

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: P636018

Luminaire Tested: GWS-SA3E-830-U-T2R-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636018
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-13)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA3E-830-U-T2R-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15375.2 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

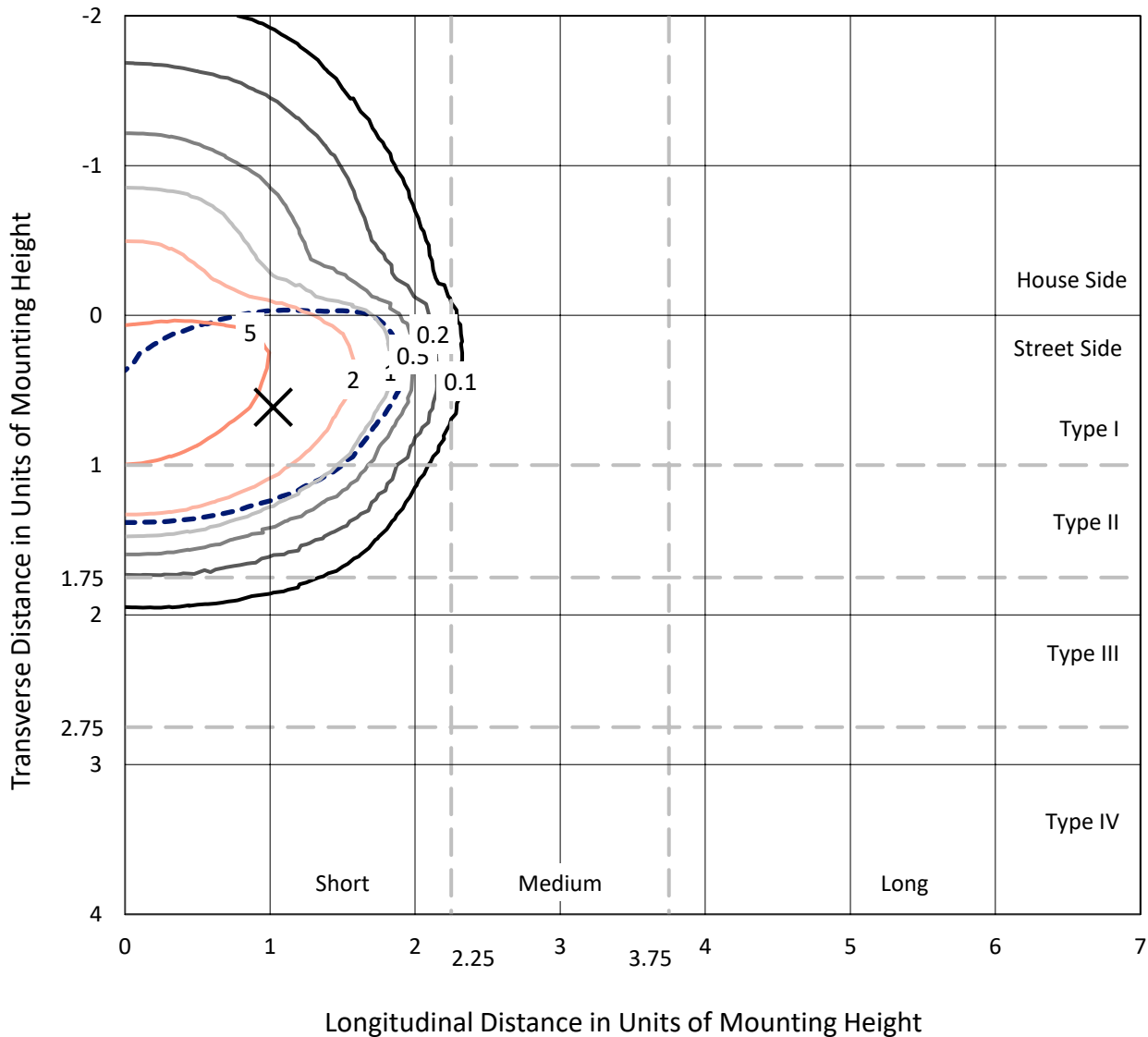
Input Watts (W): 159.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

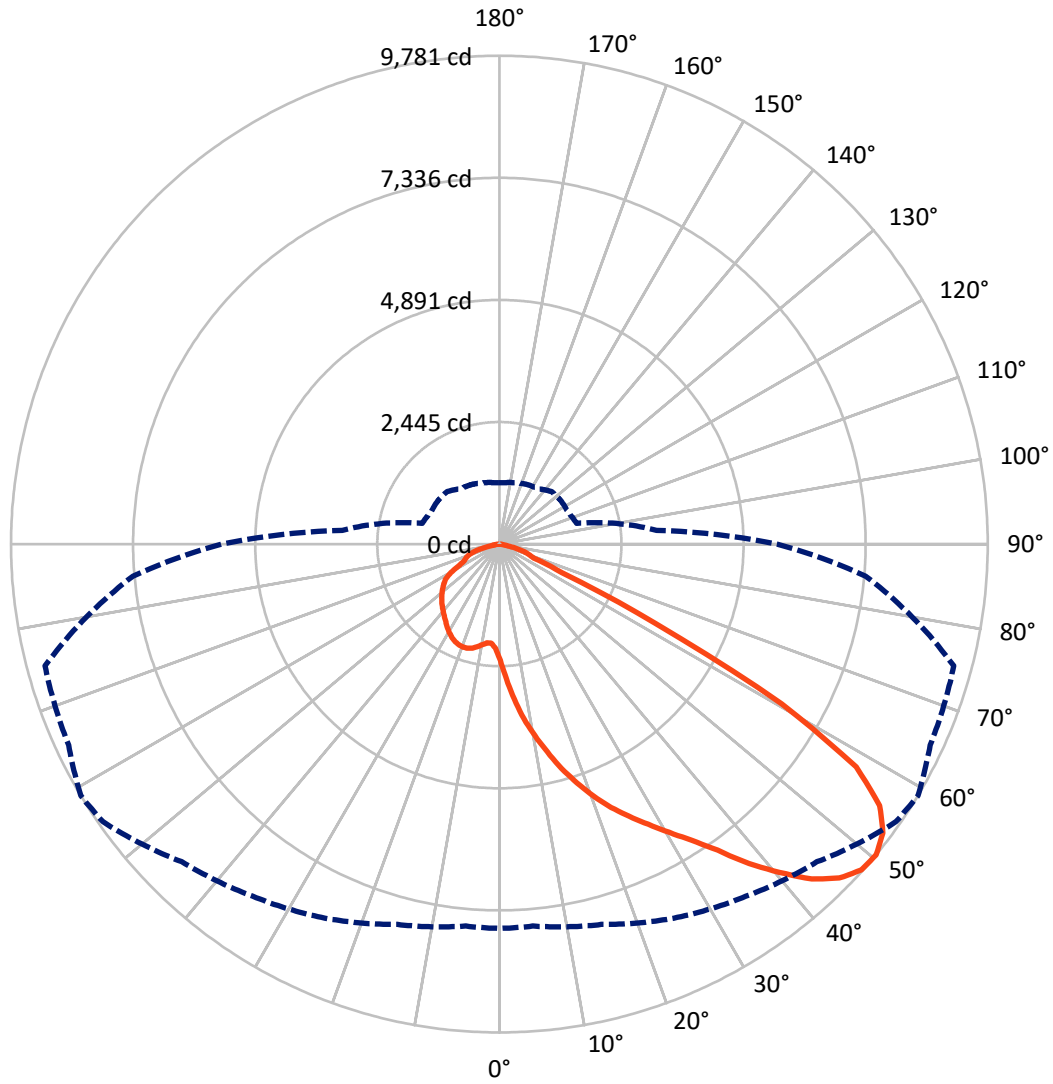
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 50-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3536.6	0.0	3536.6
	% Fixture	23.0	0.0	23.0
Street Side	Lumens	11838.6	0.0	11838.6
	% Fixture	77.0	0.0	77.0
Total	Lumens	15375.2	0.0	15375.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.3	1.7
10°-20°	948.7	6.2
20°-30°	1796.4	11.7
30°-40°	2978.9	19.4
40°-50°	4069.4	26.5
50°-60°	3694.0	24.0
60°-70°	1230.1	8.0
70°-80°	358.8	2.3
80°-90°	37.7	0.2
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°	15375.2	100.0
0°-180°	15375.2	100.0

Coefficient of Utilization



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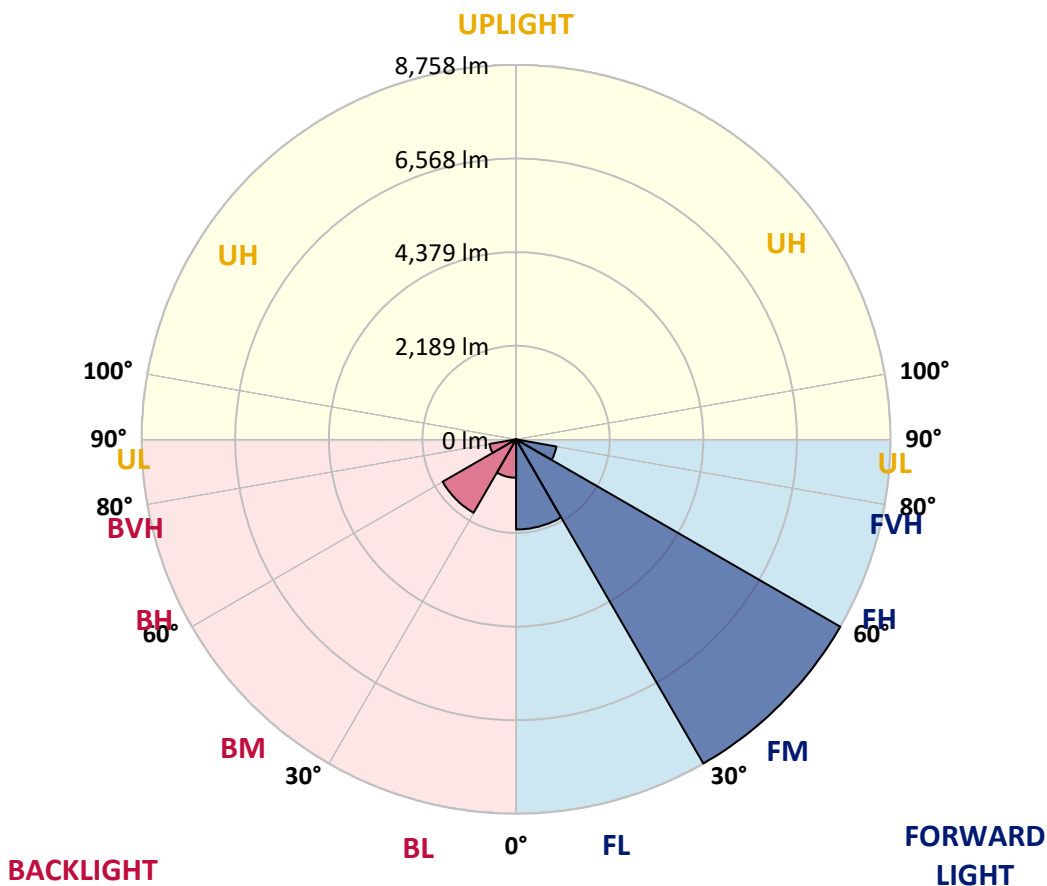
CATALOG NUMBER: GWS-SA3E-830-U-T2R-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2108.3	13.7			
FM (30°-60°)	8757.9	57.0			
FH (60°-80°)	957.7	6.2			G1/1800
FVH (80°-90°)	14.7	0.1			G1/100
BL (0°-30°)	898.0	5.8	B2/1000		
BM (30°-60°)	1984.4	12.9	B2/2500		
BH (60°-80°)	631.2	4.1	B2/1000		G2/1000
BVH (80°-90°)	22.9	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	2329.5	2329.5	2329.5	2329.5	2329.5	2329.5	2329.5	2329.5	2329.5	2329.5	2329.5
2.5°	3018.3	3040.8	3005.7	3008.2	2920.6	2880.5	2767.8	2701.4	2657.6	2534.8	2423.4
5°	3626.9	3600.6	3573.1	3556.8	3480.4	3372.7	3232.4	3121.0	3018.3	2777.8	2546.1
7.5°	4000.1	3986.4	3967.6	3957.6	3882.4	3769.7	3629.4	3534.3	3385.2	3059.6	2695.2
10°	4317.0	4300.7	4289.4	4297.0	4235.6	4163.0	4010.2	3901.2	3733.4	3357.7	2875.5
12.5°	4562.5	4571.2	4575.0	4615.1	4588.8	4544.9	4387.1	4271.9	4085.3	3672.0	3087.1
15°	4756.6	4754.1	4797.9	4874.3	4916.9	4889.3	4762.9	4666.4	4438.5	3981.4	3315.1
17.5°	4801.7	4804.2	4873.1	5007.1	5146.1	5213.7	5142.3	5027.1	4801.7	4286.9	3551.8
20°	4838.0	4843.0	4914.4	5067.2	5270.1	5459.2	5470.5	5387.8	5193.7	4617.6	3792.2
22.5°	5067.2	5078.5	5097.2	5193.7	5376.5	5615.7	5747.2	5729.7	5566.9	4964.5	4051.5
25°	5669.6	5635.8	5544.3	5516.8	5586.9	5781.0	6005.2	6039.0	5958.9	5346.5	4330.8
27.5°	6413.5	6377.2	6241.9	6099.2	5947.6	6015.2	6254.5	6355.9	6357.1	5767.3	4611.3
30°	7088.5	7059.7	6949.5	6745.4	6483.6	6386.0	6562.5	6699.1	6780.5	6253.2	4930.7
32.5°	7665.9	7639.6	7490.6	7324.0	7068.5	6871.9	6935.8	7067.3	7257.6	6881.9	5327.7
35°	8151.8	8125.5	7982.8	7814.9	7578.2	7460.5	7438.0	7528.1	7774.9	7538.2	5783.6
37.5°	8546.3	8520.0	8371.0	8213.2	8032.9	8040.4	8074.2	8118.0	8259.5	8240.7	6270.7
40°	8801.8	8774.3	8667.8	8555.1	8441.1	8531.3	8699.1	8646.5	8721.7	8808.1	6719.1
42.5°	8915.8	8880.7	8819.4	8794.3	8759.2	8899.5	9222.6	9170.0	9079.9	9186.3	7052.2
45°	8801.8	8771.8	8770.5	8846.9	8928.3	9108.7	9584.6	9542.0	9314.0	9369.2	7251.4
47.5°	8452.4	8426.1	8497.5	8697.9	8898.3	9161.3	9746.1	9753.6	9480.6	9445.6	7380.4
50°	7697.2	7679.7	7886.3	8265.8	8611.5	8997.2	9694.8	9781.2	9520.7	9421.8	7364.1
52.5°	6161.8	6243.2	6692.8	7326.5	7997.8	8709.1	9504.4	9617.1	9327.8	9265.2	7276.4
55°	4218.1	4255.6	4705.2	5630.8	6695.3	8085.5	9067.3	9241.4	9099.9	9238.9	7367.8
57.5°	2184.2	2214.2	2568.7	3390.2	4541.2	6389.7	7853.8	8424.8	8640.3	9371.7	7652.1
60°	896.7	921.8	1068.3	1465.3	2290.6	3720.9	5652.1	6498.7	7004.6	8558.9	6795.5
62.5°	651.2	663.8	733.9	874.2	1199.8	1823.5	3198.6	3510.5	3866.1	5364.0	4314.5
65°	548.5	562.3	618.7	703.8	875.4	1118.4	1366.4	1373.9	1514.1	2185.4	1599.3
67.5°	459.6	472.2	522.2	594.9	707.6	794.0	733.9	735.2	732.7	792.8	766.5
70°	358.2	368.2	418.3	495.9	554.8	509.7	573.6	635.0	608.7	632.5	668.8
72.5°	261.8	273.0	316.9	375.7	360.7	363.2	464.6	527.3	512.2	538.5	572.3
75°	189.1	196.6	219.2	187.9	197.9	239.2	326.9	360.7	375.7	398.3	428.3
77.5°	61.4	61.4	68.9	86.4	107.7	132.8	166.6	180.3	202.9	227.9	249.2
80°	31.3	32.6	38.8	47.6	60.1	76.4	97.7	103.9	115.2	129.0	137.8
82.5°	15.0	16.3	18.8	23.8	31.3	40.1	53.9	60.1	67.6	76.4	82.7
85°	3.8	3.8	5.0	7.5	10.0	15.0	20.0	23.8	30.1	36.3	40.1
87.5°	0.0	0.0	0.0	0.0	0.0	1.3	3.8	5.0	6.3	7.5	10.0
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°	2329.5	2329.5	2329.5	2329.5	2329.5	2329.5	2329.5	2329.5	2329.5	2329.5	2329.5
2.5°	2373.3	2303.2	2213.0	2136.6	2066.4	2012.6	1966.3	1943.7	1922.4	1907.4	1912.4
5°	2438.4	2318.2	2150.4	2033.9	1962.5	1926.2	1901.1	1888.6	1886.1	1876.1	1872.3
7.5°	2533.6	2362.0	2137.8	2020.1	1972.5	1953.7	1940.0	1932.4	1936.2	1926.2	1922.4
10°	2651.3	2434.7	2169.1	2065.2	2023.9	2010.1	1995.1	1985.0	1980.0	1965.0	1962.5
12.5°	2797.8	2524.8	2225.5	2122.8	2081.5	2057.7	2037.6	2020.1	2008.8	1990.1	1985.0
15°	2955.6	2625.0	2291.9	2179.2	2130.3	2095.3	2062.7	2036.4	2016.4	1991.3	1987.5
17.5°	3127.2	2730.2	2347.0	2218.0	2155.4	2109.0	2061.4	2022.6	1995.1	1962.5	1958.7
20°	3306.3	2836.7	2388.3	2236.8	2156.6	2094.0	2030.1	1978.8	1943.7	1911.2	1908.6
22.5°	3491.7	2934.4	2413.4	2231.8	2136.6	2058.9	1982.5	1924.9	1883.6	1844.8	1842.3
25°	3678.3	3028.3	2419.6	2211.7	2096.5	2006.3	1929.9	1862.3	1816.0	1772.1	1767.1
27.5°	3867.4	3107.2	2404.6	2171.6	2042.7	1945.0	1868.6	1802.2	1754.6	1710.8	1703.3
30°	4069.0	3174.8	2372.0	2119.0	1980.0	1879.8	1804.7	1754.6	1709.5	1665.7	1658.2
32.5°	4284.4	3233.7	2325.7	2055.2	1907.4	1814.7	1759.6	1714.5	1669.4	1630.6	1623.1
35°	4541.2	3272.5	2256.8	1972.5	1839.8	1767.1	1729.6	1677.0	1621.8	1579.3	1575.5
37.5°	4806.7	3302.6	2174.2	1893.6	1780.9	1739.6	1708.3	1636.9	1568.0	1516.6	1510.4
40°	5063.4	3327.6	2071.5	1819.7	1727.1	1719.5	1677.0	1588.0	1469.1	1411.4	1406.4
42.5°	5302.6	3335.1	1963.8	1740.8	1678.2	1674.4	1626.9	1489.1	1397.7	1361.4	1356.3
45°	5466.7	3328.9	1852.3	1666.9	1629.4	1609.3	1559.2	1417.7	1361.4	1328.8	1322.5
47.5°	5588.2	3296.3	1727.1	1589.3	1574.3	1546.7	1439.0	1372.6	1320.0	1287.5	1281.2
50°	5566.9	3161.0	1600.6	1514.1	1507.9	1484.1	1351.3	1316.3	1269.9	1234.9	1229.9
52.5°	5456.7	2904.3	1471.6	1431.5	1444.0	1397.7	1288.7	1248.6	1208.6	1168.5	1159.7
55°	5484.2	2718.9	1373.9	1351.3	1373.9	1268.7	1218.6	1176.0	1138.4	1099.6	1092.1
57.5°	5604.5	2536.1	1269.9	1264.9	1288.7	1169.7	1128.4	1074.6	1020.7	989.4	989.4
60°	4706.5	1848.5	1087.1	1099.6	1153.5	1089.6	1053.3	998.2	939.3	911.7	911.7
62.5°	2782.8	1159.7	901.7	887.9	921.8	961.8	981.9	936.8	866.7	830.3	831.6
65°	1226.1	844.1	795.3	784.0	774.0	801.5	856.6	860.4	786.5	743.9	745.2
67.5°	755.2	764.0	743.9	735.2	726.4	721.4	716.4	718.9	698.8	660.0	658.8
70°	681.3	705.1	691.3	683.8	672.5	663.8	633.7	584.9	551.1	541.0	552.3
72.5°	586.1	618.7	611.2	607.4	593.6	572.3	532.3	484.7	444.6	419.6	424.6
75°	442.1	468.4	472.2	473.4	458.4	438.3	397.0	356.9	321.9	295.6	301.8
77.5°	254.2	269.3	273.0	276.8	265.5	258.0	230.4	201.6	182.8	155.3	162.8
80°	141.5	147.8	147.8	149.0	142.8	134.0	115.2	98.9	90.2	77.6	78.9
82.5°	85.2	87.7	88.9	90.2	86.4	77.6	63.9	52.6	47.6	41.3	40.1
85°	41.3	43.8	43.8	45.1	38.8	33.8	26.3	20.0	17.5	12.5	13.8
87.5°	10.0	11.3	11.3	10.0	8.8	6.3	3.8	1.3	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



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

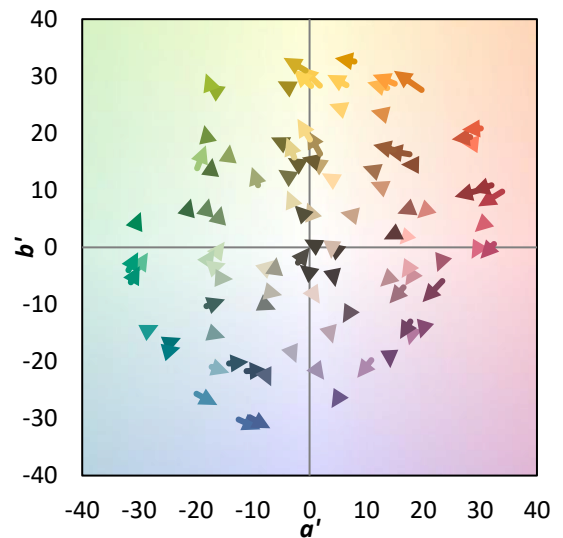
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	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)