

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: P640480

Luminaire Tested: GWS-SA5D-830-U-T3R-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P640480
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA5D-830-U-T3R-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (80) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14967.4 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G1

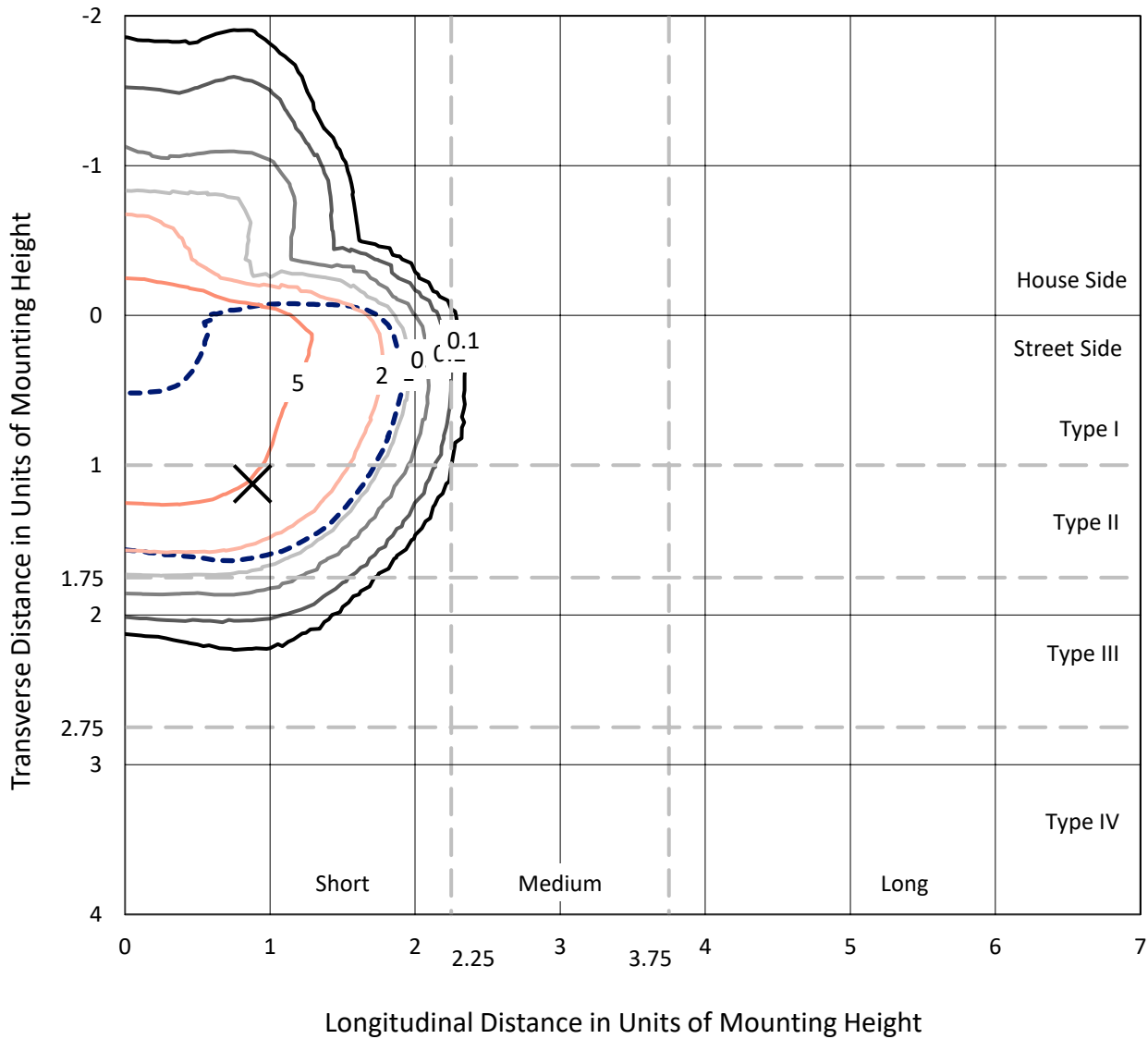
Input Watts (W): 204.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

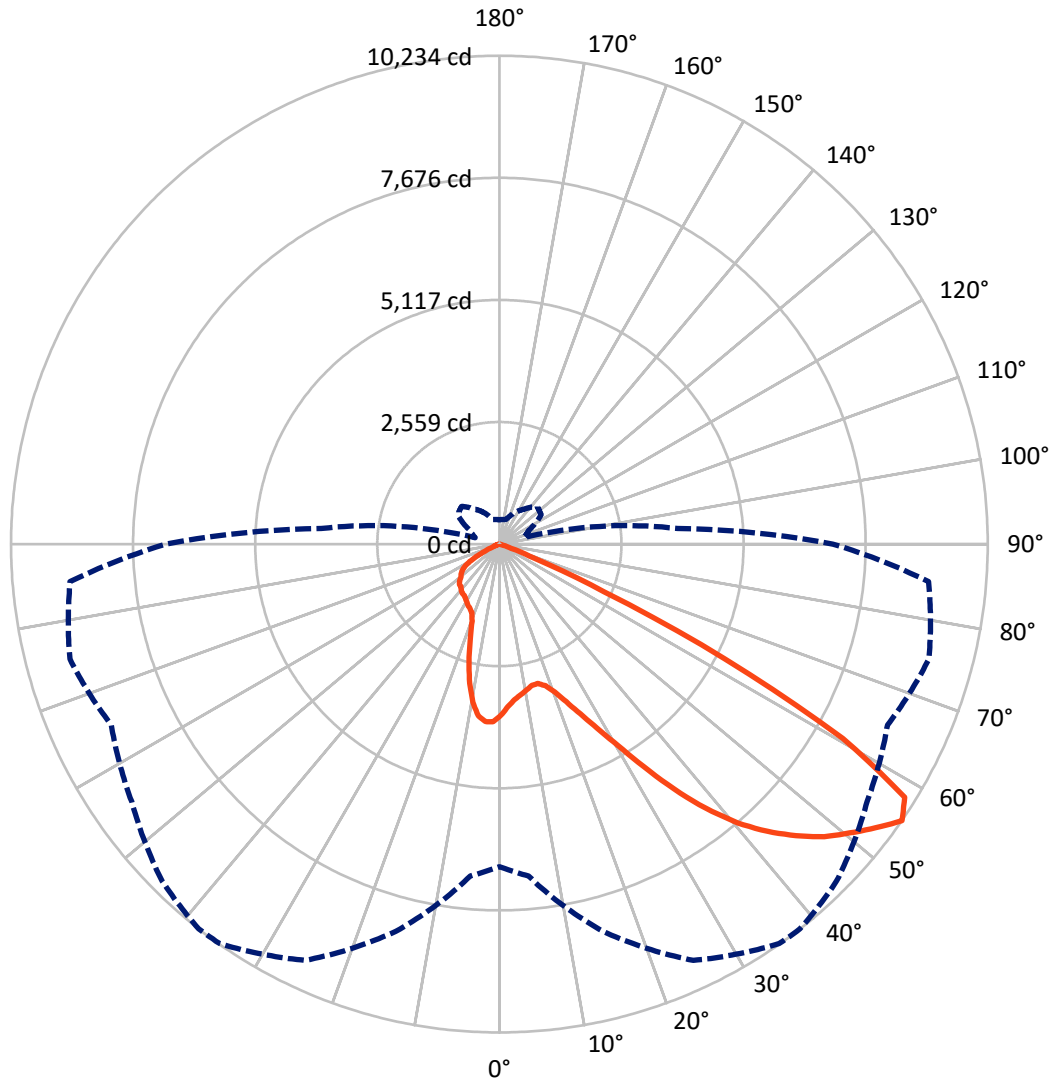
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 9.4 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2916.1	0.0	2916.1
	% Fixture	19.5	0.0	19.5
Street Side	Lumens	12051.3	0.0	12051.3
	% Fixture	80.5	0.0	80.5
Total	Lumens	14967.4	0.0	14967.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.9	2.2
10°-20°	893.5	6.0
20°-30°	1533.2	10.2
30°-40°	2543.0	17.0
40°-50°	3738.2	25.0
50°-60°	4368.3	29.2
60°-70°	1480.7	9.9
70°-80°	75.7	0.5
80°-90°	3.0	0.0
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°	14967.4	100.0
0°-180°	14967.4	100.0

Coefficient of Utilization



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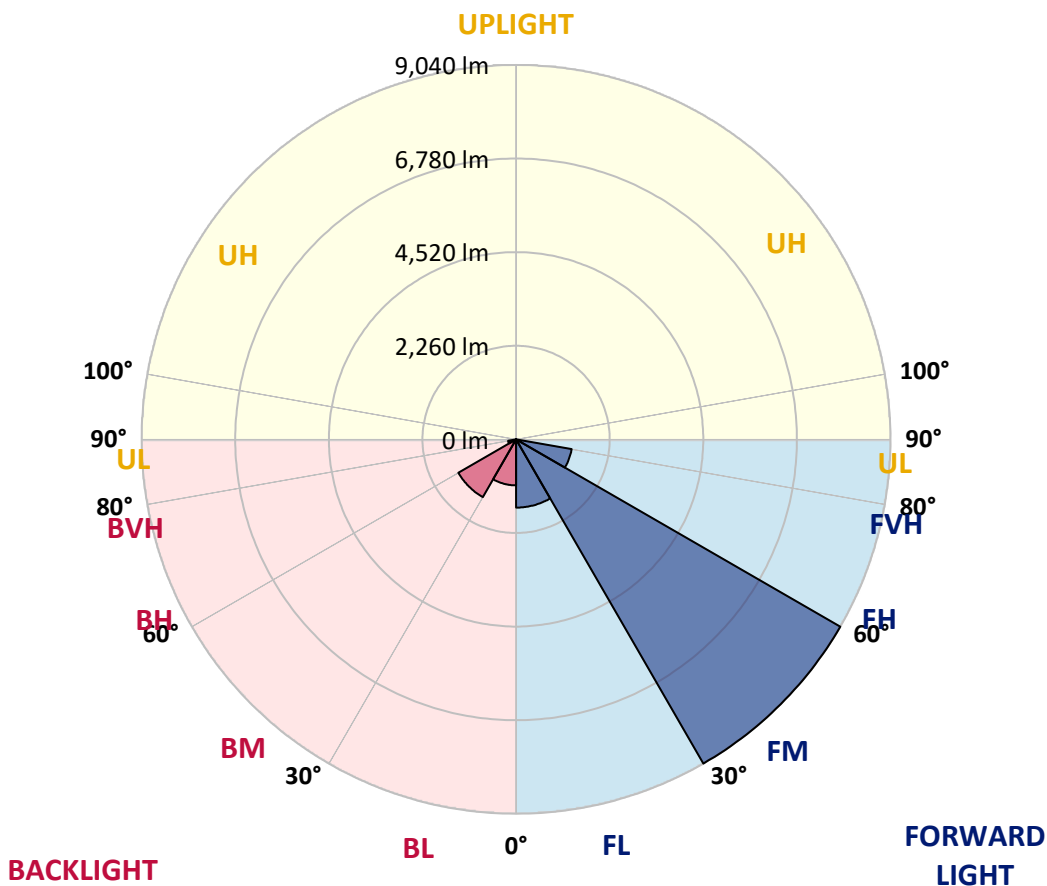
CATALOG NUMBER: GWS-SA5D-830-U-T3R-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1647.5	11.0			
FM (30°-60°)	9039.9	60.4			
FH (60°-80°)	1362.3	9.1			G1/1800
FVH (80°-90°)	1.6	0.0			G0/10
BL (0°-30°)	1111.0	7.4	B3/2500		
BM (30°-60°)	1609.6	10.8	B2/2500		
BH (60°-80°)	194.1	1.3	B1/500		G1/500
BVH (80°-90°)	1.4	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	3589.3	3589.3	3589.3	3589.3	3589.3	3589.3	3589.3	3589.3	3589.3	3589.3	3589.3
2.5°	3342.9	3336.1	3349.8	3377.2	3402.8	3411.4	3437.0	3473.0	3495.2	3548.2	3591.0
5°	3192.4	3189.0	3202.7	3226.6	3260.8	3272.8	3312.1	3372.0	3431.9	3524.3	3615.0
7.5°	3055.5	3053.8	3074.3	3127.4	3177.0	3192.4	3240.3	3313.9	3394.3	3536.3	3669.7
10°	2875.9	2877.6	2916.9	2992.2	3082.9	3113.7	3190.7	3296.7	3401.1	3584.2	3768.9
12.5°	2817.7	2821.1	2841.7	2899.8	2999.1	3038.4	3146.2	3307.0	3440.5	3652.6	3897.2
15°	2959.7	2959.7	2942.6	2949.5	2993.9	3029.9	3142.8	3341.2	3507.2	3734.7	4023.8
17.5°	3235.2	3224.9	3182.1	3124.0	3108.6	3120.5	3211.2	3414.8	3601.3	3830.5	4167.6
20°	3608.1	3611.5	3527.7	3406.2	3308.7	3307.0	3361.8	3544.8	3736.4	3945.1	4323.2
22.5°	4059.8	4046.1	3934.9	3768.9	3599.6	3585.9	3608.1	3743.3	3931.5	4126.5	4514.8
25°	4583.3	4576.4	4419.0	4196.6	3972.5	3940.0	3940.0	4073.5	4210.3	4384.8	4744.1
27.5°	5130.7	5130.7	4978.5	4721.9	4424.2	4366.0	4357.5	4514.8	4605.5	4639.7	4937.4
30°	5693.6	5686.8	5536.2	5272.7	4954.5	4894.7	4870.7	4987.0	5052.0	4949.4	5178.6
32.5°	6265.0	6277.0	6124.7	5880.1	5596.1	5556.7	5483.2	5483.2	5536.2	5392.5	5558.4
35°	6879.2	6875.8	6756.0	6590.1	6347.1	6302.7	6181.2	5991.3	6071.7	6008.4	6083.7
37.5°	7421.5	7447.2	7389.0	7265.8	7069.1	7024.6	6824.5	6480.6	6542.2	6641.4	6708.1
40°	7972.4	7992.9	8051.1	8011.8	7763.7	7681.6	7325.7	6761.2	6829.6	7170.0	7361.7
42.5°	8513.0	8523.3	8641.3	8706.4	8374.5	8230.7	7705.5	6932.2	7004.1	7584.1	7919.4
45°	8856.9	8879.1	9074.2	9272.6	8913.4	8716.6	8035.7	7151.2	7182.0	7871.5	8331.7
47.5°	8843.2	8894.5	9260.7	9621.6	9377.0	9164.9	8432.6	7501.9	7450.6	8141.8	8603.7
50°	8567.8	8629.4	9154.6	9727.7	9710.6	9513.9	8874.0	8010.1	7849.2	8381.3	8637.9
52.5°	7996.4	8174.3	8968.1	9741.4	9979.2	9880.0	9419.8	8694.4	8388.1	8725.2	8692.7
55°	6761.2	6980.1	8401.8	9625.1	10222.1	10234.1	9992.9	9407.8	8973.2	9317.1	9029.7
57.5°	5132.5	5307.0	6466.9	8567.8	9820.1	10016.8	10215.3	9784.2	9334.2	9720.9	9108.4
60°	3093.2	3295.0	4049.5	6287.3	7931.4	8266.7	9045.1	8961.3	8418.9	8584.9	7469.4
62.5°	1254.0	1360.1	1869.9	3464.4	4992.2	5305.2	6051.2	6177.8	6044.3	5875.0	4530.2
65°	458.5	501.3	749.3	1432.0	2295.9	2410.5	2804.0	3028.1	3212.9	2735.6	1685.2
67.5°	284.0	311.4	487.6	735.7	834.9	776.7	790.4	942.7	899.9	556.0	301.1
70°	210.4	232.7	381.5	509.8	337.0	260.0	176.2	188.2	169.4	148.8	147.1
72.5°	145.4	165.9	285.7	301.1	130.0	92.4	65.0	90.7	102.6	100.9	104.4
75°	95.8	111.2	179.6	118.0	32.5	25.7	22.2	47.9	61.6	61.6	63.3
77.5°	56.5	65.0	63.3	24.0	6.8	6.8	5.1	8.6	13.7	15.4	18.8
80°	6.8	5.1	3.4	3.4	3.4	3.4	3.4	3.4	5.1	5.1	5.1
82.5°	1.7	1.7	1.7	3.4	3.4	3.4	3.4	3.4	3.4	5.1	5.1
85°	0.0	0.0	1.7	1.7	3.4	3.4	3.4	3.4	3.4	5.1	5.1
87.5°	0.0	0.0	1.7	1.7	3.4	3.4	3.4	3.4	3.4	5.1	5.1
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°	3589.3	3589.3	3589.3	3589.3	3589.3	3589.3	3589.3	3589.3	3589.3	3589.3	3589.3
2.5°	3623.5	3611.5	3661.2	3697.1	3726.2	3739.8	3721.0	3719.3	3719.3	3681.7	3671.4
5°	3666.3	3671.4	3741.6	3772.4	3777.5	3760.4	3717.6	3688.5	3671.4	3632.1	3609.8
7.5°	3748.4	3765.5	3832.2	3827.1	3780.9	3702.2	3589.3	3502.0	3445.6	3384.0	3346.4
10°	3866.4	3899.0	3940.0	3868.2	3721.0	3520.9	3288.2	3122.2	3023.0	2952.9	2910.1
12.5°	4010.2	4042.7	4029.0	3859.6	3553.4	3195.8	2896.4	2656.9	2542.3	2479.0	2434.5
15°	4155.6	4176.1	4087.1	3757.0	3257.4	2776.7	2443.0	2205.2	2065.0	2013.6	1976.0
17.5°	4304.4	4299.3	4097.4	3555.1	2862.2	2304.5	1976.0	1813.5	1774.1	1765.6	1762.1
20°	4460.1	4413.9	4056.4	3266.0	2386.6	1837.4	1650.9	1661.2	1733.1	1767.3	1774.1
22.5°	4638.0	4521.7	3953.7	2874.2	1900.7	1531.2	1550.0	1650.9	1748.5	1794.6	1801.5
25°	4827.9	4620.9	3782.6	2371.2	1498.7	1408.0	1519.2	1635.5	1739.9	1796.4	1803.2
27.5°	4952.8	4644.9	3502.0	1864.8	1286.5	1360.1	1478.1	1589.4	1697.1	1758.7	1767.3
30°	5088.0	4634.6	3120.5	1437.1	1214.7	1319.0	1421.7	1522.6	1621.9	1690.3	1697.1
32.5°	5286.4	4627.8	2655.2	1166.8	1185.6	1286.5	1361.8	1445.6	1514.1	1553.4	1548.3
35°	5546.5	4619.2	2112.9	1052.2	1168.5	1260.9	1320.8	1360.1	1284.8	1260.9	1266.0
37.5°	5880.1	4639.7	1656.1	1004.3	1163.4	1254.0	1305.4	1192.4	1076.1	1031.6	1024.8
40°	6249.6	4692.8	1262.6	985.4	1180.5	1271.1	1247.2	1060.7	917.0	829.7	810.9
42.5°	6620.9	4750.9	999.1	978.6	1209.5	1319.0	1151.4	964.9	749.3	699.7	692.9
45°	6896.3	4740.7	864.0	966.6	1235.2	1346.4	1125.7	828.0	668.9	646.7	648.4
47.5°	7034.9	4627.8	790.4	939.2	1245.5	1319.0	1062.4	771.6	614.2	638.1	658.7
50°	6961.3	4335.2	722.0	886.2	1223.2	1283.1	961.5	728.8	586.8	686.0	732.2
52.5°	6872.4	3975.9	646.7	804.1	1170.2	1233.5	922.1	716.8	569.7	662.1	696.3
55°	6990.4	3748.4	523.5	677.5	1065.8	1117.2	891.3	715.1	530.4	515.0	509.8
57.5°	6824.5	3295.0	374.7	487.6	817.8	884.5	869.1	703.1	470.5	468.8	475.6
60°	5274.5	2010.2	256.6	309.7	501.3	564.6	788.7	672.4	405.5	373.0	374.7
62.5°	2997.4	855.4	176.2	191.6	256.6	304.5	602.2	610.8	374.7	355.9	374.7
65°	1043.6	306.2	136.9	128.3	142.0	162.5	345.6	472.2	340.5	307.9	311.4
67.5°	215.6	152.3	121.5	106.1	106.1	106.1	176.2	294.3	280.6	244.6	248.1
70°	136.9	130.0	106.1	90.7	87.3	80.4	100.9	162.5	193.3	177.9	179.6
72.5°	100.9	99.2	83.8	73.6	65.0	58.2	63.3	80.4	99.2	102.6	104.4
75°	61.6	63.3	54.7	46.2	41.1	35.9	37.6	37.6	37.6	34.2	37.6
77.5°	18.8	20.5	17.1	13.7	12.0	12.0	12.0	10.3	8.6	5.1	5.1
80°	5.1	5.1	5.1	5.1	5.1	3.4	3.4	1.7	1.7	0.0	0.0
82.5°	5.1	5.1	5.1	5.1	3.4	3.4	1.7	1.7	0.0	0.0	0.0
85°	5.1	5.1	5.1	5.1	3.4	3.4	1.7	1.7	0.0	0.0	0.0
87.5°	5.1	5.1	5.1	5.1	3.4	3.4	1.7	1.7	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 [^] /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)