

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: P634052

Luminaire Tested: GWS-SA2F-830-U-T4W-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P634052
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-52)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA2F-830-U-T4W-W
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: (32) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12776.6 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

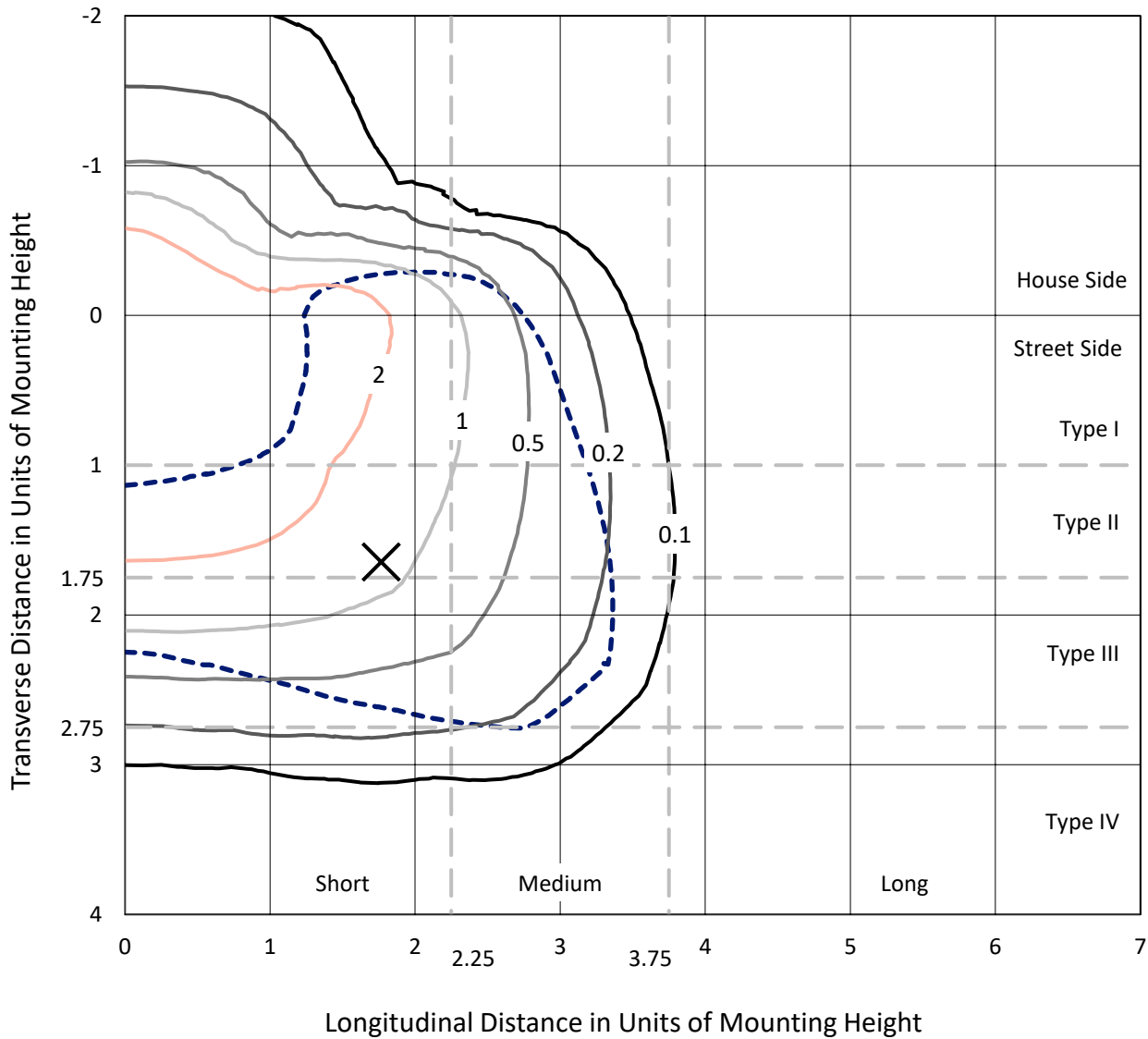
Input Watts (W): 124.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P634052
 CATALOG NUMBER: GWS-SA2F-830-U-T4W-W

Iso-Footcandle Lines of Horizontal Illumination

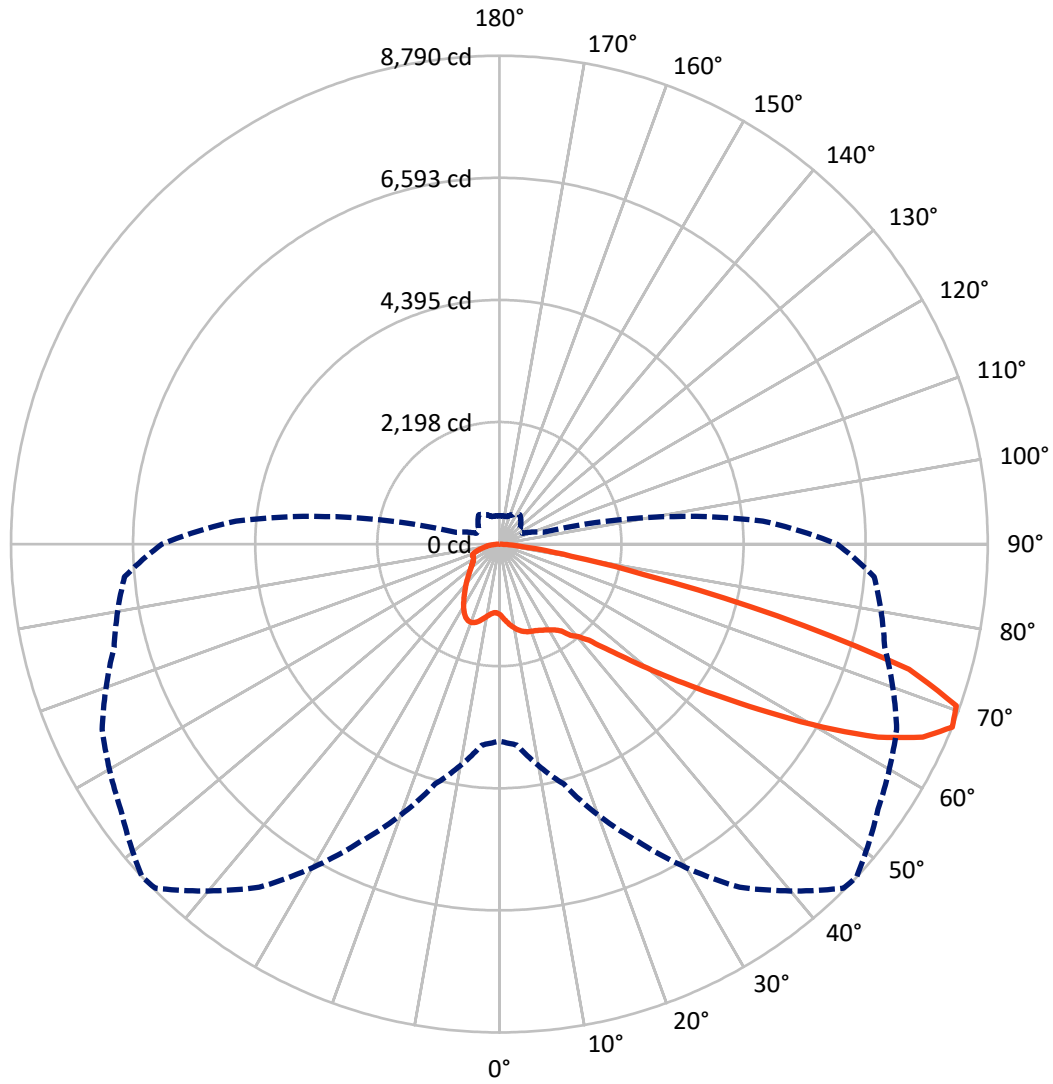
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4 fc
 Type III - Short - N/A

REPORT NUMBER: P634052
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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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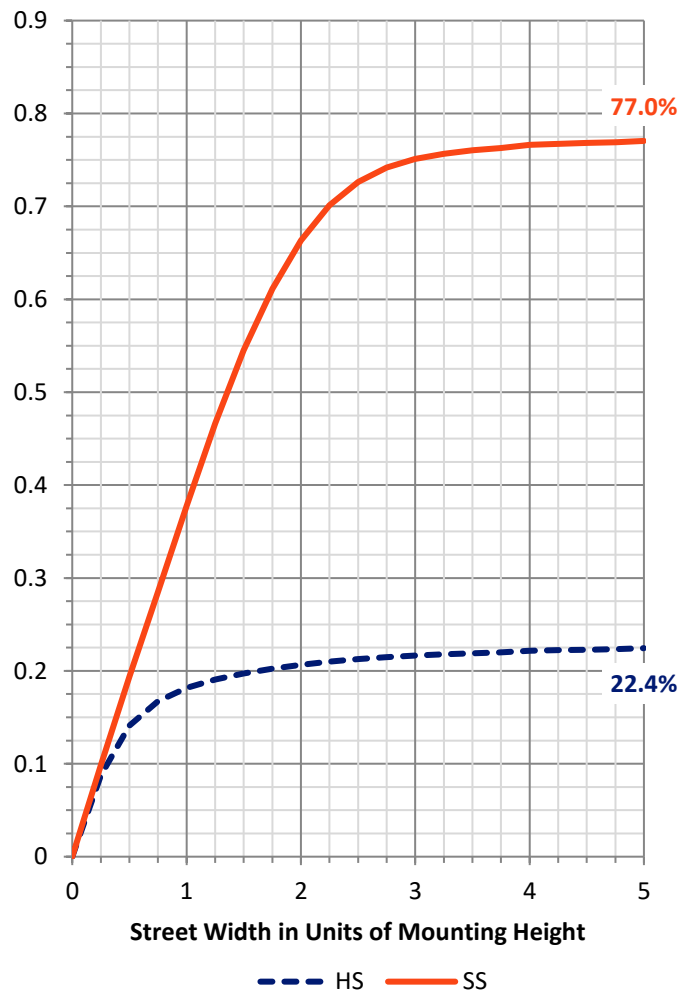
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2911.9	0.0	2911.9
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	9864.7	0.0	9864.7
	% Fixture	77.2	0.0	77.2
Total	Lumens	12776.6	0.0	12776.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.4	1.0
10°-20°	431.3	3.4
20°-30°	733.0	5.7
30°-40°	1073.8	8.4
40°-50°	1636.1	12.8
50°-60°	2927.3	22.9
60°-70°	3906.2	30.6
70°-80°	1766.5	13.8
80°-90°	173.1	1.4
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°	12776.6	100.0
0°-180°	12776.6	100.0

Coefficient of Utilization



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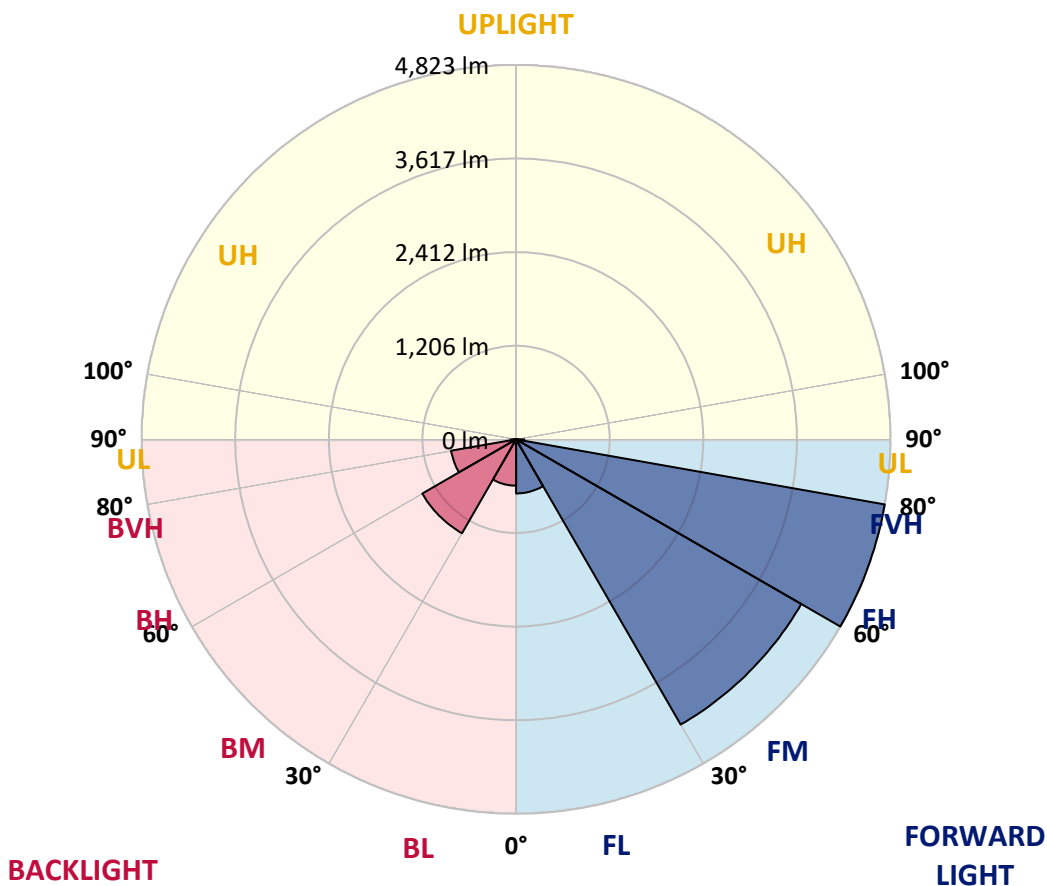
CATALOG NUMBER: GWS-SA2F-830-U-T4W-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	696.8	5.5			
FM (30°-60°)	4242.0	33.2			
FH (60°-80°)	4823.0	37.7			G2/5000
FVH (80°-90°)	102.9	0.8			G2/225
BL (0°-30°)	596.9	4.7	B2/1000		
BM (30°-60°)	1395.2	10.9	B2/2500		
BH (60°-80°)	849.6	6.6	B2/1000		G2/1000
BVH (80°-90°)	70.1	0.5			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 III Short





REPORT NUMBER: P634052
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6
2.5°	1350.6	1355.3	1354.3	1346.9	1342.3	1334.0	1334.9	1322.0	1302.6	1289.7	1274.9
5°	1469.8	1477.2	1468.0	1455.9	1437.5	1410.7	1407.9	1378.3	1341.4	1315.5	1288.7
7.5°	1573.3	1577.9	1566.8	1546.5	1519.7	1483.7	1477.2	1442.1	1395.9	1355.3	1316.5
10°	1653.6	1659.2	1644.4	1617.6	1582.5	1546.5	1541.9	1505.8	1456.9	1408.8	1359.9
12.5°	1722.0	1723.9	1708.2	1672.1	1634.2	1597.3	1592.7	1559.4	1514.2	1465.2	1411.6
15°	1761.7	1762.7	1743.3	1703.5	1667.5	1635.2	1632.4	1603.8	1562.2	1516.0	1458.7
17.5°	1759.0	1760.8	1747.0	1711.8	1680.4	1661.0	1658.3	1639.8	1607.5	1565.9	1508.6
20°	1724.8	1726.6	1717.4	1694.3	1677.7	1672.1	1673.0	1667.5	1648.1	1613.9	1555.7
22.5°	1698.0	1700.8	1692.4	1675.8	1674.0	1686.9	1689.7	1692.4	1683.2	1652.7	1596.4
25°	1710.9	1715.5	1702.6	1679.5	1683.2	1711.8	1717.4	1726.6	1719.2	1693.4	1644.4
27.5°	1800.5	1803.3	1770.1	1722.9	1711.8	1742.3	1750.7	1765.4	1759.9	1735.9	1698.0
30°	2008.4	2006.5	1935.4	1819.9	1773.7	1785.8	1792.2	1813.5	1815.3	1799.6	1763.6
32.5°	2301.3	2292.0	2182.1	1998.2	1864.3	1834.7	1842.1	1870.7	1892.0	1875.4	1826.4
35°	2610.7	2602.4	2481.4	2266.1	2031.5	1928.9	1920.6	1942.8	1975.1	1928.9	1858.7
37.5°	2905.4	2892.5	2768.7	2502.6	2237.5	2094.3	2082.3	2060.1	2040.7	1952.0	1898.5
40°	3232.5	3217.7	3109.6	2808.4	2464.8	2220.9	2190.4	2102.6	2085.1	2028.7	2001.9
42.5°	3581.7	3581.7	3492.1	3195.5	2739.1	2401.9	2362.2	2230.1	2248.6	2211.6	2180.2
45°	3930.9	3941.0	3869.9	3585.4	3105.9	2743.8	2680.0	2492.5	2536.8	2520.2	2504.5
47.5°	4228.4	4247.8	4233.9	3983.5	3554.9	3159.5	3062.5	2867.6	2962.7	3002.4	3046.8
50°	4548.9	4570.2	4556.3	4457.5	4080.5	3663.0	3576.1	3374.7	3538.3	3657.4	3802.5
52.5°	5024.7	5055.2	4939.7	4901.8	4718.9	4234.8	4157.2	3928.1	4224.7	4422.4	4745.7
55°	5426.6	5425.6	5385.0	5471.8	5404.4	4934.2	4848.2	4640.4	5019.1	5228.9	5701.9
57.5°	5613.2	5635.3	5774.8	6020.6	6155.5	5788.7	5706.5	5494.0	5871.8	5980.8	6491.7
60°	5709.2	5737.0	6006.7	6492.6	6855.7	6721.8	6689.4	6418.7	6631.2	6618.3	7157.8
62.5°	5574.4	5629.8	6063.1	6708.8	7355.5	7659.4	7649.3	7240.0	7277.0	7150.4	7570.8
65°	4955.4	5015.5	5695.4	6600.7	7641.0	8372.6	8375.4	7983.7	7773.1	7409.1	7501.5
67.5°	3543.8	3629.7	4470.4	5906.0	7540.3	8757.9	8790.2	8320.9	7889.5	7180.0	6773.5
70°	1931.7	1994.5	2653.2	4293.0	6633.1	8665.5	8725.5	8158.3	7375.8	6210.9	5214.1
72.5°	877.6	898.0	1234.2	2355.8	4531.4	7459.0	7710.3	7280.7	6057.5	4587.7	3315.6
75°	401.9	411.1	537.7	1127.1	2367.8	4991.4	5167.9	5422.9	4215.4	2897.1	1728.5
77.5°	252.2	255.0	305.8	515.5	1180.6	2491.6	2677.2	3228.8	2468.5	1433.8	722.4
80°	148.7	151.5	190.3	279.0	554.3	1140.0	1316.5	1276.7	1160.3	619.0	328.9
82.5°	74.8	77.6	109.9	158.9	302.1	453.6	534.0	536.7	432.4	335.3	185.7
85°	26.8	27.7	36.0	62.8	128.4	149.7	167.2	204.2	211.6	194.9	89.6
87.5°	0.0	0.0	0.9	1.8	3.7	14.8	15.7	29.6	61.9	69.3	36.0
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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 CATALOG NUMBER: GWS-SA2F-830-U-T4W-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6	1266.6
2.5°	1270.3	1256.4	1251.8	1247.2	1239.8	1237.0	1231.5	1225.9	1225.9	1220.4	1217.6
5°	1276.7	1258.3	1246.2	1240.7	1236.1	1238.9	1238.9	1240.7	1247.2	1243.5	1245.3
7.5°	1299.8	1278.6	1261.9	1257.3	1257.3	1268.4	1275.8	1285.0	1297.1	1298.9	1298.9
10°	1340.5	1315.5	1298.0	1295.2	1299.8	1315.5	1326.6	1337.7	1352.5	1353.4	1355.3
12.5°	1384.8	1359.9	1342.3	1346.0	1350.6	1371.0	1383.0	1392.2	1407.0	1407.0	1406.1
15°	1431.0	1403.3	1388.5	1395.9	1409.8	1432.9	1434.7	1435.6	1443.0	1441.2	1440.2
17.5°	1479.0	1449.5	1438.4	1449.5	1464.3	1475.4	1466.1	1453.2	1450.4	1446.7	1444.9
20°	1526.2	1495.7	1491.1	1499.4	1504.0	1494.8	1466.1	1442.1	1431.0	1425.5	1423.6
22.5°	1566.8	1540.9	1538.2	1538.2	1515.1	1482.7	1440.2	1407.9	1393.1	1385.7	1383.9
25°	1614.8	1590.8	1586.2	1561.3	1502.1	1443.0	1385.7	1356.2	1344.2	1340.5	1341.4
27.5°	1671.2	1654.6	1639.8	1568.7	1465.2	1372.8	1308.1	1295.2	1290.6	1295.2	1298.0
30°	1740.5	1723.9	1690.6	1559.4	1406.1	1281.3	1219.5	1218.5	1232.4	1244.4	1246.2
32.5°	1796.8	1789.5	1734.9	1529.9	1322.9	1180.6	1128.0	1131.7	1156.6	1173.3	1176.0
35°	1841.2	1853.2	1771.9	1480.9	1224.1	1085.5	1043.9	1045.8	1059.6	1082.7	1083.6
37.5°	1904.0	1944.7	1805.2	1406.1	1110.4	1003.3	965.4	951.5	949.7	956.2	958.0
40°	2030.6	2091.5	1829.2	1297.1	1000.5	929.4	886.9	860.1	837.0	819.4	813.9
42.5°	2221.8	2292.0	1843.0	1164.9	902.6	856.4	808.3	774.2	733.5	696.6	683.6
45°	2572.9	2596.0	1843.0	1024.5	815.7	788.0	740.0	699.3	647.6	604.2	594.9
47.5°	3134.5	3060.6	1844.9	888.7	739.1	728.0	686.4	640.2	582.9	546.9	541.4
50°	3980.8	3721.2	1882.8	776.0	675.3	677.2	646.7	595.9	544.1	517.3	512.7
52.5°	4939.7	4535.1	1984.4	692.9	621.7	635.6	619.0	570.0	523.8	500.7	496.1
55°	5841.4	5283.4	2071.2	633.7	576.5	600.5	599.6	554.3	512.7	489.6	486.9
57.5°	6608.1	5796.1	2058.3	585.7	537.7	568.2	582.0	544.1	505.3	485.9	483.2
60°	7084.8	6067.7	1874.4	541.4	508.1	545.1	571.8	541.4	509.0	504.4	505.3
62.5°	7291.8	6017.8	1521.5	508.1	488.7	534.0	582.9	560.8	543.2	554.3	560.8
65°	6970.3	5589.1	1119.7	483.2	470.2	536.7	608.8	591.2	543.2	550.6	553.4
67.5°	6077.9	4757.7	809.3	458.2	447.1	545.1	645.8	586.6	511.8	511.8	506.3
70°	4379.9	3421.9	587.6	433.3	424.0	533.0	647.6	555.2	475.8	473.0	459.1
72.5°	2635.7	2018.6	458.2	405.6	388.9	473.0	607.0	518.3	440.7	417.6	400.9
75°	1369.1	1011.6	384.3	375.1	333.5	400.9	555.2	461.0	376.9	356.6	347.4
77.5°	586.6	473.0	329.8	334.4	277.1	337.2	448.1	399.1	334.4	308.6	300.2
80°	289.2	268.8	260.5	267.9	221.7	260.5	386.2	349.2	283.6	254.1	242.0
82.5°	165.4	157.1	187.5	190.3	158.0	218.0	326.1	295.6	234.7	202.3	182.9
85°	76.7	82.2	113.6	114.6	97.9	149.7	213.4	166.3	124.7	103.5	98.8
87.5°	30.5	36.0	49.9	49.0	28.6	27.7	18.5	10.2	8.3	7.4	6.5
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



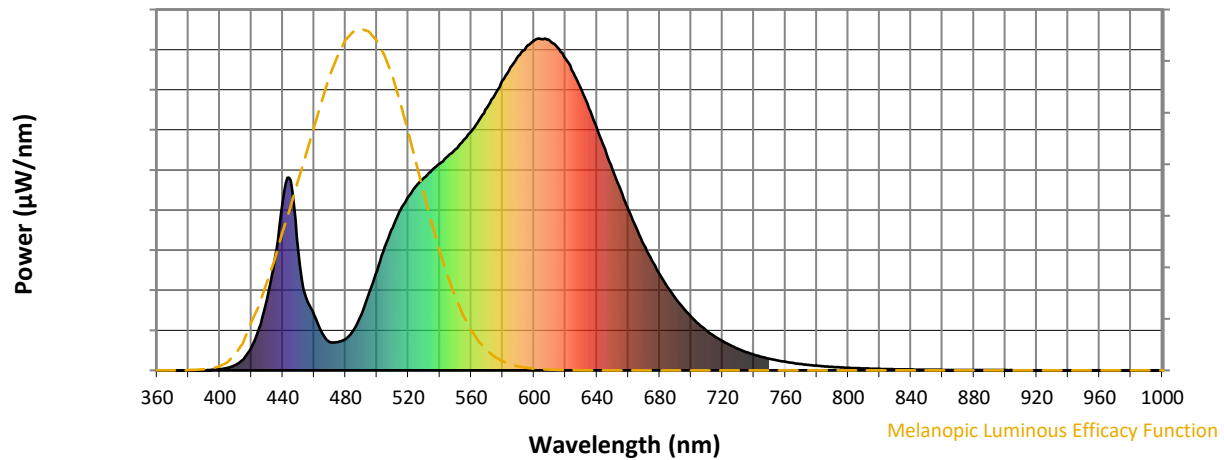
Scotopic Lumens: NR

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			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

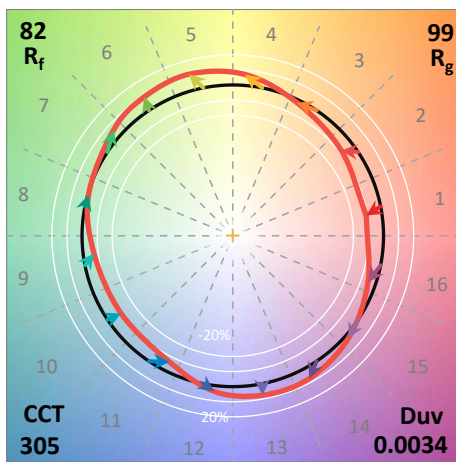
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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

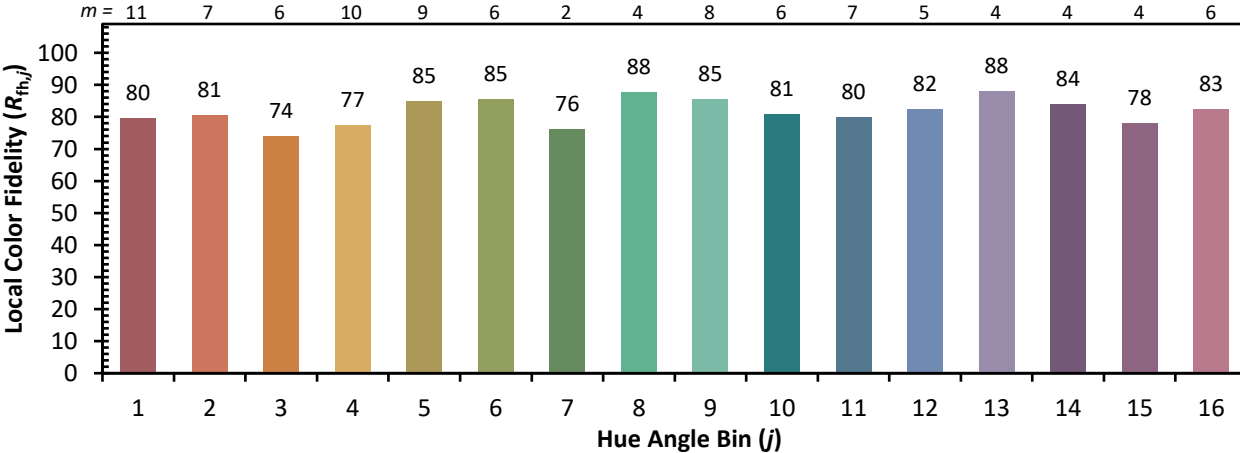


Individual Sample Fidelity Index ($R_{f,i}$)

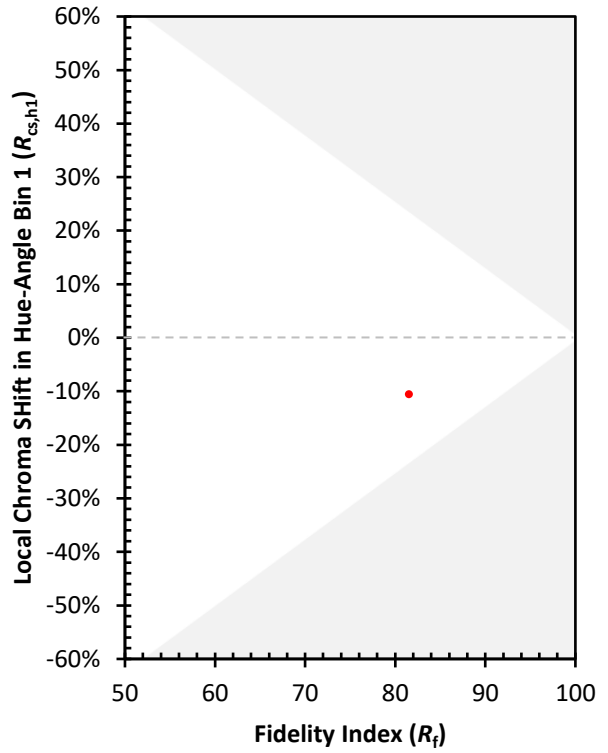
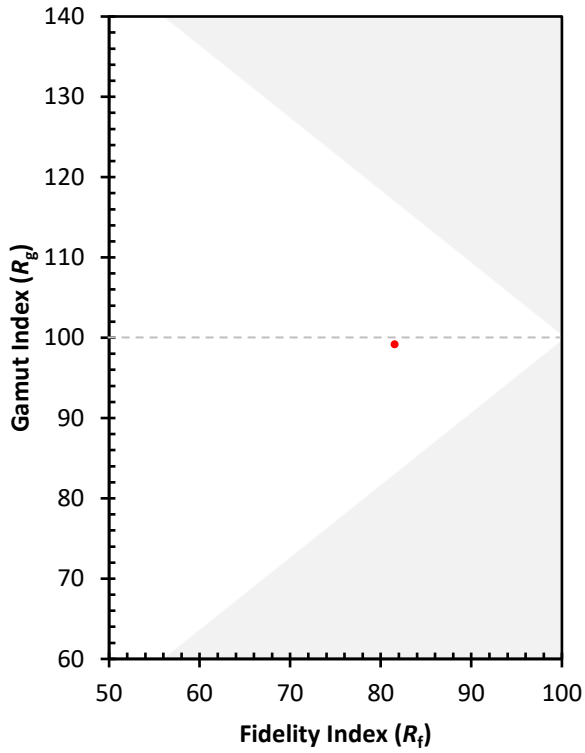
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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)