

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: FAIL-SAFE

Report Number: P520588

Luminaire Tested: **4WSLA-50-L850-UNV-U**

Issue Date: 5/3/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P520588
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-689-5)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4WSLA-50-L850-UNV-U
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 5000K, 80 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

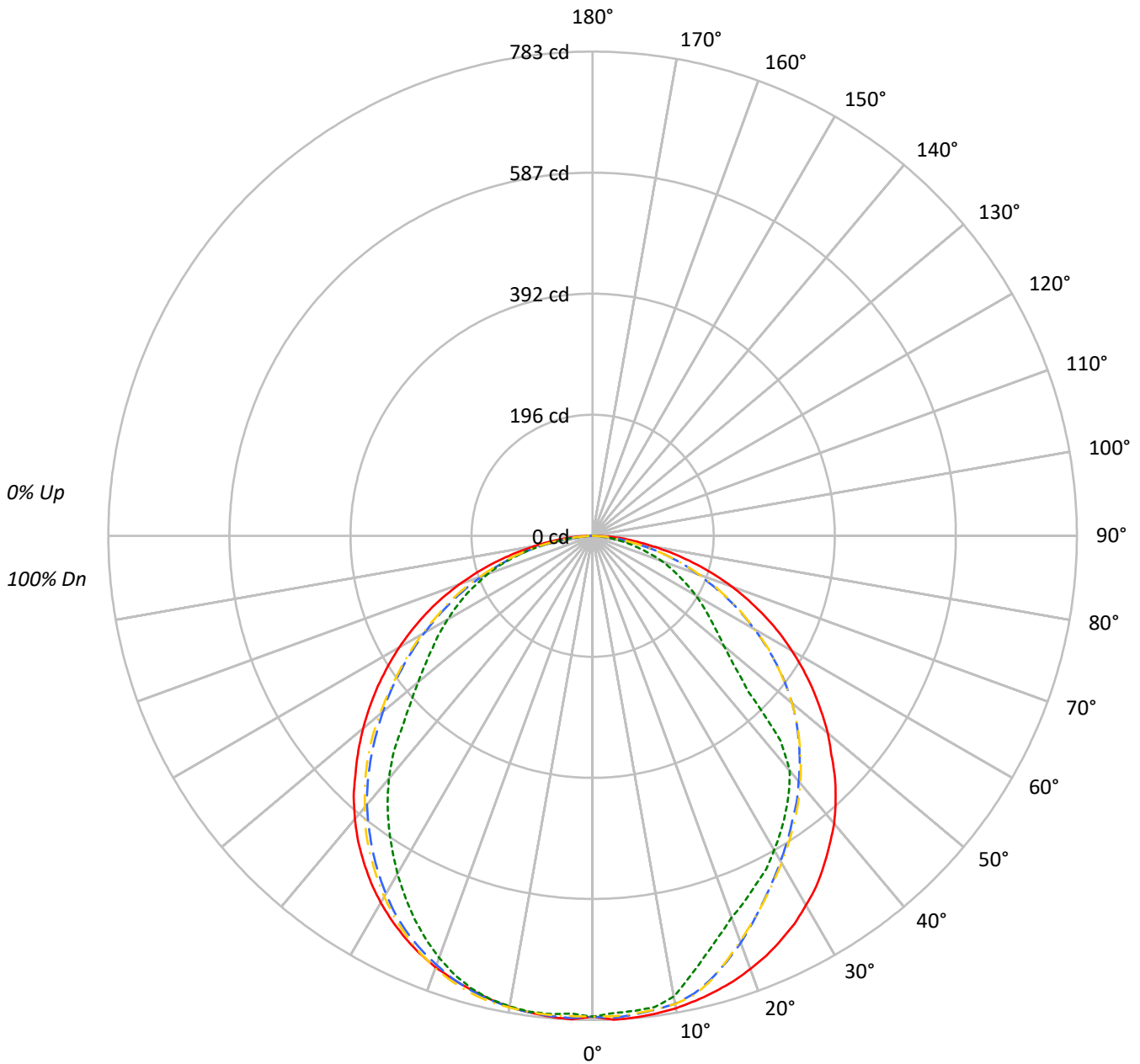
Lumens per Lamp: N/A
Luminaire Lumens: 2086.0 lumens
Efficiency: N/A
Efficacy: 133.7 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 15.6
Input Voltage (V): NR
Input Current (A_{in}): 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: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84																			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70																			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60																			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51																			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44																			
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39																			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34																			
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31																			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28																			
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	4185	4185	4185	4185
5°	4226	4167	4219	4194
10°	4240	4135	4229	4222
15°	4254	3916	4235	4221
20°	4270	3763	4253	4157
25°	4283	3701	4261	4053
30°	4288	3647	4257	3920
35°	4281	3577	4237	3774
40°	4267	3482	4200	3599
45°	4220	2705	4125	3302
50°	4156	2316	4055	3080
55°	4083	2168	3977	2963
60°	4005	2070	3884	2914
65°	3910	1960	3777	2879
70°	3755	1865	3597	2836
75°	3496	1639	3331	2697
80°	3102	1370	2910	2287
85°	2939	982	2575	1315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.9	3.5
10°-20°	210.7	10.1
20°-30°	314.9	15.1
30°-40°	374.8	18.0
40°-50°	374.7	18.0
50°-60°	322.4	15.5
60°-70°	242.6	11.6
70°-80°	138.3	6.6
80°-90°	33.7	1.6
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°-30°	599.5	28.7
0°-40°	974.4	46.7
0°-60°	1671.4	80.1
0°-90°	2086.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2086.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	778	778	778	778	778	
5°	782	771	781	776	782	74
15°	763	703	760	758	763	216
25°	721	623	718	682	721	333
35°	652	544	645	574	652	408
45°	554	355	542	434	554	427
55°	435	231	424	316	435	389
65°	307	154	297	226	307	303
75°	168	79	160	130	168	178
85°	48	16	42	21	48	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	777.6	777.6	777.6	777.6	777.6	777.6	777.6	777.6	777.6	777.6	777.6
2.5°	783.4	776.3	780.5	779.3	772.6	775.1	777.6	775.1	782.6	775.9	780.5
5°	782.2	774.7	777.2	774.7	771.3	772.2	775.9	773.4	780.9	773.8	779.7
7.5°	779.7	770.5	773.0	771.8	768.8	769.2	773.0	770.9	777.6	770.9	777.6
10°	775.9	766.3	768.4	763.0	756.7	761.3	768.8	766.7	773.8	766.3	773.8
12.5°	770.1	760.5	758.4	740.5	729.2	738.0	760.9	760.9	767.6	760.5	768.4
15°	763.4	753.0	741.7	714.6	702.9	711.7	743.4	754.2	760.1	753.0	760.9
17.5°	755.5	743.4	721.7	690.0	679.1	687.9	720.4	744.2	751.7	744.2	751.3
20°	745.5	731.3	700.4	664.1	657.0	665.0	697.5	732.1	742.6	733.4	738.4
22.5°	734.6	717.5	676.6	644.1	640.8	645.8	675.4	717.1	730.9	721.3	724.6
25°	721.3	701.3	652.9	625.7	623.2	626.2	653.7	699.6	717.5	707.5	708.8
27.5°	707.1	685.4	630.3	610.3	607.8	609.1	632.0	680.0	702.1	692.1	690.0
30°	690.0	666.6	607.8	589.5	586.9	591.5	611.1	660.0	685.0	675.0	668.7
32.5°	672.9	646.2	585.7	571.5	566.5	570.7	589.5	639.1	666.2	655.8	645.4
35°	651.6	624.5	562.8	548.6	544.4	549.0	567.8	617.4	644.9	634.5	620.3
37.5°	629.5	601.5	541.9	529.0	521.5	526.9	545.6	594.9	622.8	612.0	594.5
40°	607.4	577.4	518.5	505.2	495.6	503.5	522.7	571.1	597.8	587.8	567.8
42.5°	581.5	553.2	495.6	476.8	449.7	475.1	498.1	547.3	571.9	562.3	538.1
45°	554.4	527.3	471.4	425.9	355.4	430.1	473.1	522.3	541.9	532.7	506.4
47.5°	523.5	500.6	446.8	377.5	309.1	381.7	447.6	498.5	513.5	503.5	474.3
50°	496.4	473.9	420.9	336.7	276.6	341.2	420.5	471.8	484.3	475.1	442.6
52.5°	465.6	445.9	393.0	300.4	252.4	304.9	392.1	444.3	454.3	443.4	410.9
55°	435.1	417.6	363.3	268.2	231.1	272.4	362.5	415.9	423.8	411.3	377.5
57.5°	404.2	388.4	332.9	239.5	211.5	244.0	335.0	386.7	392.1	376.3	345.4
60°	372.1	358.8	302.0	214.0	192.3	217.8	301.2	357.5	360.8	343.7	314.1
62.5°	340.0	327.9	271.2	190.6	172.7	193.1	273.2	326.6	328.7	312.5	282.0
65°	307.0	295.8	241.1	166.0	153.9	170.2	243.2	294.5	296.6	278.2	250.7
67.5°	272.8	263.6	209.0	147.3	136.0	148.5	213.2	262.0	263.2	245.3	220.3
70°	238.6	230.7	180.6	126.8	118.5	127.2	183.6	226.1	228.6	209.4	189.4
72.5°	203.6	197.3	153.1	105.5	98.0	105.5	154.8	193.1	194.8	179.0	159.4
75°	168.1	163.5	125.1	84.7	78.8	84.3	126.0	160.2	160.2	145.2	129.7
77.5°	133.9	130.6	95.9	65.1	60.9	64.2	96.4	126.8	126.0	114.3	102.2
80°	100.1	97.6	68.8	47.1	44.2	45.9	68.8	93.9	93.9	85.5	70.9
82.5°	71.8	68.8	45.5	30.9	29.2	30.0	44.6	65.5	66.7	60.5	48.0
85°	47.6	40.9	24.6	17.1	15.9	16.3	23.4	38.0	41.7	35.0	25.0
87.5°	20.9	13.8	6.3	2.5	1.3	1.7	5.0	12.1	15.9	10.4	3.3
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):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	777.6	777.6	777.6	777.6	777.6	777.6
2.5°	780.1	773.4	775.9	777.6	775.9	783.4
5°	779.3	776.3	775.9	778.0	774.7	782.2
7.5°	778.0	776.3	775.9	776.8	772.6	779.7
10°	775.1	772.6	773.4	774.7	769.2	775.9
12.5°	769.7	767.2	767.6	771.8	764.2	770.1
15°	760.5	757.6	760.5	765.1	758.4	763.4
17.5°	748.4	743.8	748.8	755.9	750.9	755.5
20°	733.0	725.9	731.3	744.2	739.6	745.5
22.5°	714.2	705.4	710.8	729.6	728.4	734.6
25°	692.9	682.5	690.0	712.9	715.4	721.3
27.5°	669.1	657.4	667.5	694.6	700.4	707.1
30°	643.3	630.8	642.4	674.1	682.9	690.0
32.5°	616.6	602.8	616.1	651.2	663.7	672.9
35°	588.6	574.4	589.5	627.4	642.4	651.6
37.5°	558.6	544.8	561.1	602.4	620.3	629.5
40°	527.7	512.3	530.6	572.8	596.5	607.4
42.5°	496.0	476.8	499.3	544.8	570.7	581.5
45°	460.5	433.8	464.3	515.2	542.3	554.4
47.5°	425.1	398.4	429.3	483.5	512.7	523.5
50°	390.9	367.9	392.6	448.9	482.7	496.4
52.5°	359.6	340.8	361.7	415.1	451.8	465.6
55°	330.4	315.8	332.9	381.7	419.2	435.1
57.5°	302.9	293.7	305.4	350.0	389.2	404.2
60°	277.0	270.7	279.1	318.7	353.8	372.1
62.5°	251.5	248.2	254.5	285.8	320.8	340.0
65°	226.9	226.1	229.4	257.0	286.2	307.0
67.5°	202.3	201.9	204.0	226.5	252.4	272.8
70°	177.7	180.2	179.0	193.6	218.6	238.6
72.5°	152.7	156.4	154.4	163.5	187.7	203.6
75°	124.7	129.7	125.6	136.0	151.0	168.1
77.5°	95.9	101.4	96.4	105.5	121.8	133.9
80°	68.8	73.8	69.7	76.8	90.9	100.1
82.5°	43.4	47.1	43.8	50.9	65.1	71.8
85°	19.2	21.3	22.1	27.5	40.0	47.6
87.5°	0.8	0.4	0.8	5.4	14.2	20.9
90°	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°









(END OF REPORT)