

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: P870529

Luminaire Tested: **MEM2-HSN-SA-150-840-U-T5R**

Issue Date: 09/05/2024



Test Information

Test Method: LM-79-08
Report Number: P870529
Test Lab: INNOVATION CENTER(G3)
Issue Date: 09/05/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: MEM2-HSN-SA-150-840-U-T5R
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 150W 80CRI 4000K
FITXURE w/ TYPE V ROUND DISTRIBUTION OPTIC
Light Source: (30) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

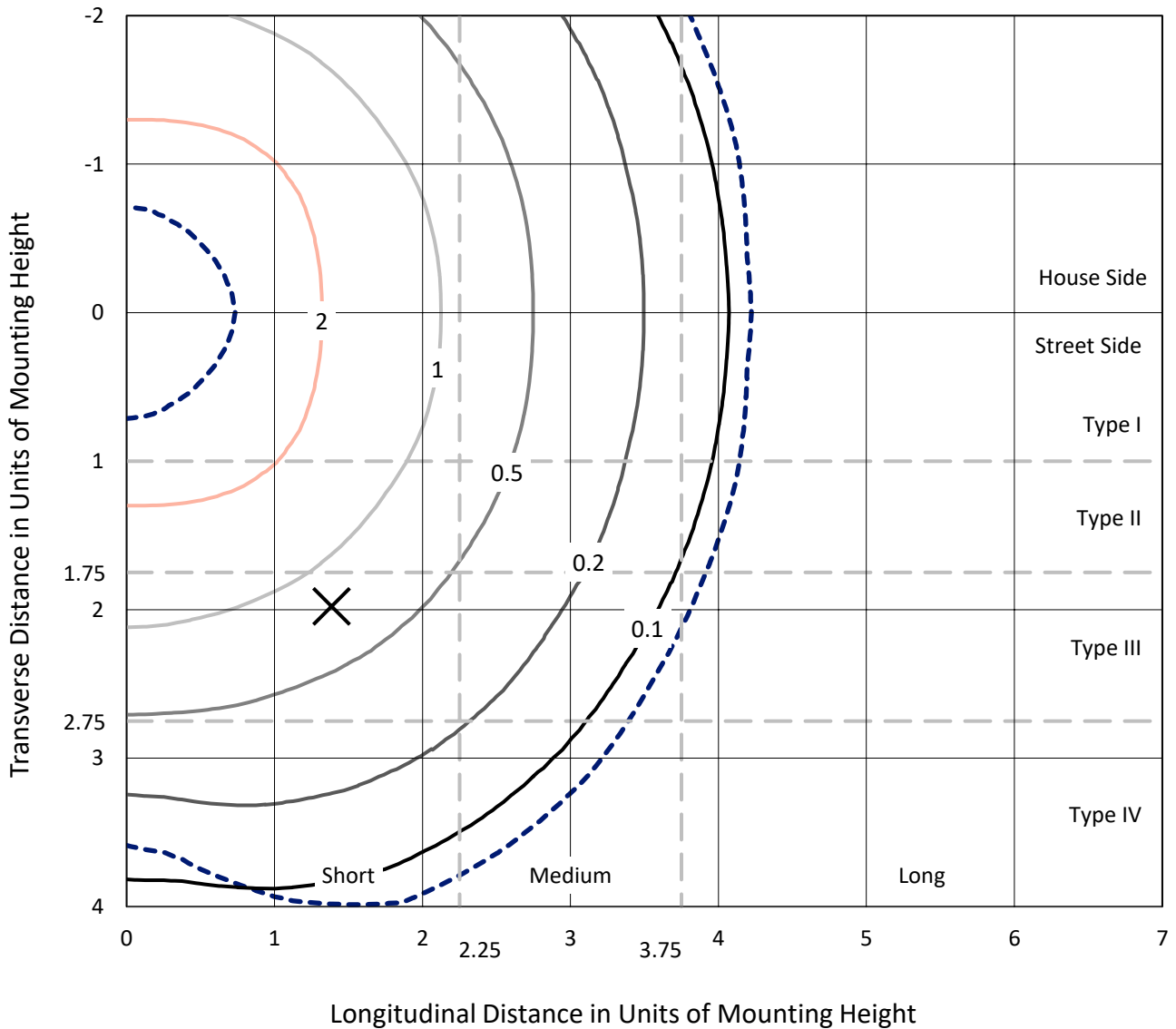
Lumens per Lamp: N/A
Luminaire Lumens: 18551.3 lumens
Efficiency: N/A
Efficacy: 138.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

Input Watts (W): 134
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 6.70%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

REPORT NUMBER: P870529
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Iso-Footcandle Lines of Horizontal Illumination

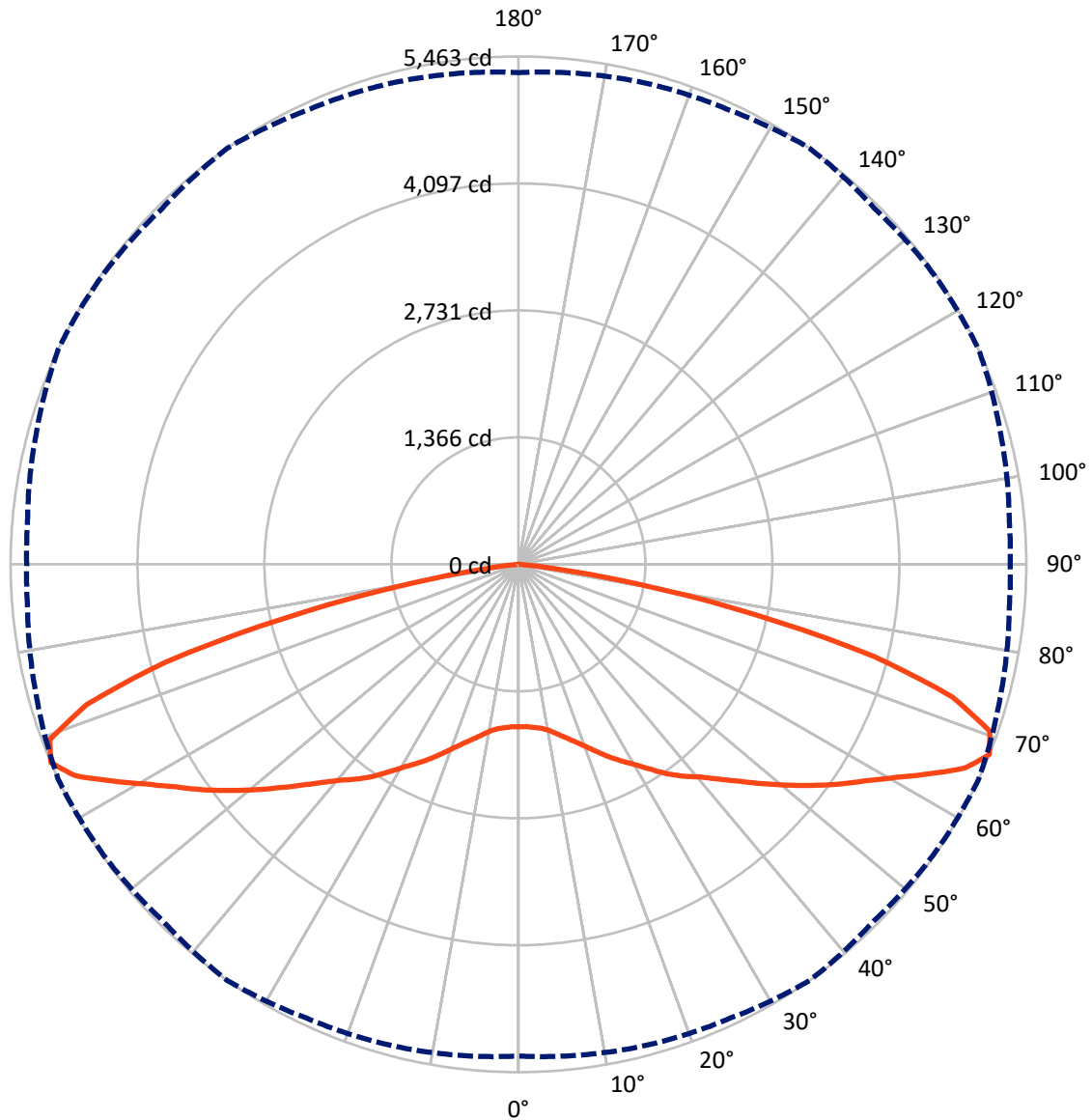
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.4 fc
 Type V - Short - N/A

REPORT NUMBER: P870529
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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 9275.6 | 0.0 | 9275.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 9275.6 | 0.0 | 9275.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 18551.3 | 0.0 | 18551.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 169.9 | 0.9 |
| 10°-20° | 556.9 | 3.0 |
| 20°-30° | 1064.5 | 5.7 |
| 30°-40° | 1720.2 | 9.3 |
| 40°-50° | 2517.7 | 13.6 |
| 50°-60° | 3610.4 | 19.5 |
| 60°-70° | 5060.2 | 27.3 |
| 70°-80° | 3570.5 | 19.2 |
| 80°-90° | 281.1 | 1.5 |
| 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° | 18551.3 | 100.0 |
| 0°-180° | 18551.3 | 100.0 |



REPORT NUMBER: P870529

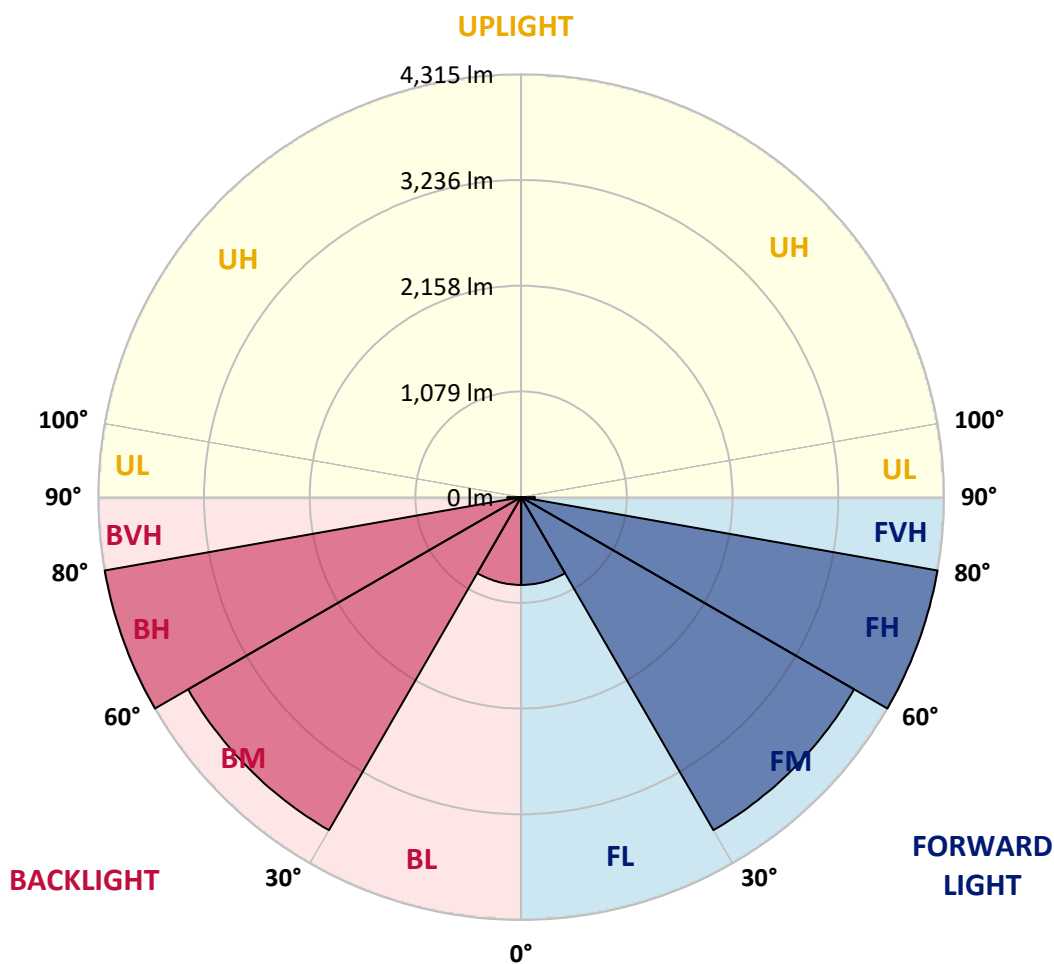
CATALOG NUMBER: MEM2-HSN-SA-150-840-U-T5R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 895.7 | 4.8 | | | |
| FM (30°-60°) | 3924.1 | 21.2 | | | |
| FH (60°-80°) | 4315.3 | 23.3 | | | G2/5000 |
| FVH (80°-90°) | 140.5 | 0.8 | | | G2/225 |
| BL (0°-30°) | 895.7 | 4.8 | B2/1000 | | |
| BM (30°-60°) | 3924.1 | 21.2 | B3/5000 | | |
| BH (60°-80°) | 4315.3 | 23.3 | B4/5000 | | G2/5000 |
| BVH (80°-90°) | 140.5 | 0.8 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G2

Type V Short





REPORT NUMBER: P870529

CATALOG NUMBER: MEM2-HSN-SA-150-840-U-T5R

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1747.5 | 1747.5 | 1747.5 | 1747.5 | 1747.5 | 1747.5 | 1747.5 | 1747.5 | 1747.5 | 1747.5 | 1747.5 |
| 2.5° | 1758.3 | 1754.7 | 1751.1 | 1751.1 | 1747.5 | 1751.1 | 1747.5 | 1751.1 | 1747.5 | 1747.5 | 1747.5 |
| 5° | 1769.1 | 1765.5 | 1765.5 | 1765.5 | 1761.9 | 1761.9 | 1761.9 | 1761.9 | 1758.3 | 1754.7 | 1758.3 |
| 7.5° | 1780.0 | 1780.0 | 1776.4 | 1783.6 | 1780.0 | 1783.6 | 1783.6 | 1787.2 | 1780.0 | 1776.4 | 1780.0 |
| 10° | 1808.9 | 1808.9 | 1808.9 | 1816.1 | 1816.1 | 1826.9 | 1826.9 | 1830.5 | 1826.9 | 1819.7 | 1819.7 |
| 12.5° | 1870.2 | 1866.6 | 1866.6 | 1866.6 | 1873.9 | 1881.1 | 1888.3 | 1888.3 | 1884.7 | 1873.9 | 1873.9 |
| 15° | 1938.8 | 1946.1 | 1938.8 | 1935.2 | 1938.8 | 1946.1 | 1953.3 | 1953.3 | 1949.7 | 1946.1 | 1946.1 |
| 17.5° | 2021.9 | 2025.5 | 2018.3 | 2011.1 | 2011.1 | 2021.9 | 2025.5 | 2025.5 | 2021.9 | 2014.7 | 2014.7 |
| 20° | 2094.1 | 2097.7 | 2097.7 | 2094.1 | 2097.7 | 2104.9 | 2108.5 | 2112.1 | 2101.3 | 2090.5 | 2090.5 |
| 22.5° | 2155.5 | 2159.1 | 2166.3 | 2180.7 | 2195.2 | 2202.4 | 2198.8 | 2198.8 | 2180.7 | 2169.9 | 2166.3 |
| 25° | 2231.3 | 2242.1 | 2256.6 | 2274.6 | 2299.9 | 2317.9 | 2310.7 | 2296.3 | 2281.8 | 2260.2 | 2256.6 |
| 27.5° | 2379.3 | 2379.3 | 2364.9 | 2372.1 | 2401.0 | 2419.0 | 2411.8 | 2401.0 | 2372.1 | 2357.7 | 2354.0 |
| 30° | 2494.9 | 2494.9 | 2494.9 | 2487.6 | 2505.7 | 2527.4 | 2520.1 | 2502.1 | 2487.6 | 2480.4 | 2480.4 |
| 32.5° | 2606.8 | 2599.6 | 2610.4 | 2624.8 | 2632.1 | 2639.3 | 2639.3 | 2624.8 | 2599.6 | 2588.7 | 2588.7 |
| 35° | 2711.5 | 2718.7 | 2729.5 | 2751.2 | 2769.3 | 2758.4 | 2740.4 | 2729.5 | 2704.3 | 2682.6 | 2682.6 |
| 37.5° | 2812.6 | 2819.8 | 2830.6 | 2863.1 | 2892.0 | 2888.4 | 2866.7 | 2837.9 | 2805.4 | 2787.3 | 2776.5 |
| 40° | 2884.8 | 2888.4 | 2917.3 | 2967.8 | 3007.5 | 3022.0 | 3003.9 | 2964.2 | 2913.7 | 2877.6 | 2881.2 |
| 42.5° | 2971.4 | 2978.7 | 3025.6 | 3097.8 | 3155.6 | 3177.2 | 3152.0 | 3097.8 | 3025.6 | 2978.7 | 2978.7 |
| 45° | 3097.8 | 3101.4 | 3162.8 | 3253.1 | 3328.9 | 3365.0 | 3328.9 | 3253.1 | 3159.2 | 3112.3 | 3108.6 |
| 47.5° | 3224.2 | 3235.0 | 3303.6 | 3411.9 | 3523.9 | 3567.2 | 3527.5 | 3430.0 | 3318.1 | 3260.3 | 3253.1 |
| 50° | 3368.6 | 3375.8 | 3458.9 | 3606.9 | 3733.3 | 3791.0 | 3740.5 | 3617.7 | 3495.0 | 3422.8 | 3426.4 |
| 52.5° | 3509.4 | 3531.1 | 3643.0 | 3798.2 | 3949.9 | 4014.9 | 3942.7 | 3809.1 | 3679.1 | 3610.5 | 3606.9 |
| 55° | 3718.8 | 3744.1 | 3841.6 | 4014.9 | 4173.7 | 4246.0 | 4177.4 | 4029.3 | 3888.5 | 3812.7 | 3798.2 |
| 57.5° | 3982.4 | 3996.8 | 4083.5 | 4260.4 | 4394.0 | 4462.6 | 4422.9 | 4285.7 | 4152.1 | 4058.2 | 4040.2 |
| 60° | 4282.1 | 4296.5 | 4365.1 | 4545.6 | 4653.9 | 4704.5 | 4690.0 | 4610.6 | 4520.4 | 4477.0 | 4466.2 |
| 62.5° | 4708.1 | 4711.7 | 4747.8 | 4852.5 | 4960.8 | 4982.5 | 4946.4 | 4928.3 | 4957.2 | 4910.3 | 4921.1 |
| 65° | 5195.5 | 5195.5 | 5184.7 | 5199.1 | 5282.2 | 5256.9 | 5231.6 | 5311.1 | 5296.6 | 5217.2 | 5202.7 |
| 67.5° | 5289.4 | 5311.1 | 5354.4 | 5386.9 | 5462.7 | 5415.8 | 5448.3 | 5462.7 | 5372.4 | 5300.2 | 5289.4 |
| 70° | 4733.4 | 4758.6 | 5000.5 | 5148.6 | 5379.7 | 5423.0 | 5318.3 | 5264.1 | 5163.0 | 5029.4 | 4993.3 |
| 72.5° | 3227.8 | 3354.2 | 4051.0 | 4527.6 | 4881.4 | 4935.6 | 4877.8 | 4809.2 | 4607.0 | 4502.3 | 4430.1 |
| 75° | 2577.9 | 2646.5 | 3267.5 | 3736.9 | 3946.3 | 3942.7 | 3711.6 | 3635.8 | 3476.9 | 3462.5 | 3476.9 |
| 77.5° | 1574.2 | 1588.6 | 2198.8 | 2567.1 | 2592.3 | 2577.9 | 2484.0 | 2426.3 | 2447.9 | 2339.6 | 2357.7 |
| 80° | 480.2 | 523.5 | 830.4 | 1252.8 | 1346.7 | 1303.4 | 1285.3 | 1307.0 | 1328.7 | 1361.2 | 1411.7 |
| 82.5° | 97.5 | 122.8 | 166.1 | 361.1 | 411.6 | 408.0 | 404.4 | 447.7 | 487.4 | 505.5 | 613.8 |
| 85° | 10.8 | 10.8 | 14.4 | 28.9 | 61.4 | 97.5 | 101.1 | 90.3 | 137.2 | 133.6 | 93.9 |
| 87.5° | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 7.2 | 7.2 | 7.2 | 7.2 | 7.2 | 7.2 |
| 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: SP1-2407-157-8

Test Date: 09/05/2024

Luminaire Tested: MEM2-HTN-SA-40-840-U-5WQ

Data in this report applies to families of products including MEM2-HTN-SA-40-840-U-5WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-157-8
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 09/05/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Streetworks
 Catalog Number: **MEM2-HTN-SA-40-840-U-5WQ**
 Description: Epic Modern Light Square 40W 5WQ Optic

Spectral Parameters

CCT (K): 3996
 CIE u': 0.2245
 CIE v': 0.5031
 Duv: 0.0012
 CIE x: 0.3815
 CIE y: 0.3799
 CIE z: 0.2386
 Peak Wavelength (nm): 449
 Dominant Wavelength (nm): 578
 Purity: 28.49233
 Rf: 82.6
 Rg: 95.1

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 80.6 | | |
| R1: | 78.1 | R9: | -5.8 |
| R2: | 87.1 | R10: | 70.3 |
| R3: | 94.5 | R11: | 78.7 |
| R4: | 79.7 | R12: | 60.5 |
| R5: | 78.7 | R13: | 80.2 |
| R6: | 82.7 | R14: | 97.2 |
| R7: | 84.3 | R15: | 70.6 |
| R8: | 59.5 | | |



Test Conditions

Stabilization Time: 29M
 Operation Time: 1H 29M
 Sphere Temperature (°C): 24.3

REPORT NUMBER: SP1-2407-157-8

| 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 4-step quadrangle

REPORT NUMBER: SP1-2407-157-8

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 | 289 | NR | 620 | 725 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 351 | NR | 625 | 673 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 414 | NR | 630 | 619 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 470 | NR | 635 | 562 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 513 | NR | 640 | 506 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 546 | NR | 645 | 452 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 571 | NR | 650 | 400 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 592 | NR | 655 | 352 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 606 | NR | 660 | 307 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 624 | NR | 665 | 267 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 12 | NR | 540 | 642 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 22 | NR | 545 | 663 | NR | 675 | 199 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 44 | NR | 550 | 686 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 83 | NR | 555 | 713 | NR | 685 | 146 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 150 | NR | 560 | 745 | NR | 690 | 125 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 267 | NR | 565 | 774 | NR | 695 | 106 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 466 | NR | 570 | 806 | NR | 700 | 90 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 804 | NR | 575 | 835 | NR | 705 | 76 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 1000 | NR | 580 | 858 | NR | 710 | 65 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 715 | NR | 585 | 875 | NR | 715 | 55 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 492 | NR | 590 | 884 | NR | 720 | 47 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 402 | NR | 595 | 880 | NR | 725 | 40 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 288 | NR | 600 | 868 | NR | 730 | 34 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 226 | NR | 605 | 844 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 227 | NR | 610 | 814 | NR | 740 | 24 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 248 | NR | 615 | 771 | NR | 745 | 20 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2407-157-8

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.66

| 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 | 289 | NR | 620 | 725 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 351 | NR | 625 | 673 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 414 | NR | 630 | 619 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 470 | NR | 635 | 562 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 513 | NR | 640 | 506 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 546 | NR | 645 | 452 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 571 | NR | 650 | 400 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 592 | NR | 655 | 352 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 606 | NR | 660 | 307 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 624 | NR | 665 | 267 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 12 | NR | 540 | 642 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 22 | NR | 545 | 663 | NR | 675 | 199 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 44 | NR | 550 | 686 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 83 | NR | 555 | 713 | NR | 685 | 146 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 150 | NR | 560 | 745 | NR | 690 | 125 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 267 | NR | 565 | 774 | NR | 695 | 106 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 466 | NR | 570 | 806 | NR | 700 | 90 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 804 | NR | 575 | 835 | NR | 705 | 76 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 1000 | NR | 580 | 858 | NR | 710 | 65 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 715 | NR | 585 | 875 | NR | 715 | 55 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 492 | NR | 590 | 884 | NR | 720 | 47 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 402 | NR | 595 | 880 | NR | 725 | 40 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 288 | NR | 600 | 868 | NR | 730 | 34 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 226 | NR | 605 | 844 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 227 | NR | 610 | 814 | NR | 740 | 24 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 248 | NR | 615 | 771 | NR | 745 | 20 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2407-157-8

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.37

| 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 | 289 | NR | 620 | 725 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 351 | NR | 625 | 673 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 414 | NR | 630 | 619 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 470 | NR | 635 | 562 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 513 | NR | 640 | 506 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 546 | NR | 645 | 452 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 571 | NR | 650 | 400 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 592 | NR | 655 | 352 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 606 | NR | 660 | 307 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 624 | NR | 665 | 267 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 12 | NR | 540 | 642 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 22 | NR | 545 | 663 | NR | 675 | 199 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 44 | NR | 550 | 686 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 83 | NR | 555 | 713 | NR | 685 | 146 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 150 | NR | 560 | 745 | NR | 690 | 125 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 267 | NR | 565 | 774 | NR | 695 | 106 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 466 | NR | 570 | 806 | NR | 700 | 90 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 804 | NR | 575 | 835 | NR | 705 | 76 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 1000 | NR | 580 | 858 | NR | 710 | 65 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 715 | NR | 585 | 875 | NR | 715 | 55 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 492 | NR | 590 | 884 | NR | 720 | 47 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 402 | NR | 595 | 880 | NR | 725 | 40 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 288 | NR | 600 | 868 | NR | 730 | 34 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 226 | NR | 605 | 844 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 227 | NR | 610 | 814 | NR | 740 | 24 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 248 | NR | 615 | 771 | NR | 745 | 20 | NR | 875 | 0 | NR | | | |

Summary

$R_f = 82.6$
 $R_g = 95.1$
 CIE $R_a = 80.6$
 $R_9 = -5.8$

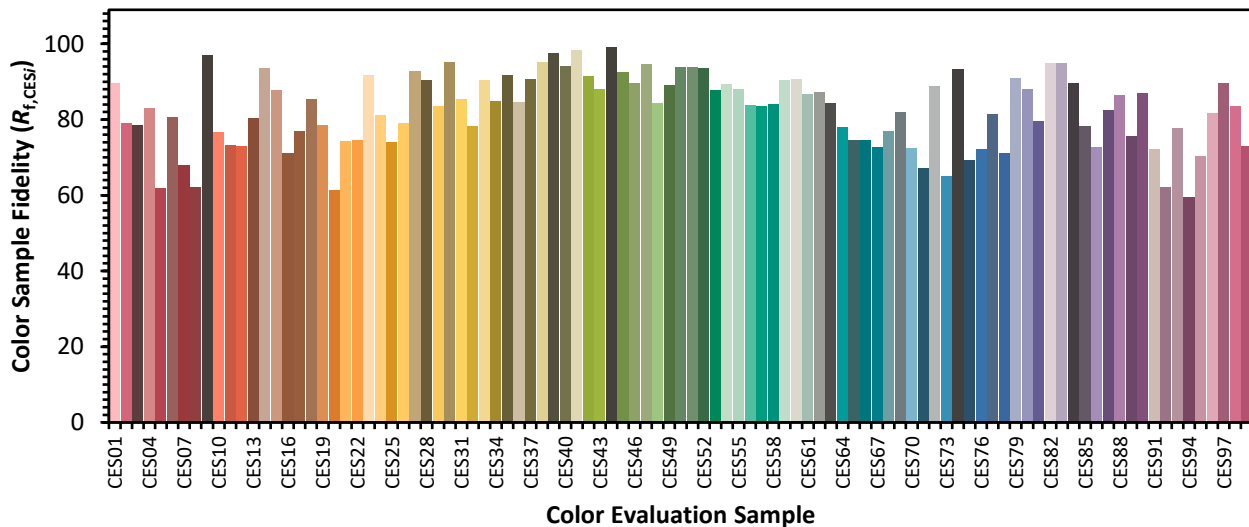


Color Vector Graphics

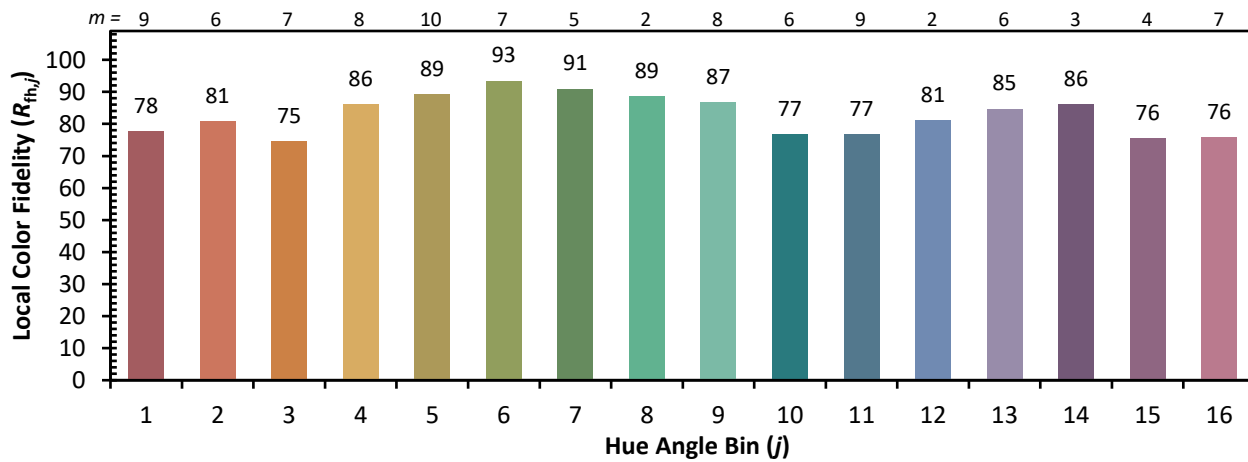
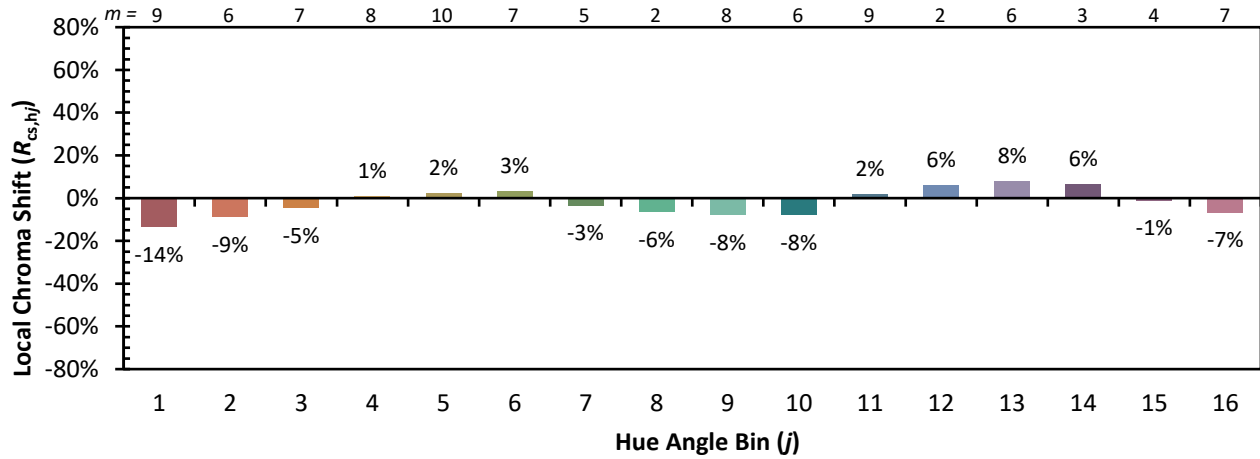


Individual Sample Fidelity Index ($R_{f,i}$)

| | | | |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 79 | CES51 = 94 | CES76 = 72 |
| CES02 = 61 | CES27 = 93 | CES52 = 94 | CES77 = 82 |
| CES03 = 31 | CES28 = 90 | CES53 = 88 | CES78 = 71 |
| CES04 = 69 | CES29 = 83 | CES54 = 89 | CES79 = 91 |
| CES05 = 48 | CES30 = 95 | CES55 = 88 | CES80 = 88 |
| CES06 = 50 | CES31 = 86 | CES56 = 84 | CES81 = 80 |
| CES07 = 40 | CES32 = 78 | CES57 = 84 | CES82 = 95 |
| CES08 = 39 | CES33 = 90 | CES58 = 84 | CES83 = 95 |
| CES09 = 29 | CES34 = 85 | CES59 = 90 | CES84 = 90 |
| CES10 = 74 | CES35 = 92 | CES60 = 91 | CES85 = 78 |
| CES11 = 57 | CES36 = 85 | CES61 = 87 | CES86 = 73 |
| CES12 = 63 | CES37 = 91 | CES62 = 87 | CES87 = 83 |
| CES13 = 42 | CES38 = 95 | CES63 = 84 | CES88 = 86 |
| CES14 = 74 | CES39 = 98 | CES64 = 78 | CES89 = 76 |
| CES15 = 71 | CES40 = 94 | CES65 = 75 | CES90 = 87 |
| CES16 = 46 | CES41 = 98 | CES66 = 75 | CES91 = 72 |
| CES17 = 49 | CES42 = 92 | CES67 = 73 | CES92 = 62 |
| CES18 = 56 | CES43 = 88 | CES68 = 77 | CES93 = 78 |
| CES19 = 71 | CES44 = 99 | CES69 = 82 | CES94 = 60 |
| CES20 = 65 | CES45 = 93 | CES70 = 72 | CES95 = 70 |
| CES21 = 86 | CES46 = 90 | CES71 = 67 | CES96 = 82 |
| CES22 = 78 | CES47 = 95 | CES72 = 89 | CES97 = 90 |
| CES23 = 91 | CES48 = 84 | CES73 = 65 | CES98 = 84 |
| CES24 = 90 | CES49 = 89 | CES74 = 93 | CES99 = 73 |
| CES25 = 71 | CES50 = 94 | CES75 = 69 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)