

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P638502

Luminaire Tested: GWS-SA4E-830-U-T3R-W-HSS

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P638502
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA4E-830-U-T3R-W-HSS
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND
TYPE III ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: (64) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19030.7 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

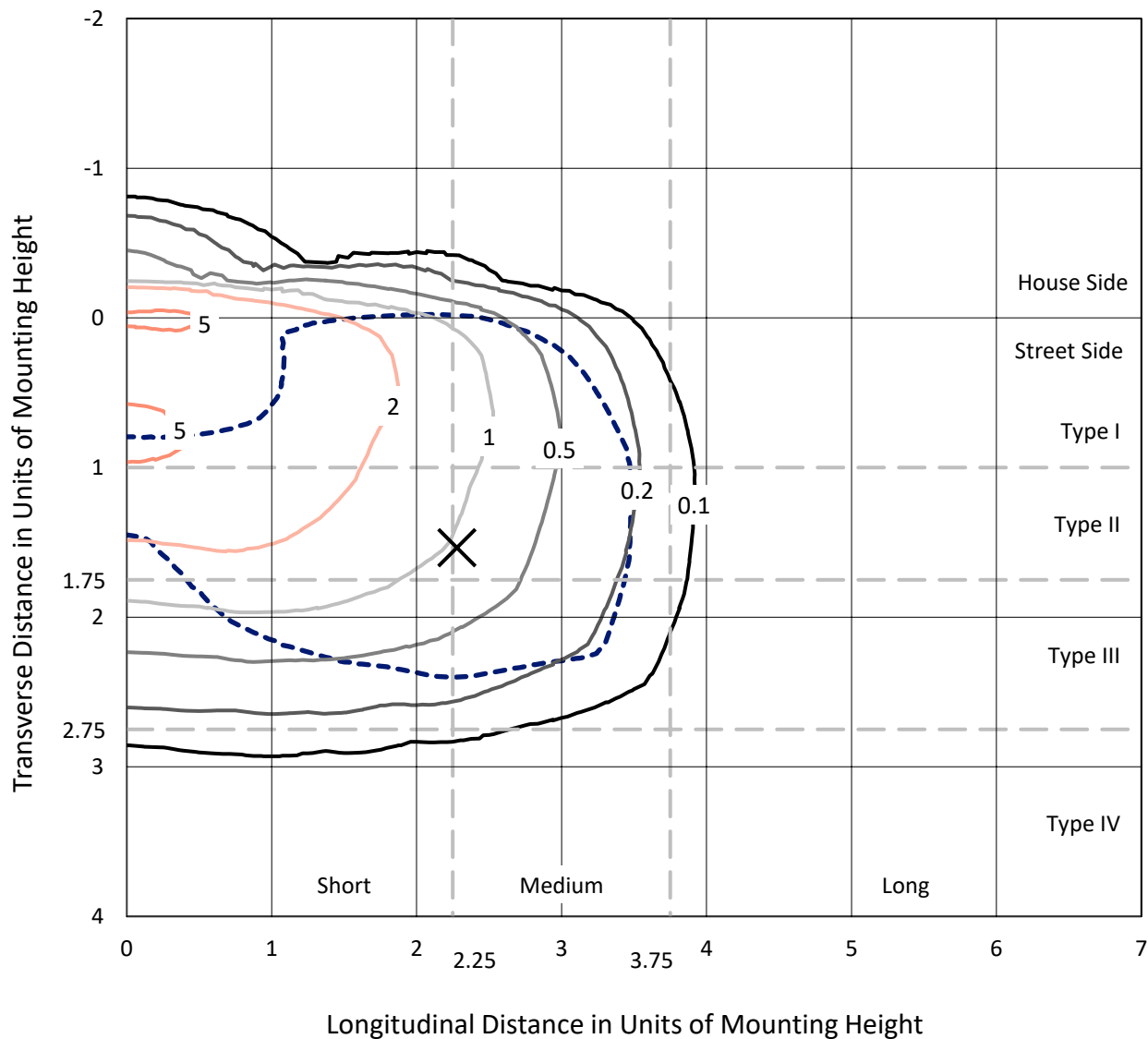
Input Watts (W): 202.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

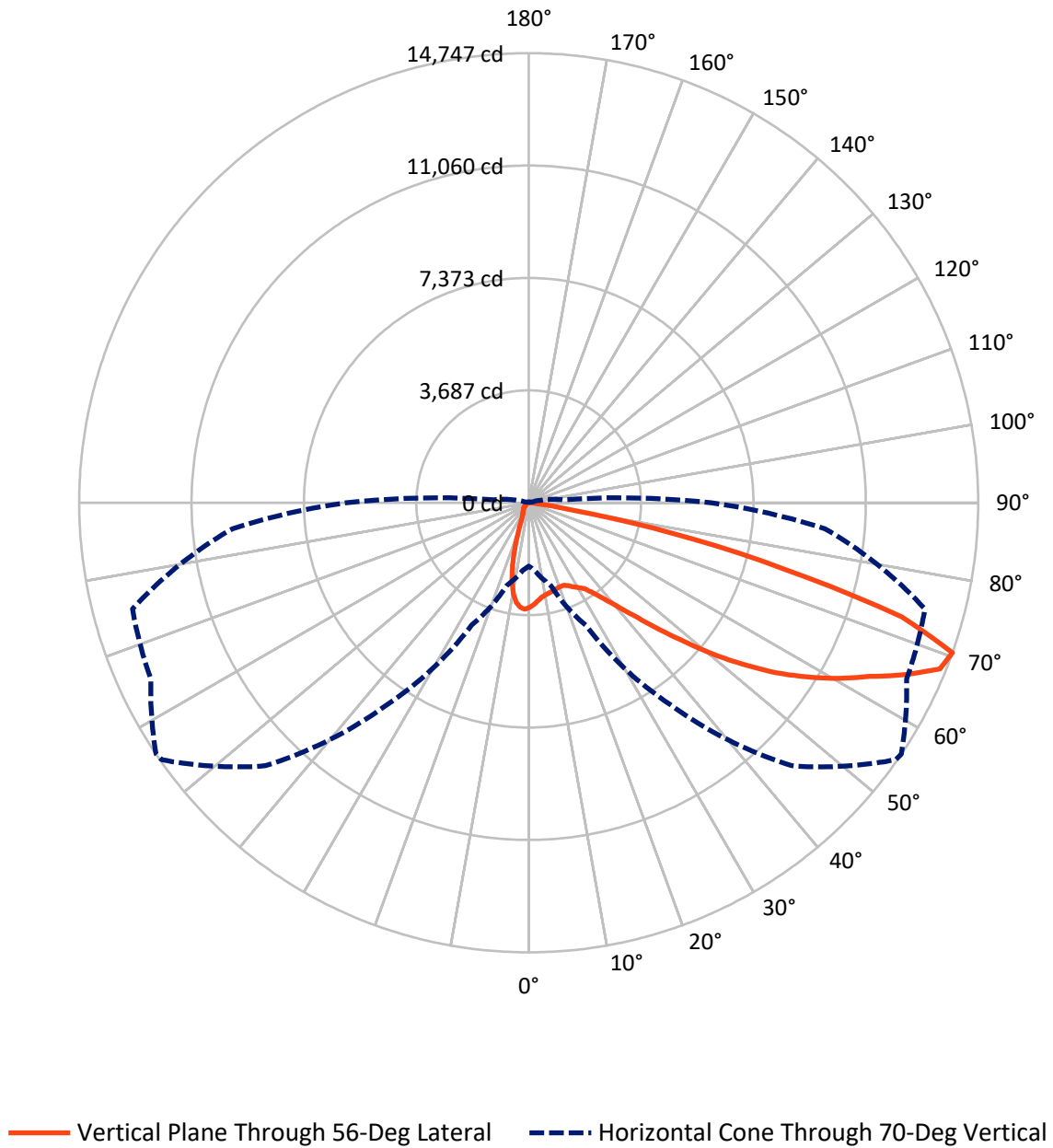
✕ Max cd
 --- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



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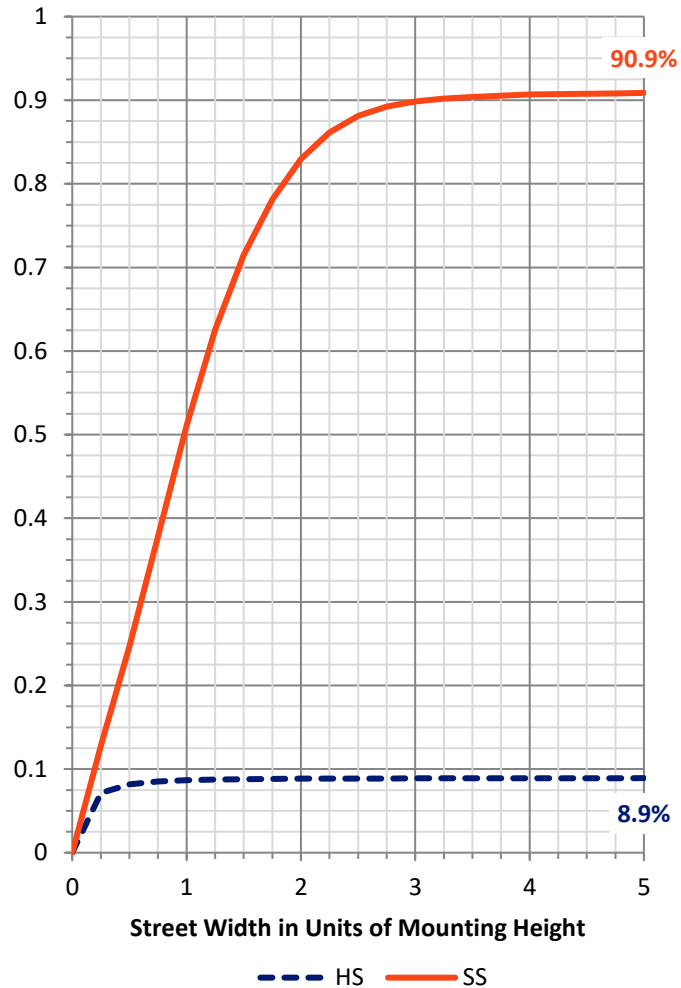
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1709.3	0.0	1709.3
	% Fixture	9.0	0.0	9.0
Street Side	Lumens	17321.4	0.0	17321.4
	% Fixture	91.0	0.0	91.0
Total	Lumens	19030.7	0.0	19030.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.6	1.5
10°-20°	662.6	3.5
20°-30°	1049.6	5.5
30°-40°	1810.0	9.5
40°-50°	3056.5	16.1
50°-60°	4491.1	23.6
60°-70°	5324.4	28.0
70°-80°	2270.5	11.9
80°-90°	71.3	0.4
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°	19030.7	100.0
0°-180°	19030.7	100.0

Coefficient of Utilization



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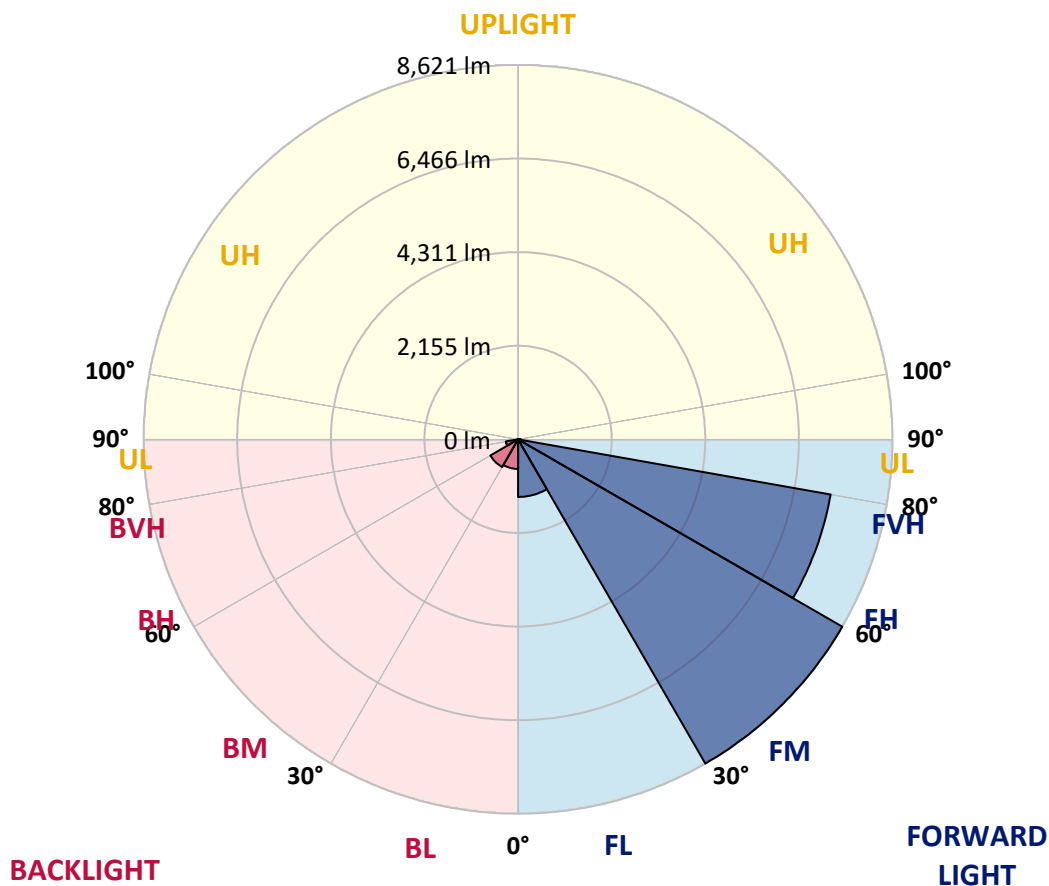
CATALOG NUMBER: GWS-SA4E-830-U-T3R-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1326.1	7.0			
FM	(30°-60°)	8621.4	45.3			
FH	(60°-80°)	7309.8	38.4			G3/7500
FVH	(80°-90°)	64.1	0.3			G1/100
BL	(0°-30°)	680.8	3.6	B2/1000		
BM	(30°-60°)	736.2	3.9	B1/1000		
BH	(60°-80°)	285.1	1.5	B1/500		G1/500
BVH	(80°-90°)	7.2	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-G3

Type III Medium



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CATALOG NUMBER: GWS-SA4E-830-U-T3R-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	3431.4	3431.4	3431.4	3431.4	3431.4	3431.4	3431.4	3431.4	3431.4	3431.4	3431.4
2.5°	3194.4	3189.2	3192.7	3218.8	3267.6	3290.3	3328.6	3335.6	3366.9	3407.0	3422.7
5°	2987.0	2969.6	2978.3	3014.9	3070.7	3133.4	3204.9	3224.0	3302.5	3391.3	3457.6
7.5°	2797.1	2777.9	2798.8	2856.3	2934.7	3002.7	3109.0	3121.2	3246.7	3403.5	3523.8
10°	2499.1	2504.3	2546.1	2647.2	2767.4	2908.6	3051.5	3068.9	3224.0	3443.6	3630.1
12.5°	2270.8	2258.6	2303.9	2418.9	2587.9	2793.6	3007.9	3030.6	3225.8	3504.6	3766.0
15°	2164.5	2161.0	2180.1	2263.8	2427.6	2669.9	2967.9	2997.5	3248.4	3560.4	3895.0
17.5°	2168.0	2162.7	2161.0	2209.8	2331.8	2577.5	2924.3	2962.6	3267.6	3621.4	4030.9
20°	2319.6	2295.2	2251.6	2228.9	2302.1	2518.2	2894.7	2938.2	3295.5	3685.9	4175.6
22.5°	2636.7	2645.5	2528.7	2406.7	2371.8	2525.2	2891.2	2941.7	3356.5	3786.9	4353.3
25°	3271.1	3257.2	3041.1	2767.4	2577.5	2605.4	2952.2	3013.2	3476.7	3931.6	4520.6
27.5°	4065.8	4078.0	3781.7	3346.0	2948.7	2770.9	3063.7	3124.7	3616.2	4022.2	4632.2
30°	4931.9	4919.7	4602.5	4119.8	3475.0	3046.3	3175.2	3229.3	3685.9	4071.0	4747.2
32.5°	5751.0	5723.1	5409.4	4904.0	4145.9	3480.2	3328.6	3360.0	3778.2	4177.3	4902.3
35°	6449.8	6448.1	6174.5	5636.0	4836.1	4024.0	3591.8	3617.9	3950.8	4346.4	5130.6
37.5°	7171.3	7146.9	6840.2	6348.7	5545.4	4620.0	3994.3	3983.9	4222.6	4595.6	5411.2
40°	7763.8	7748.2	7512.9	7040.6	6282.5	5278.7	4482.3	4450.9	4545.0	4940.6	5801.5
42.5°	8203.0	8204.8	8131.6	7844.0	7063.3	6040.3	5095.7	5046.9	5045.2	5461.7	6317.4
45°	8535.9	8558.5	8668.3	8624.7	7985.2	6927.3	5881.7	5831.2	5745.8	6137.9	6908.2
47.5°	8691.0	8720.6	9051.7	9226.0	8792.1	7807.4	6817.5	6711.2	6543.9	7037.1	7568.7
50°	8675.3	8727.6	9189.4	9719.2	9524.0	8699.7	7837.0	7786.5	7512.9	7988.7	8222.2
52.5°	8319.8	8431.3	9198.1	10018.9	10086.9	9522.3	8891.4	8797.3	8664.8	8982.0	8835.6
55°	7354.3	7490.2	8830.4	10114.8	10526.1	10240.3	9923.1	9846.4	9626.8	9919.6	9370.6
57.5°	6829.7	6946.5	8056.6	10067.7	10899.0	10904.2	10841.5	10778.8	10597.5	10846.7	9998.0
60°	6514.3	6631.1	7643.6	9895.2	11237.1	11604.8	11704.1	11697.2	11435.8	11901.1	10733.4
62.5°	6052.5	6212.8	7213.1	9447.3	11477.6	12294.9	12594.7	12547.6	12256.6	12999.0	11461.9
65°	5120.1	5259.5	6331.3	8708.4	11336.4	12866.5	13560.1	13584.5	13248.2	14032.4	12037.0
67.5°	3590.0	3692.8	4757.6	7157.4	10377.9	13054.8	14548.3	14546.5	13973.2	14562.2	11782.6
70°	2080.8	2222.0	2811.0	4424.8	8074.0	12199.1	14696.4	14746.9	13678.7	13455.6	9750.5
72.5°	805.1	921.9	1592.9	2350.9	4210.4	9344.5	12641.7	12789.9	11448.0	10379.7	6786.2
75°	240.5	268.4	749.4	1251.3	1690.4	4513.7	8558.5	8600.4	7852.7	6474.2	3478.5
77.5°	179.5	198.7	327.6	632.6	592.5	1368.0	4428.3	4836.1	4168.6	2312.6	958.5
80°	122.0	144.6	233.5	308.5	219.6	364.2	1244.3	1366.3	1272.2	519.3	240.5
82.5°	54.0	69.7	165.6	155.1	80.2	104.6	383.4	407.8	263.2	156.8	83.7
85°	5.2	7.0	62.7	68.0	29.6	24.4	80.2	80.2	57.5	54.0	34.9
87.5°	0.0	0.0	1.7	3.5	3.5	5.2	7.0	8.7	10.5	13.9	17.4
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: P638502

CATALOG NUMBER: GWS-SA4E-830-U-T3R-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3431.4	3431.4	3431.4	3431.4	3431.4	3431.4	3431.4	3431.4	3431.4	3431.4	3431.4
2.5°	3462.8	3441.9	3468.0	3488.9	3494.2	3455.8	3433.2	3400.1	3393.1	3394.8	3386.1
5°	3509.8	3499.4	3518.6	3495.9	3436.7	3325.1	3229.3	3123.0	3065.5	3032.3	3028.9
7.5°	3597.0	3591.8	3570.8	3468.0	3283.3	3035.8	2797.1	2563.5	2418.9	2366.6	2357.9
10°	3725.9	3715.5	3630.1	3386.1	2992.3	2516.5	2115.7	1781.1	1577.2	1517.9	1444.7
12.5°	3874.1	3853.2	3666.7	3210.1	2553.1	1894.3	1394.2	1019.5	843.5	791.2	791.2
15°	4017.0	3971.7	3645.8	2919.1	2012.8	1232.1	779.0	589.0	535.0	521.1	521.1
17.5°	4163.4	4076.2	3563.9	2521.7	1390.7	728.5	519.3	482.7	475.8	477.5	479.2
20°	4301.0	4165.1	3419.2	2044.2	887.0	508.9	465.3	456.6	453.1	456.6	454.9
22.5°	4450.9	4247.0	3199.6	1523.1	576.8	458.3	442.7	435.7	432.2	437.4	437.4
25°	4599.1	4306.3	2908.6	1024.7	458.3	427.0	418.3	411.3	407.8	409.5	409.5
27.5°	4675.7	4283.6	2527.0	653.5	411.3	395.6	386.9	378.2	372.9	371.2	372.9
30°	4728.0	4213.9	2059.9	465.3	372.9	353.8	345.1	338.1	324.1	315.4	318.9
32.5°	4809.9	4144.2	1552.8	390.4	341.6	311.9	298.0	280.6	261.4	252.7	252.7
35°	4907.5	4048.4	1089.2	352.0	308.5	277.1	251.0	221.3	198.7	191.7	191.7
37.5°	5036.5	3957.7	725.0	325.9	280.6	247.5	210.9	176.0	151.6	148.1	146.4
40°	5229.9	3881.0	510.6	306.7	256.2	216.1	172.5	135.9	118.5	113.3	113.3
42.5°	5480.9	3802.6	404.3	287.5	235.3	186.5	137.7	108.0	94.1	90.6	88.9
45°	5791.1	3710.3	352.0	270.1	214.4	155.1	109.8	90.6	80.2	76.7	76.7
47.5°	6127.4	3584.8	327.6	247.5	190.0	125.5	92.4	78.4	73.2	71.5	69.7
50°	6458.5	3415.7	306.7	226.6	162.1	102.8	80.2	71.5	68.0	66.2	66.2
52.5°	6747.8	3218.8	280.6	202.2	132.4	88.9	71.5	66.2	62.7	59.3	57.5
55°	6995.3	3004.5	247.5	174.3	108.0	78.4	66.2	61.0	57.5	54.0	52.3
57.5°	7314.2	2882.5	198.7	141.2	88.9	69.7	61.0	55.8	52.3	47.1	47.1
60°	7668.0	2793.6	148.1	111.5	76.7	64.5	55.8	50.5	47.1	41.8	41.8
62.5°	7952.1	2661.1	116.8	90.6	66.2	57.5	50.5	45.3	41.8	36.6	36.6
65°	8060.1	2387.5	95.8	71.5	54.0	50.5	45.3	41.8	36.6	31.4	31.4
67.5°	7572.1	1840.3	80.2	57.5	45.3	43.6	40.1	38.3	31.4	27.9	26.1
70°	5996.7	1122.3	66.2	47.1	38.3	36.6	36.6	33.1	27.9	26.1	24.4
72.5°	4109.3	578.6	54.0	38.3	33.1	33.1	31.4	29.6	26.1	24.4	24.4
75°	2134.8	193.4	41.8	29.6	26.1	27.9	27.9	26.1	24.4	24.4	22.7
77.5°	611.7	87.1	31.4	22.7	20.9	20.9	22.7	22.7	22.7	20.9	20.9
80°	158.6	50.5	22.7	17.4	17.4	17.4	17.4	19.2	20.9	19.2	19.2
82.5°	64.5	27.9	15.7	13.9	13.9	13.9	13.9	15.7	17.4	17.4	17.4
85°	40.1	13.9	12.2	12.2	12.2	10.5	10.5	12.2	12.2	13.9	13.9
87.5°	24.4	10.5	10.5	10.5	10.5	8.7	8.7	8.7	8.7	8.7	8.7
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

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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



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength



Photopic Lumens: NR

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			

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Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

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

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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			

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TM-30-18

Summary

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 81.0$
 $R_g = 7.1$



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)