

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: INVUE

Report Number: P870601

Luminaire Tested: **EMM2-HTN-SA1B-830-U-T1**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P870601  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HTN-SA1B-830-U-T1  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 60W 80CRI 3000K  
FIXTURE w/ TYPE 1 DISTRIBUTION OPTIC  
Light Source: (10) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

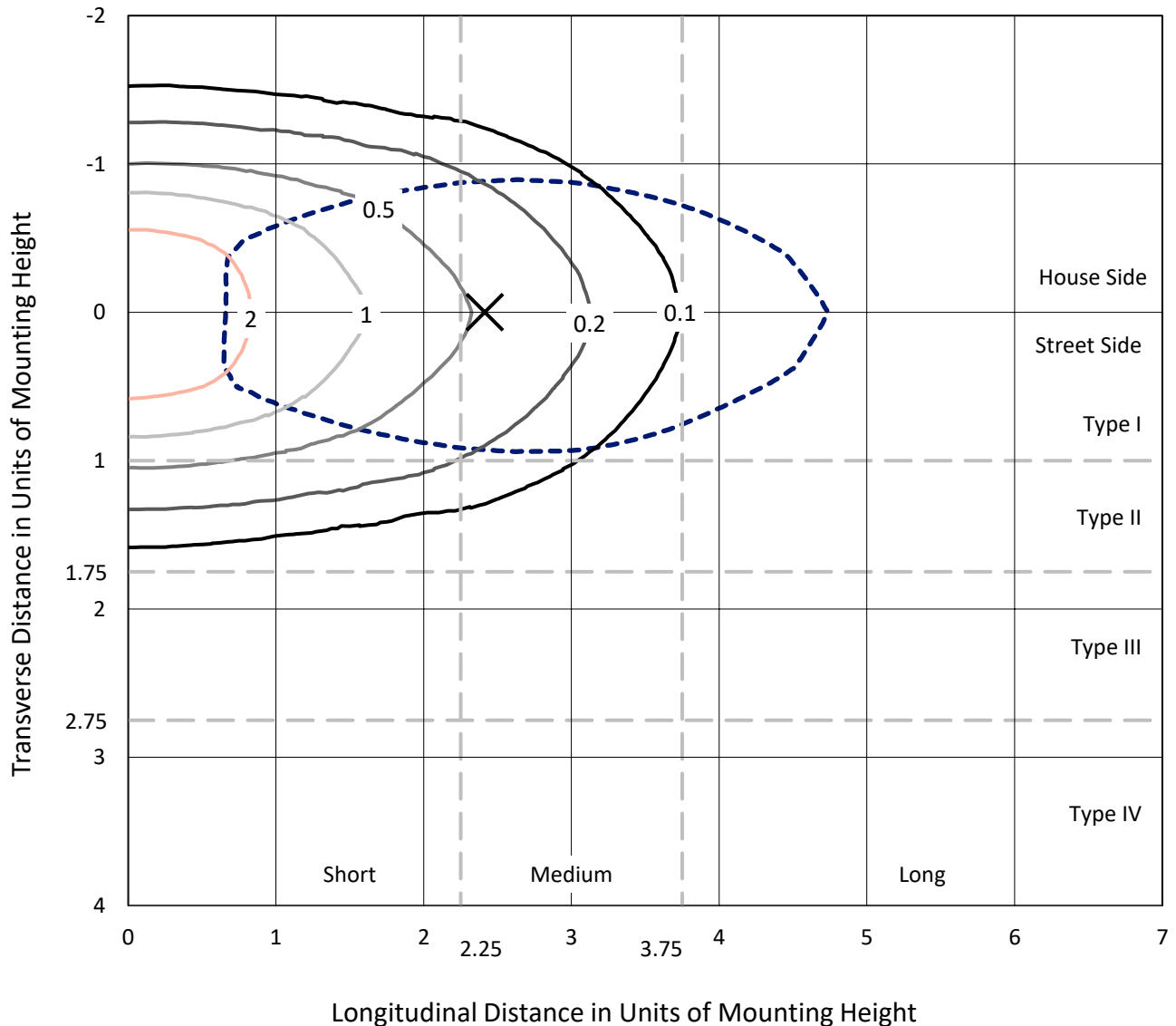
Lumens per Lamp: N/A  
Luminaire Lumens: 5672.7 lumens  
Efficiency: N/A  
Efficacy: 128.9 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B2 - U0 - G2

Input Watts (W): 44  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.91%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P870601  
 CATALOG NUMBER: EMM2-HTN-SA1B-830-U-T1

### Iso-Footcandle Lines of Horizontal Illumination

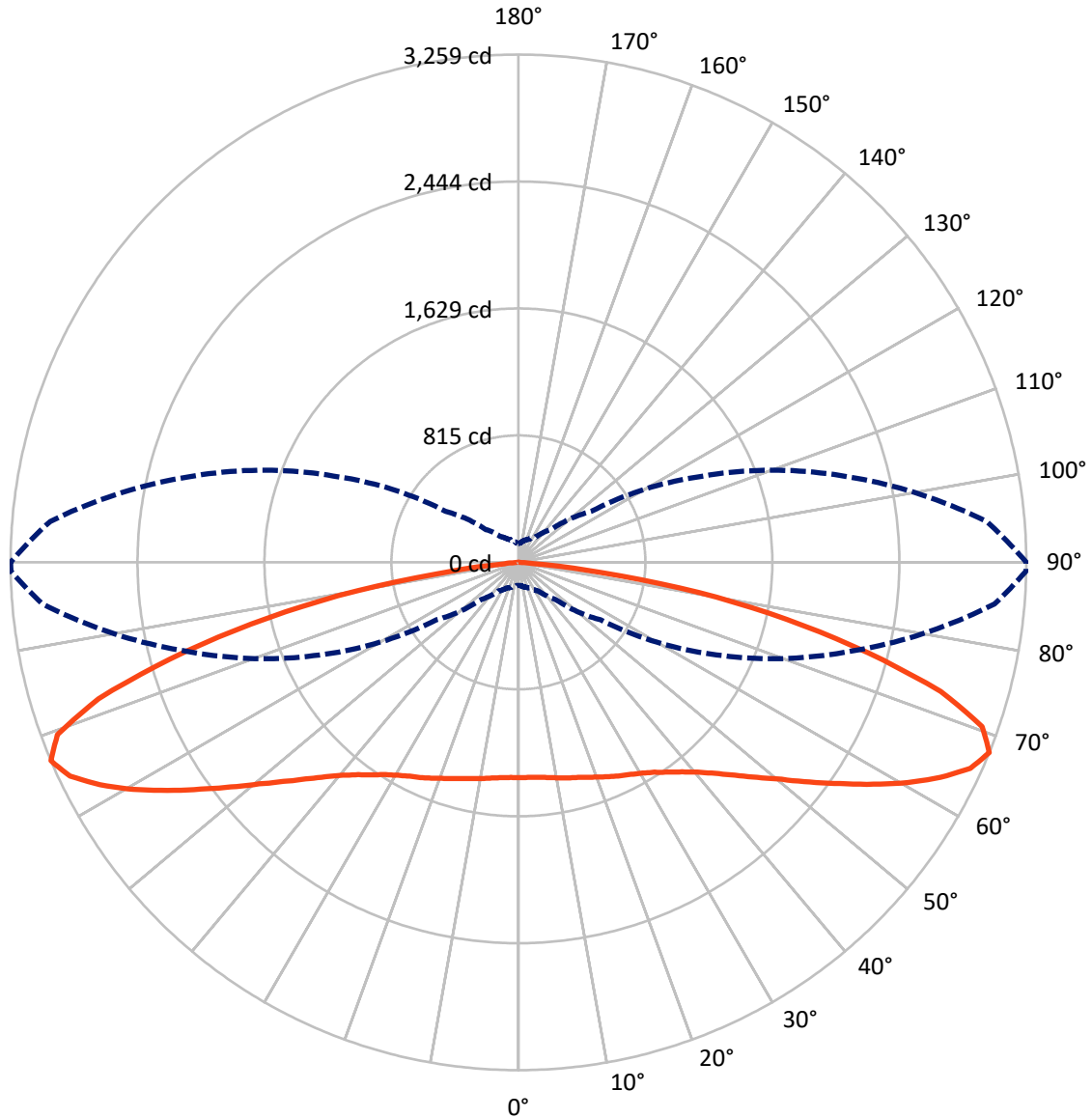
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.5 fc  
 Type I - Short - N/A

REPORT NUMBER: P870601  
CATALOG NUMBER: EMM2-HTN-SA1B-830-U-T1

### Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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 CATALOG NUMBER: EMM2-HTN-SA1B-830-U-T1

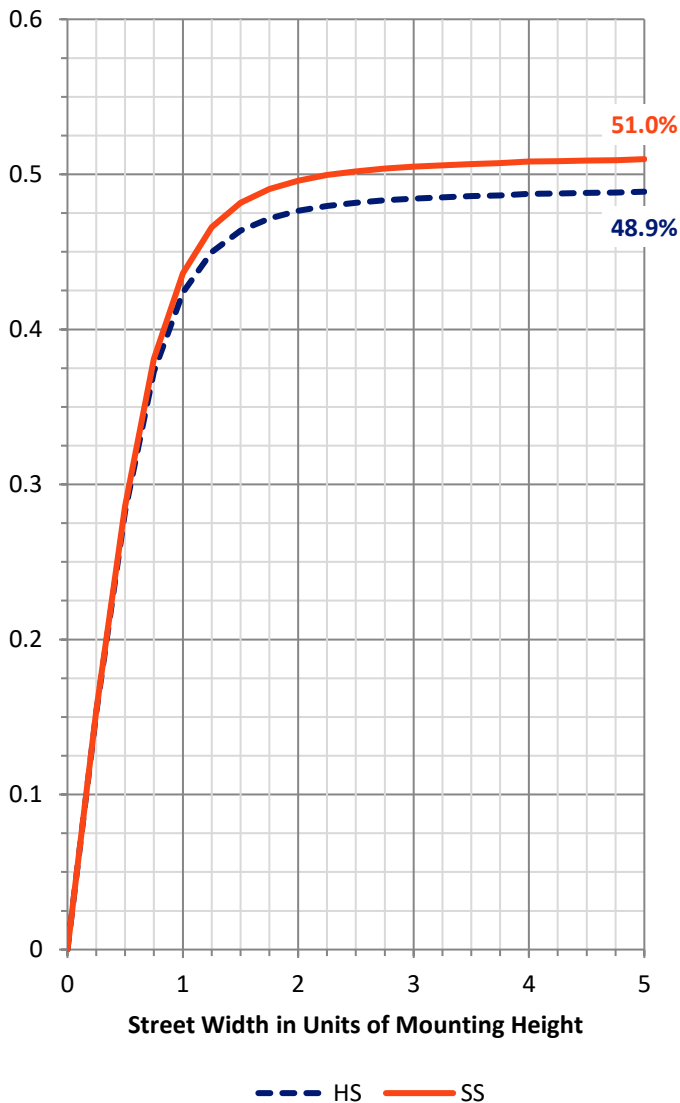
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2786.0	0.0	2786.0
	% Fixture	49.1	0.0	49.1
<b>Street Side</b>	Lumens	2886.7	0.0	2886.7
	% Fixture	50.9	0.0	50.9
<b>Total</b>	Lumens	5672.7	0.0	5672.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.5	2.3
10°-20°	398.1	7.0
20°-30°	658.8	11.6
30°-40°	873.5	15.4
40°-50°	984.9	17.4
50°-60°	1009.7	17.8
60°-70°	953.6	16.8
70°-80°	585.1	10.3
80°-90°	76.6	1.3
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°	5672.7	100.0
0°-180°	5672.7	100.0



REPORT NUMBER: P870601

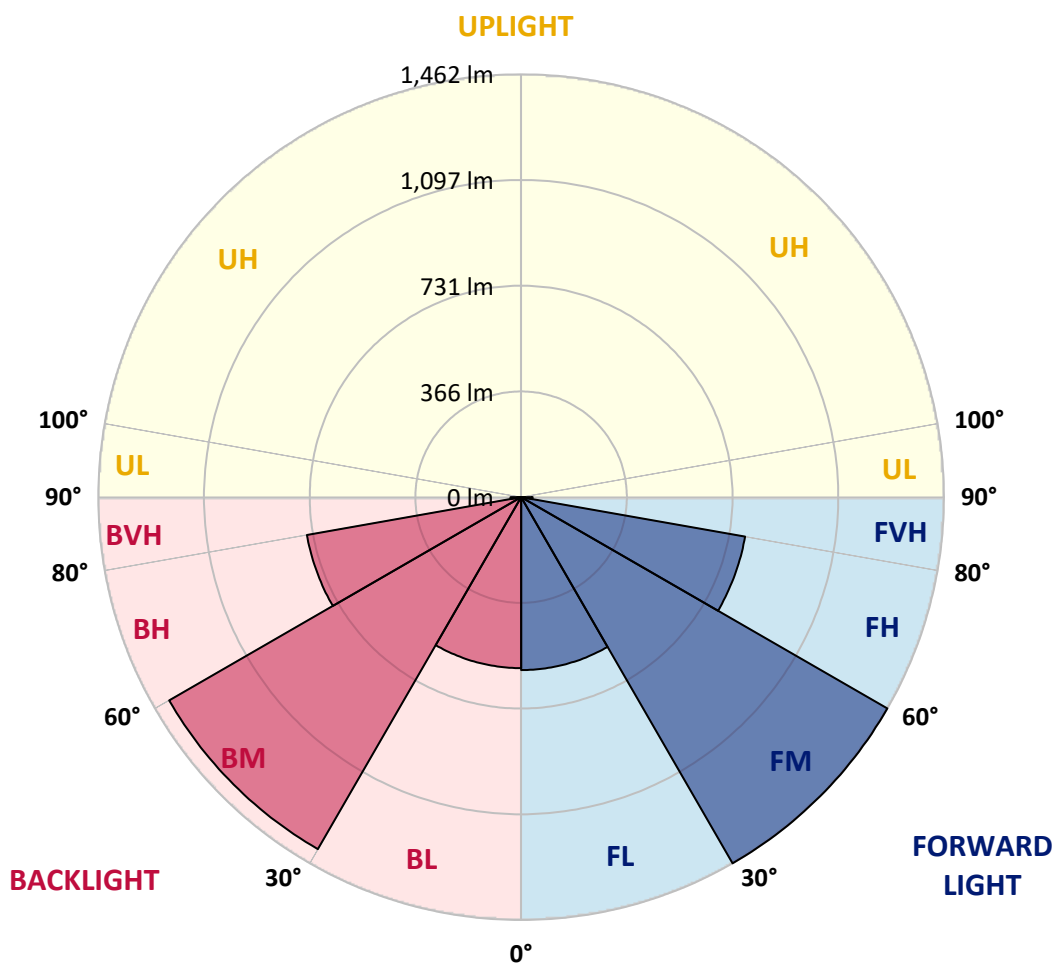
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	598.1	10.5			
FM (30°-60°)	1462.4	25.8			
FH (60°-80°)	786.4	13.9			G1/1800
FVH (80°-90°)	39.9	0.7			G1/100
BL (0°-30°)	591.2	10.4	B2/1000		
BM (30°-60°)	1405.7	24.8	B2/2500		
BH (60°-80°)	752.3	13.3	B2/1000		G2/1000
BVH (80°-90°)	36.7	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	89°
0°	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2
2.5°	1387.6	1387.6	1384.3	1378.9	1377.8	1378.9	1385.4	1382.2	1382.2	1383.2	1382.2
5°	1387.6	1387.6	1385.4	1380.0	1380.0	1380.0	1387.6	1384.3	1385.4	1386.5	1386.5
7.5°	1389.8	1389.8	1387.6	1383.2	1383.2	1383.2	1394.1	1392.0	1392.0	1395.2	1393.0
10°	1395.2	1393.0	1390.9	1392.0	1388.7	1394.1	1399.6	1400.7	1405.0	1407.2	1406.1
12.5°	1395.2	1393.0	1387.6	1394.1	1394.1	1401.8	1409.4	1413.7	1419.2	1419.2	1419.2
15°	1388.7	1386.5	1382.2	1393.0	1397.4	1407.2	1418.1	1424.6	1434.4	1434.4	1433.3
17.5°	1381.1	1377.8	1375.6	1392.0	1401.8	1414.8	1431.2	1439.9	1450.8	1451.9	1449.7
20°	1366.9	1365.8	1366.9	1388.7	1406.1	1424.6	1444.2	1456.2	1470.4	1474.7	1471.5
22.5°	1351.7	1351.7	1356.0	1385.4	1412.6	1437.7	1463.8	1479.1	1493.2	1497.6	1493.2
25°	1331.0	1331.0	1339.7	1374.5	1414.8	1451.9	1482.4	1503.1	1516.1	1520.5	1518.3
27.5°	1299.4	1299.4	1309.2	1352.7	1408.3	1462.8	1502.0	1525.9	1540.1	1544.4	1542.3
30°	1254.7	1252.5	1265.6	1320.1	1396.3	1474.7	1524.8	1549.9	1568.4	1571.7	1568.4
32.5°	1183.9	1187.2	1206.8	1275.4	1376.7	1482.4	1552.1	1581.5	1602.2	1608.7	1606.5
35°	1097.9	1103.3	1130.6	1218.8	1339.7	1481.3	1580.4	1616.3	1643.6	1652.3	1651.2
37.5°	995.5	1003.1	1036.9	1140.4	1284.1	1464.9	1606.5	1655.5	1691.5	1702.4	1704.5
40°	883.3	890.9	934.5	1048.9	1209.0	1426.8	1621.8	1700.2	1748.1	1769.9	1773.2
42.5°	764.6	777.7	829.9	941.0	1118.6	1365.8	1621.8	1743.8	1802.6	1842.9	1846.1
45°	650.2	661.1	724.3	833.2	1021.6	1287.4	1603.3	1787.3	1876.6	1946.3	1944.2
47.5°	551.1	554.4	612.1	722.1	913.8	1198.1	1565.1	1826.5	1955.1	2047.6	2067.2
50°	448.7	456.4	505.4	614.3	803.8	1100.1	1500.9	1851.6	2035.7	2176.2	2201.2
52.5°	376.9	377.9	415.0	515.2	689.4	981.3	1423.5	1858.1	2113.0	2315.6	2346.1
55°	307.1	312.6	344.2	419.3	579.4	864.8	1323.3	1848.3	2183.8	2450.6	2507.3
57.5°	263.6	264.7	287.5	347.4	489.0	740.6	1212.2	1815.6	2242.6	2599.8	2671.7
60°	226.5	226.5	244.0	289.7	395.4	619.7	1081.5	1757.9	2275.3	2759.9	2864.5
62.5°	197.1	198.2	213.5	247.2	328.9	511.9	937.8	1667.5	2287.3	2914.6	3034.4
65°	178.6	179.7	188.4	211.3	271.2	416.1	790.7	1557.5	2270.9	3030.1	3185.8
67.5°	148.1	149.2	164.5	181.9	225.5	334.4	642.6	1405.0	2204.5	3066.0	3256.6
70°	113.3	116.5	137.2	155.8	187.3	266.8	493.4	1203.5	2045.5	2944.0	3140.1
72.5°	94.8	95.8	111.1	131.8	156.8	209.1	374.7	947.6	1803.7	2629.2	2847.1
75°	82.8	83.9	92.6	111.1	130.7	167.7	260.3	654.6	1438.8	2126.1	2325.4
77.5°	75.2	76.2	78.4	93.7	110.0	129.6	184.1	388.8	1015.1	1625.0	1729.6
80°	71.9	71.9	66.4	77.3	90.4	101.3	123.1	223.3	651.3	1095.7	1179.6
82.5°	51.2	50.1	45.7	47.9	55.5	55.5	63.2	92.6	249.4	462.9	502.1
85°	3.3	3.3	5.4	6.5	9.8	13.1	16.3	21.8	63.2	86.0	89.3
87.5°	1.1	1.1	1.1	1.1	1.1	2.2	2.2	2.2	3.3	4.4	4.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P870601

CATALOG NUMBER: EMM2-HTN-SA1B-830-U-T1

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2	1382.2
2.5°	1381.1	1382.2	1382.2	1384.3	1386.5	1385.4	1384.3	1386.5	1383.2	1376.7	1375.6
5°	1385.4	1385.4	1384.3	1386.5	1388.7	1386.5	1384.3	1384.3	1382.2	1375.6	1374.5
7.5°	1394.1	1393.0	1393.0	1393.0	1393.0	1389.8	1386.5	1384.3	1381.1	1374.5	1371.3
10°	1406.1	1405.0	1403.9	1402.8	1397.4	1394.1	1388.7	1385.4	1381.1	1373.4	1371.3
12.5°	1419.2	1417.0	1414.8	1415.9	1405.0	1395.2	1389.8	1382.2	1378.9	1361.5	1358.2
15°	1432.3	1429.0	1427.9	1423.5	1412.6	1398.5	1387.6	1376.7	1365.8	1349.5	1344.0
17.5°	1449.7	1447.5	1441.0	1436.6	1421.4	1401.8	1385.4	1370.2	1356.0	1336.4	1333.1
20°	1470.4	1468.2	1461.7	1452.9	1433.3	1409.4	1386.5	1362.5	1345.1	1322.2	1316.8
22.5°	1493.2	1490.0	1484.5	1474.7	1449.7	1421.4	1389.8	1358.2	1332.1	1305.9	1302.6
25°	1517.2	1515.0	1509.6	1495.4	1468.2	1433.3	1389.8	1342.9	1310.3	1287.4	1277.6
27.5°	1540.1	1539.0	1532.5	1516.1	1487.8	1442.1	1380.0	1317.9	1274.3	1243.8	1237.3
30°	1569.5	1567.3	1559.7	1541.2	1509.6	1447.5	1360.4	1275.4	1221.0	1187.2	1177.4
32.5°	1605.4	1603.3	1592.4	1569.5	1535.7	1448.6	1332.1	1221.0	1149.1	1113.1	1101.1
35°	1653.4	1649.0	1634.8	1607.6	1560.8	1437.7	1281.9	1151.2	1063.0	1016.2	999.9
37.5°	1705.6	1700.2	1681.7	1647.9	1578.2	1408.3	1211.2	1057.6	957.4	901.8	889.8
40°	1769.9	1762.3	1734.0	1687.1	1584.7	1357.1	1131.6	961.7	855.0	794.0	779.8
42.5°	1850.5	1837.4	1791.7	1730.7	1571.7	1287.4	1036.9	862.6	740.6	684.0	680.7
45°	1947.4	1926.7	1858.1	1773.2	1543.3	1200.3	936.7	751.5	635.0	579.4	565.3
47.5°	2061.8	2036.7	1935.4	1805.8	1487.8	1111.0	828.9	643.7	537.0	480.3	469.4
50°	2188.1	2164.2	2017.1	1824.4	1427.9	1006.4	723.2	547.9	441.1	394.3	394.3
52.5°	2341.7	2287.3	2095.6	1826.5	1336.4	890.9	621.9	454.2	370.3	328.9	320.2
55°	2505.1	2440.8	2166.4	1806.9	1241.7	785.3	513.0	377.9	303.9	274.5	266.8
57.5°	2687.0	2588.9	2217.5	1767.7	1121.8	669.8	428.0	311.5	256.0	232.0	228.7
60°	2870.0	2743.6	2248.0	1701.3	994.4	563.1	356.2	260.3	220.0	202.6	199.3
62.5°	3039.9	2870.0	2250.2	1604.3	870.2	469.4	291.9	224.4	195.0	181.9	181.9
65°	3186.9	2975.6	2213.2	1480.2	712.3	376.9	240.7	189.5	169.9	155.8	152.5
67.5°	3258.8	3015.9	2147.8	1310.3	570.7	298.4	202.6	164.5	145.9	124.2	122.0
70°	3157.5	2899.4	1980.1	1092.4	441.1	237.4	168.8	140.5	122.0	103.5	101.3
72.5°	2834.0	2588.9	1708.9	846.3	332.2	191.7	140.5	119.8	100.2	90.4	88.2
75°	2318.8	2153.3	1350.6	582.7	232.0	150.3	117.6	101.3	85.0	80.6	79.5
77.5°	1760.1	1601.1	986.8	364.9	159.0	117.6	100.2	86.0	74.1	77.3	75.2
80°	1175.2	1102.2	655.7	206.9	106.7	86.0	76.2	63.2	56.6	65.4	63.2
82.5°	533.7	505.4	308.2	90.4	47.9	37.0	26.1	19.6	15.2	14.2	16.3
85°	89.3	78.4	21.8	9.8	5.4	3.3	2.2	2.2	1.1	1.1	1.1
87.5°	4.4	3.3	3.3	2.2	1.1	1.1	1.1	1.1	1.1	0.0	0.0
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: SP1-2407-157-7

Test Date: 09/05/2024

Luminaire Tested: MEM2-HTN-SA-40-830-U-5WQ

Data in this report applies to families of products including MEM2-HTN-SA-40-830-U-5WQ

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-7  
 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-40-830-U-5WQ**  
 Description: Epic Modern Light Square 40W 5WQ Optic

**Spectral Parameters**

CCT (K): 3126  
 CIE u': 0.2465  
 CIE v': 0.5182  
 Duv: -0.0004  
 CIE x: 0.4277  
 CIE y: 0.3997  
 CIE z: 0.1727  
 Peak Wavelength (nm): 601  
 Dominant Wavelength (nm): 582  
 Purity: 48.31913  
 Rf: 84.4  
 Rg: 94.7

CRI (Ra):	82.6		
R1:	81.4	R9:	5.1
R2:	92.2	R10:	82.2
R3:	94.9	R11:	79.8
R4:	80.1	R12:	70.4
R5:	81.8	R13:	84.2
R6:	90.5	R14:	97.9
R7:	81.8	R15:	73.6
R8:	58.0		



**Test Conditions**

Stabilization Time: 22M  
 Operation Time: 1H 22M  
 Sphere Temperature (°C): 24.3

REPORT NUMBER: SP1-2407-157-7

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

REPORT NUMBER: SP1-2407-157-7

CIE 1931 Chromaticity Diagram



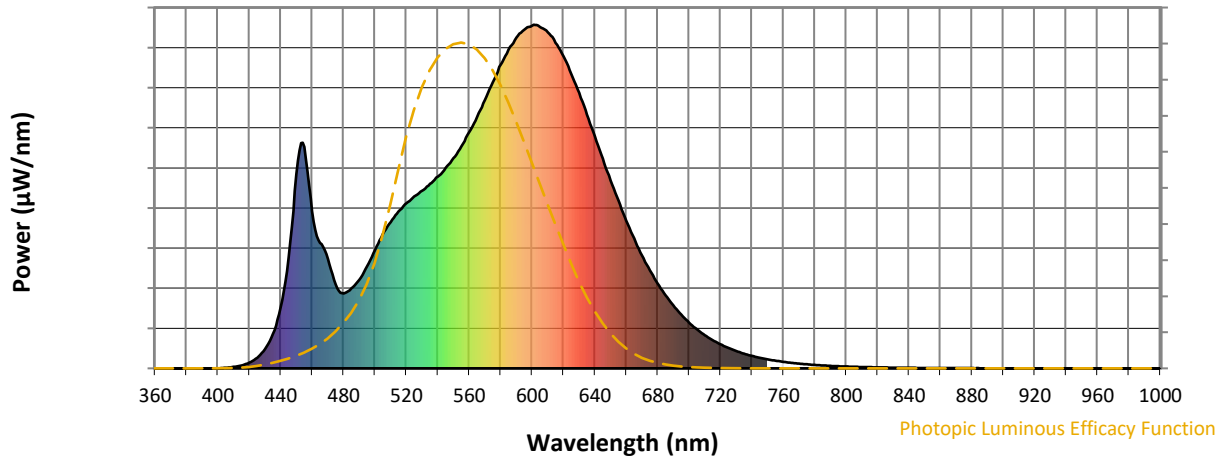
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-157-7

**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)
360	0	NR	490	258	NR	620	908	NR	750	26	NR	880	1	NR
365	0	NR	495	297	NR	625	857	NR	755	22	NR	885	0	NR
370	0	NR	500	345	NR	630	801	NR	760	19	NR	890	0	NR
375	0	NR	505	391	NR	635	738	NR	765	16	NR	895	0	NR
380	0	NR	510	426	NR	640	675	NR	770	14	NR	900	0	NR
385	0	NR	515	456	NR	645	610	NR	775	12	NR	905	0	NR
390	0	NR	520	480	NR	650	547	NR	780	10	NR	910	0	NR
395	0	NR	525	500	NR	655	488	NR	785	9	NR	915	0	NR
400	0	NR	530	517	NR	660	429	NR	790	7	NR	920	0	NR
405	2	NR	535	538	NR	665	378	NR	795	6	NR	925	0	NR
410	4	NR	540	558	NR	670	328	NR	800	5	NR	930	0	NR
415	9	NR	545	584	NR	675	285	NR	805	5	NR	935	0	NR
420	16	NR	550	611	NR	680	247	NR	810	4	NR	940	0	NR
425	31	NR	555	646	NR	685	212	NR	815	3	NR	945	0	NR
430	56	NR	560	687	NR	690	183	NR	820	3	NR	950	0	NR
435	101	NR	565	731	NR	695	156	NR	825	3	NR	955	0	NR
440	178	NR	570	780	NR	700	133	NR	830	2	NR	960	0	NR
445	323	NR	575	832	NR	705	114	NR	835	2	NR	965	0	NR
450	566	NR	580	883	NR	710	96	NR	840	2	NR	970	0	NR
455	645	NR	585	927	NR	715	82	NR	845	1	NR	975	0	NR
460	457	NR	590	963	NR	720	70	NR	850	1	NR	980	0	NR
465	365	NR	595	985	NR	725	59	NR	855	1	NR	985	0	NR
470	317	NR	600	998	NR	730	50	NR	860	1	NR	990	0	NR
475	244	NR	605	994	NR	735	43	NR	865	1	NR	995	0	NR
480	218	NR	610	978	NR	740	36	NR	870	1	NR	1000	0	NR
485	233	NR	615	947	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-157-7

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR S/P: 1.42

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	258	NR	620	908	NR	750	26	NR	880	1	NR
365	0	NR	495	297	NR	625	857	NR	755	22	NR	885	0	NR
370	0	NR	500	345	NR	630	801	NR	760	19	NR	890	0	NR
375	0	NR	505	391	NR	635	738	NR	765	16	NR	895	0	NR
380	0	NR	510	426	NR	640	675	NR	770	14	NR	900	0	NR
385	0	NR	515	456	NR	645	610	NR	775	12	NR	905	0	NR
390	0	NR	520	480	NR	650	547	NR	780	10	NR	910	0	NR
395	0	NR	525	500	NR	655	488	NR	785	9	NR	915	0	NR
400	0	NR	530	517	NR	660	429	NR	790	7	NR	920	0	NR
405	2	NR	535	538	NR	665	378	NR	795	6	NR	925	0	NR
410	4	NR	540	558	NR	670	328	NR	800	5	NR	930	0	NR
415	9	NR	545	584	NR	675	285	NR	805	5	NR	935	0	NR
420	16	NR	550	611	NR	680	247	NR	810	4	NR	940	0	NR
425	31	NR	555	646	NR	685	212	NR	815	3	NR	945	0	NR
430	56	NR	560	687	NR	690	183	NR	820	3	NR	950	0	NR
435	101	NR	565	731	NR	695	156	NR	825	3	NR	955	0	NR
440	178	NR	570	780	NR	700	133	NR	830	2	NR	960	0	NR
445	323	NR	575	832	NR	705	114	NR	835	2	NR	965	0	NR
450	566	NR	580	883	NR	710	96	NR	840	2	NR	970	0	NR
455	645	NR	585	927	NR	715	82	NR	845	1	NR	975	0	NR
460	457	NR	590	963	NR	720	70	NR	850	1	NR	980	0	NR
465	365	NR	595	985	NR	725	59	NR	855	1	NR	985	0	NR
470	317	NR	600	998	NR	730	50	NR	860	1	NR	990	0	NR
475	244	NR	605	994	NR	735	43	NR	865	1	NR	995	0	NR
480	218	NR	610	978	NR	740	36	NR	870	1	NR	1000	0	NR
485	233	NR	615	947	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-157-7

Melanopic Flux vs. Wavelength



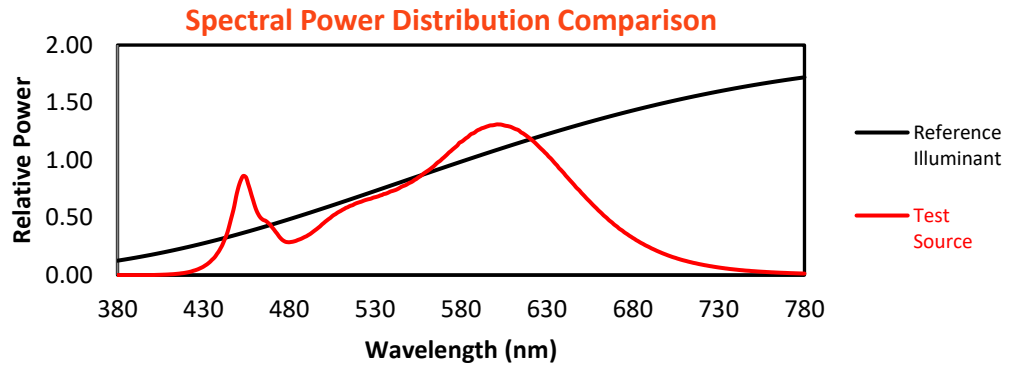
Melanopic Lumens: NR

M/P: 2.79

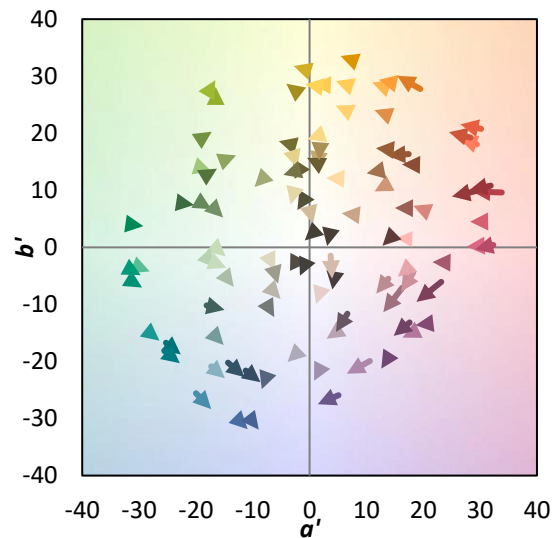
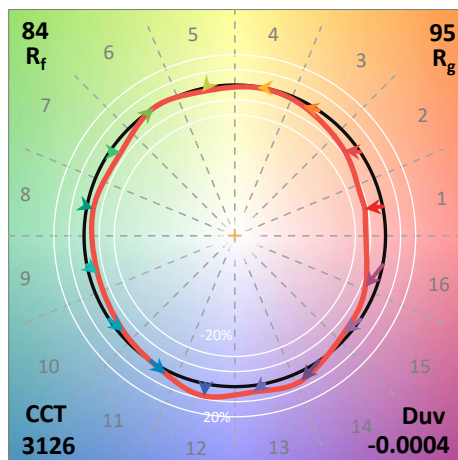
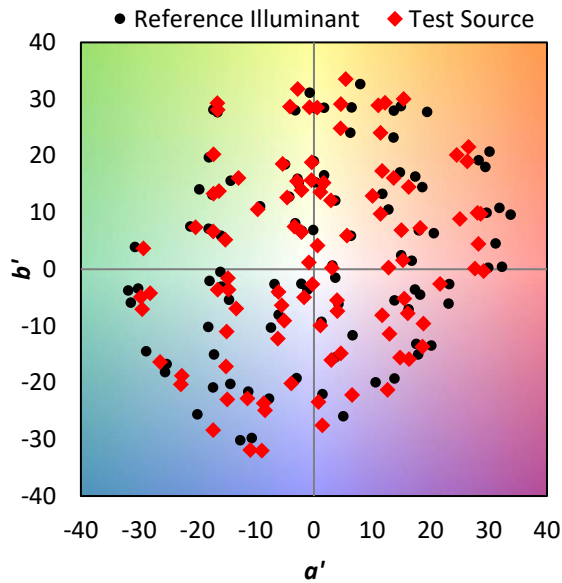
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	258	NR	620	908	NR	750	26	NR	880	1	NR
365	0	NR	495	297	NR	625	857	NR	755	22	NR	885	0	NR
370	0	NR	500	345	NR	630	801	NR	760	19	NR	890	0	NR
375	0	NR	505	391	NR	635	738	NR	765	16	NR	895	0	NR
380	0	NR	510	426	NR	640	675	NR	770	14	NR	900	0	NR
385	0	NR	515	456	NR	645	610	NR	775	12	NR	905	0	NR
390	0	NR	520	480	NR	650	547	NR	780	10	NR	910	0	NR
395	0	NR	525	500	NR	655	488	NR	785	9	NR	915	0	NR
400	0	NR	530	517	NR	660	429	NR	790	7	NR	920	0	NR
405	2	NR	535	538	NR	665	378	NR	795	6	NR	925	0	NR
410	4	NR	540	558	NR	670	328	NR	800	5	NR	930	0	NR
415	9	NR	545	584	NR	675	285	NR	805	5	NR	935	0	NR
420	16	NR	550	611	NR	680	247	NR	810	4	NR	940	0	NR
425	31	NR	555	646	NR	685	212	NR	815	3	NR	945	0	NR
430	56	NR	560	687	NR	690	183	NR	820	3	NR	950	0	NR
435	101	NR	565	731	NR	695	156	NR	825	3	NR	955	0	NR
440	178	NR	570	780	NR	700	133	NR	830	2	NR	960	0	NR
445	323	NR	575	832	NR	705	114	NR	835	2	NR	965	0	NR
450	566	NR	580	883	NR	710	96	NR	840	2	NR	970	0	NR
455	645	NR	585	927	NR	715	82	NR	845	1	NR	975	0	NR
460	457	NR	590	963	NR	720	70	NR	850	1	NR	980	0	NR
465	365	NR	595	985	NR	725	59	NR	855	1	NR	985	0	NR
470	317	NR	600	998	NR	730	50	NR	860	1	NR	990	0	NR
475	244	NR	605	994	NR	735	43	NR	865	1	NR	995	0	NR
480	218	NR	610	978	NR	740	36	NR	870	1	NR	1000	0	NR
485	233	NR	615	947	NR	745	31	NR	875	1	NR			

**Summary**

$R_f = 84.4$   
 $R_g = 94.7$   
 $CIE R_a = 82.6$   
 $R_9 = 5.1$



**Color Vector Graphics**





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

CES01 = 86	CES26 = 86	CES51 = 93	CES76 = 82
CES02 = 63	CES27 = 92	CES52 = 93	CES77 = 84
CES03 = 31	CES28 = 94	CES53 = 89	CES78 = 81
CES04 = 70	CES29 = 92	CES54 = 89	CES79 = 90
CES05 = 49	CES30 = 91	CES55 = 86	CES80 = 89
CES06 = 51	CES31 = 93	CES56 = 85	CES81 = 72
CES07 = 42	CES32 = 85	CES57 = 83	CES82 = 95
CES08 = 41	CES33 = 97	CES58 = 84	CES83 = 94
CES09 = 29	CES34 = 92	CES59 = 91	CES84 = 91
CES10 = 76	CES35 = 96	CES60 = 90	CES85 = 74
CES11 = 59	CES36 = 81	CES61 = 87	CES86 = 68
CES12 = 65	CES37 = 96	CES62 = 83	CES87 = 84
CES13 = 43	CES38 = 86	CES63 = 87	CES88 = 88
CES14 = 74	CES39 = 98	CES64 = 79	CES89 = 75
CES15 = 71	CES40 = 96	CES65 = 78	CES90 = 89
CES16 = 47	CES41 = 96	CES66 = 77	CES91 = 73
CES17 = 50	CES42 = 97	CES67 = 76	CES92 = 63
CES18 = 56	CES43 = 91	CES68 = 80	CES93 = 77
CES19 = 72	CES44 = 99	CES69 = 85	CES94 = 61
CES20 = 66	CES45 = 93	CES70 = 78	CES95 = 73
CES21 = 87	CES46 = 90	CES71 = 74	CES96 = 84
CES22 = 79	CES47 = 94	CES72 = 91	CES97 = 88
CES23 = 92	CES48 = 83	CES73 = 74	CES98 = 85
CES24 = 91	CES49 = 91	CES74 = 90	CES99 = 76
CES25 = 72	CES50 = 93	CES75 = 78	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)