

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: P520579

Luminaire Tested: **4WSLA-50-L830-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: P520579
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-L830-UNV-U
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 80 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

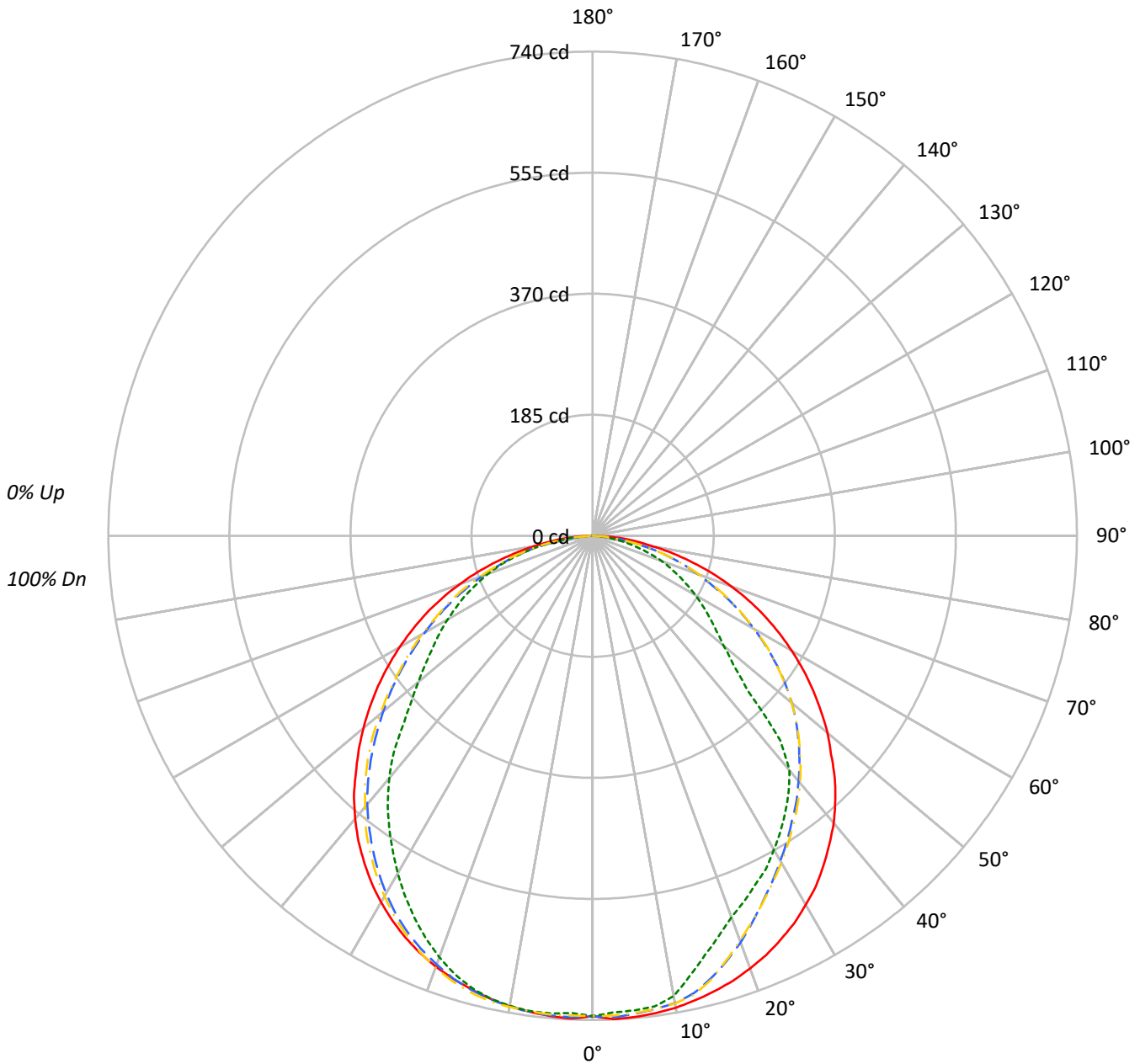
Lumens per Lamp: N/A
Luminaire Lumens: 1969.0 lumens
Efficiency: N/A
Efficacy: 126.2 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

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°	3950	3950	3950	3950
5°	3989	3934	3982	3959
10°	4003	3904	3992	3986
15°	4015	3697	3997	3984
20°	4030	3552	4014	3924
25°	4043	3494	4022	3825
30°	4048	3443	4018	3700
35°	4041	3376	4000	3562
40°	4028	3287	3965	3397
45°	3983	2554	3893	3117
50°	3924	2186	3828	2908
55°	3854	2046	3754	2797
60°	3780	1954	3666	2751
65°	3691	1850	3566	2718
70°	3544	1759	3396	2677
75°	3300	1547	3144	2547
80°	2929	1292	2746	2160
85°	2773	926	2433	1241



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.7	3.5
10°-20°	198.9	10.1
20°-30°	297.2	15.1
30°-40°	353.8	18.0
40°-50°	353.7	18.0
50°-60°	304.3	15.5
60°-70°	229.0	11.6
70°-80°	130.5	6.6
80°-90°	31.8	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°	565.9	28.7
0°-40°	919.7	46.7
0°-60°	1577.7	80.1
0°-90°	1969.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1969.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	734	734	734	734	734	
5°	738	728	737	733	738	70
15°	721	664	717	715	721	204
25°	681	588	677	644	681	314
35°	615	514	609	542	615	385
45°	523	336	512	410	523	403
55°	411	218	400	298	411	367
65°	290	145	280	213	290	286
75°	159	74	151	122	159	168
85°	45	15	39	20	45	49
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°	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
2.5°	739.5	732.8	736.7	735.6	729.3	731.6	734.0	731.6	738.7	732.4	736.7
5°	738.3	731.2	733.6	731.2	728.1	728.9	732.4	730.0	737.1	730.4	735.9
7.5°	735.9	727.3	729.6	728.5	725.7	726.1	729.6	727.7	734.0	727.7	734.0
10°	732.4	723.3	725.3	720.2	714.3	718.6	725.7	723.7	730.4	723.3	730.4
12.5°	726.9	717.8	715.9	698.9	688.3	696.6	718.2	718.2	724.5	717.8	725.3
15°	720.6	710.7	700.1	674.5	663.5	671.8	701.7	711.9	717.4	710.7	718.2
17.5°	713.1	701.7	681.2	651.3	641.0	649.3	680.0	702.5	709.6	702.5	709.2
20°	703.7	690.3	661.1	626.9	620.2	627.7	658.4	691.1	700.9	692.2	697.0
22.5°	693.4	677.3	638.7	608.0	604.8	609.5	637.5	676.9	689.9	680.8	684.0
25°	680.8	661.9	616.2	590.6	588.3	591.0	617.0	660.3	677.3	667.8	669.0
27.5°	667.4	647.0	595.0	576.1	573.7	574.9	596.6	641.8	662.7	653.3	651.3
30°	651.3	629.2	573.7	556.4	554.0	558.4	576.9	622.9	646.6	637.1	631.2
32.5°	635.1	609.9	552.8	539.5	534.7	538.7	556.4	603.2	628.8	619.0	609.2
35°	615.1	589.5	531.2	517.8	513.9	518.2	535.9	582.8	608.8	598.9	585.5
37.5°	594.2	567.8	511.5	499.3	492.2	497.3	515.0	561.5	587.9	577.7	561.1
40°	573.3	545.0	489.5	476.8	467.8	475.3	493.4	539.1	564.3	554.8	535.9
42.5°	548.9	522.1	467.8	450.1	424.5	448.5	470.2	516.6	539.9	530.8	508.0
45°	523.3	497.7	445.0	402.0	335.5	406.0	446.5	493.0	511.5	502.8	478.0
47.5°	494.2	472.5	421.7	356.4	291.8	360.3	422.5	470.5	484.7	475.3	447.7
50°	468.6	447.3	397.3	317.8	261.1	322.1	396.9	445.3	457.2	448.5	417.8
52.5°	439.4	420.9	370.9	283.5	238.2	287.8	370.1	419.4	428.8	418.6	387.9
55°	410.7	394.2	343.0	253.2	218.1	257.1	342.2	392.6	400.1	388.3	356.4
57.5°	381.6	366.6	314.2	226.0	199.6	230.4	316.2	365.0	370.1	355.2	326.0
60°	351.2	338.6	285.1	202.0	181.5	205.5	284.3	337.5	340.6	324.5	296.5
62.5°	320.9	309.5	255.9	180.0	163.0	182.3	257.9	308.3	310.3	294.9	266.2
65°	289.8	279.2	227.6	156.7	145.3	160.7	229.6	278.0	280.0	262.6	236.7
67.5°	257.5	248.9	197.3	139.0	128.4	140.2	201.2	247.3	248.5	231.5	207.9
70°	225.2	217.8	170.5	119.7	111.8	120.1	173.3	213.4	215.8	197.7	178.8
72.5°	192.2	186.3	144.5	99.6	92.5	99.6	146.1	182.3	183.9	168.9	150.4
75°	158.7	154.4	118.1	79.9	74.4	79.5	118.9	151.2	151.2	137.0	122.5
77.5°	126.4	123.2	90.6	61.4	57.5	60.6	91.0	119.7	118.9	107.9	96.5
80°	94.5	92.1	65.0	44.5	41.7	43.3	65.0	88.6	88.6	80.7	66.9
82.5°	67.7	65.0	42.9	29.1	27.6	28.4	42.1	61.8	63.0	57.1	45.3
85°	44.9	38.6	23.2	16.1	15.0	15.4	22.1	35.8	39.4	33.1	23.6
87.5°	19.7	13.0	5.9	2.4	1.2	1.6	4.7	11.4	15.0	9.8	3.2
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°	734.0	734.0	734.0	734.0	734.0	734.0
2.5°	736.3	730.0	732.4	734.0	732.4	739.5
5°	735.6	732.8	732.4	734.4	731.2	738.3
7.5°	734.4	732.8	732.4	733.2	729.3	735.9
10°	731.6	729.3	730.0	731.2	726.1	732.4
12.5°	726.5	724.1	724.5	728.5	721.4	726.9
15°	717.8	715.1	717.8	722.2	715.9	720.6
17.5°	706.4	702.1	706.8	713.5	708.8	713.1
20°	691.8	685.2	690.3	702.5	698.1	703.7
22.5°	674.1	665.9	671.0	688.7	687.5	693.4
25°	654.0	644.2	651.3	672.9	675.3	680.8
27.5°	631.6	620.6	630.0	655.6	661.1	667.4
30°	607.2	595.4	606.4	636.3	644.6	651.3
32.5°	582.0	569.0	581.6	614.7	626.5	635.1
35°	555.6	542.2	556.4	592.2	606.4	615.1
37.5°	527.3	514.3	529.6	568.6	585.5	594.2
40°	498.1	483.5	500.9	540.6	563.1	573.3
42.5°	468.2	450.1	471.3	514.3	538.7	548.9
45°	434.7	409.5	438.3	486.3	511.9	523.3
47.5°	401.2	376.0	405.2	456.4	483.9	494.2
50°	369.0	347.3	370.5	423.7	455.6	468.6
52.5°	339.4	321.7	341.4	391.8	426.4	439.4
55°	311.9	298.1	314.2	360.3	395.7	410.7
57.5°	285.9	277.2	288.2	330.4	367.4	381.6
60°	261.5	255.6	263.4	300.8	333.9	351.2
62.5°	237.4	234.3	240.2	269.7	302.8	320.9
65°	214.2	213.4	216.6	242.6	270.1	289.8
67.5°	191.0	190.6	192.6	213.8	238.2	257.5
70°	167.7	170.1	168.9	182.7	206.3	225.2
72.5°	144.1	147.7	145.7	154.4	177.2	192.2
75°	117.7	122.5	118.5	128.4	142.5	158.7
77.5°	90.6	95.7	91.0	99.6	115.0	126.4
80°	65.0	69.7	65.8	72.5	85.8	94.5
82.5°	41.0	44.5	41.3	48.0	61.4	67.7
85°	18.1	20.1	20.9	26.0	37.8	44.9
87.5°	0.8	0.4	0.8	5.1	13.4	19.7
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)