315.1 | 3498.1 | 3447.6 | 3450.6 | 3435.7 | 2930.7 | 2623.2 | 2617.3 | 2635.1 | 2657.4 |
| 35°    | 4245.3 | 3731.3 | 3735.8 | 3761.0 | 3726.9 | 2866.8 | 2828.2 | 2805.9 | 2820.8 | 2829.7 |
| 37.5°  | 4108.6 | 4081.9 | 4081.9 | 4053.7 | 3181.7 | 3091.1 | 3049.5 | 3046.6 | 3045.1 | 3045.1 |
| 40°    | 4453.2 | 4428.0 | 4396.8 | 4347.8 | 3328.8 | 3352.6 | 3290.2 | 3282.7 | 3287.2 | 3303.5 |
| 42.5°  | 4845.4 | 4835.0 | 4832.0 | 3731.3 | 3634.8 | 3652.6 | 3585.8 | 3566.5 | 3566.5 | 3603.6 |
| 45°    | 5307.3 | 5294.0 | 4965.7 | 3988.3 | 3972.0 | 3992.8 | 3918.5 | 3872.4 | 3897.7 | 3924.4 |
| 47.5°  | 5837.6 | 5837.6 | 4396.8 | 4373.0 | 4373.0 | 4384.9 | 4310.6 | 4248.3 | 4273.5 | 4282.4 |
| 50°    | 6418.4 | 5510.8 | 4838.0 | 4815.7 | 4836.5 | 4830.5 | 4753.3 | 4174.0 | 4710.2 | 4714.7 |
| 52.5°  | 6580.3 | 5359.3 | 5322.2 | 5297.0 | 5322.2 | 5317.7 | 5237.5 | 3481.8 | 5094.9 | 5167.7 |
| 55°    | 5833.2 | 5837.6 | 5830.2 | 5793.1 | 5819.8 | 5809.4 | 5730.7 | 3801.1 | 3756.6 | 3348.1 |
| 57.5°  | 6307.0 | 6313.0 | 6310.0 | 6304.1 | 6327.8 | 4597.3 | 5935.7 | 3434.3 | 2097.4 | 2098.9 |
| 60°    | 6822.5 | 6792.8 | 6783.8 | 6770.5 | 5738.1 | 3259.0 | 2473.2 | 239.2  | 819.9  | 808.1  |
| 62.5°  | 7290.4 | 7280.0 | 7248.8 | 7241.3 | 4869.2 | 2566.8 | 2507.4 | 55.0   | 43.1   | 41.6   |
| 65°    | 7941.0 | 7848.9 | 7823.6 | 7744.9 | 5190.0 | 2733.1 | 2676.7 | 16.3   | 1.5    | 0.0    |
| 67.5°  | 8183.1 | 7995.9 | 7905.3 | 7863.7 | 5280.6 | 2819.3 | 2710.9 | 16.3   | 1.5    | 0.0    |
| 70°    | 7725.6 | 7493.9 | 7379.5 | 7333.4 | 4934.5 | 2635.1 | 2528.2 | 16.3   | 1.5    | 0.0    |
| 72.5°  | 6850.7 | 6679.9 | 6633.8 | 6486.8 | 4350.7 | 2312.8 | 2219.2 | 16.3   | 0.0    | 0.0    |
| 75°    | 5619.3 | 5556.9 | 5500.5 | 5344.5 | 3536.7 | 1837.4 | 1754.3 | 14.9   | 0.0    | 0.0    |
| 77.5°  | 4089.3 | 3997.2 | 3893.2 | 3723.9 | 2387.0 | 1200.2 | 1157.1 | 13.4   | 0.0    | 0.0    |
| 80°    | 1843.4 | 1767.6 | 1742.4 | 1478.0 | 846.7  | 390.7  | 344.6  | 11.9   | 0.0    | 0.0    |
| 82.5°  | 358.0  | 322.3  | 306.0  | 294.1  | 190.1  | 105.5  | 92.1   | 8.9    | 0.0    | 0.0    |
| 85°    | 121.8  | 135.2  | 157.5  | 173.8  | 106.9  | 63.9   | 53.5   | 5.9    | 0.0    | 0.0    |
| 87.5°  | 47.5   | 63.9   | 77.2   | 80.2   | 40.1   | 26.7   | 14.9   | 3.0    | 0.0    | 0.0    |
| 90°    | 8.9    | 11.9   | 10.4   | 7.4    | 4.5    | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 4.5    | 5.9    | 4.5    | 4.5    | 3.0    | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 5.9    | 5.9    | 5.9    | 4.5    | 3.0    | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 5.9    | 5.9    | 5.9    | 4.5    | 3.0    | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 5.9    | 5.9    | 5.9    | 4.5    | 3.0    | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 5.9    | 5.9    | 5.9    | 4.5    | 3.0    | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 5.9    | 7.4    | 5.9    | 4.5    | 3.0    | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 5.9    | 7.4    | 5.9    | 4.5    | 3.0    | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 5.9    | 7.4    | 5.9    | 4.5    | 3.0    | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P579460

CATALOG NUMBER: CST-CA8-330-730-U-T5-HSS-HM-EX120

**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  |

Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

STREETWORKS

Report Number: SP1-2104-215-6

Luminaire Tested: CST-CA6-230-730-U-T4

Test Date: 04/22/2021

### Test Information

Test Method: LM-79-08  
 Report Number: SP1-2104-215-6  
 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-CA6-230-730-U-T4**  
 Description: STREETWORKS HIGH MAST LUMINAIRE

### Spectral Parameters

|                           |         |           |      |      |       |
|---------------------------|---------|-----------|------|------|-------|
| CCT (K):                  | 2914    | CRI (Ra): | 73.2 |      |       |
| CIE u':                   | 0.2541  | R1:       | 70.1 | R9:  | -27.2 |
| CIE v':                   | 0.5212  | R2:       | 83.3 | R10: | 61.9  |
| Duv:                      | -0.0013 | R3:       | 94.2 | R11: | 65.4  |
| CIE x:                    | 0.4410  | R4:       | 69.4 | R12: | 53.3  |
| CIE y:                    | 0.4020  | R5:       | 69.3 | R13: | 72.6  |
| CIE z:                    | 0.1571  | R6:       | 77.3 | R14: | 96.9  |
| Peak Wavelength (nm):     | 599     | R7:       | 77.5 |      |       |
| Dominant Wavelength (nm): | 583     | R8:       | 44.9 |      |       |
| Purity:                   | 53.4    |           |      |      |       |
| Rf:                       | 75.3    |           |      |      |       |
| Rg:                       | 95.7    |           |      |      |       |



### Test Conditions

Stabilization Time: 72M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 25.6/15%  
 Sphere Temperature (°C): 24.0

REPORT NUMBER: SP1-2104-215-6

| 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: SP1-2104-215-6

**CIE 1931 Chromaticity Diagram**



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



REPORT NUMBER: SP1-2104-215-6

### Photopic Flux vs. Wavelength

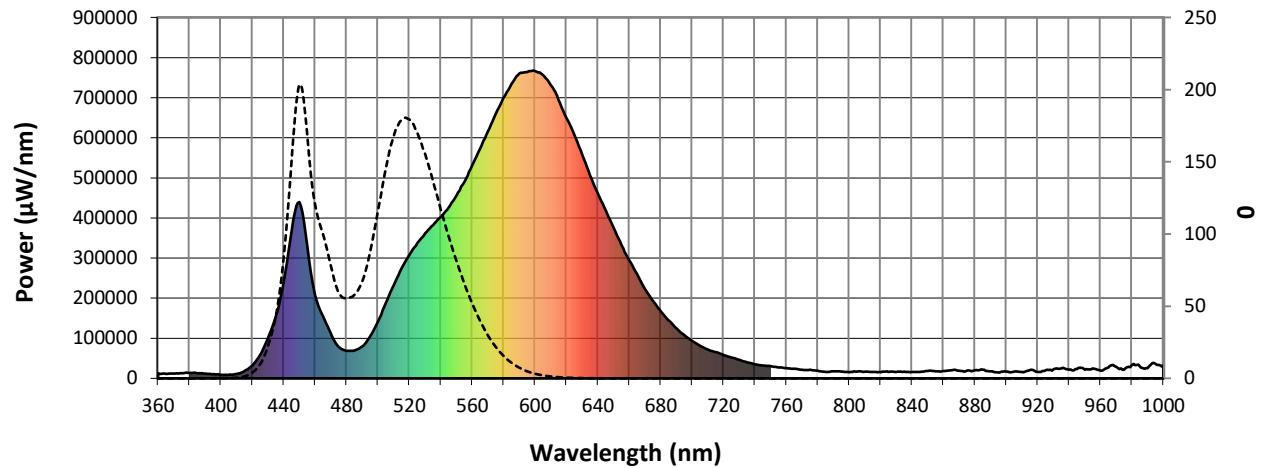


#####

| 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       | 12827            | 0.0              | 490       | 80096            | 11.4             | 620       | 649050           | 168.9            | 750       | 30187            | 0.0              | 880       | 19756            | 0.0              |
| 365       | 11336            | 0.0              | 495       | 104447           | 18.9             | 625       | 608162           | 134.2            | 755       | 27442            | 0.0              | 885       | 21245            | 0.0              |
| 370       | 11776            | 0.0              | 500       | 142477           | 31.4             | 630       | 557990           | 101.0            | 760       | 25382            | 0.0              | 890       | 17771            | 0.0              |
| 375       | 13009            | 0.0              | 505       | 187724           | 52.5             | 635       | 506861           | 76.2             | 765       | 23778            | 0.0              | 895       | 14356            | 0.0              |
| 380       | 13906            | 0.0              | 510       | 232209           | 79.8             | 640       | 460827           | 55.1             | 770       | 21474            | 0.0              | 900       | 16683            | 0.0              |
| 385       | 12960            | 0.0              | 515       | 273388           | 113.2            | 645       | 418064           | 40.3             | 775       | 21394            | 0.0              | 905       | 16548            | 0.0              |
| 390       | 11750            | 0.0              | 520       | 308378           | 149.5            | 650       | 376246           | 27.5             | 780       | 18945            | 0.0              | 910       | 15630            | 0.0              |
| 395       | 10399            | 0.0              | 525       | 336804           | 180.8            | 655       | 332016           | 19.0             | 785       | 16318            | 0.0              | 915       | 20907            | 0.0              |
| 400       | 9192             | 0.0              | 530       | 361609           | 212.9            | 660       | 294638           | 12.3             | 790       | 17841            | 0.0              | 920       | 16083            | 0.0              |
| 405       | 8943             | 0.0              | 535       | 382440           | 237.2            | 665       | 259105           | 8.2              | 795       | 16506            | 0.0              | 925       | 20203            | 0.0              |
| 410       | 11120            | 0.0              | 540       | 401976           | 261.9            | 670       | 223041           | 4.9              | 800       | 15058            | 0.0              | 930       | 22625            | 0.0              |
| 415       | 18193            | 0.0              | 545       | 426232           | 283.7            | 675       | 193569           | 3.2              | 805       | 16851            | 0.0              | 935       | 24828            | 0.0              |
| 420       | 32317            | 0.1              | 550       | 455969           | 309.9            | 680       | 167520           | 1.9              | 810       | 16679            | 0.0              | 940       | 21275            | 0.0              |
| 425       | 59220            | 0.3              | 555       | 490448           | 335.0            | 685       | 144697           | 1.2              | 815       | 15851            | 0.0              | 945       | 23270            | 0.0              |
| 430       | 100522           | 0.8              | 560       | 530799           | 360.7            | 690       | 125032           | 0.7              | 820       | 15536            | 0.0              | 950       | 21756            | 0.0              |
| 435       | 155311           | 1.8              | 565       | 572799           | 380.9            | 695       | 107458           | 0.5              | 825       | 16381            | 0.0              | 955       | 24823            | 0.0              |
| 440       | 239817           | 3.8              | 570       | 615361           | 400.1            | 700       | 93549            | 0.3              | 830       | 16149            | 0.0              | 960       | 19499            | 0.0              |
| 445       | 368265           | 7.7              | 575       | 659689           | 410.5            | 705       | 81608            | 0.2              | 835       | 16687            | 0.0              | 965       | 27077            | 0.0              |
| 450       | 439895           | 11.4             | 580       | 700037           | 416.0            | 710       | 71559            | 0.1              | 840       | 16206            | 0.0              | 970       | 28727            | 0.0              |
| 455       | 329010           | 11.0             | 585       | 734518           | 408.1            | 715       | 65193            | 0.1              | 845       | 16062            | 0.0              | 975       | 21725            | 0.0              |
| 460       | 207545           | 8.5              | 590       | 760906           | 393.4            | 720       | 58466            | 0.0              | 850       | 18530            | 0.0              | 980       | 33536            | 0.0              |
| 465       | 154577           | 8.0              | 595       | 763605           | 362.0            | 725       | 52265            | 0.0              | 855       | 17709            | 0.0              | 985       | 30537            | 0.0              |
| 470       | 110708           | 6.9              | 600       | 766048           | 330.1            | 730       | 46287            | 0.0              | 860       | 18086            | 0.0              | 990       | 25187            | 0.0              |
| 475       | 78445            | 6.2              | 605       | 756483           | 293.0            | 735       | 40164            | 0.0              | 865       | 19763            | 0.0              | 995       | 35676            | 0.0              |
| 480       | 68887            | 6.5              | 610       | 730981           | 251.1            | 740       | 35097            | 0.0              | 870       | 19416            | 0.0              | 1000      | 32909            | 0.0              |
| 485       | 69832            | 8.3              | 615       | 694682           | 209.7            | 745       | 32334            | 0.0              | 875       | 19352            | 0.0              |           |                  |                  |

REPORT NUMBER: SP1-2104-215-6

### Scotopic Flux vs. Wavelength



Scotopic Lumens: 43125.2

S/P: 1.19

| 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       | 12827            | 0.0              | 490       | 80096            | 123.3            | 620       | 649050           | 8.1              | 750       | 30187            | 0.0              | 880       | 19756            | 0.0              |
| 365       | 11336            | 0.0              | 495       | 104447           | 168.8            | 625       | 608162           | 5.1              | 755       | 27442            | 0.0              | 885       | 21245            | 0.0              |
| 370       | 11776            | 0.0              | 500       | 142477           | 238.3            | 630       | 557990           | 3.2              | 760       | 25382            | 0.0              | 890       | 17771            | 0.0              |
| 375       | 13009            | 0.0              | 505       | 187724           | 319.1            | 635       | 506861           | 1.9              | 765       | 23778            | 0.0              | 895       | 14356            | 0.0              |
| 380       | 13906            | 0.0              | 510       | 232209           | 393.6            | 640       | 460827           | 1.2              | 770       | 21474            | 0.0              | 900       | 16683            | 0.0              |
| 385       | 12960            | 0.0              | 515       | 273388           | 453.1            | 645       | 418064           | 0.7              | 775       | 21394            | 0.0              | 905       | 16548            | 0.0              |
| 390       | 11750            | 0.0              | 520       | 308378           | 490.2            | 650       | 376246           | 0.4              | 780       | 18945            | 0.0              | 910       | 15630            | 0.0              |
| 395       | 10399            | 0.1              | 525       | 336804           | 503.9            | 655       | 332016           | 0.3              | 785       | 16318            | 0.0              | 915       | 20907            | 0.0              |
| 400       | 9192             | 0.1              | 530       | 361609           | 498.6            | 660       | 294638           | 0.2              | 790       | 17841            | 0.0              | 920       | 16083            | 0.0              |
| 405       | 8943             | 0.3              | 535       | 382440           | 476.6            | 665       | 259105           | 0.1              | 795       | 16506            | 0.0              | 925       | 20203            | 0.0              |
| 410       | 11120            | 0.7              | 540       | 401976           | 444.2            | 670       | 223041           | 0.1              | 800       | 15058            | 0.0              | 930       | 22625            | 0.0              |
| 415       | 18193            | 1.9              | 545       | 426232           | 408.7            | 675       | 193569           | 0.0              | 805       | 16851            | 0.0              | 935       | 24828            | 0.0              |
| 420       | 32317            | 5.3              | 550       | 455969           | 372.8            | 680       | 167520           | 0.0              | 810       | 16679            | 0.0              | 940       | 21275            | 0.0              |
| 425       | 59220            | 14.5             | 555       | 490448           | 335.2            | 685       | 144697           | 0.0              | 815       | 15851            | 0.0              | 945       | 23270            | 0.0              |
| 430       | 100522           | 34.2             | 560       | 530799           | 296.7            | 690       | 125032           | 0.0              | 820       | 15536            | 0.0              | 950       | 21756            | 0.0              |
| 435       | 155311           | 69.4             | 565       | 572799           | 257.0            | 695       | 107458           | 0.0              | 825       | 16381            | 0.0              | 955       | 24823            | 0.0              |
| 440       | 239817           | 134.0            | 570       | 615361           | 217.2            | 700       | 93549            | 0.0              | 830       | 16149            | 0.0              | 960       | 19499            | 0.0              |
| 445       | 368265           | 246.6            | 575       | 659689           | 179.7            | 705       | 81608            | 0.0              | 835       | 16687            | 0.0              | 965       | 27077            | 0.0              |
| 450       | 439895           | 340.9            | 580       | 700037           | 144.2            | 710       | 71559            | 0.0              | 840       | 16206            | 0.0              | 970       | 28727            | 0.0              |
| 455       | 329010           | 287.5            | 585       | 734518           | 112.3            | 715       | 65193            | 0.0              | 845       | 16062            | 0.0              | 975       | 21725            | 0.0              |
| 460       | 207545           | 200.5            | 590       | 760906           | 84.7             | 720       | 58466            | 0.0              | 850       | 18530            | 0.0              | 980       | 33536            | 0.0              |
| 465       | 154577           | 163.3            | 595       | 763605           | 60.9             | 725       | 52265            | 0.0              | 855       | 17709            | 0.0              | 985       | 30537            | 0.0              |
| 470       | 110708           | 127.5            | 600       | 766048           | 43.2             | 730       | 46287            | 0.0              | 860       | 18086            | 0.0              | 990       | 25187            | 0.0              |
| 475       | 78445            | 98.1             | 605       | 756483           | 29.7             | 735       | 40164            | 0.0              | 865       | 19763            | 0.0              | 995       | 35676            | 0.0              |
| 480       | 68887            | 93.1             | 610       | 730981           | 19.8             | 740       | 35097            | 0.0              | 870       | 19416            | 0.0              | 1000      | 32909            | 0.0              |
| 485       | 69832            | 101.2            | 615       | 694682           | 12.8             | 745       | 32334            | 0.0              | 875       | 19352            | 0.0              |           |                  |                  |

REPORT NUMBER: SP1-2104-215-6

### Melanopic Flux vs. Wavelength

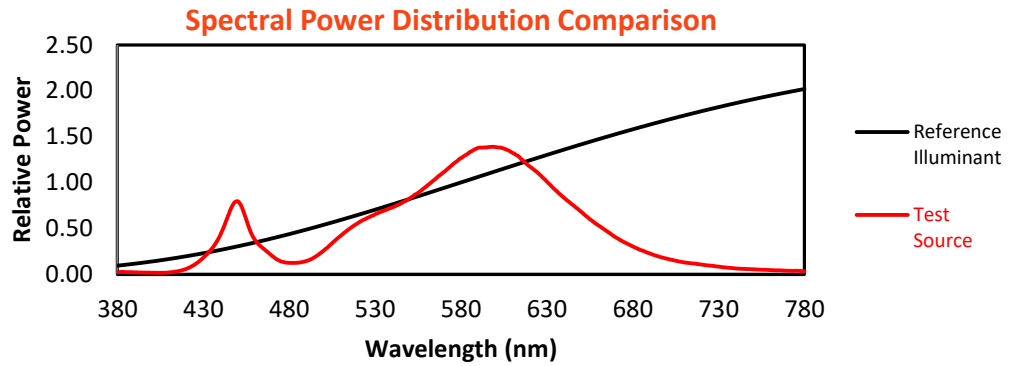


**Melanopic Lumens: 15555.2**    **M/P: 0.43**

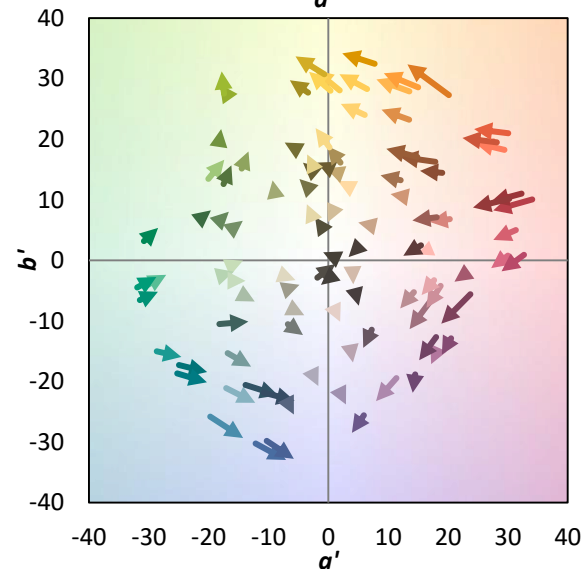
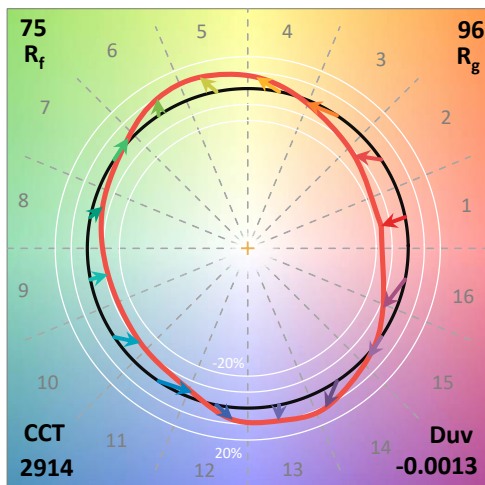
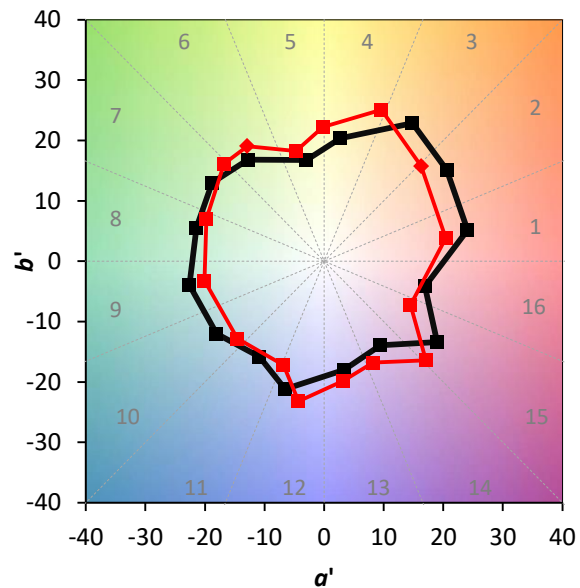
| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 12827            | 0.0              | 490       | 80096            | 66.7             | 620       | 649050           | 0.5              | 750       | 30187            | 0.0              | 880       | 19756            | 0.0              |
| 365       | 11336            | 0.0              | 495       | 104447           | 86.2             | 625       | 608162           | 0.3              | 755       | 27442            | 0.0              | 885       | 21245            | 0.0              |
| 370       | 11776            | 0.0              | 500       | 142477           | 114.5            | 630       | 557990           | 0.2              | 760       | 25382            | 0.0              | 890       | 17771            | 0.0              |
| 375       | 13009            | 0.0              | 505       | 187724           | 144.1            | 635       | 506861           | 0.1              | 765       | 23778            | 0.0              | 895       | 14356            | 0.0              |
| 380       | 13906            | 0.0              | 510       | 232209           | 166.7            | 640       | 460827           | 0.1              | 770       | 21474            | 0.0              | 900       | 16683            | 0.0              |
| 385       | 12960            | 0.0              | 515       | 273388           | 178.6            | 645       | 418064           | 0.0              | 775       | 21394            | 0.0              | 905       | 16548            | 0.0              |
| 390       | 11750            | 0.0              | 520       | 308378           | 179.5            | 650       | 376246           | 0.0              | 780       | 18945            | 0.0              | 910       | 15630            | 0.0              |
| 395       | 10399            | 0.1              | 525       | 336804           | 170.8            | 655       | 332016           | 0.0              | 785       | 16318            | 0.0              | 915       | 20907            | 0.0              |
| 400       | 9192             | 0.1              | 530       | 361609           | 156.3            | 660       | 294638           | 0.0              | 790       | 17841            | 0.0              | 920       | 16083            | 0.0              |
| 405       | 8943             | 0.2              | 535       | 382440           | 137.6            | 665       | 259105           | 0.0              | 795       | 16506            | 0.0              | 925       | 20203            | 0.0              |
| 410       | 11120            | 0.4              | 540       | 401976           | 117.6            | 670       | 223041           | 0.0              | 800       | 15058            | 0.0              | 930       | 22625            | 0.0              |
| 415       | 18193            | 1.2              | 545       | 426232           | 99.0             | 675       | 193569           | 0.0              | 805       | 16851            | 0.0              | 935       | 24828            | 0.0              |
| 420       | 32317            | 3.7              | 550       | 455969           | 81.9             | 680       | 167520           | 0.0              | 810       | 16679            | 0.0              | 940       | 21275            | 0.0              |
| 425       | 59220            | 9.2              | 555       | 490448           | 66.1             | 685       | 144697           | 0.0              | 815       | 15851            | 0.0              | 945       | 23270            | 0.0              |
| 430       | 100522           | 21.2             | 560       | 530799           | 52.4             | 690       | 125032           | 0.0              | 820       | 15536            | 0.0              | 950       | 21756            | 0.0              |
| 435       | 155311           | 41.4             | 565       | 572799           | 40.2             | 695       | 107458           | 0.0              | 825       | 16381            | 0.0              | 955       | 24823            | 0.0              |
| 440       | 239817           | 80.1             | 570       | 615361           | 30.1             | 700       | 93549            | 0.0              | 830       | 16149            | 0.0              | 960       | 19499            | 0.0              |
| 445       | 368265           | 145.3            | 575       | 659689           | 22.0             | 705       | 81608            | 0.0              | 835       | 16687            | 0.0              | 965       | 27077            | 0.0              |
| 450       | 439895           | 202.7            | 580       | 700037           | 15.7             | 710       | 71559            | 0.0              | 840       | 16206            | 0.0              | 970       | 28727            | 0.0              |
| 455       | 329010           | 172.4            | 585       | 734518           | 10.9             | 715       | 65193            | 0.0              | 845       | 16062            | 0.0              | 975       | 21725            | 0.0              |
| 460       | 207545           | 122.3            | 590       | 760906           | 7.5              | 720       | 58466            | 0.0              | 850       | 18530            | 0.0              | 980       | 33536            | 0.0              |
| 465       | 154577           | 101.0            | 595       | 763605           | 4.9              | 725       | 52265            | 0.0              | 855       | 17709            | 0.0              | 985       | 30537            | 0.0              |
| 470       | 110708           | 79.3             | 600       | 766048           | 3.2              | 730       | 46287            | 0.0              | 860       | 18086            | 0.0              | 990       | 25187            | 0.0              |
| 475       | 78445            | 59.9             | 605       | 756483           | 2.1              | 735       | 40164            | 0.0              | 865       | 19763            | 0.0              | 995       | 35676            | 0.0              |
| 480       | 68887            | 55.4             | 610       | 730981           | 1.3              | 740       | 35097            | 0.0              | 870       | 19416            | 0.0              | 1000      | 32909            | 0.0              |
| 485       | 69832            | 57.6             | 615       | 694682           | 0.8              | 745       | 32334            | 0.0              | 875       | 19352            | 0.0              |           |                  |                  |

### Summary

$R_f = 75.3$   
 $R_g = 95.7$   
 CIE  $R_a = 73.2$   
 $R_g = -27.2$

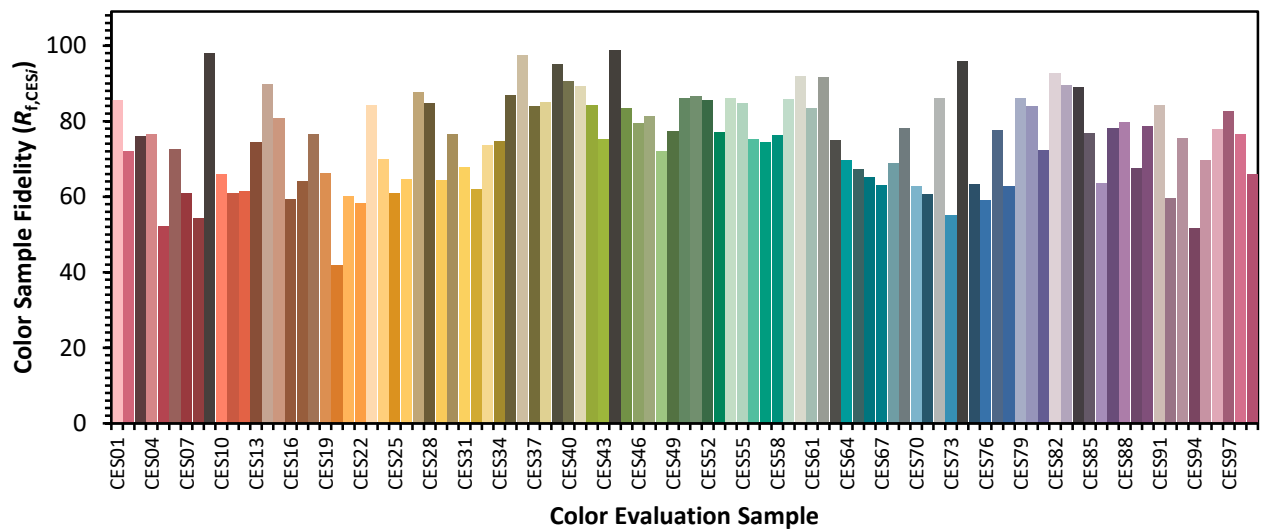


### Color Vector Graphics



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

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 65 | CES51 = 87 | CES76 = 59 |
| CES02 = 63 | CES27 = 88 | CES52 = 86 | CES77 = 78 |
| CES03 = 31 | CES28 = 85 | CES53 = 77 | CES78 = 63 |
| CES04 = 71 | CES29 = 64 | CES54 = 86 | CES79 = 86 |
| CES05 = 49 | CES30 = 77 | CES55 = 85 | CES80 = 84 |
| CES06 = 51 | CES31 = 68 | CES56 = 75 | CES81 = 72 |
| CES07 = 42 | CES32 = 62 | CES57 = 75 | CES82 = 93 |
| CES08 = 40 | CES33 = 74 | CES58 = 76 | CES83 = 89 |
| CES09 = 29 | CES34 = 75 | CES59 = 86 | CES84 = 89 |
| CES10 = 76 | CES35 = 87 | CES60 = 92 | CES85 = 77 |
| CES11 = 59 | CES36 = 98 | CES61 = 84 | CES86 = 64 |
| CES12 = 65 | CES37 = 84 | CES62 = 92 | CES87 = 78 |
| CES13 = 43 | CES38 = 85 | CES63 = 75 | CES88 = 80 |
| CES14 = 74 | CES39 = 95 | CES64 = 70 | CES89 = 67 |
| CES15 = 71 | CES40 = 90 | CES65 = 67 | CES90 = 79 |
| CES16 = 47 | CES41 = 89 | CES66 = 65 | CES91 = 84 |
| CES17 = 50 | CES42 = 84 | CES67 = 63 | CES92 = 60 |
| CES18 = 56 | CES43 = 75 | CES68 = 69 | CES93 = 75 |
| CES19 = 73 | CES44 = 99 | CES69 = 78 | CES94 = 52 |
| CES20 = 66 | CES45 = 83 | CES70 = 63 | CES95 = 70 |
| CES21 = 87 | CES46 = 80 | CES71 = 61 | CES96 = 78 |
| CES22 = 79 | CES47 = 81 | CES72 = 86 | CES97 = 83 |
| CES23 = 92 | CES48 = 72 | CES73 = 55 | CES98 = 77 |
| CES24 = 91 | CES49 = 77 | CES74 = 96 | CES99 = 66 |
| CES25 = 73 | CES50 = 86 | CES75 = 63 |            |



Color Rendition by Hue-Angle Bin



**Measure Comparisons**



(END OF REPORT)