

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: P318893

Luminaire Tested: **GLEON-SA9C-830-U-T4FT**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P318893  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA9C-830-U-T4FT  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 50550 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U0 - G5

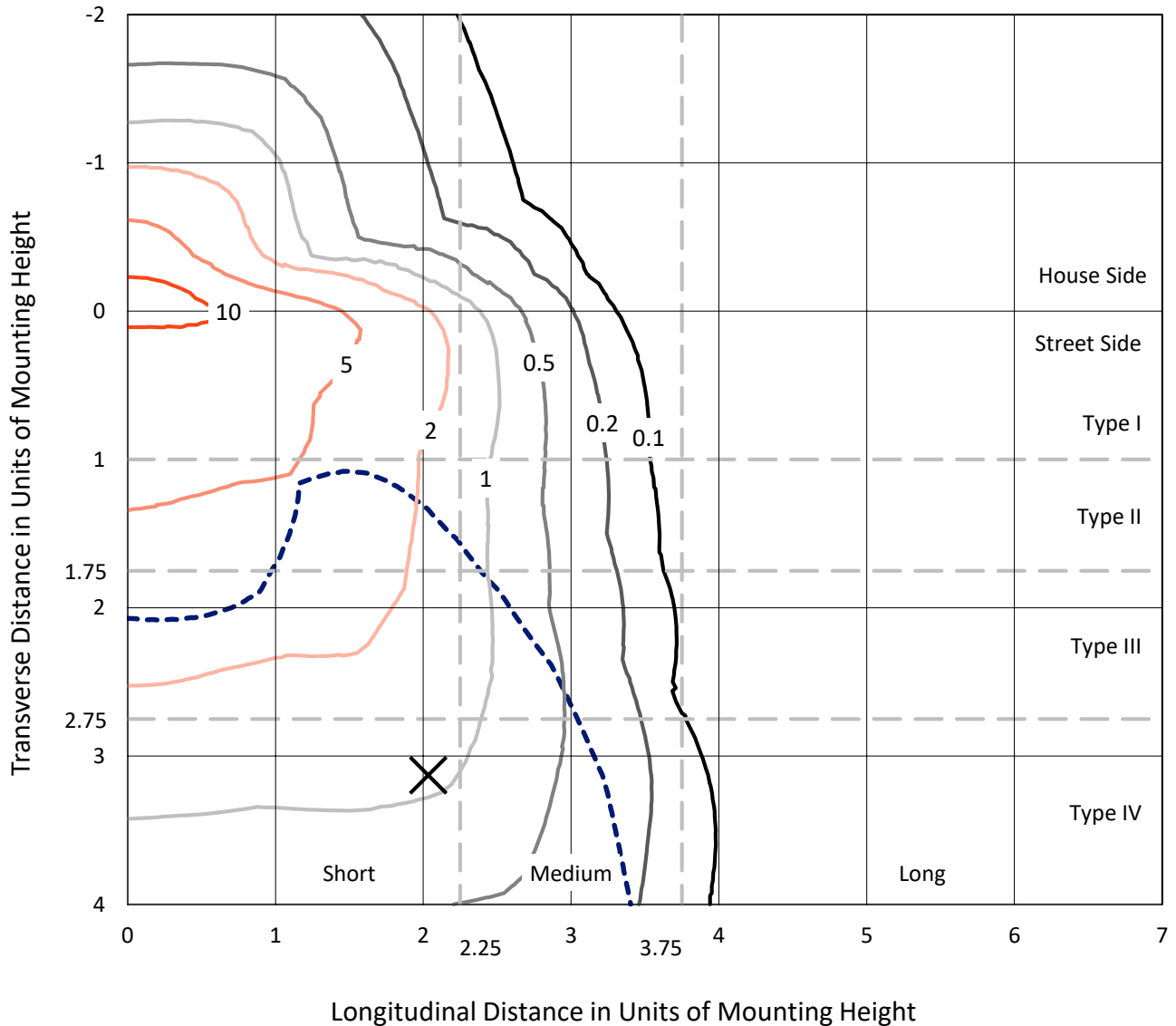
Input Watts (W): 501  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P318893  
 CATALOG NUMBER: GLEON-SA9C-830-U-T4FT

### Iso-Footcandle Lines of Horizontal Illumination

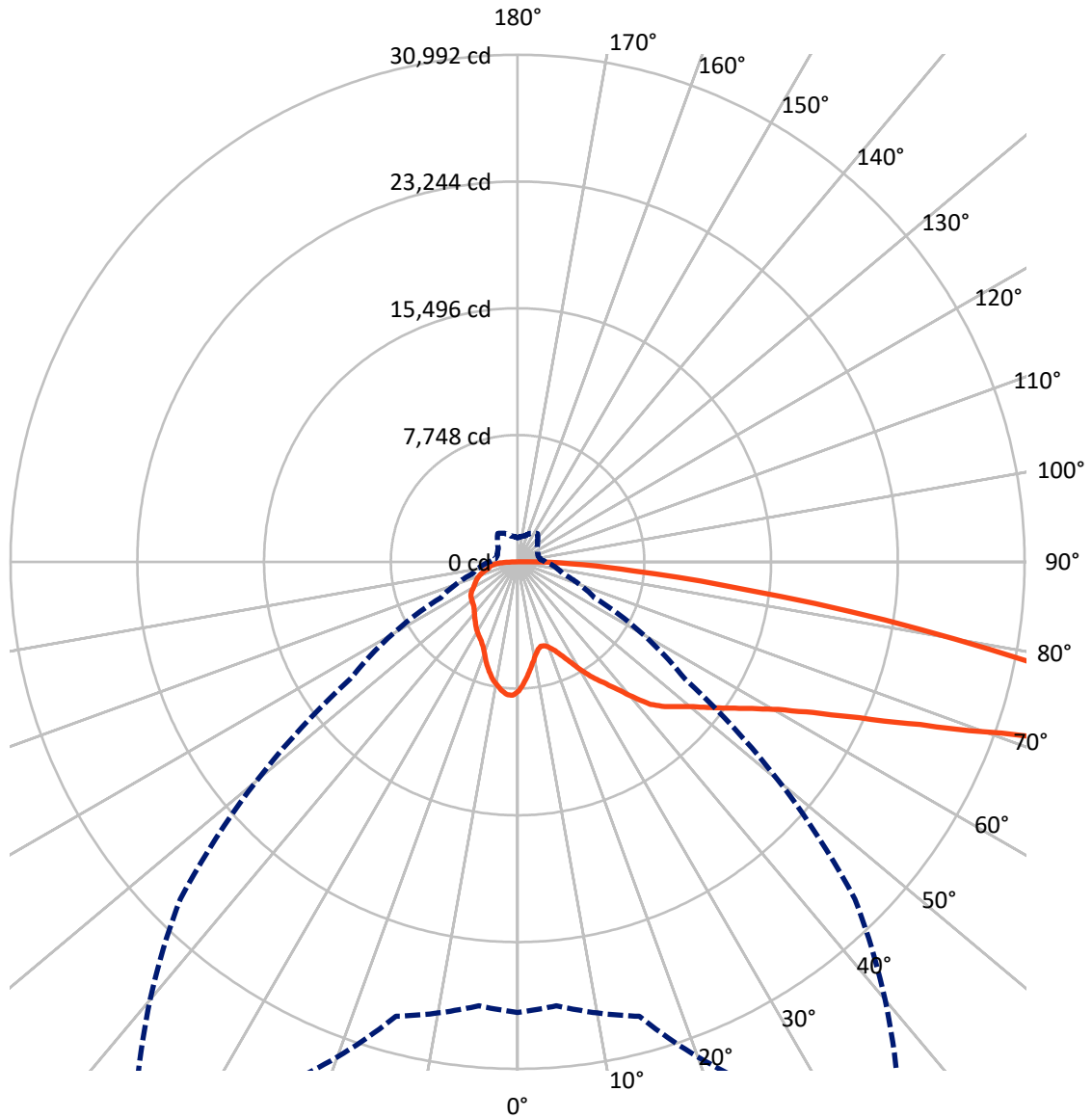
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.6 fc  
 Type IV - Short - N/A

REPORT NUMBER: P318893  
CATALOG NUMBER: GLEON-SA9C-830-U-T4FT

### Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P318893  
 CATALOG NUMBER: GLEON-SA9C-830-U-T4FT

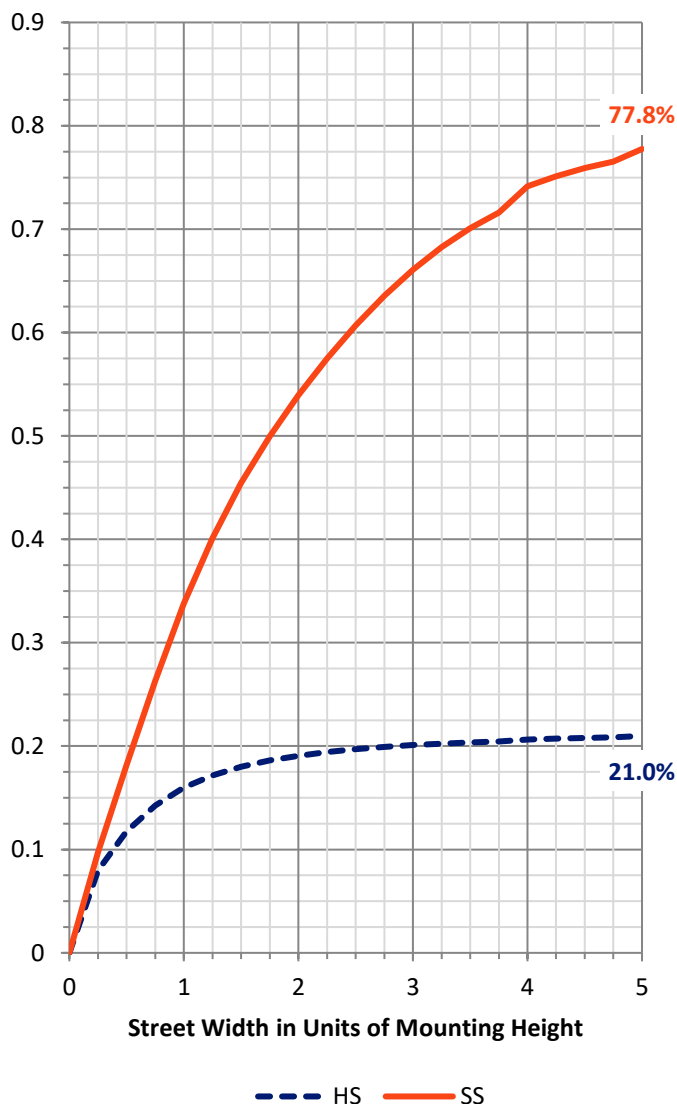
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10854.4	0.0	10854.4
	% Fixture	21.5	0.0	21.5
<b>Street Side</b>	Lumens	39695.6	0.0	39695.6
	% Fixture	78.5	0.0	78.5
<b>Total</b>	Lumens	50550.0	0.0	50550.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	714.6	1.4
10°-20°	1935.3	3.8
20°-30°	3160.7	6.3
30°-40°	4707.0	9.3
40°-50°	6751.2	13.4
50°-60°	9268.3	18.3
60°-70°	11603.5	23.0
70°-80°	10497.2	20.8
80°-90°	1912.1	3.8
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°	50550.0	100.0
0°-180°	50550.0	100.0

**Coefficient of Utilization**

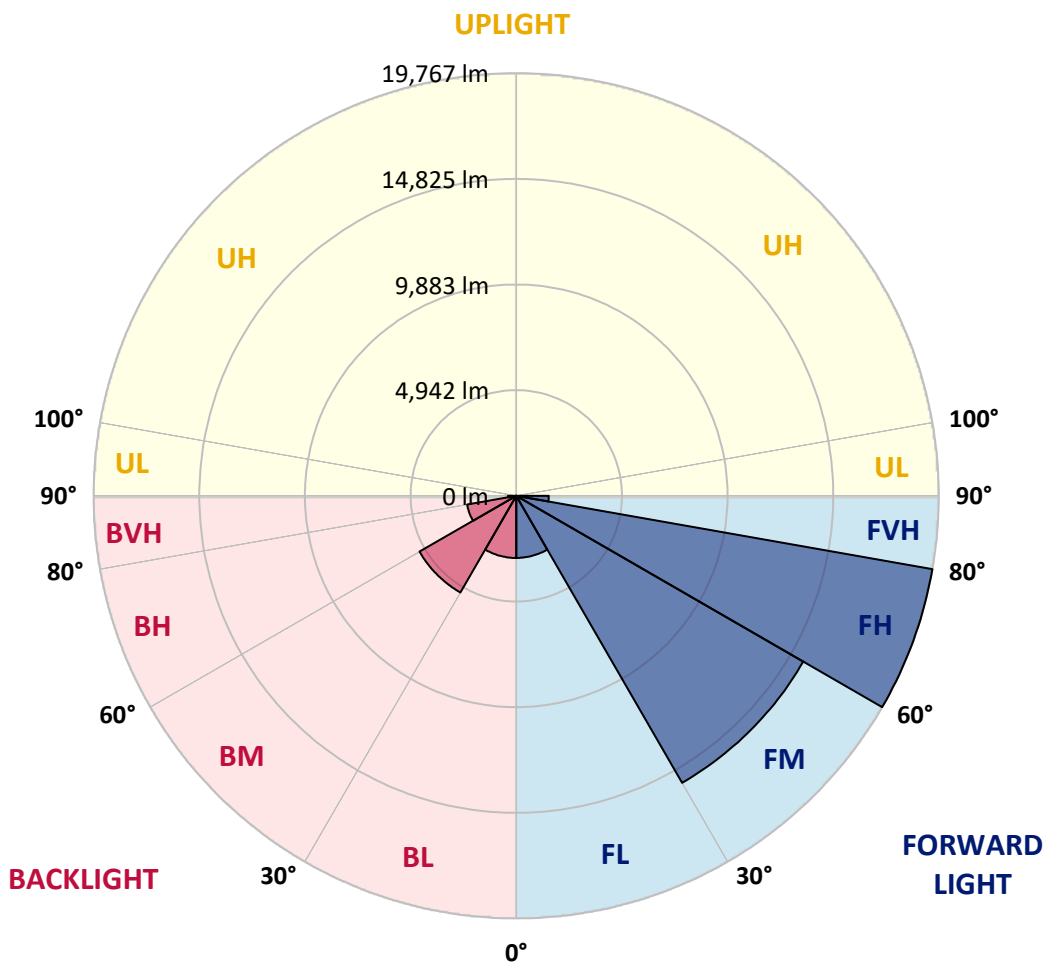


REPORT NUMBER: P318893  
 CATALOG NUMBER: GLEON-SA9C-830-U-T4FT

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2903.3	5.7			
FM (30°-60°)	15502.6	30.7			
FH (60°-80°)	19766.8	39.1			G5
FVH (80°-90°)	1522.8	3.0			G5
BL (0°-30°)	2907.3	5.8	B4/5000		
BM (30°-60°)	5223.9	10.3	B4/8500		
BH (60°-80°)	2333.9	4.6	B3/2500		G3/2500
BVH (80°-90°)	389.3	0.8			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**  
 Type IV Short





REPORT NUMBER: P318893  
 CATALOG NUMBER: GLEON-SA9C-830-U-T4FT

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	7901.2	7901.2	7901.2	7901.2	7901.2	7901.2	7901.2	7901.2	7901.2	7901.2	7901.2
2.5°	7337.2	7309.3	7361.7	7368.7	7414.1	7431.5	7494.4	7592.2	7672.5	7765.1	7848.9
5°	6672.0	6652.8	6726.1	6778.5	6878.0	6919.9	7068.3	7276.1	7461.2	7670.8	7861.1
7.5°	6039.9	6029.4	6111.5	6230.2	6345.4	6403.1	6659.7	6961.8	7270.9	7609.6	7901.2
10°	5507.3	5503.8	5582.4	5699.4	5868.8	5933.4	6265.1	6663.2	7096.3	7562.5	7969.3
12.5°	5208.7	5220.9	5257.6	5355.4	5512.5	5577.1	5945.6	6413.5	6949.6	7546.8	8068.9
15°	5282.1	5301.3	5238.4	5234.9	5346.7	5397.3	5743.0	6235.4	6844.8	7573.0	8213.8
17.5°	5594.6	5598.1	5432.2	5327.4	5395.5	5421.7	5680.2	6134.2	6783.7	7632.3	8395.4
20°	6034.6	6025.9	5732.6	5557.9	5594.6	5601.6	5769.2	6135.9	6778.5	7735.4	8631.1
22.5°	6617.8	6553.2	6158.6	5921.1	5912.4	5901.9	5998.0	6265.1	6855.3	7903.0	8912.3
25°	7379.2	7318.0	6775.0	6450.2	6380.4	6354.2	6368.1	6541.0	7007.2	8082.8	9226.6
27.5°	8226.0	8119.5	7595.7	7136.4	6991.5	6954.8	6871.0	6930.4	7173.1	8255.7	9600.2
30°	8935.0	8877.3	8419.8	7875.1	7703.9	7651.6	7431.5	7366.9	7412.3	8491.4	10071.7
32.5°	9331.3	9292.9	9015.3	8575.3	8416.4	8343.0	8032.2	7903.0	7796.5	8863.4	10710.8
35°	9811.5	9787.1	9619.4	9299.9	9064.2	8987.3	8746.4	8611.9	8337.8	9375.0	11536.7
37.5°	10422.7	10396.5	10400.0	10141.5	9860.4	9788.8	9629.9	9488.5	9039.7	10047.2	12434.2
40°	11114.1	11063.5	11044.3	11032.1	10854.0	10813.8	10730.0	10537.9	9919.8	10850.5	13319.5
42.5°	12154.8	11975.0	11590.8	11735.8	11912.1	11891.2	11959.3	11683.4	10897.6	11800.4	14183.8
45°	13158.9	12863.8	12200.2	12231.7	12617.6	12734.5	13244.4	13048.8	11957.5	12841.1	15077.9
47.5°	13616.3	13392.8	12828.8	12830.6	13213.0	13455.7	14573.2	14433.5	13071.5	14023.2	16169.2
50°	14128.0	13904.5	13398.1	13588.4	13921.9	14180.3	15856.6	15785.0	14131.4	15317.1	17477.0
52.5°	14686.7	14307.8	13986.5	14327.0	14795.0	15095.3	17141.8	16946.2	15104.0	16619.7	18980.5
55°	14693.7	14590.7	14835.1	15084.8	15785.0	16153.5	18488.0	17971.2	15896.8	17899.6	20204.5
57.5°	15530.1	15362.5	15881.1	15996.3	16911.3	17326.9	19827.3	18863.5	16703.5	18880.9	20864.5
60°	16637.1	16494.0	16918.3	17222.1	18304.7	18860.0	21257.4	19780.2	17337.3	19621.3	20833.1
62.5°	18549.2	18386.8	18381.5	18807.6	20265.6	20911.7	22862.1	20679.4	17588.8	19768.0	19944.3
65°	21348.2	21089.8	20602.6	20805.2	22973.9	23618.2	24655.4	21330.8	17257.0	18982.2	17655.1
67.5°	24072.2	24063.4	23464.5	23880.1	26549.9	27066.8	26698.4	21395.4	16221.6	16246.0	13593.6
70°	26787.4	26822.3	26721.1	28166.9	31381.5	31919.3	28874.0	20527.5	13894.0	11732.3	8144.0
72.5°	28938.6	28929.9	29439.8	33167.8	37651.8	37531.4	30707.5	17897.9	9975.7	6333.2	3892.1
75°	27545.2	27241.4	28760.5	35643.8	41306.5	40718.1	29148.2	12484.8	5177.3	2882.9	2095.4
77.5°	17966.0	18254.1	20483.9	29445.0	36131.0	35415.1	21384.9	5825.1	2439.3	1891.1	1519.1
80°	6506.1	6809.9	9591.5	16679.1	24892.9	24775.9	10530.9	2393.9	1650.1	1428.3	1107.0
82.5°	2238.5	2350.3	3783.9	7407.1	14054.6	14578.5	3962.0	1360.2	1199.6	1012.8	757.8
85°	878.3	1005.8	1730.4	3563.9	7089.3	7141.7	1604.7	813.7	834.7	663.5	415.6
87.5°	333.5	405.1	827.7	1655.3	3237.3	2973.7	574.5	387.6	474.9	394.6	197.3
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: P318893  
 CATALOG NUMBER: GLEON-SA9C-830-U-T4FT

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7901.2	7901.2	7901.2	7901.2	7901.2	7901.2	7901.2	7901.2	7901.2	7901.2	7901.2
2.5°	7913.5	7950.1	8027.0	8079.4	8135.2	8150.9	8157.9	8171.9	8185.9	8180.6	8182.4
5°	7962.4	8034.0	8157.9	8210.3	8234.8	8206.8	8152.7	8109.0	8077.6	8060.1	8054.9
7.5°	8042.7	8144.0	8276.7	8267.9	8212.1	8088.1	7948.4	7843.6	7756.3	7724.9	7707.4
10°	8149.2	8267.9	8360.5	8261.0	8098.6	7883.8	7674.3	7511.9	7380.9	7330.3	7321.5
12.5°	8285.4	8405.9	8423.3	8212.1	7943.2	7649.8	7365.2	7150.4	6954.8	6892.0	6878.0
15°	8461.8	8575.3	8467.0	8126.5	7751.1	7356.5	6988.0	6696.4	6490.4	6413.5	6385.6
17.5°	8646.8	8755.1	8475.7	7985.1	7499.6	7009.0	6546.2	6247.7	6011.9	5922.9	5912.4
20°	8868.6	8917.5	8439.1	7782.5	7153.9	6558.5	6071.3	5790.2	5664.5	5601.6	5594.6
22.5°	9142.7	9090.4	8355.2	7508.4	6715.6	6038.1	5641.8	5510.8	5479.4	5465.4	5470.6
25°	9432.6	9272.0	8231.3	7150.4	6162.1	5517.8	5327.4	5364.1	5406.0	5400.8	5400.8
27.5°	9752.1	9457.1	8040.9	6675.5	5549.2	5091.7	5114.4	5248.9	5311.7	5310.0	5308.2
30°	10162.5	9666.6	7798.2	6104.5	4976.5	4791.4	4929.3	5093.5	5179.0	5175.5	5177.3
32.5°	10667.1	9897.1	7468.2	5467.1	4562.6	4569.6	4728.5	4890.9	4990.4	4981.7	4983.5
35°	11257.3	10155.5	7021.2	4838.5	4288.5	4393.3	4519.0	4632.5	4726.8	4714.6	4702.3
37.5°	11899.9	10408.7	6427.5	4276.3	4065.0	4229.1	4333.9	4353.1	4396.8	4365.3	4342.6
40°	12511.0	10602.5	5662.7	3815.3	3839.7	4089.4	4157.5	4080.7	4002.1	3991.7	3960.2
42.5°	13043.6	10667.1	4889.2	3446.9	3602.3	3942.8	3984.7	3824.0	3682.6	3616.2	3588.3
45°	13605.9	10689.8	4168.0	3137.8	3373.5	3811.8	3857.2	3642.4	3443.4	3300.2	3253.0
47.5°	14341.0	10854.0	3607.5	2909.1	3198.9	3724.5	3789.1	3497.5	3239.1	3034.8	2991.1
50°	15303.1	11178.7	3151.8	2734.4	3085.4	3666.9	3740.2	3356.1	3071.4	2825.2	2781.6
52.5°	16371.7	11477.3	2783.3	2593.0	2975.4	3565.6	3677.4	3254.8	2914.3	2631.4	2584.3
55°	17119.1	11248.6	2486.5	2446.3	2832.2	3420.7	3590.0	3169.2	2689.0	2442.8	2400.9
57.5°	17262.3	10466.3	2261.2	2294.4	2659.4	3239.1	3455.6	2978.9	2566.8	2360.8	2317.1
60°	16871.1	9376.7	2093.6	2154.7	2474.3	3010.3	3204.2	2844.4	2449.8	2273.5	2236.8
62.5°	15888.1	8261.0	1969.6	2029.0	2301.4	2778.1	3047.0	2703.0	2331.1	2173.9	2137.3
65°	13902.7	6935.6	1850.9	1917.3	2140.8	2577.3	2905.6	2572.1	2214.1	2093.6	2058.7
67.5°	10494.3	5194.7	1739.1	1798.5	1997.6	2402.7	2751.9	2442.8	2100.6	2023.8	1981.9
70°	6179.6	3253.0	1611.7	1674.5	1847.4	2221.1	2587.8	2301.4	1959.2	1924.2	1870.1
72.5°	2875.9	1957.4	1466.8	1527.9	1658.8	1978.4	2376.5	2116.3	1791.5	1714.7	1641.4
75°	1716.4	1431.8	1295.6	1349.8	1442.3	1719.9	2111.1	1927.7	1632.6	1531.4	1454.5
77.5°	1283.4	1094.8	1107.0	1164.7	1239.8	1505.2	1870.1	1779.3	1510.4	1431.8	1379.4
80°	923.7	831.2	902.8	965.6	1044.2	1369.0	1791.5	1644.9	1365.5	1260.7	1211.8
82.5°	616.4	597.2	679.2	743.9	820.7	1197.8	1683.3	1440.6	1166.4	1033.7	925.5
85°	340.5	359.7	457.5	485.4	551.8	843.4	1379.4	1157.7	878.3	707.2	675.8
87.5°	141.4	165.9	246.2	237.5	293.4	502.9	908.0	698.5	558.8	417.3	324.8
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

REPORT NUMBER: SP1-2408-195-9

**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**

$\lambda$ (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			

REPORT NUMBER: SP1-2408-195-9

**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			

REPORT NUMBER: SP1-2408-195-9

**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**



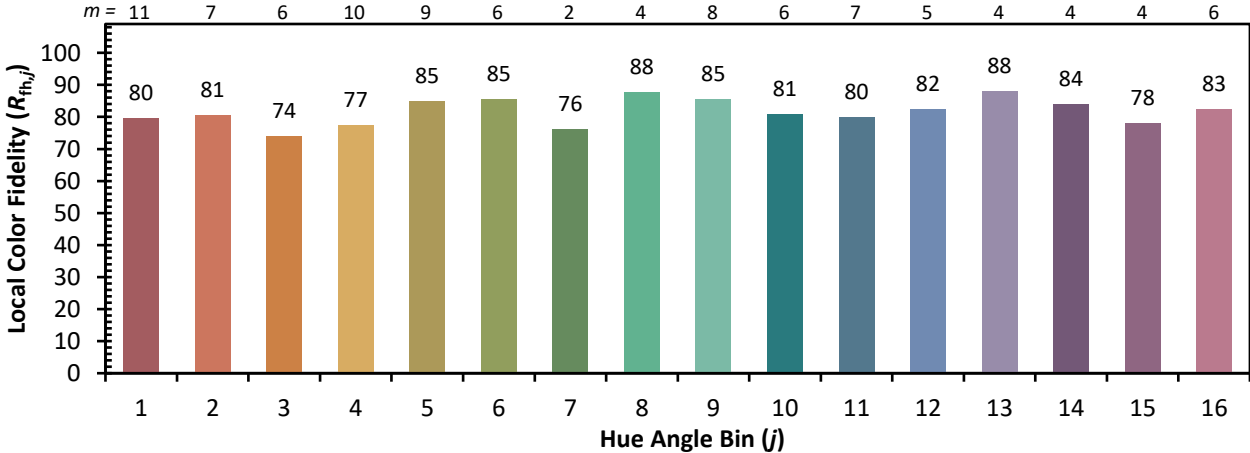


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)