

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



Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P318235

Luminaire Tested: **GLEON-SA1B-830-U-T2**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P318235  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA1B-830-U-T2  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4665 lumens  
Efficiency: N/A  
Efficacy: 106.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B1 - U0 - G1

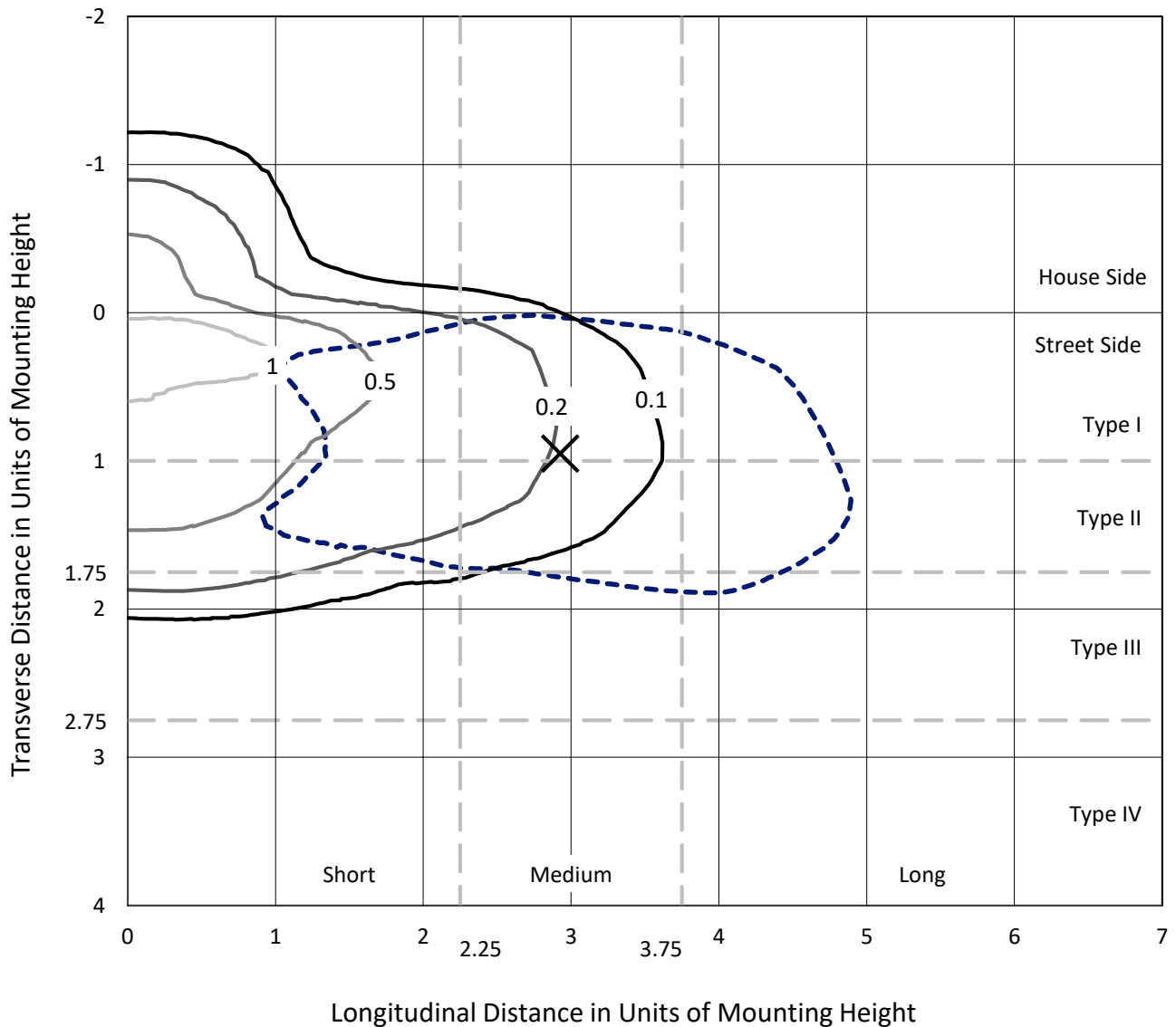
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

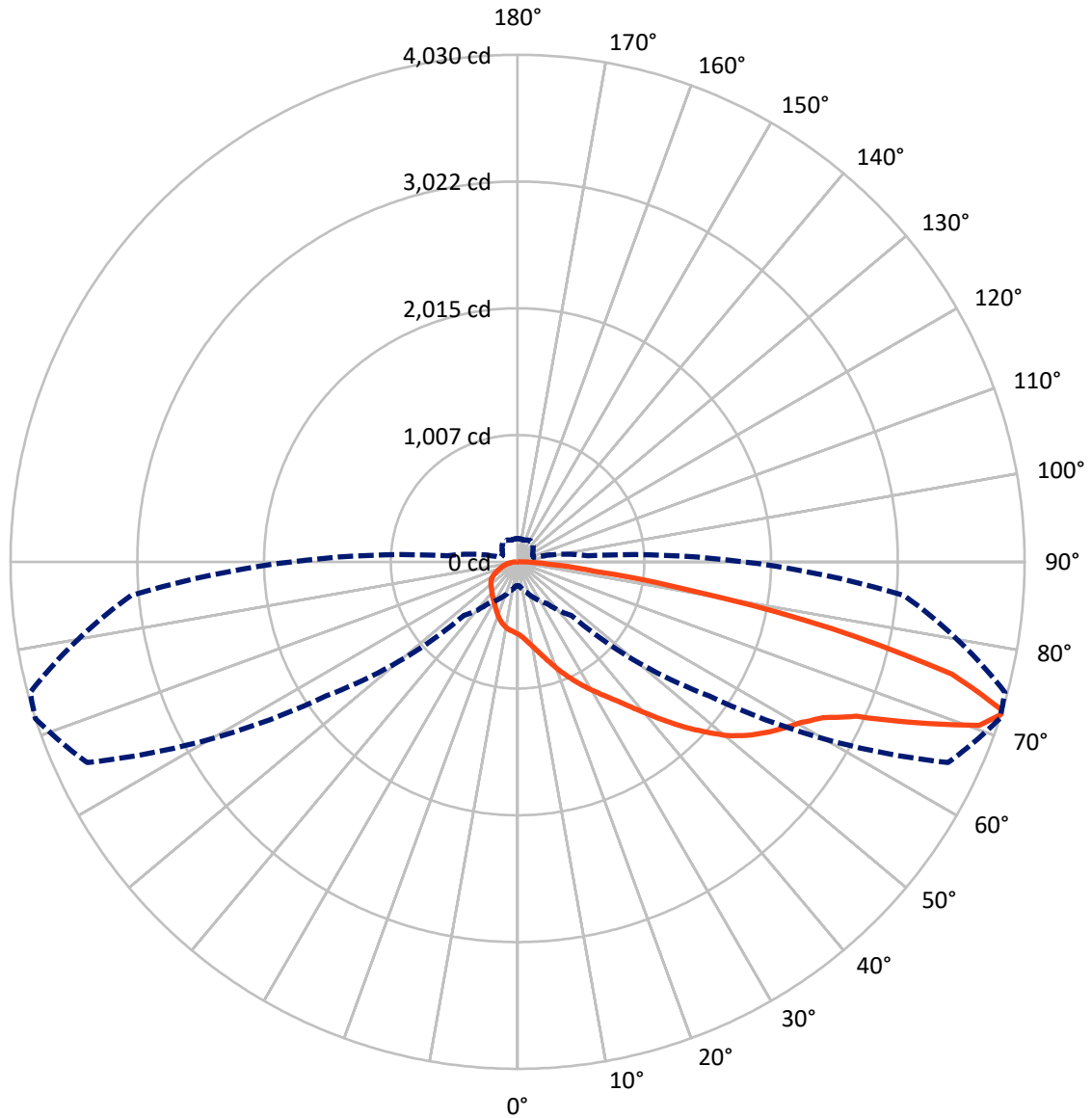
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral      - - - Horizontal Cone Through 72-Deg Vertical

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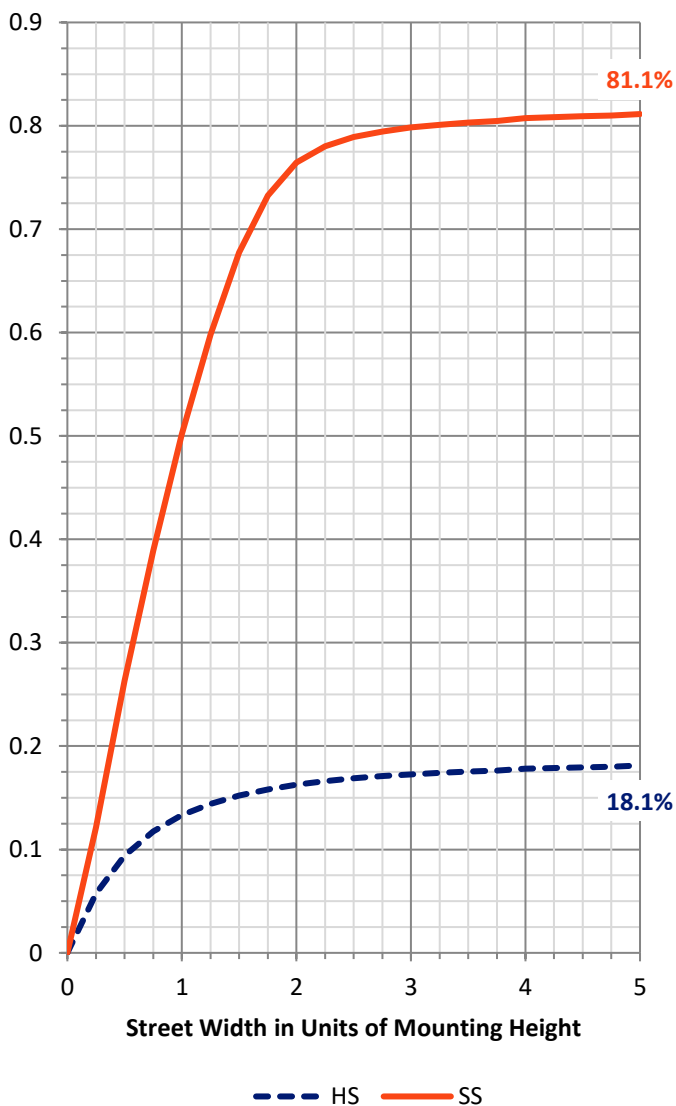
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	865.4	0.0	865.4
	% Fixture	18.6	0.0	18.6
<b>Street Side</b>	Lumens	3799.6	0.0	3799.6
	% Fixture	81.4	0.0	81.4
<b>Total</b>	Lumens	4665.0	0.0	4665.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.5	1.2
10°-20°	185.8	4.0
20°-30°	325.6	7.0
30°-40°	482.8	10.4
40°-50°	706.2	15.1
50°-60°	971.7	20.8
60°-70°	1081.8	23.2
70°-80°	733.0	15.7
80°-90°	120.5	2.6
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°	4665.0	100.0
0°-180°	4665.0	100.0

**Coefficient of Utilization**



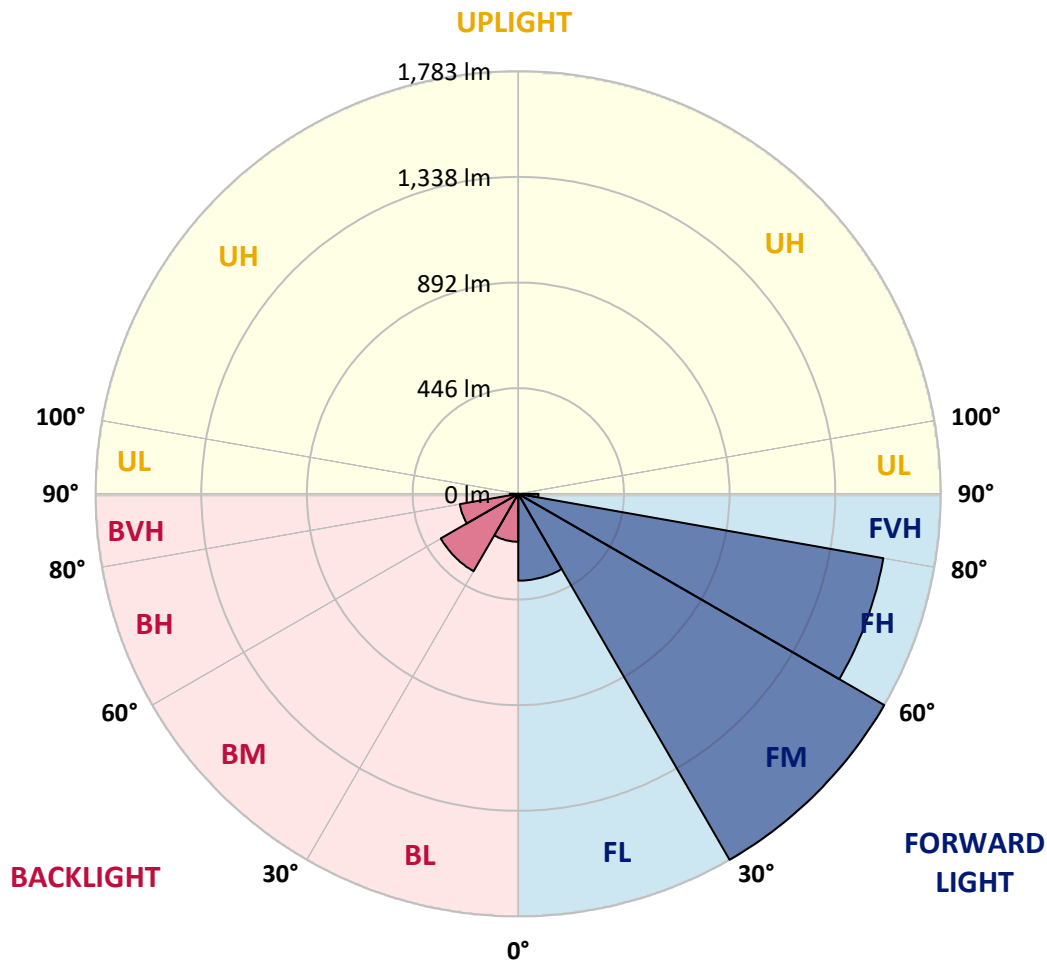
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	366.7	7.9			
FM (30°-60°)	1783.5	38.2			
FH (60°-80°)	1564.4	33.5			G1/1800
FVH (80°-90°)	85.0	1.8			G1/100
BL (0°-30°)	202.3	4.3	B1/500		
BM (30°-60°)	377.2	8.1	B1/1000		
BH (60°-80°)	250.4	5.4	B1/500		G1/500
BVH (80°-90°)	35.5	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	573.9	573.9	573.9	573.9	573.9	573.9	573.9	573.9	573.9	573.9	573.9
2.5°	634.0	633.0	629.7	629.7	623.2	617.8	607.5	600.6	592.4	589.5	579.9
5°	695.3	695.7	691.5	688.6	679.1	667.6	650.1	634.2	618.2	611.8	592.1
7.5°	746.9	746.3	745.1	742.7	733.9	722.0	698.4	674.8	651.3	641.7	607.6
10°	780.0	781.4	782.4	783.5	779.8	771.3	749.0	720.2	689.6	676.4	626.3
12.5°	796.7	799.3	803.8	811.5	817.6	816.6	800.4	769.9	733.4	716.9	649.6
15°	806.5	809.9	816.9	830.8	847.9	857.7	853.4	825.8	785.1	764.7	678.0
17.5°	812.6	815.3	826.3	844.7	870.3	896.3	907.7	884.6	843.6	820.3	710.6
20°	816.8	818.9	832.5	854.2	887.3	928.7	960.5	954.8	908.0	877.8	744.7
22.5°	826.1	827.9	840.9	862.7	899.3	952.8	1011.5	1020.1	976.0	941.8	781.1
25°	852.1	852.1	863.0	878.3	912.7	973.7	1054.5	1092.9	1045.4	1005.5	814.9
27.5°	901.8	901.3	905.3	910.6	936.6	994.9	1092.9	1157.1	1117.3	1073.8	847.6
30°	960.5	963.8	964.2	961.7	973.9	1021.4	1128.4	1224.9	1189.8	1142.9	881.2
32.5°	1036.2	1038.3	1035.9	1027.4	1025.6	1059.0	1163.3	1295.9	1268.1	1215.0	911.9
35°	1132.3	1128.2	1120.7	1103.3	1086.8	1109.3	1203.1	1366.9	1356.2	1302.2	954.1
37.5°	1235.2	1235.4	1226.1	1186.7	1163.9	1173.5	1258.0	1447.4	1462.7	1406.0	1008.2
40°	1317.8	1322.1	1327.9	1276.2	1246.6	1260.0	1327.9	1540.7	1588.6	1529.0	1078.8
42.5°	1375.4	1380.4	1396.8	1364.4	1333.7	1358.4	1410.1	1640.3	1729.9	1671.0	1161.3
45°	1436.5	1439.2	1450.8	1436.8	1417.2	1472.9	1502.8	1743.4	1879.5	1822.3	1253.7
47.5°	1500.7	1503.6	1515.5	1506.2	1495.9	1579.9	1599.5	1840.6	2022.8	1988.5	1352.3
50°	1580.1	1582.0	1593.2	1576.4	1579.6	1660.6	1685.9	1929.8	2172.9	2137.9	1451.3
52.5°	1688.3	1688.8	1704.4	1689.1	1674.0	1719.7	1760.3	2013.8	2290.7	2274.1	1550.2
55°	1773.2	1778.3	1829.4	1826.2	1817.5	1773.3	1822.5	2093.8	2395.7	2403.6	1655.3
57.5°	1719.0	1739.1	1842.5	1915.5	1986.5	1906.8	1906.5	2183.9	2493.4	2530.7	1770.7
60°	1505.5	1532.9	1685.3	1847.0	2069.2	2139.1	2080.9	2293.9	2592.0	2656.6	1915.5
62.5°	1075.2	1120.2	1326.8	1585.1	1955.8	2292.9	2435.9	2468.5	2726.1	2802.4	2103.6
65°	543.6	577.6	750.8	1061.9	1562.6	2192.4	2821.7	2850.8	2959.2	3027.0	2393.2
67.5°	330.2	343.1	427.6	590.6	958.0	1707.8	2947.6	3488.0	3410.3	3446.2	2806.1
70°	243.3	252.8	305.5	392.2	550.9	1002.1	2561.2	3942.7	3891.6	3887.6	3111.3
72°	189.5	196.4	243.0	316.9	402.9	601.2	1856.4	3774.9	4029.5	4009.2	3083.4
72.5°	179.7	185.8	228.2	298.3	380.7	545.0	1669.1	3661.6	4019.5	4010.3	3047.2
75°	141.5	145.8	169.0	230.7	298.0	309.2	914.6	2837.6	3565.7	3714.0	2740.8
77.5°	117.1	117.7	129.9	167.9	232.3	218.6	449.3	1968.8	2553.3	2716.3	1941.5
80°	95.4	96.2	102.0	117.7	175.7	161.8	213.3	1132.1	1429.6	1431.3	923.3
82.5°	76.0	76.1	82.6	86.1	126.3	115.7	122.2	531.5	624.7	600.9	331.9
85°	53.5	52.4	80.6	70.7	82.6	74.2	67.5	210.4	258.3	247.0	103.9
87.5°	17.8	18.5	35.8	45.8	48.2	42.1	30.0	80.6	97.5	96.7	32.9
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°	573.9	573.9	573.9	573.9	573.9	573.9	573.9	573.9	573.9	573.9	573.9
2.5°	576.8	571.7	564.1	555.8	549.2	542.4	537.5	534.9	532.0	529.6	532.5
5°	582.9	573.3	557.2	541.5	529.9	519.6	512.2	508.4	504.8	502.4	502.8
7.5°	592.9	577.3	550.3	527.3	511.3	500.2	492.6	490.1	487.8	487.2	488.0
10°	603.5	580.5	541.1	510.6	492.3	483.2	479.8	481.6	483.2	484.6	486.2
12.5°	615.5	583.4	527.8	491.0	475.5	471.9	475.3	483.0	488.6	492.0	494.1
15°	631.3	586.0	512.4	471.4	461.0	465.0	476.4	489.7	499.5	505.8	506.8
17.5°	645.7	585.8	492.6	451.7	449.3	461.0	478.2	497.0	510.1	519.0	520.7
20°	660.7	581.5	469.7	432.4	437.4	456.7	479.0	501.6	517.5	527.8	530.2
22.5°	674.6	573.9	444.5	414.9	427.4	450.9	475.9	498.9	514.8	523.2	525.7
25°	684.1	560.7	418.9	400.1	418.6	443.8	466.0	484.4	496.3	500.5	501.2
27.5°	688.9	543.6	394.8	387.3	409.4	432.2	447.5	456.7	460.0	459.7	459.1
30°	689.6	520.9	374.1	376.8	398.8	415.2	422.4	420.7	416.3	409.0	409.6
32.5°	687.5	495.4	356.8	366.9	385.3	394.5	394.8	386.3	374.7	363.0	359.8
35°	688.1	470.3	341.5	355.6	369.0	373.0	369.3	356.8	341.0	325.9	322.7
37.5°	695.2	448.5	328.3	342.6	350.8	351.8	346.5	333.3	321.7	307.0	305.7
40°	712.1	432.9	315.8	328.0	332.7	333.1	325.6	316.3	317.2	309.4	309.2
42.5°	742.4	426.1	304.7	312.7	315.6	316.6	310.8	304.9	313.2	308.1	306.3
45°	781.6	427.7	295.4	297.8	303.1	307.6	304.1	296.8	300.0	277.7	270.3
47.5°	826.9	438.0	288.0	285.0	294.1	302.6	297.2	286.2	274.8	252.7	248.5
50°	879.9	453.9	281.3	272.3	284.3	295.9	290.4	274.8	257.6	246.9	245.4
52.5°	935.2	473.4	274.5	258.3	271.9	290.7	288.0	272.3	251.1	240.5	238.5
55°	997.8	493.0	266.0	242.1	258.6	288.3	286.9	262.9	246.1	240.1	238.7
57.5°	1075.7	515.3	254.8	225.2	246.1	279.6	275.2	257.3	240.9	236.4	236.0
60°	1177.2	548.2	238.5	207.2	230.8	266.3	265.4	249.1	232.7	229.5	228.9
62.5°	1329.5	602.7	216.2	189.2	213.8	243.7	252.5	238.0	224.1	223.9	224.2
65°	1565.6	684.6	191.9	173.5	196.6	224.6	237.6	226.6	215.2	218.5	218.9
67.5°	1839.3	752.5	168.2	158.1	179.1	206.4	224.1	215.2	203.5	211.9	212.0
70°	1930.4	691.8	147.3	142.8	160.9	188.9	209.5	202.7	190.8	199.2	198.4
72°	1796.4	558.5	133.8	131.2	147.3	174.4	196.4	191.0	179.3	184.9	182.8
72.5°	1754.2	532.5	130.4	128.3	143.6	170.7	193.1	188.1	176.4	181.2	179.3
75°	1564.8	462.4	112.1	112.6	125.3	152.8	174.1	172.5	160.5	160.9	160.3
77.5°	1135.0	339.1	94.4	97.7	106.7	134.3	155.0	154.0	140.9	138.5	138.0
80°	526.7	173.0	76.9	78.4	87.7	112.3	132.2	130.9	120.3	117.3	115.5
82.5°	180.4	82.2	57.8	58.8	67.9	90.4	114.7	113.9	105.0	99.1	95.4
85°	64.4	41.0	40.5	39.5	48.5	71.2	99.9	95.6	82.6	70.4	70.0
87.5°	20.9	17.5	20.9	20.7	28.3	48.2	72.6	61.8	59.9	49.8	48.8
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**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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**



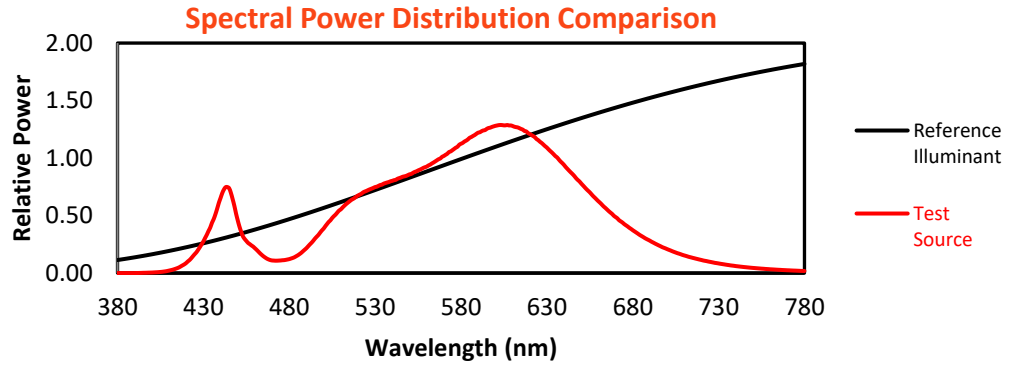
**Melanopic Lumens: NR**

**M/P: 2.32**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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**

$R_f = 81.5$   
 $R_g = 99.2$   
 $CIE R_a = 81.0$   
 $R_9 = 7.1$



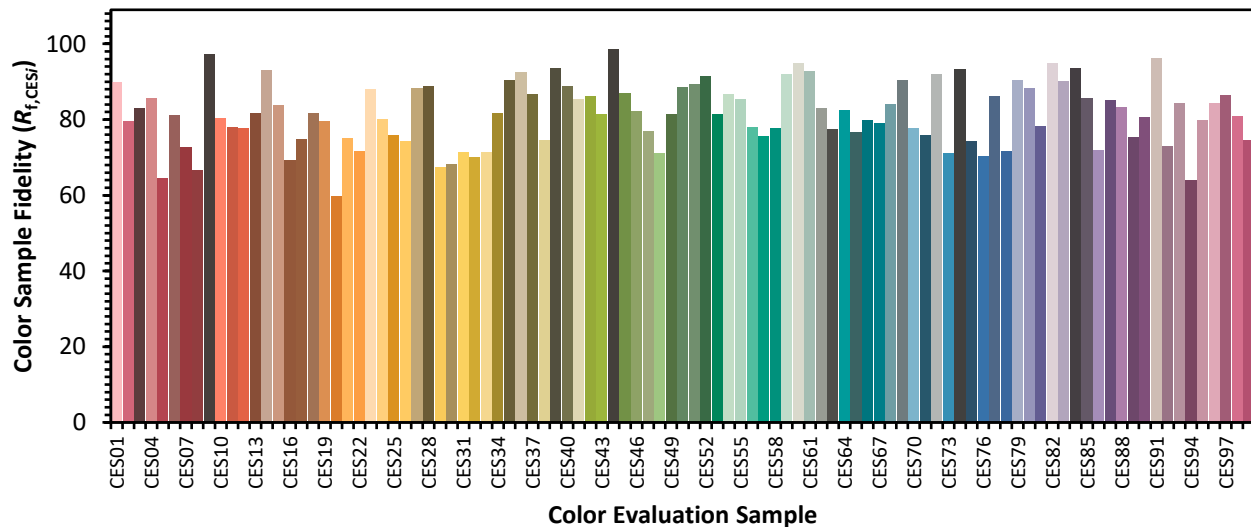
**Color Vector Graphics**



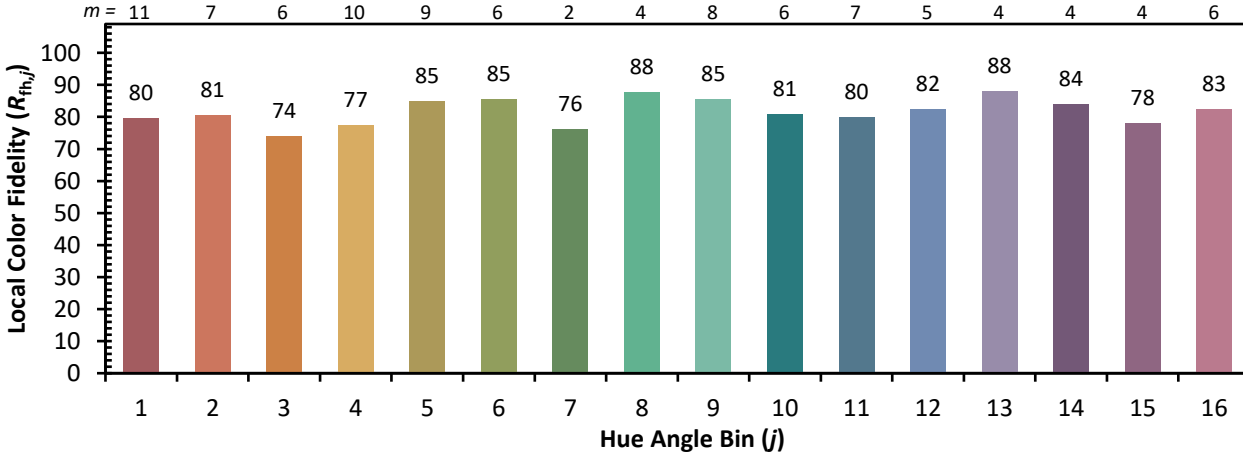


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)