

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: P437941

Luminaire Tested: **ISS-SA1F-830-U-SLR**

Issue Date: 12/9/2020

Test Information

Test Method: LM-79-08
Report Number: P437941
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-22)
Test Lab: INNOVATION CENTER
Issue Date: 12/9/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-SA1F-830-U-SLR
Description: IMPACT ELITE LED QUARTER SPHERE LUMINAIRE
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5479 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

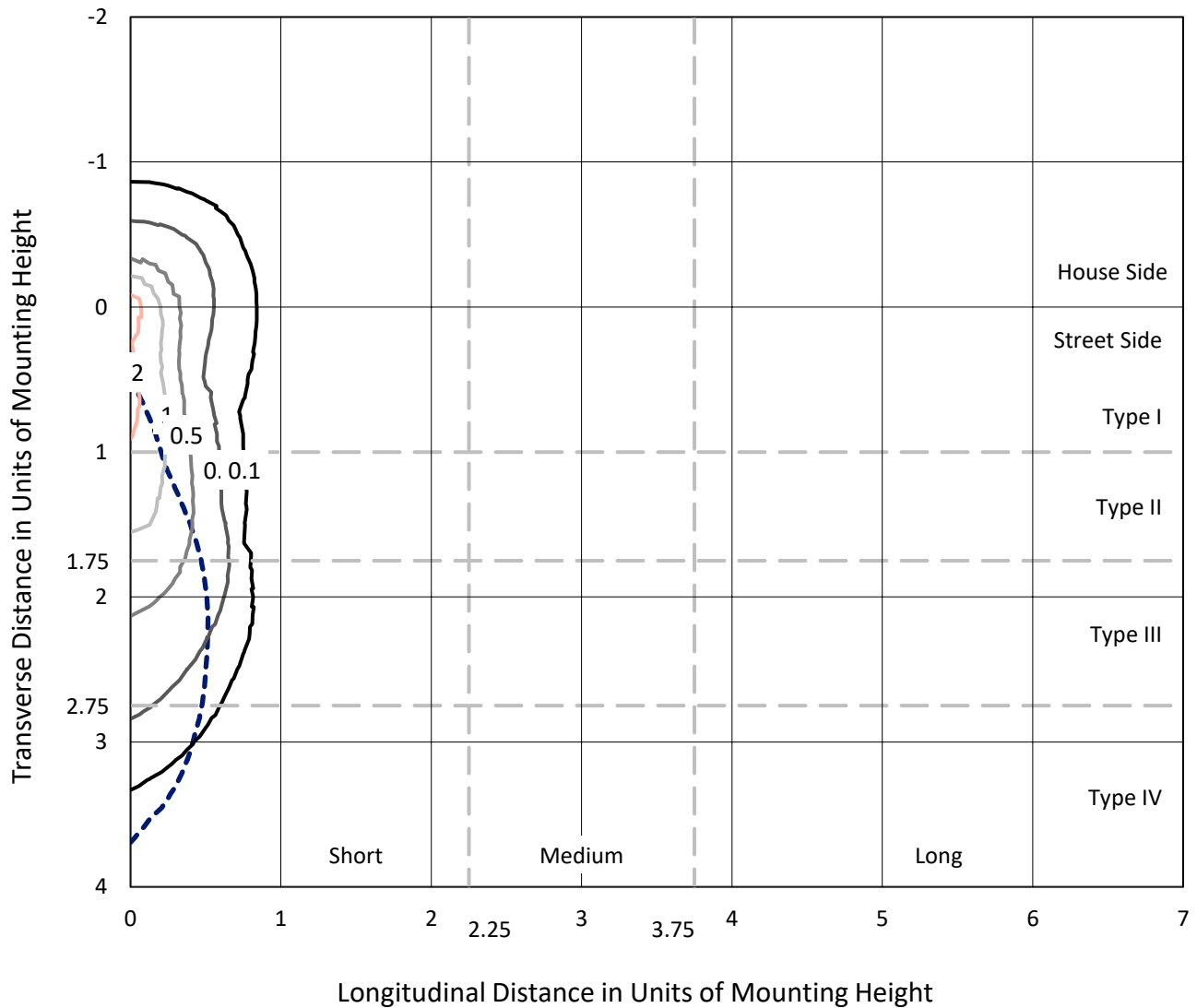
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

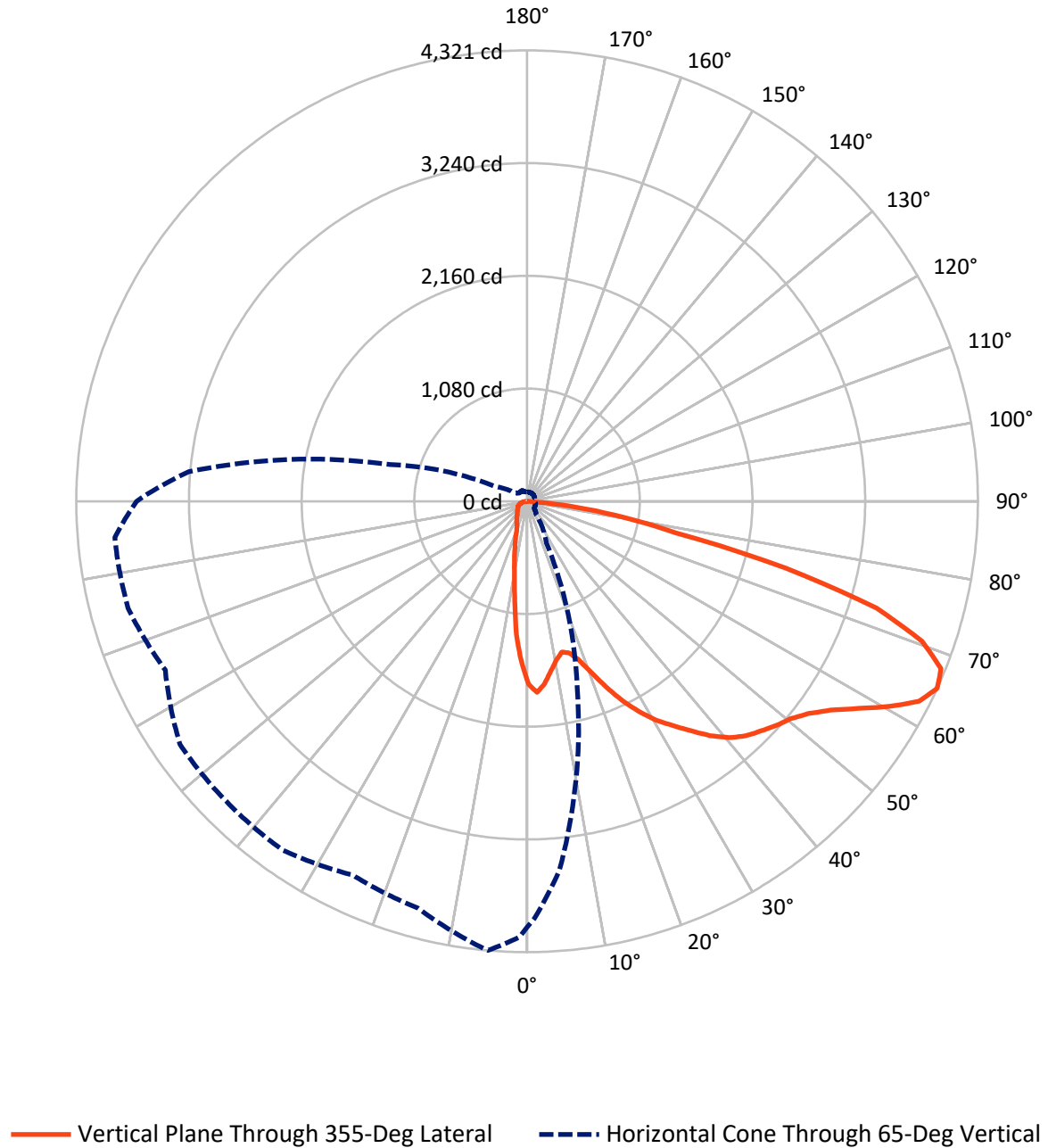
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	987.7	0.0	987.7
	% Fixture	18.0	0.0	18.0
Street Side	Lumens	4491.3	0.0	4491.3
	% Fixture	82.0	0.0	82.0
Total	Lumens	5479.0	0.0	5479.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.4	2.4
10°-20°	273.3	5.0
20°-30°	389.5	7.1
30°-40°	556.8	10.2
40°-50°	777.5	14.2
50°-60°	1081.4	19.7
60°-70°	1317.4	24.0
70°-80°	811.4	14.8
80°-90°	139.4	2.5
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°	5479.0	100.0
0°-180°	5479.0	100.0

Coefficient of Utilization

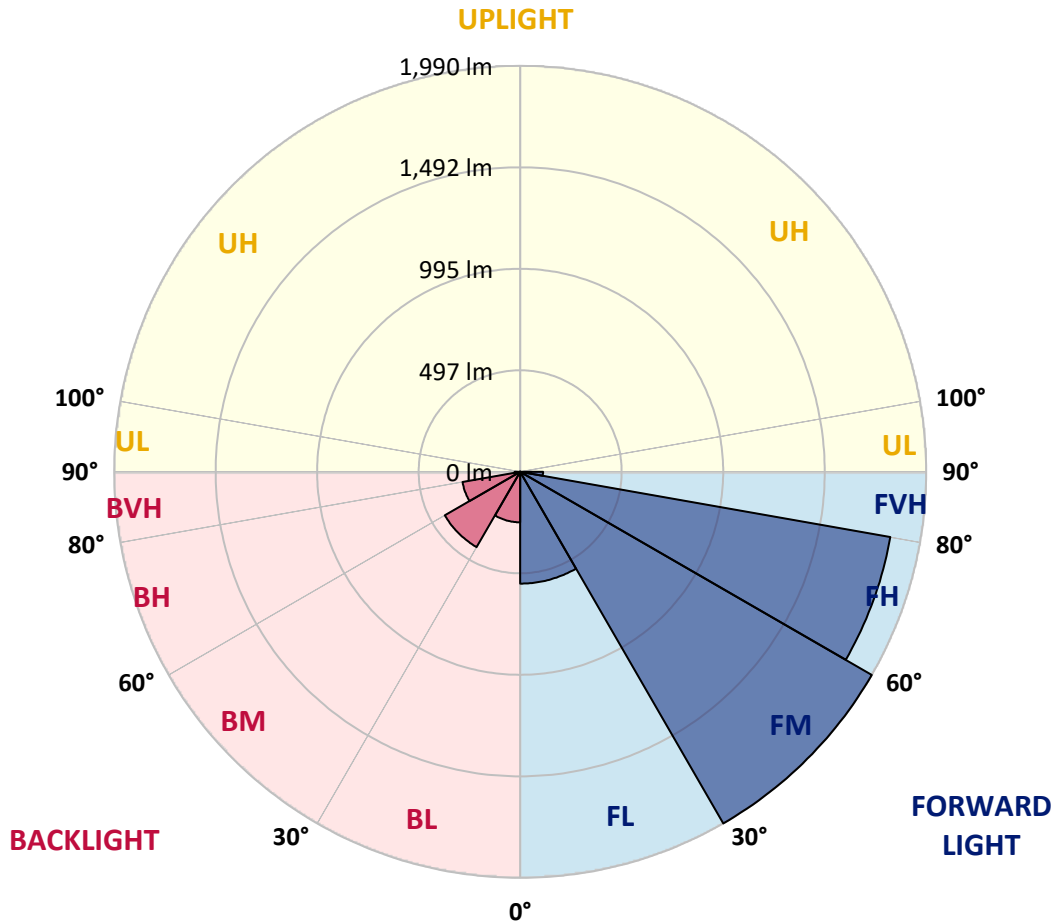


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	547.8	10.0			
FM (30°-60°)	1989.5	36.3			
FH (60°-80°)	1841.9	33.6			G2/5000
FVH (80°-90°)	112.0	2.0			G2/225
BL (0°-30°)	247.3	4.5	B1/500		
BM (30°-60°)	426.1	7.8	B1/1000		
BH (60°-80°)	286.8	5.2	B1/500		G1/500
BVH (80°-90°)	27.4	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1
2.5°	1797.5	1797.5	1775.3	1719.8	1668.8	1615.5	1597.7	1548.9	1517.9	1489.0	1500.1
5°	1693.2	1686.5	1646.6	1531.2	1442.4	1355.9	1302.6	1222.7	1213.8	1142.8	1138.4
7.5°	1553.4	1548.9	1489.0	1358.1	1256.0	1120.6	1040.8	972.0	912.0	869.9	856.6
10°	1457.9	1442.4	1369.2	1209.4	1060.7	963.1	918.7	858.8	807.7	754.5	710.1
12.5°	1395.8	1378.1	1304.8	1129.5	985.3	918.7	856.6	785.6	716.8	654.6	610.2
15°	1406.9	1378.1	1295.9	1109.5	958.6	863.2	776.7	692.4	612.5	543.7	488.2
17.5°	1486.8	1451.3	1360.3	1122.9	916.5	790.0	672.4	574.7	477.1	406.1	361.7
20°	1626.6	1575.6	1460.2	1160.6	885.4	721.2	565.9	437.2	335.1	286.3	272.9
22.5°	1797.5	1753.1	1595.5	1191.7	852.1	643.5	448.3	315.1	264.1	239.7	233.0
25°	1975.0	1926.2	1750.9	1242.7	825.5	572.5	352.8	250.8	226.3	215.3	210.8
27.5°	2157.0	2108.1	1904.0	1324.8	794.4	497.1	284.0	219.7	201.9	193.1	193.1
30°	2285.7	2245.7	2041.6	1398.0	758.9	437.2	250.8	204.2	188.6	179.7	177.5
32.5°	2429.9	2374.4	2170.3	1446.8	732.3	390.6	228.6	190.8	177.5	166.4	166.4
35°	2591.9	2529.8	2290.1	1495.7	705.7	368.4	213.0	182.0	168.7	157.6	155.3
37.5°	2769.4	2689.5	2412.1	1537.8	676.8	357.3	204.2	173.1	159.8	150.9	146.5
40°	2964.7	2880.4	2574.1	1573.3	656.9	344.0	197.5	166.4	153.1	142.0	139.8
42.5°	3128.9	3053.5	2687.3	1595.5	648.0	326.2	195.3	159.8	148.7	135.4	130.9
45°	3213.2	3148.9	2824.9	1602.2	643.5	315.1	184.2	159.8	144.2	130.9	124.3
47.5°	3286.5	3239.9	2924.8	1635.5	632.4	304.0	170.9	168.7	142.0	124.3	117.6
50°	3410.7	3361.9	3080.1	1697.6	619.1	290.7	157.6	162.0	142.0	119.8	113.2
52.5°	3559.4	3546.1	3284.3	1795.2	599.2	272.9	144.2	153.1	142.0	117.6	108.7
55°	3776.9	3756.9	3555.0	1921.7	574.7	248.5	130.9	139.8	139.8	111.0	102.1
57.5°	3961.1	3963.3	3803.5	2010.5	552.6	208.6	122.0	119.8	133.1	104.3	95.4
60°	4045.4	4045.4	3883.4	2043.8	523.7	175.3	115.4	106.5	137.6	97.6	88.8
62.5°	4098.7	4054.3	3772.5	2012.7	490.4	157.6	104.3	97.6	111.0	91.0	82.1
65°	4083.1	3998.8	3550.5	1855.2	441.6	153.1	97.6	88.8	88.8	84.3	77.7
67.5°	3943.3	3812.4	3224.3	1588.9	390.6	150.9	88.8	82.1	79.9	75.4	71.0
70°	3563.9	3470.7	2836.0	1295.9	357.3	150.9	82.1	73.2	71.0	66.6	64.4
72.5°	2913.7	2776.1	2263.5	972.0	330.6	150.9	75.4	64.4	62.1	59.9	57.7
75°	1990.5	1833.0	1591.1	596.9	259.6	130.9	66.6	53.3	53.3	51.0	48.8
77.5°	1098.4	1062.9	896.5	315.1	162.0	79.9	51.0	42.2	44.4	42.2	39.9
80°	636.9	599.2	532.6	153.1	93.2	46.6	31.1	31.1	33.3	33.3	31.1
82.5°	308.5	268.5	275.2	62.1	33.3	20.0	13.3	15.5	17.8	22.2	22.2
85°	11.1	11.1	22.2	4.4	0.0	0.0	0.0	0.0	0.0	4.4	6.7
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°	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1
2.5°	1464.6	1464.6	1473.5	1511.2	1480.1	1475.7	1484.6	1500.1	1506.8	1537.8	1535.6
5°	1129.5	1122.9	1149.5	1185.0	1205.0	1216.1	1233.8	1273.8	1258.2	1282.6	1278.2
7.5°	834.4	845.5	834.4	874.3	905.4	952.0	987.5	978.6	980.8	960.9	989.7
10°	681.3	676.8	650.2	663.5	681.3	710.1	734.5	739.0	761.1	725.6	750.1
12.5°	581.4	563.6	537.0	523.7	519.3	541.5	548.1	559.2	572.5	583.6	588.1
15°	466.0	452.7	434.9	415.0	410.5	410.5	426.1	441.6	459.4	463.8	479.3
17.5°	348.4	341.7	335.1	335.1	335.1	335.1	348.4	355.1	363.9	377.2	375.0
20°	264.1	264.1	266.3	277.4	284.0	288.5	297.4	299.6	297.4	299.6	299.6
22.5°	233.0	230.8	237.4	241.9	253.0	264.1	268.5	266.3	259.6	255.2	259.6
25°	210.8	213.0	215.3	221.9	230.8	241.9	244.1	241.9	235.2	235.2	235.2
27.5°	193.1	195.3	199.7	206.4	215.3	224.1	226.3	221.9	215.3	217.5	215.3
30°	179.7	184.2	186.4	193.1	199.7	208.6	208.6	204.2	199.7	199.7	199.7
32.5°	164.2	168.7	173.1	179.7	188.6	193.1	193.1	190.8	186.4	184.2	184.2
35°	155.3	155.3	159.8	168.7	173.1	177.5	179.7	177.5	173.1	168.7	166.4
37.5°	146.5	146.5	148.7	153.1	162.0	166.4	168.7	164.2	159.8	155.3	155.3
40°	137.6	137.6	139.8	142.0	150.9	157.6	157.6	150.9	146.5	148.7	146.5
42.5°	130.9	130.9	133.1	133.1	137.6	148.7	146.5	142.0	139.8	139.8	137.6
45°	124.3	122.0	124.3	124.3	126.5	137.6	137.6	130.9	130.9	133.1	130.9
47.5°	117.6	115.4	117.6	117.6	119.8	126.5	126.5	124.3	124.3	124.3	126.5
50°	111.0	111.0	111.0	111.0	113.2	115.4	119.8	117.6	117.6	117.6	119.8
52.5°	104.3	104.3	104.3	106.5	106.5	111.0	113.2	111.0	113.2	113.2	113.2
55°	99.9	97.6	97.6	102.1	102.1	106.5	108.7	106.5	108.7	108.7	108.7
57.5°	93.2	93.2	93.2	95.4	97.6	102.1	106.5	102.1	104.3	104.3	106.5
60°	86.5	86.5	86.5	91.0	93.2	97.6	99.9	97.6	99.9	99.9	99.9
62.5°	79.9	82.1	82.1	84.3	86.5	93.2	95.4	93.2	95.4	95.4	95.4
65°	75.4	75.4	77.7	79.9	82.1	86.5	88.8	88.8	88.8	91.0	88.8
67.5°	68.8	68.8	71.0	73.2	75.4	82.1	82.1	82.1	84.3	82.1	82.1
70°	62.1	62.1	64.4	66.6	68.8	75.4	75.4	75.4	77.7	73.2	73.2
72.5°	55.5	55.5	57.7	59.9	64.4	71.0	68.8	68.8	68.8	66.6	66.6
75°	48.8	48.8	51.0	53.3	55.5	64.4	62.1	59.9	59.9	57.7	57.7
77.5°	39.9	39.9	42.2	46.6	48.8	55.5	53.3	51.0	48.8	48.8	48.8
80°	31.1	33.3	35.5	37.7	39.9	44.4	42.2	39.9	37.7	37.7	37.7
82.5°	22.2	24.4	26.6	28.8	31.1	31.1	31.1	31.1	28.8	26.6	26.6
85°	8.9	13.3	17.8	17.8	20.0	17.8	20.0	17.8	15.5	15.5	13.3
87.5°	0.0	0.0	0.0	0.0	0.0	2.2	4.4	6.7	6.7	6.7	6.7
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°	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1
2.5°	1553.4	1588.9	1608.8	1644.3	1682.1	1733.1	1775.3	1835.2	1888.4	1899.5	1912.9
5°	1287.1	1333.7	1355.9	1413.6	1502.3	1557.8	1646.6	1739.8	1855.2	1890.7	1937.3
7.5°	967.5	1003.0	1060.7	1111.8	1216.1	1309.3	1429.1	1564.5	1699.8	1777.5	1852.9
10°	736.7	781.1	843.3	903.2	1005.2	1098.4	1240.5	1391.4	1564.5	1635.5	1715.4
12.5°	612.5	648.0	710.1	792.2	887.6	976.4	1082.9	1247.1	1429.1	1520.1	1617.7
15°	494.9	532.6	610.2	701.2	794.4	894.3	996.4	1153.9	1375.8	1469.0	1562.2
17.5°	395.0	428.3	494.9	592.5	694.6	805.5	929.8	1129.5	1386.9	1502.3	1611.1
20°	306.2	335.1	386.1	474.9	579.2	710.1	869.9	1120.6	1453.5	1615.5	1724.2
22.5°	264.1	275.2	304.0	366.1	472.7	625.8	814.4	1127.3	1560.0	1768.6	1892.9
25°	235.2	244.1	255.2	292.9	377.2	539.2	765.6	1140.6	1673.2	1941.7	2083.7
27.5°	217.5	221.9	228.6	246.3	308.5	468.2	716.8	1158.4	1826.3	2117.0	2254.6
30°	199.7	199.7	206.4	224.1	270.7	417.2	681.3	1193.9	1977.2	2267.9	2403.3
32.5°	182.0	182.0	193.1	208.6	246.3	375.0	645.8	1205.0	2090.4	2401.1	2509.8
35°	166.4	170.9	179.7	197.5	230.8	344.0	612.5	1185.0	2172.5	2514.2	2625.2
37.5°	157.6	159.8	170.9	186.4	210.8	315.1	579.2	1158.4	2283.4	2665.1	2751.7
40°	146.5	150.9	162.0	177.5	197.5	292.9	541.5	1129.5	2381.1	2833.8	2878.2
42.5°	139.8	144.2	153.1	168.7	188.6	266.3	506.0	1107.3	2485.4	2978.0	3009.1
45°	133.1	137.6	148.7	162.0	188.6	246.3	470.4	1091.8	2587.5	3089.0	3113.4
47.5°	126.5	130.9	142.0	159.8	186.4	235.2	446.0	1076.3	2651.8	3184.4	3191.0
50°	122.0	126.5	139.8	164.2	179.7	230.8	434.9	1091.8	2760.5	3259.8	3239.9
52.5°	115.4	122.0	137.6	170.9	170.9	226.3	426.1	1147.3	2895.9	3370.8	3319.8
55°	113.2	117.6	133.1	164.2	155.3	215.3	426.1	1189.4	3075.7	3590.5	3506.2
57.5°	106.5	111.0	128.7	153.1	142.0	197.5	421.6	1258.2	3330.9	3832.4	3756.9
60°	99.9	106.5	124.3	137.6	128.7	175.3	401.7	1333.7	3506.2	3963.3	3976.6
62.5°	95.4	102.1	124.3	119.8	117.6	153.1	370.6	1380.3	3488.4	3921.1	4047.6
65°	88.8	95.4	113.2	108.7	111.0	137.6	330.6	1358.1	3255.4	3743.6	3965.5
67.5°	82.1	88.8	97.6	97.6	102.1	133.1	288.5	1229.4	3002.4	3528.4	3783.5
70°	75.4	79.9	84.3	88.8	93.2	130.9	255.2	1054.1	2711.7	3322.0	3523.9
72.5°	66.6	68.8	73.2	77.7	86.5	124.3	241.9	856.6	2310.1	2875.9	3188.8
75°	57.7	59.9	64.4	68.8	75.4	117.6	221.9	650.2	1904.0	2272.3	2576.4
77.5°	48.8	51.0	55.5	57.7	64.4	104.3	190.8	470.4	1482.4	1637.7	1884.0
80°	37.7	39.9	44.4	44.4	53.3	77.7	148.7	328.4	1040.8	1160.6	1289.3
82.5°	26.6	28.8	31.1	33.3	39.9	53.3	97.6	197.5	705.7	796.7	774.5
85°	15.5	17.8	17.8	22.2	24.4	35.5	55.5	102.1	461.6	363.9	359.5
87.5°	6.7	6.7	6.7	8.9	8.9	13.3	17.8	20.0	44.4	15.5	11.1
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°	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1
2.5°	1932.8	1948.4	1959.5	1955.0	1948.4	1910.6	1872.9	1833.0	1797.5	1797.5
5°	2012.7	2077.1	2103.7	2081.5	2032.7	1955.0	1857.4	1755.3	1706.5	1693.2
7.5°	1970.6	2092.6	2157.0	2128.1	2063.8	1921.7	1773.1	1639.9	1566.7	1553.4
10°	1886.2	2046.0	2119.2	2110.4	2039.3	1875.1	1695.4	1544.5	1466.8	1457.9
12.5°	1788.6	1943.9	2037.1	2041.6	1995.0	1850.7	1662.1	1482.4	1413.6	1395.8
15°	1728.7	1864.0	1928.4	1912.9	1926.2	1830.7	1675.4	1506.8	1422.4	1406.9
17.5°	1730.9	1788.6	1804.1	1779.7	1830.7	1826.3	1750.9	1595.5	1502.3	1486.8
20°	1788.6	1739.8	1690.9	1686.5	1753.1	1841.8	1870.7	1744.2	1637.7	1626.6
22.5°	1888.4	1726.5	1624.4	1608.8	1693.2	1857.4	1986.1	1926.2	1826.3	1797.5
25°	1999.4	1739.8	1582.2	1562.2	1637.7	1868.5	2110.4	2112.6	2001.6	1975.0
27.5°	2119.2	1781.9	1582.2	1560.0	1639.9	1886.2	2192.5	2281.2	2179.1	2157.0
30°	2225.7	1841.8	1597.7	1573.3	1666.5	1904.0	2247.9	2432.1	2316.7	2285.7
32.5°	2290.1	1892.9	1635.5	1591.1	1713.1	1939.5	2299.0	2560.8	2472.1	2429.9
35°	2341.1	1952.8	1697.6	1639.9	1781.9	1997.2	2341.1	2700.6	2616.3	2591.9
37.5°	2378.9	2023.8	1762.0	1706.5	1872.9	2074.8	2401.1	2849.3	2822.7	2769.4
40°	2441.0	2068.2	1877.3	1857.4	2030.5	2196.9	2472.1	2978.0	2995.8	2964.7
42.5°	2496.5	2154.7	2041.6	2063.8	2232.4	2332.3	2567.5	3073.4	3168.9	3128.9
45°	2540.9	2274.6	2247.9	2321.2	2465.4	2505.4	2620.7	3140.0	3239.9	3213.2
47.5°	2603.0	2432.1	2523.1	2618.5	2738.4	2685.1	2676.2	3211.0	3313.1	3286.5
50°	2691.8	2616.3	2798.3	2922.5	3000.2	2831.6	2745.0	3275.4	3426.3	3410.7
52.5°	2782.7	2829.3	3077.9	3193.3	3244.3	3013.5	2842.7	3377.5	3559.4	3559.4
55°	2951.4	3037.9	3375.2	3448.5	3517.3	3177.7	2973.6	3530.6	3765.8	3776.9
57.5°	3197.7	3262.1	3601.6	3685.9	3703.7	3361.9	3180.0	3743.6	3941.1	3961.1
60°	3452.9	3484.0	3825.7	3901.2	3841.2	3599.4	3421.8	3992.1	4056.5	4045.4
62.5°	3734.7	3699.2	3981.0	4034.3	4018.8	3808.0	3725.8	4218.5	4140.8	4098.7
65°	3958.9	3825.7	4060.9	4072.0	4080.9	3952.2	4036.5	4320.6	4176.3	4083.1
67.5°	4094.2	3845.7	3898.9	3847.9	3883.4	3914.5	4247.3	4278.4	4025.4	3943.3
70°	4063.2	3563.9	3324.2	3266.5	3268.7	3486.2	4112.0	4014.3	3681.5	3563.9
72.5°	3776.9	2995.8	2647.4	2569.7	2585.2	2605.2	3457.3	3503.9	2975.8	2913.7
75°	3180.0	2307.9	1906.2	1888.4	1866.3	1952.8	2765.0	2560.8	1975.0	1990.5
77.5°	2594.1	1699.8	1400.2	1309.3	1295.9	1309.3	1886.2	1462.4	1147.3	1098.4
80°	1870.7	1131.7	1045.2	1025.2	963.1	774.5	987.5	940.9	648.0	636.9
82.5°	1231.6	781.1	798.9	665.7	625.8	490.4	599.2	479.3	324.0	308.5
85°	639.1	406.1	335.1	146.5	164.2	137.6	130.9	106.5	11.1	11.1
87.5°	22.2	8.9	6.7	6.7	4.4	2.2	2.2	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

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

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

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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 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

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			

REPORT NUMBER: SP1-2408-195-9

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			

REPORT NUMBER: SP1-2408-195-9

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)