

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: P579525

Luminaire Tested: **CST-CA10-210-750-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579525  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-4)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA10-210-750-U-T5N-HSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (10) 5000K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29304 lumens  
Efficiency: N/A  
Efficacy: 137.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U2 - G4

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

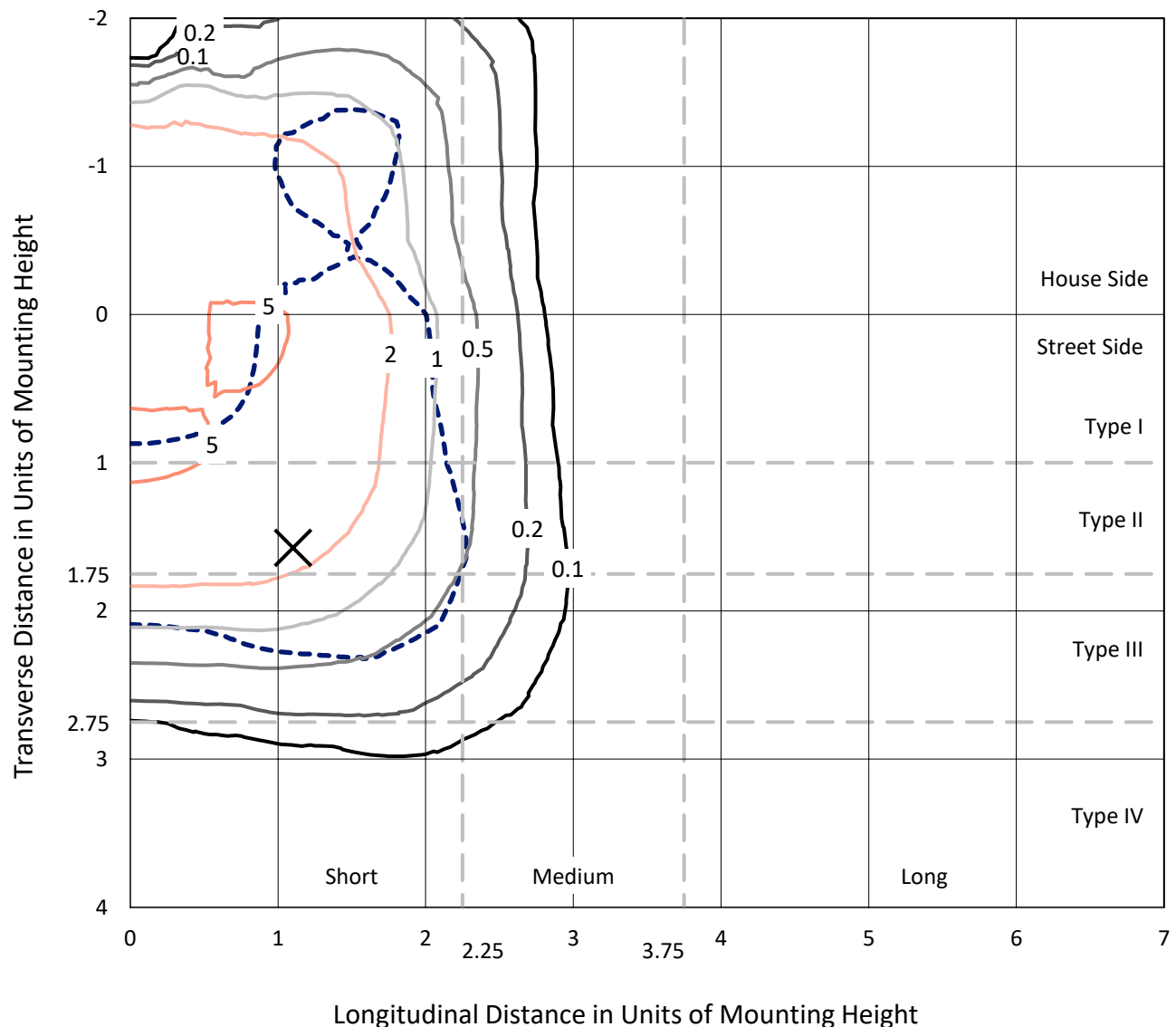


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## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

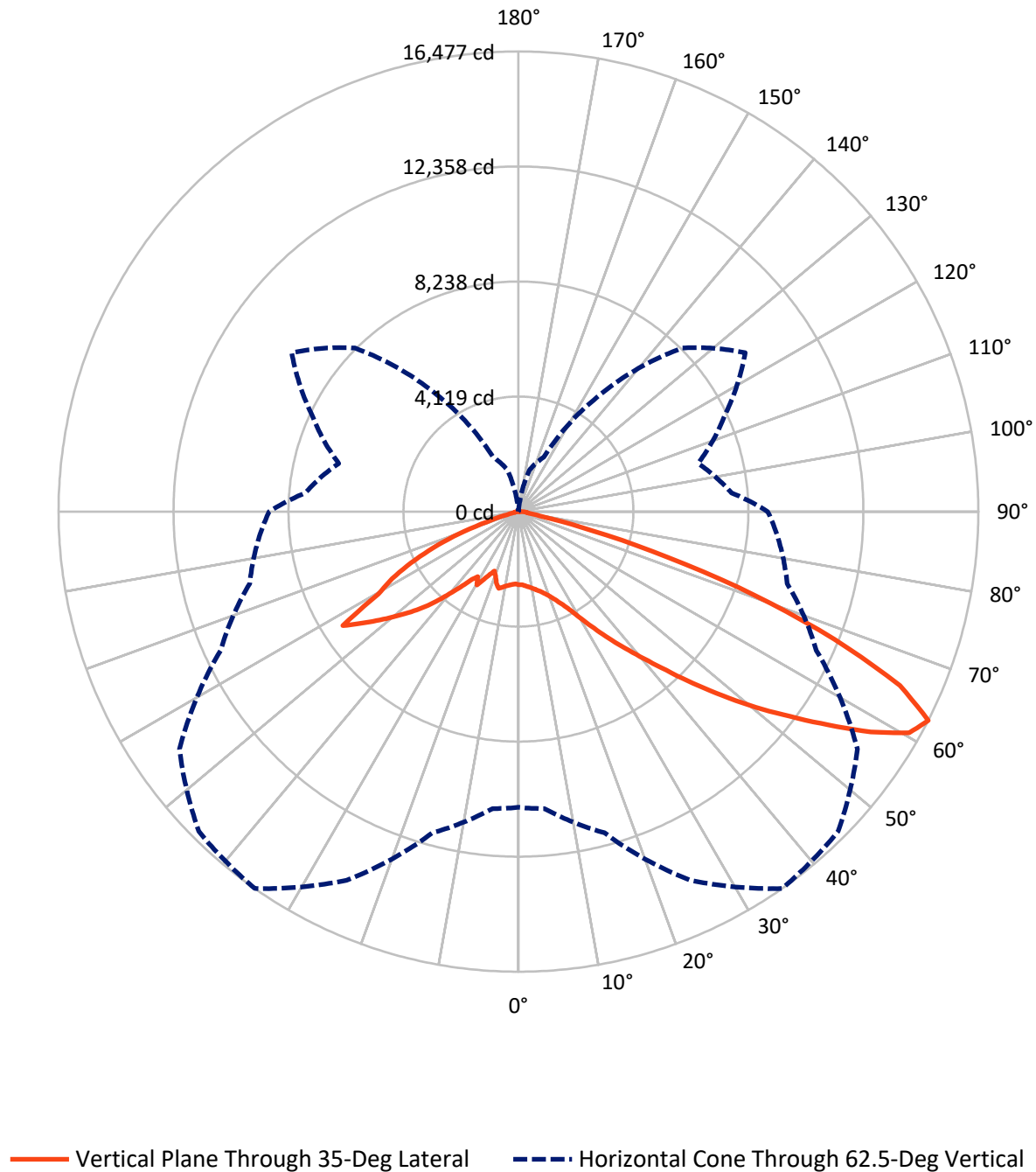


Based on 25 foot mounting height. Maximum calculated value = 5.7 fc  
 Type III - Short - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 10636.7  | 0.0    | 10636.7 |
|                    | % Fixture | 36.3     | 0.0    | 36.3    |
| <b>Street Side</b> | Lumens    | 18653.4  | 13.9   | 18667.3 |
|                    | % Fixture | 63.7     | 0.0    | 63.7    |
| <b>Total</b>       | Lumens    | 29290.1  | 13.9   | 29304.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 257.8   | 0.9       |
| 10°-20°   | 833.1   | 2.8       |
| 20°-30°   | 1602.8  | 5.5       |
| 30°-40°   | 3197.5  | 10.9      |
| 40°-50°   | 5838.4  | 19.9      |
| 50°-60°   | 8724.6  | 29.8      |
| 60°-70°   | 7310.4  | 24.9      |
| 70°-80°   | 1368.1  | 4.7       |
| 80°-90°   | 157.5   | 0.5       |
| 90°-100°  | 12.5    | 0.0       |
| 100°-110° | 1.3     | 0.0       |
| 110°-120° | 0.0     | 0.0       |
| 120°-130° | 0.0     | 0.0       |
| 130°-140° | 0.0     | 0.0       |
| 140°-150° | 0.0     | 0.0       |
| 150°-160° | 0.0     | 0.0       |
| 160°-170° | 0.0     | 0.0       |
| 170°-180° | 0.0     | 0.0       |
| 0°-90°    | 29290.1 | 100.0     |
| 0°-180°   | 29304.0 | 100.0     |

**Coefficient of Utilization**



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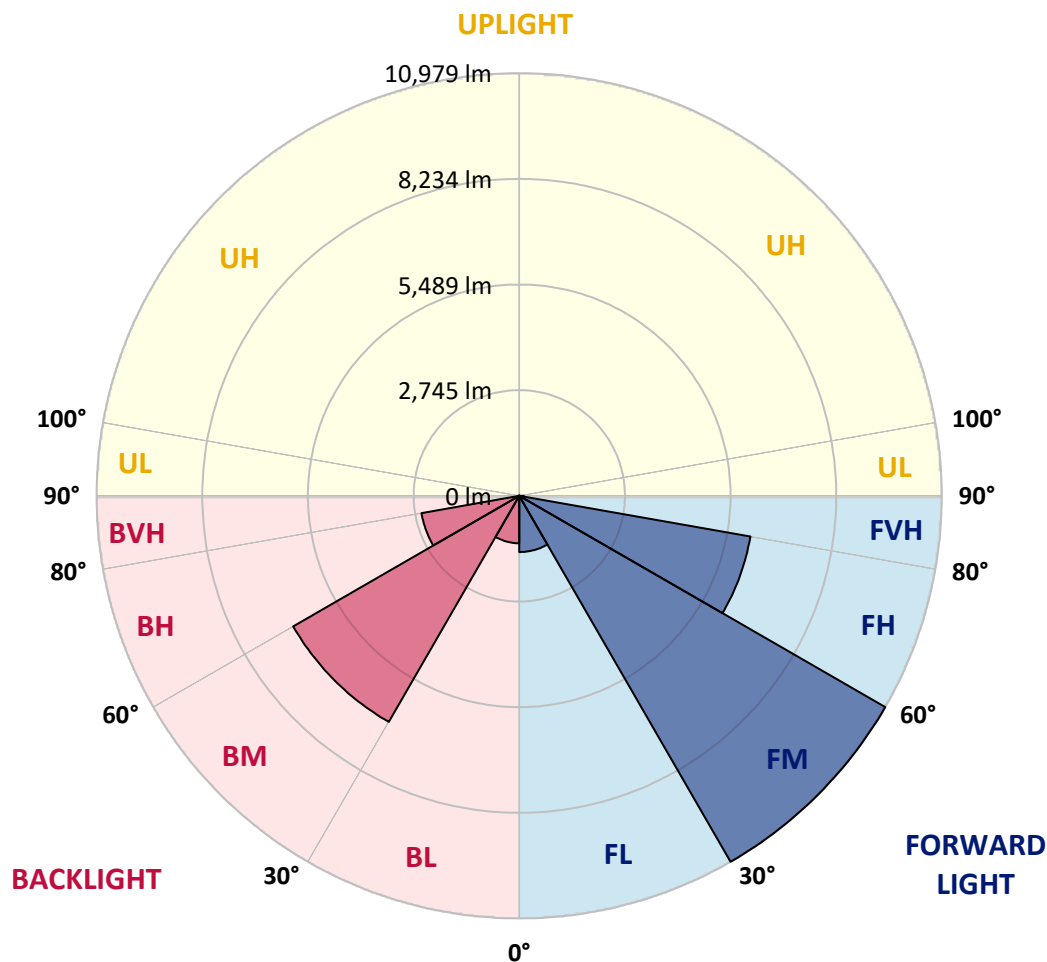
CATALOG NUMBER: CST-CA10-210-750-U-T5N-HSS-HM-EX90

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

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |       |         |
|------|-------------|---------|-----------|-------------------------|-------|---------|
|      |             |         |           | B                       | U     | G       |
| FL   | (0°-30°)    | 1461.2  | 5.0       |                         |       |         |
| FM   | (30°-60°)   | 10978.6 | 37.5      |                         |       |         |
| FH   | (60°-80°)   | 6099.0  | 20.8      |                         |       | G3/7500 |
| FVH  | (80°-90°)   | 114.7   | 0.4       |                         |       | G2/225  |
| BL   | (0°-30°)    | 1232.6  | 4.2       | B3/2500                 |       |         |
| BM   | (30°-60°)   | 6781.8  | 23.1      | B4/8500                 |       |         |
| BH   | (60°-80°)   | 2579.5  | 8.8       | B4/5000                 |       | G4/5000 |
| BVH  | (80°-90°)   | 42.8    | 0.1       |                         |       | G1/100  |
| UL   | (90°-100°)  | 12.5    | 0.0       |                         | U2/50 |         |
| UH   | (100°-180°) | 1.4     | 0.0       |                         | U1/10 |         |

**BUG Rating: B4-U2-G4**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     | 90°     |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°     | 2622.0  | 2622.0  | 2622.0  | 2622.0  | 2622.0  | 2622.0  | 2622.0  | 2622.0  | 2622.0  | 2622.0  | 2622.0  |
| 2.5°   | 2678.0  | 2656.1  | 2659.4  | 2674.7  | 2626.4  | 2646.2  | 2625.3  | 2645.1  | 2638.5  | 2647.3  | 2653.9  |
| 5°     | 2716.5  | 2689.0  | 2691.2  | 2708.8  | 2671.5  | 2687.9  | 2667.1  | 2680.2  | 2669.3  | 2681.3  | 2682.4  |
| 7.5°   | 2769.2  | 2746.1  | 2742.9  | 2760.4  | 2728.6  | 2742.9  | 2722.0  | 2728.6  | 2717.6  | 2731.9  | 2727.5  |
| 10°    | 2839.5  | 2818.6  | 2813.2  | 2825.2  | 2800.0  | 2807.7  | 2785.7  | 2794.5  | 2778.0  | 2794.5  | 2786.8  |
| 12.5°  | 2917.5  | 2890.0  | 2891.1  | 2904.3  | 2879.1  | 2884.6  | 2867.0  | 2876.9  | 2857.1  | 2874.7  | 2869.2  |
| 15°    | 3009.8  | 2970.2  | 2977.9  | 2992.2  | 2968.0  | 2984.5  | 2963.6  | 2977.9  | 2959.2  | 2977.9  | 2971.3  |
| 17.5°  | 3129.5  | 3084.5  | 3090.0  | 3113.0  | 3093.3  | 3119.6  | 3095.5  | 3113.0  | 3104.2  | 3116.3  | 3114.1  |
| 20°    | 3281.1  | 3251.4  | 3245.9  | 3274.5  | 3245.9  | 3278.9  | 3265.7  | 3296.5  | 3298.7  | 3310.8  | 3316.2  |
| 22.5°  | 3483.2  | 3463.4  | 3450.3  | 3470.0  | 3444.8  | 3467.8  | 3486.5  | 3539.2  | 3559.0  | 3590.9  | 3593.1  |
| 25°    | 3752.3  | 3751.2  | 3721.6  | 3722.7  | 3690.8  | 3721.6  | 3774.3  | 3856.7  | 3909.4  | 3950.1  | 3934.7  |
| 27.5°  | 4115.9  | 4122.5  | 4077.5  | 4059.9  | 4022.6  | 4068.7  | 4177.4  | 4279.6  | 4375.2  | 4432.3  | 4432.3  |
| 30°    | 4590.5  | 4597.0  | 4531.1  | 4496.0  | 4461.9  | 4542.1  | 4671.7  | 4804.7  | 4940.9  | 5023.2  | 5004.6  |
| 32.5°  | 5218.8  | 5197.9  | 5103.4  | 5039.7  | 4981.5  | 5073.8  | 5223.2  | 5373.7  | 5559.3  | 5677.9  | 5663.7  |
| 35°    | 5981.1  | 5905.3  | 5810.8  | 5692.2  | 5567.0  | 5639.5  | 5780.1  | 5969.0  | 6227.2  | 6405.1  | 6360.1  |
| 37.5°  | 6866.5  | 6791.8  | 6630.3  | 6426.0  | 6207.4  | 6216.2  | 6327.1  | 6654.5  | 6977.4  | 7122.4  | 7091.6  |
| 40°    | 7785.9  | 7727.7  | 7579.4  | 7316.8  | 6921.4  | 6830.2  | 7012.6  | 7406.9  | 7715.6  | 7897.9  | 7846.3  |
| 42.5°  | 8722.9  | 8663.5  | 8551.5  | 8287.9  | 7763.9  | 7544.2  | 7734.2  | 8163.7  | 8493.3  | 8672.3  | 8613.0  |
| 45°    | 9657.6  | 9589.5  | 9500.6  | 9267.7  | 8767.9  | 8446.0  | 8552.6  | 8946.9  | 9247.9  | 9451.1  | 9329.2  |
| 47.5°  | 10479.3 | 10434.3 | 10373.8 | 10279.4 | 9842.2  | 9486.3  | 9478.6  | 9738.9  | 9946.5  | 10080.6 | 9931.2  |
| 50°    | 11194.4 | 11162.5 | 11196.6 | 11176.8 | 11017.5 | 10693.5 | 10494.7 | 10477.1 | 10544.1 | 10641.9 | 10428.8 |
| 52.5°  | 11835.9 | 11779.9 | 11906.2 | 12063.3 | 12180.8 | 12114.9 | 11471.2 | 11109.8 | 11036.2 | 11069.2 | 10827.5 |
| 55°    | 12361.0 | 12334.6 | 12546.6 | 12940.9 | 13484.7 | 13629.7 | 12474.1 | 11724.9 | 11453.6 | 11436.0 | 11161.4 |
| 57.5°  | 12681.7 | 12719.0 | 13143.1 | 13894.4 | 14891.8 | 14937.9 | 13705.5 | 12382.9 | 11860.1 | 11671.1 | 11354.8 |
| 60°    | 12170.9 | 12314.8 | 13038.7 | 14588.6 | 16085.8 | 16114.4 | 14609.5 | 12503.8 | 11352.6 | 10929.7 | 10537.5 |
| 62.5°  | 10591.3 | 10677.0 | 11908.4 | 14565.6 | 16476.9 | 16197.9 | 14824.8 | 11774.4 | 9967.4  | 9293.0  | 8930.5  |
| 65°    | 7460.7  | 7621.1  | 8940.4  | 13104.6 | 15014.8 | 15050.0 | 13600.0 | 10180.5 | 7959.4  | 7213.6  | 6979.6  |
| 67.5°  | 4505.9  | 4659.7  | 6064.6  | 9459.9  | 12206.1 | 12600.4 | 11344.9 | 7707.9  | 5707.6  | 4765.1  | 4528.9  |
| 70°    | 1463.1  | 1630.1  | 2763.7  | 5575.8  | 8978.8  | 9924.6  | 8537.2  | 5016.7  | 2988.9  | 2093.7  | 1839.9  |
| 72.5°  | 555.8   | 606.3   | 899.6   | 2435.3  | 5592.3  | 6625.9  | 5280.3  | 2516.6  | 926.0   | 551.4   | 484.4   |
| 75°    | 361.4   | 369.1   | 420.7   | 853.5   | 2696.7  | 3648.0  | 2545.1  | 737.1   | 371.3   | 329.5   | 305.4   |
| 77.5°  | 310.9   | 316.4   | 338.3   | 425.1   | 859.0   | 1395.0  | 730.5   | 376.8   | 309.8   | 274.6   | 258.1   |
| 80°    | 293.3   | 295.5   | 309.8   | 360.3   | 402.0   | 465.7   | 351.5   | 315.3   | 270.2   | 258.1   | 246.1   |
| 82.5°  | 277.9   | 285.6   | 293.3   | 327.3   | 326.2   | 335.0   | 282.3   | 247.2   | 229.6   | 241.7   | 237.3   |
| 85°    | 259.2   | 263.6   | 269.1   | 292.2   | 265.8   | 225.2   | 217.5   | 170.3   | 165.9   | 176.9   | 165.9   |
| 87.5°  | 182.3   | 193.3   | 186.7   | 196.6   | 184.5   | 143.9   | 121.9   | 96.7    | 76.9    | 63.7    | 61.5    |
| 90°    | 74.7    | 75.8    | 71.4    | 65.9    | 58.2    | 48.3    | 38.4    | 24.2    | 11.0    | 5.5     | 2.2     |
| 92.5°  | 58.2    | 58.2    | 56.0    | 50.5    | 43.9    | 36.2    | 27.5    | 15.4    | 7.7     | 3.3     | 1.1     |
| 95°    | 36.2    | 37.3    | 35.2    | 31.9    | 27.5    | 22.0    | 16.5    | 8.8     | 5.5     | 2.2     | 1.1     |
| 97.5°  | 23.1    | 23.1    | 20.9    | 18.7    | 15.4    | 11.0    | 7.7     | 6.6     | 4.4     | 2.2     | 0.0     |
| 100°   | 13.2    | 13.2    | 12.1    | 9.9     | 7.7     | 5.5     | 5.5     | 4.4     | 3.3     | 1.1     | 0.0     |
| 102.5° | 7.7     | 7.7     | 5.5     | 4.4     | 3.3     | 3.3     | 3.3     | 3.3     | 2.2     | 1.1     | 0.0     |
| 105°   | 3.3     | 3.3     | 2.2     | 2.2     | 1.1     | 1.1     | 2.2     | 2.2     | 2.2     | 1.1     | 0.0     |
| 107.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 1.1     | 2.2     | 2.2     | 1.1     | 0.0     |
| 110°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 1.1     | 2.2     | 1.1     | 1.1     |



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**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°     | 2622.0 | 2622.0 | 2622.0 | 2622.0  | 2622.0 | 2622.0 | 2622.0 | 2622.0 | 2622.0 | 2622.0 |
| 2.5°   | 2649.5 | 2629.7 | 2633.0 | 2614.3  | 2611.0 | 2592.4 | 2629.7 | 2634.1 | 2623.1 | 2633.0 |
| 5°     | 2680.2 | 2656.1 | 2663.8 | 2642.9  | 2639.6 | 2614.3 | 2647.3 | 2645.1 | 2636.3 | 2646.2 |
| 7.5°   | 2726.4 | 2701.1 | 2705.5 | 2682.4  | 2678.0 | 2650.6 | 2681.3 | 2671.5 | 2662.7 | 2674.7 |
| 10°    | 2791.2 | 2762.6 | 2764.8 | 2735.2  | 2738.5 | 2702.2 | 2739.6 | 2722.0 | 2711.0 | 2727.5 |
| 12.5°  | 2869.2 | 2837.3 | 2838.4 | 2807.7  | 2806.6 | 2771.4 | 2804.4 | 2794.5 | 2778.0 | 2803.3 |
| 15°    | 2970.2 | 2934.0 | 2930.7 | 2890.0  | 2879.1 | 2839.5 | 2870.3 | 2851.6 | 2840.6 | 2876.9 |
| 17.5°  | 3111.9 | 3071.3 | 3059.2 | 3009.8  | 2804.4 | 2685.7 | 2850.5 | 2906.5 | 2838.4 | 2827.4 |
| 20°    | 3300.9 | 3266.8 | 3239.4 | 3164.7  | 2819.7 | 2449.6 | 2176.0 | 2178.2 | 2466.0 | 2599.0 |
| 22.5°  | 3556.8 | 3516.2 | 3464.5 | 3358.0  | 2586.9 | 2294.7 | 2295.8 | 2292.5 | 1967.3 | 1830.0 |
| 25°    | 3907.2 | 3857.8 | 3752.3 | 3150.4  | 2746.1 | 2475.9 | 2469.3 | 2147.5 | 1968.4 | 1978.3 |
| 27.5°  | 4380.7 | 4279.6 | 3662.3 | 3412.9  | 3029.5 | 2711.0 | 2552.8 | 2161.8 | 2183.7 | 2199.1 |
| 30°    | 4982.6 | 4576.2 | 3957.7 | 3809.5  | 3370.1 | 3023.0 | 2360.6 | 2414.4 | 2458.3 | 2468.2 |
| 32.5°  | 5599.9 | 4589.4 | 4430.1 | 4273.0  | 3789.7 | 2750.5 | 2660.5 | 2762.6 | 2808.8 | 2814.3 |
| 35°    | 5594.4 | 5151.8 | 4946.4 | 4769.5  | 4178.5 | 2942.8 | 2999.9 | 3157.0 | 3274.5 | 3269.0 |
| 37.5°  | 5920.7 | 5772.4 | 5527.4 | 5303.4  | 3761.1 | 3315.1 | 3417.3 | 3595.3 | 3738.1 | 3733.7 |
| 40°    | 6602.8 | 6431.5 | 6172.2 | 5702.1  | 4164.3 | 3741.3 | 3884.1 | 4075.3 | 4176.3 | 4181.8 |
| 42.5°  | 7247.6 | 7105.9 | 6841.2 | 5327.5  | 4668.4 | 4254.3 | 4383.9 | 4512.5 | 4575.1 | 4594.9 |
| 45°    | 7889.1 | 7788.1 | 6907.1 | 5887.7  | 5278.1 | 4770.6 | 4856.3 | 4880.5 | 4946.4 | 4938.7 |
| 47.5°  | 8409.8 | 8297.8 | 6641.3 | 6590.7  | 6017.4 | 5260.5 | 5253.9 | 5222.1 | 5246.2 | 5251.7 |
| 50°    | 8885.4 | 7535.4 | 7175.1 | 7343.2  | 6792.9 | 5760.3 | 5635.1 | 5570.3 | 5537.3 | 5523.0 |
| 52.5°  | 9261.1 | 7537.6 | 7673.8 | 8120.9  | 7668.3 | 6303.0 | 6033.8 | 5851.5 | 5123.2 | 5693.3 |
| 55°    | 9580.8 | 7848.5 | 8146.2 | 8952.4  | 8423.0 | 6870.9 | 6394.1 | 6069.0 | 3419.5 | 2741.8 |
| 57.5°  | 9764.2 | 8084.7 | 8614.1 | 9731.2  | 9082.1 | 7502.5 | 5886.6 | 5090.3 | 1933.3 | 1931.1 |
| 60°    | 9055.7 | 7660.6 | 8600.9 | 10139.9 | 8892.0 | 5819.6 | 2396.8 | 2005.8 | 365.8  | 375.7  |
| 62.5°  | 7666.1 | 6664.3 | 8157.2 | 9915.8  | 8281.3 | 5119.9 | 2149.7 | 1544.4 | 12.1   | 9.9    |
| 65°    | 5939.4 | 5316.5 | 6868.7 | 8721.8  | 7534.3 | 4271.9 | 1602.7 | 1112.7 | 3.3    | 0.0    |
| 67.5°  | 3885.2 | 3746.8 | 5068.3 | 7232.2  | 6144.8 | 3309.7 | 1075.4 | 532.8  | 2.2    | 0.0    |
| 70°    | 1656.5 | 1919.0 | 3210.8 | 5244.0  | 4703.6 | 2277.1 | 518.5  | 192.2  | 1.1    | 0.0    |
| 72.5°  | 463.5  | 614.0  | 1429.1 | 3072.4  | 2958.1 | 1197.3 | 202.1  | 81.3   | 1.1    | 0.0    |
| 75°    | 274.6  | 236.2  | 409.7  | 1225.9  | 1440.1 | 420.7  | 93.4   | 62.6   | 1.1    | 0.0    |
| 77.5°  | 228.5  | 184.5  | 235.1  | 313.1   | 436.1  | 151.6  | 79.1   | 56.0   | 0.0    | 0.0    |
| 80°    | 214.2  | 163.7  | 203.2  | 218.6   | 215.3  | 126.3  | 78.0   | 56.0   | 0.0    | 0.0    |
| 82.5°  | 203.2  | 142.8  | 168.1  | 168.1   | 180.1  | 116.4  | 73.6   | 54.9   | 0.0    | 0.0    |
| 85°    | 152.7  | 100.0  | 112.0  | 145.0   | 129.6  | 82.4   | 53.8   | 43.9   | 0.0    | 0.0    |
| 87.5°  | 58.2   | 36.2   | 43.9   | 46.1    | 37.3   | 18.7   | 4.4    | 4.4    | 0.0    | 0.0    |
| 90°    | 1.1    | 0.0    | 0.0    | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 0.0    | 0.0    | 0.0    | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P579525

CATALOG NUMBER: CST-CA10-210-750-U-T5N-HSS-HM-EX90

**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: SP1-2104-215-7

Luminaire Tested: CST-CA6-230-750-U-T4

Test Date: 04/22/2021

### Test Information

Test Method: LM-79-08  
 Report Number: SP1-2104-215-7  
 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-CA6-230-750-U-T4**  
 Description: STREETWORKS HIGH MAST LUMINAIRE

### Spectral Parameters

|                           |        |           |      |      |       |
|---------------------------|--------|-----------|------|------|-------|
| CCT (K):                  | 4852   | CRI (Ra): | 74.1 |      |       |
| CIE u':                   | 0.2118 | R1:       | 71.0 | R9:  | -25.4 |
| CIE v':                   | 0.4888 | R2:       | 79.6 | R10: | 51.4  |
| Duv:                      | 0.0017 | R3:       | 85.8 | R11: | 70.1  |
| CIE x:                    | 0.3498 | R4:       | 73.5 | R12: | 42.9  |
| CIE y:                    | 0.3588 | R5:       | 71.4 | R13: | 72.5  |
| CIE z:                    | 0.2914 | R6:       | 71.2 | R14: | 92.1  |
| Peak Wavelength (nm):     | 449    | R7:       | 82.9 |      |       |
| Dominant Wavelength (nm): | 572    | R8:       | 57.2 |      |       |
| Purity:                   | 12.7   |           |      |      |       |
| Rf:                       | 75.2   |           |      |      |       |
| Rg:                       | 94.7   |           |      |      |       |



### Test Conditions

Stabilization Time: 72M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 25.4/13%  
 Sphere Temperature (°C): 24.0

REPORT NUMBER: SP1-2104-215-7

| 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: SP1-2104-215-7

**CIE 1931 Chromaticity Diagram**



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



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2104-215-7

### 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       | 15077            | 0.0              | 490       | 146327           | 20.8             | 620       | 434415           | 113.0            | 750       | 22886            | 0.0              | 880       | 20960            | 0.0              |
| 365       | 12138            | 0.0              | 495       | 188585           | 34.2             | 625       | 400670           | 88.4             | 755       | 19692            | 0.0              | 885       | 20315            | 0.0              |
| 370       | 12993            | 0.0              | 500       | 245069           | 54.1             | 630       | 360611           | 65.3             | 760       | 18199            | 0.0              | 890       | 15211            | 0.0              |
| 375       | 14513            | 0.0              | 505       | 307682           | 86.1             | 635       | 326986           | 49.1             | 765       | 19191            | 0.0              | 895       | 15502            | 0.0              |
| 380       | 15679            | 0.0              | 510       | 367102           | 126.1            | 640       | 295583           | 35.3             | 770       | 16229            | 0.0              | 900       | 15935            | 0.0              |
| 385       | 14569            | 0.0              | 515       | 416068           | 172.4            | 645       | 264664           | 25.5             | 775       | 16351            | 0.0              | 905       | 15965            | 0.0              |
| 390       | 13091            | 0.0              | 520       | 457470           | 221.8            | 650       | 238441           | 17.4             | 780       | 14567            | 0.0              | 910       | 16119            | 0.0              |
| 395       | 10927            | 0.0              | 525       | 486980           | 261.4            | 655       | 210047           | 12.1             | 785       | 13349            | 0.0              | 915       | 13972            | 0.0              |
| 400       | 9655             | 0.0              | 530       | 511184           | 301.0            | 660       | 186019           | 7.8              | 790       | 12552            | 0.0              | 920       | 14830            | 0.0              |
| 405       | 10895            | 0.0              | 535       | 527191           | 326.9            | 665       | 164001           | 5.2              | 795       | 11517            | 0.0              | 925       | 13744            | 0.0              |
| 410       | 14929            | 0.0              | 540       | 540658           | 352.3            | 670       | 142007           | 3.1              | 800       | 13250            | 0.0              | 930       | 20340            | 0.0              |
| 415       | 25993            | 0.0              | 545       | 555639           | 369.8            | 675       | 123441           | 2.1              | 805       | 15135            | 0.0              | 935       | 13272            | 0.0              |
| 420       | 49620            | 0.1              | 550       | 572229           | 388.9            | 680       | 106894           | 1.2              | 810       | 9873             | 0.0              | 940       | 16357            | 0.0              |
| 425       | 95836            | 0.5              | 555       | 589788           | 402.8            | 685       | 94026            | 0.8              | 815       | 11566            | 0.0              | 945       | 19257            | 0.0              |
| 430       | 178101           | 1.4              | 560       | 608278           | 413.4            | 690       | 82099            | 0.5              | 820       | 11216            | 0.0              | 950       | 19804            | 0.0              |
| 435       | 300144           | 3.5              | 565       | 619317           | 411.8            | 695       | 70275            | 0.3              | 825       | 15165            | 0.0              | 955       | 14877            | 0.0              |
| 440       | 512674           | 8.1              | 570       | 627176           | 407.8            | 700       | 61784            | 0.2              | 830       | 14983            | 0.0              | 960       | 9882             | 0.0              |
| 445       | 857336           | 17.9             | 575       | 631114           | 392.7            | 705       | 55550            | 0.1              | 835       | 13993            | 0.0              | 965       | 11741            | 0.0              |
| 450       | 1021494          | 26.5             | 580       | 630436           | 374.6            | 710       | 50234            | 0.1              | 840       | 15281            | 0.0              | 970       | 11068            | 0.0              |
| 455       | 730207           | 24.4             | 585       | 625204           | 347.4            | 715       | 44909            | 0.0              | 845       | 15737            | 0.0              | 975       | 18108            | 0.0              |
| 460       | 467897           | 19.2             | 590       | 612752           | 316.8            | 720       | 41441            | 0.0              | 850       | 15148            | 0.0              | 980       | 17506            | 0.0              |
| 465       | 344659           | 17.8             | 595       | 589048           | 279.2            | 725       | 36834            | 0.0              | 855       | 17198            | 0.0              | 985       | 23821            | 0.0              |
| 470       | 230541           | 14.3             | 600       | 567479           | 244.6            | 730       | 32988            | 0.0              | 860       | 19169            | 0.0              | 990       | 25862            | 0.0              |
| 475       | 157156           | 12.3             | 605       | 542722           | 210.2            | 735       | 28984            | 0.0              | 865       | 18632            | 0.0              | 995       | 21133            | 0.0              |
| 480       | 134805           | 12.8             | 610       | 507118           | 174.2            | 740       | 26177            | 0.0              | 870       | 18831            | 0.0              | 1000      | 25640            | 0.0              |
| 485       | 132031           | 15.6             | 615       | 472188           | 142.5            | 745       | 22680            | 0.0              | 875       | 16978            | 0.0              |           |                  |                  |

REPORT NUMBER: SP1-2104-215-7

### Scotopic Flux vs. Wavelength



Scotopic Lumens: 66024.8

S/P: 1.78

| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 15077            | 0.0              | 490       | 146327           | 225.3            | 620       | 434415           | 5.4              | 750       | 22886            | 0.0              | 880       | 20960            | 0.0              |
| 365       | 12138            | 0.0              | 495       | 188585           | 304.9            | 625       | 400670           | 3.4              | 755       | 19692            | 0.0              | 885       | 20315            | 0.0              |
| 370       | 12993            | 0.0              | 500       | 245069           | 409.9            | 630       | 360611           | 2.0              | 760       | 18199            | 0.0              | 890       | 15211            | 0.0              |
| 375       | 14513            | 0.0              | 505       | 307682           | 523.1            | 635       | 326986           | 1.2              | 765       | 19191            | 0.0              | 895       | 15502            | 0.0              |
| 380       | 15679            | 0.0              | 510       | 367102           | 622.2            | 640       | 295583           | 0.8              | 770       | 16229            | 0.0              | 900       | 15935            | 0.0              |
| 385       | 14569            | 0.0              | 515       | 416068           | 689.6            | 645       | 264664           | 0.5              | 775       | 16351            | 0.0              | 905       | 15965            | 0.0              |
| 390       | 13091            | 0.0              | 520       | 457470           | 727.1            | 650       | 238441           | 0.3              | 780       | 14567            | 0.0              | 910       | 16119            | 0.0              |
| 395       | 10927            | 0.1              | 525       | 486980           | 728.5            | 655       | 210047           | 0.2              | 785       | 13349            | 0.0              | 915       | 13972            | 0.0              |
| 400       | 9655             | 0.2              | 530       | 511184           | 704.8            | 660       | 186019           | 0.1              | 790       | 12552            | 0.0              | 920       | 14830            | 0.0              |
| 405       | 10895            | 0.3              | 535       | 527191           | 656.9            | 665       | 164001           | 0.1              | 795       | 11517            | 0.0              | 925       | 13744            | 0.0              |
| 410       | 14929            | 0.9              | 540       | 540658           | 597.4            | 670       | 142007           | 0.0              | 800       | 13250            | 0.0              | 930       | 20340            | 0.0              |
| 415       | 25993            | 2.7              | 545       | 555639           | 532.7            | 675       | 123441           | 0.0              | 805       | 15135            | 0.0              | 935       | 13272            | 0.0              |
| 420       | 49620            | 8.2              | 550       | 572229           | 467.9            | 680       | 106894           | 0.0              | 810       | 9873             | 0.0              | 940       | 16357            | 0.0              |
| 425       | 95836            | 23.4             | 555       | 589788           | 403.1            | 685       | 94026            | 0.0              | 815       | 11566            | 0.0              | 945       | 19257            | 0.0              |
| 430       | 178101           | 60.6             | 560       | 608278           | 340.0            | 690       | 82099            | 0.0              | 820       | 11216            | 0.0              | 950       | 19804            | 0.0              |
| 435       | 300144           | 134.2            | 565       | 619317           | 277.8            | 695       | 70275            | 0.0              | 825       | 15165            | 0.0              | 955       | 14877            | 0.0              |
| 440       | 512674           | 286.5            | 570       | 627176           | 221.3            | 700       | 61784            | 0.0              | 830       | 14983            | 0.0              | 960       | 9882             | 0.0              |
| 445       | 857336           | 574.1            | 575       | 631114           | 171.9            | 705       | 55550            | 0.0              | 835       | 13993            | 0.0              | 965       | 11741            | 0.0              |
| 450       | 1021494          | 791.7            | 580       | 630436           | 129.9            | 710       | 50234            | 0.0              | 840       | 15281            | 0.0              | 970       | 11068            | 0.0              |
| 455       | 730207           | 638.1            | 585       | 625204           | 95.5             | 715       | 44909            | 0.0              | 845       | 15737            | 0.0              | 975       | 18108            | 0.0              |
| 460       | 467897           | 451.9            | 590       | 612752           | 68.2             | 720       | 41441            | 0.0              | 850       | 15148            | 0.0              | 980       | 17506            | 0.0              |
| 465       | 344659           | 364.0            | 595       | 589048           | 47.0             | 725       | 36834            | 0.0              | 855       | 17198            | 0.0              | 985       | 23821            | 0.0              |
| 470       | 230541           | 265.5            | 600       | 567479           | 32.0             | 730       | 32988            | 0.0              | 860       | 19169            | 0.0              | 990       | 25862            | 0.0              |
| 475       | 157156           | 196.5            | 605       | 542722           | 21.3             | 735       | 28984            | 0.0              | 865       | 18632            | 0.0              | 995       | 21133            | 0.0              |
| 480       | 134805           | 182.1            | 610       | 507118           | 13.7             | 740       | 26177            | 0.0              | 870       | 18831            | 0.0              | 1000      | 25640            | 0.0              |
| 485       | 132031           | 191.4            | 615       | 472188           | 8.7              | 745       | 22680            | 0.0              | 875       | 16978            | 0.0              |           |                  |                  |

REPORT NUMBER: SP1-2104-215-7

### Melanopic Flux vs. Wavelength



**Melanopic Lumens: 26696.3**      **M/P: 0.72**

| 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       | 15077            | 0.0              | 490       | 146327           | 121.8            | 620       | 434415           | 0.3              | 750       | 22886            | 0.0              | 880       | 20960            | 0.0              |
| 365       | 12138            | 0.0              | 495       | 188585           | 155.7            | 625       | 400670           | 0.2              | 755       | 19692            | 0.0              | 885       | 20315            | 0.0              |
| 370       | 12993            | 0.0              | 500       | 245069           | 197.0            | 630       | 360611           | 0.1              | 760       | 18199            | 0.0              | 890       | 15211            | 0.0              |
| 375       | 14513            | 0.0              | 505       | 307682           | 236.1            | 635       | 326986           | 0.1              | 765       | 19191            | 0.0              | 895       | 15502            | 0.0              |
| 380       | 15679            | 0.0              | 510       | 367102           | 263.6            | 640       | 295583           | 0.0              | 770       | 16229            | 0.0              | 900       | 15935            | 0.0              |
| 385       | 14569            | 0.0              | 515       | 416068           | 271.9            | 645       | 264664           | 0.0              | 775       | 16351            | 0.0              | 905       | 15965            | 0.0              |
| 390       | 13091            | 0.0              | 520       | 457470           | 266.3            | 650       | 238441           | 0.0              | 780       | 14567            | 0.0              | 910       | 16119            | 0.0              |
| 395       | 10927            | 0.1              | 525       | 486980           | 247.0            | 655       | 210047           | 0.0              | 785       | 13349            | 0.0              | 915       | 13972            | 0.0              |
| 400       | 9655             | 0.1              | 530       | 511184           | 220.9            | 660       | 186019           | 0.0              | 790       | 12552            | 0.0              | 920       | 14830            | 0.0              |
| 405       | 10895            | 0.2              | 535       | 527191           | 189.7            | 665       | 164001           | 0.0              | 795       | 11517            | 0.0              | 925       | 13744            | 0.0              |
| 410       | 14929            | 0.6              | 540       | 540658           | 158.2            | 670       | 142007           | 0.0              | 800       | 13250            | 0.0              | 930       | 20340            | 0.0              |
| 415       | 25993            | 1.7              | 545       | 555639           | 129.1            | 675       | 123441           | 0.0              | 805       | 15135            | 0.0              | 935       | 13272            | 0.0              |
| 420       | 49620            | 5.7              | 550       | 572229           | 102.7            | 680       | 106894           | 0.0              | 810       | 9873             | 0.0              | 940       | 16357            | 0.0              |
| 425       | 95836            | 14.9             | 555       | 589788           | 79.5             | 685       | 94026            | 0.0              | 815       | 11566            | 0.0              | 945       | 19257            | 0.0              |
| 430       | 178101           | 37.6             | 560       | 608278           | 60.0             | 690       | 82099            | 0.0              | 820       | 11216            | 0.0              | 950       | 19804            | 0.0              |
| 435       | 300144           | 80.1             | 565       | 619317           | 43.5             | 695       | 70275            | 0.0              | 825       | 15165            | 0.0              | 955       | 14877            | 0.0              |
| 440       | 512674           | 171.3            | 570       | 627176           | 30.6             | 700       | 61784            | 0.0              | 830       | 14983            | 0.0              | 960       | 9882             | 0.0              |
| 445       | 857336           | 338.2            | 575       | 631114           | 21.0             | 705       | 55550            | 0.0              | 835       | 13993            | 0.0              | 965       | 11741            | 0.0              |
| 450       | 1021494          | 470.7            | 580       | 630436           | 14.1             | 710       | 50234            | 0.0              | 840       | 15281            | 0.0              | 970       | 11068            | 0.0              |
| 455       | 730207           | 382.6            | 585       | 625204           | 9.3              | 715       | 44909            | 0.0              | 845       | 15737            | 0.0              | 975       | 18108            | 0.0              |
| 460       | 467897           | 275.7            | 590       | 612752           | 6.0              | 720       | 41441            | 0.0              | 850       | 15148            | 0.0              | 980       | 17506            | 0.0              |
| 465       | 344659           | 225.2            | 595       | 589048           | 3.8              | 725       | 36834            | 0.0              | 855       | 17198            | 0.0              | 985       | 23821            | 0.0              |
| 470       | 230541           | 165.0            | 600       | 567479           | 2.4              | 730       | 32988            | 0.0              | 860       | 19169            | 0.0              | 990       | 25862            | 0.0              |
| 475       | 157156           | 120.0            | 605       | 542722           | 1.5              | 735       | 28984            | 0.0              | 865       | 18632            | 0.0              | 995       | 21133            | 0.0              |
| 480       | 134805           | 108.3            | 610       | 507118           | 0.9              | 740       | 26177            | 0.0              | 870       | 18831            | 0.0              | 1000      | 25640            | 0.0              |
| 485       | 132031           | 108.8            | 615       | 472188           | 0.6              | 745       | 22680            | 0.0              | 875       | 16978            | 0.0              |           |                  |                  |

### Summary

$R_f = 75.2$   
 $R_g = 94.7$   
 CIE  $R_a = 74.1$   
 $R_g = -25.4$



### Color Vector Graphics



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

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 63 | CES51 = 90 | CES76 = 52 |
| CES02 = 60 | CES27 = 88 | CES52 = 90 | CES77 = 68 |
| CES03 = 30 | CES28 = 81 | CES53 = 81 | CES78 = 54 |
| CES04 = 69 | CES29 = 67 | CES54 = 86 | CES79 = 81 |
| CES05 = 46 | CES30 = 85 | CES55 = 84 | CES80 = 77 |
| CES06 = 50 | CES31 = 71 | CES56 = 76 | CES81 = 79 |
| CES07 = 39 | CES32 = 63 | CES57 = 75 | CES82 = 91 |
| CES08 = 38 | CES33 = 79 | CES58 = 76 | CES83 = 89 |
| CES09 = 29 | CES34 = 70 | CES59 = 87 | CES84 = 86 |
| CES10 = 73 | CES35 = 83 | CES60 = 89 | CES85 = 79 |
| CES11 = 56 | CES36 = 90 | CES61 = 83 | CES86 = 76 |
| CES12 = 62 | CES37 = 79 | CES62 = 85 | CES87 = 78 |
| CES13 = 42 | CES38 = 94 | CES63 = 76 | CES88 = 82 |
| CES14 = 74 | CES39 = 96 | CES64 = 67 | CES89 = 74 |
| CES15 = 70 | CES40 = 91 | CES65 = 64 | CES90 = 81 |
| CES16 = 46 | CES41 = 95 | CES66 = 61 | CES91 = 74 |
| CES17 = 49 | CES42 = 80 | CES67 = 58 | CES92 = 61 |
| CES18 = 55 | CES43 = 78 | CES68 = 66 | CES93 = 77 |
| CES19 = 71 | CES44 = 99 | CES69 = 74 | CES94 = 56 |
| CES20 = 64 | CES45 = 86 | CES70 = 58 | CES95 = 67 |
| CES21 = 85 | CES46 = 85 | CES71 = 51 | CES96 = 78 |
| CES22 = 77 | CES47 = 88 | CES72 = 83 | CES97 = 86 |
| CES23 = 91 | CES48 = 80 | CES73 = 48 | CES98 = 77 |
| CES24 = 90 | CES49 = 83 | CES74 = 92 | CES99 = 65 |
| CES25 = 71 | CES50 = 90 | CES75 = 52 |            |



Color Rendition by Hue-Angle Bin



**Measure Comparisons**



(END OF REPORT)