

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: P323377

Luminaire Tested: **GLEON-SA3D-830-U-SL2-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P323377  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA3D-830-U-SL2-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(3) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15592 lumens  
Efficiency: N/A  
Efficacy: 81.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G3

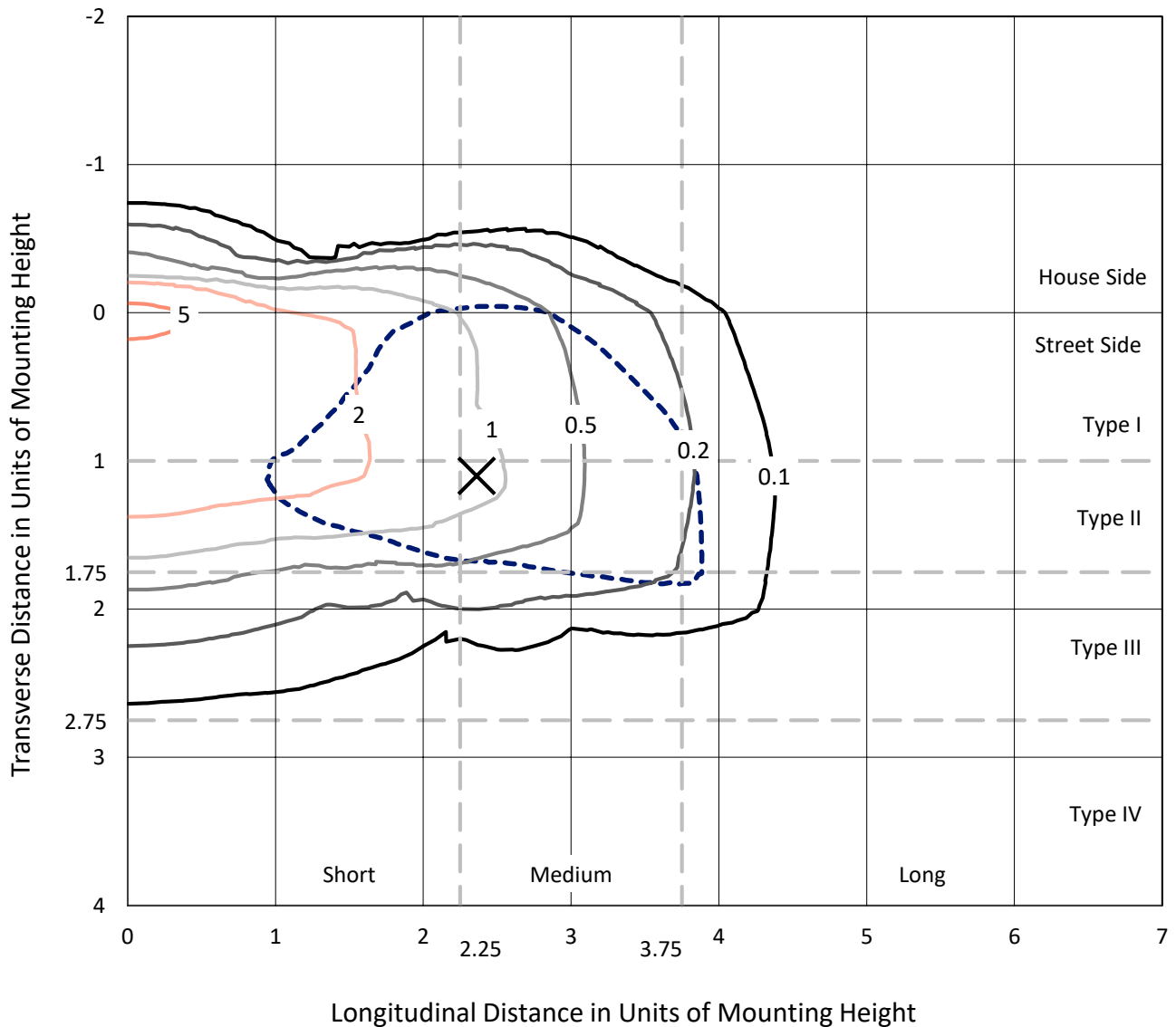
Input Watts (W): 191  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P323377  
 CATALOG NUMBER: GLEON-SA3D-830-U-SL2-HSS

### Iso-Footcandle Lines of Horizontal Illumination

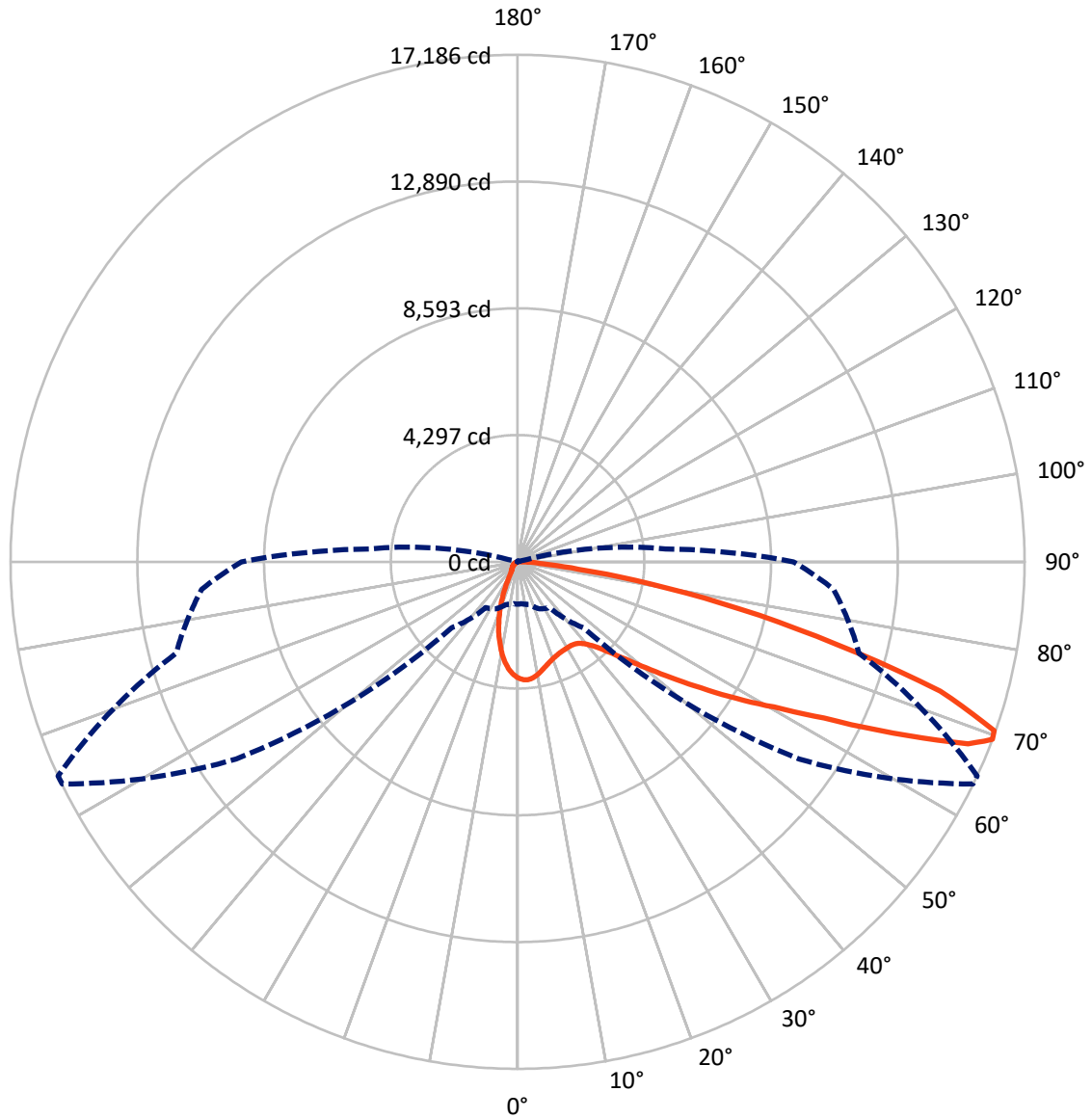
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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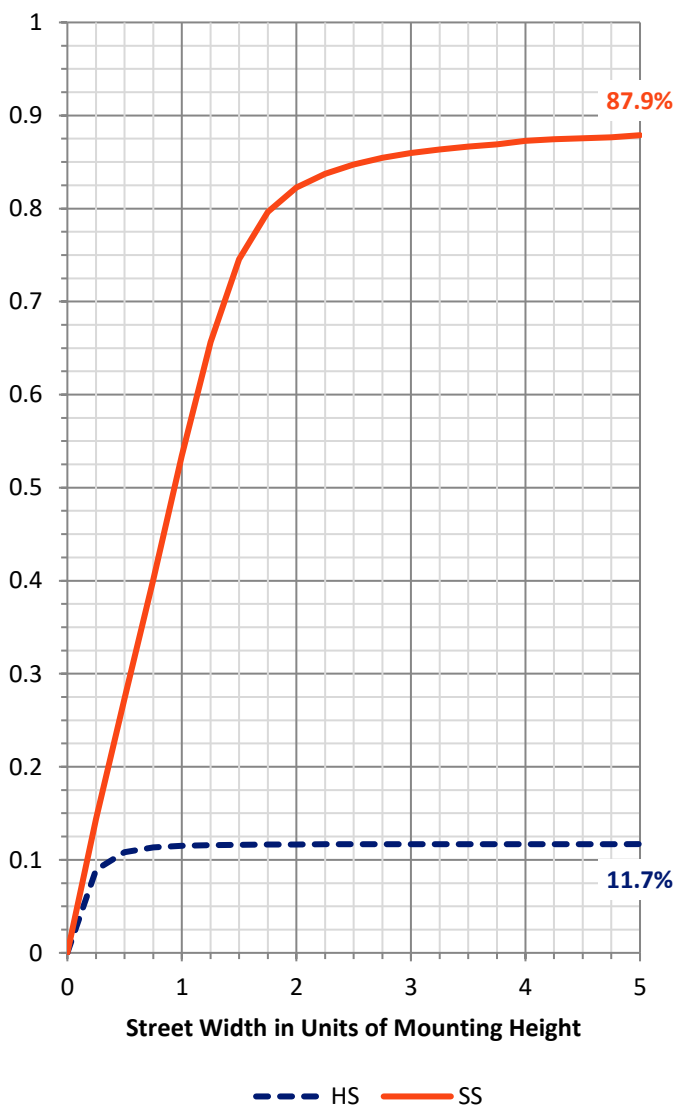
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1837.9	0.0	1837.9
	% Fixture	11.8	0.0	11.8
<b>Street Side</b>	Lumens	13754.1	0.0	13754.1
	% Fixture	88.2	0.0	88.2
<b>Total</b>	Lumens	15592.0	0.0	15592.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	329.5	2.1
10°-20°	721.2	4.6
20°-30°	998.9	6.4
30°-40°	1392.8	8.9
40°-50°	2164.9	13.9
50°-60°	3475.6	22.3
60°-70°	3931.4	25.2
70°-80°	2309.0	14.8
80°-90°	268.6	1.7
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°	15592.0	100.0
0°-180°	15592.0	100.0

**Coefficient of Utilization**

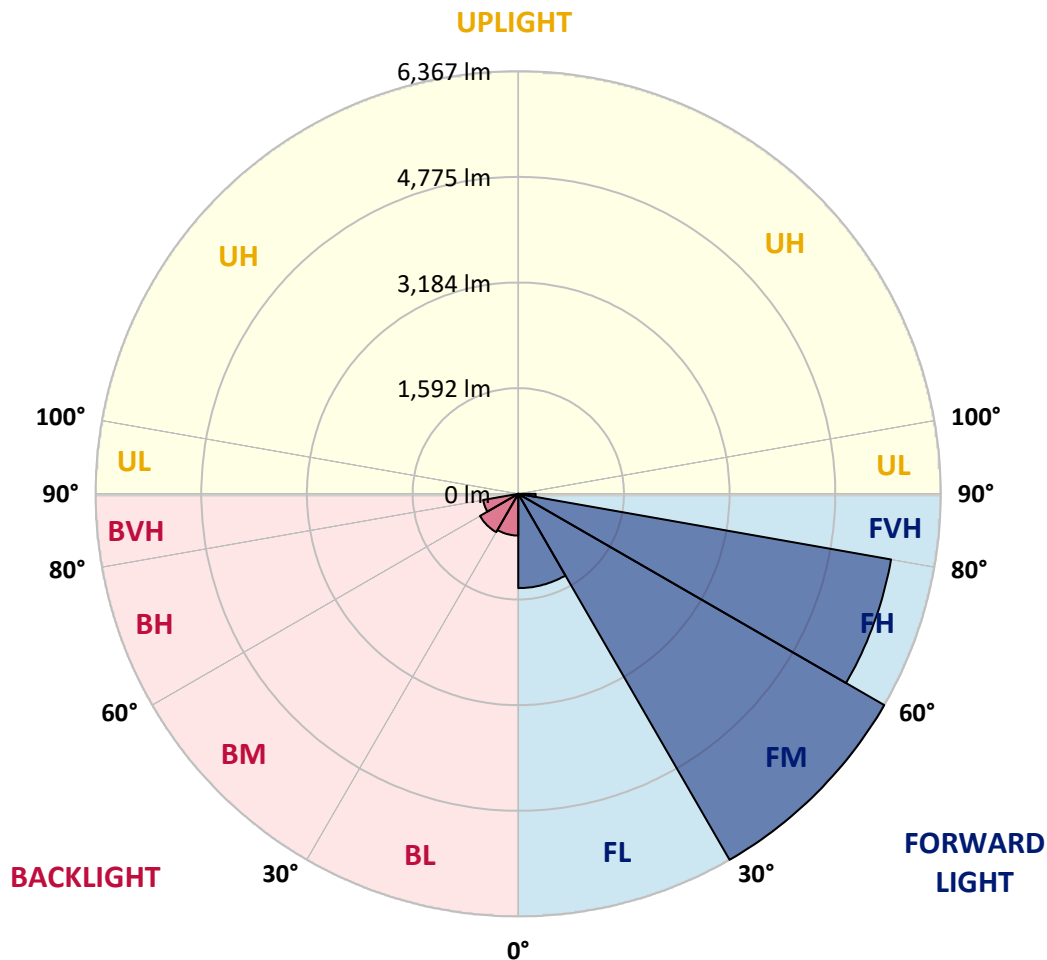


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1420.8	9.1			
FM (30°-60°)	6367.3	40.8			
FH (60°-80°)	5703.4	36.6			G3/7500
FVH (80°-90°)	262.6	1.7			G3/500
BL (0°-30°)	628.9	4.0	B2/1000		
BM (30°-60°)	666.0	4.3	B1/1000		
BH (60°-80°)	537.0	3.4	B2/1000		G2/1000
BVH (80°-90°)	6.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	3940.1	3940.1	3940.1	3940.1	3940.1	3940.1	3940.1	3940.1	3940.1	3940.1	3940.1
2.5°	3975.1	3965.2	3973.1	3990.3	3998.8	3998.8	4005.4	3997.5	4000.2	3981.0	3953.3
5°	3726.4	3711.2	3733.0	3781.1	3840.5	3891.3	3966.5	4006.1	4010.1	4010.7	3978.4
7.5°	3458.5	3444.6	3477.0	3533.7	3610.2	3704.6	3835.9	3950.7	3957.3	4019.3	3995.5
10°	3240.8	3230.9	3268.5	3329.2	3418.9	3524.5	3685.5	3845.1	3864.3	4001.5	3992.9
12.5°	3067.9	3060.0	3095.6	3165.6	3257.3	3374.0	3542.3	3727.7	3753.4	3961.2	3979.7
15°	2941.9	2940.6	2970.3	3037.6	3139.2	3248.0	3420.2	3618.8	3648.5	3917.7	3977.7
17.5°	2875.9	2877.9	2899.7	2957.1	3044.2	3152.4	3317.3	3527.1	3559.4	3878.8	3987.6
20°	2869.3	2871.3	2883.2	2915.5	2986.1	3081.8	3233.5	3449.9	3483.6	3849.7	4003.5
22.5°	2927.4	2926.1	2929.4	2926.1	2965.7	3038.2	3178.1	3390.5	3429.5	3830.6	4016.0
25°	3038.9	3036.9	3035.6	3011.2	2984.8	3023.7	3155.0	3356.9	3393.8	3816.7	4023.3
27.5°	3193.9	3192.6	3190.6	3150.4	3071.2	3046.8	3157.6	3344.4	3375.4	3805.5	4021.9
30°	3397.8	3407.0	3404.4	3348.3	3224.9	3117.4	3185.4	3337.8	3364.8	3783.8	4008.1
32.5°	3637.3	3655.8	3670.3	3610.2	3455.9	3257.3	3249.4	3345.0	3364.8	3767.3	3983.0
35°	3886.0	3909.8	3963.2	3942.1	3738.9	3467.7	3359.5	3388.6	3405.1	3776.5	3971.1
37.5°	4130.8	4159.2	4275.3	4336.6	4109.7	3746.2	3531.1	3496.1	3504.7	3832.6	3984.3
40°	4415.2	4458.0	4634.2	4733.2	4552.4	4118.9	3787.7	3680.8	3684.1	3956.0	4045.7
42.5°	4788.6	4832.8	5023.5	5178.5	5051.2	4590.0	4136.1	3963.2	3959.9	4186.9	4190.2
45°	5243.8	5290.0	5487.3	5659.5	5602.1	5148.2	4582.1	4375.6	4371.6	4551.1	4464.0
47.5°	5759.8	5805.3	5981.4	6158.9	6220.9	5800.0	5150.1	4938.4	4929.1	5057.1	4886.9
50°	6202.5	6232.2	6394.5	6633.3	6913.0	6601.0	5856.7	5652.9	5643.0	5729.4	5507.7
52.5°	6363.4	6380.6	6545.5	6880.0	7578.1	7685.6	6785.0	6522.5	6515.2	6552.8	6334.4
55°	6037.5	6068.5	6271.1	6767.2	7938.3	8911.5	7956.8	7599.2	7544.4	7463.3	7198.7
57.5°	5149.5	5199.0	5416.7	6076.4	7770.1	9884.0	9678.8	8817.1	8736.6	8240.5	7901.4
60°	3858.3	3919.0	4099.8	4811.7	6872.1	10230.3	11560.4	10174.3	9992.8	8859.3	8547.3
62.5°	2647.6	2678.0	2800.7	3264.5	5061.1	9662.9	13134.6	11991.9	11660.7	9532.3	9246.0
65°	2022.2	2032.7	2082.9	2242.5	3013.8	7849.2	13760.8	14390.2	13989.7	10337.2	9971.1
67.5°	1629.6	1621.0	1690.3	1918.6	2018.2	4788.6	13030.4	16659.1	16471.7	11413.3	10700.8
69°	1437.0	1425.1	1495.7	1760.9	1895.5	3165.6	11648.8	17174.4	17186.3	11981.4	10750.9
70°	1293.1	1301.1	1371.0	1667.2	1853.9	2484.7	10329.3	17043.1	17136.8	12193.8	10450.0
72.5°	863.6	884.7	1025.3	1384.2	1782.7	1880.3	6236.8	14625.0	14985.3	11715.5	8965.6
75°	486.9	502.7	669.7	1043.8	1679.8	1790.6	3294.2	10774.6	11123.0	9796.9	6913.7
77.5°	238.8	247.4	378.7	673.6	1404.6	1706.2	1868.5	7318.8	7716.6	6394.5	3910.4
80°	100.9	105.6	189.4	415.7	1004.2	1628.3	1387.5	4504.2	4553.7	2505.1	1041.8
82.5°	38.9	40.2	79.8	259.3	638.0	1269.4	1160.5	2135.7	2084.2	471.7	237.5
85°	4.6	5.3	29.0	155.7	355.0	653.2	942.8	920.4	851.8	93.7	122.1
87.5°	0.0	0.0	2.0	47.5	105.6	306.1	490.2	382.0	344.4	30.3	63.3
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: P323377

CATALOG NUMBER: GLEON-SA3D-830-U-SL2-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3940.1	3940.1	3940.1	3940.1	3940.1	3940.1	3940.1	3940.1	3940.1	3940.1	3940.1
2.5°	3930.2	3923.6	3888.0	3836.5	3787.7	3727.0	3669.0	3634.0	3606.3	3587.8	3609.6
5°	3940.8	3911.8	3803.6	3665.0	3529.1	3376.0	3233.5	3112.8	3065.3	3012.5	3036.2
7.5°	3937.5	3882.7	3688.1	3441.3	3192.0	2934.0	2689.9	2501.8	2404.2	2308.5	2332.9
10°	3921.0	3828.6	3533.7	3168.2	2794.8	2424.0	2077.6	1814.4	1667.2	1534.0	1553.1
12.5°	3884.7	3756.1	3351.6	2855.5	2356.0	1867.1	1461.4	1124.2	943.5	863.6	873.5
15°	3862.9	3685.5	3159.0	2538.8	1887.6	1300.4	893.3	664.4	581.9	555.5	558.8
17.5°	3852.4	3617.5	2959.7	2176.6	1408.6	828.0	577.3	509.3	491.5	486.9	488.2
20°	3841.8	3548.9	2754.5	1818.3	970.5	556.8	474.4	454.6	448.0	442.0	443.4
22.5°	3824.0	3482.9	2534.2	1455.4	654.5	451.9	427.5	408.4	394.5	387.3	388.6
25°	3802.2	3413.6	2309.2	1084.0	477.7	403.1	380.0	353.0	336.5	323.3	323.9
27.5°	3767.3	3328.5	2076.9	789.1	401.1	360.9	329.9	300.2	272.5	257.3	257.3
30°	3718.4	3232.2	1819.0	564.8	359.6	319.3	281.7	244.8	215.1	201.2	199.9
32.5°	3664.3	3131.9	1558.4	428.2	326.6	280.4	237.5	198.6	172.2	161.0	160.3
35°	3618.2	3023.7	1298.4	358.9	293.6	242.8	196.0	163.0	141.8	132.6	132.0
37.5°	3588.5	2915.5	1045.1	320.6	263.9	207.8	164.3	134.6	119.4	112.2	111.5
40°	3583.9	2835.0	813.5	291.6	236.2	176.8	137.2	114.1	100.3	92.4	91.7
42.5°	3643.9	2788.8	624.1	267.2	207.8	149.8	116.8	97.6	83.1	75.2	74.6
45°	3801.6	2803.3	480.3	245.4	179.5	126.7	99.0	81.2	68.0	62.0	60.7
47.5°	4089.2	2903.6	382.0	223.7	152.4	107.5	84.5	67.3	56.1	50.1	49.5
50°	4601.2	3139.2	319.3	199.9	127.3	91.7	69.9	54.8	45.5	40.2	39.6
52.5°	5280.8	3558.8	285.0	176.8	105.6	77.9	57.4	43.5	35.6	31.7	31.0
55°	6030.3	4066.8	262.6	151.7	86.4	64.7	45.5	34.3	27.7	24.4	23.1
57.5°	6761.9	4506.9	241.5	127.3	71.9	52.8	36.3	27.1	21.8	18.5	17.8
60°	7434.2	4911.3	217.1	102.3	58.7	41.6	28.4	21.1	17.2	13.9	13.9
62.5°	8154.1	5224.0	183.4	79.8	48.2	31.7	23.1	19.1	13.9	11.9	11.2
65°	8916.7	5456.3	143.8	62.0	37.6	23.8	19.1	19.8	11.2	8.6	7.9
67.5°	9480.2	5410.1	106.2	48.8	29.0	18.5	18.5	21.1	9.9	6.6	5.9
69°	9356.1	5034.7	89.1	42.2	25.1	15.8	17.2	21.1	9.2	5.9	5.3
70°	8996.6	4619.0	78.5	37.6	22.4	14.5	16.5	20.5	8.6	5.9	5.3
72.5°	7492.3	3478.9	61.4	28.4	17.8	11.9	13.9	17.8	8.6	5.9	4.6
75°	5635.7	2226.7	46.8	20.5	13.2	9.2	10.6	13.2	8.6	5.3	4.6
77.5°	3066.6	802.9	33.6	13.9	9.2	7.3	7.3	9.9	7.9	4.0	2.6
80°	788.4	201.9	21.1	9.2	7.3	5.3	4.6	6.6	4.6	0.7	0.0
82.5°	194.6	45.5	11.2	6.6	5.3	2.0	2.0	3.3	2.0	0.0	0.0
85°	106.9	22.4	7.3	4.6	2.6	0.0	0.0	0.7	0.0	0.0	0.0
87.5°	54.8	6.6	2.0	1.3	0.7	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



CCT = 3050K  
 CIE x = 0.4383  
 CIE y = 0.4131  
 Duv = 0.0034

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**



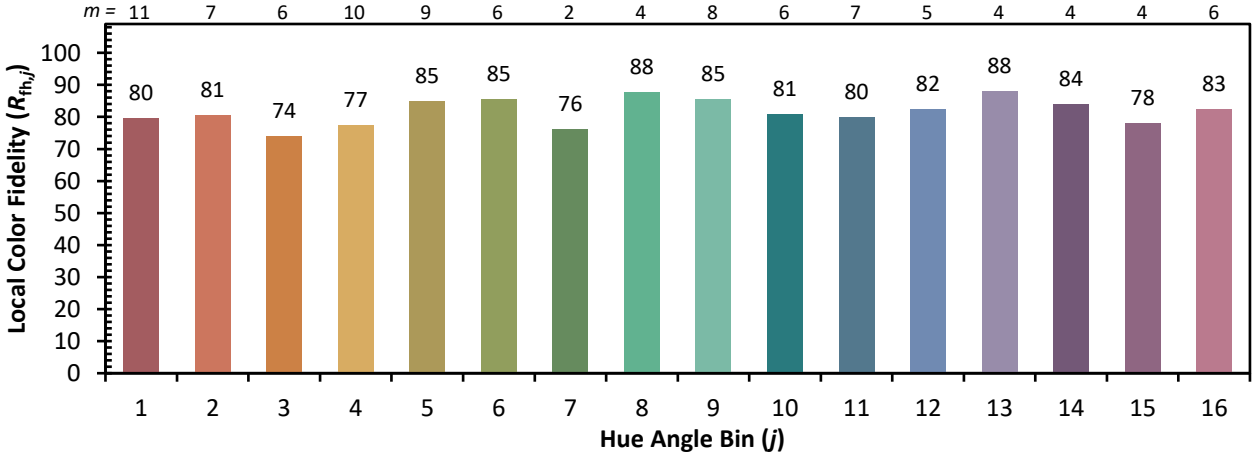


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)