

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: P641437

Luminaire Tested: GWS-SA5F-830-U-RW-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P641437
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-51)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA5F-830-U-RW-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (80) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29228.7 lumens
Efficiency: N/A
Efficacy: 94.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B5 - U0 - G1

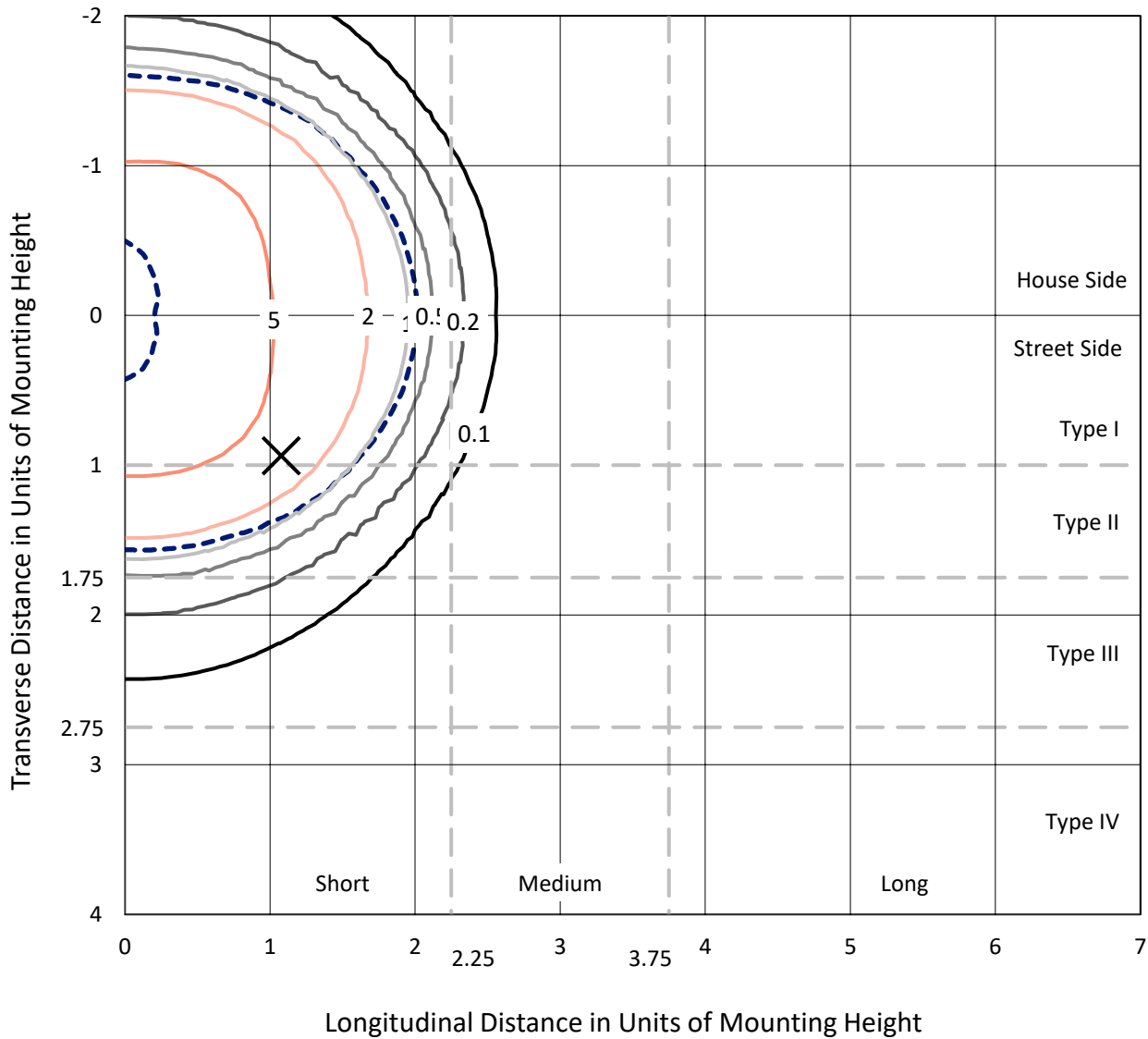
Input Watts (W): 310.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P641437
 CATALOG NUMBER: GWS-SA5F-830-U-RW-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination

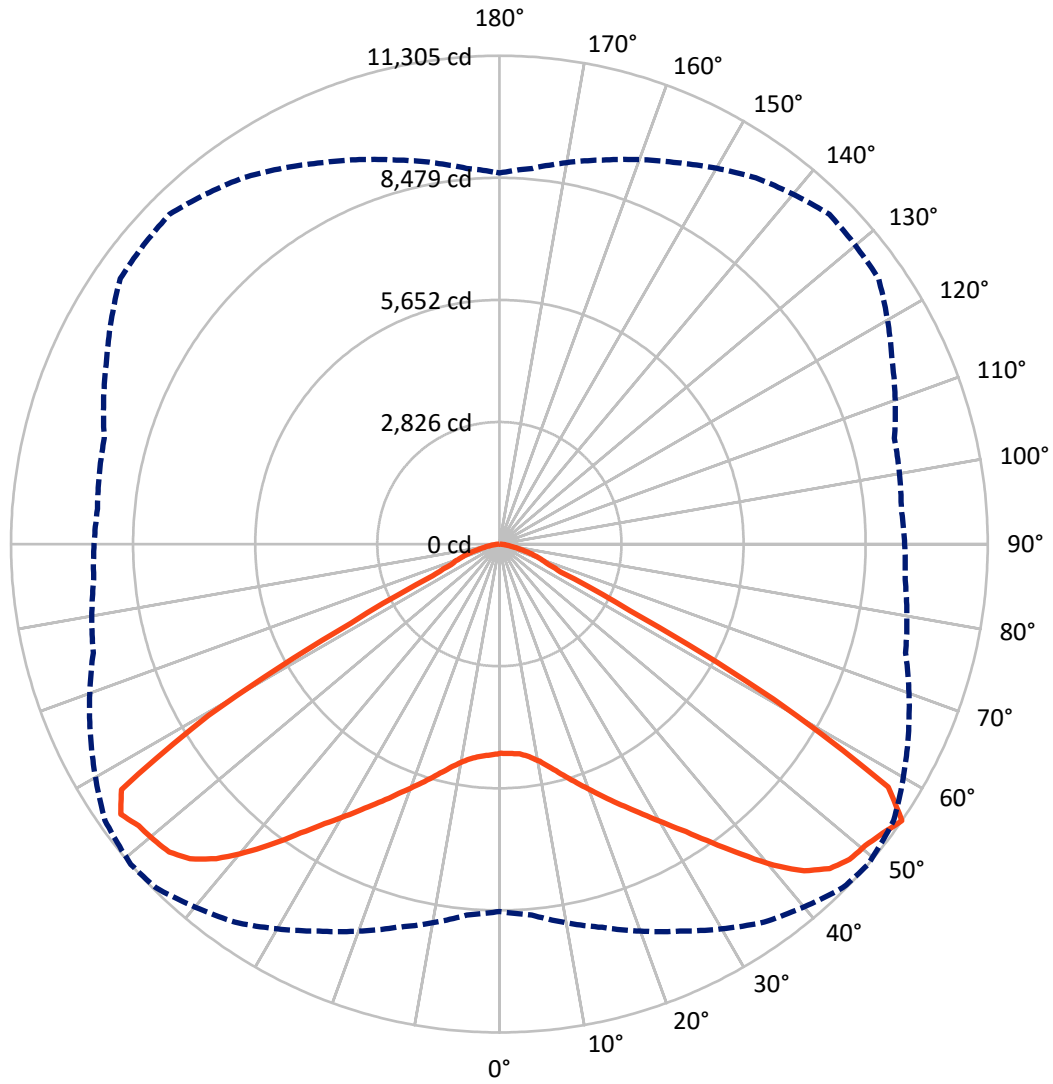
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.6 fc
 Type V - Short - N/A

REPORT NUMBER: P641437
CATALOG NUMBER: GWS-SA5F-830-U-RW-W-GRSWH

Luminous Intensity Polar Plot



— Vertical Plane Through 49-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

REPORT NUMBER: P641437

CATALOG NUMBER: GWS-SA5F-830-U-RW-W-GRSWH

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14471.0	0.0	14471.0
	% Fixture	49.5	0.0	49.5
Street Side	Lumens	14757.7	0.0	14757.7
	% Fixture	50.5	0.0	50.5
Total	Lumens	29228.7	0.0	29228.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	472.3	1.6
10°-20°	1558.0	5.3
20°-30°	2967.4	10.2
30°-40°	5030.4	17.2
40°-50°	7570.4	25.9
50°-60°	8286.6	28.4
60°-70°	2620.3	9.0
70°-80°	628.9	2.2
80°-90°	94.4	0.3
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°	29228.7	100.0
0°-180°	29228.7	100.0

Coefficient of Utilization



REPORT NUMBER: P641437

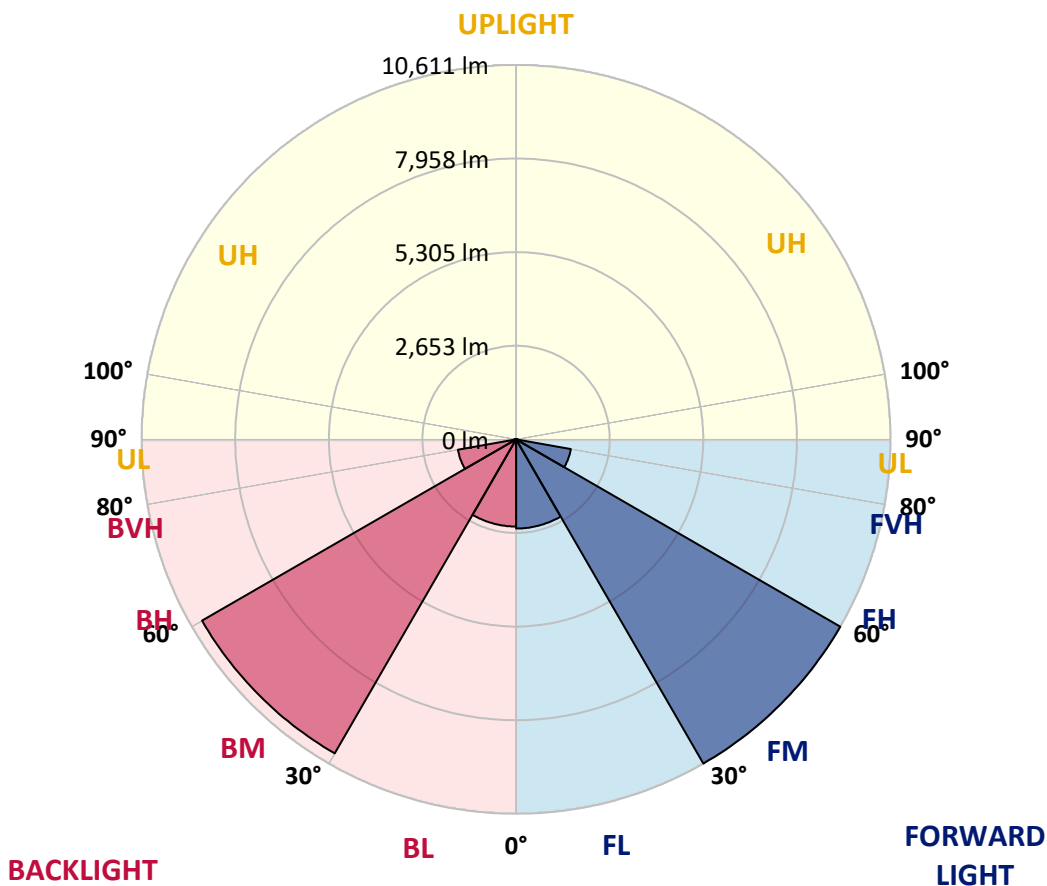
CATALOG NUMBER: GWS-SA5F-830-U-RW-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2527.1	8.6			
FM (30°-60°)	10610.8	36.3			
FH (60°-80°)	1576.1	5.4			G1/1800
FVH (80°-90°)	43.7	0.1			G1/100
BL (0°-30°)	2470.6	8.5	B3/2500		
BM (30°-60°)	10276.7	35.2	B5		
BH (60°-80°)	1673.0	5.7	B3/2500		G1/1800
BVH (80°-90°)	50.7	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G1

Type V Short





REPORT NUMBER: P641437

CATALOG NUMBER: GWS-SA5F-830-U-RW-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	49°	55°	65°	75°	85°
0°	4841.9	4841.9	4841.9	4841.9	4841.9	4841.9	4841.9	4841.9	4841.9	4841.9	4841.9
2.5°	4770.6	4775.4	4784.9	4801.5	4818.1	4841.9	4851.4	4863.3	4860.9	4875.2	4875.2
5°	4746.8	4754.0	4768.2	4792.0	4820.5	4865.7	4877.6	4906.1	4934.6	4970.3	4982.2
7.5°	4775.4	4784.9	4801.5	4839.5	4882.3	4941.7	4965.5	5013.1	5067.7	5131.9	5158.0
10°	4830.0	4841.9	4870.4	4932.2	5001.2	5091.5	5112.9	5172.3	5260.3	5348.2	5400.5
12.5°	4891.8	4910.8	4963.1	5060.6	5162.8	5281.7	5314.9	5388.6	5483.7	5597.8	5669.1
15°	4963.1	4979.8	5060.6	5198.5	5357.7	5514.6	5552.6	5623.9	5730.9	5842.6	5942.5
17.5°	5112.9	5141.4	5236.5	5395.7	5581.2	5766.6	5809.3	5890.2	5975.7	6063.7	6158.8
20°	5317.3	5341.1	5462.3	5659.6	5878.3	6047.0	6089.8	6161.1	6201.5	6246.7	6327.5
22.5°	5521.7	5555.0	5692.9	5925.8	6182.5	6365.6	6398.8	6465.4	6436.9	6422.6	6474.9
25°	5776.1	5821.2	5956.7	6211.1	6472.5	6698.3	6724.5	6781.5	6734.0	6660.3	6657.9
27.5°	6092.2	6132.6	6272.9	6534.3	6793.4	7028.7	7078.7	7154.7	7050.1	6959.8	6895.6
30°	6467.8	6493.9	6648.4	6926.5	7192.7	7416.2	7480.4	7556.4	7478.0	7328.2	7264.1
32.5°	6905.1	6940.8	7119.1	7411.4	7649.1	7872.6	7936.7	8031.8	7946.2	7777.5	7696.7
35°	7430.4	7466.1	7653.9	7972.4	8214.8	8445.4	8490.6	8569.0	8462.1	8267.1	8203.0
37.5°	8000.9	8046.1	8283.8	8585.7	8840.0	9108.6	9111.0	9134.7	8982.6	8740.2	8668.9
40°	8642.7	8702.1	8939.8	9253.6	9560.2	9778.9	9776.5	9710.0	9453.3	9077.7	8968.4
42.5°	9277.4	9324.9	9565.0	9888.2	10194.9	10401.7	10339.9	10178.2	9807.4	9296.4	9151.4
45°	9736.1	9771.8	10023.7	10387.4	10698.8	10827.2	10715.4	10520.5	10019.0	9434.2	9220.3
47.5°	9952.4	10000.0	10254.3	10615.6	10967.4	11041.1	10908.0	10724.9	10142.6	9562.6	9275.0
50°	9835.9	9897.8	10185.4	10520.5	10917.5	11069.6	10974.5	10791.5	10273.3	9688.6	9372.4
52.5°	9534.1	9593.5	9957.2	10363.6	10812.9	11114.8	11112.4	10962.6	10423.1	9724.2	9377.2
55°	8502.5	8618.9	9184.7	9885.9	10684.5	11247.9	11304.9	11145.7	10446.8	9733.7	9427.1
57.5°	5533.6	5738.0	6275.2	7188.0	8790.1	10230.5	10615.6	10653.6	10275.7	9693.3	9436.6
60°	2310.4	2474.4	2899.9	3506.0	4830.0	6543.8	7290.2	8039.0	8942.2	9270.2	9348.7
62.5°	1435.7	1450.0	1492.7	1630.6	2072.7	2909.4	3389.6	4090.8	5433.8	6577.1	7104.8
65°	1295.5	1302.6	1312.1	1302.6	1324.0	1426.2	1554.5	1799.4	2346.1	2914.2	3589.2
67.5°	1141.0	1150.5	1157.6	1150.5	1157.6	1162.3	1176.6	1198.0	1297.8	1378.6	1440.5
70°	922.3	936.5	948.4	943.7	972.2	972.2	986.4	1003.1	1053.0	1112.4	1155.2
72.5°	703.6	691.7	706.0	710.7	736.9	751.1	772.5	791.5	848.6	884.2	938.9
75°	456.4	444.5	465.9	477.8	513.4	532.4	551.5	570.5	610.9	634.7	686.9
77.5°	247.2	244.8	266.2	282.9	320.9	344.7	358.9	373.2	406.5	413.6	446.9
80°	142.6	142.6	156.9	168.8	192.5	218.7	232.9	244.8	268.6	275.7	290.0
82.5°	78.4	78.4	85.6	92.7	111.7	126.0	137.9	147.4	168.8	175.9	183.0
85°	38.0	35.7	40.4	45.2	52.3	59.4	66.6	71.3	87.9	92.7	102.2
87.5°	4.8	4.8	4.8	7.1	9.5	14.3	16.6	16.6	26.1	30.9	35.7
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: P641437

CATALOG NUMBER: GWS-SA5F-830-U-RW-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4841.9	4841.9	4841.9	4841.9	4841.9	4841.9	4841.9	4841.9	4841.9	4841.9	4841.9
2.5°	4889.5	4858.6	4877.6	4884.7	4884.7	4877.6	4846.7	4837.2	4822.9	4801.5	4801.5
5°	4998.8	4975.0	4979.8	4967.9	4939.4	4903.7	4846.7	4818.1	4794.4	4768.2	4765.8
7.5°	5186.6	5155.7	5150.9	5105.8	5029.7	4953.6	4868.1	4815.8	4780.1	4746.8	4744.5
10°	5431.4	5402.9	5367.2	5276.9	5165.2	5053.5	4937.0	4865.7	4813.4	4765.8	4763.5
12.5°	5704.8	5671.5	5604.9	5471.8	5331.6	5222.2	5089.1	4979.8	4901.3	4837.2	4825.3
15°	6001.9	5954.3	5840.2	5683.4	5545.5	5429.0	5286.4	5129.5	5010.7	4908.5	4896.6
17.5°	6230.1	6168.3	6044.7	5897.3	5783.2	5666.7	5481.3	5284.0	5112.9	4984.5	4965.5
20°	6386.9	6337.0	6196.8	6087.4	6020.9	5918.7	5702.4	5478.9	5286.4	5124.8	5115.3
22.5°	6531.9	6472.5	6334.7	6270.5	6270.5	6201.5	5994.7	5730.9	5505.1	5317.3	5293.5
25°	6696.0	6631.8	6527.2	6520.1	6553.3	6522.4	6272.9	5990.0	5726.1	5514.6	5476.6
27.5°	6924.1	6852.8	6791.0	6833.8	6881.4	6848.1	6570.0	6242.0	5963.8	5749.9	5716.6
30°	7287.8	7199.9	7142.8	7195.1	7287.8	7190.4	6888.5	6541.5	6261.0	6025.6	6009.0
32.5°	7710.9	7611.1	7551.7	7634.9	7718.1	7565.9	7266.4	6933.7	6638.9	6391.7	6363.2
35°	8219.6	8093.6	8005.7	8117.4	8203.0	8053.2	7756.1	7440.0	7111.9	6855.2	6817.2
37.5°	8671.2	8519.1	8459.7	8616.6	8730.7	8633.2	8309.9	8012.8	7653.9	7373.4	7356.8
40°	8999.3	8849.5	8806.7	9065.8	9265.5	9241.7	8951.7	8611.8	8274.3	7951.0	7920.1
42.5°	9141.9	9037.3	9046.8	9396.2	9705.2	9857.3	9598.3	9234.6	8908.9	8573.8	8552.4
45°	9172.8	9108.6	9184.7	9622.0	10028.5	10339.9	10118.8	9814.6	9446.1	9122.9	9113.3
47.5°	9206.0	9170.4	9286.9	9750.4	10232.9	10594.2	10470.6	10156.8	9783.7	9467.5	9443.7
50°	9284.5	9270.2	9401.0	9840.7	10330.4	10663.1	10522.9	10211.5	9828.8	9517.4	9460.4
52.5°	9308.3	9284.5	9472.3	9980.9	10492.0	10660.8	10358.9	9952.4	9567.4	9220.3	9160.9
55°	9381.9	9339.2	9467.5	10033.2	10715.4	10798.6	10349.4	9740.9	9203.7	8730.7	8590.4
57.5°	9401.0	9353.4	9436.6	9947.7	10473.0	10399.3	9096.7	7860.7	6848.1	6322.8	6382.2
60°	9298.8	9313.0	9170.4	9113.3	8400.3	7416.2	5569.3	4452.1	3496.5	3092.5	3180.4
62.5°	7078.7	7138.1	6650.8	5783.2	4447.3	3525.1	2331.8	1811.3	1533.2	1461.8	1473.7
65°	3572.6	3653.4	3147.1	2602.8	1934.9	1564.1	1352.5	1309.7	1295.5	1278.8	1278.8
67.5°	1414.3	1438.1	1419.1	1328.7	1236.0	1202.8	1193.2	1188.5	1171.9	1162.3	1164.7
70°	1136.2	1155.2	1126.7	1069.6	1031.6	1029.2	1024.5	1015.0	1003.1	1003.1	1010.2
72.5°	927.0	946.0	905.6	870.0	841.5	820.1	808.2	801.0	784.4	784.4	791.5
75°	682.2	694.1	660.8	656.0	625.1	603.8	584.7	575.2	553.8	544.3	551.5
77.5°	454.0	451.6	435.0	435.0	423.1	397.0	375.6	354.2	325.6	306.6	311.4
80°	294.7	294.7	287.6	287.6	275.7	254.3	228.2	206.8	190.2	175.9	175.9
82.5°	187.8	185.4	183.0	180.7	175.9	154.5	135.5	121.2	109.3	99.8	102.2
85°	104.6	104.6	99.8	99.8	90.3	78.4	68.9	59.4	52.3	49.9	49.9
87.5°	35.7	35.7	33.3	33.3	28.5	21.4	16.6	14.3	11.9	9.5	11.9
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

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

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			

REPORT NUMBER: SP1-2408-195-9

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			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

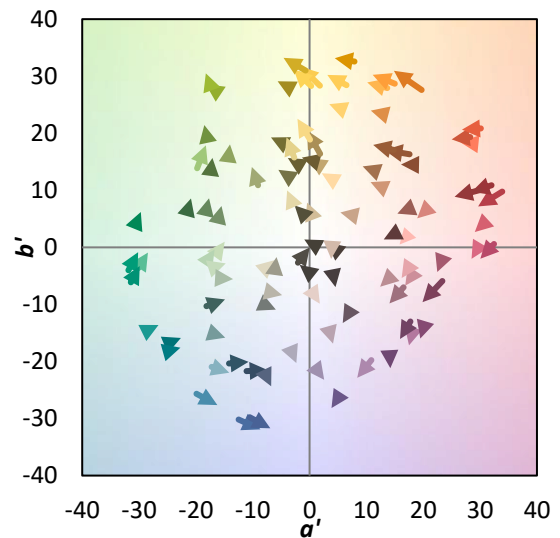
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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