

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: P520556

Luminaire Tested: **4WSLA-200-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: P520556
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-200-L830-UPL15-UNV-U
Description: 4 FOOT, 2000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 80 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

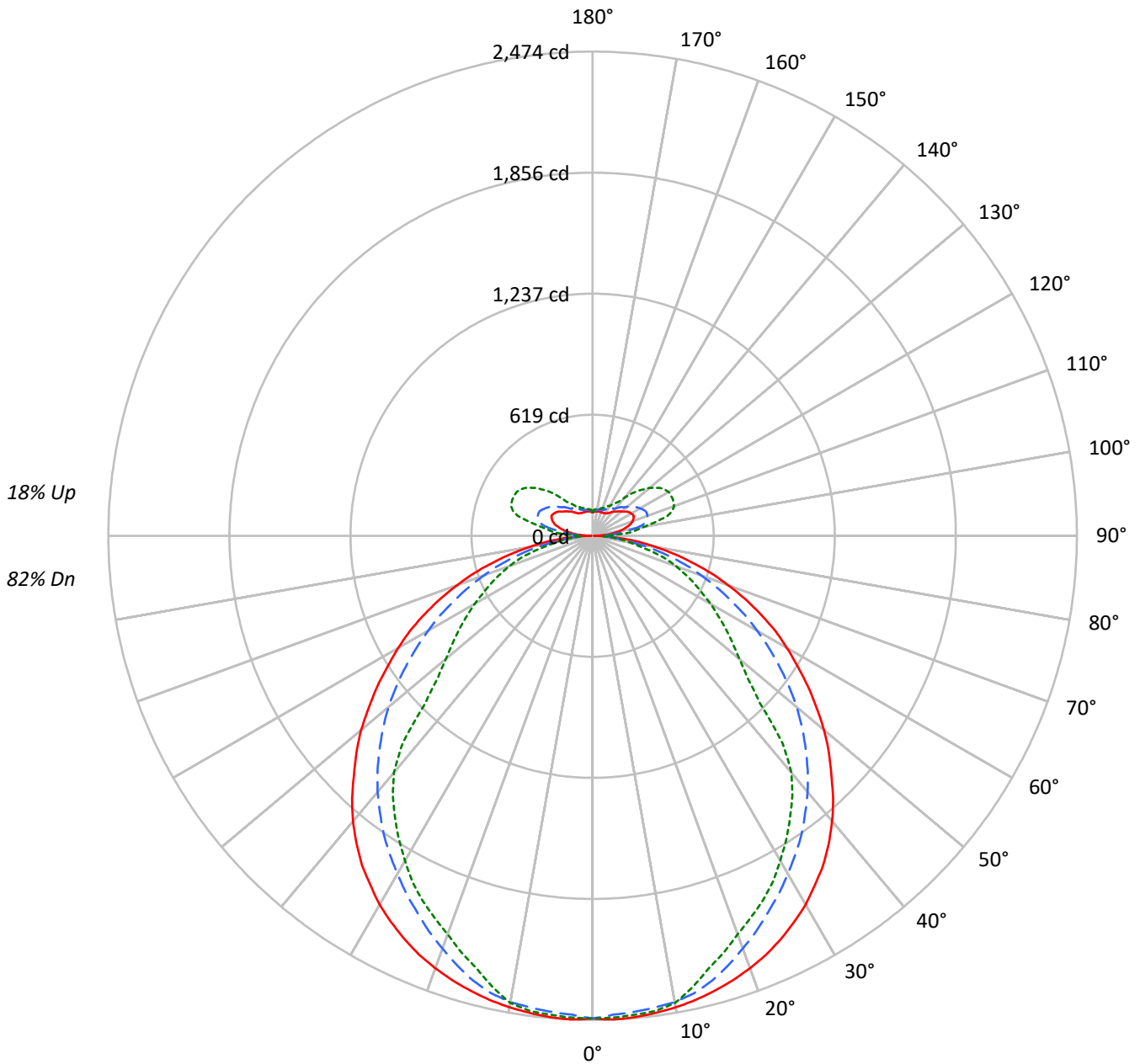
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7988.9 lumens
Efficiency: N/A
Efficacy: 104.7 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): 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	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°	13276	13276	13276
5°	13340	13192	13273
10°	13372	13221	13249
15°	13410	13117	12755
20°	13469	12853	12409
25°	13504	12598	12212
30°	13527	12391	11910
35°	13495	12229	11556
40°	13376	12005	11091
45°	13119	11711	9197
50°	12924	11395	8190
55°	12606	10939	7794
60°	12333	10449	7486
65°	12043	9877	7264
70°	11574	9251	7125
75°	10925	8480	6554
80°	10002	7135	5814
85°	8960	6181	5873



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.8	2.9
10°-20°	664.1	8.3
20°-30°	991.1	12.4
30°-40°	1180.9	14.8
40°-50°	1174.6	14.7
50°-60°	1006.7	12.6
60°-70°	758.2	9.5
70°-80°	439.1	5.5
80°-90°	132.0	1.7
90°-100°	141.7	1.8
100°-110°	290.9	3.6
110°-120°	307.6	3.9
120°-130°	256.6	3.2
130°-140°	179.3	2.2
140°-150°	111.6	1.4
150°-160°	69.2	0.9
160°-170°	39.0	0.5
170°-180°	12.6	0.2
0°-30°	1889.0	23.6
0°-40°	3069.9	38.4
0°-60°	5251.3	65.7
0°-90°	6580.5	82.4
90°-120°	740.2	9.3
90°-150°	1287.7	16.1
90°-180°	1408.0	17.6
0°-180°	7988.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2467	2467	2467	2467	2467	
5°	2469	2462	2442	2459	2457	235
15°	2407	2404	2354	2314	2289	680
25°	2274	2242	2122	2069	2056	1048
35°	2054	1999	1861	1789	1759	1283
45°	1724	1681	1539	1386	1208	1333
55°	1344	1324	1166	926	831	1201
65°	946	923	776	603	570	935
75°	525	508	408	325	315	557
85°	145	128	100	95	95	155
90°	8	35	60	75	80	15
95°	80	108	123	180	195	77
105°	188	195	280	375	398	195
115°	233	198	298	410	450	227
125°	215	190	258	378	425	191
135°	175	190	208	280	323	137
145°	143	165	180	193	205	91
155°	130	138	148	160	163	60
165°	128	133	138	143	143	36
175°	125	128	130	133	135	12
180°	123	123	123	123	123	



TEST NUMBER: P520556

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2466.8	2466.8	2466.8	2466.8	2466.8
2.5°	2474.3	2469.3	2449.3	2469.3	2464.3
5°	2469.3	2461.8	2441.8	2459.3	2456.8
7.5°	2459.3	2454.3	2431.8	2451.8	2449.3
10°	2446.8	2439.3	2419.2	2434.3	2424.3
12.5°	2429.3	2424.3	2394.2	2381.7	2361.7
15°	2406.7	2404.2	2354.2	2314.2	2289.2
17.5°	2381.7	2371.7	2301.7	2254.1	2231.6
20°	2351.7	2336.7	2244.1	2189.1	2166.6
22.5°	2316.7	2294.2	2186.6	2134.0	2111.5
25°	2274.1	2241.6	2121.5	2069.0	2056.5
27.5°	2226.6	2189.1	2061.5	2009.0	1993.9
30°	2176.6	2129.0	1993.9	1943.9	1916.4
32.5°	2114.0	2069.0	1928.9	1871.4	1841.3
35°	2054.0	1998.9	1861.3	1788.8	1758.8
37.5°	1981.4	1926.4	1783.8	1711.2	1676.2
40°	1903.9	1848.8	1708.7	1623.7	1578.6
42.5°	1818.8	1768.8	1626.2	1523.6	1436.0
45°	1723.7	1681.2	1538.6	1386.0	1208.4
47.5°	1636.2	1596.2	1451.0	1253.4	1070.8
50°	1543.6	1506.1	1361.0	1128.3	978.2
52.5°	1441.0	1413.5	1263.4	1020.7	900.7
55°	1343.5	1323.5	1165.8	925.7	830.6
57.5°	1240.9	1220.9	1068.3	835.6	760.5
60°	1145.8	1125.8	970.7	755.5	695.5
62.5°	1050.8	1023.2	875.6	678.0	628.0
65°	945.7	923.2	775.6	602.9	570.4
67.5°	840.6	820.6	683.0	532.9	510.4
70°	735.5	718.0	587.9	465.3	452.8
72.5°	633.0	610.4	502.9	397.8	392.8
75°	525.4	507.9	407.8	325.2	315.2
77.5°	422.8	407.8	320.2	247.7	240.2
80°	322.7	307.7	230.2	180.1	187.6
82.5°	237.7	217.7	155.1	140.1	147.6
85°	145.1	127.6	100.1	95.1	95.1
87.5°	50.0	47.5	45.0	52.5	55.0
90°	7.5	35.0	60.0	75.1	80.1
92.5°	42.5	62.5	82.6	97.6	102.6
95°	80.1	107.6	122.6	180.1	195.1
97.5°	110.1	142.6	160.1	212.7	227.7
100°	140.1	170.1	225.2	252.7	270.2
102.5°	165.1	187.6	265.2	320.2	330.2
105°	187.6	195.1	280.2	375.3	397.8



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CATALOG NUMBER: 4WSLA-200-L830-UPL15-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	225.2	200.1	300.2	407.8	447.8
115°	232.7	197.6	297.7	410.3	450.3
117.5°	232.7	197.6	290.2	410.3	450.3
120°	227.7	200.1	280.2	405.3	447.8
122.5°	222.7	195.1	270.2	395.3	437.8
125°	215.2	190.1	257.7	377.8	425.3
127.5°	202.6	195.1	245.2	355.3	402.8
130°	192.6	197.6	230.2	332.7	380.3
132.5°	185.1	192.6	215.2	307.7	350.3
135°	175.1	190.1	207.6	280.2	322.7
137.5°	167.6	182.6	195.1	255.2	290.2
140°	160.1	177.6	182.6	222.7	252.7
142.5°	150.1	170.1	172.6	207.6	220.2
145°	142.6	165.1	180.1	192.6	205.1
147.5°	135.1	155.1	175.1	177.6	190.1
150°	132.6	145.1	167.6	170.1	175.1
152.5°	130.1	140.1	155.1	170.1	172.6
155°	130.1	137.6	147.6	160.1	162.6
157.5°	127.6	137.6	142.6	152.6	155.1
160°	127.6	135.1	140.1	147.6	150.1
162.5°	127.6	135.1	137.6	145.1	147.6
165°	127.6	132.6	137.6	142.6	142.6
167.5°	127.6	132.6	135.1	140.1	140.1
170°	127.6	130.1	135.1	137.6	137.6
172.5°	125.1	130.1	132.6	137.6	137.6
175°	125.1	127.6	130.1	132.6	135.1
177.5°	120.1	127.6	130.1	132.6	130.1
180°	122.6	122.6	122.6	122.6	122.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	205.1	197.6	290.2	395.3	427.8
110°	217.7	200.1	297.7	402.8	442.8



(END OF REPORT)