

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: McGRAW-EDISON

Report Number: P437767

Luminaire Tested: **ISS-SA1E-830-U-SLL-HSS**

Issue Date: 12/9/2020

Test Information

Test Method: LM-79-08
Report Number: P437767
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-21)
Test Lab: INNOVATION CENTER
Issue Date: 12/9/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: ISS-SA1E-830-U-SLL-HSS
Description: IMPACT ELITE LED QUARTER SPHERE LUMINAIRE
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4249 lumens
Efficiency: N/A
Efficacy: 73.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

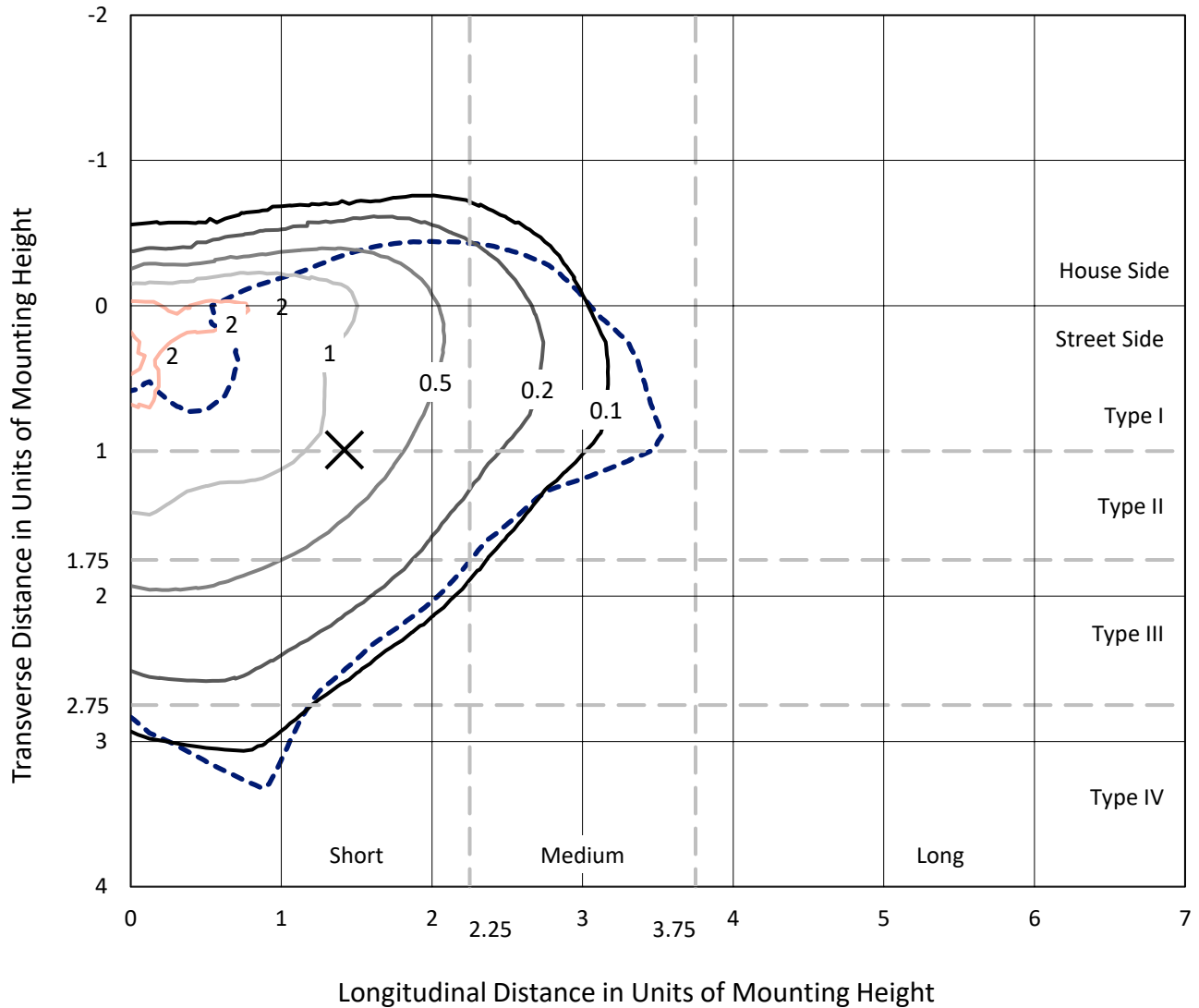
Input Watts (W): 58.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

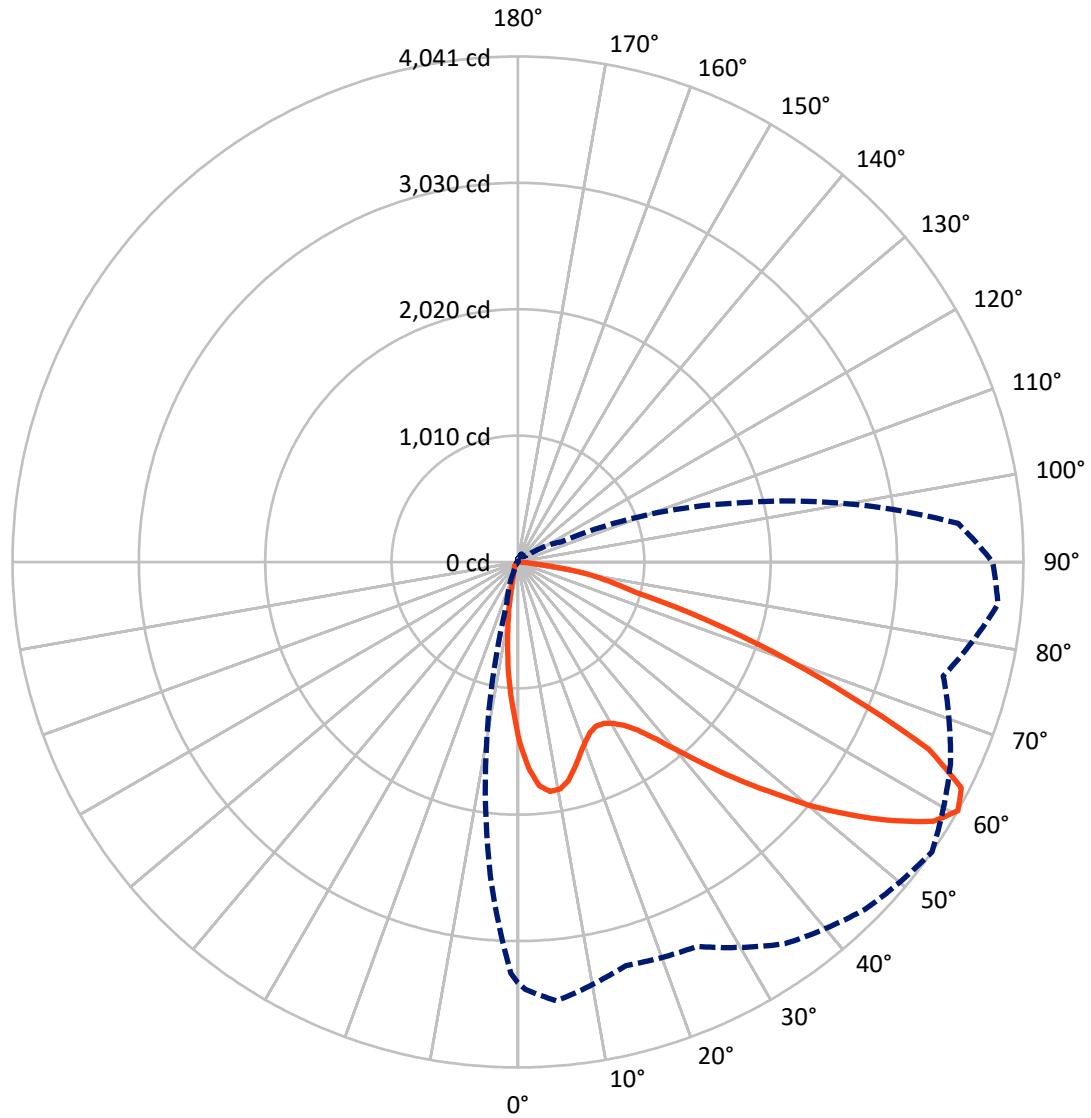
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	744.3	0.0	744.3
	% Fixture	17.5	0.0	17.5
Street Side	Lumens	3504.7	0.0	3504.7
	% Fixture	82.5	0.0	82.5
Total	Lumens	4249.0	0.0	4249.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.8	2.5
10°-20°	209.2	4.9
20°-30°	307.6	7.2
30°-40°	460.0	10.8
40°-50°	680.6	16.0
50°-60°	978.2	23.0
60°-70°	1048.6	24.7
70°-80°	423.6	10.0
80°-90°	34.3	0.8
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°	4249.0	100.0
0°-180°	4249.0	100.0

Coefficient of Utilization



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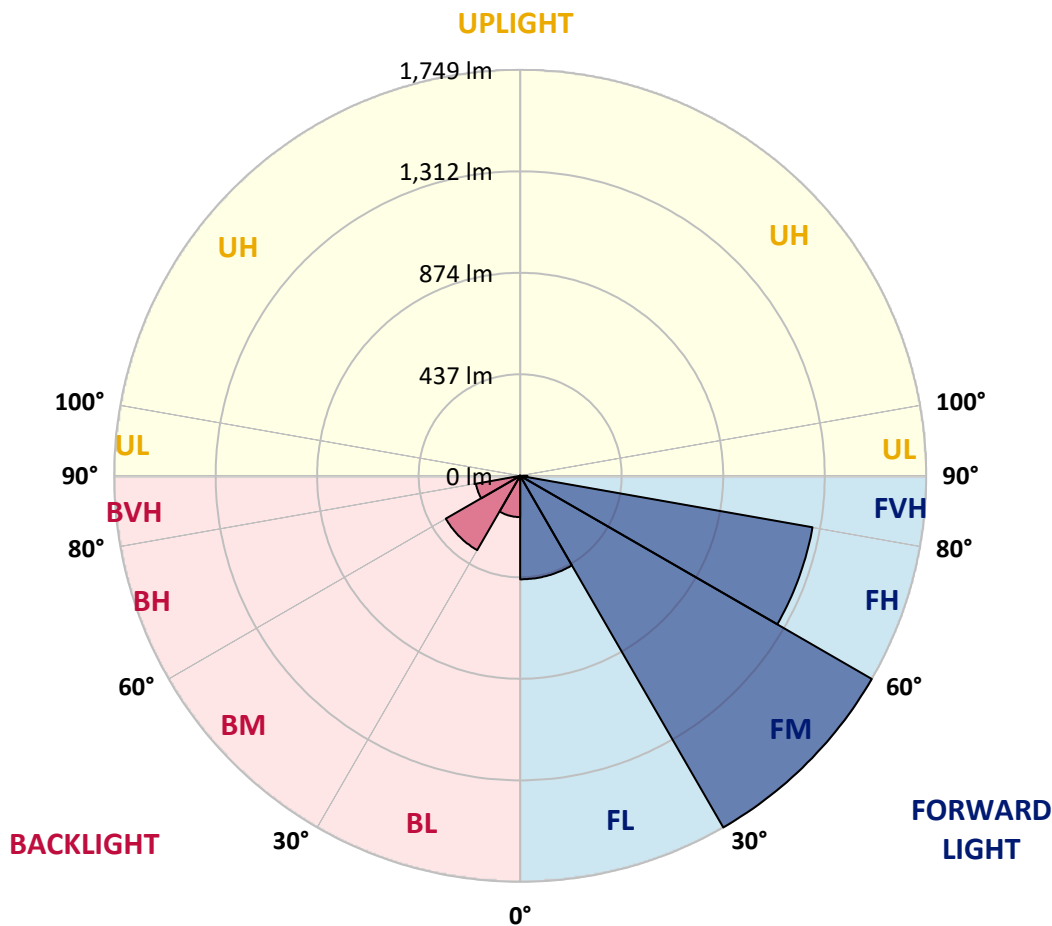
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	445.9	10.5			
FM (30°-60°)	1749.0	41.2			
FH (60°-80°)	1278.6	30.1			G1/1800
FVH (80°-90°)	31.2	0.7			G1/100
BL (0°-30°)	177.8	4.2	B1/500		
BM (30°-60°)	369.8	8.7	B1/1000		
BH (60°-80°)	193.6	4.6	B1/500		G1/500
BVH (80°-90°)	3.1	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7
2.5°	1540.3	1540.3	1552.6	1589.5	1630.6	1651.1	1673.6	1651.1	1647.0	1614.2	1589.5
5°	1493.1	1503.4	1542.4	1640.8	1745.4	1798.7	1827.5	1796.7	1741.3	1669.5	1579.3
7.5°	1386.5	1398.8	1443.9	1603.9	1747.5	1854.1	1905.4	1852.1	1757.7	1626.5	1495.2
10°	1271.6	1294.2	1353.7	1536.2	1702.3	1829.5	1901.3	1845.9	1729.0	1560.8	1398.8
12.5°	1195.7	1212.2	1292.1	1474.7	1653.1	1765.9	1804.9	1792.6	1685.9	1530.1	1359.8
15°	1183.4	1203.9	1288.0	1470.6	1605.9	1673.6	1688.0	1704.4	1667.5	1534.2	1372.1
17.5°	1236.8	1259.3	1353.7	1501.3	1562.9	1562.9	1577.2	1610.1	1644.9	1575.2	1446.0
20°	1345.5	1376.2	1480.8	1581.3	1540.3	1491.1	1493.1	1536.2	1630.6	1667.5	1577.2
22.5°	1491.1	1532.1	1659.3	1706.4	1564.9	1452.1	1441.9	1478.8	1632.6	1761.8	1757.7
25°	1683.9	1733.1	1856.2	1854.1	1624.4	1435.7	1425.5	1452.1	1651.1	1864.4	1915.7
27.5°	1858.2	1899.2	2022.3	1971.0	1683.9	1456.2	1433.7	1462.4	1665.4	1940.3	2057.2
30°	2005.9	2040.8	2149.5	2055.1	1735.2	1491.1	1452.1	1497.2	1696.2	1981.3	2184.3
32.5°	2118.7	2170.0	2270.5	2120.8	1796.7	1536.2	1495.2	1556.7	1747.5	2034.6	2295.1
35°	2270.5	2297.1	2416.1	2186.4	1878.7	1632.6	1567.0	1649.0	1831.6	2104.3	2418.2
37.5°	2401.7	2471.5	2549.4	2254.1	1979.2	1751.6	1679.8	1796.7	1946.4	2184.3	2561.7
40°	2557.6	2637.6	2721.7	2350.5	2071.5	1907.4	1876.7	1991.5	2118.7	2301.2	2703.2
42.5°	2701.2	2775.0	2832.5	2463.3	2184.3	2083.8	2106.4	2227.4	2295.1	2422.3	2824.3
45°	2816.1	2881.7	2967.8	2541.2	2309.4	2280.7	2395.6	2489.9	2469.4	2526.9	2933.0
47.5°	2935.0	3015.0	3049.9	2623.3	2471.5	2539.2	2744.3	2764.8	2652.0	2623.3	3027.3
50°	3017.1	3076.5	3099.1	2723.8	2670.4	2879.6	3043.7	3078.6	2850.9	2699.1	3150.4
52.5°	3117.6	3175.0	3201.6	2842.7	2883.7	3185.2	3376.0	3367.8	3043.7	2824.3	3271.4
55°	3296.0	3349.3	3376.0	2988.3	3035.5	3447.8	3659.0	3650.8	3273.4	3004.7	3451.9
57.5°	3423.2	3468.3	3511.3	3152.4	3224.2	3615.9	3851.8	3913.3	3550.3	3232.4	3648.8
60°	3365.7	3417.0	3521.6	3339.1	3390.3	3724.7	3925.7	4040.5	3814.9	3519.6	3851.8
62.5°	3203.7	3279.6	3388.3	3486.7	3519.6	3743.1	3823.1	3976.9	3956.4	3808.7	3944.1
65°	2998.6	3076.5	3181.1	3507.2	3490.8	3468.3	3515.4	3607.7	3751.3	3948.2	3899.0
67.5°	2629.4	2742.2	2873.5	3267.3	3035.5	2906.3	2918.6	2867.3	3156.5	3747.2	3669.3
70°	2141.3	2256.1	2397.6	2770.9	2340.2	2170.0	2213.1	2180.2	2407.9	3216.0	3144.2
72.5°	1507.5	1630.6	1804.9	2309.4	1630.6	1355.7	1458.3	1544.4	1815.2	2580.2	2309.4
75°	998.8	1087.0	1212.2	1739.3	1162.9	910.7	933.2	968.1	1214.2	1950.5	1458.3
77.5°	516.9	605.1	660.4	931.2	719.9	717.9	701.4	746.6	758.9	1171.1	760.9
80°	289.2	317.9	346.6	453.3	361.0	426.6	441.0	539.4	500.4	586.6	317.9
82.5°	141.5	178.4	194.8	278.9	231.8	170.2	84.1	176.4	297.4	317.9	147.7
85°	2.1	4.1	10.3	22.6	6.2	6.2	0.0	6.2	30.8	39.0	51.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7
2.5°	1562.9	1546.5	1499.3	1458.3	1394.7	1368.0	1325.0	1314.7	1279.8	1245.0	1224.5
5°	1534.2	1487.0	1390.6	1296.2	1210.1	1130.1	1070.6	1021.4	966.0	943.5	957.8
7.5°	1419.3	1353.7	1214.2	1103.4	980.4	888.1	804.0	760.9	709.7	689.1	674.8
10°	1325.0	1245.0	1085.0	939.4	822.5	750.7	699.4	637.9	578.4	531.2	525.1
12.5°	1265.5	1179.3	1000.9	847.1	760.9	691.2	631.7	551.7	484.0	438.9	418.4
15°	1263.4	1156.8	974.2	812.2	711.7	623.5	547.6	457.4	387.6	330.2	309.7
17.5°	1337.3	1208.1	986.5	775.3	642.0	527.1	428.7	334.3	266.6	227.7	207.2
20°	1466.5	1325.0	1009.1	738.4	574.3	428.7	301.5	227.7	182.5	164.1	155.9
22.5°	1622.4	1454.2	1050.1	709.7	504.6	324.1	213.3	164.1	143.6	131.3	129.2
25°	1811.1	1618.3	1107.6	689.1	441.0	250.2	166.1	135.4	123.1	114.9	110.8
27.5°	1977.2	1776.2	1193.7	672.7	379.4	205.1	141.5	119.0	106.7	100.5	98.4
30°	2100.2	1905.4	1292.1	635.8	330.2	178.4	133.3	112.8	98.4	90.2	88.2
32.5°	2241.8	2003.8	1339.3	598.9	301.5	157.9	116.9	100.5	90.2	82.0	80.0
35°	2397.6	2141.3	1386.5	570.2	283.0	141.5	106.7	88.2	75.9	67.7	65.6
37.5°	2578.1	2293.0	1429.6	545.6	272.8	131.3	100.5	82.0	69.7	61.5	57.4
40°	2779.1	2412.0	1458.3	529.2	258.4	125.1	96.4	77.9	65.6	55.4	53.3
42.5°	2939.1	2549.4	1466.5	523.0	244.1	123.1	92.3	75.9	61.5	53.3	49.2
45°	3054.0	2670.4	1495.2	516.9	233.8	114.9	90.2	73.8	57.4	49.2	45.1
47.5°	3138.1	2799.6	1521.9	510.7	223.6	104.6	96.4	73.8	55.4	45.1	41.0
50°	3293.9	2951.4	1573.1	494.3	209.2	94.3	96.4	71.8	53.3	43.1	39.0
52.5°	3462.1	3148.3	1688.0	475.8	190.7	84.1	88.2	71.8	51.3	41.0	36.9
55°	3622.1	3388.3	1794.6	451.2	160.0	75.9	82.0	71.8	47.2	39.0	34.9
57.5°	3739.0	3548.3	1852.1	420.5	127.2	67.7	67.7	67.7	41.0	32.8	30.8
60°	3794.4	3531.9	1825.4	381.5	102.6	59.5	55.4	69.7	36.9	28.7	26.7
62.5°	3751.3	3361.6	1708.5	340.5	90.2	51.3	45.1	61.5	32.8	24.6	22.6
65°	3618.0	3074.5	1513.7	307.7	88.2	43.1	36.9	36.9	26.7	20.5	18.5
67.5°	3287.8	2697.1	1281.9	276.9	90.2	36.9	30.8	28.7	22.6	16.4	14.4
70°	2734.0	2167.9	970.1	262.5	90.2	30.8	26.7	22.6	16.4	14.4	12.3
72.5°	1737.2	1345.5	672.7	231.8	90.2	24.6	22.6	20.5	12.3	10.3	6.2
75°	1029.6	818.4	315.9	178.4	75.9	20.5	16.4	12.3	6.2	4.1	4.1
77.5°	605.1	525.1	137.4	98.4	32.8	12.3	8.2	4.1	2.1	0.0	0.0
80°	248.2	215.4	51.3	28.7	14.4	6.2	2.1	0.0	0.0	0.0	0.0
82.5°	145.6	151.8	18.5	12.3	4.1	0.0	0.0	0.0	0.0	0.0	0.0
85°	45.1	69.7	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7
2.5°	1222.4	1201.9	1193.7	1181.4	1171.1	1158.8	1175.2	1189.6	1173.2	1191.6	1220.4
5°	943.5	912.7	953.7	927.1	941.4	925.0	902.4	906.6	910.7	902.4	925.0
7.5°	654.3	668.6	678.9	676.8	689.1	666.6	666.6	652.2	631.7	639.9	635.8
10°	496.3	467.6	477.9	475.8	498.4	467.6	447.1	424.6	422.5	426.6	422.5
12.5°	395.8	361.0	338.4	326.1	324.1	309.7	291.2	268.7	254.3	252.3	264.6
15°	297.4	270.7	250.2	231.8	229.7	201.0	176.4	160.0	145.6	147.7	155.9
17.5°	205.1	196.9	190.7	174.3	164.1	139.5	119.0	108.7	104.6	104.6	106.7
20°	149.7	145.6	141.5	135.4	125.1	106.7	94.3	90.2	88.2	88.2	90.2
22.5°	125.1	119.0	114.9	112.8	104.6	90.2	82.0	77.9	77.9	77.9	77.9
25°	106.7	102.6	100.5	96.4	90.2	77.9	71.8	69.7	67.7	67.7	69.7
27.5°	96.4	88.2	84.1	84.1	77.9	69.7	63.6	61.5	59.5	59.5	61.5
30°	86.1	80.0	75.9	71.8	67.7	59.5	55.4	53.3	53.3	53.3	53.3
32.5°	75.9	71.8	67.7	63.6	57.4	53.3	49.2	47.2	45.1	45.1	45.1
35°	61.5	57.4	57.4	55.4	49.2	45.1	41.0	39.0	36.9	39.0	39.0
37.5°	53.3	47.2	47.2	47.2	43.1	39.0	34.9	32.8	30.8	30.8	32.8
40°	49.2	41.0	39.0	39.0	39.0	32.8	28.7	26.7	24.6	24.6	26.7
42.5°	43.1	36.9	32.8	30.8	32.8	28.7	22.6	20.5	20.5	20.5	20.5
45°	41.0	32.8	28.7	24.6	26.7	24.6	18.5	16.4	16.4	16.4	16.4
47.5°	36.9	28.7	24.6	18.5	18.5	18.5	14.4	12.3	12.3	12.3	12.3
50°	34.9	26.7	18.5	16.4	14.4	14.4	12.3	10.3	8.2	8.2	10.3
52.5°	32.8	24.6	16.4	12.3	10.3	10.3	8.2	8.2	6.2	6.2	6.2
55°	30.8	20.5	14.4	10.3	8.2	6.2	6.2	6.2	6.2	4.1	6.2
57.5°	26.7	18.5	10.3	8.2	4.1	4.1	4.1	4.1	4.1	4.1	4.1
60°	24.6	14.4	8.2	4.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
62.5°	20.5	12.3	6.2	4.1	2.1	0.0	2.1	2.1	2.1	2.1	2.1
65°	16.4	10.3	4.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	12.3	8.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	10.3	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	6.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7	1433.7
2.5°	1218.3	1230.6	1275.7	1316.8	1361.9	1411.1	1452.1	1511.6	1530.1	1540.3
5°	920.9	966.0	1021.4	1070.6	1158.8	1240.9	1337.3	1441.9	1484.9	1493.1
7.5°	664.5	695.3	754.8	853.2	933.2	1056.3	1181.4	1320.9	1386.5	1386.5
10°	457.4	508.7	584.5	676.8	783.5	892.2	1037.8	1195.7	1257.3	1271.6
12.5°	291.2	348.7	451.2	551.7	674.8	781.4	927.1	1105.5	1175.2	1195.7
15°	168.2	207.2	301.5	412.3	559.9	695.3	859.4	1076.8	1162.9	1183.4
17.5°	112.8	127.2	178.4	274.8	438.9	619.4	838.9	1107.6	1212.2	1236.8
20°	94.3	100.5	119.0	170.2	309.7	539.4	830.7	1175.2	1302.4	1345.5
22.5°	82.0	88.2	100.5	125.1	221.5	455.3	824.5	1273.7	1446.0	1491.1
25°	71.8	77.9	88.2	106.7	155.9	371.2	834.8	1413.2	1630.6	1683.9
27.5°	63.6	69.7	80.0	92.3	125.1	287.1	836.8	1544.4	1802.8	1858.2
30°	55.4	61.5	69.7	80.0	100.5	221.5	799.9	1677.7	1942.3	2005.9
32.5°	49.2	53.3	61.5	69.7	84.1	172.3	724.0	1780.3	2057.2	2118.7
35°	41.0	45.1	53.3	59.5	73.8	139.5	639.9	1874.6	2194.6	2270.5
37.5°	34.9	39.0	45.1	53.3	65.6	108.7	555.8	1956.7	2327.9	2401.7
40°	28.7	34.9	41.0	47.2	59.5	84.1	463.5	2044.9	2479.7	2557.6
42.5°	24.6	28.7	34.9	43.1	51.3	67.7	381.5	2100.2	2608.9	2701.2
45°	18.5	24.6	32.8	43.1	43.1	53.3	328.2	2141.3	2701.2	2816.1
47.5°	14.4	20.5	28.7	41.0	39.0	45.1	301.5	2213.1	2828.4	2935.0
50°	12.3	16.4	28.7	34.9	32.8	39.0	309.7	2276.6	2924.8	3017.1
52.5°	10.3	14.4	24.6	26.7	28.7	34.9	326.1	2393.5	3045.8	3117.6
55°	8.2	12.3	18.5	22.6	24.6	32.8	352.8	2539.2	3203.7	3296.0
57.5°	6.2	10.3	14.4	18.5	22.6	30.8	371.2	2631.5	3351.4	3423.2
60°	6.2	8.2	12.3	16.4	20.5	28.7	344.6	2522.8	3287.8	3365.7
62.5°	4.1	8.2	10.3	14.4	16.4	22.6	254.3	2284.8	3097.0	3203.7
65°	2.1	6.2	8.2	10.3	12.3	16.4	145.6	1997.7	2871.4	2998.6
67.5°	0.0	4.1	6.2	8.2	8.2	12.3	67.7	1612.1	2500.2	2629.4
70°	0.0	2.1	4.1	4.1	6.2	10.3	34.9	1138.3	1966.9	2141.3
72.5°	2.1	2.1	4.1	4.1	4.1	8.2	22.6	689.1	1322.9	1507.5
75°	2.1	2.1	2.1	2.1	4.1	6.2	14.4	443.0	832.7	998.8
77.5°	2.1	4.1	2.1	2.1	2.1	4.1	8.2	246.1	455.3	516.9
80°	2.1	2.1	2.1	2.1	2.1	4.1	4.1	22.6	215.4	289.2
82.5°	0.0	0.0	0.0	0.0	2.1	2.1	2.1	2.1	110.8	141.5
85°	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	2.1	2.1
87.5°	0.0	0.0	0.0	2.1	2.1	2.1	0.0	0.0	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

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

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2408-195-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/07/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: MCGRAW EDISON
 Catalog Number: **GALN-SB1A-830-U-5WQ**
 Description: GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K): 3050
 CIE u': 0.2476
 CIE v': 0.5251
 Duv: 0.0034
 CIE x: 0.4383
 CIE y: 0.4131
 CIE z: 0.1487
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 581
 Purity: 55.55201
 Rf: 81.5
 Rg: 99.2

CRI (Ra):	81.0		
R1:	79.6	R9:	7.1
R2:	85.6	R10:	67.0
R3:	92.0	R11:	82.7
R4:	82.6	R12:	63.2
R5:	78.9	R13:	80.3
R6:	81.7	R14:	95.0
R7:	85.2	R15:	71.7
R8:	62.0		



Test Conditions

Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

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



CCT = 3050K
 CIE x = 0.4383
 CIE y = 0.4131
 Duv = 0.0034

Point lies inside the ANSI 3000K 4-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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

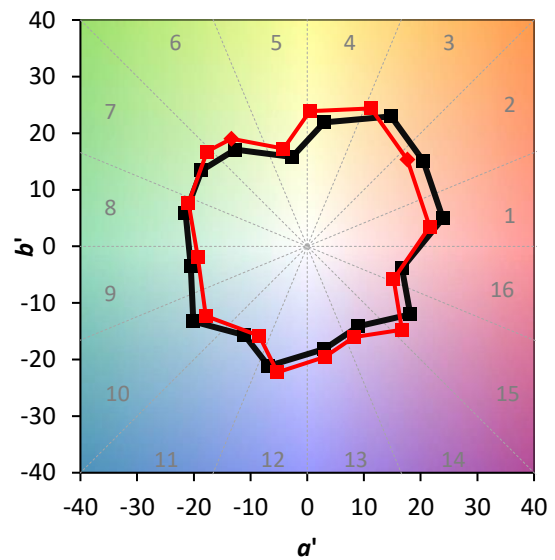
λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

Summary

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 81.0$
 $R_9 = 7.1$



Color Vector Graphics



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

CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)