

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: P438120

Luminaire Tested: **IST-SA1A-830-U-T4W**

Issue Date: 12/10/2020

Test Information

Test Method: LM-79-08
Report Number: P438120
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-12)
Test Lab: INNOVATION CENTER
Issue Date: 12/10/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: IST-SA1A-830-U-T4W
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE
(1) 80 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2177 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

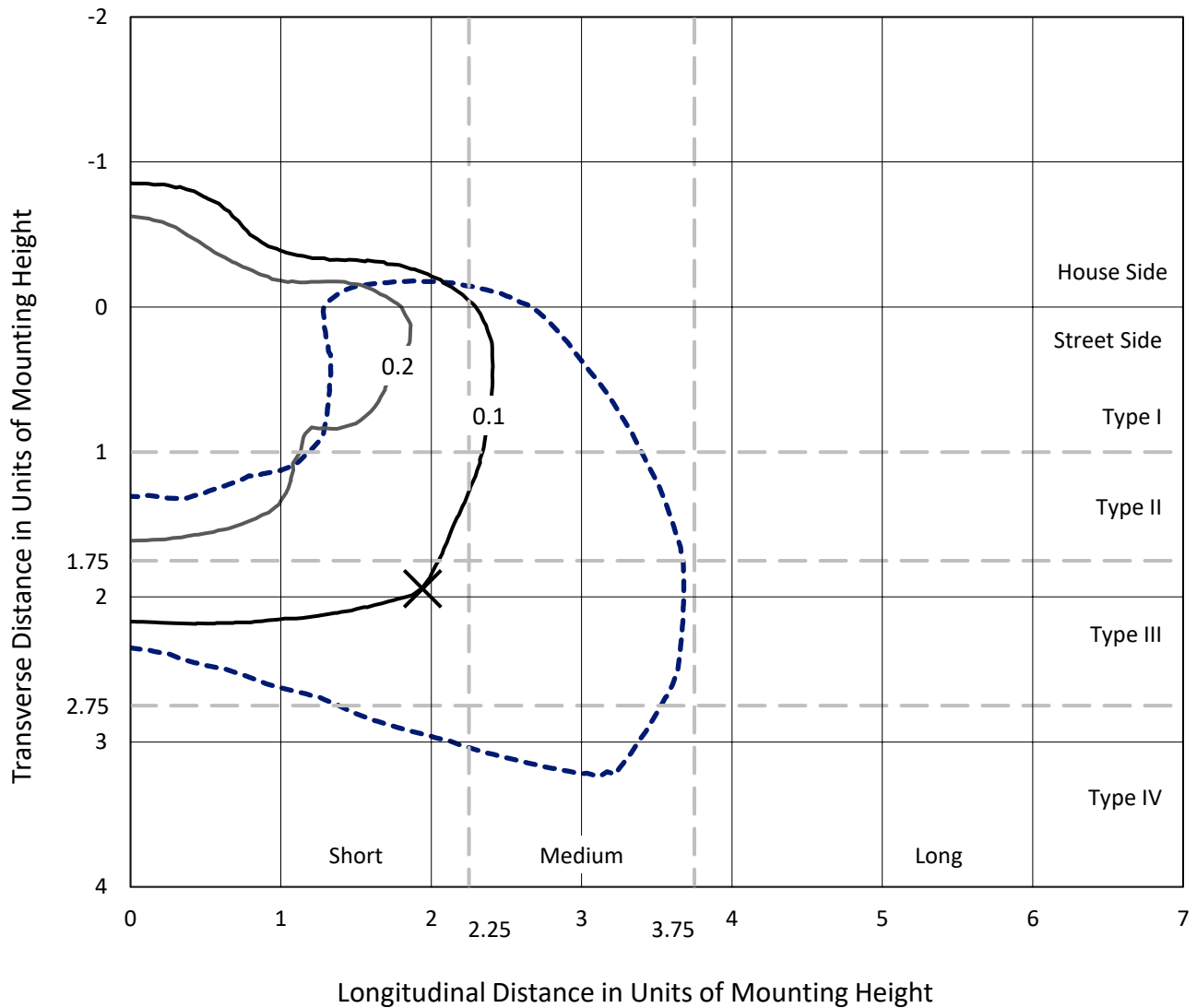
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

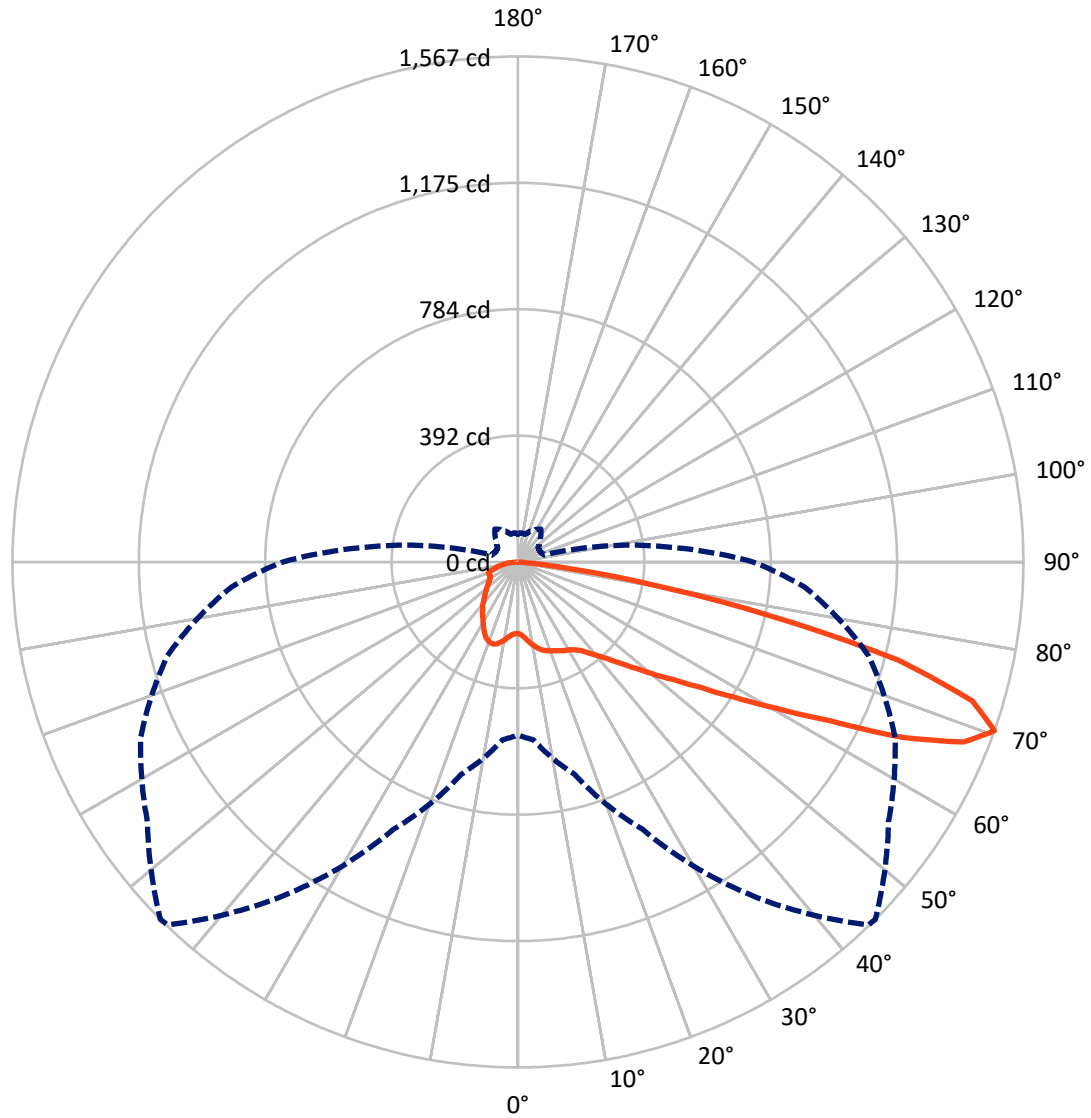
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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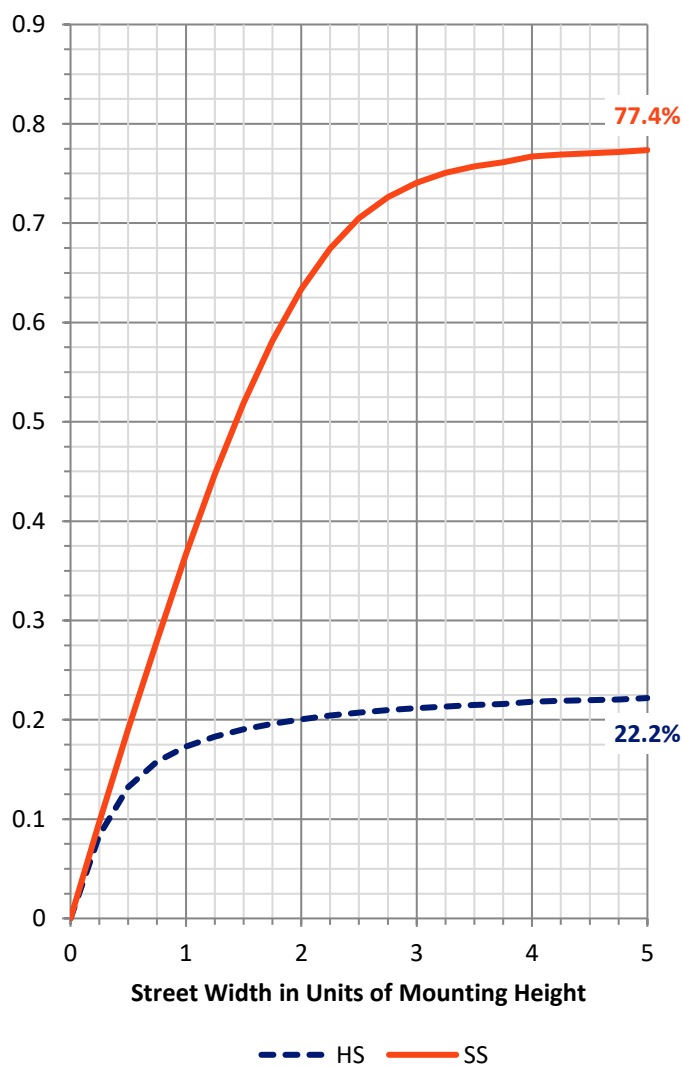
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	491.5	0.0	491.5
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	1685.5	0.0	1685.5
	% Fixture	77.4	0.0	77.4
Total	Lumens	2177.0	0.0	2177.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.8	1.0
10°-20°	76.5	3.5
20°-30°	129.5	5.9
30°-40°	187.2	8.6
40°-50°	270.0	12.4
50°-60°	442.8	20.3
60°-70°	634.3	29.1
70°-80°	377.0	17.3
80°-90°	36.9	1.7
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°	2177.0	100.0
0°-180°	2177.0	100.0

Coefficient of Utilization



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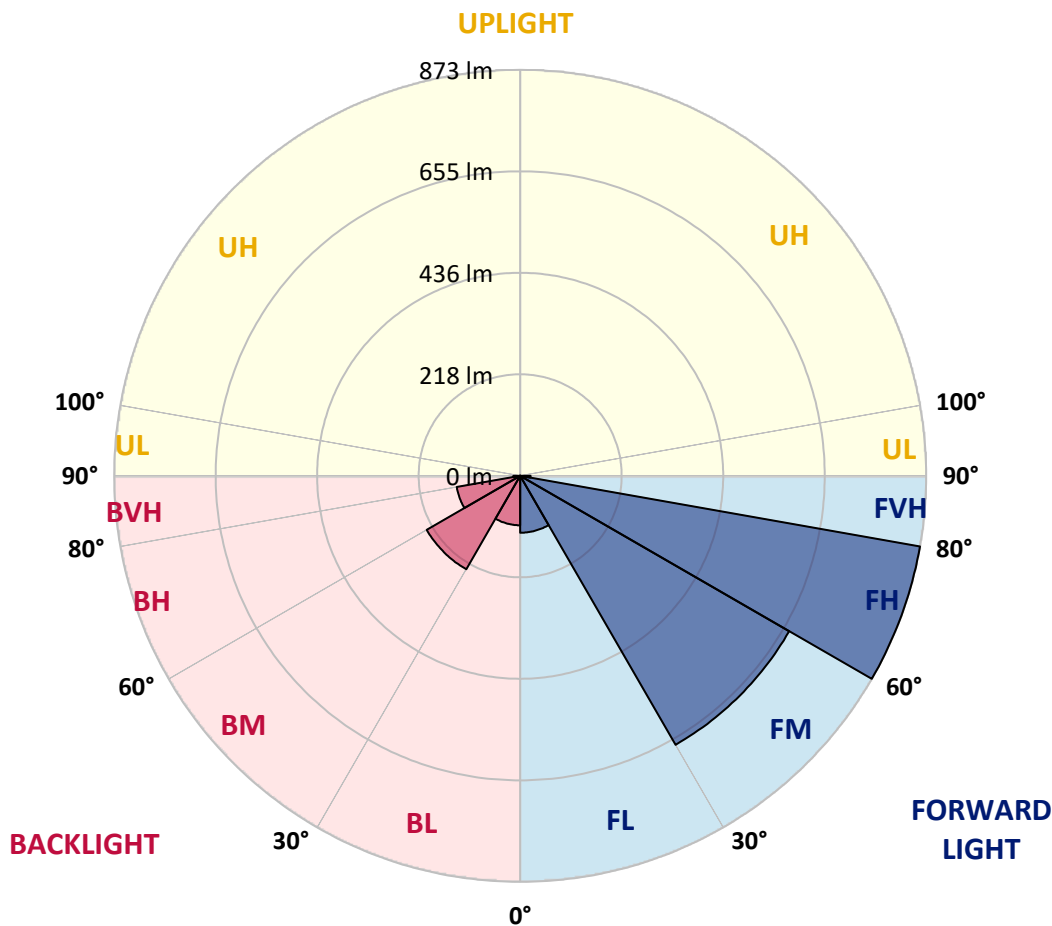
CATALOG NUMBER: IST-SA1A-830-U-T4W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	122.4	5.6			
FM (30°-60°)	667.9	30.7			
FH (60°-80°)	872.9	40.1			G1/1800
FVH (80°-90°)	22.2	1.0			G1/100
BL (0°-30°)	106.4	4.9	B0/110		
BM (30°-60°)	232.0	10.7	B1/1000		
BH (60°-80°)	138.4	6.4	B1/500		G1/500
BVH (80°-90°)	14.7	0.7			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	221.6	221.6	221.6	221.6	221.6	221.6	221.6	221.6	221.6	221.6	221.6
2.5°	232.6	232.6	231.8	231.0	229.4	227.9	227.1	224.7	224.7	224.0	222.4
5°	249.8	248.2	247.5	244.3	242.0	238.1	237.3	231.8	228.7	226.3	224.7
7.5°	267.8	268.6	265.5	261.6	256.1	250.6	250.6	244.3	238.8	233.4	228.7
10°	285.0	285.0	281.1	276.4	270.9	263.9	262.3	255.3	249.0	242.0	236.5
12.5°	298.4	297.6	292.9	288.2	281.1	275.6	274.1	265.5	260.0	251.4	243.5
15°	307.8	307.8	303.1	296.0	289.0	283.5	283.5	277.2	269.4	260.8	251.4
17.5°	313.2	312.5	308.5	300.7	294.4	289.7	289.0	284.3	279.6	270.9	259.2
20°	313.2	311.7	308.5	302.3	296.8	293.7	294.4	290.5	287.4	277.2	267.8
22.5°	312.5	311.7	306.2	301.5	299.9	299.1	298.4	296.8	291.3	283.5	275.6
25°	319.5	318.7	312.5	306.2	303.1	303.1	304.6	301.5	298.4	290.5	283.5
27.5°	339.1	335.9	327.3	315.6	310.9	310.1	310.9	307.0	304.6	299.1	292.9
30°	372.0	370.4	357.1	335.2	322.6	316.4	315.6	314.8	311.7	307.8	302.3
32.5°	415.0	413.5	393.1	364.9	338.3	324.2	325.0	321.1	321.1	315.6	310.9
35°	468.3	465.2	444.8	404.9	361.8	338.3	336.7	331.2	332.0	322.6	317.9
37.5°	515.3	512.1	492.6	445.6	391.5	361.0	358.7	345.3	336.7	325.0	325.8
40°	555.2	556.0	541.9	494.9	429.9	386.1	382.1	356.3	346.1	335.9	340.6
42.5°	595.9	598.3	588.9	538.8	469.1	413.5	411.9	375.1	366.5	358.7	369.6
45°	635.9	640.6	632.7	585.7	512.9	455.0	448.7	405.6	400.2	395.5	428.3
47.5°	671.1	672.7	671.9	635.1	561.5	502.0	493.3	445.6	452.6	465.2	520.0
50°	715.0	717.3	704.8	684.4	627.3	555.2	547.4	495.7	524.7	565.4	648.4
52.5°	780.0	783.1	747.8	735.3	708.7	619.4	607.7	569.3	631.9	693.0	791.7
55°	817.5	812.8	797.2	798.7	783.9	696.2	686.0	659.4	748.6	821.5	953.8
57.5°	841.8	839.5	848.9	870.0	870.0	794.8	790.9	779.2	873.9	961.6	1082.2
60°	881.0	885.7	907.6	949.9	972.6	924.0	921.7	924.0	1014.9	1059.5	1173.8
62.5°	905.2	915.4	971.0	1043.9	1091.6	1097.1	1082.2	1080.7	1124.5	1141.0	1234.1
65°	862.2	878.6	969.5	1087.7	1234.1	1322.6	1311.7	1216.9	1215.3	1214.6	1222.4
67.5°	748.6	761.2	892.7	1068.1	1310.9	1495.7	1489.4	1338.3	1301.5	1220.8	1112.8
70°	536.4	553.6	682.1	914.6	1261.6	1564.6	1567.0	1402.5	1290.5	1125.3	891.9
72.5°	332.0	332.8	415.8	651.5	1068.1	1463.6	1473.0	1339.1	1161.3	937.4	630.4
75°	102.6	111.2	176.2	341.4	722.8	1190.3	1219.3	1112.8	929.5	648.4	345.3
77.5°	50.9	52.5	63.4	125.3	347.7	770.6	792.5	743.1	587.3	314.0	144.9
80°	29.0	30.5	39.2	55.6	133.1	382.9	400.9	391.5	238.1	113.5	61.9
82.5°	14.1	14.9	19.6	28.2	56.4	114.3	128.4	141.0	90.8	60.3	33.7
85°	3.9	3.9	5.5	9.4	14.9	23.5	23.5	25.8	32.1	30.5	16.4
87.5°	0.0	0.0	0.0	0.8	0.8	0.8	1.6	0.8	1.6	2.3	2.3
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°	221.6	221.6	221.6	221.6	221.6	221.6	221.6	221.6	221.6	221.6	221.6
2.5°	222.4	222.4	220.8	221.6	221.6	222.4	222.4	223.2	224.0	224.7	224.7
5°	224.0	223.2	222.4	223.2	224.0	225.5	227.9	230.2	231.8	234.1	233.4
7.5°	228.7	226.3	227.1	227.1	230.2	233.4	238.1	241.2	244.3	245.9	245.9
10°	234.1	232.6	231.8	234.9	238.1	244.3	248.2	252.9	255.3	259.2	257.6
12.5°	242.0	238.1	238.8	242.8	249.0	253.7	256.9	260.8	263.1	266.2	265.5
15°	248.2	245.9	246.7	252.9	259.2	262.3	263.9	265.5	266.2	268.6	269.4
17.5°	256.1	255.3	256.1	261.6	265.5	266.2	265.5	263.9	263.1	265.5	264.7
20°	264.7	263.9	264.7	268.6	267.0	263.9	260.8	258.4	256.1	257.6	258.4
22.5°	271.7	272.5	273.3	271.7	265.5	257.6	252.2	248.2	246.7	248.2	249.8
25°	280.3	281.1	281.9	274.1	259.2	246.7	238.8	236.5	237.3	239.6	240.4
27.5°	291.3	293.7	291.3	273.3	250.6	232.6	226.3	225.5	226.3	228.7	231.0
30°	303.1	306.2	298.4	269.4	238.8	218.5	213.0	213.0	215.3	216.9	219.3
32.5°	313.2	319.5	304.6	262.3	222.4	205.2	201.3	199.7	199.7	201.3	202.0
35°	325.8	333.6	308.5	249.8	206.7	194.2	191.1	186.4	182.5	183.2	182.5
37.5°	338.3	350.0	307.0	230.2	189.5	181.7	178.5	171.5	165.2	161.3	162.9
40°	361.8	375.9	303.8	205.2	173.8	170.7	165.2	157.4	149.6	142.5	141.7
42.5°	403.3	404.1	296.8	182.5	159.0	157.4	152.7	145.7	136.3	126.9	126.9
45°	458.9	444.8	287.4	161.3	144.9	146.4	142.5	135.5	124.5	115.9	115.9
47.5°	542.7	493.3	269.4	142.5	133.1	136.3	133.9	126.9	115.1	107.3	107.3
50°	660.1	572.4	251.4	129.2	124.5	127.6	126.9	118.2	107.3	101.0	101.0
52.5°	796.4	675.8	238.8	119.0	114.3	119.8	119.8	112.0	101.8	97.1	96.3
55°	936.6	772.9	226.3	110.4	107.3	112.0	114.3	107.3	97.9	94.0	93.2
57.5°	1036.0	821.5	209.1	103.4	99.5	105.7	108.8	104.2	95.5	91.6	90.8
60°	1086.1	826.2	175.4	96.3	92.4	100.2	105.7	101.8	95.5	94.0	94.0
62.5°	1097.9	806.6	140.2	90.1	87.7	97.1	106.5	104.9	100.2	101.8	102.6
65°	1047.8	741.6	114.3	85.4	84.6	96.3	111.2	110.4	101.0	104.9	105.7
67.5°	928.0	628.8	97.1	80.7	79.9	97.9	119.8	110.4	95.5	99.5	97.9
70°	729.1	498.0	83.8	76.0	76.0	97.1	124.5	108.8	89.3	90.8	86.1
72.5°	479.2	326.5	74.4	71.3	68.9	88.5	121.4	105.7	86.1	81.4	76.0
75°	242.8	162.1	66.6	67.3	60.3	75.2	117.5	104.9	85.4	77.5	75.2
77.5°	100.2	76.0	59.5	61.1	50.9	64.2	110.4	97.1	76.7	68.9	66.6
80°	52.5	47.0	50.1	50.9	41.5	50.9	87.7	83.8	68.9	63.4	60.3
82.5°	30.5	29.8	38.4	39.2	29.0	41.5	77.5	72.8	57.9	51.7	50.1
85°	14.1	16.4	25.8	23.5	18.0	27.4	47.0	36.0	25.8	22.7	21.9
87.5°	1.6	2.3	5.5	5.5	3.9	2.3	0.8	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



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)