

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



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P879985

Luminaire Tested: **MEM2-HSN-VA-110-740-U-WQ**

Issue Date: 10/01/2024



Test Information

Test Method: LM-79-08
Report Number: P879985
Test Lab: INNOVATION CENTER(G3)
Issue Date: 10/01/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: MEM2-HSN-VA-110-740-U-WQ
Description: EPIC MODERN SHORT HOUSING 110W 70CRI 4000K VISUAL COMFORT FIXTURE
w/ TYPE V WIDE DISTRIBUTION OPTIC
Light Source: (1) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

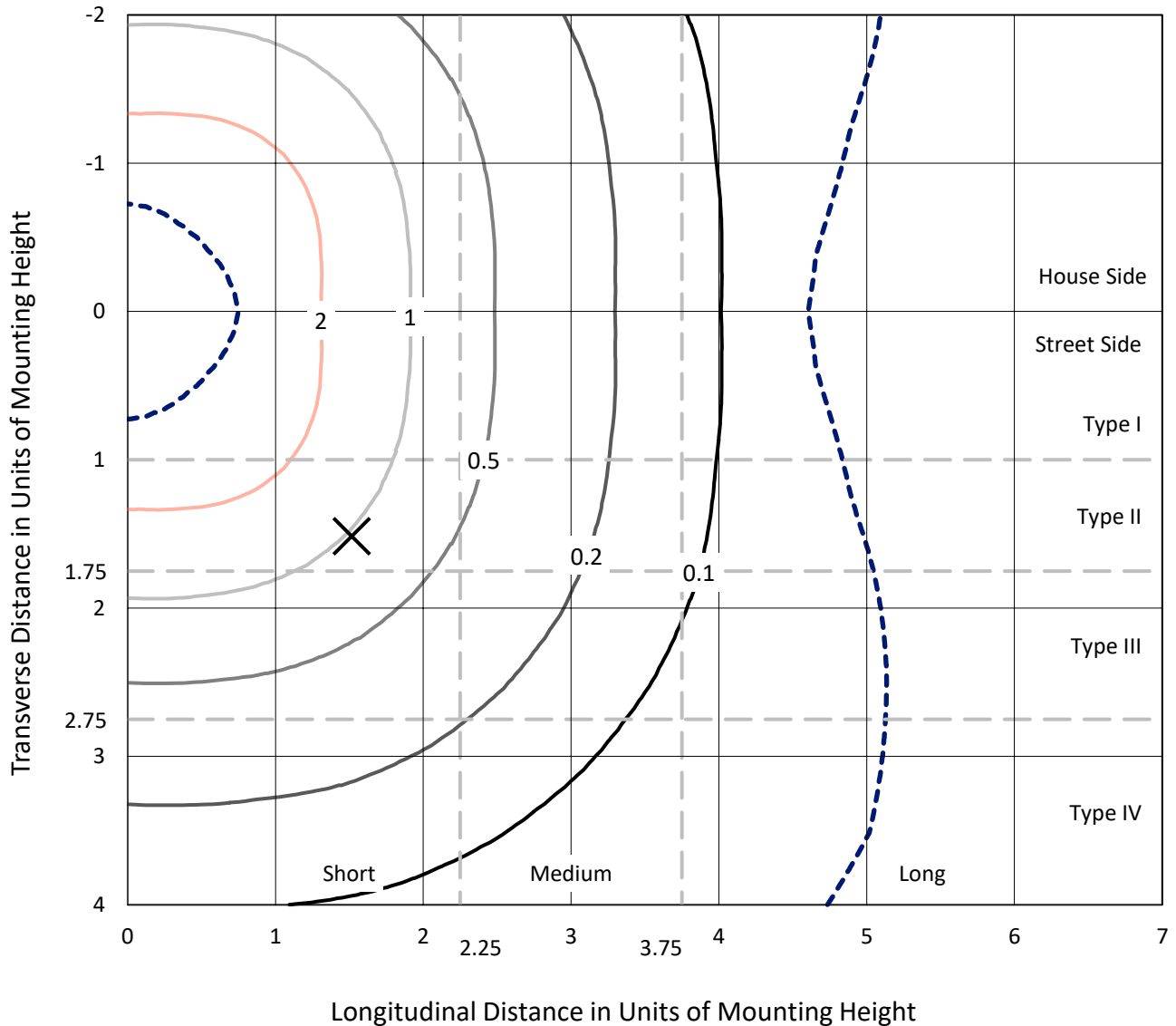
Lumens per Lamp: N/A
Luminaire Lumens: 10569.3 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type V - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 106
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

REPORT NUMBER: P879985
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Iso-Footcandle Lines of Horizontal Illumination

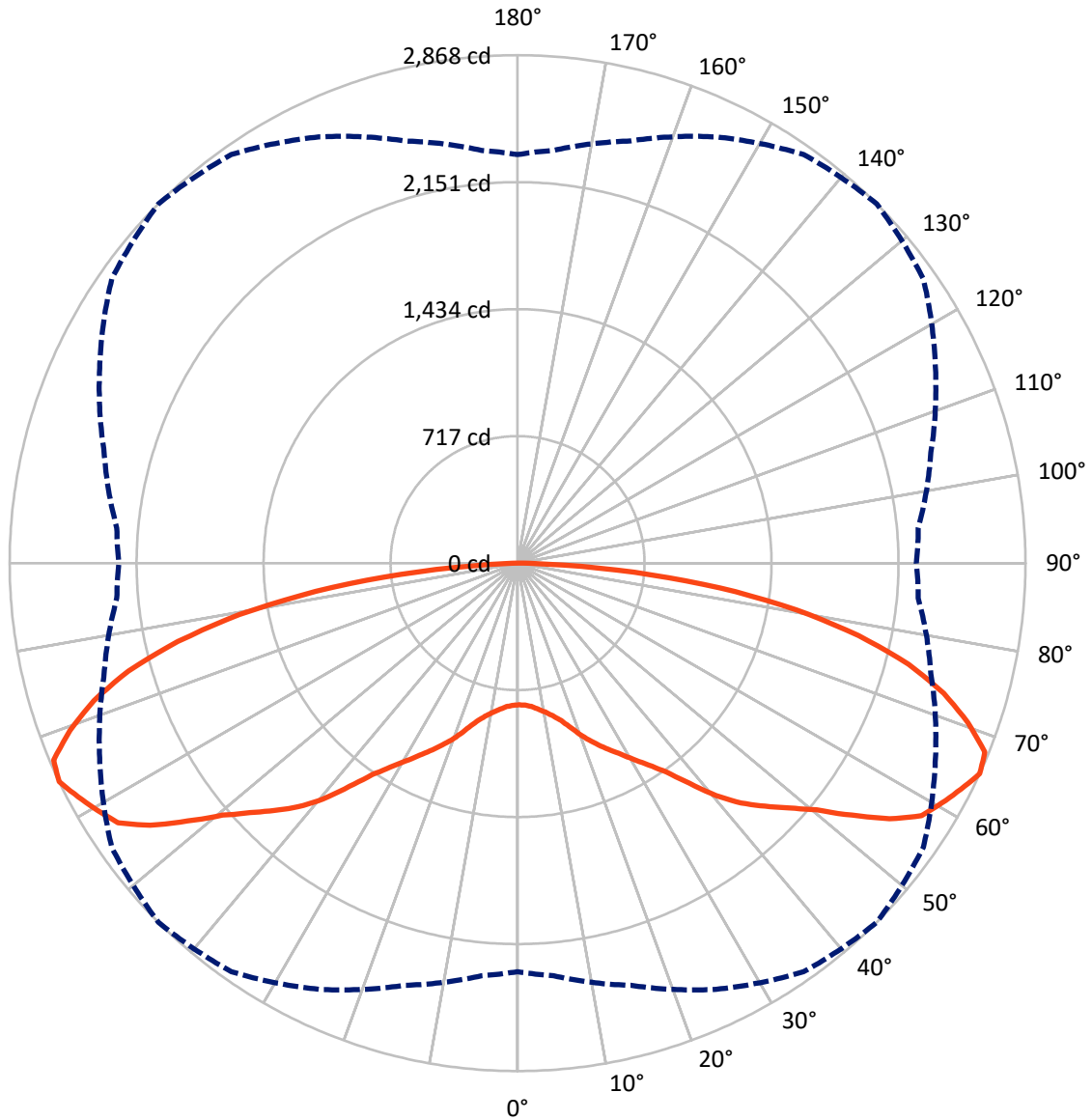
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.8 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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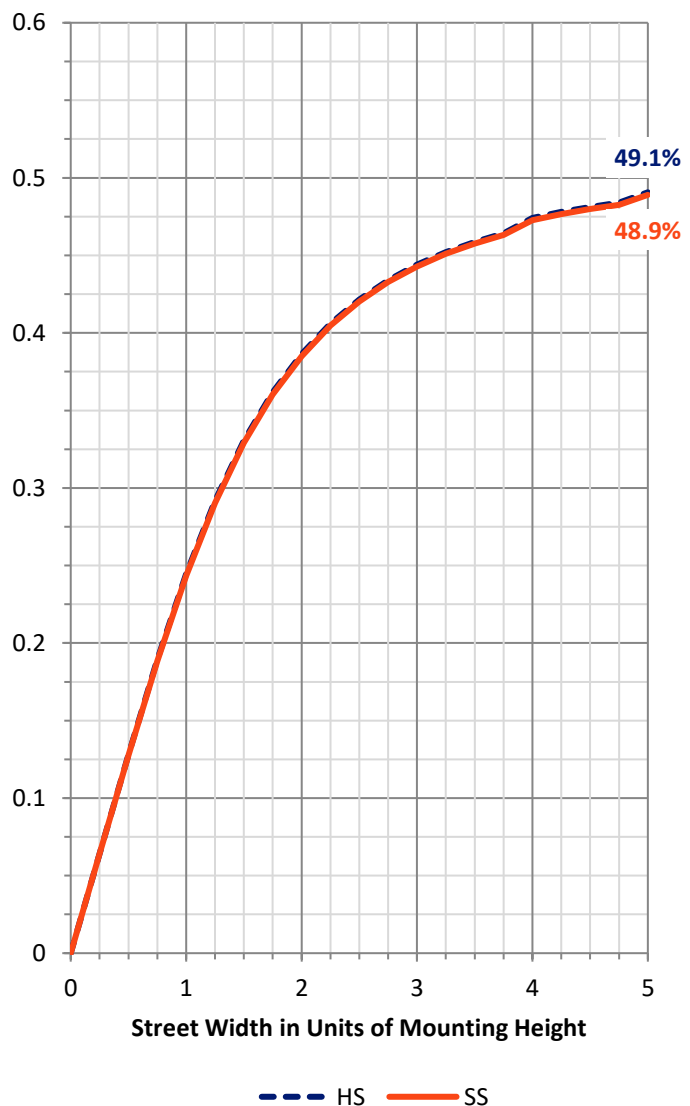
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5284.6 | 0.0 | 5284.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 5284.6 | 0.0 | 5284.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 10569.3 | 0.0 | 10569.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 79.0 | 0.7 |
| 10°-20° | 265.9 | 2.5 |
| 20°-30° | 534.3 | 5.1 |
| 30°-40° | 904.4 | 8.6 |
| 40°-50° | 1445.8 | 13.7 |
| 50°-60° | 2088.2 | 19.8 |
| 60°-70° | 2514.6 | 23.8 |
| 70°-80° | 2083.2 | 19.7 |
| 80°-90° | 653.7 | 6.2 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 10569.3 | 100.0 |
| 0°-180° | 10569.3 | 100.0 |



REPORT NUMBER: P879985

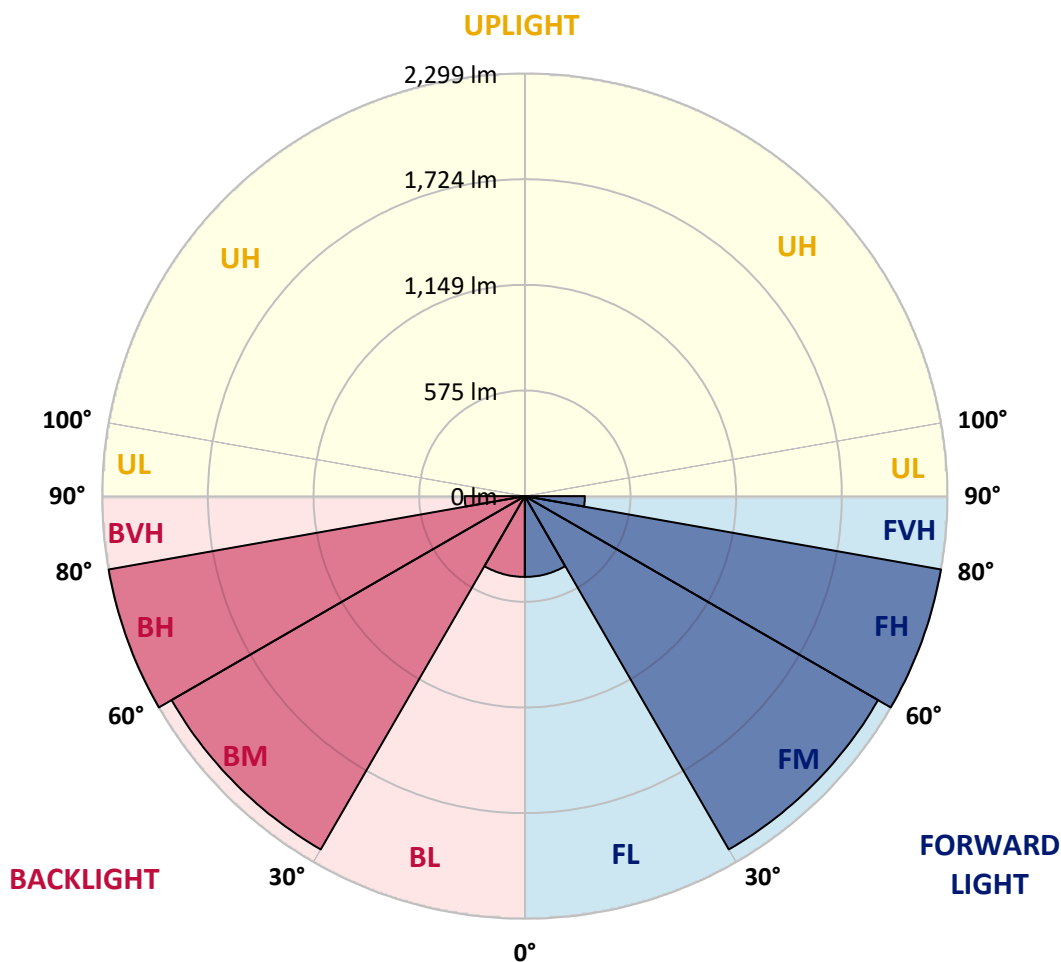
CATALOG NUMBER: MEM2-HSN-VA-110-740-U-WQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 439.6 | 4.2 | | | |
| FM (30°-60°) | 2219.2 | 21.0 | | | |
| FH (60°-80°) | 2298.9 | 21.8 | | | G2/5000 |
| FVH (80°-90°) | 326.8 | 3.1 | | | G3/500 |
| BL (0°-30°) | 439.6 | 4.2 | B1/500 | | |
| BM (30°-60°) | 2219.2 | 21.0 | B2/2500 | | |
| BH (60°-80°) | 2298.9 | 21.8 | B3/2500 | | G2/5000 |
| BVH (80°-90°) | 326.8 | 3.1 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type V Short





REPORT NUMBER: P879985

CATALOG NUMBER: MEM2-HSN-VA-110-740-U-WQ

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 799.9 | 799.9 | 799.9 | 799.9 | 799.9 | 799.9 | 799.9 | 799.9 | 799.9 | 799.9 | 799.9 |
| 2.5° | 803.2 | 803.2 | 803.2 | 803.2 | 803.2 | 803.2 | 803.2 | 803.2 | 803.2 | 803.2 | 803.2 |
| 5° | 816.1 | 816.1 | 816.1 | 812.8 | 812.8 | 812.8 | 816.1 | 816.1 | 816.1 | 816.1 | 816.1 |
| 7.5° | 832.2 | 832.2 | 832.2 | 832.2 | 832.2 | 832.2 | 829.0 | 829.0 | 829.0 | 829.0 | 832.2 |
| 10° | 854.8 | 858.0 | 858.0 | 854.8 | 854.8 | 854.8 | 851.6 | 851.6 | 854.8 | 854.8 | 851.6 |
| 12.5° | 887.0 | 887.0 | 887.0 | 887.0 | 883.8 | 883.8 | 883.8 | 883.8 | 883.8 | 883.8 | 883.8 |
| 15° | 922.5 | 922.5 | 922.5 | 922.5 | 922.5 | 922.5 | 922.5 | 922.5 | 919.3 | 916.1 | 916.1 |
| 17.5° | 967.7 | 964.4 | 970.9 | 967.7 | 974.1 | 977.4 | 970.9 | 967.7 | 964.4 | 961.2 | 958.0 |
| 20° | 1022.5 | 1025.7 | 1032.2 | 1035.4 | 1038.6 | 1041.9 | 1032.2 | 1029.0 | 1022.5 | 1019.3 | 1016.1 |
| 22.5° | 1087.0 | 1087.0 | 1093.5 | 1093.5 | 1099.9 | 1099.9 | 1096.7 | 1087.0 | 1080.6 | 1080.6 | 1077.3 |
| 25° | 1141.9 | 1145.1 | 1151.5 | 1151.5 | 1158.0 | 1158.0 | 1154.8 | 1148.3 | 1138.6 | 1132.2 | 1129.0 |
| 27.5° | 1199.9 | 1199.9 | 1203.1 | 1212.8 | 1216.0 | 1216.0 | 1212.8 | 1203.1 | 1190.2 | 1183.8 | 1183.8 |
| 30° | 1254.8 | 1258.0 | 1261.2 | 1274.1 | 1280.6 | 1283.8 | 1270.9 | 1261.2 | 1245.1 | 1238.6 | 1238.6 |
| 32.5° | 1319.3 | 1319.3 | 1325.7 | 1345.1 | 1354.7 | 1358.0 | 1345.1 | 1328.9 | 1309.6 | 1296.7 | 1296.7 |
| 35° | 1390.2 | 1387.0 | 1406.4 | 1425.7 | 1448.3 | 1448.3 | 1438.6 | 1412.8 | 1383.8 | 1367.6 | 1364.4 |
| 37.5° | 1483.8 | 1487.0 | 1506.3 | 1541.8 | 1577.3 | 1577.3 | 1567.6 | 1522.5 | 1490.2 | 1461.2 | 1454.7 |
| 40° | 1593.4 | 1596.7 | 1632.1 | 1674.1 | 1712.8 | 1725.7 | 1706.3 | 1661.2 | 1606.3 | 1564.4 | 1561.2 |
| 42.5° | 1687.0 | 1699.9 | 1735.4 | 1793.4 | 1832.1 | 1851.5 | 1822.5 | 1770.8 | 1709.6 | 1661.2 | 1651.5 |
| 45° | 1777.3 | 1790.2 | 1835.4 | 1896.6 | 1945.0 | 1957.9 | 1932.1 | 1870.8 | 1799.9 | 1748.3 | 1741.8 |
| 47.5° | 1861.2 | 1874.1 | 1919.2 | 1999.9 | 2051.5 | 2064.4 | 2041.8 | 1970.8 | 1883.7 | 1832.1 | 1825.7 |
| 50° | 1938.6 | 1967.6 | 2022.4 | 2109.5 | 2183.7 | 2190.2 | 2157.9 | 2074.0 | 1983.7 | 1912.8 | 1903.1 |
| 52.5° | 2045.0 | 2057.9 | 2135.3 | 2251.5 | 2335.3 | 2364.4 | 2312.7 | 2222.4 | 2090.2 | 2006.3 | 1990.2 |
| 55° | 2174.0 | 2180.5 | 2264.4 | 2399.8 | 2509.5 | 2548.2 | 2483.7 | 2367.6 | 2216.0 | 2132.1 | 2119.2 |
| 57.5° | 2248.2 | 2277.3 | 2374.0 | 2519.2 | 2638.5 | 2690.1 | 2628.8 | 2477.2 | 2328.9 | 2222.4 | 2193.4 |
| 60° | 2280.5 | 2309.5 | 2416.0 | 2590.1 | 2719.2 | 2751.4 | 2706.3 | 2557.9 | 2364.4 | 2245.0 | 2225.7 |
| 62.5° | 2312.7 | 2341.8 | 2448.2 | 2638.5 | 2764.3 | 2809.5 | 2738.5 | 2606.3 | 2396.6 | 2280.5 | 2254.7 |
| 65° | 2306.3 | 2338.5 | 2467.6 | 2654.7 | 2815.9 | 2867.5 | 2796.6 | 2603.0 | 2416.0 | 2270.8 | 2251.5 |
| 67.5° | 2241.8 | 2270.8 | 2406.3 | 2612.7 | 2790.1 | 2845.0 | 2767.5 | 2567.6 | 2357.9 | 2209.5 | 2186.9 |
| 70° | 2112.8 | 2148.2 | 2280.5 | 2506.3 | 2670.8 | 2696.6 | 2638.5 | 2457.9 | 2238.6 | 2080.5 | 2051.5 |
| 72.5° | 1938.6 | 1974.1 | 2109.5 | 2341.8 | 2470.8 | 2516.0 | 2451.4 | 2296.6 | 2074.0 | 1912.8 | 1887.0 |
| 75° | 1732.1 | 1754.7 | 1880.5 | 2099.9 | 2238.6 | 2280.5 | 2232.1 | 2064.4 | 1838.6 | 1709.6 | 1680.5 |
| 77.5° | 1490.2 | 1522.5 | 1635.4 | 1819.2 | 1928.9 | 1967.6 | 1922.4 | 1803.1 | 1593.4 | 1483.8 | 1461.2 |
| 80° | 1170.9 | 1209.6 | 1312.8 | 1451.5 | 1567.6 | 1596.7 | 1558.0 | 1428.9 | 1296.7 | 1177.3 | 1151.5 |
| 82.5° | 845.1 | 854.8 | 948.3 | 1048.3 | 1135.4 | 1151.5 | 1122.5 | 1051.5 | 912.8 | 832.2 | 796.7 |
| 85° | 441.9 | 454.8 | 522.5 | 596.7 | 651.6 | 661.2 | 648.3 | 570.9 | 525.8 | 451.6 | 422.6 |
| 87.5° | 100.0 | 103.2 | 122.6 | 135.5 | 164.5 | 161.3 | 171.0 | 135.5 | 129.0 | 106.4 | 93.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-176-5

Test Date: 09/24/2024

Luminaire Tested: MEM2-HTN-VA-30-740-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-740-U-WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-176-5
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 09/27/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Streetworks
 Catalog Number: **MEM2-HTN-VA-30-740-U-WQ**
 Description: EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K): 3819
 CIE u': 0.2261
 CIE v': 0.5108
 Duv: 0.0046
 CIE x: 0.3926
 CIE y: 0.3942
 CIE z: 0.2132
 Peak Wavelength (nm): 450
 Dominant Wavelength (nm): 577
 Purity: 36.15483
 Rf: 75.6
 Rg: 94.8

| | | | |
|-----------|------|------|-------|
| CRI (Ra): | 72.9 | | |
| R1: | 70.1 | R9: | -21.5 |
| R2: | 78.4 | R10: | 48.5 |
| R3: | 85.0 | R11: | 68.4 |
| R4: | 72.9 | R12: | 39.0 |
| R5: | 69.1 | R13: | 71.1 |
| R6: | 69.2 | R14: | 91.3 |
| R7: | 82.8 | R15: | 63.2 |
| R8: | 55.4 | | |



Test Conditions

Stabilization Time: 30M
 Operation Time: 1H 30M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-176-5

| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC Power Source | IN0208 | 10/24/2023 | 10/24/2024 |
| Sphere Thermometer | IN0085 | 10/24/2023 | 10/24/2024 |
| Room Thermometer | IN0046 | 10/24/2023 | 10/24/2024 |

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CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 4000K 7-step quadrangle

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Photopic Flux vs. Wavelength



Photopic Lumens: NR

| λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) |
|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|
| 360 | 0 | NR | 490 | 127 | NR | 620 | 748 | NR | 750 | 25 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 699 | NR | 755 | 22 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 246 | NR | 630 | 648 | NR | 760 | 20 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 335 | NR | 635 | 599 | NR | 765 | 17 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 427 | NR | 640 | 547 | NR | 770 | 15 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 517 | NR | 645 | 495 | NR | 775 | 13 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 589 | NR | 650 | 445 | NR | 780 | 11 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 649 | NR | 655 | 396 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 695 | NR | 660 | 349 | NR | 790 | 8 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 733 | NR | 665 | 308 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 11 | NR | 540 | 763 | NR | 670 | 269 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 23 | NR | 545 | 792 | NR | 675 | 235 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 46 | NR | 550 | 813 | NR | 680 | 205 | NR | 810 | 5 | NR | 940 | 0 | NR |
| 425 | 95 | NR | 555 | 835 | NR | 685 | 178 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 183 | NR | 560 | 859 | NR | 690 | 155 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 338 | NR | 565 | 880 | NR | 695 | 134 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 534 | NR | 570 | 900 | NR | 700 | 115 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 782 | NR | 575 | 918 | NR | 705 | 99 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 1000 | NR | 580 | 931 | NR | 710 | 84 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 739 | NR | 585 | 937 | NR | 715 | 71 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 393 | NR | 590 | 939 | NR | 720 | 59 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 276 | NR | 595 | 925 | NR | 725 | 49 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 190 | NR | 600 | 907 | NR | 730 | 41 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 123 | NR | 605 | 878 | NR | 735 | 35 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 105 | NR | 610 | 842 | NR | 740 | 31 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 108 | NR | 615 | 797 | NR | 745 | 28 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-176-5

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.45

| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 127 | NR | 620 | 748 | NR | 750 | 25 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 699 | NR | 755 | 22 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 246 | NR | 630 | 648 | NR | 760 | 20 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 335 | NR | 635 | 599 | NR | 765 | 17 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 427 | NR | 640 | 547 | NR | 770 | 15 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 517 | NR | 645 | 495 | NR | 775 | 13 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 589 | NR | 650 | 445 | NR | 780 | 11 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 649 | NR | 655 | 396 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 695 | NR | 660 | 349 | NR | 790 | 8 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 733 | NR | 665 | 308 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 11 | NR | 540 | 763 | NR | 670 | 269 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 23 | NR | 545 | 792 | NR | 675 | 235 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 46 | NR | 550 | 813 | NR | 680 | 205 | NR | 810 | 5 | NR | 940 | 0 | NR |
| 425 | 95 | NR | 555 | 835 | NR | 685 | 178 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 183 | NR | 560 | 859 | NR | 690 | 155 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 338 | NR | 565 | 880 | NR | 695 | 134 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 534 | NR | 570 | 900 | NR | 700 | 115 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 782 | NR | 575 | 918 | NR | 705 | 99 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 1000 | NR | 580 | 931 | NR | 710 | 84 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 739 | NR | 585 | 937 | NR | 715 | 71 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 393 | NR | 590 | 939 | NR | 720 | 59 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 276 | NR | 595 | 925 | NR | 725 | 49 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 190 | NR | 600 | 907 | NR | 730 | 41 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 123 | NR | 605 | 878 | NR | 735 | 35 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 105 | NR | 610 | 842 | NR | 740 | 31 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 108 | NR | 615 | 797 | NR | 745 | 28 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-176-5

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.76

| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 127 | NR | 620 | 748 | NR | 750 | 25 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 699 | NR | 755 | 22 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 246 | NR | 630 | 648 | NR | 760 | 20 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 335 | NR | 635 | 599 | NR | 765 | 17 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 427 | NR | 640 | 547 | NR | 770 | 15 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 517 | NR | 645 | 495 | NR | 775 | 13 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 589 | NR | 650 | 445 | NR | 780 | 11 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 649 | NR | 655 | 396 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 695 | NR | 660 | 349 | NR | 790 | 8 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 733 | NR | 665 | 308 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 11 | NR | 540 | 763 | NR | 670 | 269 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 23 | NR | 545 | 792 | NR | 675 | 235 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 46 | NR | 550 | 813 | NR | 680 | 205 | NR | 810 | 5 | NR | 940 | 0 | NR |
| 425 | 95 | NR | 555 | 835 | NR | 685 | 178 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 183 | NR | 560 | 859 | NR | 690 | 155 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 338 | NR | 565 | 880 | NR | 695 | 134 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 534 | NR | 570 | 900 | NR | 700 | 115 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 782 | NR | 575 | 918 | NR | 705 | 99 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 1000 | NR | 580 | 931 | NR | 710 | 84 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 739 | NR | 585 | 937 | NR | 715 | 71 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 393 | NR | 590 | 939 | NR | 720 | 59 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 276 | NR | 595 | 925 | NR | 725 | 49 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 190 | NR | 600 | 907 | NR | 730 | 41 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 123 | NR | 605 | 878 | NR | 735 | 35 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 105 | NR | 610 | 842 | NR | 740 | 31 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 108 | NR | 615 | 797 | NR | 745 | 28 | NR | 875 | 1 | NR | | | |

Summary

$R_f = 75.6$
 $R_g = 94.8$
 $CIE R_a = 72.9$
 $R_g = -21.5$



Color Vector Graphics

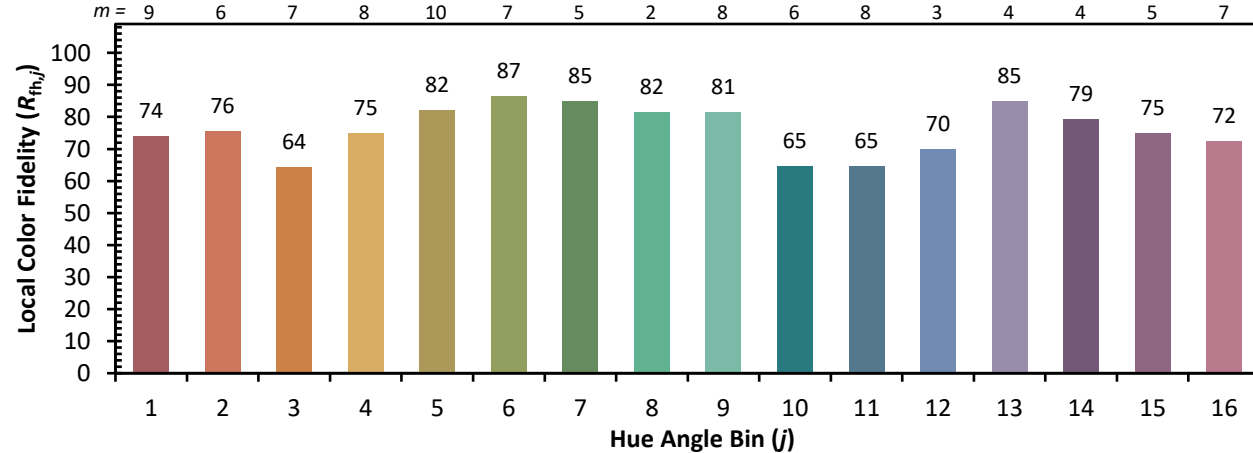


Individual Sample Fidelity Index ($R_{f,i}$)

| | | | |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 65 | CES51 = 89 | CES76 = 53 |
| CES02 = 61 | CES27 = 89 | CES52 = 88 | CES77 = 71 |
| CES03 = 30 | CES28 = 82 | CES53 = 78 | CES78 = 56 |
| CES04 = 70 | CES29 = 68 | CES54 = 85 | CES79 = 83 |
| CES05 = 48 | CES30 = 84 | CES55 = 84 | CES80 = 79 |
| CES06 = 50 | CES31 = 71 | CES56 = 74 | CES81 = 79 |
| CES07 = 40 | CES32 = 63 | CES57 = 73 | CES82 = 91 |
| CES08 = 39 | CES33 = 79 | CES58 = 74 | CES83 = 90 |
| CES09 = 29 | CES34 = 72 | CES59 = 86 | CES84 = 87 |
| CES10 = 74 | CES35 = 84 | CES60 = 90 | CES85 = 78 |
| CES11 = 57 | CES36 = 91 | CES61 = 84 | CES86 = 74 |
| CES12 = 63 | CES37 = 79 | CES62 = 85 | CES87 = 78 |
| CES13 = 42 | CES38 = 93 | CES63 = 73 | CES88 = 82 |
| CES14 = 74 | CES39 = 96 | CES64 = 67 | CES89 = 72 |
| CES15 = 71 | CES40 = 91 | CES65 = 64 | CES90 = 81 |
| CES16 = 47 | CES41 = 93 | CES66 = 60 | CES91 = 75 |
| CES17 = 49 | CES42 = 80 | CES67 = 57 | CES92 = 62 |
| CES18 = 56 | CES43 = 78 | CES68 = 66 | CES93 = 77 |
| CES19 = 72 | CES44 = 99 | CES69 = 75 | CES94 = 57 |
| CES20 = 65 | CES45 = 86 | CES70 = 58 | CES95 = 68 |
| CES21 = 86 | CES46 = 83 | CES71 = 51 | CES96 = 78 |
| CES22 = 78 | CES47 = 86 | CES72 = 84 | CES97 = 85 |
| CES23 = 92 | CES48 = 78 | CES73 = 49 | CES98 = 77 |
| CES24 = 91 | CES49 = 81 | CES74 = 93 | CES99 = 67 |
| CES25 = 72 | CES50 = 88 | CES75 = 53 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)