

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: P520460

Luminaire Tested: **4WSLA-100-L830-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: P520460
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-L830-UPL15-UNV-U
Description: 4 FOOT, 1000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 80 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

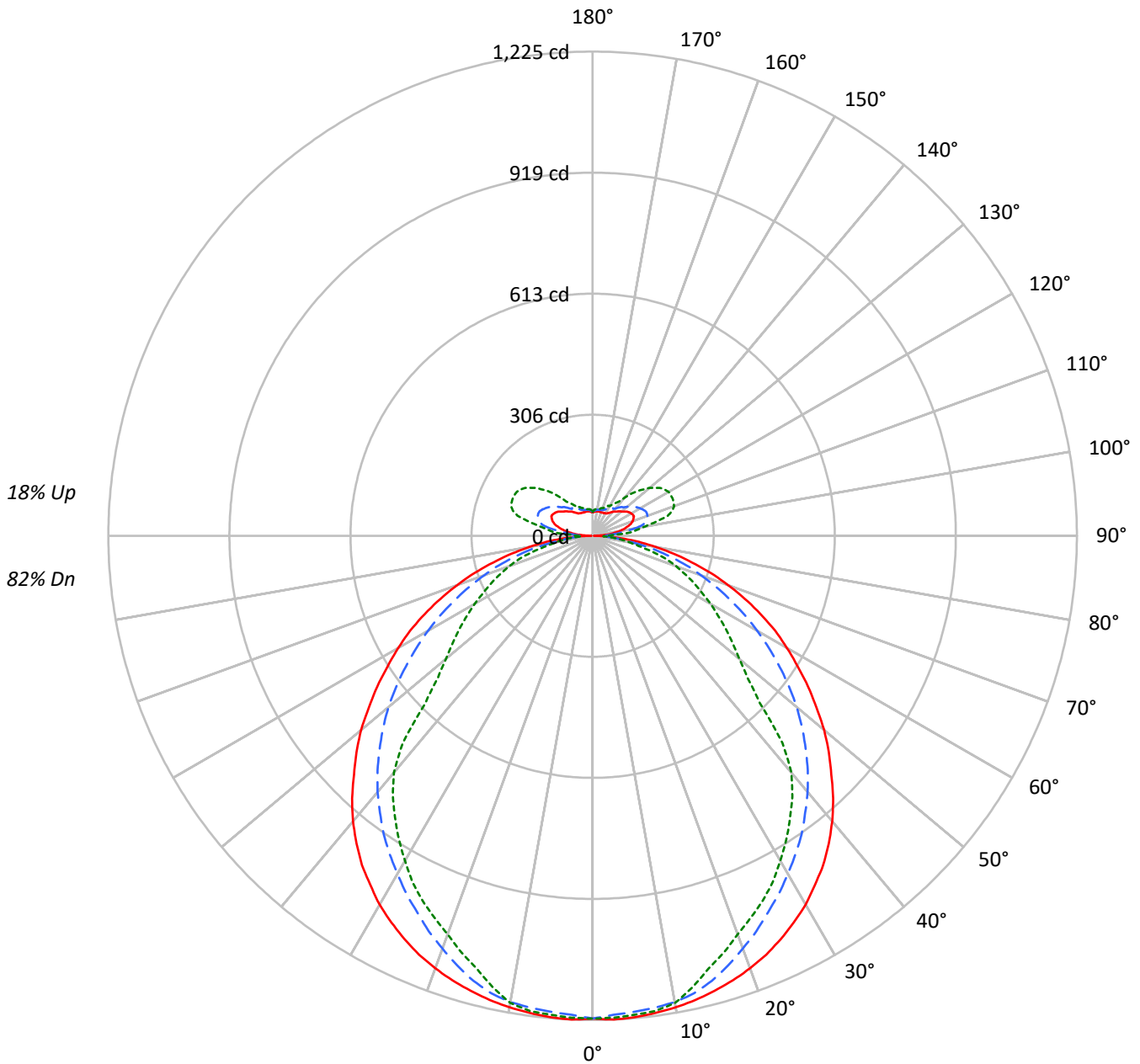
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3956.0 lumens
Efficiency: N/A
Efficacy: 125.2 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				20				20
RC	80				70				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	86	86	86	82
1	105	100	96	92	100	96	93	89	89	86	83	82	80	78	76	74	72	72	72	72	69
2	96	88	81	76	91	84	78	73	78	73	69	72	68	65	67	64	61	61	61	61	58
3	87	77	69	63	83	74	67	61	69	63	58	64	59	55	59	55	52	52	52	52	49
4	80	68	60	53	76	66	58	52	61	55	50	57	51	47	53	48	45	45	45	45	42
5	73	61	52	46	70	59	51	45	55	48	43	51	45	41	48	43	39	39	39	39	36
6	68	55	46	40	65	53	45	39	50	43	38	46	40	36	43	38	34	34	34	34	32
7	63	50	41	35	60	48	40	35	45	38	33	42	36	32	39	34	30	30	30	30	28
8	58	45	37	32	56	44	36	31	41	35	30	39	33	29	36	31	27	27	27	27	25
9	55	42	34	28	52	40	33	28	38	31	27	36	30	26	33	28	25	25	25	25	23
10	51	38	31	26	49	37	30	25	35	29	24	33	27	23	31	26	23	23	23	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6574	6574	6574
5°	6606	6532	6572
10°	6621	6547	6560
15°	6640	6496	6316
20°	6670	6364	6144
25°	6687	6238	6047
30°	6698	6136	5898
35°	6683	6056	5722
40°	6624	5944	5492
45°	6497	5799	4555
50°	6400	5642	4056
55°	6243	5417	3859
60°	6107	5174	3707
65°	5964	4890	3598
70°	5731	4581	3528
75°	5411	4198	3246
80°	4953	3533	2879
85°	4440	3063	2908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.8	2.9
10°-20°	328.9	8.3
20°-30°	490.8	12.4
30°-40°	584.8	14.8
40°-50°	581.7	14.7
50°-60°	498.5	12.6
60°-70°	375.4	9.5
70°-80°	217.4	5.5
80°-90°	65.4	1.7
90°-100°	70.2	1.8
100°-110°	144.1	3.6
110°-120°	152.3	3.9
120°-130°	127.1	3.2
130°-140°	88.8	2.2
140°-150°	55.3	1.4
150°-160°	34.2	0.9
160°-170°	19.3	0.5
170°-180°	6.2	0.2
0°-30°	935.4	23.6
0°-40°	1520.2	38.4
0°-60°	2600.3	65.7
0°-90°	3258.6	82.4
90°-120°	366.6	9.3
90°-150°	637.7	16.1
90°-180°	697.0	17.6
0°-180°	3956.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1222	1222	1222	1222	1222	
5°	1223	1219	1209	1218	1216	116
15°	1192	1190	1166	1146	1134	337
25°	1126	1110	1050	1024	1018	519
35°	1017	990	922	886	871	635
45°	854	832	762	686	598	660
55°	665	655	577	458	411	595
65°	468	457	384	299	282	463
75°	260	252	202	161	156	276
85°	72	63	50	47	47	77
90°	4	17	30	37	40	7
95°	40	53	61	89	97	38
105°	93	97	139	186	197	96
115°	115	98	147	203	223	112
125°	106	94	128	187	211	95
135°	87	94	103	139	160	68
145°	71	82	89	95	102	45
155°	64	68	73	79	80	30
165°	63	66	68	71	71	18
175°	62	63	64	66	67	6
180°	61	61	61	61	61	



TEST NUMBER: P520460

CATALOG NUMBER: 4WSLA-100-L830-UPL15-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1221.5	1221.5	1221.5	1221.5	1221.5
2.5°	1225.2	1222.7	1212.8	1222.7	1220.3
5°	1222.7	1219.0	1209.1	1217.8	1216.5
7.5°	1217.8	1215.3	1204.2	1214.1	1212.8
10°	1211.6	1207.9	1198.0	1205.4	1200.4
12.5°	1202.9	1200.4	1185.6	1179.4	1169.5
15°	1191.8	1190.5	1165.8	1145.9	1133.5
17.5°	1179.4	1174.4	1139.7	1116.2	1105.1
20°	1164.5	1157.1	1111.2	1084.0	1072.8
22.5°	1147.2	1136.0	1082.8	1056.7	1045.6
25°	1126.1	1110.0	1050.5	1024.5	1018.3
27.5°	1102.6	1084.0	1020.8	994.8	987.4
30°	1077.8	1054.3	987.4	962.6	949.0
32.5°	1046.8	1024.5	955.2	926.7	911.8
35°	1017.1	989.8	921.7	885.8	870.9
37.5°	981.2	953.9	883.3	847.4	830.0
40°	942.8	915.5	846.1	804.0	781.7
42.5°	900.6	875.9	805.3	754.5	711.1
45°	853.6	832.5	761.9	686.3	598.4
47.5°	810.2	790.4	718.5	620.7	530.2
50°	764.4	745.8	673.9	558.7	484.4
52.5°	713.6	699.9	625.6	505.4	446.0
55°	665.3	655.4	577.3	458.4	411.3
57.5°	614.5	604.6	529.0	413.8	376.6
60°	567.4	557.5	480.7	374.1	344.4
62.5°	520.3	506.7	433.6	335.7	311.0
65°	468.3	457.1	384.0	298.6	282.5
67.5°	416.3	406.3	338.2	263.9	252.7
70°	364.2	355.5	291.1	230.4	224.2
72.5°	313.4	302.3	249.0	197.0	194.5
75°	260.2	251.5	201.9	161.1	156.1
77.5°	209.4	201.9	158.6	122.6	118.9
80°	159.8	152.4	114.0	89.2	92.9
82.5°	117.7	107.8	76.8	69.4	73.1
85°	71.9	63.2	49.6	47.1	47.1
87.5°	24.8	23.5	22.3	26.0	27.3
90°	3.7	17.3	29.7	37.2	39.6
92.5°	21.1	31.0	40.9	48.3	50.8
95°	39.6	53.3	60.7	89.2	96.6
97.5°	54.5	70.6	79.3	105.3	112.7
100°	69.4	84.2	111.5	125.1	133.8
102.5°	81.8	92.9	131.3	158.6	163.5
105°	92.9	96.6	138.8	185.8	197.0



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CATALOG NUMBER: 4WSLA-100-L830-UPL15-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	111.5	99.1	148.7	201.9	221.8
115°	115.2	97.9	147.4	203.2	223.0
117.5°	115.2	97.9	143.7	203.2	223.0
120°	112.7	99.1	138.8	200.7	221.8
122.5°	110.3	96.6	133.8	195.7	216.8
125°	106.5	94.2	127.6	187.1	210.6
127.5°	100.3	96.6	121.4	175.9	199.5
130°	95.4	97.9	114.0	164.8	188.3
132.5°	91.7	95.4	106.5	152.4	173.4
135°	86.7	94.2	102.8	138.8	159.8
137.5°	83.0	90.4	96.6	126.4	143.7
140°	79.3	88.0	90.4	110.3	125.1
142.5°	74.3	84.2	85.5	102.8	109.0
145°	70.6	81.8	89.2	95.4	101.6
147.5°	66.9	76.8	86.7	88.0	94.2
150°	65.7	71.9	83.0	84.2	86.7
152.5°	64.4	69.4	76.8	84.2	85.5
155°	64.4	68.1	73.1	79.3	80.5
157.5°	63.2	68.1	70.6	75.6	76.8
160°	63.2	66.9	69.4	73.1	74.3
162.5°	63.2	66.9	68.1	71.9	73.1
165°	63.2	65.7	68.1	70.6	70.6
167.5°	63.2	65.7	66.9	69.4	69.4
170°	63.2	64.4	66.9	68.1	68.1
172.5°	61.9	64.4	65.7	68.1	68.1
175°	61.9	63.2	64.4	65.7	66.9
177.5°	59.5	63.2	64.4	65.7	64.4
180°	60.7	60.7	60.7	60.7	60.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	101.6	97.9	143.7	195.7	211.8
110°	107.8	99.1	147.4	199.5	219.3



(END OF REPORT)