

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: P520560

Luminaire Tested: **4WSLA-200-L835-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: P520560  
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-L835-UPL8-UNV-U  
Description: 4 FOOT, 2000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 80 CRI  
LEDS WITH 8% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

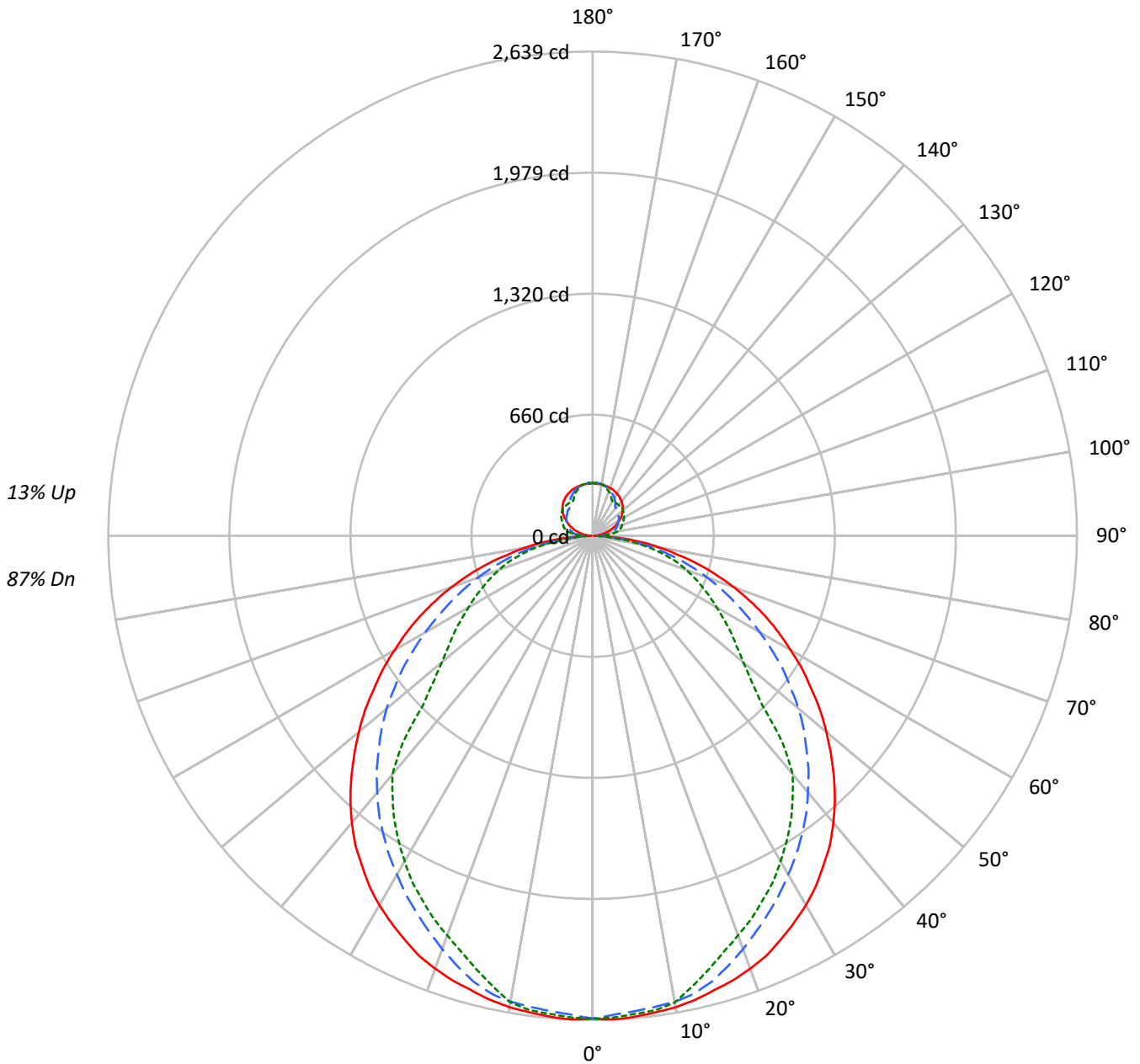
Lumens per Lamp: N/A  
Luminaire Lumens: 8190.0 lumens  
Efficiency: N/A  
Efficacy: 107.3 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Semi-Direct

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	90	90	90	87																
1	106	101	97	93	102	98	94	90	91	88	85	85	83	80	79	78	76	76	76	76	73																
2	96	88	82	76	92	85	79	74	80	75	70	74	70	67	70	66	64	64	64	64	61																
3	88	78	70	63	84	75	68	62	70	64	59	66	61	56	62	58	54	54	54	54	51																
4	80	69	60	54	77	67	59	53	62	56	50	59	53	48	55	50	46	46	46	46	44																
5	74	61	53	46	71	60	51	45	56	49	44	53	47	42	50	45	40	40	40	40	38																
6	68	55	47	40	66	54	46	40	51	44	38	48	42	37	45	40	36	36	36	36	33																
7	63	50	42	36	61	49	41	35	46	39	34	43	37	33	41	36	32	32	32	32	30																
8	59	46	37	32	57	44	37	31	42	35	30	40	34	29	38	32	28	28	28	28	26																
9	55	42	34	28	53	41	33	28	39	32	27	37	31	26	35	30	26	26	26	26	24																
10	52	39	31	26	50	38	30	25	36	29	25	34	28	24	32	27	23	23	23	23	22																

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	14163	14163	14163
5°	14217	14054	14136
10°	14258	14092	14113
15°	14283	14009	13629
20°	14379	13728	13273
25°	14414	13469	13019
30°	14448	13248	12731
35°	14404	13061	12389
40°	14339	12823	11918
45°	14151	12536	9943
50°	13918	12270	8972
55°	13643	11867	8633
60°	13410	11331	8396
65°	13212	10850	8391
70°	12870	10427	8521
75°	12283	9921	8582
80°	11502	8920	7981
85°	10522	6311	5379



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	249.1	3.0
10°-20°	708.3	8.6
20°-30°	1058.3	12.9
30°-40°	1263.3	15.4
40°-50°	1263.5	15.4
50°-60°	1093.5	13.4
60°-70°	839.3	10.2
70°-80°	514.3	6.3
80°-90°	144.8	1.8
90°-100°	81.8	1.0
100°-110°	129.9	1.6
110°-120°	151.8	1.9
120°-130°	163.9	2.0
130°-140°	161.5	2.0
140°-150°	142.9	1.7
150°-160°	117.6	1.4
160°-170°	78.7	1.0
170°-180°	27.4	0.3
0°-30°	2015.8	24.6
0°-40°	3279.1	40.0
0°-60°	5636.0	68.8
0°-90°	7134.4	87.1
90°-120°	363.5	4.4
90°-150°	831.9	10.2
90°-180°	1056.0	12.9
0°-180°	8190.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2632	2632	2632	2632	2632	
5°	2632	2624	2601	2620	2616	250
15°	2564	2560	2514	2469	2446	725
25°	2427	2397	2268	2208	2192	1120
35°	2192	2136	1988	1916	1886	1373
45°	1859	1806	1647	1500	1306	1434
55°	1454	1420	1265	1011	920	1303
65°	1038	1000	852	685	659	1025
75°	591	560	477	413	413	623
85°	170	140	102	87	87	178
90°	8	26	42	53	57	12
95°	30	64	87	91	91	30
105°	87	91	129	152	159	91
115°	144	121	152	174	186	141
125°	193	155	174	201	208	172
135°	231	208	193	212	223	178
145°	258	246	216	212	220	161
155°	273	269	254	242	239	126
165°	280	284	276	276	276	80
175°	284	288	288	292	292	27
180°	288	288	288	288	288	



TEST NUMBER: P520560

CATALOG NUMBER: 4WSLA-200-L835-UPL8-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2631.6	2631.6	2631.6	2631.6	2631.6
2.5°	2639.2	2631.6	2612.7	2631.6	2627.9
5°	2631.6	2624.1	2601.3	2620.3	2616.5
7.5°	2620.3	2612.7	2590.0	2612.7	2608.9
10°	2608.9	2601.3	2578.6	2593.8	2582.4
12.5°	2590.0	2582.4	2555.9	2537.0	2514.3
15°	2563.5	2559.7	2514.3	2468.8	2446.1
17.5°	2540.8	2529.4	2457.5	2404.4	2377.9
20°	2510.5	2491.5	2396.9	2336.3	2317.4
22.5°	2476.4	2446.1	2332.5	2275.7	2260.6
25°	2427.2	2396.9	2268.1	2207.5	2192.4
27.5°	2377.9	2340.1	2203.8	2143.2	2128.0
30°	2324.9	2271.9	2131.8	2075.0	2048.5
32.5°	2264.3	2211.3	2063.7	1999.3	1969.0
35°	2192.4	2135.6	1987.9	1916.0	1885.7
37.5°	2124.2	2063.7	1912.2	1832.7	1791.0
40°	2040.9	1980.4	1825.1	1738.0	1696.4
42.5°	1953.9	1897.1	1741.8	1635.8	1533.5
45°	1859.2	1806.2	1647.1	1499.5	1306.4
47.5°	1760.7	1715.3	1560.1	1359.4	1173.8
50°	1662.3	1616.8	1465.4	1226.8	1071.6
52.5°	1563.8	1526.0	1359.4	1117.0	988.3
55°	1454.0	1419.9	1264.7	1011.0	920.1
57.5°	1355.6	1321.5	1154.9	923.9	848.2
60°	1245.8	1215.5	1052.7	836.8	780.0
62.5°	1143.5	1109.5	950.4	761.1	719.4
65°	1037.5	999.6	852.0	685.4	658.9
67.5°	927.7	889.8	757.3	617.2	602.1
70°	817.9	787.6	662.6	549.0	541.5
72.5°	704.3	670.2	568.0	484.7	484.7
75°	590.7	560.4	477.1	412.7	412.7
77.5°	473.3	458.2	382.4	337.0	340.8
80°	371.1	352.1	287.8	257.5	257.5
82.5°	272.6	249.9	193.1	170.4	178.0
85°	170.4	140.1	102.2	87.1	87.1
87.5°	53.0	41.7	30.3	34.1	34.1
90°	7.6	26.5	41.7	53.0	56.8
92.5°	18.9	49.2	60.6	71.9	75.7
95°	30.3	64.4	87.1	90.9	90.9
97.5°	41.7	71.9	106.0	121.2	121.2
100°	56.8	75.7	113.6	136.3	140.1
102.5°	71.9	83.3	121.2	143.9	151.5
105°	87.1	90.9	128.7	151.5	159.0



TEST NUMBER: P520560

CATALOG NUMBER: 4WSLA-200-L835-UPL8-UNV-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	128.7	113.6	143.9	170.4	178.0
115°	143.9	121.2	151.5	174.2	185.5
117.5°	155.2	132.5	159.0	181.8	189.3
120°	166.6	140.1	162.8	189.3	196.9
122.5°	181.8	147.7	170.4	193.1	204.5
125°	193.1	155.2	174.2	200.7	208.3
127.5°	204.5	170.4	178.0	204.5	212.0
130°	212.0	185.5	181.8	208.3	215.8
132.5°	223.4	196.9	185.5	212.0	219.6
135°	231.0	208.3	193.1	212.0	223.4
137.5°	238.6	219.6	193.1	212.0	219.6
140°	246.1	231.0	196.9	212.0	219.6
142.5°	249.9	238.6	200.7	212.0	219.6
145°	257.5	246.1	215.8	212.0	219.6
147.5°	261.3	253.7	227.2	212.0	219.6
150°	265.1	261.3	238.6	215.8	215.8
152.5°	268.8	265.1	246.1	231.0	223.4
155°	272.6	268.8	253.7	242.3	238.6
157.5°	276.4	276.4	261.3	253.7	249.9
160°	276.4	280.2	268.8	261.3	257.5
162.5°	280.2	284.0	272.6	268.8	265.1
165°	280.2	284.0	276.4	276.4	276.4
167.5°	284.0	287.8	284.0	280.2	280.2
170°	284.0	287.8	284.0	284.0	284.0
172.5°	284.0	287.8	287.8	287.8	287.8
175°	284.0	287.8	287.8	291.6	291.6
177.5°	284.0	287.8	287.8	287.8	287.8
180°	287.8	287.8	287.8	287.8	287.8



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	102.2	98.4	132.5	159.0	166.6
110°	113.6	106.0	140.1	162.8	170.4



(END OF REPORT)