

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: P520563

Luminaire Tested: **4WSLA-200-L840-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: P520563  
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-L840-UPL8-UNV-U  
Description: 4 FOOT, 2000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 80 CRI  
LEDS WITH 8% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

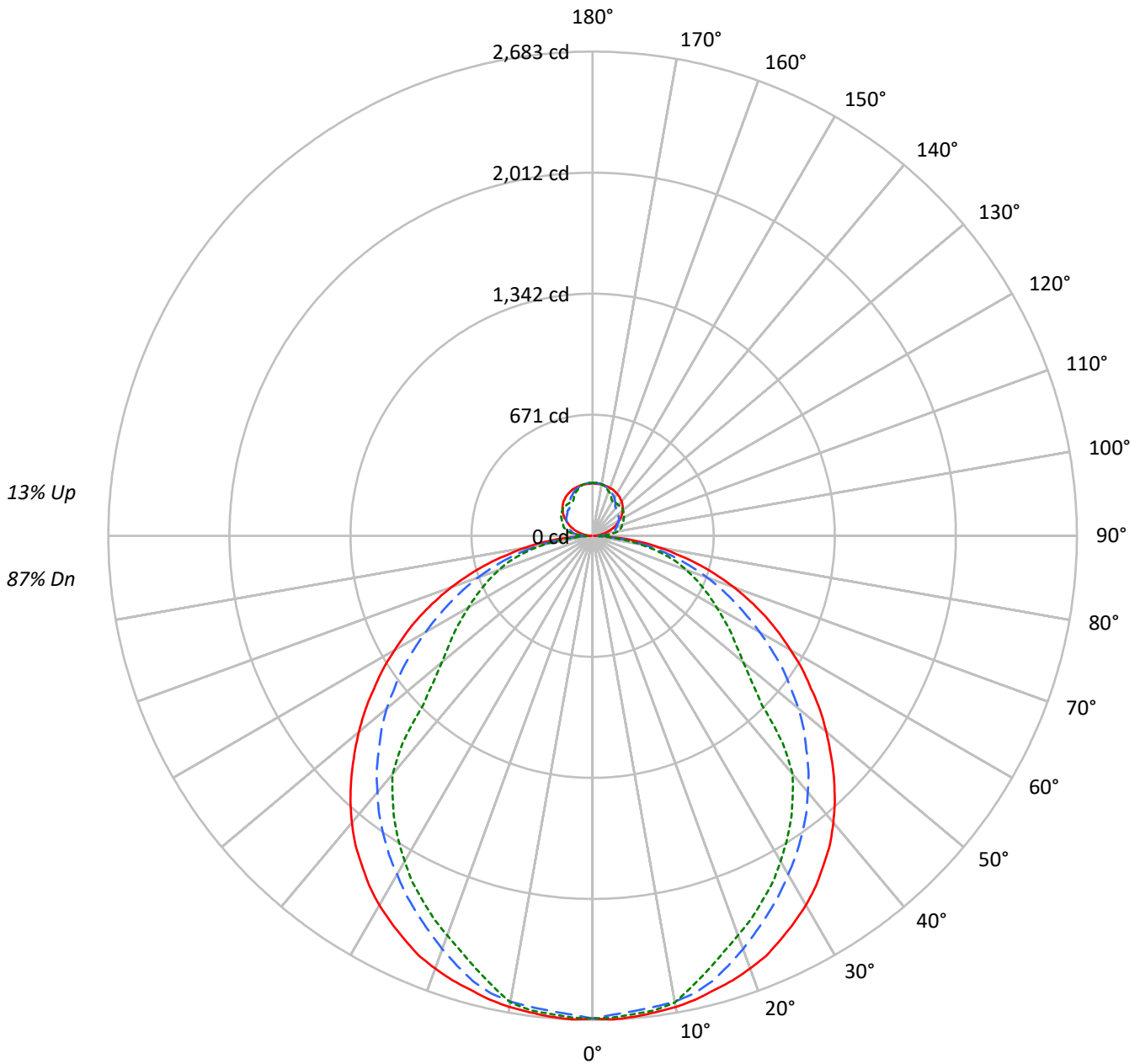
Lumens per Lamp: N/A  
Luminaire Lumens: 8325.0 lumens  
Efficiency: N/A  
Efficacy: 109.1 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 76.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

TEST NUMBER: P520563

CATALOG NUMBER: 4WSLA-200-L840-UPL8-UNV-U

### 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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87				87
1	106	101	97	93	102	98	94	90	91	88	85	85	83	80	79	78	76	73				73
2	96	88	82	76	92	85	79	74	80	75	70	74	70	67	70	66	64	61				61
3	88	78	70	63	84	75	68	62	70	64	59	66	61	56	62	58	54	51				51
4	80	69	60	54	77	67	59	53	62	56	50	59	53	48	55	50	46	44				44
5	74	61	53	46	71	60	51	45	56	49	44	53	47	42	50	45	40	38				38
6	68	55	47	40	66	54	46	40	51	44	38	48	42	37	45	40	36	33				33
7	63	50	42	36	61	49	41	35	46	39	34	43	37	33	41	36	32	30				30
8	59	46	37	32	57	44	37	31	42	35	30	40	34	29	38	32	28	26				26
9	55	42	34	28	53	41	33	28	39	32	27	37	31	26	35	30	26	24				24
10	52	39	31	26	50	38	30	25	36	29	25	34	28	24	32	27	23	22				22

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

	0°	45°	90°
0°	14397	14397	14397
5°	14452	14285	14369
10°	14493	14324	14346
15°	14518	14240	13854
20°	14616	13954	13491
25°	14651	13691	13234
30°	14687	13467	12941
35°	14642	13276	12594
40°	14575	13034	12114
45°	14384	12743	10107
50°	14148	12471	9121
55°	13868	12062	8776
60°	13630	11517	8535
65°	13430	11028	8528
70°	13083	10600	8661
75°	12485	10085	8723
80°	11691	9066	8111
85°	10695	6416	5465



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	253.2	3.0
10°-20°	720.0	8.6
20°-30°	1075.8	12.9
30°-40°	1284.2	15.4
40°-50°	1284.3	15.4
50°-60°	1111.5	13.4
60°-70°	853.1	10.2
70°-80°	522.7	6.3
80°-90°	147.1	1.8
90°-100°	83.2	1.0
100°-110°	132.0	1.6
110°-120°	154.4	1.9
120°-130°	166.6	2.0
130°-140°	164.2	2.0
140°-150°	145.2	1.7
150°-160°	119.5	1.4
160°-170°	80.0	1.0
170°-180°	27.9	0.3
0°-30°	2049.0	24.6
0°-40°	3333.2	40.0
0°-60°	5728.9	68.8
0°-90°	7252.0	87.1
90°-120°	369.6	4.4
90°-150°	845.6	10.2
90°-180°	1073.0	12.9
0°-180°	8325.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2675	2675	2675	2675	2675	
5°	2675	2667	2644	2664	2660	255
15°	2606	2602	2556	2510	2486	737
25°	2467	2436	2306	2244	2228	1138
35°	2228	2171	2021	1948	1917	1396
45°	1890	1836	1674	1524	1328	1457
55°	1478	1443	1286	1028	935	1325
65°	1055	1016	866	697	670	1042
75°	600	570	485	420	420	633
85°	173	142	104	88	88	181
90°	8	27	42	54	58	12
95°	31	65	88	92	92	30
105°	88	92	131	154	162	93
115°	146	123	154	177	189	143
125°	196	158	177	204	212	175
135°	235	212	196	216	227	181
145°	262	250	219	216	223	163
155°	277	273	258	246	242	128
165°	285	289	281	281	281	81
175°	289	292	292	296	296	28
180°	292	292	292	292	292	



TEST NUMBER: P520563

CATALOG NUMBER: 4WSLA-200-L840-UPL8-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2675.0	2675.0	2675.0	2675.0	2675.0
2.5°	2682.7	2675.0	2655.8	2675.0	2671.2
5°	2675.0	2667.3	2644.2	2663.5	2659.6
7.5°	2663.5	2655.8	2632.7	2655.8	2651.9
10°	2651.9	2644.2	2621.1	2636.5	2625.0
12.5°	2632.7	2625.0	2598.0	2578.8	2555.7
15°	2605.7	2601.9	2555.7	2509.5	2486.4
17.5°	2582.6	2571.1	2498.0	2444.1	2417.1
20°	2551.9	2532.6	2436.4	2374.8	2355.6
22.5°	2517.2	2486.4	2371.0	2313.2	2297.8
25°	2467.2	2436.4	2305.5	2243.9	2228.5
27.5°	2417.1	2378.6	2240.1	2178.5	2163.1
30°	2363.3	2309.4	2167.0	2109.2	2082.3
32.5°	2301.7	2247.8	2097.7	2032.2	2001.5
35°	2228.5	2170.8	2020.7	1947.6	1916.8
37.5°	2159.3	2097.7	1943.7	1862.9	1820.6
40°	2074.6	2013.0	1855.2	1766.7	1724.3
42.5°	1986.1	1928.3	1770.5	1662.7	1558.8
45°	1889.8	1835.9	1674.3	1524.2	1327.9
47.5°	1789.8	1743.6	1585.8	1381.8	1193.2
50°	1689.7	1643.5	1489.5	1247.1	1089.3
52.5°	1589.6	1551.1	1381.8	1135.4	1004.6
55°	1478.0	1443.4	1285.5	1027.7	935.3
57.5°	1377.9	1343.3	1173.9	939.1	862.2
60°	1266.3	1235.5	1070.0	850.6	792.9
62.5°	1162.4	1127.7	966.1	773.6	731.3
65°	1054.6	1016.1	866.0	696.7	669.7
67.5°	943.0	904.5	769.8	627.4	612.0
70°	831.4	800.6	673.6	558.1	550.4
72.5°	715.9	681.3	577.3	492.7	492.7
75°	600.4	569.6	485.0	419.5	419.5
77.5°	481.1	465.7	388.7	342.6	346.4
80°	377.2	358.0	292.5	261.7	261.7
82.5°	277.1	254.0	196.3	173.2	180.9
85°	173.2	142.4	103.9	88.5	88.5
87.5°	53.9	42.3	30.8	34.6	34.6
90°	7.7	26.9	42.3	53.9	57.7
92.5°	19.2	50.0	61.6	73.1	77.0
95°	30.8	65.4	88.5	92.4	92.4
97.5°	42.3	73.1	107.8	123.2	123.2
100°	57.7	77.0	115.5	138.6	142.4
102.5°	73.1	84.7	123.2	146.3	154.0
105°	88.5	92.4	130.9	154.0	161.7



TEST NUMBER: P520563

CATALOG NUMBER: 4WSLA-200-L840-UPL8-UNV-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	130.9	115.5	146.3	173.2	180.9
115°	146.3	123.2	154.0	177.1	188.6
117.5°	157.8	134.7	161.7	184.7	192.4
120°	169.4	142.4	165.5	192.4	200.1
122.5°	184.7	150.1	173.2	196.3	207.8
125°	196.3	157.8	177.1	204.0	211.7
127.5°	207.8	173.2	180.9	207.8	215.5
130°	215.5	188.6	184.7	211.7	219.4
132.5°	227.1	200.1	188.6	215.5	223.2
135°	234.8	211.7	196.3	215.5	227.1
137.5°	242.5	223.2	196.3	215.5	223.2
140°	250.2	234.8	200.1	215.5	223.2
142.5°	254.0	242.5	204.0	215.5	223.2
145°	261.7	250.2	219.4	215.5	223.2
147.5°	265.6	257.9	230.9	215.5	223.2
150°	269.4	265.6	242.5	219.4	219.4
152.5°	273.3	269.4	250.2	234.8	227.1
155°	277.1	273.3	257.9	246.3	242.5
157.5°	281.0	281.0	265.6	257.9	254.0
160°	281.0	284.8	273.3	265.6	261.7
162.5°	284.8	288.7	277.1	273.3	269.4
165°	284.8	288.7	281.0	281.0	281.0
167.5°	288.7	292.5	288.7	284.8	284.8
170°	288.7	292.5	288.7	288.7	288.7
172.5°	288.7	292.5	292.5	292.5	292.5
175°	288.7	292.5	292.5	296.4	296.4
177.5°	288.7	292.5	292.5	292.5	292.5
180°	292.5	292.5	292.5	292.5	292.5



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	103.9	100.1	134.7	161.7	169.4
110°	115.5	107.8	142.4	165.5	173.2



(END OF REPORT)