

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: P642461

Luminaire Tested: GWS-SA6C-830-U-T3R-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P642461
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA6C-830-U-T3R-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND
TYPE III ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (96) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19776 lumens
Efficiency: N/A
Efficacy: 104.5 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 189.2
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



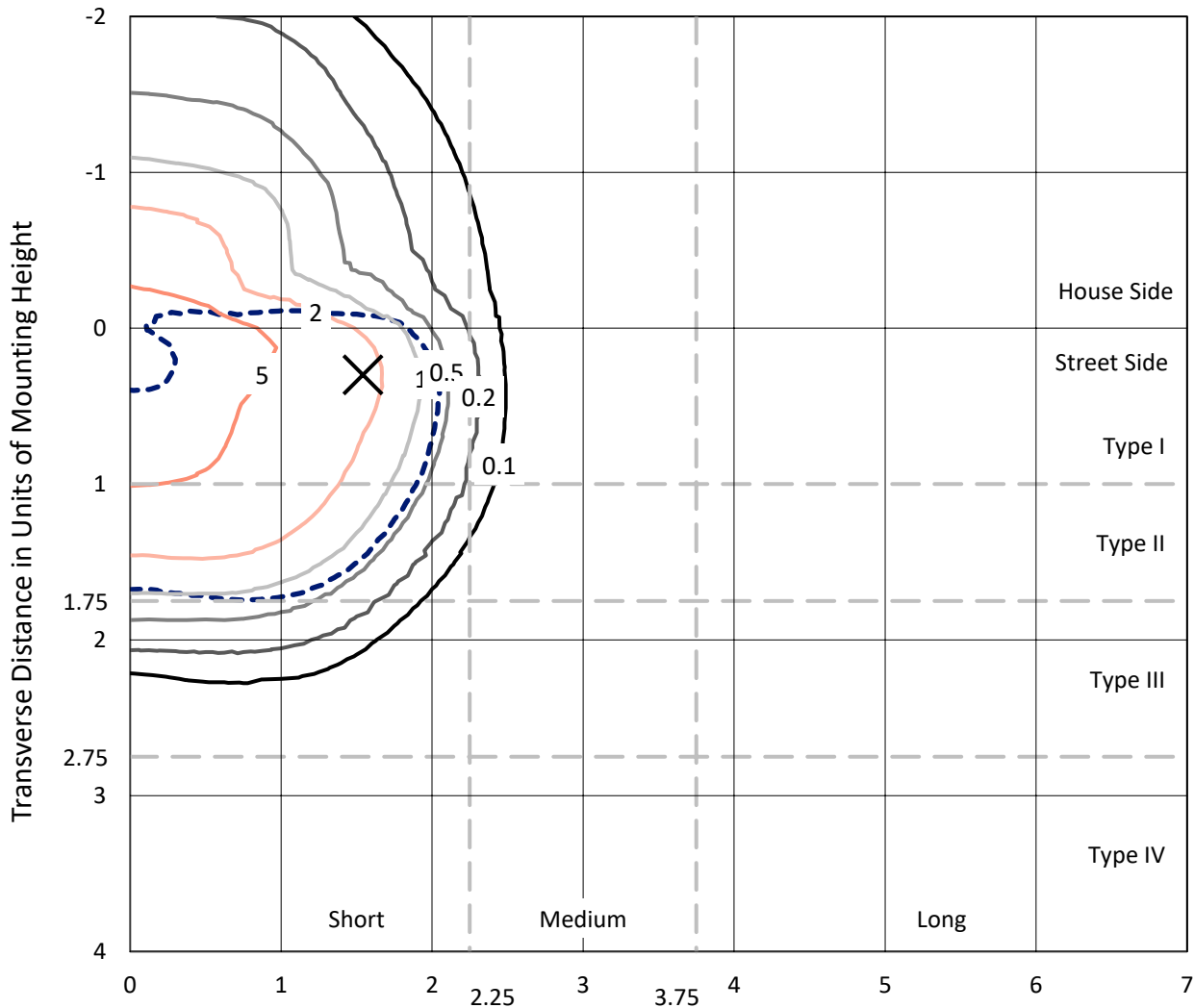
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd



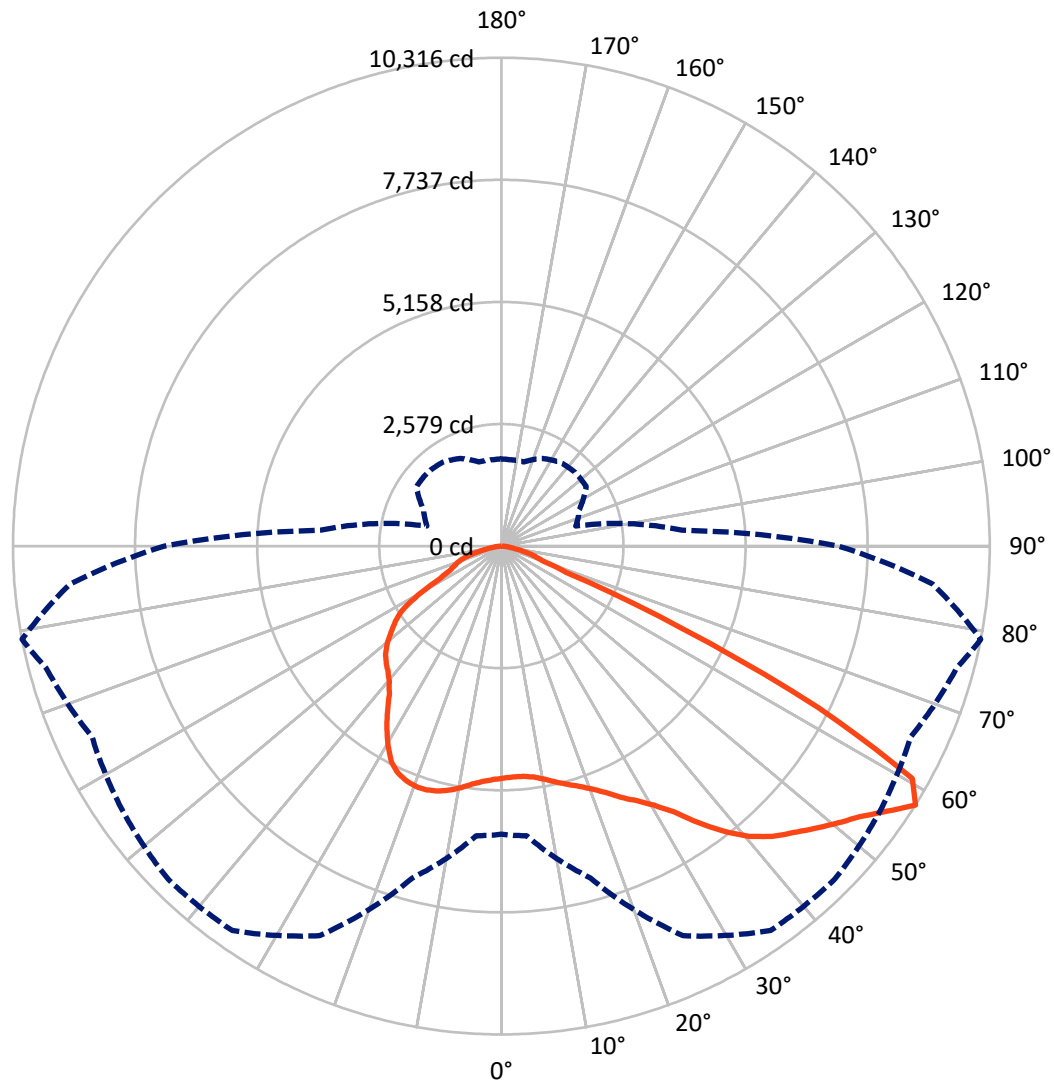
Longitudinal Distance in Units of Mounting Height

Based on 25 foot mounting height. Maximum calculated value = 7.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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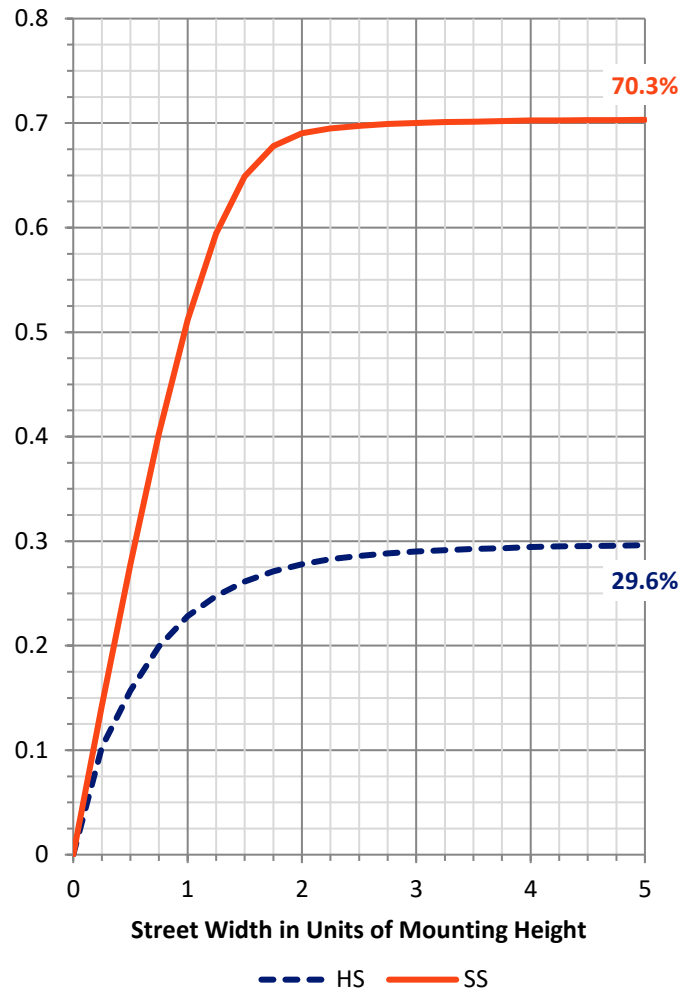
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5878.5	0.0	5878.5
	% Fixture	29.7	0.0	29.7
Street Side	Lumens	13897.5	0.0	13897.5
	% Fixture	70.3	0.0	70.3
Total	Lumens	19776.0	0.0	19776.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	453.9	2.3
10°-20°	1261.3	6.4
20°-30°	2138.0	10.8
30°-40°	3272.4	16.5
40°-50°	4363.5	22.1
50°-60°	5039.5	25.5
60°-70°	2618.7	13.2
70°-80°	556.7	2.8
80°-90°	72.1	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°	19776.0	100.0
0°-180°	19776.0	100.0

Coefficient of Utilization



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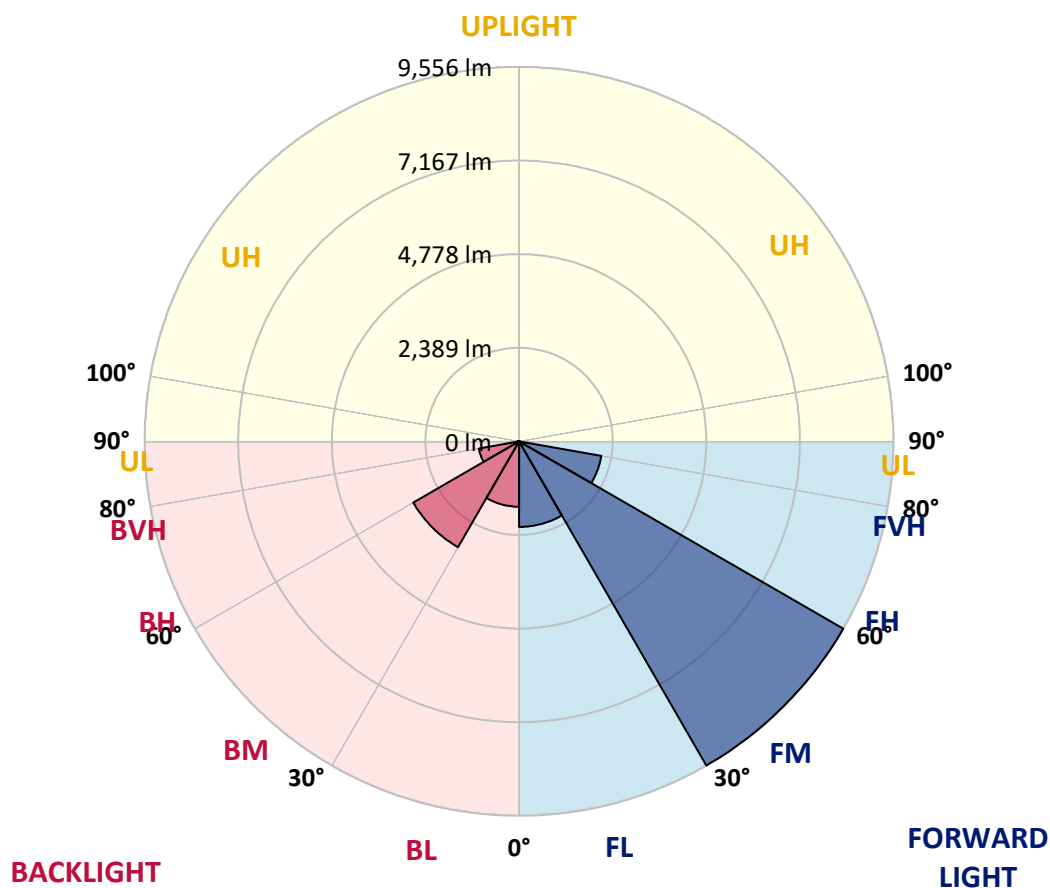
CATALOG NUMBER: GWS-SA6C-830-U-T3R-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2183.7	11.0			
FM	(30°-60°)	9556.3	48.3			
FH	(60°-80°)	2132.3	10.8			G2/5000
FVH	(80°-90°)	25.1	0.1			G1/100
BL	(0°-30°)	1669.4	8.4	B3/2500		
BM	(30°-60°)	3119.1	15.8	B3/5000		
BH	(60°-80°)	1043.0	5.3	B3/2500		G3/2500
BVH	(80°-90°)	47.0	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0
2.5°	4677.8	4668.1	4671.3	4684.3	4732.8	4768.4	4805.6	4839.5	4871.8	4881.5	4889.6
5°	4511.3	4493.5	4498.3	4519.4	4575.9	4635.8	4702.1	4782.9	4860.5	4886.4	4920.4
7.5°	4393.2	4390.0	4398.1	4430.4	4490.2	4546.8	4632.5	4747.3	4881.5	4925.2	4985.0
10°	4236.4	4229.9	4262.3	4328.6	4427.2	4517.7	4619.6	4755.4	4943.0	5007.7	5099.8
12.5°	4111.9	4108.6	4142.6	4234.8	4360.9	4504.8	4645.5	4797.5	5025.5	5114.4	5227.6
15°	4184.6	4170.1	4171.7	4236.4	4349.6	4519.4	4710.2	4873.5	5107.9	5221.1	5366.6
17.5°	4396.5	4370.6	4351.2	4362.5	4427.2	4603.4	4808.8	4975.3	5203.3	5335.9	5513.8
20°	4689.1	4674.6	4621.2	4585.6	4600.2	4755.4	4964.0	5119.2	5327.8	5476.6	5667.4
22.5°	5082.0	5046.5	4973.7	4917.1	4873.5	4994.7	5187.1	5321.4	5500.8	5656.1	5854.9
25°	5568.7	5517.0	5402.2	5313.3	5219.5	5344.0	5515.4	5617.3	5738.5	5882.4	6071.6
27.5°	6065.1	6021.5	5893.8	5774.1	5657.7	5735.3	5939.0	5997.2	5984.3	6089.4	6251.1
30°	6593.9	6538.9	6417.6	6288.3	6137.9	6188.0	6370.7	6399.9	6262.4	6349.7	6459.7
32.5°	7151.7	7098.4	6993.3	6842.9	6673.1	6692.5	6742.6	6770.1	6639.2	6689.3	6773.4
35°	7719.3	7669.2	7562.4	7413.7	7289.2	7171.1	7045.0	7155.0	7079.0	7176.0	7169.5
37.5°	8238.3	8188.2	8121.9	8007.1	7793.7	7560.8	7269.8	7405.6	7523.6	7646.5	7625.5
40°	8589.2	8555.2	8571.4	8553.6	8278.7	7817.9	7379.7	7528.5	7850.3	8060.5	8049.1
42.5°	8891.6	8857.6	8951.4	9019.3	8695.9	8055.6	7433.1	7575.4	8058.8	8387.1	8370.9
45°	9025.8	9016.1	9171.3	9386.3	9077.5	8307.8	7570.5	7672.4	8217.3	8637.7	8576.3
47.5°	8865.7	8899.6	9205.2	9569.1	9394.4	8607.0	7851.9	7877.7	8424.3	8909.3	8736.3
50°	8547.2	8621.5	9033.9	9573.9	9625.7	8944.9	8241.6	8176.9	8702.4	9198.8	8820.4
52.5°	8083.1	8160.7	8833.4	9536.7	9758.2	9336.2	8760.6	8668.4	9053.3	9488.2	8835.0
55°	7017.5	7122.6	8374.1	9452.6	9887.6	9691.9	9345.9	9158.4	9506.0	9886.0	8978.9
57.5°	6087.8	6142.8	7255.2	9079.1	9913.5	9953.9	9763.1	9540.0	9955.5	10316.1	9140.6
60°	4467.6	4480.5	5481.4	7512.3	9119.6	9801.9	9729.1	9397.7	9742.1	9971.7	8400.0
62.5°	2524.0	2525.7	3324.4	5014.1	6812.2	7989.3	8034.6	7741.9	7452.5	7520.4	5846.9
65°	947.5	1036.5	1518.3	2464.2	3927.6	4716.6	4904.2	4972.1	4490.2	4191.1	3135.2
67.5°	633.8	654.9	886.1	1267.7	1747.9	2017.9	2257.3	2263.7	1655.7	1476.3	1235.3
70°	483.5	504.5	696.9	907.1	886.1	818.2	884.5	860.2	889.3	913.6	939.4
72.5°	360.6	381.6	540.1	640.3	532.0	523.9	593.4	659.7	721.2	747.0	787.5
75°	239.3	255.5	363.8	342.8	294.3	347.6	433.3	499.6	535.2	565.9	596.7
77.5°	152.0	163.3	194.0	156.8	163.3	203.7	252.2	312.1	346.0	376.7	392.9
80°	69.5	67.9	66.3	74.4	92.2	119.7	152.0	187.6	213.4	226.4	236.1
82.5°	27.5	30.7	34.0	40.4	50.1	64.7	85.7	110.0	131.0	134.2	142.3
85°	11.3	12.9	14.6	17.8	22.6	29.1	35.6	50.1	63.1	67.9	72.8
87.5°	0.0	0.0	0.0	0.0	1.6	3.2	4.9	8.1	14.6	16.2	17.8
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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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0	4901.0
2.5°	4933.3	4912.3	4947.8	4972.1	4994.7	4970.5	4962.4	4941.4	4938.1	4938.1	4949.5
5°	4978.6	4964.0	5001.2	5015.8	5014.1	4960.8	4928.4	4886.4	4865.4	4865.4	4868.6
7.5°	5059.4	5051.3	5072.3	5049.7	4998.0	4889.6	4782.9	4694.0	4634.2	4603.4	4613.1
10°	5193.6	5183.9	5166.1	5082.0	4933.3	4708.5	4490.2	4328.6	4231.5	4176.6	4179.8
12.5°	5324.6	5308.4	5245.4	5059.4	4753.8	4396.5	4110.3	3929.2	3822.4	3757.8	3743.2
15°	5468.5	5426.5	5290.6	4943.0	4461.1	4014.9	3715.7	3520.1	3405.3	3366.5	3364.9
17.5°	5605.9	5531.6	5285.8	4736.0	4110.3	3615.5	3314.7	3193.5	3174.1	3191.8	3196.7
20°	5745.0	5625.3	5232.4	4449.8	3693.1	3217.7	3062.5	3112.6	3185.4	3233.9	3245.2
22.5°	5888.9	5703.0	5111.2	4081.2	3253.3	2949.3	3014.0	3123.9	3214.5	3279.2	3285.6
25°	6050.6	5775.7	4930.1	3630.0	2900.8	2874.9	3002.7	3119.1	3216.1	3290.5	3303.4
27.5°	6142.8	5777.3	4676.2	3166.0	2739.1	2845.8	2975.2	3085.1	3182.1	3263.0	3277.5
30°	6233.3	5733.7	4273.6	2789.2	2692.2	2811.9	2928.3	3030.1	3122.3	3201.5	3219.3
32.5°	6361.0	5693.3	3809.5	2572.6	2664.7	2779.5	2874.9	2965.5	3036.6	3072.2	3081.9
35°	6519.5	5641.5	3316.3	2478.8	2646.9	2753.7	2837.7	2886.2	2794.1	2774.7	2795.7
37.5°	6741.0	5593.0	2824.8	2438.3	2635.6	2743.9	2818.3	2693.8	2580.6	2535.4	2551.5
40°	6980.3	5565.5	2491.7	2406.0	2640.5	2753.7	2737.5	2553.2	2389.8	2294.4	2291.2
42.5°	7184.1	5523.5	2278.3	2385.0	2653.4	2790.8	2627.5	2428.6	2186.1	2129.5	2131.1
45°	7321.5	5416.8	2165.1	2362.4	2664.7	2798.9	2575.8	2257.3	2084.2	2048.7	2047.0
47.5°	7378.1	5222.7	2092.3	2326.8	2663.1	2732.6	2470.7	2186.1	2013.1	2003.4	2009.9
50°	7340.9	4904.2	2017.9	2257.3	2624.3	2663.1	2349.4	2123.0	1964.6	2017.9	2056.7
52.5°	7203.5	4491.9	1929.0	2161.9	2554.8	2583.9	2288.0	2084.2	1929.0	2000.2	2030.9
55°	7167.9	4157.2	1815.8	2037.3	2451.3	2443.2	2223.3	2064.8	1904.8	1877.3	1882.1
57.5°	7121.0	3830.5	1628.3	1814.2	2189.3	2202.3	2161.9	2042.2	1841.7	1833.6	1841.7
60°	6186.4	2936.4	1452.0	1565.2	1798.0	1867.6	2092.3	2000.2	1739.8	1705.9	1704.3
62.5°	4040.7	1778.6	1291.9	1364.7	1464.9	1545.8	1908.0	1878.9	1628.3	1607.2	1621.8
65°	2173.2	1267.7	1175.5	1219.2	1274.1	1335.6	1581.4	1673.5	1471.4	1397.0	1398.7
67.5°	1110.8	1078.5	1088.2	1118.9	1161.0	1191.7	1275.8	1356.6	1254.7	1191.7	1190.1
70°	950.8	976.6	991.2	1009.0	1036.5	1031.6	1039.7	1054.2	1046.2	1015.4	1013.8
72.5°	810.1	850.5	853.7	857.0	866.7	844.0	829.5	805.2	806.9	811.7	813.3
75°	616.1	654.9	664.6	659.7	669.4	640.3	620.9	596.7	567.5	562.7	565.9
77.5°	401.0	431.7	446.3	443.0	447.9	425.3	415.6	389.7	355.7	342.8	342.8
80°	242.5	260.3	271.6	274.9	279.7	263.6	247.4	224.8	210.2	195.6	195.6
82.5°	147.1	158.5	166.5	166.5	171.4	153.6	140.7	124.5	118.0	105.1	105.1
85°	74.4	82.5	85.7	84.1	80.8	66.3	61.4	53.4	50.1	43.7	43.7
87.5°	17.8	22.6	22.6	16.2	16.2	8.1	4.9	1.6	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

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 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			

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Scotopic Flux vs. Wavelength



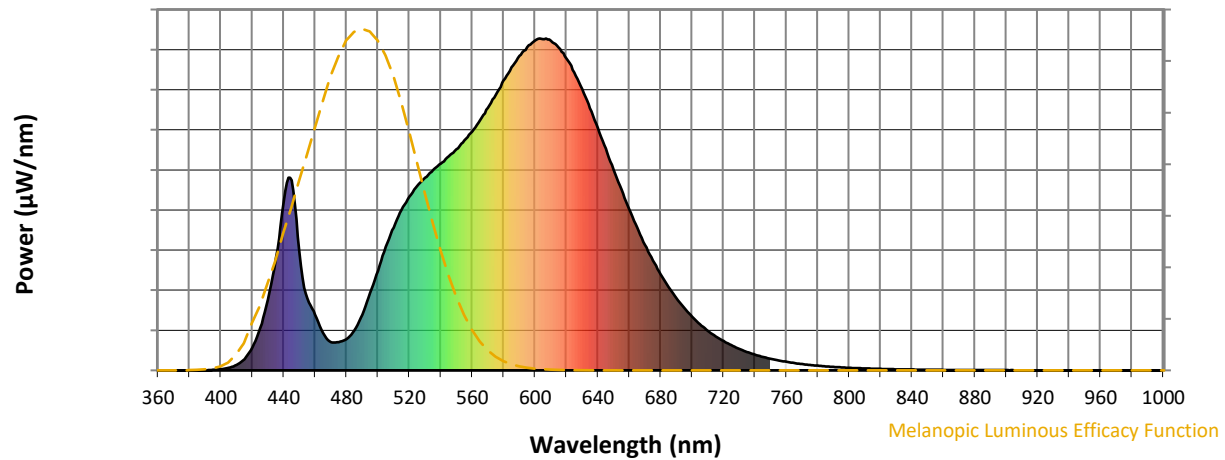
Scotopic Lumens: NR

S/P: 1.27

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			

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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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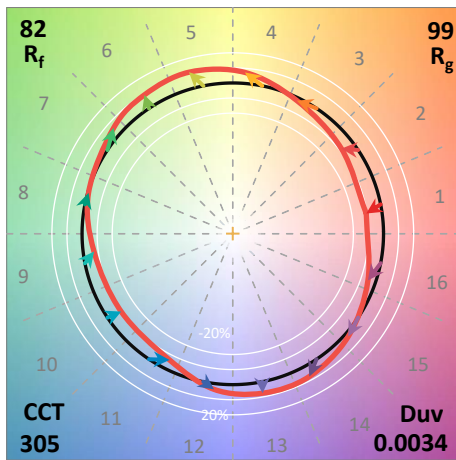
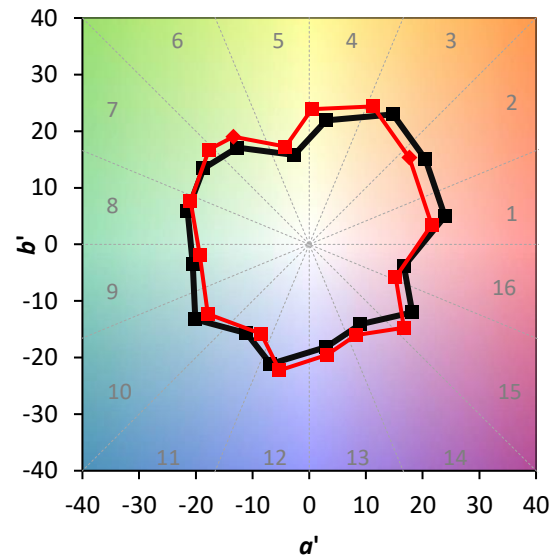
TM-30-18

Summary

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



Color Vector Graphics

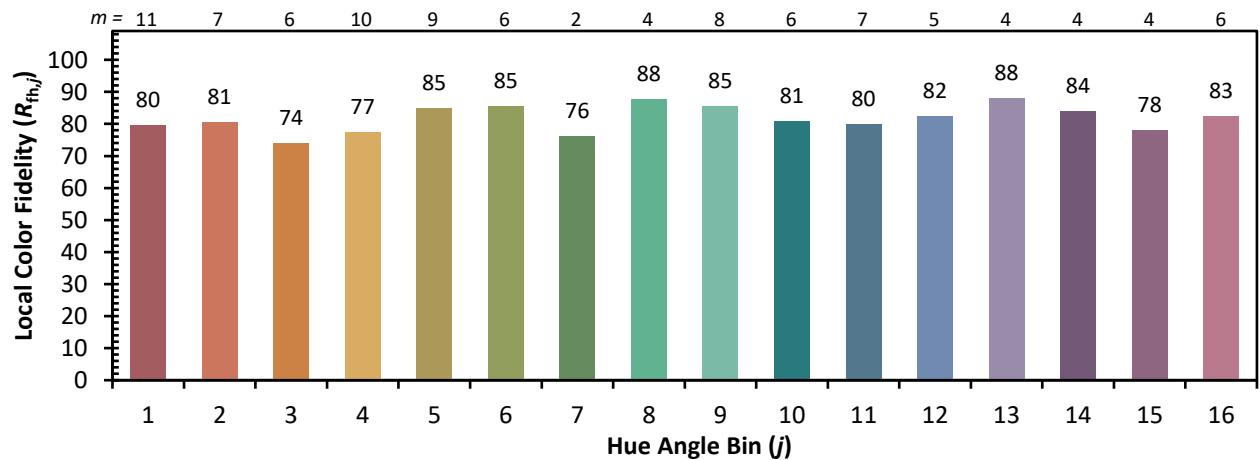
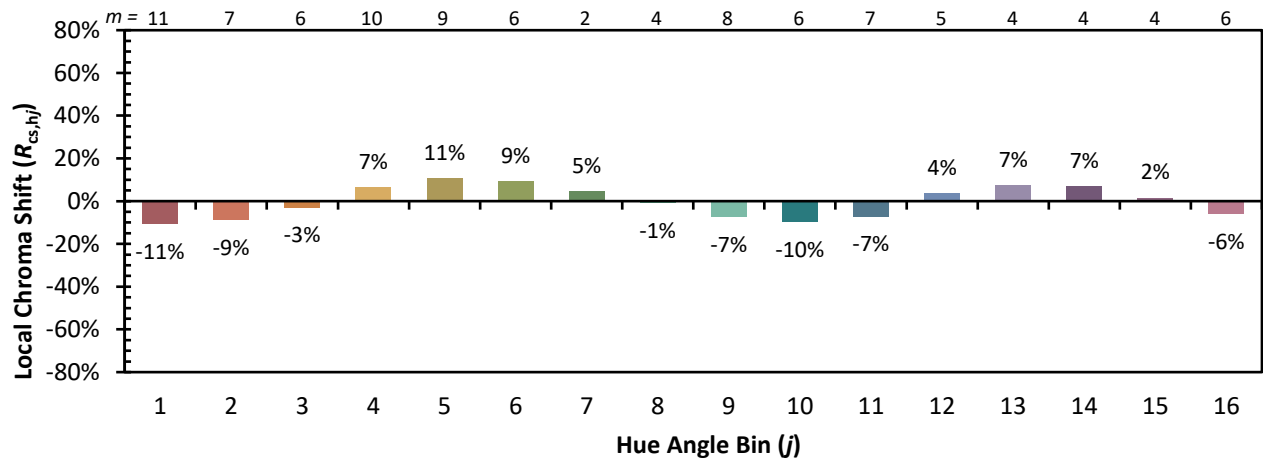


Individual Sample Fidelity Index ($R_{f,i}$)

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)