

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: P520589

Luminaire Tested: **4WSLA-50-L850-UPL15-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: P520589
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-174-4)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4WSLA-50-L850-UPL15-UNV-U
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 5000K, 80 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

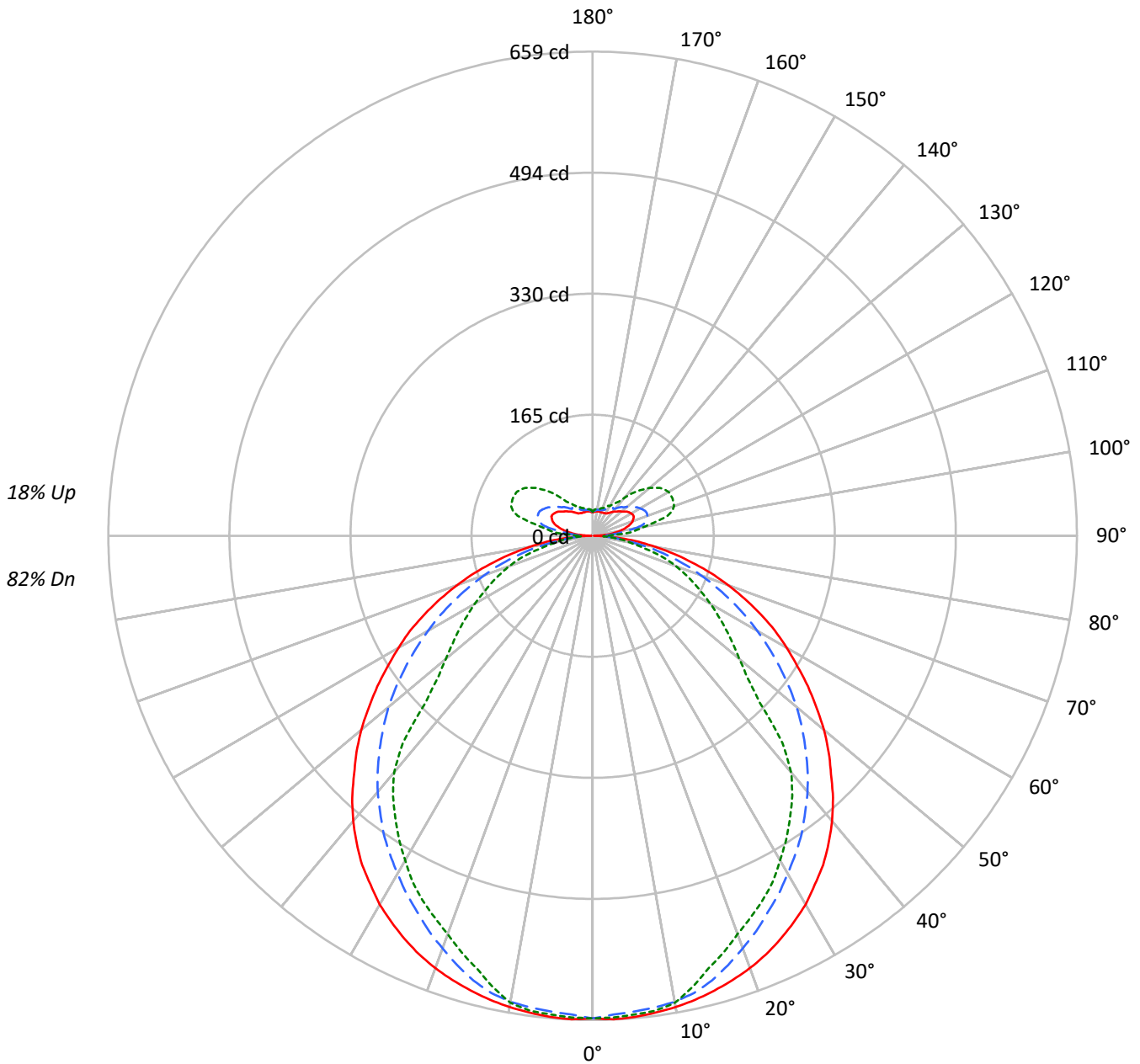
Lumens per Lamp: N/A
Luminaire Lumens: 2127.0 lumens
Efficiency: N/A
Efficacy: 136.3 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 15.6
Input Voltage (V): NR
Input Current (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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	82																			
1	105	100	96	92	100	96	93	89	89	86	83	82	80	78	76	74	72	69																			
2	96	88	81	76	91	84	78	73	78	73	69	72	68	65	67	64	61	58																			
3	87	77	69	63	83	74	67	61	69	63	58	64	59	55	59	55	52	49																			
4	80	68	60	53	76	66	58	52	61	55	50	57	51	47	53	48	45	42																			
5	73	61	52	46	70	59	51	45	55	48	43	51	45	41	48	43	39	36																			
6	68	55	46	40	65	53	45	39	50	43	38	46	40	36	43	38	34	32																			
7	63	50	41	35	60	48	40	35	45	38	33	42	36	32	39	34	30	28																			
8	58	45	37	32	56	44	36	31	41	35	30	39	33	29	36	31	27	25																			
9	55	42	34	28	52	40	33	28	38	31	27	36	30	26	33	28	25	23																			
10	51	38	31	26	49	37	30	25	35	29	24	33	27	23	31	26	23	21																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3535	3535	3535
5°	3552	3512	3534
10°	3560	3520	3527
15°	3570	3492	3396
20°	3586	3422	3304
25°	3596	3354	3251
30°	3601	3299	3171
35°	3593	3256	3077
40°	3561	3196	2953
45°	3493	3118	2449
50°	3441	3033	2180
55°	3356	2913	2075
60°	3284	2781	1993
65°	3207	2630	1934
70°	3081	2463	1898
75°	2909	2258	1745
80°	2662	1900	1550
85°	2384	1643	1562



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.2	2.9
10°-20°	176.8	8.3
20°-30°	263.9	12.4
30°-40°	314.4	14.8
40°-50°	312.7	14.7
50°-60°	268.0	12.6
60°-70°	201.9	9.5
70°-80°	116.9	5.5
80°-90°	35.1	1.7
90°-100°	37.7	1.8
100°-110°	77.5	3.6
110°-120°	81.9	3.9
120°-130°	68.3	3.2
130°-140°	47.7	2.2
140°-150°	29.7	1.4
150°-160°	18.4	0.9
160°-170°	10.4	0.5
170°-180°	3.3	0.2
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0°-30°	502.9	23.6
0°-40°	817.3	38.4
0°-60°	1398.1	65.7
0°-90°	1752.0	82.4
90°-120°	197.1	9.3
90°-150°	342.9	16.1
90°-180°	375.0	17.6
0°-180°	2127.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	657	657	657	657	657	
5°	657	655	650	655	654	63
15°	641	640	627	616	610	181
25°	606	597	565	551	548	279
35°	547	532	496	476	468	342
45°	459	448	410	369	322	355
55°	358	352	310	246	221	320
65°	252	246	206	160	152	249
75°	140	135	109	87	84	148
85°	39	34	27	25	25	41
90°	2	9	16	20	21	4
95°	21	29	33	48	52	20
105°	50	52	75	100	106	52
115°	62	53	79	109	120	60
125°	57	51	69	101	113	51
135°	47	51	55	75	86	36
145°	38	44	48	51	55	24
155°	35	37	39	43	43	16
165°	34	35	37	38	38	10
175°	33	34	35	35	36	3
180°	33	33	33	33	33	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	656.8	656.8	656.8	656.8	656.8
2.5°	658.8	657.4	652.1	657.4	656.1
5°	657.4	655.4	650.1	654.8	654.1
7.5°	654.8	653.4	647.4	652.8	652.1
10°	651.4	649.4	644.1	648.1	645.4
12.5°	646.8	645.4	637.4	634.1	628.8
15°	640.8	640.1	626.8	616.1	609.5
17.5°	634.1	631.4	612.8	600.1	594.1
20°	626.1	622.1	597.5	582.8	576.8
22.5°	616.8	610.8	582.2	568.2	562.2
25°	605.5	596.8	564.8	550.9	547.5
27.5°	592.8	582.8	548.9	534.9	530.9
30°	579.5	566.8	530.9	517.5	510.2
32.5°	562.8	550.9	513.6	498.2	490.2
35°	546.9	532.2	495.6	476.2	468.3
37.5°	527.5	512.9	474.9	455.6	446.3
40°	506.9	492.2	454.9	432.3	420.3
42.5°	484.2	470.9	433.0	405.6	382.3
45°	458.9	447.6	409.6	369.0	321.7
47.5°	435.6	425.0	386.3	333.7	285.1
50°	411.0	401.0	362.3	300.4	260.4
52.5°	383.7	376.3	336.4	271.8	239.8
55°	357.7	352.4	310.4	246.5	221.1
57.5°	330.4	325.0	284.4	222.5	202.5
60°	305.1	299.7	258.4	201.2	185.2
62.5°	279.8	272.4	233.1	180.5	167.2
65°	251.8	245.8	206.5	160.5	151.9
67.5°	223.8	218.5	181.8	141.9	135.9
70°	195.8	191.2	156.5	123.9	120.6
72.5°	168.5	162.5	133.9	105.9	104.6
75°	139.9	135.2	108.6	86.6	83.9
77.5°	112.6	108.6	85.3	65.9	63.9
80°	85.9	81.9	61.3	48.0	50.0
82.5°	63.3	57.9	41.3	37.3	39.3
85°	38.6	34.0	26.6	25.3	25.3
87.5°	13.3	12.7	12.0	14.0	14.7
90°	2.0	9.3	16.0	20.0	21.3
92.5°	11.3	16.7	22.0	26.0	27.3
95°	21.3	28.6	32.6	48.0	52.0
97.5°	29.3	38.0	42.6	56.6	60.6
100°	37.3	45.3	59.9	67.3	71.9
102.5°	44.0	50.0	70.6	85.3	87.9
105°	50.0	52.0	74.6	99.9	105.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	59.9	53.3	79.9	108.6	119.2
115°	61.9	52.6	79.3	109.2	119.9
117.5°	61.9	52.6	77.3	109.2	119.9
120°	60.6	53.3	74.6	107.9	119.2
122.5°	59.3	52.0	71.9	105.2	116.6
125°	57.3	50.6	68.6	100.6	113.2
127.5°	54.0	52.0	65.3	94.6	107.2
130°	51.3	52.6	61.3	88.6	101.2
132.5°	49.3	51.3	57.3	81.9	93.3
135°	46.6	50.6	55.3	74.6	85.9
137.5°	44.6	48.6	52.0	67.9	77.3
140°	42.6	47.3	48.6	59.3	67.3
142.5°	40.0	45.3	46.0	55.3	58.6
145°	38.0	44.0	48.0	51.3	54.6
147.5°	36.0	41.3	46.6	47.3	50.6
150°	35.3	38.6	44.6	45.3	46.6
152.5°	34.6	37.3	41.3	45.3	46.0
155°	34.6	36.6	39.3	42.6	43.3
157.5°	34.0	36.6	38.0	40.6	41.3
160°	34.0	36.0	37.3	39.3	40.0
162.5°	34.0	36.0	36.6	38.6	39.3
165°	34.0	35.3	36.6	38.0	38.0
167.5°	34.0	35.3	36.0	37.3	37.3
170°	34.0	34.6	36.0	36.6	36.6
172.5°	33.3	34.6	35.3	36.6	36.6
175°	33.3	34.0	34.6	35.3	36.0
177.5°	32.0	34.0	34.6	35.3	34.6
180°	32.6	32.6	32.6	32.6	32.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	54.6	52.6	77.3	105.2	113.9
110°	57.9	53.3	79.3	107.2	117.9



(END OF REPORT)