

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: P437933

Luminaire Tested: **ISS-SA1F-830-U-SL2**

Issue Date: 12/9/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P437933  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-14)  
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-SL2  
Description: IMPACT ELITE LED QUARTER SPHERE LUMINAIRE  
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6186 lumens  
Efficiency: N/A  
Efficacy: 93.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B1 - U0 - G2

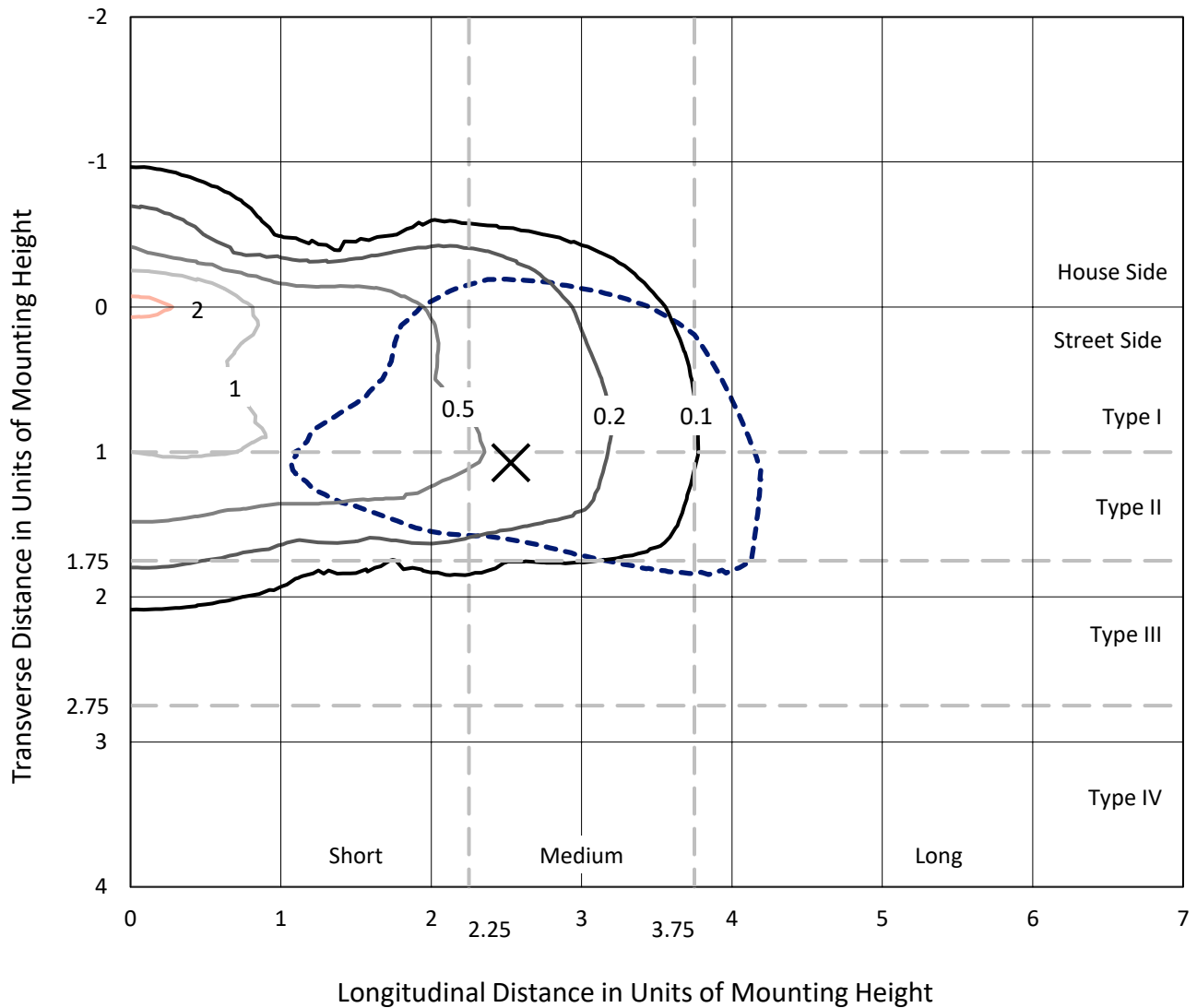
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

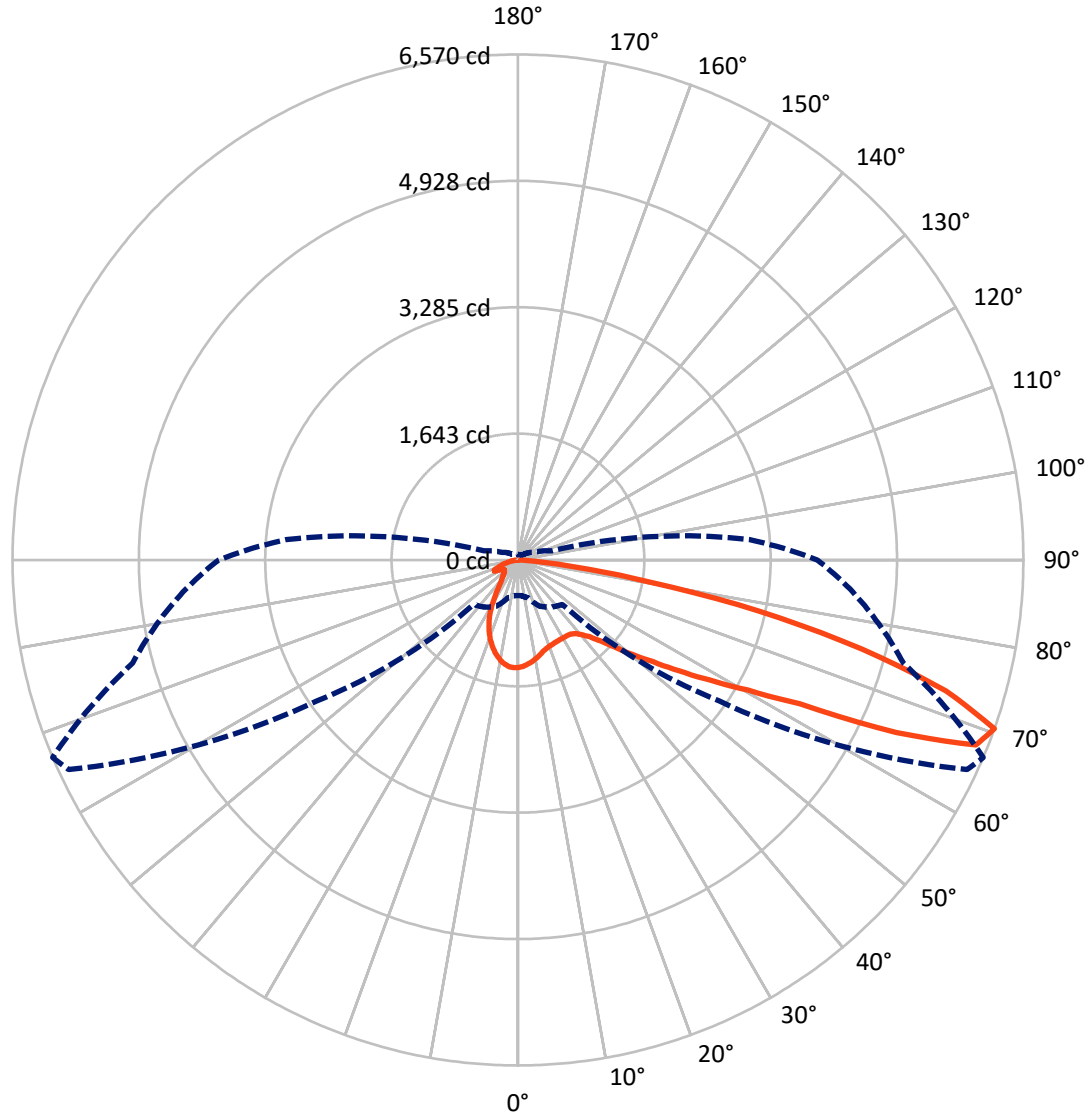
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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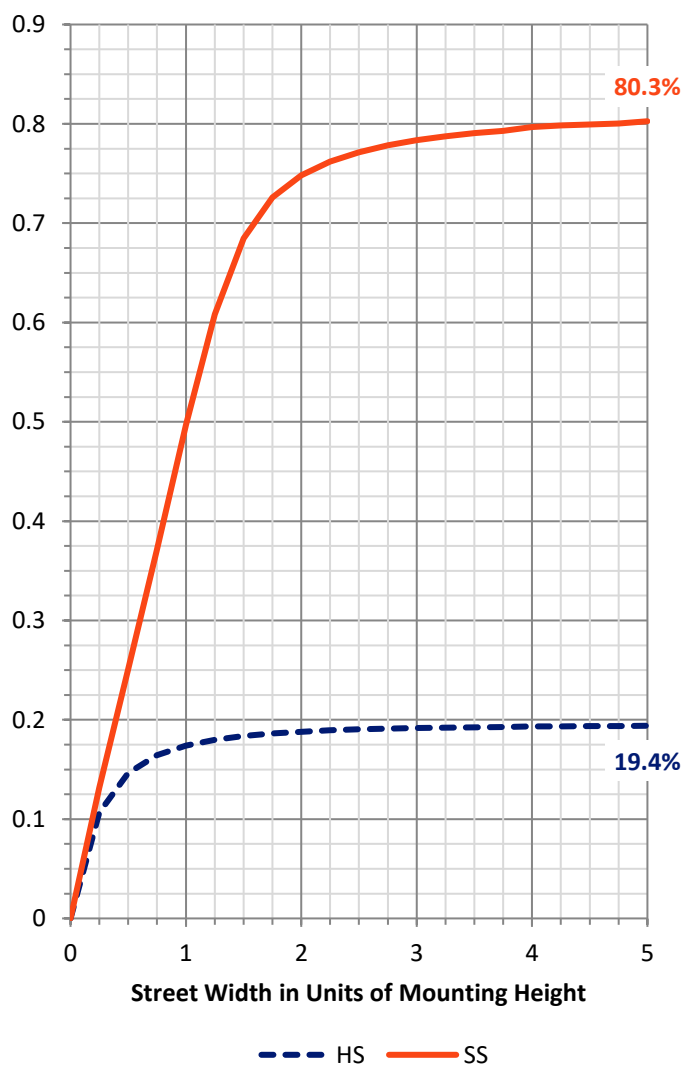
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1211.5	0.0	1211.5
	% Fixture	19.6	0.0	19.6
<b>Street Side</b>	Lumens	4974.5	0.0	4974.5
	% Fixture	80.4	0.0	80.4
<b>Total</b>	Lumens	6186.0	0.0	6186.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.6	2.0
10°-20°	296.9	4.8
20°-30°	409.2	6.6
30°-40°	552.6	8.9
40°-50°	820.1	13.3
50°-60°	1262.2	20.4
60°-70°	1560.6	25.2
70°-80°	1045.4	16.9
80°-90°	116.5	1.9
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°	6186.0	100.0
0°-180°	6186.0	100.0

**Coefficient of Utilization**



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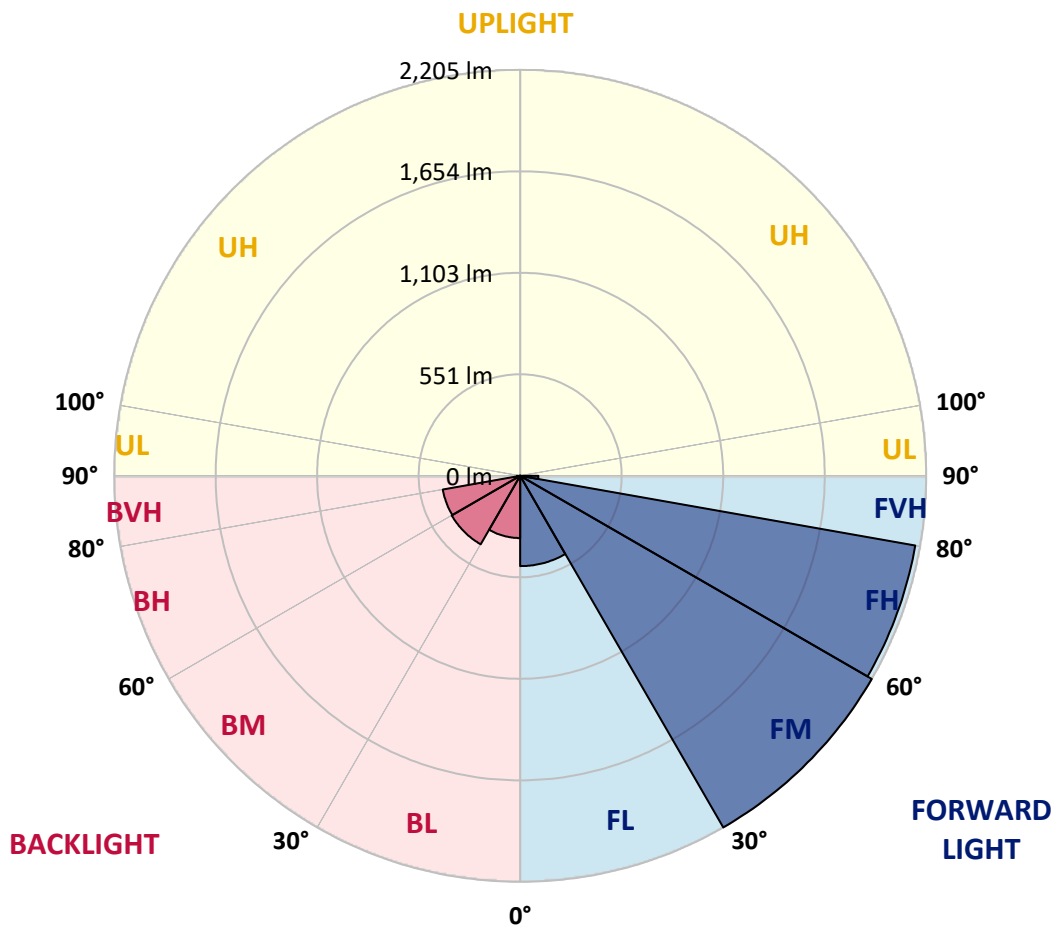
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	490.6	7.9			
FM (30°-60°)	2205.4	35.7			
FH (60°-80°)	2179.2	35.2			G2/5000
FVH (80°-90°)	99.2	1.6			G1/100
BL (0°-30°)	338.0	5.5	B1/500		
BM (30°-60°)	429.5	6.9	B1/1000		
BH (60°-80°)	426.7	6.9	B1/500		G1/500
BVH (80°-90°)	17.3	0.3			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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1396.8	1396.8	1396.8	1396.8	1396.8	1396.8	1396.8	1396.8	1396.8	1396.8	1396.8
2.5°	1320.7	1329.7	1331.9	1338.6	1347.6	1356.6	1367.7	1381.2	1383.4	1390.1	1403.6
5°	1231.2	1235.7	1240.2	1253.6	1269.3	1298.4	1327.5	1354.3	1358.8	1381.2	1405.8
7.5°	1148.4	1159.6	1161.8	1173.0	1197.6	1233.4	1273.7	1320.7	1334.2	1365.5	1403.6
10°	1087.9	1094.6	1099.1	1119.3	1139.4	1179.7	1229.0	1287.2	1300.6	1347.6	1401.3
12.5°	1038.7	1049.9	1056.6	1070.0	1101.4	1137.2	1186.4	1249.1	1267.0	1325.2	1392.4
15°	1011.8	1020.8	1023.0	1038.7	1063.3	1099.1	1146.1	1217.8	1231.2	1302.8	1392.4
17.5°	1005.1	1007.3	1009.6	1018.5	1038.7	1067.8	1117.0	1190.9	1206.6	1293.9	1392.4
20°	1018.5	1018.5	1018.5	1014.1	1029.7	1052.1	1101.4	1168.5	1190.9	1284.9	1399.1
22.5°	1049.9	1052.1	1045.4	1034.2	1027.5	1043.2	1085.7	1161.8	1181.9	1282.7	1412.5
25°	1094.6	1096.9	1092.4	1076.7	1045.4	1043.2	1079.0	1155.1	1173.0	1280.4	1410.3
27.5°	1155.1	1168.5	1155.1	1137.2	1096.9	1061.1	1085.7	1150.6	1170.8	1280.4	1414.8
30°	1240.2	1249.1	1242.4	1213.3	1161.8	1099.1	1094.6	1155.1	1170.8	1278.2	1412.5
32.5°	1325.2	1327.5	1334.2	1314.0	1251.3	1155.1	1119.3	1159.6	1173.0	1276.0	1405.8
35°	1390.1	1403.6	1432.7	1434.9	1361.0	1235.7	1170.8	1177.5	1181.9	1282.7	1399.1
37.5°	1473.0	1477.4	1524.4	1560.3	1495.3	1347.6	1242.4	1211.0	1213.3	1305.1	1410.3
40°	1549.1	1567.0	1631.9	1676.7	1654.3	1497.6	1340.9	1271.5	1276.0	1345.4	1437.1
42.5°	1663.2	1676.7	1743.8	1806.5	1813.2	1667.7	1477.4	1374.5	1363.3	1423.7	1495.3
45°	1764.0	1779.6	1864.7	1956.5	1987.8	1860.2	1647.6	1515.5	1497.6	1555.8	1602.8
47.5°	1905.0	1931.9	1999.0	2104.2	2209.4	2095.3	1864.7	1708.0	1692.3	1732.6	1746.1
50°	2039.3	2055.0	2110.9	2238.5	2424.3	2390.8	2131.1	1958.7	1934.1	1940.8	1972.2
52.5°	2059.5	2066.2	2124.4	2258.7	2607.9	2751.2	2457.9	2240.8	2196.0	2202.7	2240.8
55°	1907.2	1934.1	1976.6	2164.7	2621.3	3151.9	2916.8	2612.4	2543.0	2518.4	2549.7
57.5°	1591.6	1622.9	1683.4	1878.1	2466.9	3369.0	3669.0	3055.6	2948.2	2834.0	2872.0
60°	1173.0	1206.6	1244.6	1434.9	2075.1	3402.6	4416.6	3592.9	3433.9	3149.6	3169.8
62.5°	899.9	899.9	933.5	1011.8	1387.9	3158.6	4855.4	4501.7	4112.2	3534.7	3510.0
65°	727.5	736.5	770.1	843.9	877.5	2243.0	5030.0	5822.4	5408.3	3995.8	3868.2
67.5°	602.2	604.4	642.5	758.9	767.8	1233.4	4562.1	6516.4	6417.9	4573.3	4248.7
70°	461.1	463.4	508.1	660.4	747.7	817.1	3192.2	6444.8	6570.1	5186.7	4331.6
72.5°	306.7	320.1	373.8	523.8	745.4	770.1	1732.6	5636.6	5818.0	5426.2	4054.0
75°	190.3	192.5	248.5	362.6	685.0	767.8	1018.5	4392.0	4615.9	4501.7	3516.7
77.5°	116.4	120.9	147.7	237.3	530.5	770.1	725.3	3022.0	3207.8	2954.9	2072.9
80°	71.6	71.6	85.1	143.3	344.7	689.5	624.6	1757.3	1739.3	1092.4	588.7
82.5°	26.9	29.1	44.8	78.3	174.6	535.0	548.4	794.7	732.0	322.3	210.4
85°	4.5	4.5	9.0	24.6	47.0	221.6	304.4	279.8	235.0	98.5	87.3
87.5°	0.0	0.0	0.0	2.2	2.2	4.5	6.7	6.7	6.7	6.7	9.0
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°	1396.8	1396.8	1396.8	1396.8	1396.8	1396.8	1396.8	1396.8	1396.8	1396.8	1396.8
2.5°	1403.6	1408.0	1405.8	1399.1	1392.4	1387.9	1376.7	1370.0	1372.2	1372.2	1374.5
5°	1408.0	1414.8	1403.6	1390.1	1365.5	1338.6	1314.0	1300.6	1282.7	1289.4	1284.9
7.5°	1414.8	1419.2	1399.1	1358.8	1316.3	1271.5	1229.0	1190.9	1161.8	1148.4	1157.3
10°	1410.3	1417.0	1378.9	1318.5	1253.6	1181.9	1117.0	1054.4	1014.1	987.2	993.9
12.5°	1408.0	1401.3	1349.8	1260.3	1170.8	1072.3	973.8	897.7	830.5	803.6	808.1
15°	1399.1	1394.6	1314.0	1199.9	1076.7	937.9	808.1	709.6	629.0	602.2	611.1
17.5°	1403.6	1390.1	1271.5	1126.0	958.1	788.0	629.0	532.8	492.5	483.5	481.3
20°	1399.1	1374.5	1229.0	1045.4	832.7	611.1	467.9	416.4	416.4	429.8	432.0
22.5°	1403.6	1361.0	1181.9	953.6	689.5	458.9	364.9	351.5	371.6	400.7	400.7
25°	1403.6	1345.4	1130.5	850.6	539.5	349.2	311.2	311.2	338.0	364.9	362.6
27.5°	1394.6	1314.0	1072.3	741.0	400.7	288.8	273.1	279.8	297.7	320.1	317.9
30°	1372.2	1282.7	1000.6	613.4	304.4	255.2	253.0	255.2	264.1	277.6	275.3
32.5°	1352.1	1246.9	931.2	476.8	257.4	237.3	235.0	237.3	239.5	244.0	244.0
35°	1338.6	1215.5	848.4	367.1	232.8	226.1	221.6	221.6	217.1	219.4	219.4
37.5°	1323.0	1186.4	763.3	286.5	219.4	214.9	210.4	203.7	203.7	199.2	199.2
40°	1323.0	1164.0	676.0	241.8	210.4	208.2	199.2	190.3	185.8	185.8	185.8
42.5°	1358.8	1164.0	595.5	221.6	201.5	199.2	188.0	179.1	174.6	174.6	174.6
45°	1419.2	1177.5	512.6	208.2	194.8	190.3	176.8	167.9	163.4	163.4	161.2
47.5°	1524.4	1233.4	438.8	201.5	188.0	181.3	165.7	156.7	152.2	152.2	152.2
50°	1701.3	1345.4	378.3	194.8	181.3	170.1	156.7	147.7	143.3	143.3	141.0
52.5°	1945.3	1513.3	349.2	190.3	172.4	158.9	147.7	138.8	134.3	132.1	132.1
55°	2238.5	1766.2	344.7	188.0	163.4	150.0	138.8	129.8	125.4	123.1	123.1
57.5°	2558.7	2043.8	376.1	183.6	154.5	138.8	129.8	120.9	116.4	114.2	114.2
60°	2867.6	2348.2	476.8	179.1	147.7	129.8	118.6	111.9	107.4	105.2	105.2
62.5°	3225.7	2668.3	698.4	181.3	143.3	120.9	109.7	103.0	100.7	98.5	98.5
65°	3619.7	3035.5	893.2	199.2	145.5	111.9	100.7	96.3	91.8	89.5	89.5
67.5°	3968.9	3272.7	745.4	230.6	158.9	105.2	89.5	87.3	82.8	80.6	82.8
70°	3890.6	3022.0	458.9	232.8	161.2	100.7	80.6	76.1	71.6	71.6	71.6
72.5°	3548.1	2666.1	320.1	201.5	143.3	89.5	69.4	64.9	62.7	62.7	62.7
75°	2986.2	2198.2	255.2	163.4	111.9	73.9	58.2	56.0	53.7	51.5	51.5
77.5°	1634.1	1195.4	190.3	125.4	82.8	56.0	49.2	44.8	42.5	42.5	42.5
80°	479.0	409.7	118.6	89.5	53.7	40.3	38.1	33.6	31.3	31.3	31.3
82.5°	201.5	170.1	71.6	49.2	35.8	26.9	24.6	22.4	20.1	17.9	20.1
85°	78.3	82.8	44.8	29.1	20.1	13.4	11.2	9.0	9.0	6.7	9.0
87.5°	9.0	11.2	9.0	6.7	4.5	2.2	2.2	2.2	2.2	2.2	2.2
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

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

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**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	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**



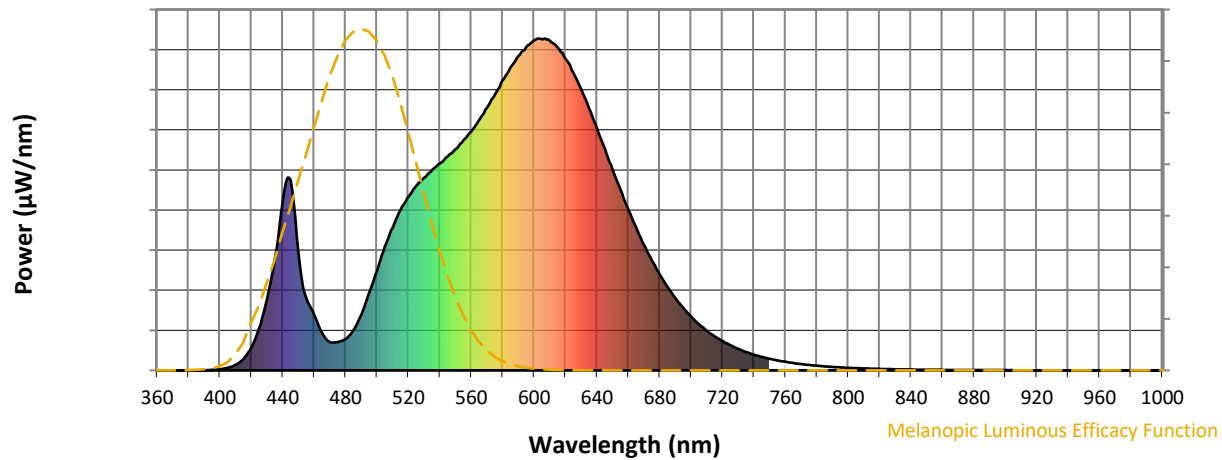
**Scotopic Lumens: NR**

**S/P: 1.27**

$\lambda$ (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	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 <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	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)