

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: P438969

Luminaire Tested: **IST-SA1F-830-U-T2**

Issue Date: 12/10/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P438969  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/10/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: IST-SA1F-830-U-T2  
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE  
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6225 lumens  
Efficiency: N/A  
Efficacy: 94.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2

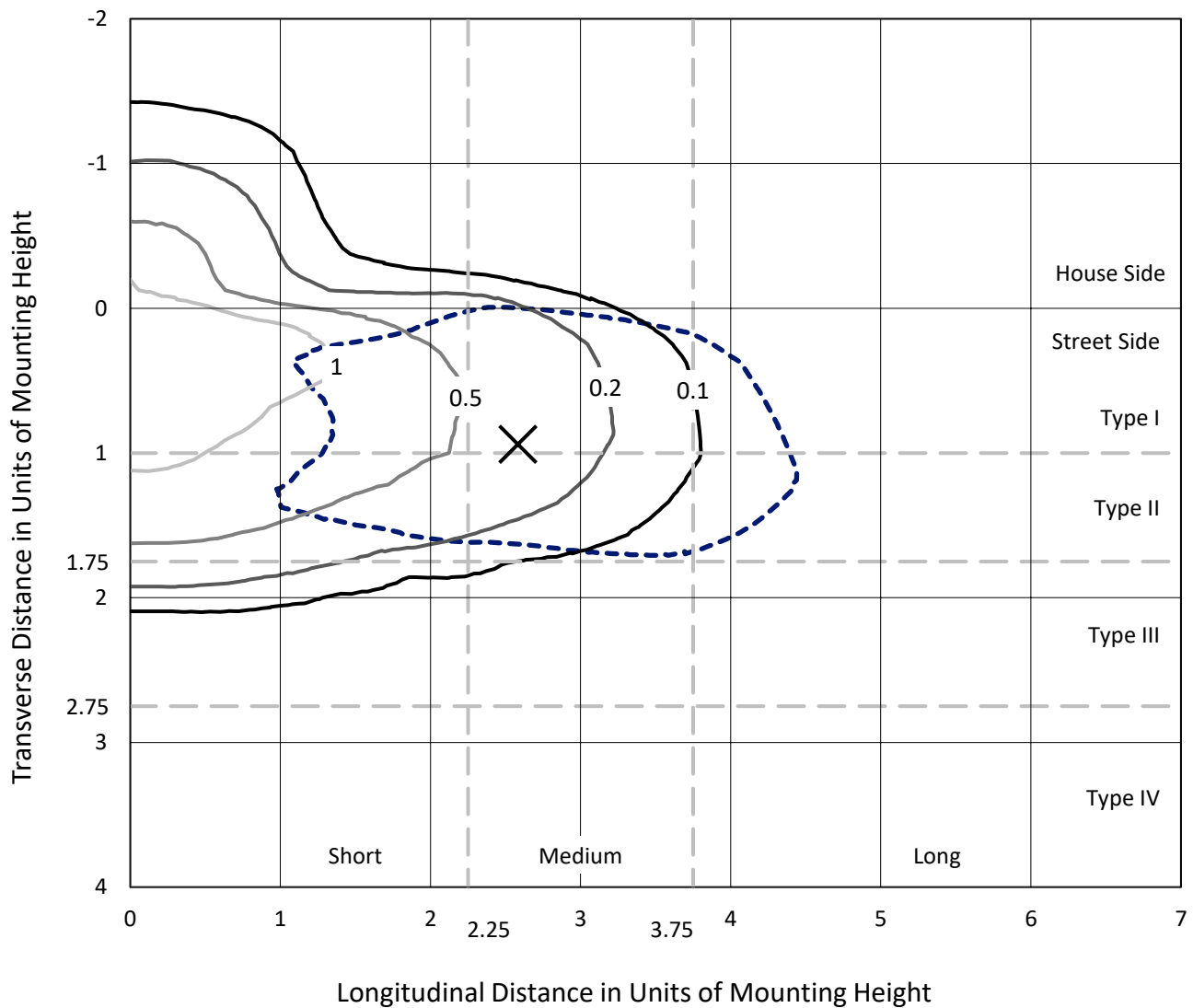
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

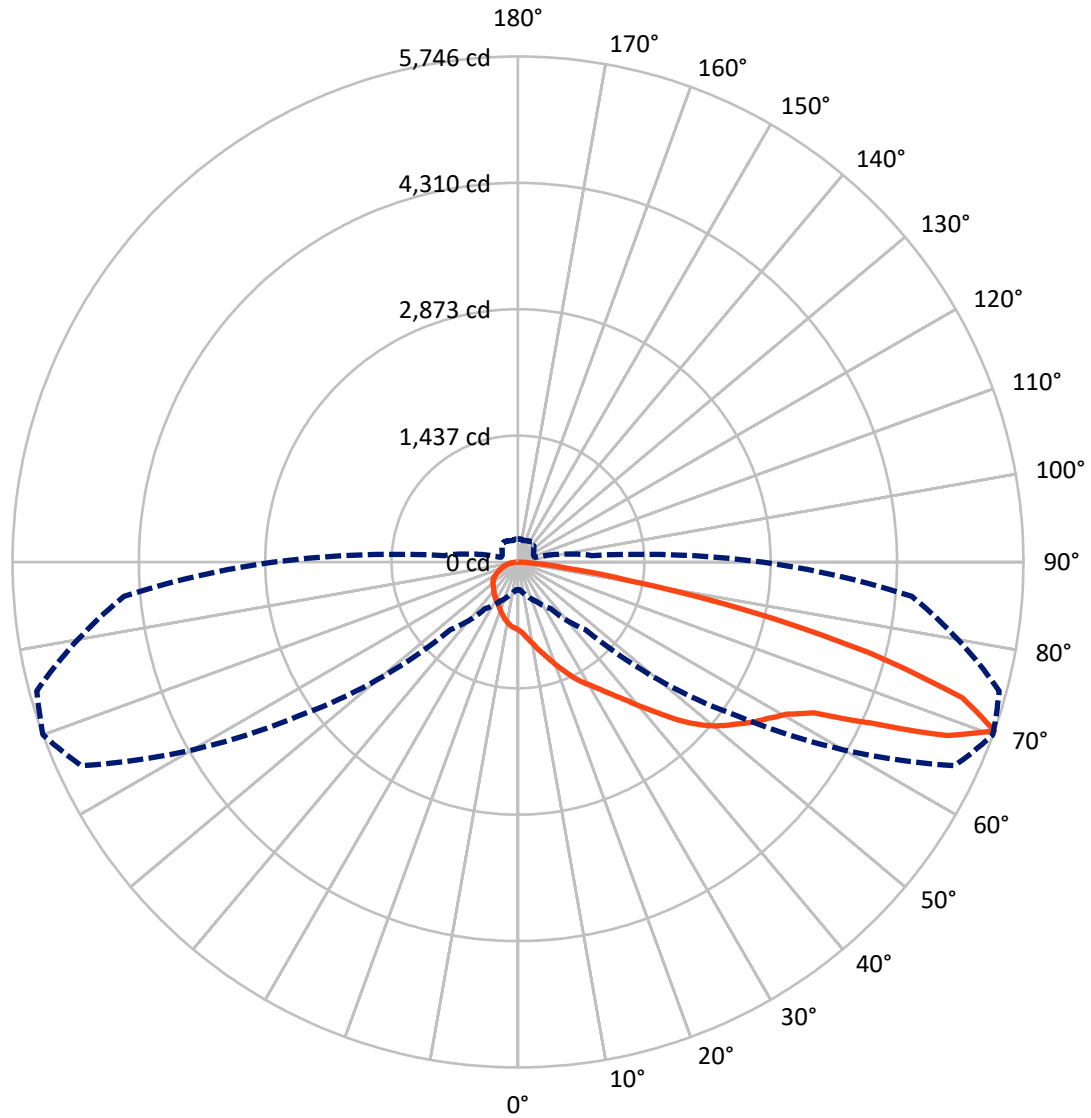
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1125.9	0.0	1125.9
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	5099.1	0.0	5099.1
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	6225.0	0.0	6225.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.5	1.2
10°-20°	249.0	4.0
20°-30°	435.6	7.0
30°-40°	648.1	10.4
40°-50°	958.3	15.4
50°-60°	1350.3	21.7
60°-70°	1502.9	24.1
70°-80°	909.0	14.6
80°-90°	94.4	1.5
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°	6225.0	100.0
0°-180°	6225.0	100.0

**Coefficient of Utilization**

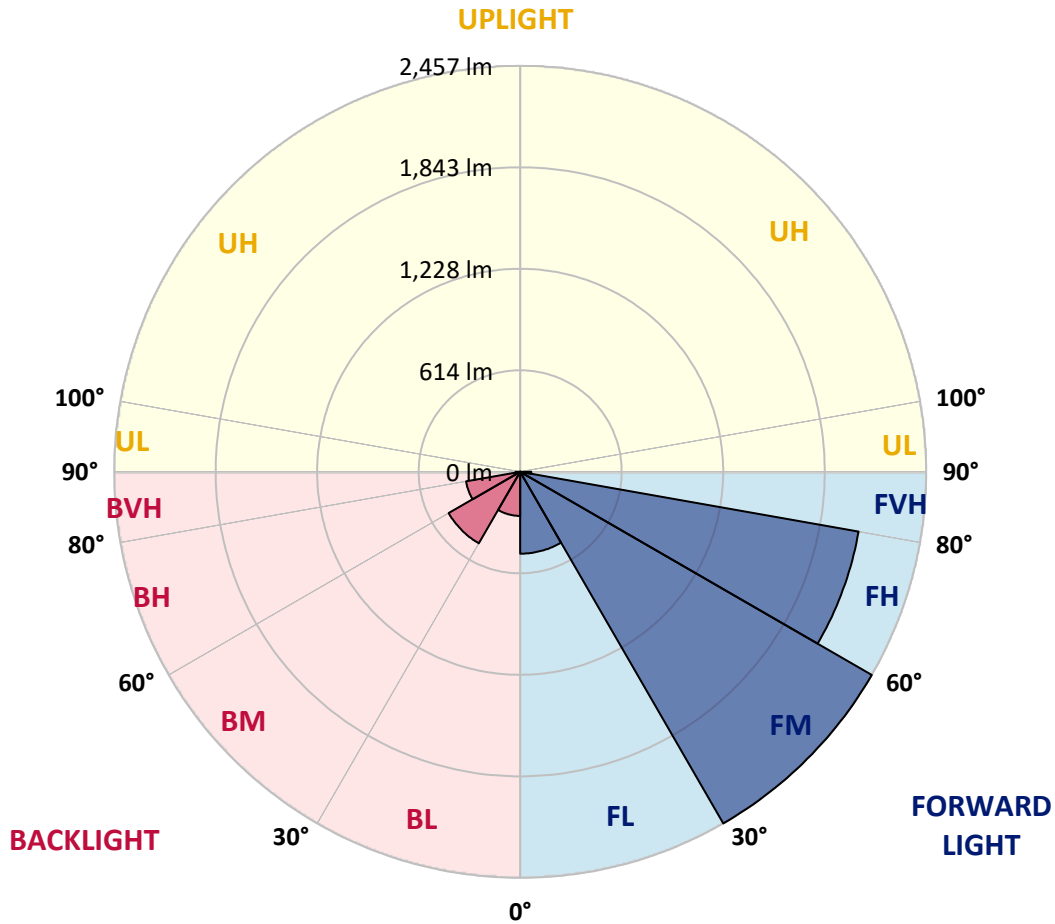


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	495.3	8.0			
FM (30°-60°)	2457.0	39.5			
FH (60°-80°)	2079.5	33.4			G2/5000
FVH (80°-90°)	67.3	1.1			G1/100
BL (0°-30°)	266.7	4.3	B1/500		
BM (30°-60°)	499.7	8.0	B1/1000		
BH (60°-80°)	332.4	5.3	B1/500		G1/500
BVH (80°-90°)	27.1	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**  
 Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	771.0	771.0	771.0	771.0	771.0	771.0	771.0	771.0	771.0	771.0	771.0
2.5°	862.1	859.9	848.8	853.2	846.6	833.3	819.9	811.0	799.9	797.7	786.6
5°	951.0	948.8	942.1	933.2	919.9	904.4	879.9	857.7	839.9	824.4	804.4
7.5°	1013.2	1008.8	1008.8	1004.3	997.7	979.9	946.6	917.7	891.0	871.0	826.6
10°	1048.8	1048.8	1048.8	1057.7	1057.7	1044.3	1017.7	977.7	946.6	922.1	857.7
12.5°	1064.3	1064.3	1068.8	1082.1	1102.1	1102.1	1079.9	1048.8	1017.7	975.5	891.0
15°	1075.5	1077.7	1084.3	1104.3	1133.2	1153.2	1153.2	1124.3	1082.1	1042.1	933.2
17.5°	1086.6	1088.8	1102.1	1126.6	1159.9	1197.7	1219.9	1199.9	1162.1	1117.7	973.2
20°	1088.8	1086.6	1108.8	1142.1	1191.0	1235.4	1291.0	1295.4	1255.4	1191.0	1019.9
22.5°	1111.0	1111.0	1119.9	1153.2	1206.5	1271.0	1355.4	1379.9	1344.3	1288.8	1077.7
25°	1155.4	1164.3	1171.0	1182.1	1222.1	1299.9	1411.0	1479.9	1446.5	1384.3	1137.7
27.5°	1237.7	1237.7	1244.3	1242.1	1255.4	1324.3	1468.7	1575.4	1542.1	1459.9	1175.4
30°	1317.6	1313.2	1319.9	1319.9	1315.4	1353.2	1511.0	1664.3	1628.7	1548.7	1219.9
32.5°	1422.1	1424.3	1419.9	1399.9	1393.2	1406.5	1544.3	1748.7	1728.7	1635.4	1259.9
35°	1564.3	1566.5	1542.1	1499.9	1477.6	1479.9	1588.7	1848.7	1850.9	1753.2	1308.8
37.5°	1688.7	1699.8	1697.6	1619.8	1582.1	1573.2	1655.4	1950.9	1990.9	1888.7	1384.3
40°	1804.3	1819.8	1815.4	1750.9	1702.1	1679.8	1759.8	2068.7	2162.0	2057.6	1475.4
42.5°	1888.7	1897.6	1902.0	1857.6	1813.2	1824.3	1868.7	2202.0	2348.7	2244.2	1597.6
45°	1979.8	1984.2	1990.9	1966.5	1935.4	1988.7	2004.2	2346.4	2566.4	2484.2	1742.1
47.5°	2073.1	2090.9	2097.6	2070.9	2050.9	2137.6	2150.9	2486.4	2759.7	2719.7	1886.5
50°	2224.2	2242.0	2235.3	2204.2	2186.5	2253.1	2282.0	2613.1	2930.8	2957.5	2026.5
52.5°	2419.8	2430.9	2459.8	2406.4	2366.4	2342.0	2390.9	2753.1	3068.6	3166.4	2175.3
55°	2457.5	2473.1	2577.5	2626.4	2659.7	2475.3	2506.4	2877.5	3217.5	3364.1	2342.0
57.5°	2302.0	2310.9	2479.8	2628.6	2868.6	2804.2	2670.8	3037.5	3355.2	3568.5	2510.9
60°	1915.4	1948.7	2168.7	2430.9	2810.8	3139.7	3097.5	3244.1	3510.8	3773.0	2755.3
62.5°	1248.8	1279.9	1513.2	1957.6	2493.1	3144.1	3708.5	3666.3	3775.2	4021.8	3061.9
65°	637.7	648.8	851.0	1186.6	1797.6	2810.8	4075.2	4537.3	4412.9	4519.6	3726.3
67.5°	424.4	433.3	524.4	684.4	1068.8	1946.5	3955.2	5417.2	5266.1	5323.9	4432.9
70°	313.3	322.2	397.7	495.5	646.6	1091.0	3059.7	5479.5	5746.1	5663.9	4495.1
72.5°	233.3	235.5	282.2	382.2	477.7	586.6	1808.7	4521.8	5281.7	5579.5	4177.4
75°	177.8	177.8	202.2	282.2	373.3	377.7	1008.8	3339.7	4119.6	4666.2	3484.1
77.5°	133.3	137.8	148.9	195.5	277.8	271.1	475.5	2210.9	2679.7	3041.9	2144.2
80°	95.5	97.8	104.4	120.0	184.4	175.5	240.0	1066.6	1277.7	1359.9	875.5
82.5°	60.0	60.0	73.3	73.3	104.4	108.9	108.9	431.1	515.5	577.7	293.3
85°	11.1	11.1	22.2	28.9	33.3	37.8	33.3	108.9	148.9	175.5	100.0
87.5°	0.0	0.0	0.0	2.2	2.2	4.4	4.4	4.4	4.4	4.4	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	771.0	771.0	771.0	771.0	771.0	771.0	771.0	771.0	771.0	771.0	771.0
2.5°	777.7	773.3	762.1	748.8	739.9	731.0	724.4	719.9	717.7	717.7	715.5
5°	788.8	775.5	753.3	731.0	711.0	695.5	684.4	677.7	673.3	675.5	671.0
7.5°	806.6	782.1	742.1	706.6	679.9	659.9	651.0	646.6	648.8	651.0	651.0
10°	819.9	786.6	722.2	673.3	648.8	637.7	635.5	639.9	646.6	648.8	646.6
12.5°	835.5	788.8	699.9	644.4	628.8	622.2	633.3	644.4	655.5	664.4	659.9
15°	859.9	788.8	673.3	619.9	608.8	615.5	635.5	651.0	671.0	679.9	682.2
17.5°	877.7	782.1	639.9	593.3	591.1	608.8	637.7	664.4	684.4	699.9	699.9
20°	895.5	771.0	606.6	568.8	577.7	602.2	635.5	666.6	691.0	706.6	711.0
22.5°	917.7	755.5	573.3	546.6	562.2	593.3	628.8	655.5	677.7	691.0	693.3
25°	933.2	728.8	539.9	528.8	553.3	582.2	608.8	626.6	637.7	646.6	646.6
27.5°	942.1	697.7	513.3	515.5	542.2	566.6	579.9	579.9	584.4	584.4	582.2
30°	931.0	664.4	493.3	502.2	526.6	544.4	548.8	539.9	526.6	513.3	508.8
32.5°	926.6	619.9	473.3	488.8	506.6	515.5	513.3	500.0	475.5	455.5	455.5
35°	917.7	577.7	455.5	473.3	484.4	486.6	482.2	462.2	440.0	422.2	420.0
37.5°	911.0	544.4	440.0	455.5	462.2	464.4	455.5	437.7	424.4	411.1	408.8
40°	931.0	515.5	424.4	435.5	440.0	440.0	431.1	417.7	424.4	422.2	422.2
42.5°	968.8	504.4	408.8	415.5	420.0	424.4	417.7	406.6	422.2	408.8	413.3
45°	1024.3	504.4	397.7	400.0	404.4	415.5	413.3	397.7	400.0	368.9	362.2
47.5°	1106.6	517.7	388.9	382.2	393.3	408.8	402.2	384.4	366.6	342.2	340.0
50°	1199.9	544.4	380.0	364.4	382.2	400.0	393.3	371.1	351.1	337.7	335.5
52.5°	1293.2	577.7	373.3	346.6	362.2	395.5	393.3	368.9	340.0	331.1	328.9
55°	1408.8	608.8	362.2	326.6	346.6	391.1	391.1	355.5	333.3	331.1	328.9
57.5°	1539.8	648.8	344.4	300.0	326.6	377.7	375.5	346.6	328.9	324.4	326.6
60°	1708.7	697.7	317.7	275.5	308.9	357.7	362.2	337.7	320.0	317.7	317.7
62.5°	1995.4	788.8	286.6	253.3	286.6	331.1	342.2	322.2	308.9	311.1	313.3
65°	2546.4	959.9	251.1	233.3	264.4	302.2	324.4	306.6	293.3	302.2	302.2
67.5°	2955.3	1035.5	222.2	213.3	242.2	280.0	304.4	288.9	275.5	286.6	286.6
70°	2777.5	842.1	200.0	195.5	217.8	255.5	277.8	264.4	251.1	262.2	260.0
72.5°	2466.4	668.8	175.5	175.5	193.3	226.6	251.1	237.8	220.0	224.4	222.2
75°	2159.8	619.9	153.3	153.3	168.9	195.5	215.5	208.9	191.1	188.9	184.4
77.5°	1246.5	413.3	128.9	131.1	137.8	162.2	182.2	162.2	148.9	146.7	144.4
80°	491.1	202.2	104.4	102.2	102.2	122.2	131.1	122.2	111.1	108.9	104.4
82.5°	177.8	102.2	80.0	71.1	73.3	88.9	102.2	95.5	86.7	68.9	64.4
85°	68.9	51.1	53.3	42.2	46.7	46.7	53.3	44.4	31.1	22.2	22.2
87.5°	4.4	4.4	4.4	4.4	2.2	2.2	0.0	0.0	2.2	2.2	2.2
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**

$\lambda$ (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)