

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: P520466

Luminaire Tested: **4WSLA-100-L840-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: P520466
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-100-L840-UPL15-UNV-U
Description: 4 FOOT, 1000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 80 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

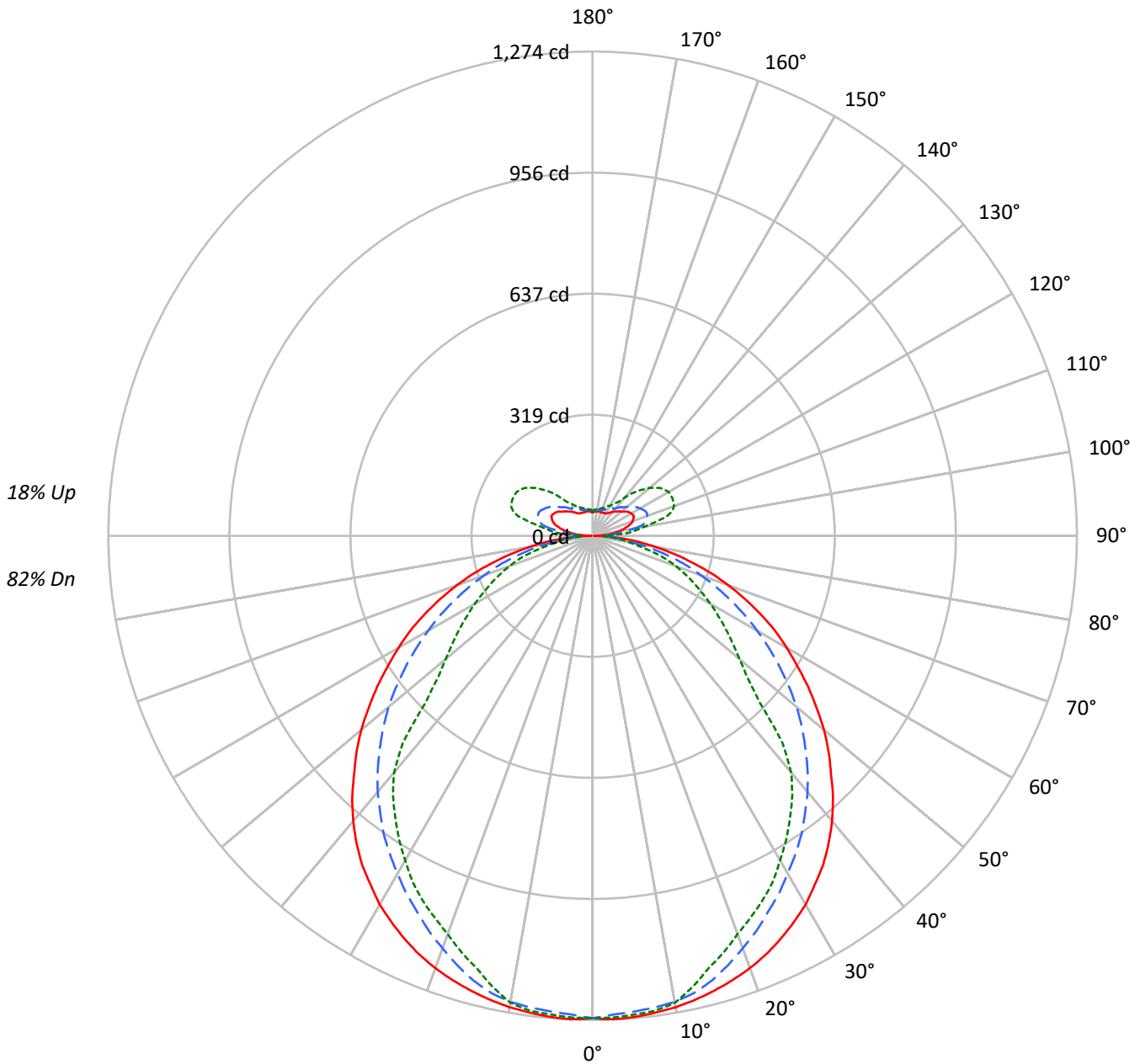
Lumens per Lamp: N/A
Luminaire Lumens: 4112.0 lumens
Efficiency: N/A
Efficacy: 130.1 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 31.6
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°	6833	6833	6833
5°	6867	6790	6831
10°	6883	6805	6819
15°	6902	6751	6565
20°	6932	6616	6387
25°	6951	6485	6286
30°	6962	6378	6130
35°	6946	6294	5948
40°	6884	6179	5708
45°	6753	6027	4734
50°	6652	5865	4216
55°	6488	5631	4011
60°	6349	5378	3853
65°	6199	5084	3739
70°	5958	4762	3668
75°	5623	4365	3375
80°	5148	3673	2994
85°	4613	3180	3020



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.3	2.9
10°-20°	341.8	8.3
20°-30°	510.1	12.4
30°-40°	607.8	14.8
40°-50°	604.6	14.7
50°-60°	518.2	12.6
60°-70°	390.3	9.5
70°-80°	226.0	5.5
80°-90°	67.9	1.7
90°-100°	72.9	1.8
100°-110°	149.8	3.6
110°-120°	158.3	3.9
120°-130°	132.1	3.2
130°-140°	92.3	2.2
140°-150°	57.4	1.4
150°-160°	35.6	0.9
160°-170°	20.0	0.5
170°-180°	6.5	0.2
0°-30°	972.3	23.6
0°-40°	1580.1	38.4
0°-60°	2702.9	65.7
0°-90°	3387.1	82.4
90°-120°	381.0	9.3
90°-150°	662.8	16.1
90°-180°	725.0	17.6
0°-180°	4112.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1270	1270	1270	1270	1270	
5°	1271	1267	1257	1266	1264	121
15°	1239	1238	1212	1191	1178	350
25°	1170	1154	1092	1065	1058	540
35°	1057	1029	958	921	905	660
45°	887	865	792	713	622	686
55°	692	681	600	476	428	618
65°	487	475	399	310	294	481
75°	270	261	210	167	162	286
85°	75	66	52	49	49	80
90°	4	18	31	39	41	8
95°	41	55	63	93	100	39
105°	97	100	144	193	205	100
115°	120	102	153	211	232	117
125°	111	98	133	194	219	98
135°	90	98	107	144	166	70
145°	73	85	93	99	106	47
155°	67	71	76	82	84	31
165°	66	68	71	73	73	19
175°	64	66	67	68	70	6
180°	63	63	63	63	63	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1269.7	1269.7	1269.7	1269.7	1269.7
2.5°	1273.5	1271.0	1260.7	1271.0	1268.4
5°	1271.0	1267.1	1256.8	1265.8	1264.5
7.5°	1265.8	1263.2	1251.6	1261.9	1260.7
10°	1259.4	1255.5	1245.2	1252.9	1247.8
12.5°	1250.4	1247.8	1232.3	1225.9	1215.6
15°	1238.8	1237.5	1211.7	1191.1	1178.2
17.5°	1225.9	1220.7	1184.7	1160.2	1148.6
20°	1210.4	1202.7	1155.1	1126.7	1115.1
22.5°	1192.4	1180.8	1125.4	1098.4	1086.8
25°	1170.5	1153.8	1092.0	1064.9	1058.5
27.5°	1146.1	1126.7	1061.1	1034.0	1026.3
30°	1120.3	1095.8	1026.3	1000.5	986.4
32.5°	1088.1	1064.9	992.8	963.2	947.7
35°	1057.2	1028.9	958.0	920.7	905.3
37.5°	1019.9	991.5	918.1	880.8	862.8
40°	979.9	951.6	879.5	835.7	812.5
42.5°	936.2	910.4	837.0	784.2	739.1
45°	887.2	865.3	791.9	713.4	622.0
47.5°	842.2	821.6	746.9	645.1	551.1
50°	794.5	775.2	700.5	580.8	503.5
52.5°	741.7	727.6	650.3	525.4	463.6
55°	691.5	681.2	600.1	476.4	427.5
57.5°	638.7	628.4	549.8	430.1	391.5
60°	589.8	579.5	499.6	388.9	358.0
62.5°	540.8	526.7	450.7	349.0	323.2
65°	486.8	475.2	399.2	310.3	293.6
67.5°	432.7	422.4	351.5	274.3	262.7
70°	378.6	369.6	302.6	239.5	233.1
72.5°	325.8	314.2	258.8	204.7	202.2
75°	270.4	261.4	209.9	167.4	162.3
77.5°	217.6	209.9	164.8	127.5	123.6
80°	166.1	158.4	118.5	92.7	96.6
82.5°	122.3	112.0	79.8	72.1	76.0
85°	74.7	65.7	51.5	48.9	48.9
87.5°	25.8	24.5	23.2	27.0	28.3
90°	3.9	18.0	30.9	38.6	41.2
92.5°	21.9	32.2	42.5	50.2	52.8
95°	41.2	55.4	63.1	92.7	100.4
97.5°	56.7	73.4	82.4	109.5	117.2
100°	72.1	87.6	115.9	130.1	139.1
102.5°	85.0	96.6	136.5	164.8	170.0
105°	96.6	100.4	144.2	193.2	204.7



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CATALOG NUMBER: 4WSLA-100-L840-UPL15-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	115.9	103.0	154.5	209.9	230.5
115°	119.8	101.7	153.2	211.2	231.8
117.5°	119.8	101.7	149.4	211.2	231.8
120°	117.2	103.0	144.2	208.6	230.5
122.5°	114.6	100.4	139.1	203.5	225.3
125°	110.7	97.9	132.6	194.4	218.9
127.5°	104.3	100.4	126.2	182.9	207.3
130°	99.2	101.7	118.5	171.3	195.7
132.5°	95.3	99.2	110.7	158.4	180.3
135°	90.1	97.9	106.9	144.2	166.1
137.5°	86.3	94.0	100.4	131.3	149.4
140°	82.4	91.4	94.0	114.6	130.1
142.5°	77.3	87.6	88.9	106.9	113.3
145°	73.4	85.0	92.7	99.2	105.6
147.5°	69.5	79.8	90.1	91.4	97.9
150°	68.2	74.7	86.3	87.6	90.1
152.5°	67.0	72.1	79.8	87.6	88.9
155°	67.0	70.8	76.0	82.4	83.7
157.5°	65.7	70.8	73.4	78.5	79.8
160°	65.7	69.5	72.1	76.0	77.3
162.5°	65.7	69.5	70.8	74.7	76.0
165°	65.7	68.2	70.8	73.4	73.4
167.5°	65.7	68.2	69.5	72.1	72.1
170°	65.7	67.0	69.5	70.8	70.8
172.5°	64.4	67.0	68.2	70.8	70.8
175°	64.4	65.7	67.0	68.2	69.5
177.5°	61.8	65.7	67.0	68.2	67.0
180°	63.1	63.1	63.1	63.1	63.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	105.6	101.7	149.4	203.5	220.2
110°	112.0	103.0	153.2	207.3	227.9



(END OF REPORT)