

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: P520585

Luminaire Tested: **4WSLA-50-L840-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: P520585
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-L840-UNV-U
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 80 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

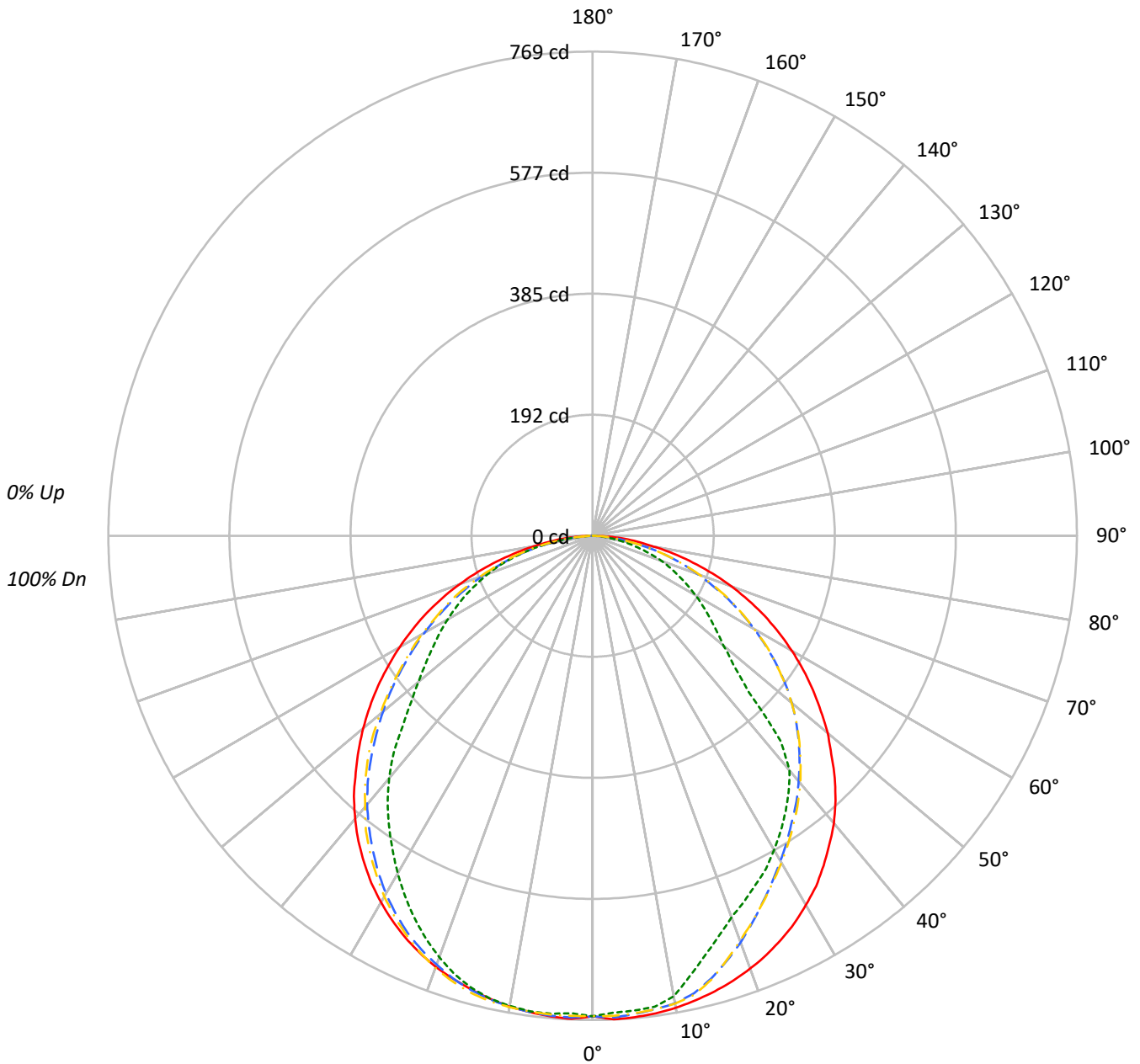
Lumens per Lamp: N/A
Luminaire Lumens: 2047.0 lumens
Efficiency: N/A
Efficacy: 131.2 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

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°	4107	4107	4107	4107
5°	4147	4089	4140	4116
10°	4161	4058	4150	4143
15°	4174	3843	4156	4142
20°	4190	3692	4174	4080
25°	4203	3632	4181	3977
30°	4208	3580	4177	3847
35°	4201	3510	4158	3704
40°	4187	3417	4121	3532
45°	4141	2655	4048	3240
50°	4078	2272	3980	3023
55°	4007	2128	3902	2908
60°	3931	2031	3812	2860
65°	3837	1924	3707	2826
70°	3685	1830	3530	2782
75°	3431	1609	3269	2647
80°	3044	1345	2854	2247
85°	2884	963	2526	1291



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.5	3.5
10°-20°	206.8	10.1
20°-30°	309.0	15.1
30°-40°	367.8	18.0
40°-50°	367.7	18.0
50°-60°	316.4	15.5
60°-70°	238.1	11.6
70°-80°	135.7	6.6
80°-90°	33.0	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°	588.3	28.7
0°-40°	956.1	46.7
0°-60°	1640.2	80.1
0°-90°	2047.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2047.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	763	763	763	763	763	
5°	768	757	766	762	768	73
15°	749	690	746	743	749	212
25°	708	612	704	670	708	326
35°	639	534	633	564	639	400
45°	544	349	532	426	544	419
55°	427	227	416	310	427	382
65°	301	151	291	222	301	298
75°	165	77	157	127	165	175
85°	47	16	41	21	47	51
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°	763.1	763.1	763.1	763.1	763.1	763.1	763.1	763.1	763.1	763.1	763.1
2.5°	768.8	761.8	765.9	764.7	758.1	760.6	763.1	760.6	768.0	761.4	765.9
5°	767.6	760.2	762.6	760.2	756.9	757.7	761.4	759.0	766.3	759.4	765.1
7.5°	765.1	756.1	758.6	757.3	754.5	754.9	758.6	756.5	763.1	756.5	763.1
10°	761.4	752.0	754.0	748.7	742.6	747.1	754.5	752.4	759.4	752.0	759.4
12.5°	755.7	746.3	744.2	726.6	715.6	724.2	746.7	746.7	753.2	746.3	754.0
15°	749.1	738.9	727.8	701.2	689.8	698.4	729.5	740.1	745.9	738.9	746.7
17.5°	741.4	729.5	708.2	677.1	666.4	675.0	707.0	730.3	737.7	730.3	737.3
20°	731.5	717.6	687.3	651.7	644.7	652.5	684.5	718.4	728.7	719.7	724.6
22.5°	720.9	704.1	664.0	632.1	628.8	633.7	662.8	703.7	717.2	707.8	711.1
25°	707.8	688.1	640.7	614.0	611.6	614.5	641.5	686.5	704.1	694.3	695.5
27.5°	693.9	672.6	618.5	598.9	596.4	597.7	620.2	667.3	689.0	679.1	677.1
30°	677.1	654.2	596.4	578.4	576.0	580.5	599.7	647.6	672.2	662.4	656.2
32.5°	660.3	634.1	574.7	560.8	555.9	560.0	578.4	627.1	653.8	643.5	633.3
35°	639.4	612.8	552.2	538.3	534.2	538.7	557.1	605.9	632.9	622.6	608.7
37.5°	617.7	590.3	531.8	519.1	511.7	517.0	535.4	583.8	611.2	600.5	583.3
40°	596.0	566.6	508.8	495.7	486.3	494.1	512.9	560.4	586.6	576.8	557.1
42.5°	570.7	542.8	486.3	467.9	441.3	466.3	488.8	537.1	561.2	551.8	528.1
45°	544.0	517.4	462.6	418.0	348.8	422.1	464.2	512.5	531.8	522.8	497.0
47.5°	513.8	491.2	438.4	370.5	303.3	374.6	439.2	489.2	503.9	494.1	465.4
50°	487.1	465.0	413.0	330.4	271.4	334.9	412.6	463.0	475.3	466.3	434.3
52.5°	456.8	437.6	385.6	294.7	247.7	299.2	384.8	436.0	445.8	435.2	403.2
55°	427.0	409.8	356.6	263.2	226.8	267.3	355.7	408.1	415.9	403.6	370.5
57.5°	396.7	381.1	326.7	235.0	207.5	239.5	328.7	379.5	384.8	369.2	339.0
60°	365.2	352.1	296.4	210.0	188.7	213.7	295.6	350.8	354.1	337.3	308.3
62.5°	333.6	321.8	266.1	187.1	169.5	189.5	268.1	320.5	322.6	306.6	276.7
65°	301.3	290.2	236.6	162.9	151.1	167.0	238.7	289.0	291.1	273.0	246.0
67.5°	267.7	258.7	205.1	144.5	133.5	145.7	209.2	257.1	258.3	240.7	216.1
70°	234.2	226.4	177.3	124.4	116.3	124.9	180.1	221.9	224.3	205.5	185.9
72.5°	199.8	193.6	150.2	103.6	96.2	103.6	151.9	189.5	191.2	175.6	156.4
75°	165.0	160.5	122.8	83.1	77.4	82.7	123.6	157.2	157.2	142.5	127.3
77.5°	131.4	128.1	94.2	63.9	59.8	63.0	94.6	124.4	123.6	112.2	100.3
80°	98.2	95.8	67.5	46.3	43.4	45.0	67.5	92.1	92.1	83.9	69.6
82.5°	70.4	67.5	44.6	30.3	28.7	29.5	43.8	64.3	65.5	59.4	47.1
85°	46.7	40.1	24.2	16.8	15.6	16.0	22.9	37.3	40.9	34.4	24.6
87.5°	20.5	13.5	6.1	2.5	1.2	1.6	4.9	11.9	15.6	10.2	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°	763.1	763.1	763.1	763.1	763.1	763.1
2.5°	765.5	759.0	761.4	763.1	761.4	768.8
5°	764.7	761.8	761.4	763.5	760.2	767.6
7.5°	763.5	761.8	761.4	762.2	758.1	765.1
10°	760.6	758.1	759.0	760.2	754.9	761.4
12.5°	755.3	752.8	753.2	757.3	750.0	755.7
15°	746.3	743.4	746.3	750.8	744.2	749.1
17.5°	734.4	729.9	734.8	741.8	736.9	741.4
20°	719.3	712.3	717.6	730.3	725.8	731.5
22.5°	700.8	692.2	697.6	716.0	714.7	720.9
25°	680.0	669.7	677.1	699.6	702.1	707.8
27.5°	656.6	645.2	655.0	681.6	687.3	693.9
30°	631.2	619.0	630.4	661.5	670.1	677.1
32.5°	605.0	591.5	604.6	639.0	651.3	660.3
35°	577.6	563.7	578.4	615.7	630.4	639.4
37.5°	548.1	534.6	550.6	591.1	608.7	617.7
40°	517.8	502.7	520.7	562.1	585.4	596.0
42.5°	486.7	467.9	490.0	534.6	560.0	570.7
45°	451.9	425.7	455.6	505.6	532.2	544.0
47.5°	417.1	390.9	421.2	474.5	503.1	513.8
50°	383.6	361.1	385.2	440.5	473.6	487.1
52.5°	352.9	334.5	354.9	407.3	443.3	456.8
55°	324.2	309.9	326.7	374.6	411.4	427.0
57.5°	297.2	288.2	299.7	343.5	381.9	396.7
60°	271.8	265.7	273.9	312.8	347.1	365.2
62.5°	246.8	243.6	249.7	280.4	314.8	333.6
65°	222.7	221.9	225.2	252.2	280.8	301.3
67.5°	198.5	198.1	200.2	222.3	247.7	267.7
70°	174.4	176.8	175.6	189.9	214.5	234.2
72.5°	149.8	153.5	151.5	160.5	184.2	199.8
75°	122.4	127.3	123.2	133.5	148.2	165.0
77.5°	94.2	99.5	94.6	103.6	119.5	131.4
80°	67.5	72.5	68.4	75.3	89.2	98.2
82.5°	42.6	46.3	43.0	49.9	63.9	70.4
85°	18.8	20.9	21.7	27.0	39.3	46.7
87.5°	0.8	0.4	0.8	5.3	13.9	20.5
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)