

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: P320148

Luminaire Tested: **GLEON-SA4A-830-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P320148
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-24)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA4A-830-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14195 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

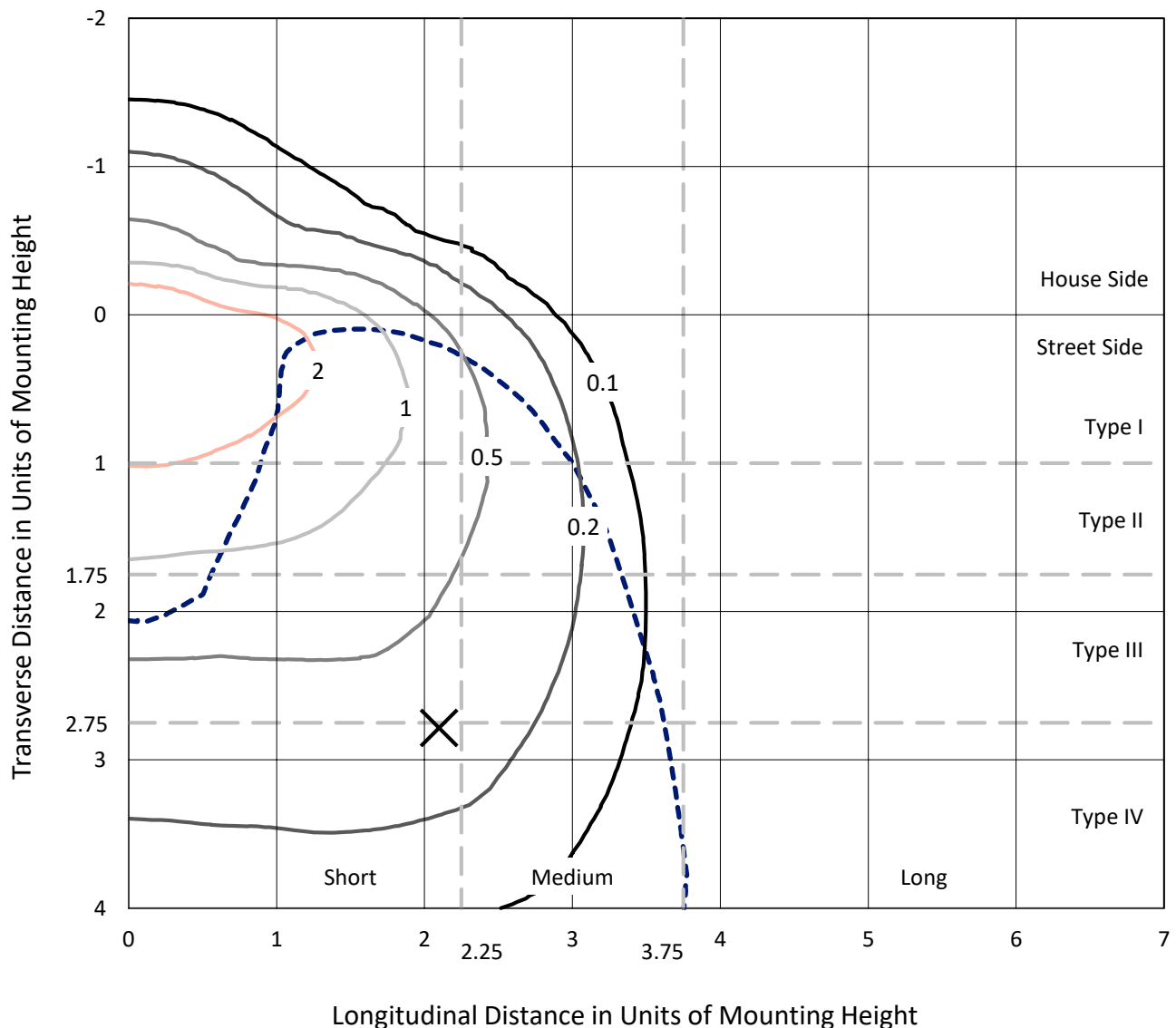
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P320148
 CATALOG NUMBER: GLEON-SA4A-830-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

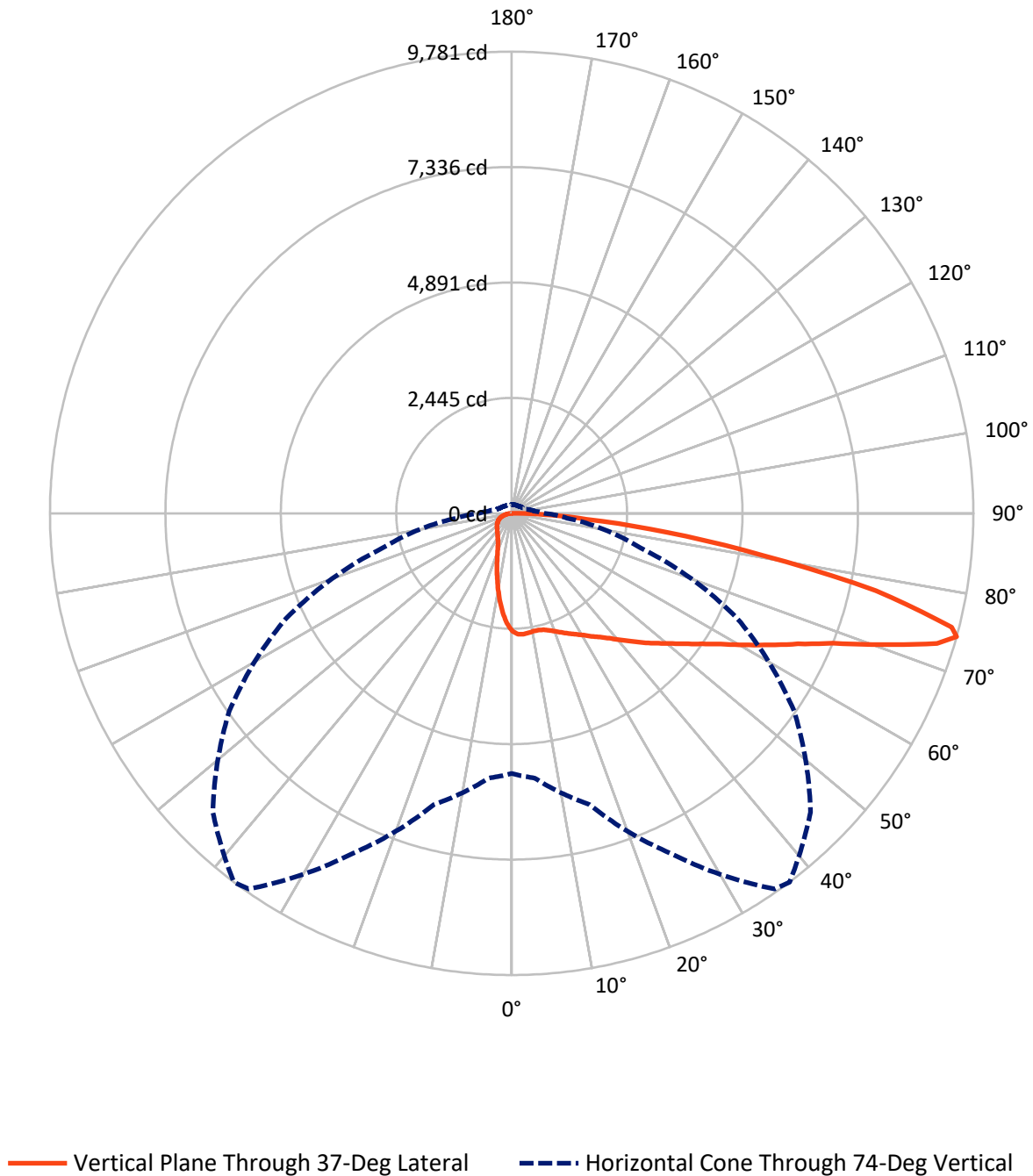
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
 Type IV - Short - N/A

REPORT NUMBER: P320148
CATALOG NUMBER: GLEON-SA4A-830-U-SL4

Luminous Intensity Polar Plot



REPORT NUMBER: P320148

CATALOG NUMBER: GLEON-SA4A-830-U-SL4

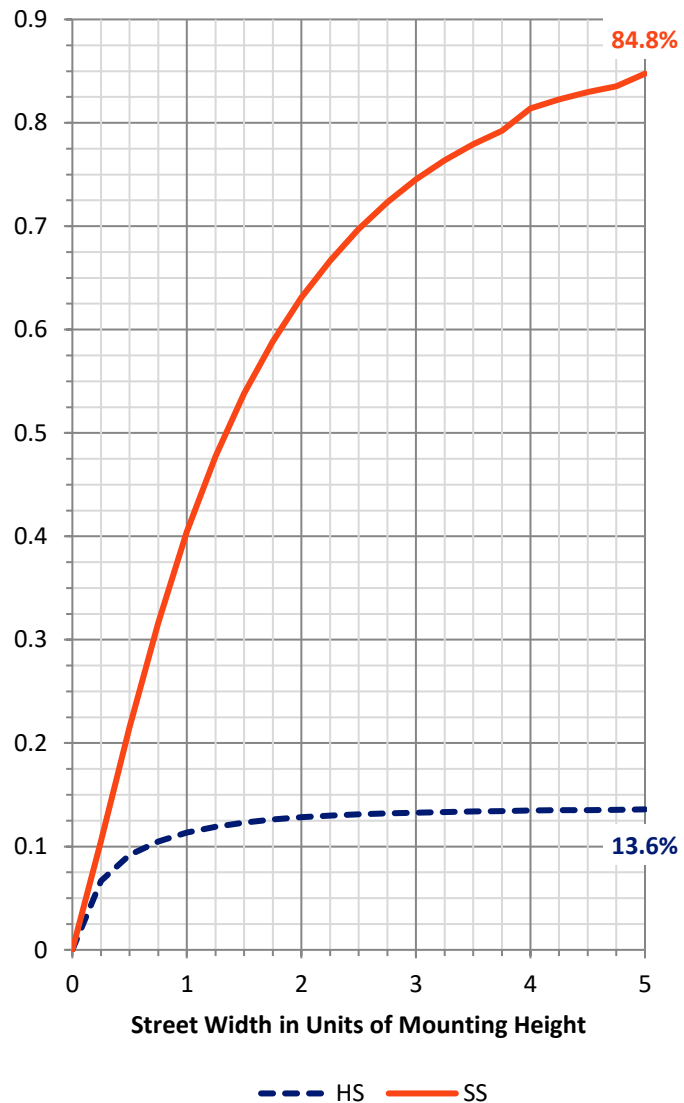
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1953.1	0.0	1953.1
	% Fixture	13.8	0.0	13.8
Street Side	Lumens	12241.9	0.0	12241.9
	% Fixture	86.2	0.0	86.2
Total	Lumens	14195.0	0.0	14195.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.3	1.6
10°-20°	564.6	4.0
20°-30°	869.9	6.1
30°-40°	1264.9	8.9
40°-50°	1861.8	13.1
50°-60°	2614.5	18.4
60°-70°	3309.2	23.3
70°-80°	2913.8	20.5
80°-90°	576.1	4.1
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°	14195.0	100.0
0°-180°	14195.0	100.0

Coefficient of Utilization



REPORT NUMBER: P320148

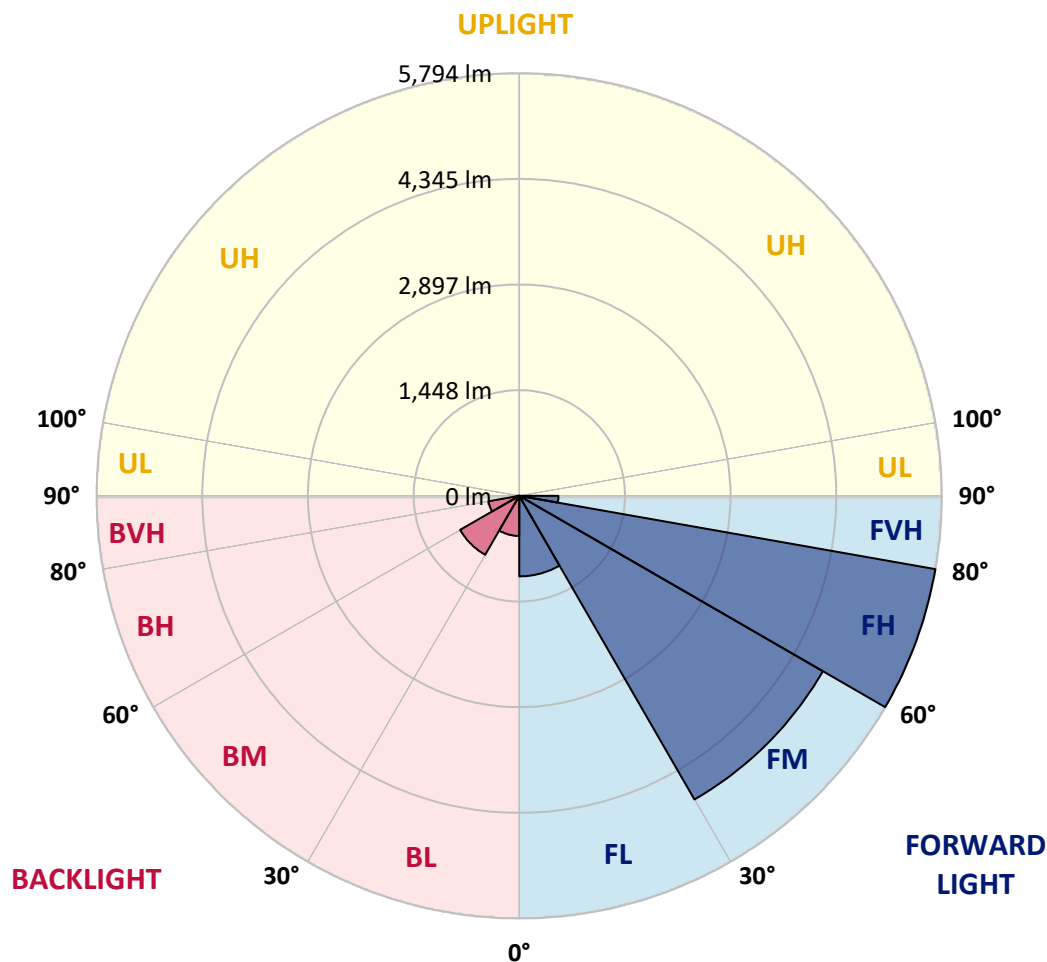
CATALOG NUMBER: GLEON-SA4A-830-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1104.5	7.8			
FM	(30°-60°)	4806.5	33.9			
FH	(60°-80°)	5793.7	40.8			G3/7500
FVH	(80°-90°)	537.1	3.8			G4/750
BL	(0°-30°)	550.1	3.9	B2/1000		
BM	(30°-60°)	934.6	6.6	B1/1000		
BH	(60°-80°)	429.3	3.0	B1/500		G1/500
BVH	(80°-90°)	39.0	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short





REPORT NUMBER: P320148

CATALOG NUMBER: GLEON-SA4A-830-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	2501.1	2501.1	2501.1	2501.1	2501.1	2501.1	2501.1	2501.1	2501.1	2501.1	2501.1
2.5°	2586.6	2587.1	2586.6	2582.6	2573.1	2565.1	2558.6	2549.1	2528.1	2512.1	2488.1
5°	2611.1	2608.1	2606.1	2598.6	2583.6	2574.6	2562.1	2544.1	2509.6	2477.6	2438.6
7.5°	2599.6	2596.1	2591.6	2582.6	2565.6	2558.1	2540.6	2517.1	2475.6	2433.6	2377.6
10°	2564.1	2563.1	2561.1	2559.1	2544.6	2538.6	2522.6	2497.6	2456.6	2405.6	2340.1
12.5°	2524.6	2527.1	2535.1	2545.6	2539.1	2536.1	2526.1	2509.1	2467.1	2412.1	2333.1
15°	2499.6	2506.6	2528.1	2555.6	2561.1	2560.1	2557.6	2546.6	2502.1	2441.1	2349.1
17.5°	2491.1	2502.6	2543.6	2589.1	2605.1	2608.6	2609.6	2590.6	2541.1	2476.6	2365.6
20°	2506.6	2521.1	2581.1	2643.6	2669.1	2671.1	2666.6	2633.6	2578.1	2507.1	2374.6
22.5°	2553.6	2566.6	2641.6	2712.1	2741.1	2744.1	2730.6	2680.6	2617.1	2543.1	2387.1
25°	2644.1	2660.1	2735.1	2805.6	2820.6	2821.1	2801.6	2739.6	2668.1	2593.6	2414.1
27.5°	2762.1	2778.1	2845.6	2914.6	2906.6	2902.1	2875.6	2813.6	2734.6	2663.1	2462.1
30°	2893.6	2911.1	2975.1	3024.1	3005.1	2996.1	2974.6	2894.6	2827.1	2758.1	2535.6
32.5°	3029.6	3045.6	3101.6	3135.1	3111.1	3107.1	3074.6	3001.6	2947.6	2903.1	2654.6
35°	3169.1	3180.6	3235.6	3254.6	3222.6	3221.6	3212.6	3145.6	3111.6	3132.6	2827.6
37.5°	3311.6	3314.6	3361.6	3362.6	3353.1	3357.1	3366.6	3324.6	3334.1	3399.6	3052.6
40°	3438.6	3446.6	3480.6	3491.1	3507.6	3521.6	3569.1	3541.6	3615.2	3731.2	3332.6
42.5°	3532.6	3548.1	3602.6	3629.7	3683.2	3705.2	3772.2	3797.7	3945.7	4119.7	3665.7
45°	3612.2	3636.2	3723.7	3779.2	3869.7	3908.2	4004.2	4089.7	4319.2	4541.2	4016.2
47.5°	3698.2	3728.7	3838.2	3944.2	4067.2	4110.7	4285.2	4413.2	4717.7	4965.2	4346.7
50°	3824.7	3848.2	3955.2	4121.7	4275.2	4331.2	4572.7	4756.2	5122.7	5369.2	4633.2
52.5°	4001.2	3992.2	4082.7	4316.2	4522.2	4591.2	4879.7	5121.2	5533.2	5734.7	4875.2
55°	4178.7	4163.7	4227.2	4519.7	4810.2	4882.7	5217.7	5487.7	5923.7	6063.8	5060.7
57.5°	4376.2	4347.7	4401.2	4749.2	5138.2	5224.7	5596.2	5877.2	6307.8	6329.8	5178.7
60°	4579.7	4541.2	4601.2	5033.7	5554.7	5656.7	6039.3	6257.3	6669.8	6542.8	5216.7
62.5°	4757.7	4730.7	4823.2	5351.2	6024.3	6136.3	6474.3	6661.3	7026.8	6631.3	5079.7
65°	4913.2	4917.7	5077.7	5708.2	6547.8	6667.3	6973.3	7159.3	7307.8	6578.8	4759.2
67.5°	5098.7	5124.2	5397.2	6178.3	7206.8	7337.8	7699.3	7702.3	7464.8	6270.8	4128.2
70°	5369.2	5421.7	5836.7	6830.3	8143.8	8323.8	8602.9	8021.3	7244.3	5435.7	3248.1
72.5°	5609.2	5707.2	6304.3	7576.3	9285.9	9422.4	9131.4	7837.3	6322.8	4073.7	2023.6
74°	5511.7	5633.2	6389.3	7943.8	9715.9	9781.4	8952.9	7300.3	5271.7	2821.1	1176.0
75°	5301.7	5433.7	6265.3	7940.3	9661.4	9624.9	8521.9	6686.8	4341.7	1924.1	782.5
77.5°	4278.7	4418.2	5279.2	6805.3	7921.8	7887.3	6546.3	4485.7	1901.6	631.0	397.5
80°	2487.6	2594.1	3277.1	4321.7	5341.7	5404.2	4305.2	2219.6	748.0	354.5	269.5
82.5°	1105.0	1178.5	1583.1	2206.1	3223.6	3304.1	2254.6	1163.0	462.0	215.5	162.0
85°	725.0	779.5	961.0	1050.5	1535.1	1590.1	1103.5	905.5	305.0	118.5	119.0
87.5°	521.5	574.0	714.0	623.5	704.5	667.0	600.5	838.0	122.5	67.5	40.0
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: P320148

CATALOG NUMBER: GLEON-SA4A-830-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2501.1	2501.1	2501.1	2501.1	2501.1	2501.1	2501.1	2501.1	2501.1	2501.1	2501.1
2.5°	2477.6	2469.6	2451.6	2417.6	2398.6	2382.6	2356.1	2340.6	2333.6	2333.1	2336.1
5°	2416.1	2397.6	2351.1	2294.1	2248.6	2207.1	2155.6	2124.6	2102.6	2089.6	2093.1
7.5°	2344.6	2315.6	2242.6	2151.6	2078.6	1998.1	1918.6	1871.1	1834.1	1806.6	1811.6
10°	2295.6	2255.6	2149.1	2018.1	1896.6	1779.6	1670.1	1604.6	1552.6	1512.6	1515.6
12.5°	2279.1	2225.1	2077.6	1902.6	1732.1	1572.1	1429.1	1328.6	1275.1	1229.6	1233.1
15°	2281.6	2209.1	2017.6	1798.6	1584.1	1382.6	1209.1	1091.5	1019.0	987.5	988.0
17.5°	2283.6	2190.6	1954.6	1687.1	1437.6	1205.6	1017.0	898.0	829.5	800.5	801.0
20°	2277.1	2160.6	1876.6	1559.1	1284.6	1043.0	860.5	759.5	707.5	685.0	685.0
22.5°	2268.6	2125.1	1788.6	1430.6	1133.5	902.0	748.5	671.5	641.5	626.5	626.0
25°	2272.6	2098.6	1698.6	1298.6	994.5	789.5	674.0	623.0	603.0	593.5	593.0
27.5°	2294.1	2086.1	1615.6	1167.0	873.0	705.0	624.0	588.0	575.0	569.0	569.0
30°	2333.1	2086.1	1529.1	1055.0	772.0	642.5	585.5	561.0	552.0	548.0	548.0
32.5°	2401.1	2097.6	1445.6	944.0	691.5	593.5	553.5	537.0	530.0	528.0	528.0
35°	2518.1	2136.6	1364.1	839.0	626.5	553.5	523.0	513.5	508.5	508.0	509.5
37.5°	2682.6	2216.1	1287.6	761.5	580.5	521.0	497.5	490.0	487.0	489.5	491.5
40°	2889.6	2324.1	1218.1	691.5	545.5	495.0	474.0	469.0	467.5	471.0	474.0
42.5°	3139.6	2470.1	1161.0	641.0	518.5	473.0	454.0	448.0	446.5	450.5	454.5
45°	3410.1	2627.1	1121.0	603.5	497.5	456.5	436.5	430.0	427.0	429.0	433.5
47.5°	3656.2	2775.6	1105.0	577.0	477.5	442.5	421.0	413.0	408.0	407.0	410.5
50°	3863.7	2886.1	1112.5	561.0	461.5	427.0	406.0	397.0	389.5	385.0	387.5
52.5°	4014.7	2955.6	1119.5	554.0	449.0	410.0	389.5	381.0	371.0	363.5	363.5
55°	4124.2	2971.6	1104.0	548.5	439.5	391.5	371.0	363.0	353.0	344.5	343.5
57.5°	4167.2	2926.6	1046.5	540.5	433.0	374.0	351.5	345.5	337.0	327.0	326.5
60°	4109.2	2787.6	935.5	523.5	424.5	359.5	332.0	328.0	324.0	314.5	314.0
62.5°	3876.2	2482.6	792.0	489.0	407.5	344.0	314.0	316.0	316.5	310.0	309.0
65°	3453.6	2063.6	652.0	444.0	382.0	325.5	295.5	305.0	310.5	309.5	308.0
67.5°	2839.6	1606.1	552.5	396.5	348.5	300.0	275.5	286.5	291.0	294.5	293.5
70°	2107.6	1132.5	457.0	346.5	308.0	270.0	249.5	255.0	252.0	256.0	257.5
72.5°	1175.0	679.5	372.5	296.5	266.0	235.0	220.5	219.5	213.0	213.0	213.0
74°	705.0	498.5	327.5	265.5	240.5	212.0	199.5	195.0	189.0	189.5	189.0
75°	567.0	428.5	300.5	245.0	222.5	198.5	186.0	180.0	175.5	175.5	175.0
77.5°	358.0	325.5	242.0	195.0	178.0	163.5	155.0	147.0	147.0	146.5	146.0
80°	270.5	259.0	188.5	147.5	136.5	125.5	120.0	116.5	116.5	118.0	117.5
82.5°	185.5	195.0	132.5	103.0	97.5	89.5	88.5	89.0	87.5	85.5	85.0
85°	135.5	146.5	89.5	65.0	59.5	54.5	58.5	60.5	58.0	53.5	51.5
87.5°	52.0	96.0	48.0	27.0	25.0	21.5	25.0	26.0	28.0	22.0	22.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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
 R_f: 81.5
 R_g: 99.2

CRI (Ra): 81.0
 R1: 79.6
 R2: 85.6
 R3: 92.0
 R4: 82.6
 R5: 78.9
 R6: 81.7
 R7: 85.2
 R8: 62.0
 R9: 7.1
 R10: 67.0
 R11: 82.7
 R12: 63.2
 R13: 80.3
 R14: 95.0
 R15: 71.7



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

λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /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			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 2.32

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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			

REPORT NUMBER: SP1-2408-195-9

TM-30-18

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)