

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: P520591

Luminaire Tested: **4WSLA-50-L930-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: P520591
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-L930-UNV-U
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 90 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

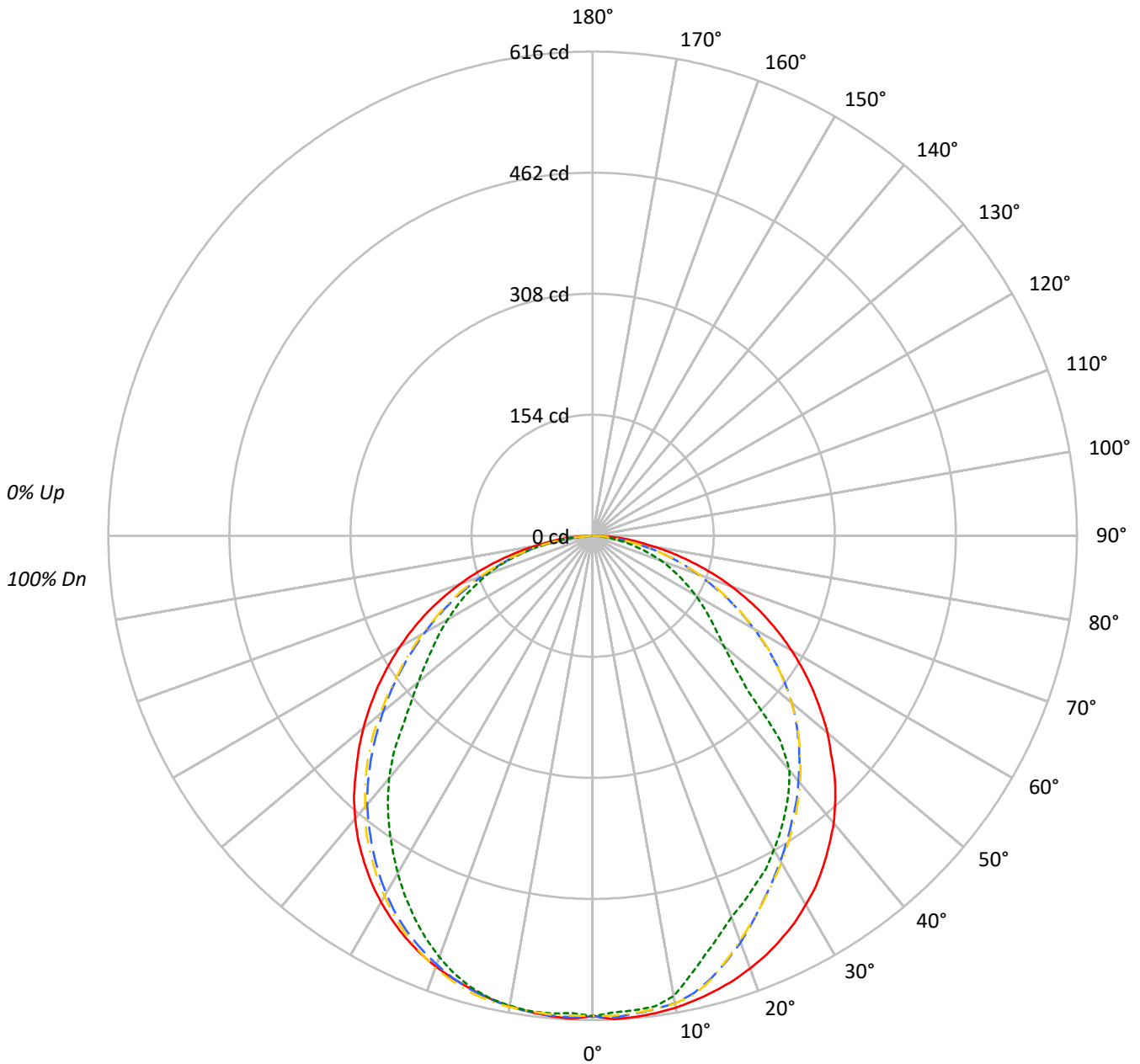
Lumens per Lamp: N/A
Luminaire Lumens: 1639.0 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

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°	3288	3288	3288	3288
5°	3320	3274	3315	3296
10°	3332	3249	3323	3317
15°	3342	3077	3327	3316
20°	3355	2956	3341	3266
25°	3365	2908	3348	3184
30°	3369	2866	3345	3080
35°	3364	2810	3329	2965
40°	3353	2736	3300	2828
45°	3315	2126	3241	2595
50°	3265	1819	3186	2421
55°	3208	1704	3125	2328
60°	3147	1626	3052	2289
65°	3072	1540	2967	2263
70°	2950	1465	2826	2228
75°	2747	1287	2618	2119
80°	2439	1075	2284	1798
85°	2309	772	2025	1031



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	3.5
10°-20°	165.6	10.1
20°-30°	247.4	15.1
30°-40°	294.5	18.0
40°-50°	294.4	18.0
50°-60°	253.3	15.5
60°-70°	190.7	11.6
70°-80°	108.6	6.6
80°-90°	26.4	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°	471.0	28.7
0°-40°	765.6	46.7
0°-60°	1313.2	80.1
0°-90°	1639.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1639.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	611	611	611	611	611	
5°	615	606	614	610	615	58
15°	600	552	597	595	600	169
25°	567	490	564	536	567	261
35°	512	428	507	451	512	320
45°	436	279	426	341	436	335
55°	342	182	333	248	342	306
65°	241	121	233	178	241	238
75°	132	62	126	102	132	140
85°	37	12	33	17	37	41
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°	611.0	611.0	611.0	611.0	611.0	611.0	611.0	611.0	611.0	611.0	611.0
2.5°	615.6	610.0	613.3	612.3	607.0	609.0	611.0	609.0	614.9	609.7	613.3
5°	614.6	608.7	610.6	608.7	606.0	606.7	609.7	607.7	613.6	608.0	612.6
7.5°	612.6	605.4	607.4	606.4	604.1	604.4	607.4	605.7	611.0	605.7	611.0
10°	609.7	602.1	603.8	599.5	594.6	598.2	604.1	602.4	608.0	602.1	608.0
12.5°	605.1	597.5	595.9	581.8	572.9	579.8	597.9	597.9	603.1	597.5	603.8
15°	599.8	591.6	582.8	561.5	552.3	559.2	584.1	592.6	597.2	591.6	597.9
17.5°	593.6	584.1	567.0	542.1	533.6	540.5	566.1	584.7	590.6	584.7	590.3
20°	585.7	574.6	550.3	521.8	516.2	522.5	548.0	575.2	583.4	576.2	580.2
22.5°	577.2	563.8	531.6	506.1	503.5	507.4	530.7	563.4	574.3	566.7	569.3
25°	566.7	551.0	513.0	491.7	489.7	492.0	513.6	549.7	563.8	555.9	556.9
27.5°	555.6	538.5	495.3	479.5	477.6	478.5	496.6	534.3	551.6	543.8	542.1
30°	542.1	523.8	477.6	463.1	461.2	464.8	480.2	518.5	538.2	530.3	525.4
32.5°	528.7	507.7	460.2	449.0	445.1	448.4	463.1	502.1	523.5	515.3	507.1
35°	512.0	490.7	442.2	431.0	427.7	431.3	446.1	485.1	506.7	498.5	487.4
37.5°	494.6	472.6	425.8	415.6	409.7	414.0	428.7	467.4	489.4	480.8	467.1
40°	477.2	453.6	407.4	396.9	389.4	395.6	410.7	448.7	469.7	461.8	446.1
42.5°	456.9	434.6	389.4	374.6	353.3	373.3	391.4	430.0	449.4	441.8	422.8
45°	435.6	414.3	370.4	334.7	279.3	337.9	371.7	410.4	425.8	418.6	397.9
47.5°	411.4	393.3	351.0	296.6	242.9	299.9	351.7	391.7	403.5	395.6	372.7
50°	390.0	372.3	330.7	264.5	217.3	268.1	330.4	370.7	380.5	373.3	347.8
52.5°	365.8	350.4	308.8	236.0	198.3	239.6	308.1	349.1	356.9	348.4	322.9
55°	341.9	328.1	285.5	210.8	181.6	214.0	284.8	326.8	333.0	323.2	296.6
57.5°	317.6	305.2	261.6	188.1	166.2	191.7	263.2	303.8	308.1	295.6	271.4
60°	292.4	281.9	237.3	168.1	151.1	171.1	236.7	280.9	283.5	270.1	246.8
62.5°	267.1	257.6	213.1	149.8	135.7	151.8	214.7	256.6	258.3	245.5	221.6
65°	241.2	232.4	189.5	130.5	120.9	133.7	191.1	231.4	233.0	218.6	197.0
67.5°	214.4	207.2	164.2	115.7	106.9	116.7	167.5	205.8	206.8	192.7	173.1
70°	187.5	181.3	141.9	99.6	93.1	100.0	144.2	177.7	179.6	164.5	148.8
72.5°	160.0	155.0	120.3	82.9	77.0	82.9	121.6	151.8	153.1	140.6	125.2
75°	132.1	128.5	98.3	66.5	61.9	66.2	99.0	125.9	125.9	114.1	101.9
77.5°	105.2	102.6	75.4	51.1	47.9	50.5	75.7	99.6	99.0	89.8	80.3
80°	78.7	76.7	54.1	37.0	34.7	36.1	54.1	73.7	73.7	67.2	55.7
82.5°	56.4	54.1	35.7	24.3	22.9	23.6	35.1	51.5	52.4	47.5	37.7
85°	37.4	32.1	19.3	13.4	12.5	12.8	18.4	29.8	32.8	27.5	19.7
87.5°	16.4	10.8	4.9	2.0	1.0	1.3	3.9	9.5	12.5	8.2	2.6
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°	611.0	611.0	611.0	611.0	611.0	611.0
2.5°	612.9	607.7	609.7	611.0	609.7	615.6
5°	612.3	610.0	609.7	611.3	608.7	614.6
7.5°	611.3	610.0	609.7	610.3	607.0	612.6
10°	609.0	607.0	607.7	608.7	604.4	609.7
12.5°	604.7	602.8	603.1	606.4	600.5	605.1
15°	597.5	595.2	597.5	601.1	595.9	599.8
17.5°	588.0	584.4	588.3	593.9	590.0	593.6
20°	575.9	570.3	574.6	584.7	581.1	585.7
22.5°	561.1	554.3	558.5	573.3	572.3	577.2
25°	544.4	536.2	542.1	560.2	562.1	566.7
27.5°	525.7	516.6	524.4	545.7	550.3	555.6
30°	505.4	495.6	504.8	529.7	536.6	542.1
32.5°	484.4	473.6	484.1	511.7	521.5	528.7
35°	462.5	451.3	463.1	493.0	504.8	512.0
37.5°	438.9	428.1	440.9	473.3	487.4	494.6
40°	414.6	402.5	416.9	450.0	468.7	477.2
42.5°	389.7	374.6	392.3	428.1	448.4	456.9
45°	361.9	340.9	364.8	404.8	426.1	435.6
47.5°	334.0	313.0	337.3	379.9	402.8	411.4
50°	307.1	289.1	308.4	352.7	379.2	390.0
52.5°	282.5	267.8	284.2	326.1	355.0	365.8
55°	259.6	248.1	261.6	299.9	329.4	341.9
57.5°	238.0	230.8	239.9	275.0	305.8	317.6
60°	217.6	212.7	219.3	250.4	277.9	292.4
62.5°	197.6	195.0	199.9	224.5	252.1	267.1
65°	178.3	177.7	180.3	201.9	224.9	241.2
67.5°	159.0	158.6	160.3	178.0	198.3	214.4
70°	139.6	141.6	140.6	152.1	171.8	187.5
72.5°	120.0	122.9	121.3	128.5	147.5	160.0
75°	98.0	101.9	98.7	106.9	118.7	132.1
77.5°	75.4	79.6	75.7	82.9	95.7	105.2
80°	54.1	58.0	54.7	60.3	71.5	78.7
82.5°	34.1	37.0	34.4	40.0	51.1	56.4
85°	15.1	16.7	17.4	21.6	31.5	37.4
87.5°	0.7	0.3	0.7	4.3	11.1	16.4
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)