

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: P520557

Luminaire Tested: **4WSLA-200-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: P520557
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-200-L830-UPL8-UNV-U
Description: 4 FOOT, 2000 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

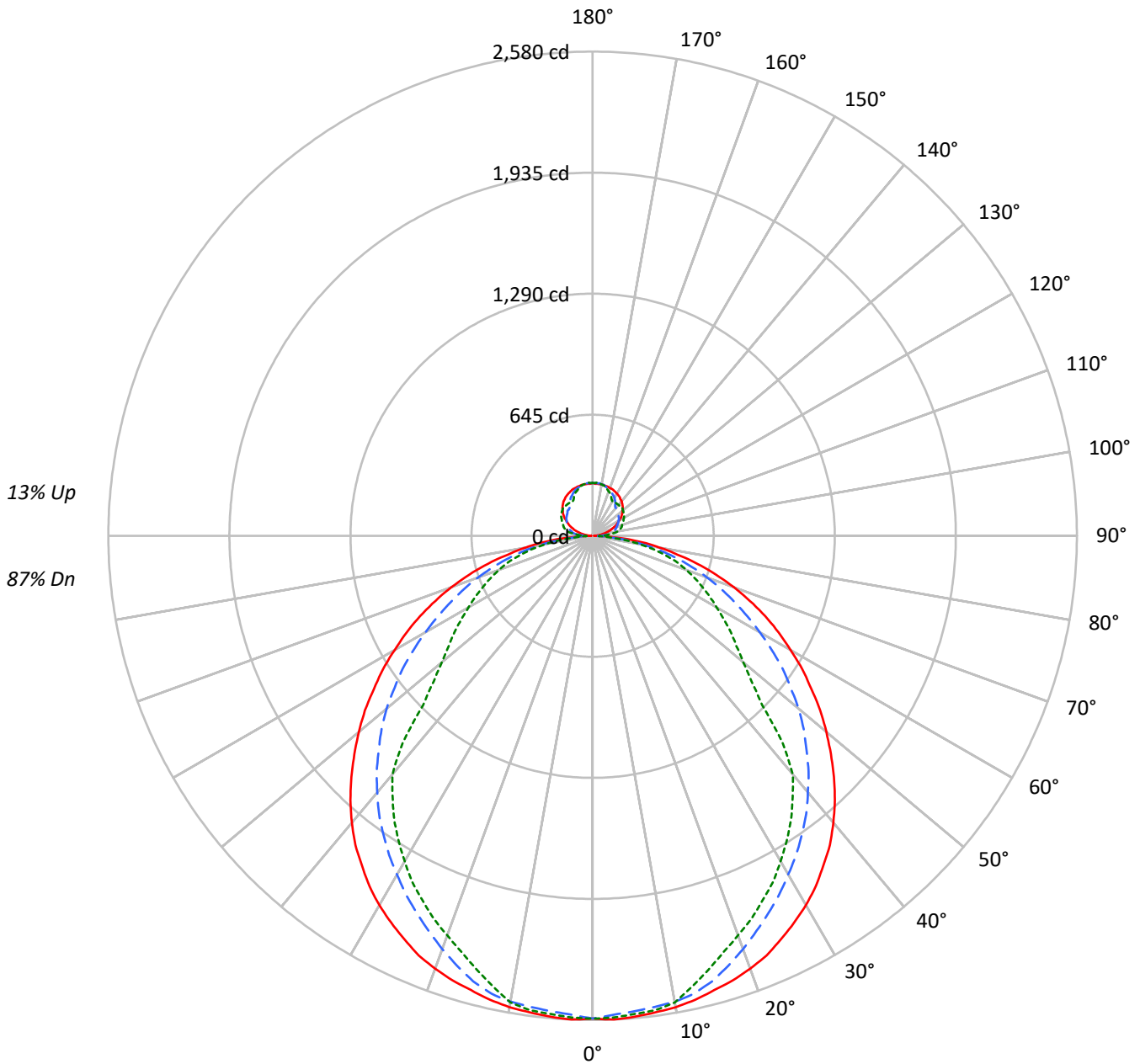
Lumens per Lamp: N/A
Luminaire Lumens: 8007.0 lumens
Efficiency: N/A
Efficacy: 104.9 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 76.3
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°	13847	13847	13847
5°	13900	13740	13820
10°	13939	13777	13797
15°	13964	13696	13324
20°	14057	13421	12976
25°	14091	13168	12728
30°	14126	12952	12446
35°	14082	12769	12113
40°	14018	12536	11652
45°	13834	12256	9721
50°	13607	11995	8771
55°	13338	11601	8441
60°	13109	11077	8209
65°	12917	10607	8202
70°	12582	10194	8331
75°	12009	9698	8390
80°	11244	8718	7801
85°	10288	6175	5255



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.6	3.0
10°-20°	692.5	8.6
20°-30°	1034.7	12.9
30°-40°	1235.1	15.4
40°-50°	1235.2	15.4
50°-60°	1069.0	13.4
60°-70°	820.5	10.2
70°-80°	502.8	6.3
80°-90°	141.5	1.8
90°-100°	80.0	1.0
100°-110°	127.0	1.6
110°-120°	148.5	1.9
120°-130°	160.3	2.0
130°-140°	157.9	2.0
140°-150°	139.7	1.7
150°-160°	115.0	1.4
160°-170°	76.9	1.0
170°-180°	26.8	0.3
0°-30°	1970.7	24.6
0°-40°	3205.8	40.0
0°-60°	5510.1	68.8
0°-90°	6974.9	87.1
90°-120°	355.4	4.4
90°-150°	813.3	10.2
90°-180°	1032.0	12.9
0°-180°	8007.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2573	2573	2573	2573	2573	
5°	2573	2565	2543	2562	2558	245
15°	2506	2502	2458	2414	2391	709
25°	2373	2343	2218	2158	2143	1095
35°	2143	2088	1944	1873	1844	1342
45°	1818	1766	1610	1466	1277	1402
55°	1422	1388	1236	988	900	1274
65°	1014	977	833	670	644	1002
75°	578	548	466	404	404	609
85°	167	137	100	85	85	174
90°	7	26	41	52	56	12
95°	30	63	85	89	89	29
105°	85	89	126	148	156	89
115°	141	118	148	170	181	137
125°	189	152	170	196	204	168
135°	226	204	189	207	218	174
145°	252	241	211	207	215	157
155°	266	263	248	237	233	123
165°	274	278	270	270	270	78
175°	278	281	281	285	285	27
180°	281	281	281	281	281	



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CATALOG NUMBER: 4WSLA-200-L830-UPL8-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2572.8	2572.8	2572.8	2572.8	2572.8
2.5°	2580.2	2572.8	2554.3	2572.8	2569.1
5°	2572.8	2565.4	2543.2	2561.7	2558.0
7.5°	2561.7	2554.3	2532.1	2554.3	2550.6
10°	2550.6	2543.2	2521.0	2535.8	2524.7
12.5°	2532.1	2524.7	2498.8	2480.3	2458.1
15°	2506.2	2502.5	2458.1	2413.7	2391.4
17.5°	2484.0	2472.9	2402.5	2350.7	2324.8
20°	2454.4	2435.9	2343.3	2284.1	2265.6
22.5°	2421.1	2391.4	2280.4	2224.9	2210.0
25°	2372.9	2343.3	2217.5	2158.2	2143.4
27.5°	2324.8	2287.8	2154.5	2095.3	2080.5
30°	2273.0	2221.2	2084.2	2028.7	2002.7
32.5°	2213.8	2161.9	2017.5	1954.6	1925.0
35°	2143.4	2087.9	1943.5	1873.2	1843.6
37.5°	2076.8	2017.5	1869.5	1791.7	1751.0
40°	1995.3	1936.1	1784.3	1699.2	1658.5
42.5°	1910.2	1854.7	1702.9	1599.2	1499.3
45°	1817.6	1765.8	1610.3	1466.0	1277.2
47.5°	1721.4	1677.0	1525.2	1329.0	1147.6
50°	1625.1	1580.7	1432.6	1199.4	1047.6
52.5°	1528.9	1491.9	1329.0	1092.1	966.2
55°	1421.5	1388.2	1236.4	988.4	899.6
57.5°	1325.3	1292.0	1129.1	903.3	829.2
60°	1217.9	1188.3	1029.1	818.1	762.6
62.5°	1118.0	1084.7	929.2	744.1	703.4
65°	1014.3	977.3	832.9	670.0	644.1
67.5°	907.0	870.0	740.4	603.4	588.6
70°	799.6	770.0	647.8	536.8	529.4
72.5°	688.6	655.2	555.3	473.8	473.8
75°	577.5	547.9	466.4	403.5	403.5
77.5°	462.7	447.9	373.9	329.5	333.2
80°	362.8	344.3	281.3	251.7	251.7
82.5°	266.5	244.3	188.8	166.6	174.0
85°	166.6	137.0	100.0	85.1	85.1
87.5°	51.8	40.7	29.6	33.3	33.3
90°	7.4	25.9	40.7	51.8	55.5
92.5°	18.5	48.1	59.2	70.3	74.0
95°	29.6	62.9	85.1	88.8	88.8
97.5°	40.7	70.3	103.7	118.5	118.5
100°	55.5	74.0	111.1	133.3	137.0
102.5°	70.3	81.4	118.5	140.7	148.1
105°	85.1	88.8	125.9	148.1	155.5



TEST NUMBER: P520557

CATALOG NUMBER: 4WSLA-200-L830-UPL8-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	125.9	111.1	140.7	166.6	174.0
115°	140.7	118.5	148.1	170.3	181.4
117.5°	151.8	129.6	155.5	177.7	185.1
120°	162.9	137.0	159.2	185.1	192.5
122.5°	177.7	144.4	166.6	188.8	199.9
125°	188.8	151.8	170.3	196.2	203.6
127.5°	199.9	166.6	174.0	199.9	207.3
130°	207.3	181.4	177.7	203.6	211.0
132.5°	218.4	192.5	181.4	207.3	214.7
135°	225.8	203.6	188.8	207.3	218.4
137.5°	233.2	214.7	188.8	207.3	214.7
140°	240.6	225.8	192.5	207.3	214.7
142.5°	244.3	233.2	196.2	207.3	214.7
145°	251.7	240.6	211.0	207.3	214.7
147.5°	255.4	248.0	222.1	207.3	214.7
150°	259.1	255.4	233.2	211.0	211.0
152.5°	262.8	259.1	240.6	225.8	218.4
155°	266.5	262.8	248.0	236.9	233.2
157.5°	270.2	270.2	255.4	248.0	244.3
160°	270.2	273.9	262.8	255.4	251.7
162.5°	273.9	277.6	266.5	262.8	259.1
165°	273.9	277.6	270.2	270.2	270.2
167.5°	277.6	281.3	277.6	273.9	273.9
170°	277.6	281.3	277.6	277.6	277.6
172.5°	277.6	281.3	281.3	281.3	281.3
175°	277.6	281.3	281.3	285.0	285.0
177.5°	277.6	281.3	281.3	281.3	281.3
180°	281.3	281.3	281.3	281.3	281.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	100.0	96.3	129.6	155.5	162.9
110°	111.1	103.7	137.0	159.2	166.6



(END OF REPORT)