

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: P520581

Luminaire Tested: **4WSLA-50-L830-UPL8-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: P520581
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-174-3)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4WSLA-50-L830-UPL8-UNV-U
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 80 CRI
LEDS WITH 8% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

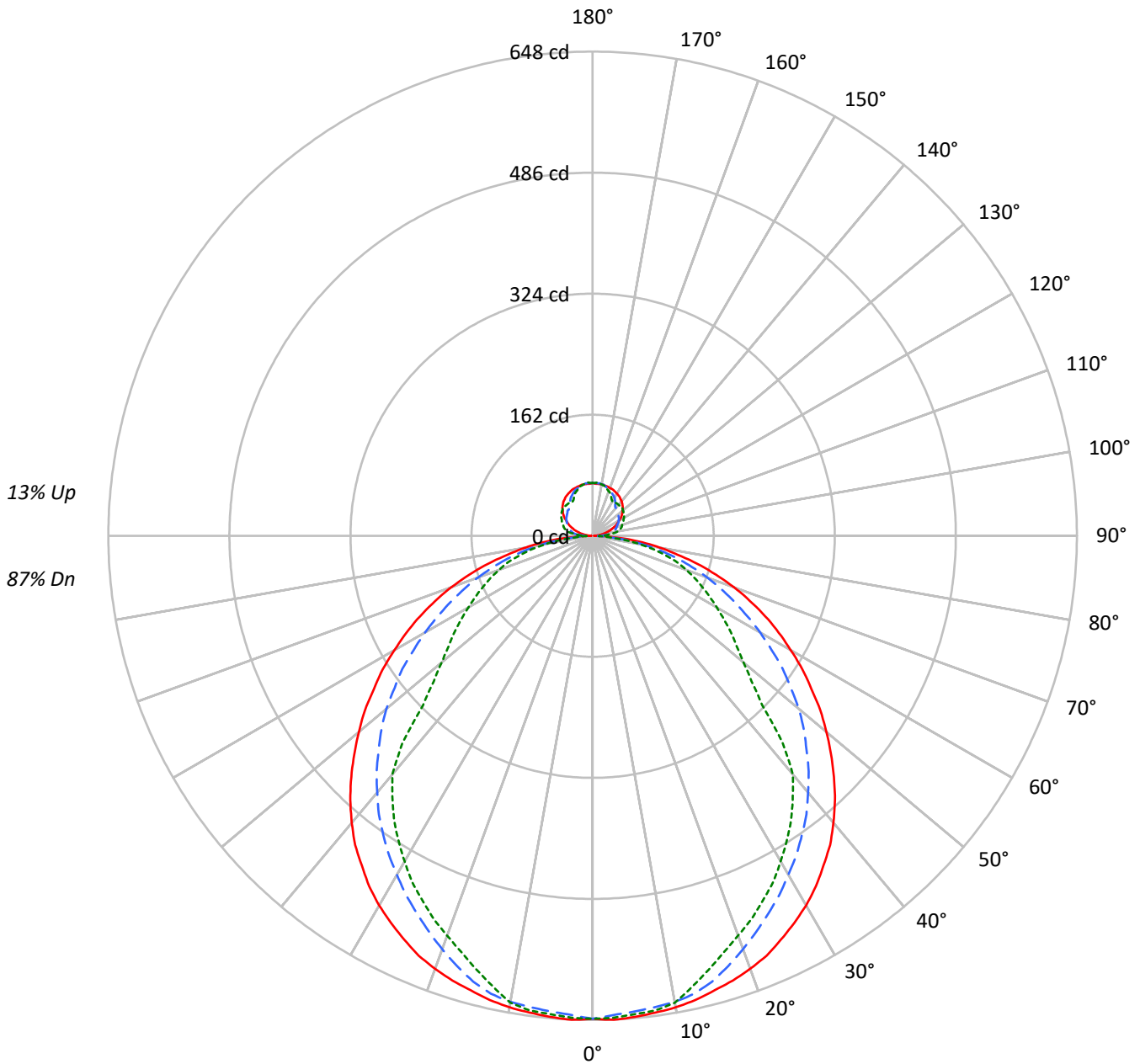
Lumens per Lamp: N/A
Luminaire Lumens: 2012.0 lumens
Efficiency: N/A
Efficacy: 129.0 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87																			
1	106	101	97	93	102	98	94	90	91	88	85	85	83	80	79	78	76	73																			
2	96	88	82	76	92	85	79	74	80	75	70	74	70	67	70	66	64	61																			
3	88	78	70	63	84	75	68	62	70	64	59	66	61	56	62	58	54	51																			
4	80	69	60	54	77	67	59	53	62	56	50	59	53	48	55	50	46	44																			
5	74	61	53	46	71	60	51	45	56	49	44	53	47	42	50	45	40	38																			
6	68	55	47	40	66	54	46	40	51	44	38	48	42	37	45	40	36	33																			
7	63	50	42	36	61	49	41	35	46	39	34	43	37	33	41	36	32	30																			
8	59	46	37	32	57	44	37	31	42	35	30	40	34	29	38	32	28	26																			
9	55	42	34	28	53	41	33	28	39	32	27	37	31	26	35	30	26	24																			
10	52	39	31	26	50	38	30	25	36	29	25	34	28	24	32	27	23	22																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3479	3479	3479
5°	3493	3453	3473
10°	3503	3462	3467
15°	3509	3442	3348
20°	3532	3372	3261
25°	3541	3309	3198
30°	3550	3255	3127
35°	3539	3209	3043
40°	3523	3150	2928
45°	3476	3080	2442
50°	3419	3014	2205
55°	3352	2915	2121
60°	3294	2784	2062
65°	3246	2665	2062
70°	3161	2562	2093
75°	3017	2437	2109
80°	2827	2191	1962
85°	2587	1550	1321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	3.0
10°-20°	174.0	8.6
20°-30°	260.0	12.9
30°-40°	310.4	15.4
40°-50°	310.4	15.4
50°-60°	268.6	13.4
60°-70°	206.2	10.2
70°-80°	126.3	6.3
80°-90°	35.6	1.8
90°-100°	20.1	1.0
100°-110°	31.9	1.6
110°-120°	37.3	1.9
120°-130°	40.3	2.0
130°-140°	39.7	2.0
140°-150°	35.1	1.7
150°-160°	28.9	1.4
160°-170°	19.3	1.0
170°-180°	6.7	0.3
0°-30°	495.2	24.6
0°-40°	805.6	40.0
0°-60°	1384.6	68.8
0°-90°	1752.7	87.1
90°-120°	89.3	4.4
90°-150°	204.4	10.2
90°-180°	259.0	12.9
0°-180°	2012.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	646	645	639	644	643	62
15°	630	629	618	606	601	178
25°	596	589	557	542	539	275
35°	539	525	488	471	463	337
45°	457	444	405	368	321	352
55°	357	349	311	248	226	320
65°	255	246	209	168	162	252
75°	145	138	117	101	101	153
85°	42	34	25	21	21	44
90°	2	6	10	13	14	3
95°	7	16	21	22	22	7
105°	21	22	32	37	39	22
115°	35	30	37	43	46	35
125°	47	38	43	49	51	42
135°	57	51	47	52	55	44
145°	63	60	53	52	54	39
155°	67	66	62	60	59	31
165°	69	70	68	68	68	20
175°	70	71	71	72	72	7
180°	71	71	71	71	71	



TEST NUMBER: P520581

CATALOG NUMBER: 4WSLA-50-L830-UPL8-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	646.5	646.5	646.5	646.5	646.5
2.5°	648.4	646.5	641.9	646.5	645.6
5°	646.5	644.6	639.1	643.7	642.8
7.5°	643.7	641.9	636.3	641.9	640.9
10°	640.9	639.1	633.5	637.2	634.4
12.5°	636.3	634.4	627.9	623.2	617.7
15°	629.8	628.8	617.7	606.5	600.9
17.5°	624.2	621.4	603.7	590.7	584.2
20°	616.7	612.1	588.8	573.9	569.3
22.5°	608.4	600.9	573.0	559.1	555.3
25°	596.3	588.8	557.2	542.3	538.6
27.5°	584.2	574.9	541.4	526.5	522.8
30°	571.2	558.1	523.7	509.8	503.2
32.5°	556.3	543.2	507.0	491.2	483.7
35°	538.6	524.6	488.4	470.7	463.2
37.5°	521.9	507.0	469.8	450.2	440.0
40°	501.4	486.5	448.4	427.0	416.7
42.5°	480.0	466.0	427.9	401.9	376.7
45°	456.7	443.7	404.6	368.4	320.9
47.5°	432.6	421.4	383.3	333.9	288.4
50°	408.4	397.2	360.0	301.4	263.3
52.5°	384.2	374.9	333.9	274.4	242.8
55°	357.2	348.8	310.7	248.4	226.0
57.5°	333.0	324.6	283.7	227.0	208.4
60°	306.0	298.6	258.6	205.6	191.6
62.5°	280.9	272.6	233.5	187.0	176.7
65°	254.9	245.6	209.3	168.4	161.9
67.5°	227.9	218.6	186.0	151.6	147.9
70°	200.9	193.5	162.8	134.9	133.0
72.5°	173.0	164.6	139.5	119.1	119.1
75°	145.1	137.7	117.2	101.4	101.4
77.5°	116.3	112.6	94.0	82.8	83.7
80°	91.2	86.5	70.7	63.3	63.3
82.5°	67.0	61.4	47.4	41.9	43.7
85°	41.9	34.4	25.1	21.4	21.4
87.5°	13.0	10.2	7.4	8.4	8.4
90°	1.9	6.5	10.2	13.0	14.0
92.5°	4.7	12.1	14.9	17.7	18.6
95°	7.4	15.8	21.4	22.3	22.3
97.5°	10.2	17.7	26.0	29.8	29.8
100°	14.0	18.6	27.9	33.5	34.4
102.5°	17.7	20.5	29.8	35.3	37.2
105°	21.4	22.3	31.6	37.2	39.1



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CATALOG NUMBER: 4WSLA-50-L830-UPL8-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	31.6	27.9	35.3	41.9	43.7
115°	35.3	29.8	37.2	42.8	45.6
117.5°	38.1	32.6	39.1	44.7	46.5
120°	40.9	34.4	40.0	46.5	48.4
122.5°	44.7	36.3	41.9	47.4	50.2
125°	47.4	38.1	42.8	49.3	51.2
127.5°	50.2	41.9	43.7	50.2	52.1
130°	52.1	45.6	44.7	51.2	53.0
132.5°	54.9	48.4	45.6	52.1	54.0
135°	56.7	51.2	47.4	52.1	54.9
137.5°	58.6	54.0	47.4	52.1	54.0
140°	60.5	56.7	48.4	52.1	54.0
142.5°	61.4	58.6	49.3	52.1	54.0
145°	63.3	60.5	53.0	52.1	54.0
147.5°	64.2	62.3	55.8	52.1	54.0
150°	65.1	64.2	58.6	53.0	53.0
152.5°	66.0	65.1	60.5	56.7	54.9
155°	67.0	66.0	62.3	59.5	58.6
157.5°	67.9	67.9	64.2	62.3	61.4
160°	67.9	68.8	66.0	64.2	63.3
162.5°	68.8	69.8	67.0	66.0	65.1
165°	68.8	69.8	67.9	67.9	67.9
167.5°	69.8	70.7	69.8	68.8	68.8
170°	69.8	70.7	69.8	69.8	69.8
172.5°	69.8	70.7	70.7	70.7	70.7
175°	69.8	70.7	70.7	71.6	71.6
177.5°	69.8	70.7	70.7	70.7	70.7
180°	70.7	70.7	70.7	70.7	70.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	25.1	24.2	32.6	39.1	40.9
110°	27.9	26.0	34.4	40.0	41.9



(END OF REPORT)