

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: P387188

Luminaire Tested: **GPC-SA2D-830-U-T4W-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P387188  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GPC-SA2D-830-U-T4W-HSS  
Description: GALLEON PEDESTRIAN LUMINAIRE  
(2) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9327 lumens  
Efficiency: N/A  
Efficacy: 72.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

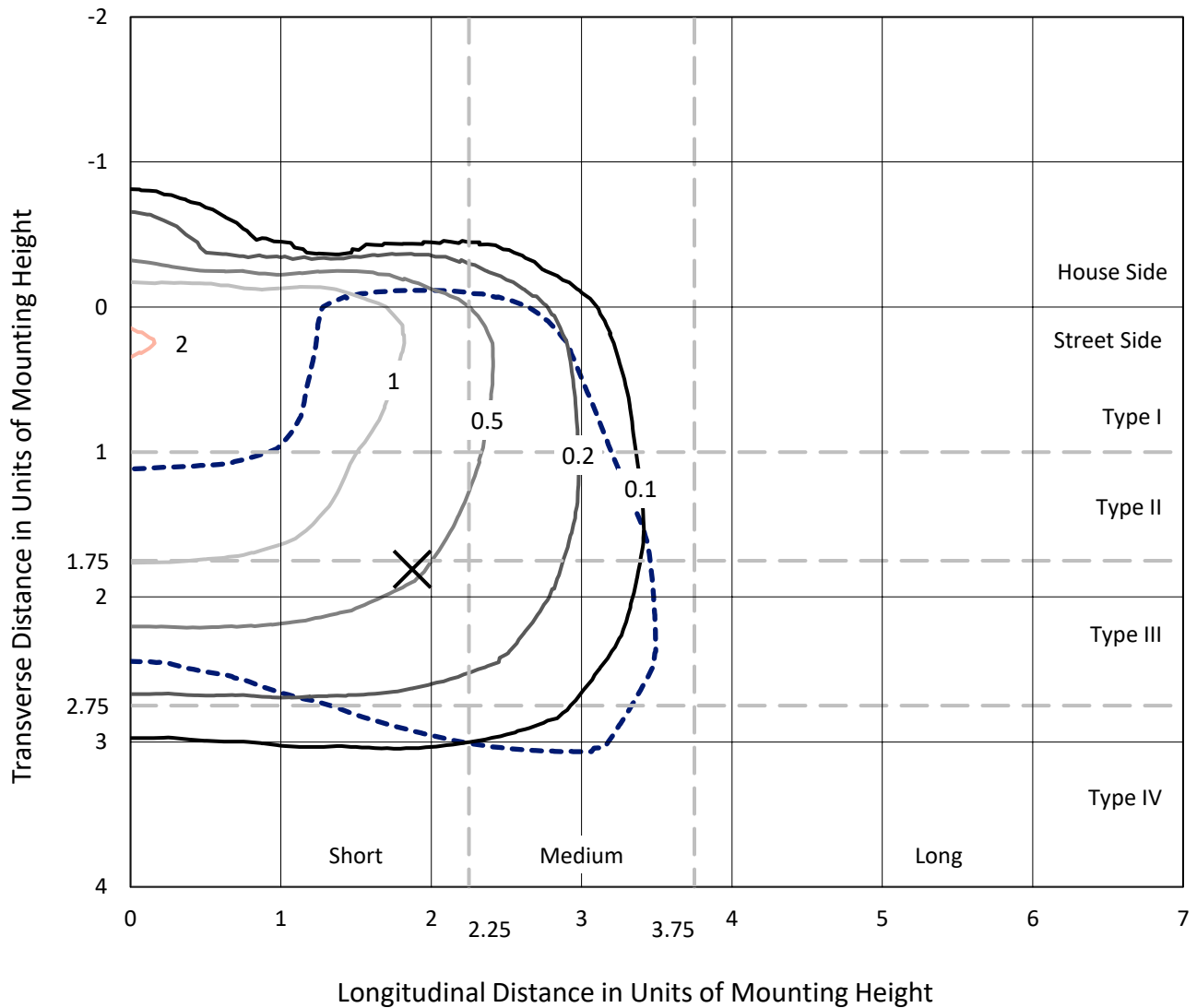
Input Watts (W): 128  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

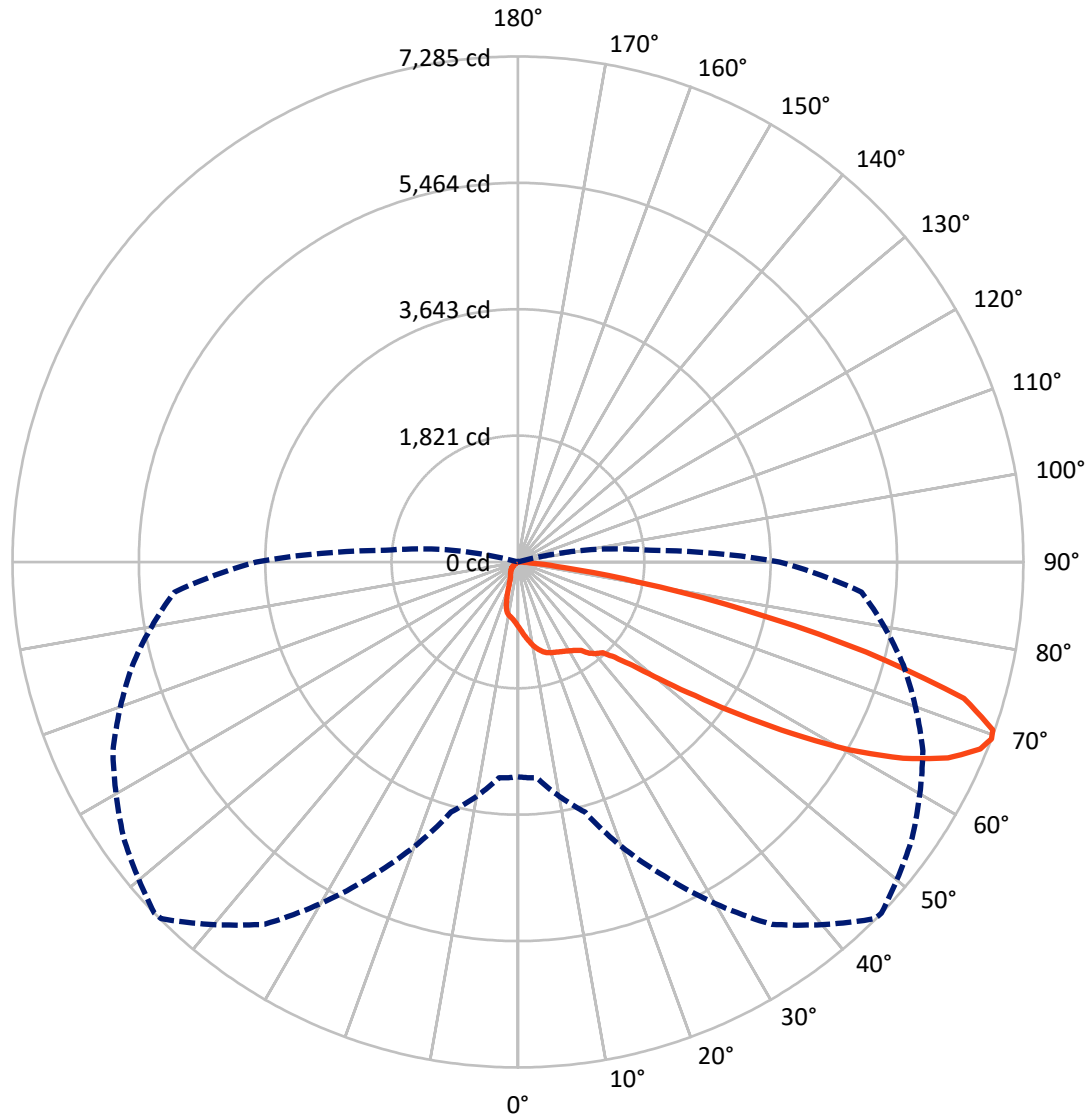
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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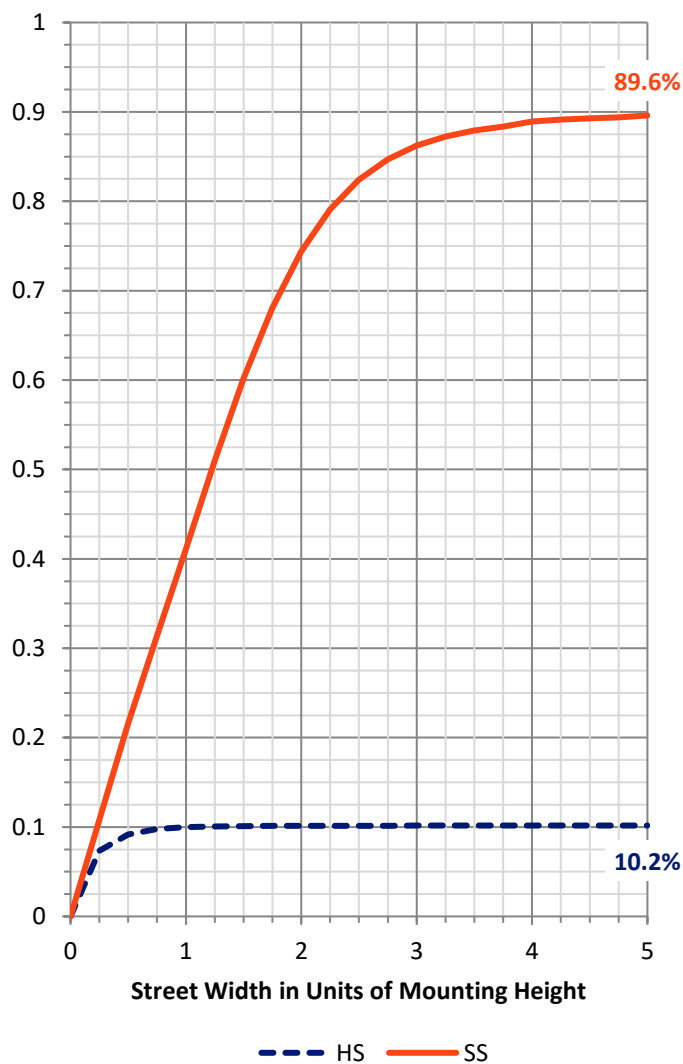
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	957.2	0.0	957.2
	% Fixture	10.3	0.0	10.3
<b>Street Side</b>	Lumens	8369.8	0.0	8369.8
	% Fixture	89.7	0.0	89.7
<b>Total</b>	Lumens	9327.0	0.0	9327.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.0	1.0
10°-20°	282.2	3.0
20°-30°	443.8	4.8
30°-40°	636.4	6.8
40°-50°	1100.0	11.8
50°-60°	2173.1	23.3
60°-70°	3037.0	32.6
70°-80°	1467.2	15.7
80°-90°	94.3	1.0
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°	9327.0	100.0
0°-180°	9327.0	100.0

**Coefficient of Utilization**



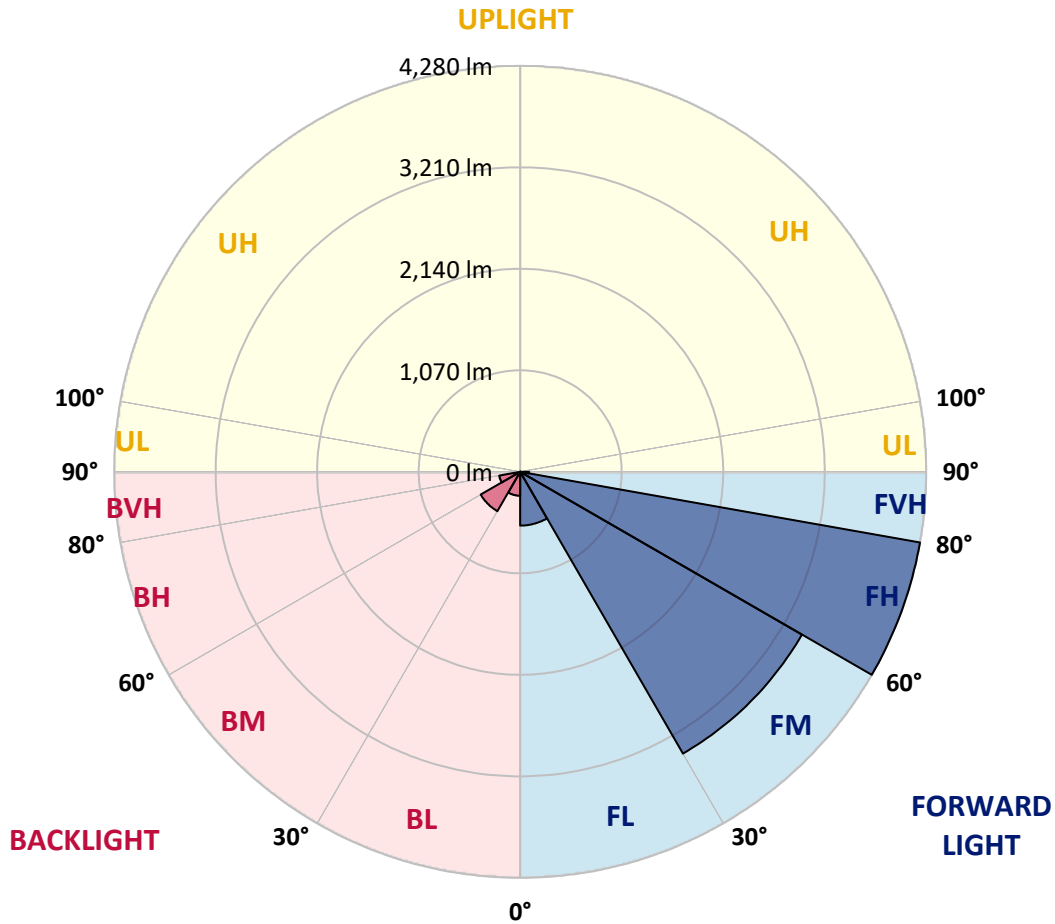
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	566.7	6.1			
FM (30°-60°)	3429.8	36.8			
FH (60°-80°)	4279.8	45.9			G2/5000
FVH (80°-90°)	93.5	1.0			G1/100
BL (0°-30°)	252.3	2.7	B1/500		
BM (30°-60°)	479.7	5.1	B1/1000		
BH (60°-80°)	224.4	2.4	B1/500		G1/500
BVH (80°-90°)	0.8	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	934.5	934.5	934.5	934.5	934.5	934.5	934.5	934.5	934.5	934.5	934.5
2.5°	1038.2	1036.9	1030.7	1028.1	1013.2	1004.5	1001.0	990.1	974.3	958.6	941.1
5°	1156.2	1155.8	1144.4	1133.5	1105.5	1079.3	1074.5	1049.1	1013.7	980.4	947.2
7.5°	1276.9	1271.3	1259.9	1238.9	1198.2	1156.2	1152.3	1116.5	1066.2	1018.1	970.4
10°	1379.3	1375.8	1360.9	1329.0	1281.3	1233.7	1228.8	1184.7	1127.8	1068.8	1008.0
12.5°	1458.9	1456.2	1436.6	1396.8	1346.0	1296.6	1290.1	1250.7	1189.9	1123.9	1052.2
15°	1507.4	1506.1	1482.0	1439.6	1389.8	1346.9	1341.2	1306.7	1250.3	1181.2	1100.3
17.5°	1518.8	1519.2	1494.3	1451.4	1410.3	1379.7	1375.3	1349.1	1301.9	1233.2	1148.4
20°	1493.4	1498.7	1476.4	1439.2	1413.8	1397.6	1394.1	1378.4	1338.6	1273.9	1186.9
22.5°	1457.6	1460.2	1444.9	1419.9	1409.4	1412.5	1410.8	1402.0	1368.3	1308.9	1224.9
25°	1435.7	1435.7	1426.5	1405.5	1412.5	1431.3	1431.8	1430.0	1403.3	1351.7	1271.3
27.5°	1434.8	1432.2	1421.7	1406.0	1425.2	1454.1	1455.8	1467.6	1451.0	1403.8	1329.0
30°	1469.8	1466.7	1444.4	1423.9	1448.4	1479.4	1483.8	1509.6	1501.3	1460.2	1393.3
32.5°	1551.6	1540.6	1491.2	1457.6	1475.9	1513.1	1518.8	1559.9	1573.0	1529.7	1455.4
35°	1663.5	1629.0	1557.7	1521.4	1523.1	1562.1	1567.3	1627.7	1666.6	1593.6	1503.5
37.5°	1817.9	1800.8	1685.0	1587.9	1595.7	1654.8	1670.1	1735.7	1724.7	1628.5	1558.1
40°	2156.4	2129.7	2006.4	1774.2	1665.3	1730.0	1734.8	1769.8	1770.7	1707.7	1671.8
42.5°	2617.3	2606.4	2476.5	2112.2	1802.2	1780.3	1789.0	1848.1	1914.1	1874.7	1873.0
45°	3127.6	3122.0	2984.2	2560.9	2079.0	1945.2	1956.1	2035.2	2161.6	2170.4	2225.9
47.5°	3538.3	3535.6	3456.5	3061.6	2502.7	2224.6	2228.1	2312.1	2534.2	2644.0	2732.7
50°	3912.6	3925.3	3862.8	3603.4	3080.0	2662.3	2654.0	2710.0	3066.9	3246.6	3356.8
52.5°	4433.0	4450.9	4275.6	4109.0	3685.6	3205.5	3198.9	3257.5	3707.1	3841.8	3861.4
55°	4892.6	4862.0	4723.4	4675.3	4424.3	3876.3	3874.6	3926.2	4326.3	4383.6	4419.9
57.5°	5095.5	5083.7	5150.6	5260.8	5197.9	4669.2	4665.2	4625.9	4880.4	4886.5	4998.0
60°	5223.7	5238.1	5443.2	5783.0	5940.0	5522.3	5497.0	5256.9	5409.5	5396.0	5515.3
62.5°	5127.5	5155.9	5525.0	6091.3	6495.4	6267.1	6231.2	5835.0	5861.7	5814.9	5926.0
65°	4616.7	4660.8	5265.6	6033.1	6770.9	6849.1	6812.8	6345.4	6220.7	6143.8	6082.1
67.5°	3748.6	3774.9	4406.3	5527.2	6646.7	7196.4	7188.9	6792.7	6491.9	6088.2	5609.8
69°	3097.9	3123.7	3731.6	4994.5	6373.3	7270.7	7285.1	6936.2	6440.3	5750.6	4970.5
70°	2623.9	2651.4	3217.7	4538.0	6056.3	7236.2	7262.0	6922.6	6292.4	5359.7	4409.4
72.5°	1376.2	1399.8	1981.0	3126.3	4937.2	6644.5	6722.8	6337.5	5333.9	3892.5	2607.2
75°	432.5	446.1	773.6	1634.2	3380.4	5166.4	5184.3	4971.3	3787.5	2141.1	1085.8
77.5°	164.9	160.9	257.6	602.2	1709.0	3253.1	3362.9	3106.6	1987.6	757.0	250.6
80°	88.8	89.2	133.8	249.3	731.2	1671.8	1764.5	1505.7	706.3	236.1	57.7
82.5°	38.5	40.2	75.2	132.1	335.9	616.6	663.0	551.9	269.8	158.7	21.4
85°	8.3	9.2	36.3	71.7	136.9	173.2	181.5	178.9	171.9	123.3	8.3
87.5°	0.0	0.0	16.2	25.8	34.5	39.4	34.5	45.0	94.9	83.1	4.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P387188

CATALOG NUMBER: GPC-SA2D-830-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	934.5	934.5	934.5	934.5	934.5	934.5	934.5	934.5	934.5	934.5	934.5
2.5°	935.4	927.5	914.0	899.1	888.6	877.7	868.9	865.0	860.6	857.6	861.5
5°	933.7	918.4	892.1	866.7	848.4	833.5	821.3	816.5	811.6	808.1	807.7
7.5°	949.0	927.5	887.3	850.1	821.7	801.6	785.0	778.0	772.3	769.7	767.5
10°	978.3	950.7	896.9	848.4	811.6	777.5	741.7	714.1	696.2	687.9	684.8
12.5°	1016.3	981.8	915.3	857.6	804.2	738.6	662.5	596.9	554.5	540.5	532.2
15°	1060.9	1018.1	939.3	869.4	777.1	657.3	528.3	442.6	403.2	395.3	386.6
17.5°	1103.8	1056.5	968.2	871.6	717.6	525.2	387.0	328.9	313.6	318.8	320.1
20°	1141.4	1094.6	996.6	852.3	609.6	394.0	299.6	285.1	290.8	300.9	302.6
22.5°	1179.4	1131.3	1022.9	801.6	471.4	299.1	269.8	273.3	279.0	289.1	290.8
25°	1225.8	1175.9	1047.4	708.4	353.8	254.5	256.3	261.5	267.2	276.4	277.3
27.5°	1279.1	1232.3	1063.5	587.3	262.4	234.0	239.6	247.5	253.2	261.9	263.7
30°	1350.0	1306.7	1068.8	461.8	220.0	215.6	218.2	227.8	236.1	244.0	245.3
32.5°	1416.4	1380.1	1051.3	348.5	203.8	198.5	198.5	204.2	213.8	221.3	223.0
35°	1477.7	1454.1	995.3	255.0	191.5	182.8	178.4	178.4	184.5	190.7	192.4
37.5°	1558.6	1557.7	904.8	203.3	179.7	169.7	160.5	153.5	151.3	152.6	153.5
40°	1697.2	1698.5	786.7	182.4	169.7	156.1	142.1	129.4	117.6	113.7	113.3
42.5°	1913.7	1894.0	663.0	172.3	160.9	142.1	121.1	104.1	85.7	80.0	79.6
45°	2257.4	2140.6	531.8	163.1	151.7	126.4	100.1	77.0	62.1	57.7	57.7
47.5°	2758.1	2464.7	411.9	153.1	139.5	108.5	75.7	55.5	45.5	43.3	43.7
50°	3275.9	2782.2	315.7	140.4	124.6	89.6	56.0	40.2	34.5	34.5	35.0
52.5°	3735.1	3014.8	246.2	126.8	106.3	70.4	42.4	31.5	28.9	28.4	28.9
55°	4164.9	3164.8	188.5	111.1	84.4	52.5	32.4	25.8	24.1	23.2	22.7
57.5°	4579.5	3239.2	141.3	89.6	61.2	38.0	25.8	21.9	20.1	18.8	18.4
60°	4855.4	3178.8	97.1	66.0	42.4	27.6	21.4	18.8	16.6	15.3	14.9
62.5°	5011.1	3013.9	62.5	47.7	30.2	20.6	17.1	15.7	12.7	11.4	11.4
65°	4948.2	2741.9	43.7	34.1	21.9	15.3	12.7	12.7	9.2	7.4	7.0
67.5°	4384.9	2316.4	33.2	25.4	15.7	11.4	9.6	10.9	5.7	3.5	3.5
69°	3772.7	1919.8	28.4	21.0	13.1	9.2	8.3	10.1	3.9	2.6	2.2
70°	3278.9	1656.1	25.8	18.4	10.9	7.9	7.4	9.6	3.9	2.2	1.7
72.5°	1961.8	923.6	19.7	13.1	7.0	6.1	6.1	10.9	3.9	2.2	1.7
75°	792.8	325.4	14.4	9.2	5.2	5.2	7.4	14.0	3.5	1.7	1.3
77.5°	179.7	71.3	8.3	5.7	3.5	5.2	8.7	10.9	2.2	0.9	0.0
80°	43.7	17.5	5.2	3.5	2.2	3.9	6.6	6.1	0.4	0.0	0.0
82.5°	14.4	6.1	2.2	1.7	0.4	1.3	3.1	1.7	0.0	0.0	0.0
85°	6.1	3.5	0.9	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0
87.5°	3.9	1.3	0.0	0.0	0.0	0.0	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**

$\lambda$ (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**

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			

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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)