

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: P317934

Luminaire Tested: **GLEON-SA0C-830-U-T3R**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P317934  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA0C-830-U-T3R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(10) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 56881 lumens  
Efficiency: N/A  
Efficacy: 101.9 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B4 - U0 - G5

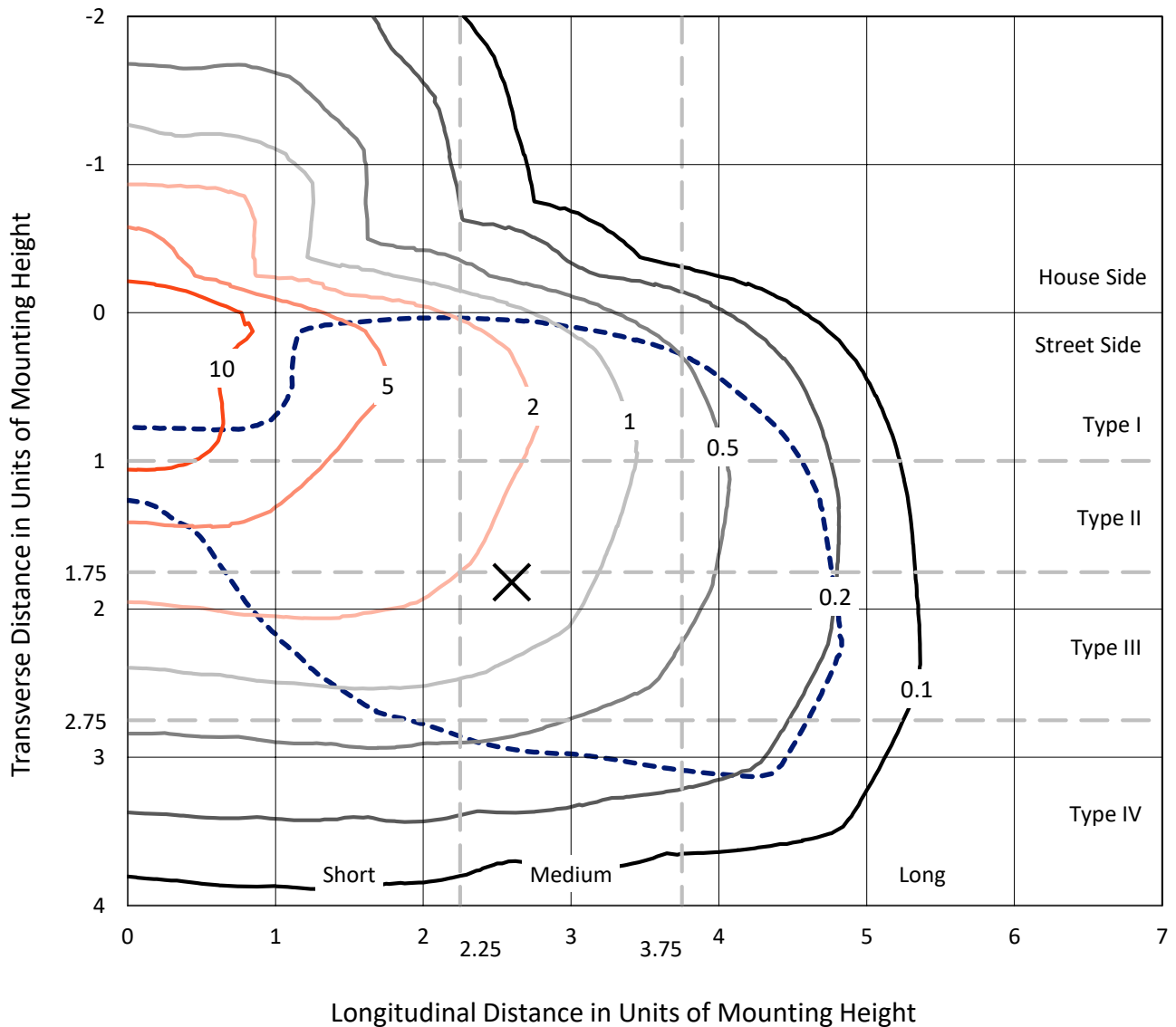
Input Watts (W): 558  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

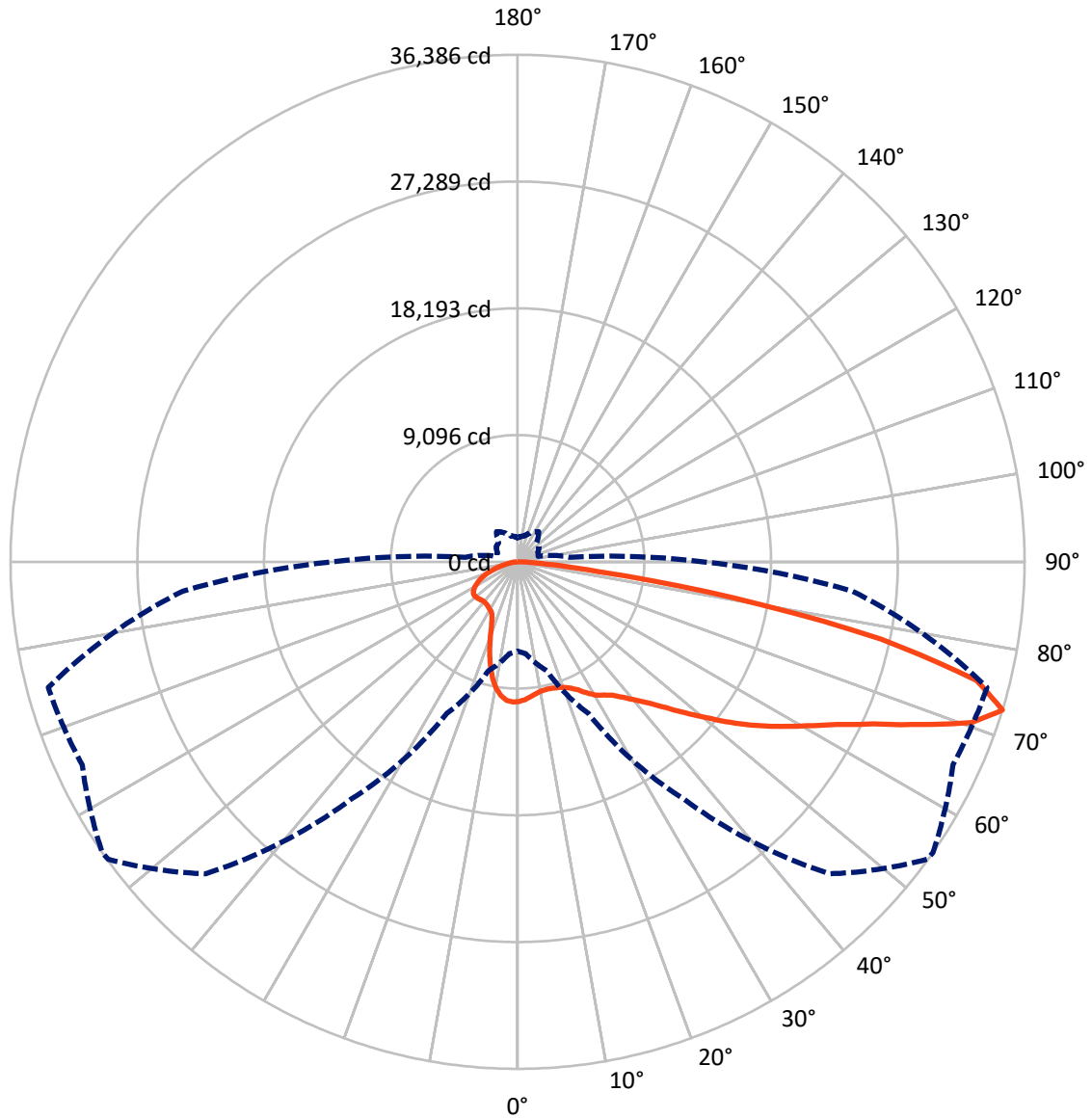
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 16.2 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

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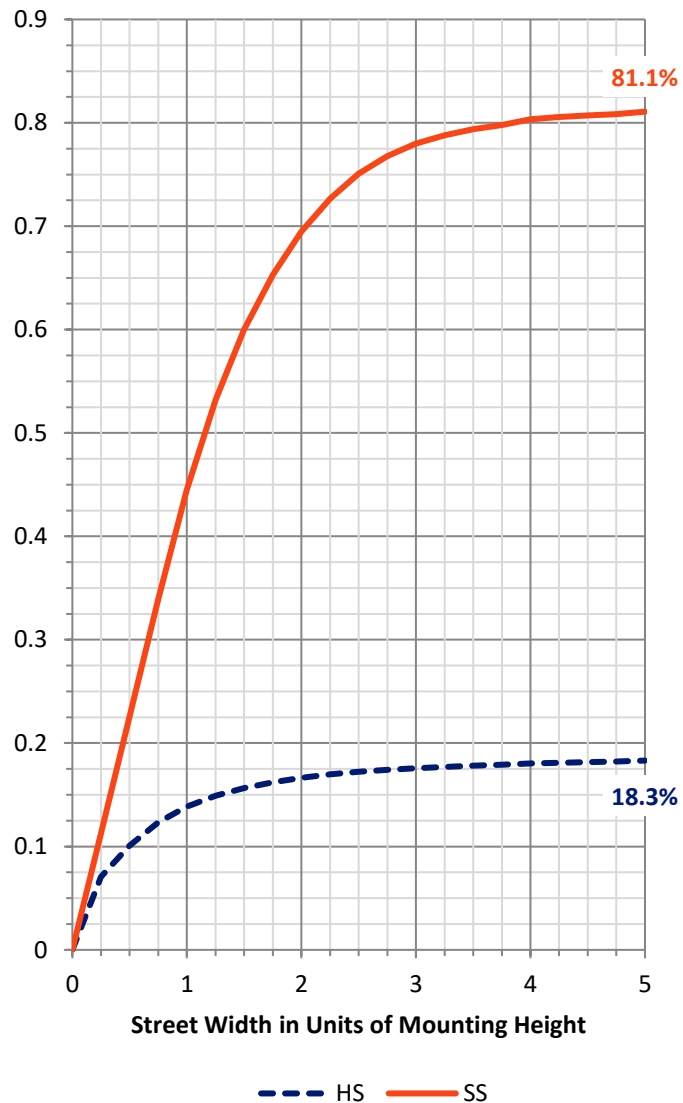
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10572.3	0.0	10572.3
	% Fixture	18.6	0.0	18.6
<b>Street Side</b>	Lumens	46308.7	0.0	46308.7
	% Fixture	81.4	0.0	81.4
<b>Total</b>	Lumens	56881.0	0.0	56881.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	907.8	1.6
10°-20°	2417.0	4.2
20°-30°	3985.0	7.0
30°-40°	5894.8	10.4
40°-50°	8227.9	14.5
50°-60°	10713.0	18.8
60°-70°	13166.0	23.1
70°-80°	10320.5	18.1
80°-90°	1248.9	2.2
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°	56881.0	100.0
0°-180°	56881.0	100.0

**Coefficient of Utilization**

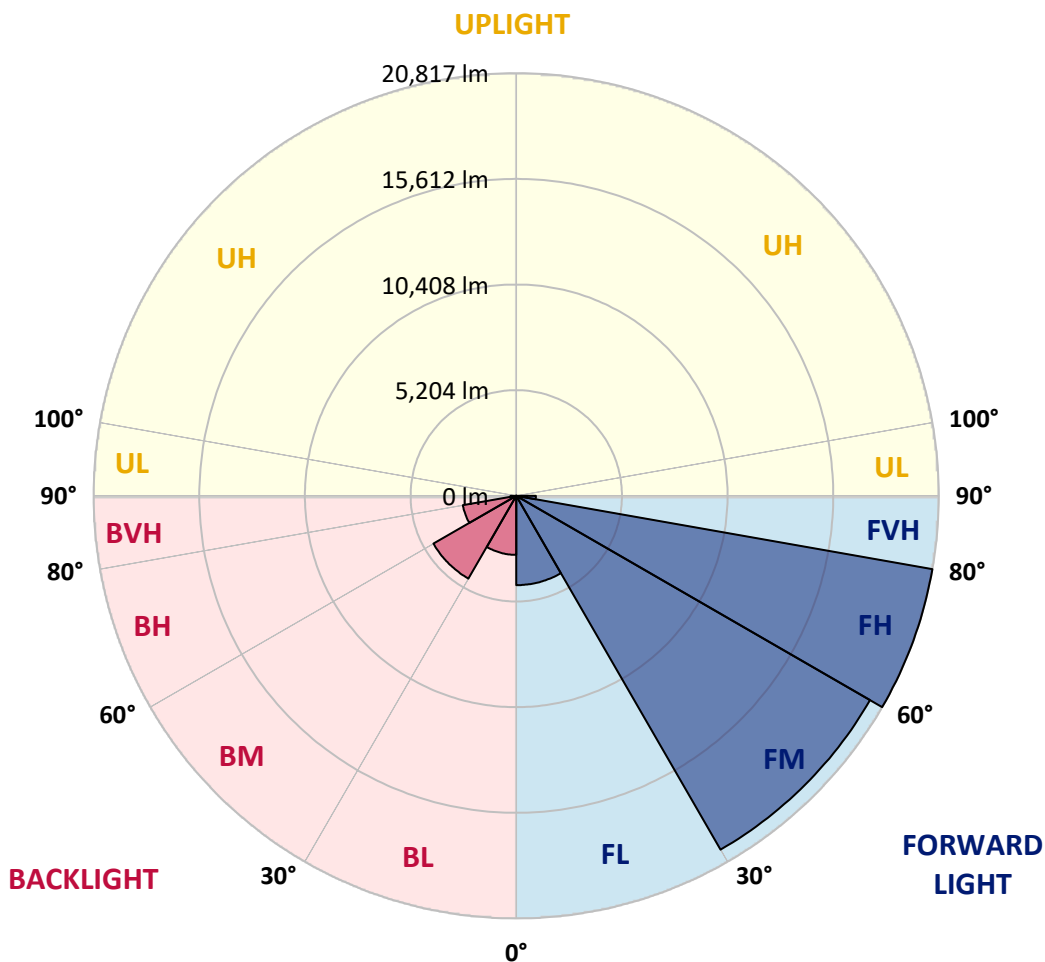


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4400.9	7.7			
FM (30°-60°)	20125.6	35.4			
FH (60°-80°)	20816.5	36.6			G5
FVH (80°-90°)	965.6	1.7			G5
BL (0°-30°)	2908.9	5.1	B4/5000		
BM (30°-60°)	4710.1	8.3	B3/5000		
BH (60°-80°)	2670.0	4.7	B4/5000		G4/5000
BVH (80°-90°)	283.3	0.5			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 Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	10032.6	10032.6	10032.6	10032.6	10032.6	10032.6	10032.6	10032.6	10032.6	10032.6	10032.6
2.5°	9706.0	9682.9	9711.7	9752.1	9796.3	9855.8	9890.4	9905.8	9965.3	9988.4	10038.3
5°	9256.4	9244.9	9292.9	9362.1	9460.1	9598.4	9709.8	9731.0	9888.5	9999.9	10101.7
7.5°	8929.8	8929.8	8985.5	9068.1	9177.6	9364.0	9521.5	9550.4	9817.4	10057.6	10245.8
10°	8670.4	8680.0	8745.4	8843.4	8972.1	9170.0	9379.4	9412.0	9798.2	10192.0	10491.8
12.5°	8497.5	8520.6	8580.1	8668.5	8828.0	9068.1	9333.3	9377.5	9838.5	10384.2	10787.6
15°	8607.0	8645.5	8651.2	8687.7	8776.1	9037.4	9360.2	9406.3	9925.0	10580.1	11123.8
17.5°	9087.3	9100.8	9041.2	8964.4	8922.1	9089.3	9440.9	9488.9	10028.7	10774.2	11446.6
20°	9817.4	9809.7	9681.0	9473.5	9258.3	9285.2	9573.4	9623.4	10169.0	10945.2	11769.4
22.5°	10739.6	10712.7	10514.8	10132.5	9765.5	9611.8	9805.9	9848.1	10380.3	11189.2	12115.2
25°	11857.7	11798.2	11536.9	11023.9	10484.1	10088.3	10155.5	10195.9	10687.7	11462.0	12432.2
27.5°	13037.4	12977.8	12645.4	12024.9	11306.4	10689.6	10637.8	10672.3	11037.4	11663.7	12666.6
30°	14270.8	14207.4	13903.8	13208.4	12178.6	11312.1	11087.3	11100.8	11283.3	11773.2	12858.7
32.5°	15510.0	15450.4	15110.4	14303.4	13125.7	11980.7	11412.0	11394.7	11431.2	11886.6	13075.8
35°	16766.4	16789.5	16391.8	15498.4	14174.7	12724.2	11796.3	11759.8	11679.1	12119.0	13383.2
37.5°	18111.3	18095.9	17581.0	16647.3	15271.7	13531.1	12347.6	12341.9	12063.3	12559.0	13865.4
40°	19010.4	19020.0	18706.9	17823.1	16380.3	14424.5	13054.7	13041.2	12676.2	13218.0	14497.5
42.5°	19362.0	19425.4	19506.1	18945.1	17540.7	15460.0	13898.1	13878.9	13531.1	14163.2	15241.0
45°	19387.0	19513.8	20013.3	19942.2	18716.5	16645.4	14975.9	14922.1	14672.3	15419.7	16128.6
47.5°	19171.8	19302.4	20132.4	20535.9	19767.4	17896.1	16236.2	16193.9	15978.7	16991.2	17089.2
50°	18701.1	18826.0	19886.5	20826.0	20631.9	19098.8	17688.6	17577.2	17461.9	18806.8	18188.1
52.5°	17819.3	18059.4	19558.0	20895.1	21148.7	20167.0	19216.0	19143.0	19206.4	20722.2	19289.0
55°	15730.9	15999.9	18710.7	20837.5	21531.1	21064.2	20743.4	20739.5	21068.0	22731.8	20470.5
57.5°	14560.9	14751.1	16985.5	20739.5	21984.5	21955.6	22255.4	22291.9	22931.6	24920.1	21707.8
60°	13900.0	14099.8	16111.3	20376.4	22687.6	23108.4	23798.1	23871.1	24825.9	27342.7	23196.7
62.5°	13298.6	13517.7	15569.5	19636.7	23515.7	24756.8	25646.3	25711.6	26831.7	29832.6	24635.7
65°	12270.8	12518.6	14776.1	19150.7	24268.8	26906.6	27995.9	28040.1	29135.2	32441.6	25736.6
67.5°	10818.4	11045.1	13279.4	18076.7	24825.9	29517.5	31119.8	31144.8	31419.5	34284.1	26299.5
70°	9121.9	9208.4	11146.9	15859.6	24167.0	31959.4	34543.4	34549.2	33502.1	35463.7	26207.3
72.5°	6409.2	6612.8	8092.2	12005.7	20768.3	31661.6	36320.6	36385.9	34470.4	34868.1	24113.2
75°	3930.8	4146.0	5075.8	7275.6	13175.7	24900.9	33557.9	34011.3	32654.9	31089.1	19698.2
77.5°	2628.2	2708.9	3312.2	4242.0	5969.2	14326.5	25800.0	26653.0	27127.6	22672.3	12597.4
80°	1465.9	1619.6	2195.9	2635.9	2655.1	5692.6	15469.6	15669.4	15093.1	9027.8	3886.6
82.5°	776.2	860.7	1465.9	1548.5	1448.6	1905.8	5765.6	5771.3	4822.2	2420.7	1154.7
85°	601.3	672.4	1004.8	945.2	739.7	845.3	1902.0	2005.7	1640.7	991.3	376.6
87.5°	299.7	372.7	682.0	599.4	290.1	242.1	680.1	726.2	647.4	388.1	136.4
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: P317934  
 CATALOG NUMBER: GLEON-SA0C-830-U-T3R

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	10032.6	10032.6	10032.6	10032.6	10032.6	10032.6	10032.6	10032.6	10032.6	10032.6	10032.6
2.5°	10057.6	10074.9	10096.0	10072.9	10065.2	10034.5	9982.6	9971.1	9944.2	9946.1	9961.5
5°	10145.9	10174.8	10163.2	10074.9	9969.2	9821.3	9667.6	9536.9	9450.5	9444.7	9438.9
7.5°	10315.0	10334.2	10243.9	9992.2	9696.4	9354.4	9031.6	8749.2	8578.2	8536.0	8526.4
10°	10580.1	10576.3	10328.5	9821.3	9231.4	8620.5	8101.8	7709.8	7481.2	7414.0	7396.7
12.5°	10876.0	10831.8	10357.3	9510.0	8574.4	7727.1	7070.1	6634.0	6395.7	6318.9	6299.7
15°	11181.5	11072.0	10286.2	9045.1	7767.5	6764.6	6074.9	5671.4	5542.7	5500.4	5492.8
17.5°	11465.8	11254.5	10082.5	8414.9	6847.2	5805.9	5268.0	5106.6	5137.3	5193.0	5195.0
20°	11744.4	11377.4	9755.9	7619.5	5877.0	5016.3	4833.8	4952.9	5098.9	5212.3	5227.6
22.5°	12019.1	11463.9	9335.2	6701.2	5008.6	4572.5	4701.2	4918.3	5085.5	5208.4	5229.5
25°	12249.7	11485.0	8755.0	5721.4	4405.3	4405.3	4637.8	4843.4	5008.6	5129.6	5150.8
27.5°	12334.2	11342.9	7936.5	4814.6	4101.8	4328.5	4549.4	4720.4	4860.7	4989.4	5012.4
30°	12366.9	11079.6	6991.3	4086.4	3976.9	4245.9	4430.3	4576.3	4708.9	4829.9	4851.1
32.5°	12372.6	10762.6	5988.4	3673.4	3890.5	4159.4	4282.4	4411.1	4553.3	4601.3	4609.0
35°	12409.1	10388.0	4931.8	3462.0	3809.8	4078.7	4176.7	4268.9	4038.4	4055.7	4071.1
37.5°	12514.8	10017.2	4048.0	3342.9	3757.9	4036.5	4153.7	3819.4	3638.8	3596.5	3590.8
40°	12712.7	9621.4	3392.9	3246.9	3738.7	4057.6	4005.7	3565.8	3254.5	3022.1	2987.5
42.5°	12987.4	9194.9	2974.0	3183.5	3752.1	4159.4	3800.2	3321.8	2805.0	2655.1	2635.9
45°	13296.7	8747.3	2747.3	3139.3	3798.2	4238.2	3757.9	2997.1	2595.6	2482.2	2472.6
47.5°	13596.4	8199.7	2630.1	3120.1	3861.6	4174.8	3579.2	2897.2	2495.7	2436.1	2441.9
50°	13940.3	7706.0	2559.1	3098.9	3917.4	4134.5	3377.5	2845.3	2457.2	2530.2	2607.1
52.5°	14230.4	7195.0	2495.7	3056.7	3938.5	4063.4	3325.6	2854.9	2457.2	2597.5	2670.5
55°	14574.3	6808.8	2422.7	2968.3	3898.1	3861.6	3289.1	2912.6	2486.1	2397.7	2405.4
57.5°	15018.1	6682.0	2342.0	2829.9	3763.7	3567.7	3271.8	2968.3	2468.8	2413.0	2432.3
60°	15632.9	6816.5	2309.3	2649.4	3554.2	3337.2	3273.8	2939.5	2347.7	2251.7	2253.6
62.5°	16218.9	6966.3	2307.4	2536.0	3296.8	3131.6	3229.6	2845.3	2286.2	2230.5	2251.7
65°	16411.0	6814.5	2215.2	2409.2	3006.7	2885.7	3148.9	2745.4	2240.1	2155.6	2151.8
67.5°	16153.6	6343.9	2028.8	2203.6	2674.3	2599.4	3043.2	2626.3	2167.1	2098.0	2086.4
70°	15388.9	5292.9	1798.3	1932.7	2295.9	2276.6	2876.1	2488.0	2069.1	2009.6	1959.6
72.5°	13331.3	3771.3	1515.8	1608.1	1869.3	1930.8	2645.5	2307.4	1930.8	1802.1	1725.3
75°	10949.0	2791.5	1244.9	1264.2	1419.8	1586.9	2328.5	2096.0	1767.5	1548.5	1488.9
77.5°	6705.0	1708.0	991.3	999.0	1018.2	1266.1	1917.4	1859.7	1560.0	1291.1	1248.8
80°	2171.0	931.8	716.6	753.1	695.5	927.9	1483.2	1583.1	1339.1	1079.7	1033.6
82.5°	826.1	543.7	484.1	509.1	482.2	622.5	1081.6	1268.0	1097.0	887.6	722.4
85°	399.6	307.4	286.3	320.8	297.8	318.9	691.6	933.7	831.9	578.3	537.9
87.5°	142.2	136.4	109.5	147.9	126.8	113.4	211.3	470.7	549.5	397.7	355.4
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**

$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	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**

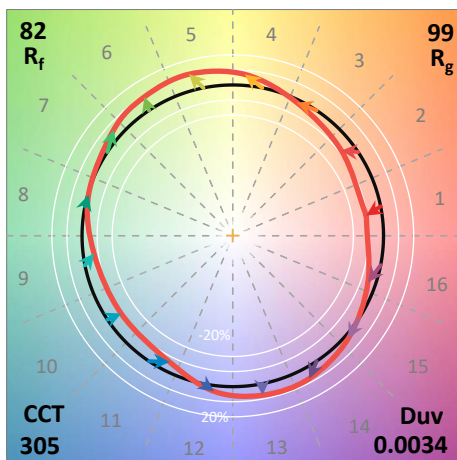
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	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)