

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: P520538

Luminaire Tested: **4WSLA-175-L840-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: P520538  
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-175-L840-UPL15-UNV-U  
Description: 4 FOOT, 1750 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 80 CRI  
LEDS WITH 15% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

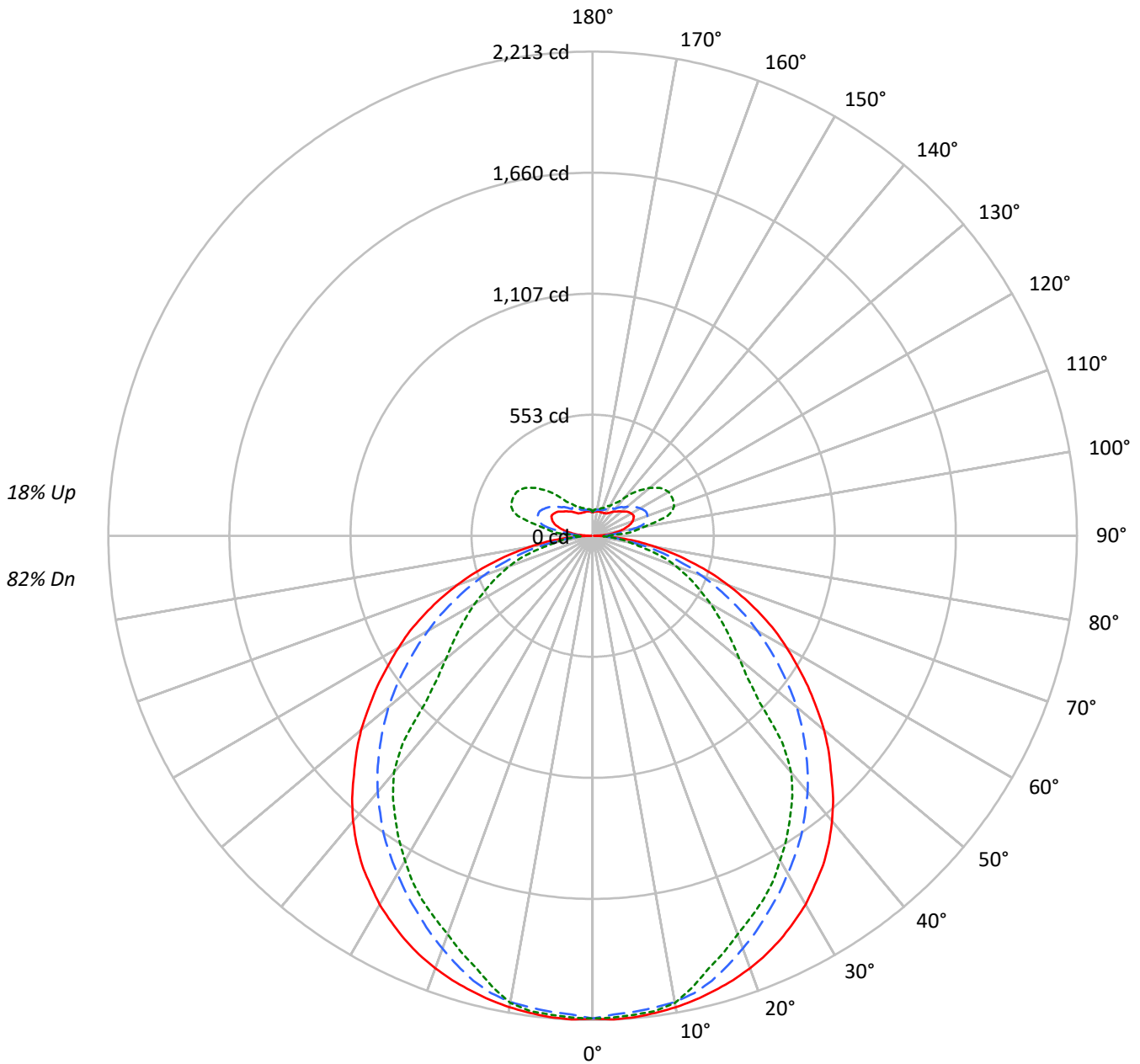
Lumens per Lamp: N/A  
Luminaire Lumens: 7145.0 lumens  
Efficiency: N/A  
Efficacy: 120.1 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 59.5  
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

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	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°	11874	11874	11874
5°	11931	11798	11870
10°	11959	11825	11849
15°	11993	11731	11407
20°	12046	11495	11098
25°	12078	11267	10922
30°	12097	11082	10651
35°	12069	10937	10335
40°	11963	10737	9920
45°	11733	10474	8225
50°	11559	10191	7325
55°	11274	9784	6971
60°	11031	9345	6695
65°	10771	8833	6497
70°	10351	8274	6373
75°	9771	7584	5862
80°	8945	6382	5201
85°	8015	5527	5249



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	209.1	2.9
10°-20°	593.9	8.3
20°-30°	886.4	12.4
30°-40°	1056.2	14.8
40°-50°	1050.5	14.7
50°-60°	900.4	12.6
60°-70°	678.1	9.5
70°-80°	392.7	5.5
80°-90°	118.0	1.7
90°-100°	126.7	1.8
100°-110°	260.2	3.6
110°-120°	275.2	3.9
120°-130°	229.5	3.2
130°-140°	160.3	2.2
140°-150°	99.8	1.4
150°-160°	61.9	0.9
160°-170°	34.8	0.5
170°-180°	11.2	0.2
0°-30°	1689.4	23.6
0°-40°	2745.6	38.4
0°-60°	4696.5	65.7
0°-90°	5885.3	82.4
90°-120°	662.1	9.3
90°-150°	1151.8	16.1
90°-180°	1260.0	17.6
0°-180°	7145.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2206	2206	2206	2206	2206	
5°	2208	2202	2184	2200	2197	210
15°	2152	2150	2106	2070	2047	608
25°	2034	2005	1897	1850	1839	938
35°	1837	1788	1665	1600	1573	1147
45°	1542	1504	1376	1240	1081	1192
55°	1202	1184	1043	828	743	1074
65°	846	826	694	539	510	836
75°	470	454	365	291	282	498
85°	130	114	90	85	85	138
90°	7	31	54	67	72	13
95°	72	96	110	161	174	68
105°	168	174	251	336	356	174
115°	208	177	266	367	403	203
125°	192	170	230	338	380	171
135°	157	170	186	251	289	122
145°	128	148	161	172	184	81
155°	116	123	132	143	145	54
165°	114	119	123	128	128	32
175°	112	114	116	119	121	11
180°	110	110	110	110	110	



TEST NUMBER: P520538

CATALOG NUMBER: 4WSLA-175-L840-UPL15-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2206.2	2206.2	2206.2	2206.2	2206.2
2.5°	2212.9	2208.4	2190.5	2208.4	2203.9
5°	2208.4	2201.7	2183.8	2199.5	2197.2
7.5°	2199.5	2195.0	2174.9	2192.8	2190.5
10°	2188.3	2181.6	2163.7	2177.1	2168.1
12.5°	2172.6	2168.1	2141.3	2130.1	2112.2
15°	2152.5	2150.2	2105.5	2069.7	2047.3
17.5°	2130.1	2121.2	2058.5	2016.0	1995.9
20°	2103.3	2089.8	2007.0	1957.8	1937.7
22.5°	2071.9	2051.8	1955.6	1908.6	1888.5
25°	2033.9	2004.8	1897.4	1850.4	1839.2
27.5°	1991.4	1957.8	1843.7	1796.7	1783.3
30°	1946.6	1904.1	1783.3	1738.5	1713.9
32.5°	1890.7	1850.4	1725.1	1673.7	1646.8
35°	1837.0	1787.8	1664.7	1599.8	1573.0
37.5°	1772.1	1722.9	1595.3	1530.5	1499.1
40°	1702.7	1653.5	1528.2	1452.1	1411.9
42.5°	1626.7	1581.9	1454.4	1362.6	1284.3
45°	1541.6	1503.6	1376.1	1239.6	1080.7
47.5°	1463.3	1427.5	1297.8	1121.0	957.7
50°	1380.5	1347.0	1217.2	1009.1	874.9
52.5°	1288.8	1264.2	1129.9	912.9	805.5
55°	1201.5	1183.6	1042.7	827.9	742.9
57.5°	1109.8	1091.9	955.4	747.3	680.2
60°	1024.8	1006.9	868.2	675.7	622.0
62.5°	939.8	915.1	783.1	606.4	561.6
65°	845.8	825.6	693.6	539.2	510.2
67.5°	751.8	733.9	610.8	476.6	456.5
70°	657.8	642.2	525.8	416.2	405.0
72.5°	566.1	546.0	449.7	355.8	351.3
75°	469.9	454.2	364.7	290.9	281.9
77.5°	378.1	364.7	286.4	221.5	214.8
80°	288.6	275.2	205.9	161.1	167.8
82.5°	212.6	194.7	138.7	125.3	132.0
85°	129.8	114.1	89.5	85.0	85.0
87.5°	44.8	42.5	40.3	47.0	49.2
90°	6.7	31.3	53.7	67.1	71.6
92.5°	38.0	55.9	73.8	87.3	91.7
95°	71.6	96.2	109.6	161.1	174.5
97.5°	98.5	127.5	143.2	190.2	203.6
100°	125.3	152.2	201.4	226.0	241.7
102.5°	147.7	167.8	237.2	286.4	295.4
105°	167.8	174.5	250.6	335.6	355.8



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CATALOG NUMBER: 4WSLA-175-L840-UPL15-UNV-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	201.4	179.0	268.5	364.7	400.5
115°	208.1	176.8	266.3	367.0	402.8
117.5°	208.1	176.8	259.6	367.0	402.8
120°	203.6	179.0	250.6	362.5	400.5
122.5°	199.1	174.5	241.7	353.5	391.6
125°	192.4	170.1	230.5	337.9	380.4
127.5°	181.2	174.5	219.3	317.7	360.2
130°	172.3	176.8	205.9	297.6	340.1
132.5°	165.6	172.3	192.4	275.2	313.3
135°	156.6	170.1	185.7	250.6	288.6
137.5°	149.9	163.3	174.5	228.2	259.6
140°	143.2	158.9	163.3	199.1	226.0
142.5°	134.3	152.2	154.4	185.7	196.9
145°	127.5	147.7	161.1	172.3	183.5
147.5°	120.8	138.7	156.6	158.9	170.1
150°	118.6	129.8	149.9	152.2	156.6
152.5°	116.4	125.3	138.7	152.2	154.4
155°	116.4	123.1	132.0	143.2	145.4
157.5°	114.1	123.1	127.5	136.5	138.7
160°	114.1	120.8	125.3	132.0	134.3
162.5°	114.1	120.8	123.1	129.8	132.0
165°	114.1	118.6	123.1	127.5	127.5
167.5°	114.1	118.6	120.8	125.3	125.3
170°	114.1	116.4	120.8	123.1	123.1
172.5°	111.9	116.4	118.6	123.1	123.1
175°	111.9	114.1	116.4	118.6	120.8
177.5°	107.4	114.1	116.4	118.6	116.4
180°	109.6	109.6	109.6	109.6	109.6



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	183.5	176.8	259.6	353.5	382.6
110°	194.7	179.0	266.3	360.2	396.0



(END OF REPORT)