

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: P317618

Luminaire Tested: **GLEON-SA4D-830-U-T2R**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P317618  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA4D-830-U-T2R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 25913 lumens  
Efficiency: N/A  
Efficacy: 100.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

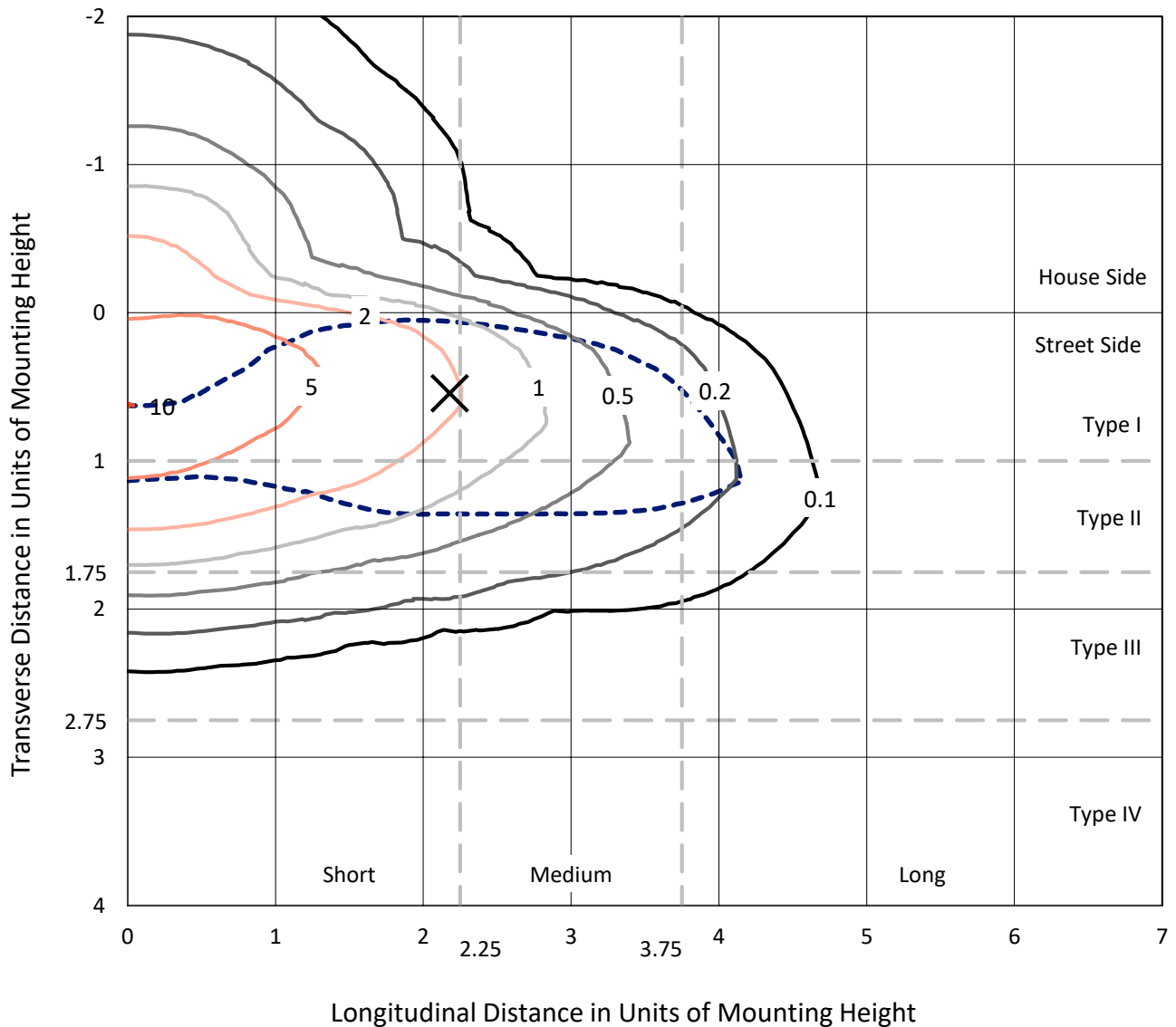
Input Watts (W): 258  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P317618  
 CATALOG NUMBER: GLEON-SA4D-830-U-T2R

### Iso-Footcandle Lines of Horizontal Illumination

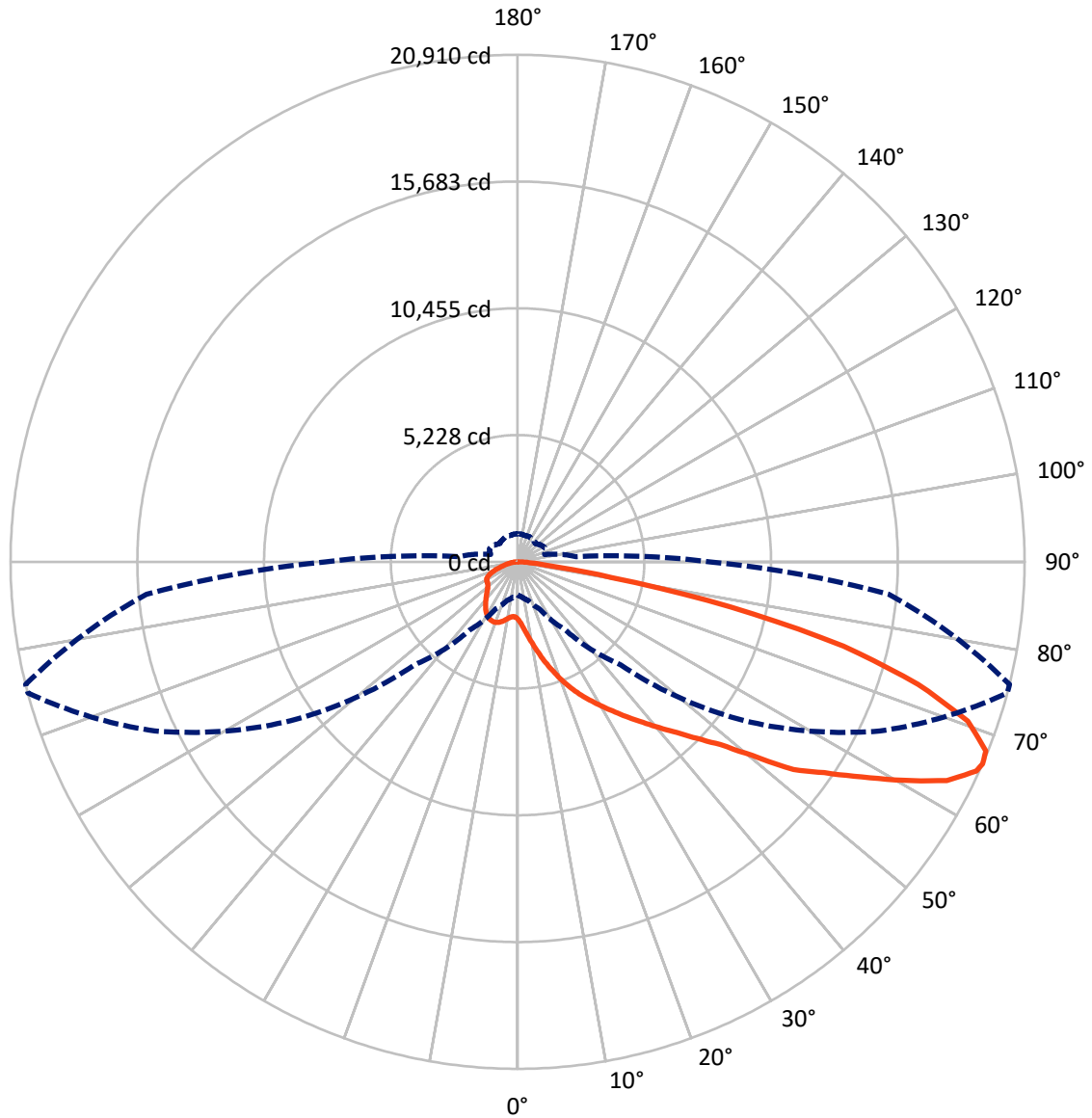
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral      - - - Horizontal Cone Through 66-Deg Vertical

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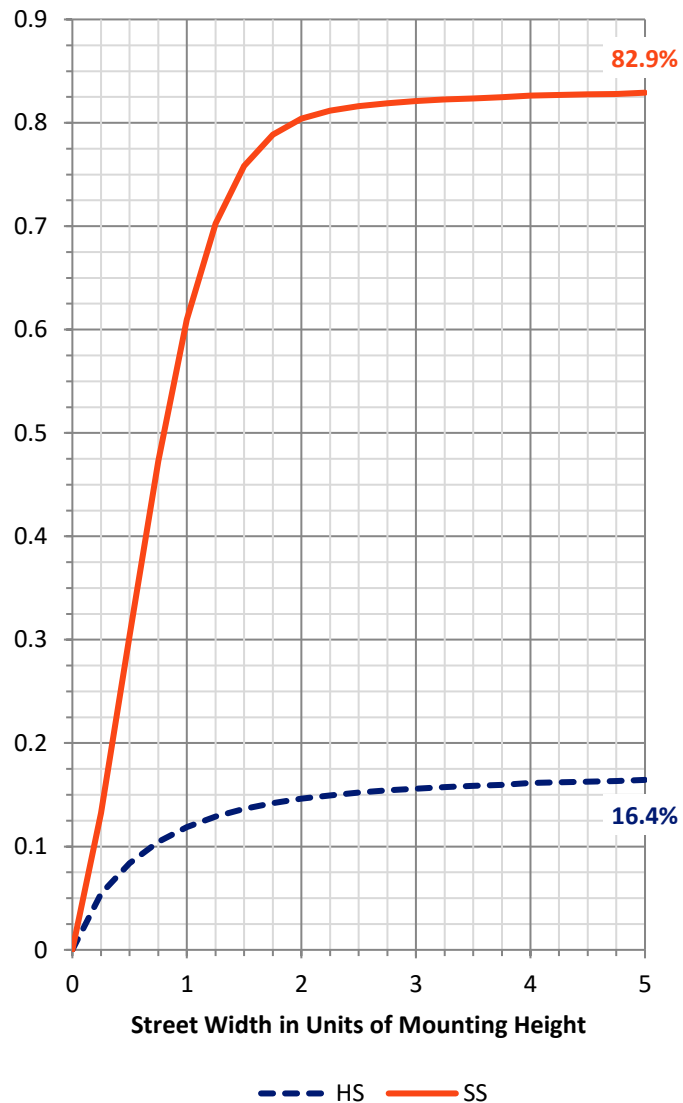
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4360.3	0.0	4360.3
	% Fixture	16.8	0.0	16.8
<b>Street Side</b>	Lumens	21552.7	0.0	21552.7
	% Fixture	83.2	0.0	83.2
<b>Total</b>	Lumens	25913.0	0.0	25913.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	286.2	1.1
10°-20°	1130.1	4.4
20°-30°	2196.0	8.5
30°-40°	3584.3	13.8
40°-50°	4897.0	18.9
50°-60°	5704.1	22.0
60°-70°	5113.8	19.7
70°-80°	2584.3	10.0
80°-90°	417.3	1.6
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°	25913.0	100.0
0°-180°	25913.0	100.0

**Coefficient of Utilization**



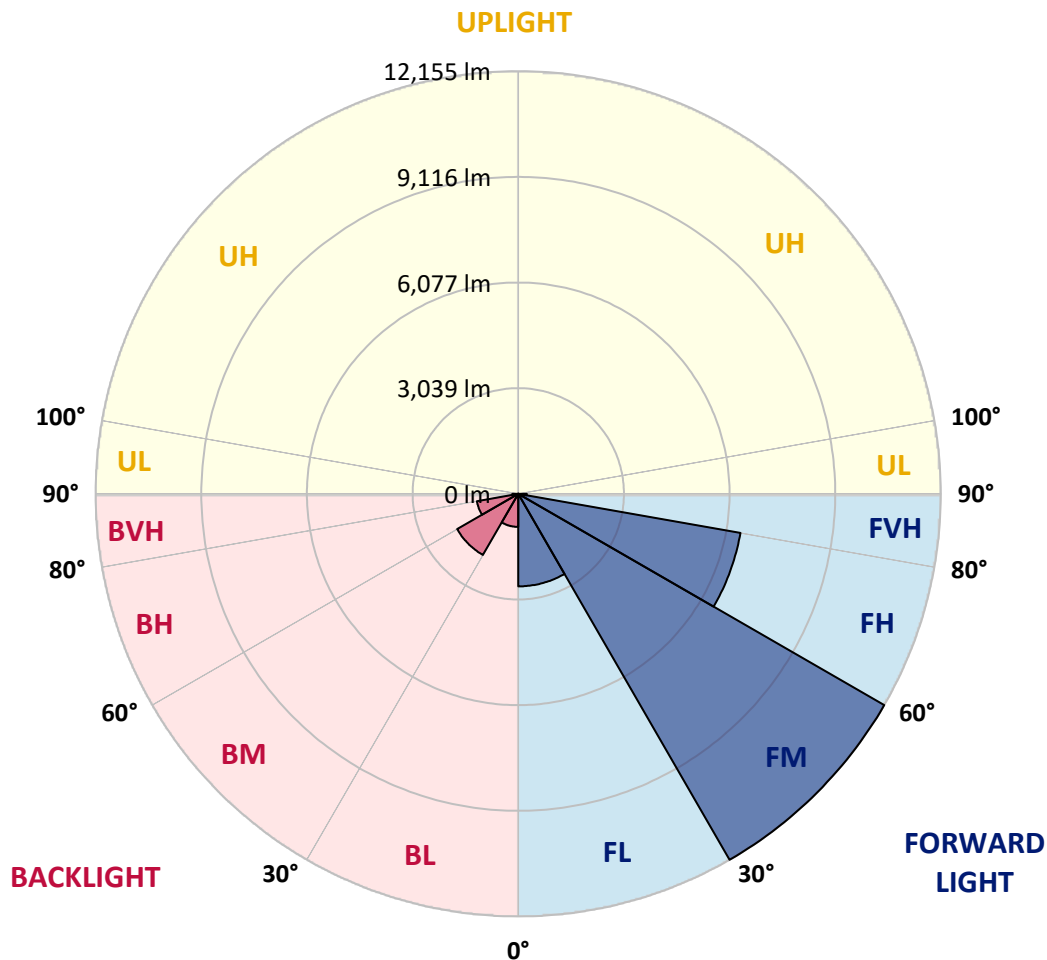
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2661.2	10.3			
FM (30°-60°)	12155.0	46.9			
FH (60°-80°)	6490.1	25.0			G3/7500
FVH (80°-90°)	246.5	1.0			G3/500
BL (0°-30°)	951.0	3.7	B2/1000		
BM (30°-60°)	2030.4	7.8	B2/2500		
BH (60°-80°)	1208.0	4.7	B3/2500		G3/2500
BVH (80°-90°)	170.9	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2366.4	2366.4	2366.4	2366.4	2366.4	2366.4	2366.4	2366.4	2366.4	2366.4	2366.4
2.5°	3141.5	3094.0	3089.6	3020.1	3004.2	2871.4	2773.8	2671.7	2555.6	2532.7	2441.2
5°	4035.3	4030.9	3970.2	3856.7	3767.8	3540.9	3316.5	3079.0	2818.6	2776.4	2570.5
7.5°	4839.3	4832.3	4785.7	4663.4	4534.9	4256.1	3935.9	3571.7	3149.4	3086.9	2745.6
10°	5449.9	5447.2	5431.4	5341.6	5232.6	4965.1	4611.5	4114.4	3533.8	3448.5	2964.6
12.5°	5921.4	5926.7	5937.2	5905.5	5853.6	5625.8	5263.4	4689.8	3943.8	3859.3	3208.3
15°	6240.7	6256.6	6311.1	6356.0	6383.2	6243.4	5892.4	5278.3	4403.0	4301.8	3478.4
17.5°	6401.7	6419.3	6513.4	6648.9	6773.8	6759.8	6480.9	5839.6	4843.7	4746.1	3768.7
20°	6540.7	6553.9	6659.5	6822.2	7043.0	7140.7	6984.1	6379.7	5326.7	5210.6	4076.6
22.5°	6943.6	6960.3	6992.0	7084.4	7279.7	7459.1	7383.5	6890.8	5769.2	5661.0	4368.7
25°	7721.3	7741.5	7672.9	7594.6	7631.6	7756.5	7770.5	7357.1	6217.8	6095.6	4682.7
27.5°	8658.2	8687.2	8570.2	8368.8	8192.8	8144.4	8127.7	7738.9	6646.3	6504.6	4993.3
30°	9575.7	9625.9	9473.7	9212.4	8889.6	8662.6	8494.6	8112.8	7068.5	6933.1	5286.2
32.5°	10472.2	10451.9	10231.1	9976.0	9597.7	9313.6	8907.1	8513.9	7543.6	7387.9	5577.4
35°	11086.2	11093.2	10888.3	10585.6	10225.0	10006.8	9459.6	8946.7	8028.3	7884.9	5908.2
37.5°	11608.8	11576.2	11344.0	11061.6	10751.0	10657.8	10106.2	9423.5	8553.5	8396.9	6260.1
40°	11782.9	11745.1	11592.9	11389.7	11140.7	11132.8	10819.7	9963.7	9147.3	8992.5	6656.8
42.5°	11677.4	11629.0	11566.5	11511.1	11434.6	11469.8	11490.0	10597.1	9800.1	9626.8	7116.0
45°	11287.7	11214.6	11258.6	11379.2	11545.4	11744.2	12095.2	11298.2	10531.1	10386.0	7655.3
47.5°	10688.6	10622.6	10759.8	11017.6	11469.8	11973.0	12667.9	12072.4	11403.8	11259.5	8423.3
50°	9845.8	9865.2	10061.3	10530.2	11213.8	12078.5	13373.5	13097.2	12672.3	12537.7	9471.0
52.5°	8462.9	8466.4	9018.9	9788.6	10759.8	12024.0	13764.9	14407.1	14404.5	14241.8	10468.6
55°	7178.5	7256.8	7694.0	8717.1	10024.4	11805.8	14038.5	15044.1	15542.0	15351.1	11398.5
57.5°	5924.0	5969.8	6384.1	7411.6	8974.9	11224.3	14319.2	15808.5	16852.8	16732.2	12554.5
60°	4497.1	4567.5	4995.9	5945.1	7632.4	10192.4	14345.6	16606.4	18419.5	18298.1	13845.0
62.5°	2918.9	3040.3	3441.5	4330.9	6008.5	8708.3	13733.3	17128.1	19904.5	19861.4	14990.4
65°	1677.6	1769.1	2048.0	2734.2	4145.2	6845.1	12277.3	16927.5	20818.5	20793.9	15418.8
66°	1370.6	1427.8	1641.6	2136.8	3420.3	6011.1	11431.1	16504.4	20909.1	20910.0	15369.6
67.5°	1096.1	1121.6	1217.5	1529.8	2523.9	4764.6	9918.8	15571.0	20796.5	20827.3	15052.0
70°	907.0	920.2	950.1	1025.8	1377.6	2873.2	7040.4	13145.6	19666.1	19689.8	13812.5
72.5°	813.7	821.7	833.1	843.6	972.1	1605.5	4300.1	10516.1	17242.5	17273.3	11923.7
75°	737.2	741.6	739.8	740.7	815.5	1023.1	2222.2	7851.5	13941.8	13880.2	9134.1
77.5°	647.5	651.9	643.1	644.8	721.4	786.5	1105.8	5496.5	9408.6	8974.0	5146.4
80°	547.2	550.7	547.2	553.3	628.1	593.8	643.1	3092.2	4160.2	3935.0	1829.8
82.5°	413.5	428.4	439.0	463.6	517.3	422.3	430.2	1204.3	1266.8	1206.1	561.3
85°	181.2	220.8	330.8	354.5	388.8	253.4	282.4	490.9	515.5	499.7	204.1
87.5°	47.5	51.9	163.6	205.9	215.5	114.4	146.9	223.4	235.8	223.4	67.7
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: P317618  
 CATALOG NUMBER: GLEON-SA4D-830-U-T2R

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2366.4	2366.4	2366.4	2366.4	2366.4	2366.4	2366.4	2366.4	2366.4	2366.4	2366.4
2.5°	2392.8	2349.7	2272.3	2203.7	2151.8	2116.6	2081.4	2063.8	2053.3	2042.7	2044.5
5°	2469.4	2382.3	2249.4	2155.3	2102.5	2069.1	2051.5	2044.5	2040.1	2029.5	2029.5
7.5°	2584.6	2461.5	2278.5	2181.7	2140.4	2114.8	2104.3	2100.8	2095.5	2083.2	2084.9
10°	2729.8	2557.3	2339.2	2245.0	2207.2	2179.1	2164.1	2158.8	2149.2	2135.1	2136.8
12.5°	2900.4	2676.1	2419.2	2320.7	2275.0	2237.1	2212.5	2197.5	2180.8	2162.3	2163.2
15°	3086.9	2805.4	2505.4	2388.4	2326.0	2273.2	2233.6	2208.1	2181.7	2158.8	2157.9
17.5°	3276.1	2930.3	2571.4	2425.4	2340.9	2271.4	2217.8	2178.2	2145.6	2117.5	2114.8
20°	3480.2	3042.9	2608.4	2421.9	2312.8	2230.1	2158.8	2109.6	2073.5	2045.3	2040.9
22.5°	3687.8	3148.5	2614.5	2385.8	2250.3	2149.2	2074.4	2019.8	1982.9	1953.9	1943.3
25°	3877.8	3230.3	2589.0	2316.3	2163.2	2054.1	1981.1	1925.7	1895.8	1861.5	1850.9
27.5°	4051.1	3287.5	2538.0	2227.4	2065.6	1958.3	1889.6	1842.1	1809.6	1783.2	1774.4
30°	4206.8	3318.3	2454.4	2121.9	1965.3	1867.6	1809.6	1777.0	1748.9	1715.5	1709.3
32.5°	4354.6	3318.3	2347.1	2006.6	1865.9	1787.6	1753.3	1733.0	1701.4	1668.8	1660.0
35°	4502.4	3298.1	2220.4	1886.1	1774.4	1730.4	1728.6	1704.9	1656.5	1612.5	1601.1
37.5°	4658.1	3256.7	2077.9	1773.5	1699.6	1704.9	1719.8	1667.1	1598.4	1536.0	1519.3
40°	4834.1	3199.5	1930.1	1675.9	1637.2	1693.5	1696.1	1612.5	1478.8	1421.6	1406.7
42.5°	5040.8	3142.4	1792.9	1589.7	1587.9	1659.1	1651.2	1494.6	1414.6	1385.6	1377.6
45°	5312.6	3109.8	1662.7	1507.8	1549.2	1603.7	1574.7	1429.5	1396.1	1379.4	1372.4
47.5°	5741.0	3126.5	1543.0	1442.7	1510.5	1548.3	1432.2	1403.2	1379.4	1359.2	1352.1
50°	6277.7	3116.8	1446.3	1397.9	1466.5	1490.2	1368.0	1368.8	1356.5	1333.7	1323.1
52.5°	6681.5	3041.2	1383.8	1372.4	1427.8	1387.3	1327.5	1335.4	1329.3	1295.8	1284.4
55°	7071.2	2976.1	1352.1	1362.7	1399.6	1258.9	1280.0	1299.3	1293.2	1260.6	1255.4
57.5°	7555.9	2963.8	1332.8	1365.3	1375.9	1194.7	1234.2	1259.8	1255.4	1241.3	1238.6
60°	8149.7	2967.3	1315.2	1369.7	1349.5	1147.2	1191.1	1223.7	1226.3	1223.7	1221.9
62.5°	8476.1	2871.4	1271.2	1357.4	1302.9	1105.8	1146.3	1193.8	1194.7	1199.9	1199.1
65°	8199.0	2584.6	1189.4	1314.3	1224.6	1071.5	1107.6	1159.5	1146.3	1170.0	1170.0
66°	7929.8	2419.2	1148.9	1286.1	1191.1	1058.3	1095.2	1141.9	1125.2	1157.7	1157.7
67.5°	7380.0	2140.4	1075.9	1226.3	1143.6	1039.8	1081.2	1112.8	1090.0	1138.4	1134.8
70°	6375.3	1655.6	929.0	1090.9	1065.3	1012.6	1061.8	1054.8	1021.4	1095.2	1081.2
72.5°	5375.1	1258.0	746.0	913.1	946.6	978.2	1034.5	980.9	938.7	990.6	959.8
75°	4170.7	945.7	589.4	709.9	799.7	924.6	1002.0	895.6	834.9	829.6	812.9
77.5°	2254.7	649.2	467.1	541.9	635.2	857.7	980.0	804.1	712.6	691.5	678.3
80°	892.9	422.3	339.6	410.8	444.3	761.0	927.2	697.6	587.7	566.5	546.3
82.5°	368.6	249.8	219.0	275.4	289.4	651.0	832.2	571.8	453.9	628.1	666.8
85°	158.3	137.2	130.2	142.5	163.6	456.6	662.4	436.3	490.0	437.2	347.5
87.5°	47.5	58.1	55.4	54.5	59.8	109.1	352.8	242.8	359.8	136.4	102.0
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

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



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**

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)