

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P641465

Luminaire Tested: GWS-SA5F-830-U-T2R-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P641465
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-11)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA5F-830-U-T2R-W
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS
Light Source: (80) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33808.9 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

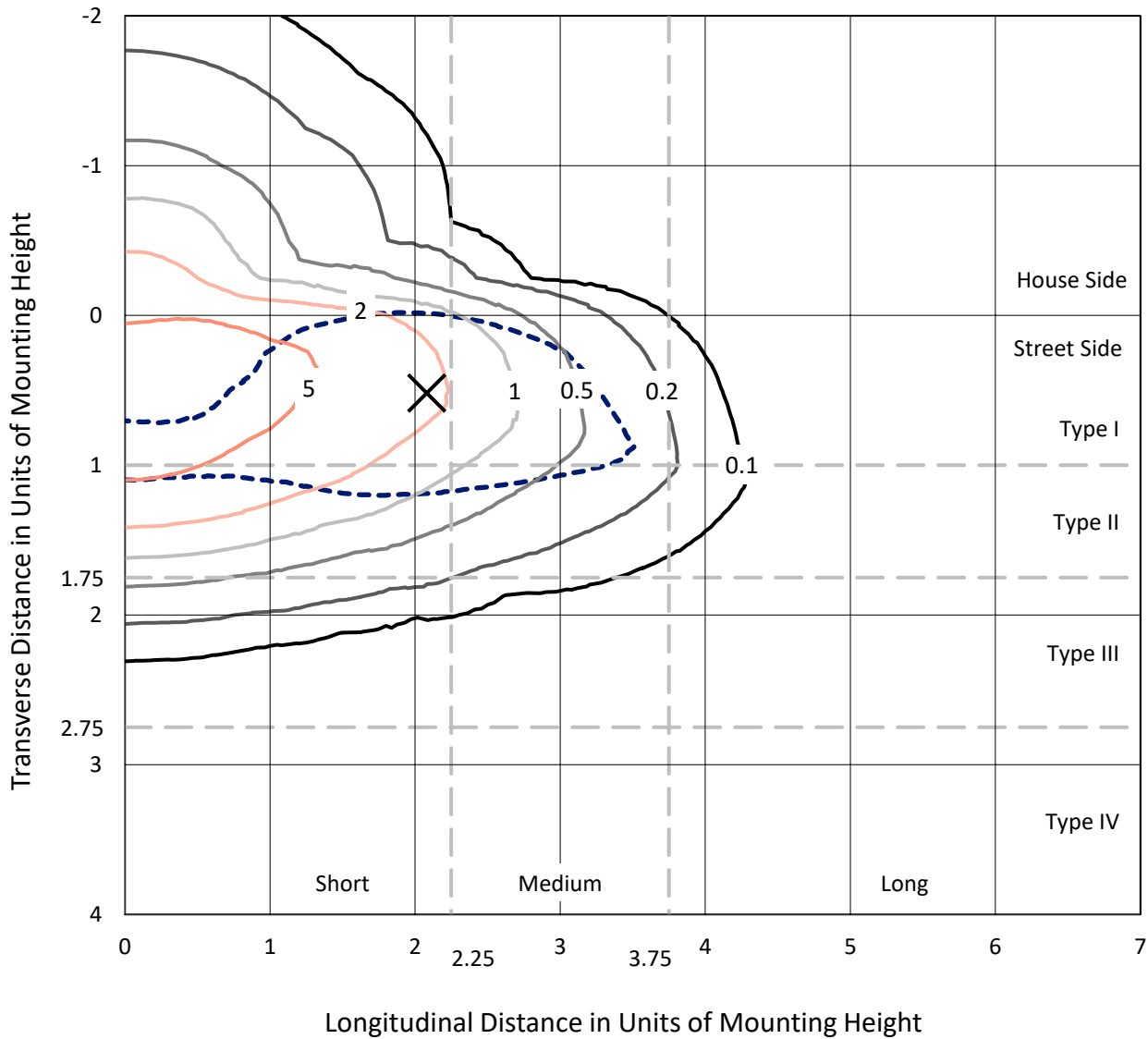
Input Watts (W): 310.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P641465
 CATALOG NUMBER: GWS-SA5F-830-U-T2R-W

Iso-Footcandle Lines of Horizontal Illumination

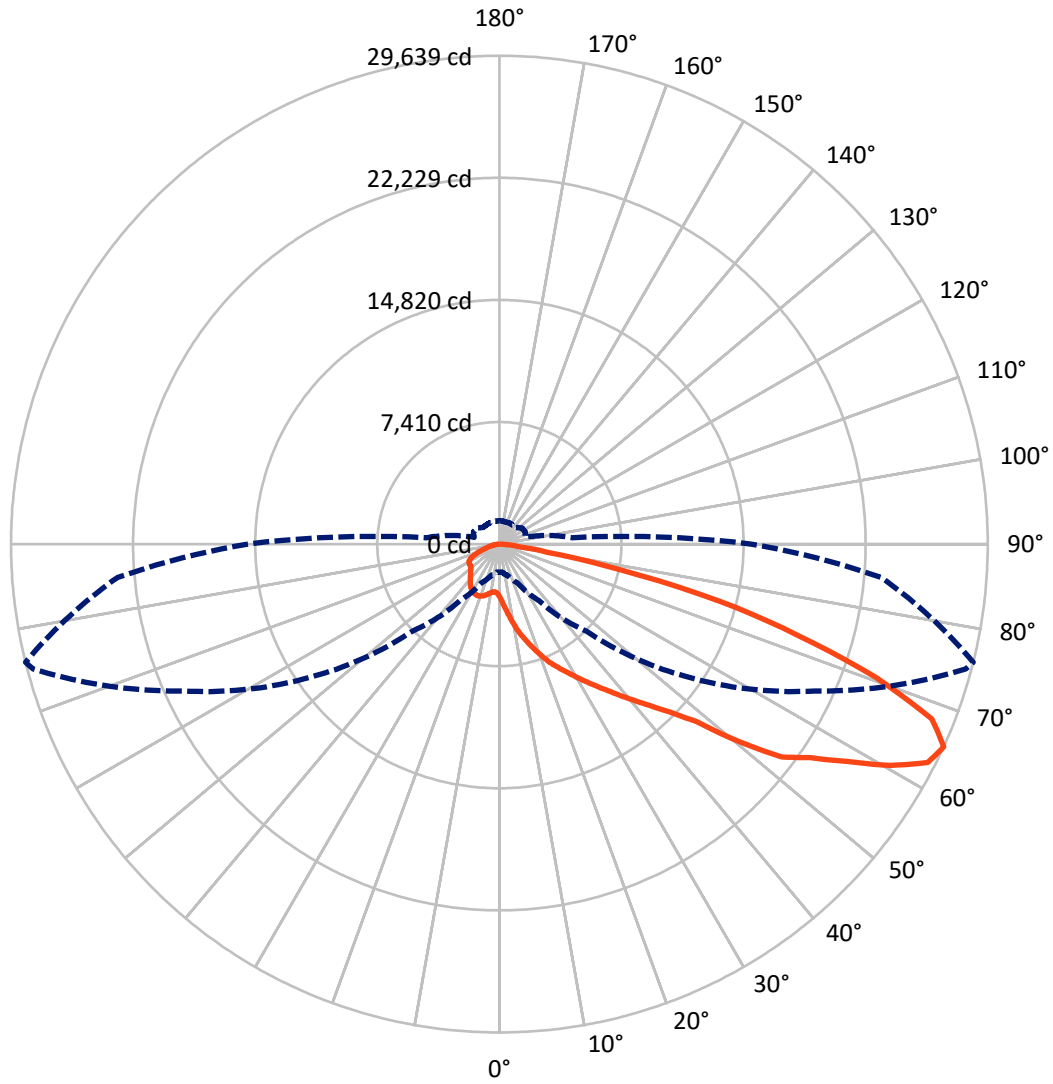
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.2 fc
 Type II - Short - N/A

REPORT NUMBER: P641465
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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5651.2	0.0	5651.2
	% Fixture	16.7	0.0	16.7
Street Side	Lumens	28157.7	0.0	28157.7
	% Fixture	83.3	0.0	83.3
Total	Lumens	33808.9	0.0	33808.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	380.4	1.1
10°-20°	1448.8	4.3
20°-30°	2823.5	8.4
30°-40°	4722.1	14.0
40°-50°	6761.0	20.0
50°-60°	8004.2	23.7
60°-70°	6655.5	19.7
70°-80°	2723.6	8.1
80°-90°	290.0	0.9
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°	33808.9	100.0
0°-180°	33808.9	100.0

Coefficient of Utilization



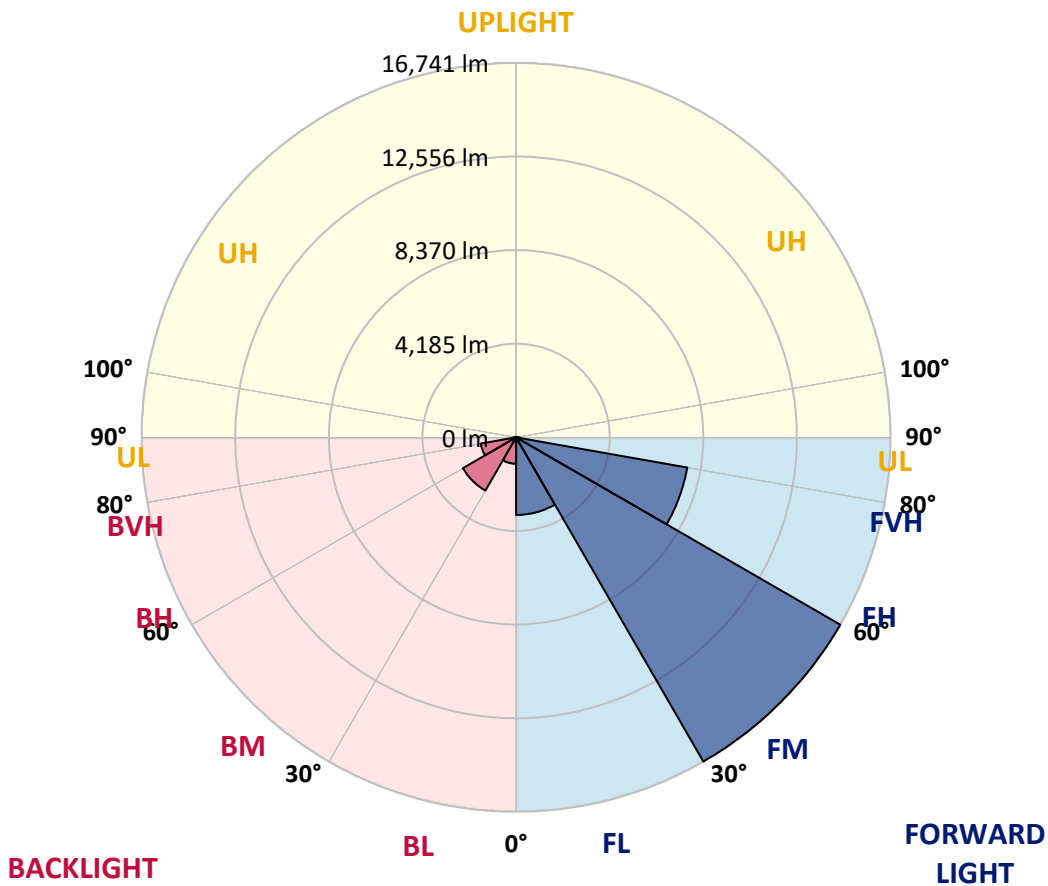
REPORT NUMBER: P641465

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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°)	3470.4	10.3			
FM (30°-60°)	16740.9	49.5			
FH (60°-80°)	7773.5	23.0			G4/12000
FVH (80°-90°)	172.9	0.5			G2/225
BL (0°-30°)	1182.2	3.5	B3/2500		
BM (30°-60°)	2746.4	8.1	B3/5000		
BH (60°-80°)	1605.6	4.7	B3/2500		G3/2500
BVH (80°-90°)	117.0	0.3			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4
 Type II Short





REPORT NUMBER: P641465

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	3201.6	3201.6	3201.6	3201.6	3201.6	3201.6	3201.6	3201.6	3201.6	3201.6	3201.6
2.5°	4487.4	4504.1	4449.4	4430.4	4302.0	4128.5	3983.6	3764.9	3562.9	3532.0	3351.3
5°	5699.6	5628.3	5566.5	5526.1	5347.8	5150.6	4844.0	4432.8	4002.6	3950.3	3560.5
7.5°	6419.8	6407.9	6331.9	6308.1	6170.2	5973.0	5656.8	5145.8	4520.7	4435.1	3843.3
10°	6997.4	6990.2	6952.2	6973.6	6847.6	6655.1	6348.5	5820.8	5088.8	5003.2	4159.4
12.5°	7501.2	7513.1	7506.0	7584.4	7520.3	7370.5	7052.0	6472.1	5656.8	5564.1	4544.5
15°	7869.7	7879.2	7914.8	8085.9	8121.6	8090.7	7767.5	7111.4	6217.8	6084.7	4941.4
17.5°	7974.2	7993.2	8078.8	8354.5	8547.0	8675.4	8435.3	7762.7	6769.2	6624.2	5345.5
20°	8114.5	8135.9	8221.4	8509.0	8791.9	9084.2	9041.4	8423.5	7325.4	7206.5	5754.3
22.5°	8763.3	8746.7	8708.7	8846.5	9048.6	9412.2	9519.2	9058.1	7900.6	7786.5	6205.9
25°	10013.5	9982.6	9740.2	9614.2	9547.7	9768.7	9958.9	9635.6	8461.5	8290.4	6626.6
27.5°	11392.1	11375.5	11066.5	10767.0	10358.2	10263.1	10374.8	10139.5	9005.8	8832.3	6992.6
30°	12697.0	12647.1	12323.8	11948.3	11401.6	10992.8	10828.8	10633.9	9602.4	9421.7	7420.4
32.5°	13864.0	13799.8	13419.5	13003.6	12430.8	11948.3	11458.7	11159.2	10277.4	10068.2	7857.8
35°	14821.9	14757.7	14367.9	13925.8	13295.9	12939.4	12269.1	11729.6	10964.3	10752.7	8373.5
37.5°	15563.4	15504.0	15097.6	14662.6	14113.6	13830.7	13248.4	12371.4	11755.8	11534.7	8920.2
40°	15979.4	15936.6	15611.0	15266.3	14805.2	14560.4	14299.0	13181.8	12642.3	12421.3	9564.3
42.5°	16105.3	16076.8	15848.6	15670.4	15359.0	15173.6	15323.4	14135.0	13588.3	13395.8	10289.3
45°	15789.2	15789.2	15722.7	15813.0	15827.3	15824.9	16350.2	15211.7	14750.6	14539.0	11311.3
47.5°	14981.1	15033.4	15130.8	15575.3	16043.5	16435.7	17550.4	16647.3	16245.6	16072.1	12758.8
50°	13502.7	13645.3	13978.1	14845.6	15841.5	16839.8	18686.6	18769.8	19152.4	18845.8	14888.4
52.5°	11337.4	11316.0	12164.6	13400.5	14919.3	16856.4	19311.7	20642.7	21671.9	21460.3	16471.4
55°	9010.5	8974.9	9766.4	11470.5	13505.1	16219.4	19687.2	21500.7	23069.4	22879.3	17895.1
57.5°	6899.9	6854.8	7558.3	9096.1	11508.6	14867.0	19615.9	22522.8	24992.3	24894.8	19829.8
60°	4748.9	4694.2	5352.6	6697.9	9146.0	12799.2	18826.8	23048.0	27243.1	27276.4	21900.0
62.5°	2852.2	2821.3	3299.0	4342.5	6579.0	10237.0	16980.0	22729.5	29035.2	29185.0	23231.0
65°	1720.8	1699.4	1979.9	2590.7	4173.7	7470.3	14132.6	21101.4	29294.3	29639.0	23261.9
67.5°	1252.6	1255.0	1335.8	1578.2	2433.9	4824.9	10605.4	18182.7	27944.3	28300.8	21795.4
70°	1088.6	1093.3	1136.1	1190.8	1471.3	2761.9	6895.2	14353.6	23953.6	24229.3	18280.1
72.5°	967.4	967.4	995.9	1024.4	1150.4	1682.8	3693.6	10032.6	18905.2	18978.9	13951.9
75°	850.9	843.8	858.0	872.3	998.3	1176.5	1796.9	6990.2	13963.8	13792.7	9017.7
77.5°	677.4	670.3	672.6	686.9	801.0	841.4	910.3	4366.2	7869.7	7427.6	3983.6
80°	482.5	477.7	503.9	539.5	591.8	515.8	570.4	2113.0	3120.8	2904.5	1544.9
82.5°	287.6	297.1	337.5	366.0	408.8	323.2	368.4	705.9	1105.2	1076.7	627.5
85°	40.4	42.8	121.2	140.2	175.9	126.0	194.9	318.5	442.1	473.0	221.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	16.6	57.0	126.0	128.3	54.7
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: GWS-SA5F-830-U-T2R-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3201.6	3201.6	3201.6	3201.6	3201.6	3201.6	3201.6	3201.6	3201.6	3201.6	3201.6
2.5°	3258.6	3146.9	2987.7	2854.6	2742.9	2652.5	2576.5	2519.4	2502.8	2479.0	2479.0
5°	3377.5	3175.4	2890.2	2688.2	2571.7	2502.8	2455.3	2431.5	2419.6	2405.3	2398.2
7.5°	3541.5	3258.6	2873.6	2669.2	2578.9	2536.1	2505.2	2490.9	2481.4	2467.1	2467.1
10°	3767.3	3382.2	2925.9	2735.7	2664.4	2621.6	2586.0	2562.2	2540.8	2519.4	2514.7
12.5°	4012.1	3543.8	3020.9	2826.0	2750.0	2697.7	2647.8	2612.1	2586.0	2559.8	2552.7
15°	4283.0	3710.2	3123.1	2914.0	2818.9	2747.6	2688.2	2633.5	2597.9	2559.8	2555.1
17.5°	4549.2	3879.0	3208.7	2973.4	2852.2	2764.2	2678.7	2607.4	2562.2	2519.4	2507.5
20°	4867.7	4047.7	3268.1	2990.0	2845.1	2728.6	2626.4	2536.1	2486.2	2436.2	2429.1
22.5°	5160.1	4204.6	3296.7	2966.3	2790.4	2652.5	2533.7	2436.2	2381.6	2331.7	2322.2
25°	5442.9	4342.5	3284.8	2909.2	2707.2	2548.0	2424.4	2326.9	2274.6	2222.3	2208.1
27.5°	5716.3	4435.1	3237.2	2821.3	2602.6	2431.5	2312.6	2224.7	2179.5	2134.4	2115.4
30°	5984.8	4520.7	3163.5	2707.2	2469.5	2310.3	2212.8	2151.0	2105.9	2058.3	2044.1
32.5°	6255.8	4582.5	3051.8	2574.1	2334.0	2203.3	2143.9	2098.7	2051.2	2003.7	1989.4
35°	6529.1	4608.7	2916.4	2422.0	2220.0	2134.4	2113.0	2060.7	1996.5	1939.5	1920.5
37.5°	6854.8	4632.4	2747.6	2272.2	2120.1	2101.1	2096.4	2017.9	1941.9	1863.4	1842.0
40°	7246.9	4663.3	2574.1	2136.8	2039.3	2089.2	2070.2	1963.3	1811.1	1735.1	1711.3
42.5°	7727.0	4720.4	2393.5	2013.2	1979.9	2044.1	2022.7	1830.2	1727.9	1685.2	1673.3
45°	8433.0	4929.5	2212.8	1915.7	1934.7	1979.9	1946.6	1751.7	1711.3	1682.8	1668.5
47.5°	9690.3	5250.4	2056.0	1842.0	1899.1	1922.8	1794.5	1730.3	1699.4	1661.4	1644.8
50°	10997.6	5390.6	1930.0	1796.9	1858.7	1870.6	1711.3	1701.8	1680.4	1640.0	1623.4
52.5°	11881.7	5371.6	1853.9	1780.2	1825.4	1780.2	1673.3	1670.9	1656.6	1609.1	1590.1
55°	12880.0	5404.9	1820.6	1785.0	1811.1	1628.1	1625.7	1632.9	1625.7	1573.5	1563.9
57.5°	14227.7	5507.1	1804.0	1801.6	1801.6	1554.4	1580.6	1590.1	1575.8	1552.1	1544.9
60°	15523.0	5514.2	1773.1	1820.6	1794.5	1509.3	1528.3	1537.8	1521.2	1516.4	1514.0
62.5°	16010.3	5172.0	1704.2	1806.4	1766.0	1459.4	1473.6	1478.4	1461.7	1473.6	1471.3
65°	15285.3	4444.7	1590.1	1737.5	1678.0	1414.2	1404.7	1416.6	1388.1	1419.0	1421.3
67.5°	13571.6	3532.0	1416.6	1606.7	1554.4	1364.3	1345.3	1345.3	1297.7	1345.3	1342.9
70°	10942.9	2495.7	1162.3	1397.6	1419.0	1304.9	1295.4	1240.7	1164.6	1235.9	1228.8
72.5°	8295.1	1792.1	915.1	1105.2	1221.7	1221.7	1224.1	1131.4	1043.4	1076.7	1048.2
75°	5255.2	1262.1	732.1	846.1	957.9	1071.9	1126.6	955.5	877.0	862.8	848.5
77.5°	2367.3	829.5	570.4	648.9	679.8	846.1	1029.2	822.4	715.4	684.5	675.0
80°	991.1	515.8	406.4	458.7	418.3	710.7	907.9	639.4	525.3	482.5	451.6
82.5°	435.0	306.6	259.1	247.2	261.5	527.7	677.4	425.5	328.0	444.5	449.2
85°	183.0	161.6	133.1	121.2	107.0	202.0	318.5	166.4	204.4	116.5	95.1
87.5°	42.8	47.5	35.7	23.8	14.3	2.4	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

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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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			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

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			

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)