

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: P322101

Luminaire Tested: **GLEON-SA7D-830-U-T2-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P322101  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA7D-830-U-T2-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(7) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31025 lumens  
Efficiency: N/A  
Efficacy: 69.3 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G4

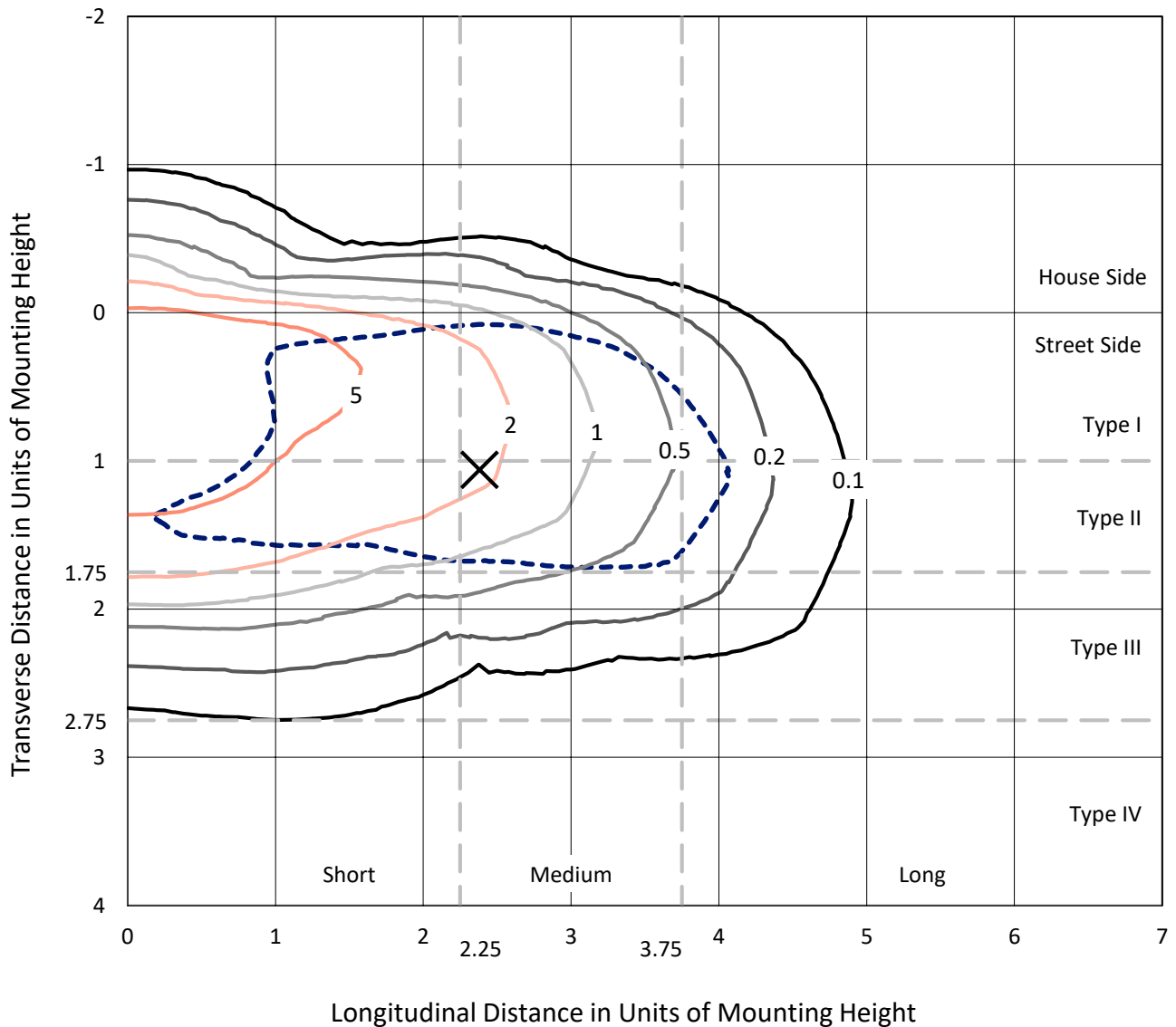
Input Watts (W): 448  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

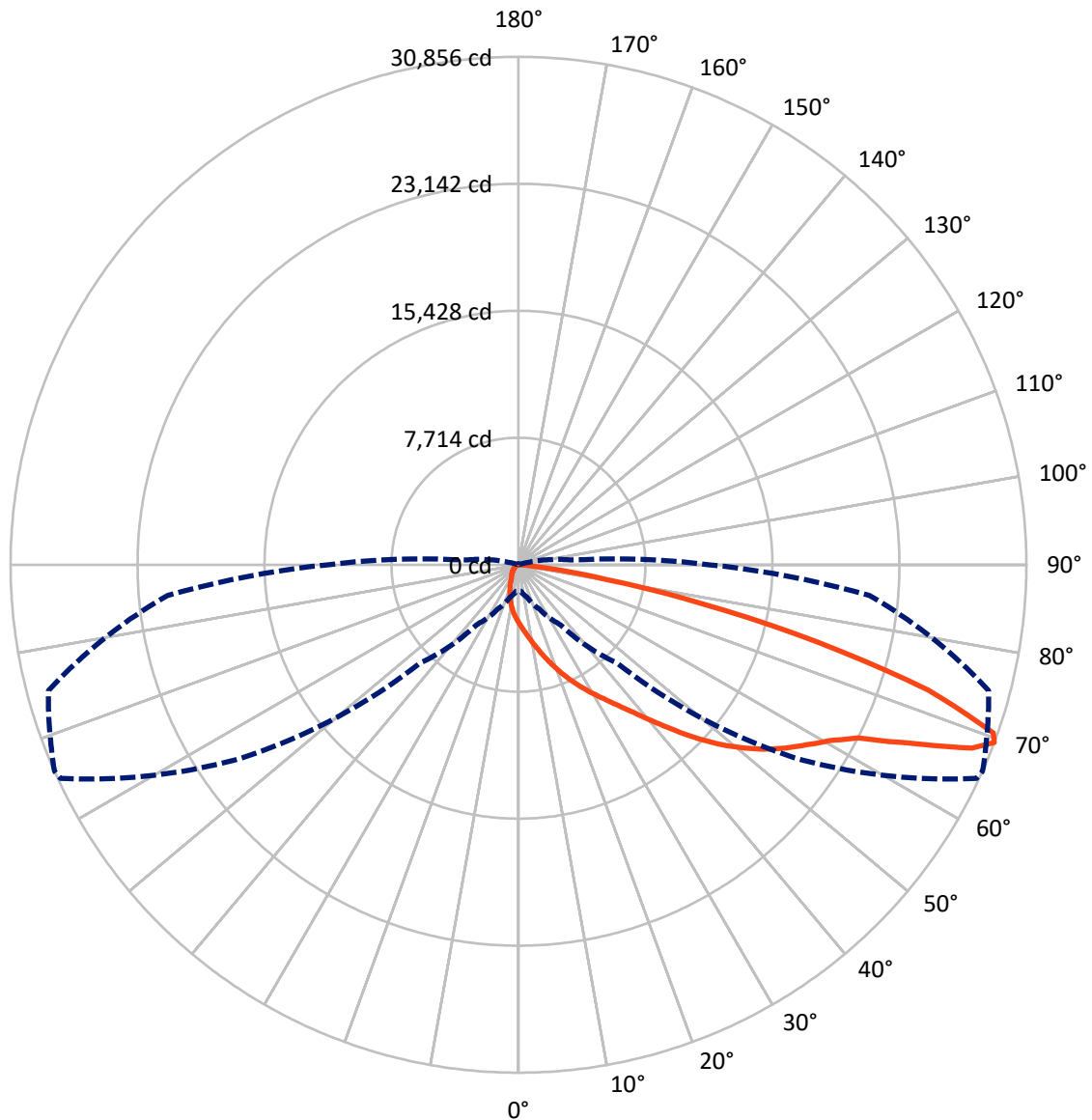
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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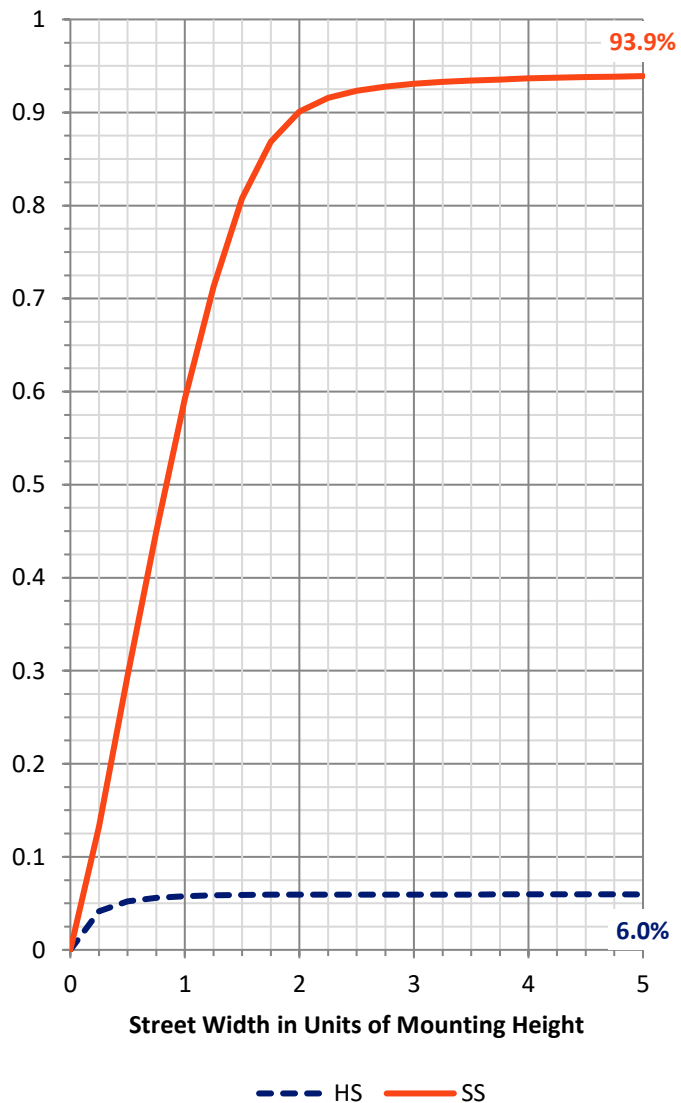
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1861.1	0.0	1861.1
	% Fixture	6.0	0.0	6.0
<b>Street Side</b>	Lumens	29163.9	0.0	29163.9
	% Fixture	94.0	0.0	94.0
<b>Total</b>	Lumens	31025.0	0.0	31025.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	341.3	1.1
10°-20°	1015.8	3.3
20°-30°	1768.8	5.7
30°-40°	3103.3	10.0
40°-50°	5194.5	16.7
50°-60°	7635.5	24.6
60°-70°	7839.7	25.3
70°-80°	3870.2	12.5
80°-90°	255.9	0.8
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°	31025.0	100.0
0°-180°	31025.0	100.0

**Coefficient of Utilization**

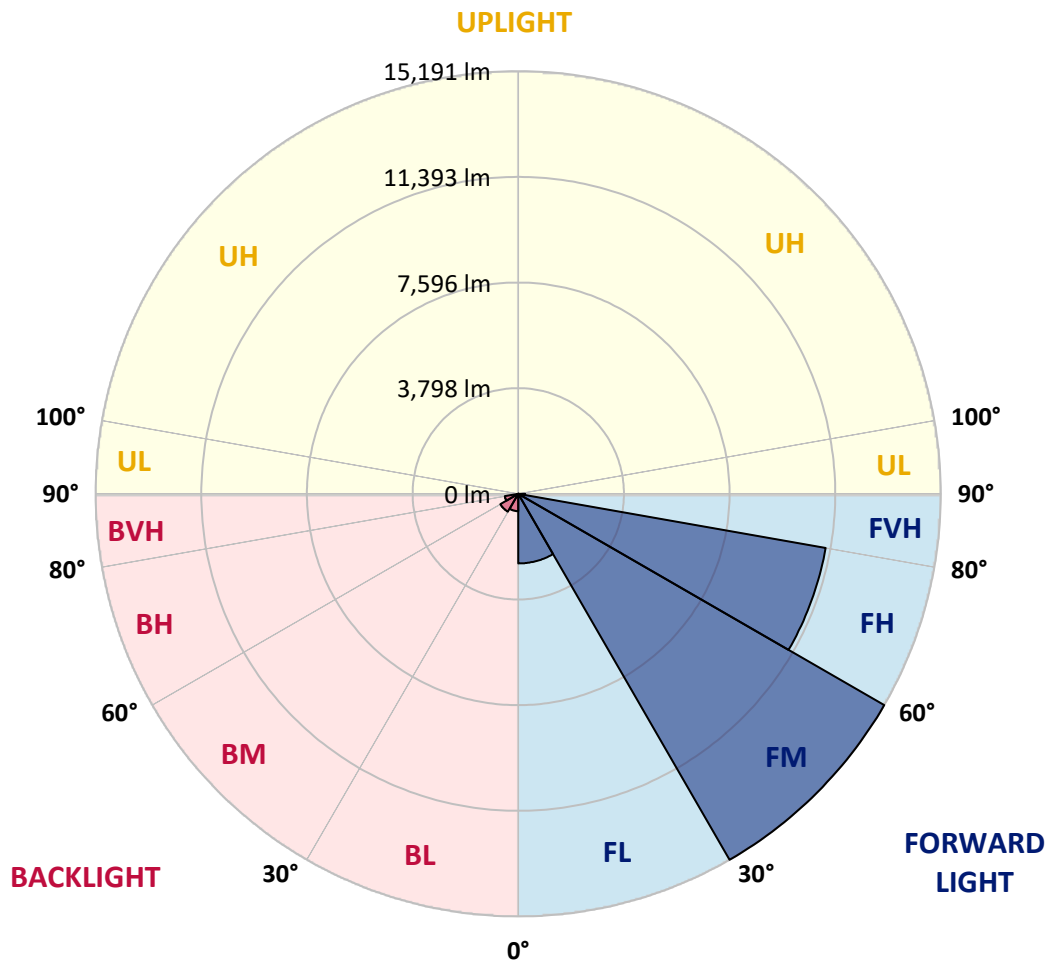


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2503.4	8.1			
FM (30°-60°)	15191.3	49.0			
FH (60°-80°)	11219.5	36.2			G4/12000
FVH (80°-90°)	249.7	0.8			G3/500
BL (0°-30°)	622.4	2.0	B2/1000		
BM (30°-60°)	742.0	2.4	B1/1000		
BH (60°-80°)	490.5	1.6	B1/500		G1/500
BVH (80°-90°)	6.2	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-G4**  
 Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	3530.7	3530.7	3530.7	3530.7	3530.7	3530.7	3530.7	3530.7	3530.7	3530.7	3530.7
2.5°	4155.6	4137.9	4130.5	4098.1	4042.1	3999.3	3916.8	3821.0	3803.4	3710.5	3597.1
5°	4694.9	4680.2	4669.8	4624.2	4566.7	4459.1	4308.8	4130.5	4096.6	3919.8	3692.8
7.5°	5070.7	5097.2	5097.2	5067.7	4995.5	4914.5	4730.3	4487.1	4444.4	4173.2	3821.0
10°	5290.2	5322.6	5347.7	5372.7	5362.4	5330.0	5156.1	4882.0	4830.5	4470.9	3969.9
12.5°	5310.9	5343.3	5414.0	5518.6	5620.3	5694.0	5584.9	5319.7	5260.8	4815.7	4146.7
15°	5195.9	5229.8	5338.9	5542.2	5788.3	6003.4	6038.8	5804.5	5744.1	5226.9	4367.7
17.5°	4995.5	5017.6	5173.8	5455.3	5841.3	6236.3	6449.9	6324.7	6268.7	5696.9	4613.8
20°	4846.7	4862.9	4999.9	5302.0	5808.9	6382.2	6839.0	6877.3	6818.3	6200.9	4880.6
22.5°	5101.6	5131.1	5135.5	5278.4	5720.5	6454.4	7180.9	7421.0	7376.8	6735.8	5142.9
25°	5798.6	5832.5	5720.5	5632.1	5795.7	6486.8	7474.1	7978.1	7942.7	7312.0	5406.6
27.5°	6719.6	6755.0	6610.6	6346.8	6189.1	6609.1	7734.9	8543.9	8542.5	7922.1	5691.0
30°	7624.4	7659.8	7512.4	7248.6	6886.1	6955.4	7960.4	9136.3	9145.2	8551.3	5993.1
32.5°	8573.4	8617.6	8465.8	8126.9	7748.2	7553.7	8277.2	9731.7	9781.8	9280.7	6333.5
35°	9652.1	9658.0	9444.3	9089.2	8653.0	8353.8	8785.6	10399.2	10518.6	10184.0	6765.3
37.5°	10710.1	10752.9	10577.5	10017.5	9616.7	9277.8	9541.6	11233.2	11402.7	11287.8	7329.7
40°	11494.1	11584.0	11558.9	10954.7	10574.6	10332.9	10480.2	12225.0	12440.1	12572.8	8041.4
42.5°	11986.3	12054.0	12169.0	11805.0	11460.2	11500.0	11588.4	13380.3	13645.5	14037.5	8859.3
45°	12550.6	12583.1	12678.9	12518.2	12285.4	12686.2	12764.3	14681.5	14960.0	15612.8	9767.0
47.5°	13240.3	13316.9	13343.4	13196.1	13090.0	13735.4	13897.5	15864.8	16255.3	17300.1	10727.8
50°	14118.6	14139.2	14184.9	14089.1	13983.0	14637.3	14914.3	17107.0	17462.2	18993.2	11675.3
52.5°	14977.7	15051.3	15210.5	15150.1	15107.3	15405.0	15820.6	18227.0	18623.4	20404.9	12621.4
55°	15225.2	15288.6	15838.2	16214.0	16561.8	16351.1	16687.0	19230.5	19659.3	21666.3	13532.1
57.5°	14236.4	14364.6	15316.6	16295.1	17737.7	17821.7	17877.7	20260.5	20645.1	22633.0	14479.6
60°	11737.2	11762.3	13324.3	15002.7	17543.2	19105.2	19616.6	21367.2	21689.9	23533.4	15614.3
62.5°	7465.3	7720.2	9434.0	11803.5	15486.1	18919.5	21719.4	23041.2	23159.1	24613.5	17241.1
65°	3555.8	3720.8	4955.7	7292.8	11217.0	16542.6	23170.9	26069.5	26122.5	26754.7	19414.7
67.5°	1968.7	2048.3	2636.3	3925.7	6557.5	11698.9	22584.4	29656.2	29706.3	28941.5	21321.5
69°	1539.9	1607.7	2070.4	2959.0	4445.8	8408.4	20437.4	30706.9	30855.7	29567.8	21389.3
70°	1307.1	1373.4	1783.1	2499.2	3575.0	6497.1	18191.6	30446.0	30603.7	29508.8	20883.9
72.5°	800.2	838.5	1187.7	1759.5	2396.1	3268.4	11218.5	25748.2	26014.9	27068.6	17948.4
75°	539.3	560.0	742.7	1214.2	1713.8	1682.9	5828.1	18148.9	18726.5	21056.3	13256.5
77.5°	386.1	405.2	498.1	785.4	1201.0	1111.1	2639.2	11278.9	11402.7	12628.7	7229.5
80°	219.6	237.2	352.2	467.1	814.9	741.2	1049.2	5387.5	5449.4	5415.5	2413.8
82.5°	114.9	129.7	193.0	308.0	523.1	484.8	436.2	1803.7	1812.5	1507.5	529.0
85°	22.1	26.5	95.8	210.7	269.7	210.7	178.3	422.9	431.8	381.7	131.2
87.5°	0.0	1.5	38.3	47.2	53.0	54.5	57.5	82.5	88.4	119.4	35.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: GLEON-SA7D-830-U-T2-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3530.7	3530.7	3530.7	3530.7	3530.7	3530.7	3530.7	3530.7	3530.7	3530.7	3530.7
2.5°	3547.0	3493.9	3392.2	3274.3	3183.0	3093.1	3022.4	2948.7	2922.1	2908.9	2907.4
5°	3582.3	3470.3	3255.2	3034.1	2852.9	2682.0	2559.6	2443.2	2388.7	2363.7	2353.3
7.5°	3641.3	3461.5	3115.2	2777.7	2516.9	2303.2	2133.8	2007.0	1943.7	1917.2	1906.8
10°	3710.5	3449.7	2951.6	2506.6	2173.6	1952.5	1784.5	1659.3	1590.0	1560.5	1545.8
12.5°	3791.6	3429.1	2763.0	2232.5	1880.3	1659.3	1455.9	1301.2	1221.6	1187.7	1171.5
15°	3891.8	3408.4	2565.5	1974.6	1622.4	1352.8	1130.3	1025.6	1009.4	1003.5	1005.0
17.5°	3990.5	3376.0	2350.4	1719.7	1351.3	1056.6	943.1	937.2	940.2	940.2	940.2
20°	4078.9	3302.3	2116.1	1501.6	1093.4	891.5	868.0	857.6	850.3	844.4	837.0
22.5°	4148.2	3203.6	1890.6	1285.0	893.0	816.4	779.5	747.1	720.6	702.9	694.1
25°	4195.3	3072.5	1684.3	1077.2	803.1	742.7	676.4	621.9	580.6	555.5	545.2
27.5°	4230.7	2931.0	1500.1	901.8	741.2	657.2	570.3	505.4	462.7	440.6	431.8
30°	4255.8	2770.4	1338.0	792.8	672.0	567.3	474.5	411.1	380.2	368.4	362.5
32.5°	4279.3	2592.1	1184.8	741.2	607.1	484.8	397.9	349.2	330.1	315.4	310.9
35°	4338.3	2427.0	1038.9	686.7	540.8	414.1	341.9	306.5	287.4	278.5	275.6
37.5°	4478.3	2304.7	898.9	630.7	474.5	358.1	299.1	274.1	256.4	247.6	244.6
40°	4703.7	2242.8	781.0	570.3	409.7	315.4	271.1	247.6	228.4	215.1	212.2
42.5°	5035.3	2251.7	698.5	509.9	358.1	281.5	244.6	216.6	196.0	184.2	181.3
45°	5437.6	2316.5	641.0	450.9	315.4	254.9	215.1	185.7	166.5	156.2	153.3
47.5°	5873.8	2421.1	593.9	397.9	281.5	229.9	185.7	154.7	138.5	129.7	128.2
50°	6333.5	2522.8	545.2	346.3	252.0	204.8	156.2	128.2	114.9	107.6	104.6
52.5°	6799.2	2640.7	501.0	299.1	226.9	175.4	129.7	104.6	94.3	88.4	85.5
55°	7300.2	2729.1	458.3	262.3	201.9	148.8	107.6	86.9	78.1	70.7	69.3
57.5°	7889.7	2866.2	414.1	226.9	172.4	123.8	88.4	69.3	61.9	54.5	53.0
60°	8685.4	3026.8	366.9	200.4	141.5	101.7	72.2	56.0	47.2	41.3	39.8
62.5°	9734.6	3205.1	308.0	175.4	114.9	82.5	57.5	44.2	33.9	26.5	26.5
65°	11065.3	3495.4	252.0	147.4	94.3	67.8	44.2	32.4	19.2	11.8	11.8
67.5°	11841.8	3545.5	203.4	120.8	76.6	57.5	36.8	22.1	5.9	1.5	0.0
69°	11592.8	3255.2	172.4	103.2	66.3	54.5	33.9	16.2	2.9	0.0	0.0
70°	11124.2	2976.7	151.8	91.4	60.4	51.6	32.4	11.8	2.9	0.0	0.0
72.5°	9192.3	2119.0	114.9	67.8	44.2	45.7	29.5	7.4	2.9	0.0	0.0
75°	6696.0	1287.9	82.5	47.2	28.0	33.9	20.6	2.9	1.5	0.0	0.0
77.5°	3725.3	607.1	51.6	26.5	17.7	20.6	10.3	0.0	0.0	0.0	0.0
80°	1209.8	165.0	23.6	14.7	10.3	11.8	4.4	0.0	0.0	0.0	0.0
82.5°	224.0	47.2	13.3	7.4	2.9	2.9	0.0	0.0	0.0	0.0	0.0
85°	48.6	19.2	7.4	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	16.2	5.9	1.5	0.0	0.0	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)