

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: P520597

Luminaire Tested: **4WSLA-50-L940-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: P520597
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-L940-UNV-U
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 90 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

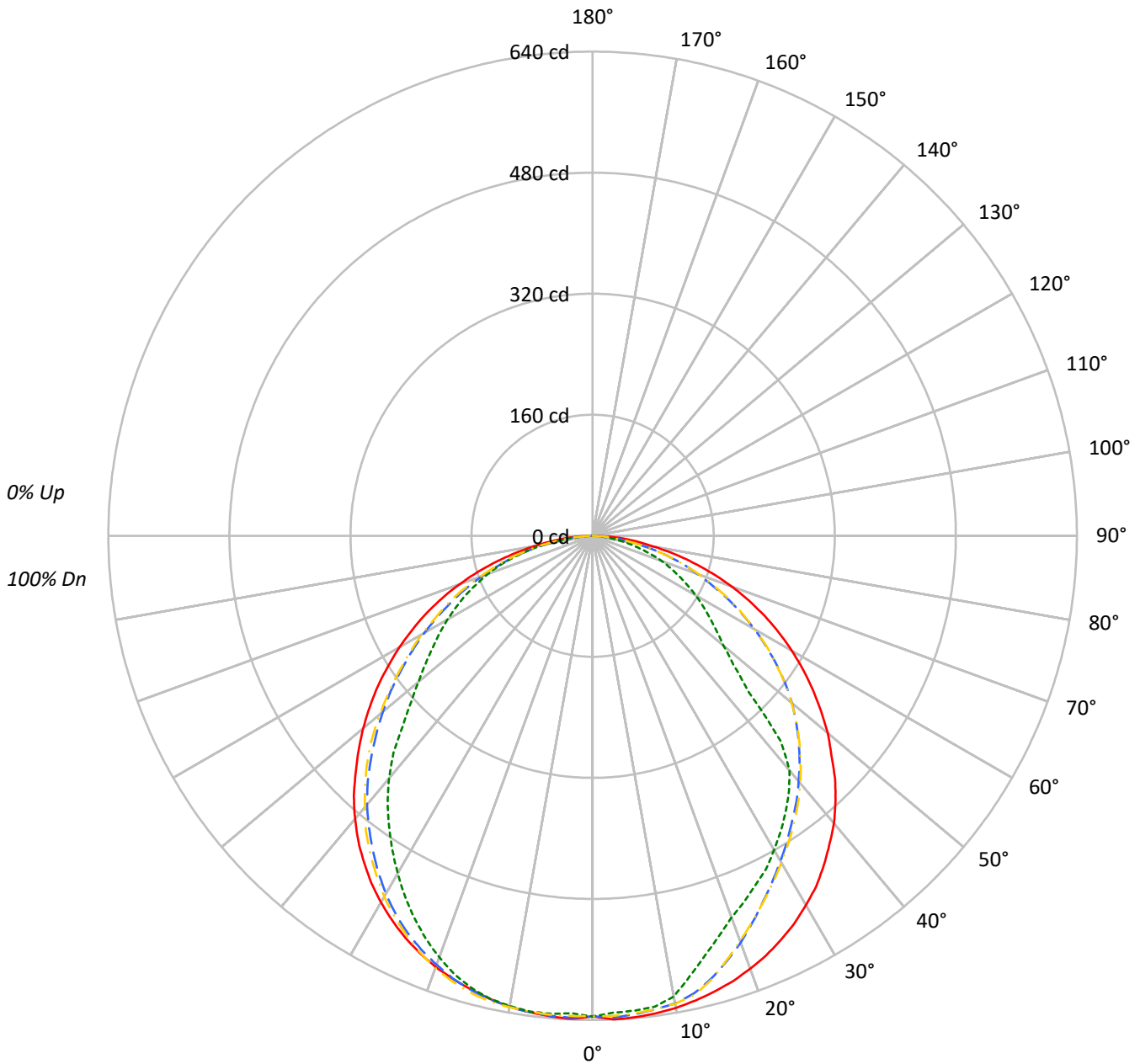
Lumens per Lamp: N/A
Luminaire Lumens: 1704.0 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 15.6
Input Voltage (V): NR
Input Current (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: 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°	3419	3419	3419	3419
5°	3452	3404	3446	3426
10°	3464	3378	3454	3449
15°	3475	3199	3460	3448
20°	3488	3074	3474	3396
25°	3499	3023	3480	3311
30°	3503	2980	3477	3202
35°	3497	2922	3461	3083
40°	3486	2844	3431	2940
45°	3447	2210	3369	2697
50°	3395	1891	3312	2517
55°	3335	1772	3248	2421
60°	3272	1691	3173	2381
65°	3194	1601	3086	2352
70°	3067	1523	2938	2316
75°	2855	1339	2722	2204
80°	2535	1119	2377	1869
85°	2396	797	2106	1074



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	3.5
10°-20°	172.1	10.1
20°-30°	257.2	15.1
30°-40°	306.2	18.0
40°-50°	306.1	18.0
50°-60°	263.4	15.5
60°-70°	198.2	11.6
70°-80°	113.0	6.6
80°-90°	27.5	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°	489.7	28.7
0°-40°	795.9	46.7
0°-60°	1365.3	80.1
0°-90°	1704.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1704.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	635	635	635	635	635	
5°	639	630	638	634	639	61
15°	624	574	621	619	624	176
25°	589	509	586	558	589	272
35°	532	445	527	469	532	333
45°	453	290	443	354	453	349
55°	355	189	346	258	355	318
65°	251	126	242	185	251	248
75°	137	64	131	106	137	145
85°	39	13	34	17	39	42
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°	635.2	635.2	635.2	635.2	635.2	635.2	635.2	635.2	635.2	635.2	635.2
2.5°	640.0	634.2	637.6	636.6	631.1	633.2	635.2	633.2	639.3	633.8	637.6
5°	638.9	632.8	634.9	632.8	630.1	630.8	633.8	631.8	637.9	632.1	636.9
7.5°	636.9	629.4	631.4	630.4	628.0	628.4	631.4	629.7	635.2	629.7	635.2
10°	633.8	626.0	627.7	623.3	618.2	621.9	628.0	626.3	632.1	626.0	632.1
12.5°	629.1	621.2	619.5	604.9	595.7	602.8	621.6	621.6	627.0	621.2	627.7
15°	623.6	615.1	605.9	583.7	574.2	581.4	607.3	616.1	620.9	615.1	621.6
17.5°	617.1	607.3	589.5	563.6	554.8	561.9	588.5	607.9	614.1	607.9	613.7
20°	609.0	597.4	572.2	542.5	536.7	543.2	569.8	598.1	606.6	599.1	603.2
22.5°	600.1	586.1	552.7	526.1	523.4	527.5	551.7	585.8	597.0	589.2	591.9
25°	589.2	572.8	533.3	511.2	509.1	511.5	534.0	571.5	586.1	577.9	579.0
27.5°	577.6	559.9	514.9	498.5	496.5	497.5	516.3	555.5	573.5	565.3	563.6
30°	563.6	544.6	496.5	481.5	479.5	483.2	499.2	539.1	559.5	551.4	546.3
32.5°	549.7	527.9	478.4	466.9	462.8	466.2	481.5	522.1	544.2	535.7	527.2
35°	532.3	510.1	459.7	448.1	444.7	448.5	463.8	504.3	526.8	518.3	506.7
37.5°	514.2	491.4	442.7	432.1	426.0	430.4	445.7	485.9	508.8	499.9	485.6
40°	496.2	471.6	423.6	412.7	404.8	411.3	427.0	466.5	488.3	480.1	463.8
42.5°	475.0	451.9	404.8	389.5	367.3	388.1	406.9	447.1	467.2	459.4	439.6
45°	452.9	430.7	385.1	347.9	290.3	351.3	386.4	426.6	442.7	435.2	413.7
47.5°	427.7	408.9	365.0	308.4	252.5	311.8	365.6	407.2	419.5	411.3	387.5
50°	405.5	387.1	343.8	275.0	225.9	278.7	343.5	385.4	395.6	388.1	361.6
52.5°	380.3	364.3	321.0	245.4	206.2	249.1	320.3	362.9	371.1	362.2	335.7
55°	355.4	341.1	296.8	219.1	188.8	222.5	296.1	339.7	346.2	336.0	308.4
57.5°	330.2	317.3	271.9	195.6	172.8	199.4	273.6	315.9	320.3	307.4	282.2
60°	304.0	293.1	246.7	174.8	157.1	177.9	246.0	292.0	294.8	280.8	256.6
62.5°	277.7	267.8	221.5	155.7	141.1	157.8	223.2	266.8	268.5	255.2	230.4
65°	250.8	241.6	197.0	135.6	125.7	139.0	198.7	240.6	242.3	227.3	204.8
67.5°	222.9	215.4	170.7	120.3	111.1	121.3	174.1	214.0	215.0	200.4	179.9
70°	194.9	188.4	147.6	103.6	96.8	103.9	149.9	184.7	186.7	171.1	154.7
72.5°	166.3	161.2	125.1	86.2	80.1	86.2	126.4	157.8	159.1	146.2	130.2
75°	137.3	133.6	102.2	69.2	64.4	68.8	102.9	130.9	130.9	118.6	106.0
77.5°	109.4	106.7	78.4	53.2	49.8	52.5	78.7	103.6	102.9	93.4	83.5
80°	81.8	79.7	56.2	38.5	36.1	37.5	56.2	76.7	76.7	69.9	57.9
82.5°	58.6	56.2	37.1	25.2	23.9	24.5	36.5	53.5	54.5	49.4	39.2
85°	38.8	33.4	20.1	14.0	12.9	13.3	19.1	31.0	34.1	28.6	20.4
87.5°	17.0	11.2	5.1	2.0	1.0	1.4	4.1	9.9	12.9	8.5	2.7
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°	635.2	635.2	635.2	635.2	635.2	635.2
2.5°	637.2	631.8	633.8	635.2	633.8	640.0
5°	636.6	634.2	633.8	635.5	632.8	638.9
7.5°	635.5	634.2	633.8	634.5	631.1	636.9
10°	633.2	631.1	631.8	632.8	628.4	633.8
12.5°	628.7	626.7	627.0	630.4	624.3	629.1
15°	621.2	618.8	621.2	625.0	619.5	623.6
17.5°	611.3	607.6	611.7	617.5	613.4	617.1
20°	598.7	592.9	597.4	607.9	604.2	609.0
22.5°	583.4	576.2	580.7	596.0	595.0	600.1
25°	566.0	557.5	563.6	582.4	584.4	589.2
27.5°	546.6	537.1	545.2	567.4	572.2	577.6
30°	525.5	515.2	524.8	550.7	557.8	563.6
32.5°	503.7	492.4	503.3	531.9	542.2	549.7
35°	480.8	469.2	481.5	512.5	524.8	532.3
37.5°	456.3	445.0	458.3	492.1	506.7	514.2
40°	431.1	418.5	433.5	467.9	487.3	496.2
42.5°	405.2	389.5	407.9	445.0	466.2	475.0
45°	376.2	354.4	379.3	420.9	443.0	452.9
47.5°	347.2	325.4	350.7	395.0	418.8	427.7
50°	319.3	300.6	320.7	366.7	394.3	405.5
52.5°	293.7	278.4	295.4	339.1	369.1	380.3
55°	269.9	258.0	271.9	311.8	342.5	355.4
57.5°	247.4	239.9	249.4	285.9	317.9	330.2
60°	226.3	221.2	228.0	260.3	289.0	304.0
62.5°	205.5	202.8	207.9	233.4	262.1	277.7
65°	185.4	184.7	187.4	209.9	233.8	250.8
67.5°	165.3	164.9	166.6	185.0	206.2	222.9
70°	145.2	147.2	146.2	158.1	178.6	194.9
72.5°	124.7	127.8	126.1	133.6	153.3	166.3
75°	101.9	106.0	102.6	111.1	123.4	137.3
77.5°	78.4	82.8	78.7	86.2	99.5	109.4
80°	56.2	60.3	56.9	62.7	74.3	81.8
82.5°	35.4	38.5	35.8	41.6	53.2	58.6
85°	15.7	17.4	18.1	22.5	32.7	38.8
87.5°	0.7	0.3	0.7	4.4	11.6	17.0
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)