

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: P386276

Luminaire Tested: **GPC-SA1D-830-U-SL4-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P386276  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GPC-SA1D-830-U-SL4-HSS  
Description: GALLEON PEDESTRIAN LUMINAIRE  
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

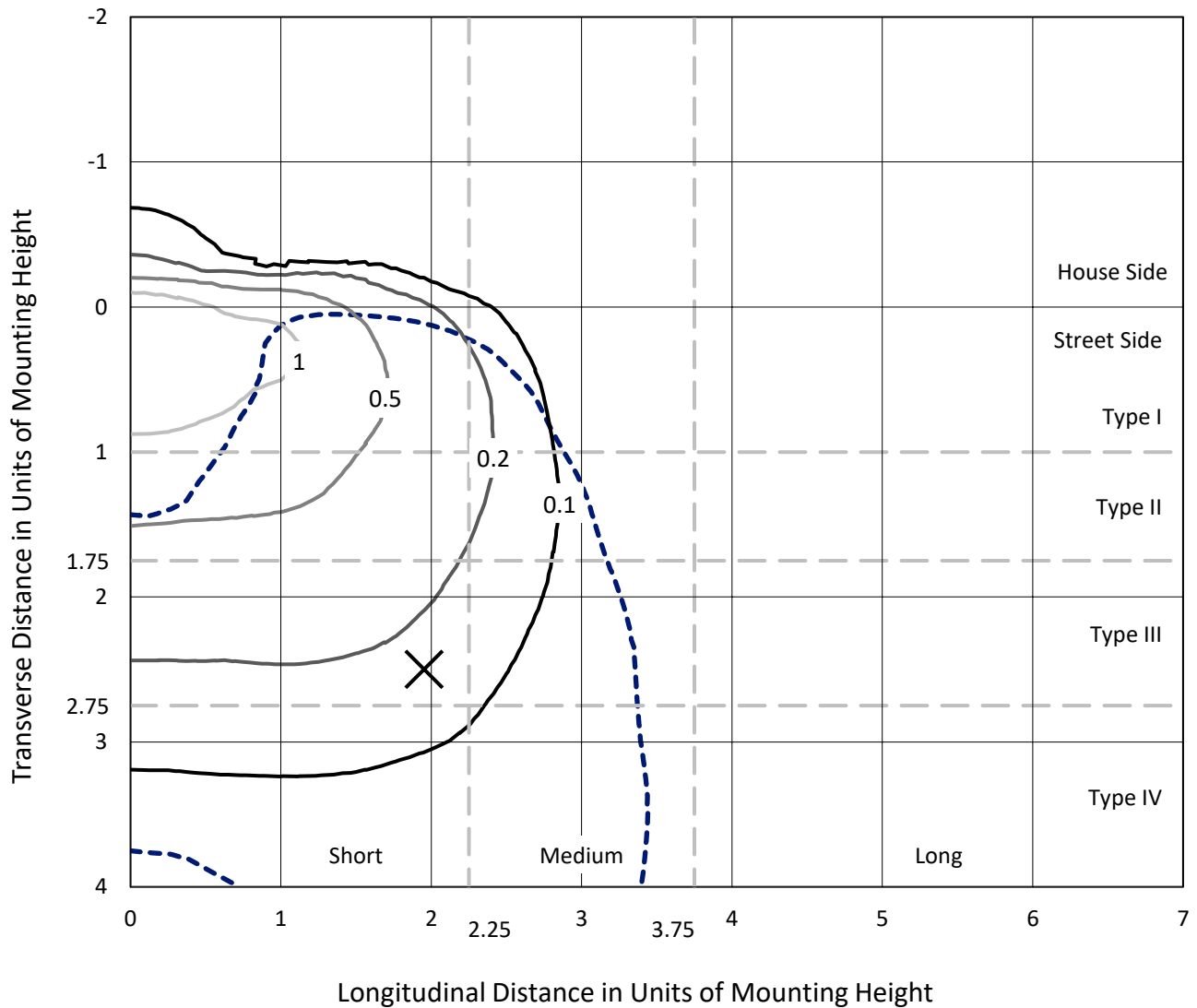
Lumens per Lamp: N/A  
Luminaire Lumens: 5345 lumens  
Efficiency: N/A  
Efficacy: 81.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
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

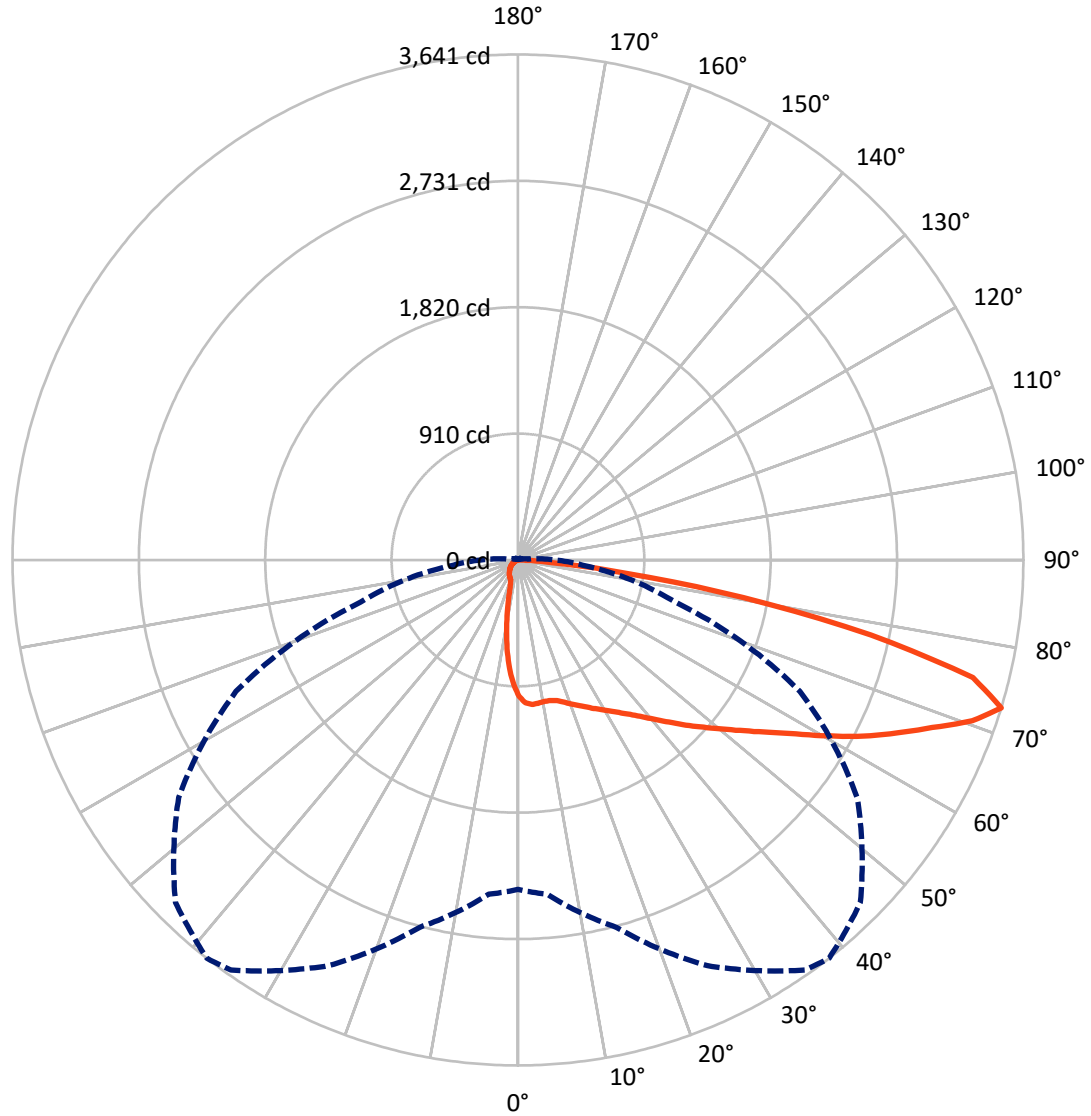
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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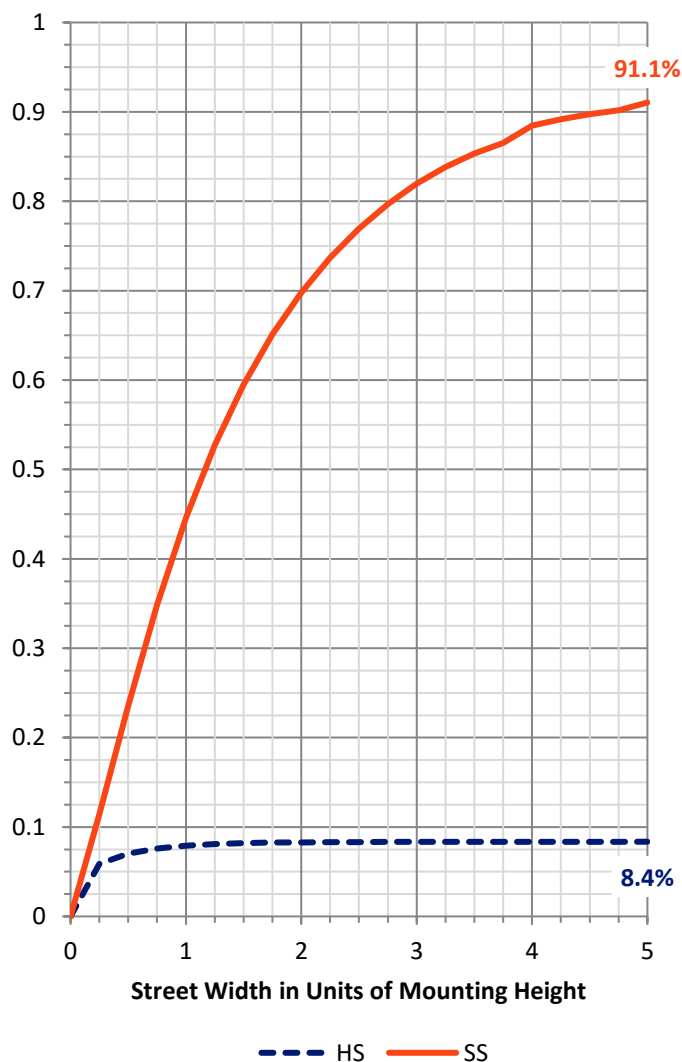
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	449.8	0.0	449.8
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	4895.2	0.0	4895.2
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	5345.0	0.0	5345.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.8	1.6
10°-20°	204.8	3.8
20°-30°	325.8	6.1
30°-40°	489.8	9.2
40°-50°	747.2	14.0
50°-60°	1056.0	19.8
60°-70°	1324.6	24.8
70°-80°	990.4	18.5
80°-90°	122.8	2.3
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°	5345.0	100.0
0°-180°	5345.0	100.0

**Coefficient of Utilization**



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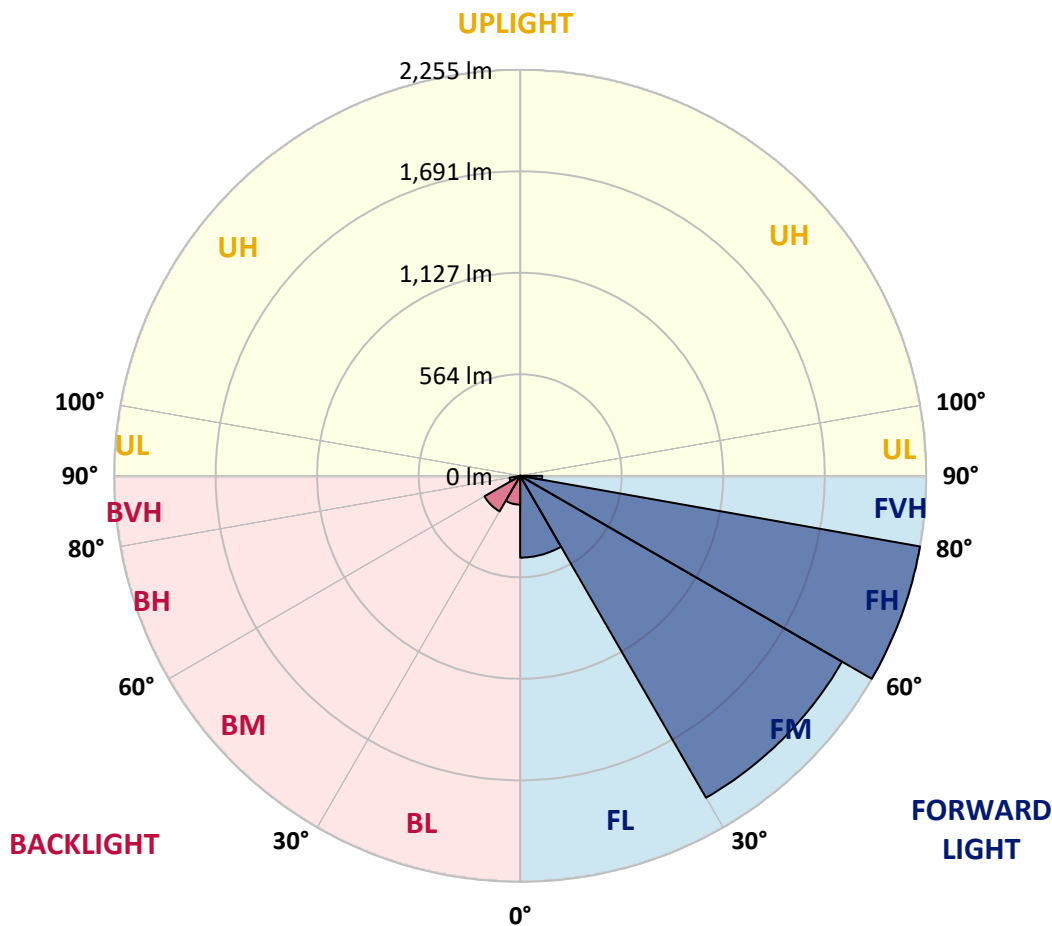
CATALOG NUMBER: GPC-SA1D-830-U-SL4-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	454.2	8.5			
FM (30°-60°)	2064.5	38.6			
FH (60°-80°)	2254.9	42.2			G2/5000
FVH (80°-90°)	121.7	2.3			G2/225
BL (0°-30°)	160.2	3.0	B1/500		
BM (30°-60°)	228.4	4.3	B1/1000		
BH (60°-80°)	60.1	1.1	B0/110		G0/110
BVH (80°-90°)	1.1	0.0			G0/10
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°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9
2.5°	1043.3	1043.5	1041.1	1037.1	1032.0	1029.3	1024.9	1017.8	1010.2	996.7	982.0
5°	1064.6	1064.6	1061.5	1056.2	1048.0	1045.5	1037.1	1025.8	1010.2	988.3	963.6
7.5°	1062.4	1062.8	1058.6	1053.1	1044.9	1042.6	1032.4	1019.8	1000.5	973.8	942.3
10°	1050.9	1052.0	1048.6	1046.0	1038.4	1036.0	1026.4	1013.8	994.5	966.1	929.9
12.5°	1039.1	1040.2	1041.3	1043.8	1039.1	1038.2	1030.7	1020.0	1001.6	972.1	931.2
15°	1031.5	1033.8	1041.8	1051.3	1052.4	1051.5	1046.6	1036.6	1018.0	987.4	940.8
17.5°	1031.5	1035.1	1051.7	1069.9	1076.4	1077.0	1072.8	1058.8	1036.6	1003.8	949.6
20°	1040.2	1045.1	1071.1	1096.8	1107.5	1107.5	1099.2	1079.7	1053.7	1018.7	955.6
22.5°	1062.4	1068.8	1101.5	1131.2	1142.5	1140.1	1129.0	1100.6	1071.5	1035.5	963.2
25°	1106.1	1111.0	1145.0	1174.9	1181.8	1176.3	1162.3	1125.9	1094.1	1058.4	976.9
27.5°	1162.5	1163.2	1198.2	1223.6	1219.3	1215.6	1198.0	1157.6	1126.8	1091.0	1000.7
30°	1224.4	1224.4	1255.3	1274.6	1261.7	1258.6	1241.1	1196.0	1168.5	1135.4	1034.4
32.5°	1284.4	1287.0	1312.1	1324.3	1309.9	1306.8	1289.7	1244.6	1224.0	1203.1	1087.0
35°	1342.3	1344.3	1368.1	1374.7	1361.0	1361.8	1349.6	1311.5	1303.7	1301.0	1166.3
37.5°	1398.5	1398.9	1423.1	1427.3	1420.5	1428.0	1429.1	1395.4	1409.8	1431.3	1277.9
40°	1449.8	1450.2	1474.2	1485.0	1496.8	1506.6	1515.2	1497.3	1545.0	1594.9	1410.9
42.5°	1490.8	1495.5	1525.9	1546.5	1577.6	1596.3	1619.8	1618.9	1705.9	1780.9	1571.6
45°	1527.0	1535.0	1577.4	1613.6	1666.8	1696.6	1733.4	1762.3	1887.1	1988.1	1734.3
47.5°	1574.7	1582.3	1630.7	1689.9	1761.0	1800.0	1861.1	1923.5	2086.2	2191.4	1893.3
50°	1642.0	1638.7	1686.4	1771.4	1862.6	1913.9	2000.9	2094.4	2283.7	2368.5	1986.7
52.5°	1713.7	1712.4	1747.6	1860.0	1982.5	2042.4	2157.4	2271.1	2472.6	2490.6	2029.6
55°	1802.5	1792.9	1822.7	1961.0	2124.8	2189.2	2324.6	2446.0	2623.1	2559.4	2051.1
57.5°	1895.5	1879.7	1908.1	2073.5	2285.3	2361.4	2509.7	2616.5	2723.3	2606.5	2050.9
60°	1991.6	1973.0	2006.7	2214.3	2484.6	2572.7	2710.4	2731.7	2816.7	2630.2	2035.8
62.5°	2072.0	2060.9	2111.0	2364.8	2707.3	2793.8	2862.0	2836.5	2895.5	2648.7	2000.5
65°	2157.0	2157.6	2238.7	2540.3	2943.9	3002.3	3008.1	2972.3	2961.4	2644.9	1881.1
67.5°	2272.0	2282.6	2417.8	2778.7	3174.1	3219.2	3218.7	3119.5	3009.6	2494.8	1616.2
70°	2393.6	2418.7	2624.2	3051.6	3425.4	3471.1	3447.6	3213.2	2833.8	2017.4	1143.9
72.5°	2373.2	2416.7	2739.0	3223.6	3605.8	3640.7	3487.8	2983.0	2239.8	1172.5	487.0
75°	1830.9	1881.3	2511.5	3053.1	3416.5	3385.2	2996.7	2321.2	1224.0	327.2	109.7
77.5°	967.2	994.0	1659.1	2325.9	2664.0	2598.5	2111.0	1287.7	373.1	81.0	49.3
80°	506.6	512.8	723.0	1319.7	1644.2	1644.7	1251.1	565.6	153.8	41.5	33.1
82.5°	271.3	276.6	382.0	609.8	861.5	780.9	479.0	311.2	89.5	23.5	31.7
85°	65.3	66.4	216.7	278.6	338.7	242.0	142.3	261.3	24.2	13.8	25.7
87.5°	25.1	25.5	80.4	120.5	86.4	55.9	66.6	97.4	3.1	5.3	4.0
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: P386276  
 CATALOG NUMBER: GPC-SA1D-830-U-SL4-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9
2.5°	973.2	967.4	953.2	935.2	919.2	907.7	890.4	879.0	871.5	871.3	868.4
5°	948.5	936.8	906.1	869.7	836.6	806.9	771.8	744.1	723.4	720.1	713.0
7.5°	922.1	902.8	855.7	798.9	743.4	687.0	621.5	580.9	546.1	529.4	527.6
10°	905.9	878.8	812.0	729.9	642.9	551.2	465.5	406.2	363.4	351.2	342.1
12.5°	902.6	866.8	778.3	665.1	540.7	419.5	324.8	261.7	227.5	216.7	213.8
15°	905.9	861.3	749.8	600.9	437.3	297.7	218.0	181.4	168.5	165.4	165.2
17.5°	907.9	854.6	717.7	529.6	337.0	212.7	166.9	156.3	154.3	154.1	154.5
20°	907.7	844.4	679.3	450.2	250.6	167.2	150.9	148.7	148.3	148.5	148.3
22.5°	906.1	832.4	637.1	368.3	189.3	149.4	144.1	142.7	142.5	142.5	142.5
25°	909.0	822.9	590.7	289.9	156.1	141.2	137.8	136.7	136.5	136.5	136.1
27.5°	919.4	817.6	539.9	223.1	141.0	133.9	131.2	131.0	130.3	130.1	130.5
30°	936.3	817.6	484.1	173.6	131.9	126.3	124.3	123.9	123.6	123.4	123.6
32.5°	966.1	823.8	423.3	144.3	123.2	117.9	116.5	117.2	116.5	116.5	116.5
35°	1019.8	842.4	359.6	125.9	114.1	109.7	108.3	109.2	108.8	108.8	108.5
37.5°	1098.1	877.0	295.5	114.8	106.1	101.4	99.7	101.0	100.6	100.6	100.3
40°	1193.6	927.4	234.4	106.3	98.3	93.5	91.9	92.6	91.5	91.5	91.9
42.5°	1311.5	991.4	181.1	98.1	90.6	85.9	85.0	84.4	82.4	81.2	81.5
45°	1442.4	1058.0	141.2	90.1	83.2	79.5	78.1	76.4	73.0	70.8	71.0
47.5°	1559.4	1109.2	114.8	82.4	76.6	73.7	71.7	68.4	63.5	60.8	61.0
50°	1620.9	1117.0	97.7	74.6	70.4	67.5	64.6	59.5	53.7	50.8	50.6
52.5°	1636.7	1080.6	85.0	67.5	64.2	60.8	57.0	50.2	43.7	40.6	40.2
55°	1642.4	1025.1	73.7	60.8	57.5	53.7	48.8	41.1	35.1	32.0	31.7
57.5°	1623.3	942.3	64.8	54.8	50.8	46.2	40.2	32.9	27.1	24.6	24.6
60°	1580.9	830.2	57.9	48.4	44.0	38.6	32.4	25.5	20.2	18.2	18.2
62.5°	1496.4	685.0	51.5	41.7	37.5	32.0	26.2	19.3	14.2	13.1	13.3
65°	1336.8	519.7	45.1	35.7	32.0	26.4	20.4	13.8	9.5	9.5	10.0
67.5°	1090.1	360.9	38.4	30.4	27.5	21.5	15.5	9.5	6.7	7.5	8.4
70°	721.7	202.4	32.9	25.1	23.5	17.1	11.5	6.4	5.3	7.1	8.7
72.5°	272.4	78.8	27.5	20.2	20.4	13.1	8.2	4.9	4.9	7.8	10.2
75°	75.9	38.6	19.8	14.9	16.0	9.5	6.0	4.2	4.7	8.9	12.0
77.5°	44.6	28.4	12.9	8.7	10.9	6.7	4.0	3.3	4.0	7.5	11.5
80°	36.0	15.1	7.5	4.4	6.0	3.8	2.7	2.0	1.1	2.9	6.0
82.5°	36.0	9.1	3.6	3.1	3.1	2.0	1.3	0.9	0.2	0.0	1.6
85°	24.2	3.8	2.2	2.0	1.6	0.7	0.4	0.2	0.0	0.0	0.0
87.5°	4.0	1.6	0.9	0.4	0.2	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



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**

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			

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**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 2.32**

$\lambda$ (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			

**Summary**

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



**Color Vector Graphics**



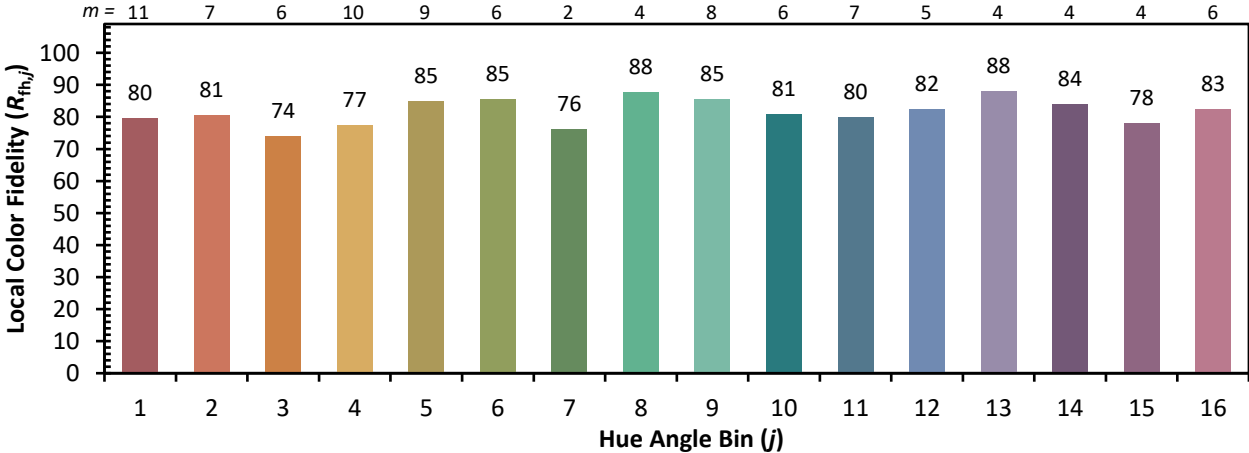


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)