

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: P520536

Luminaire Tested: **4WSLA-175-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: P520536
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-175-L835-UPL8-UNV-U
Description: 4 FOOT, 1750 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

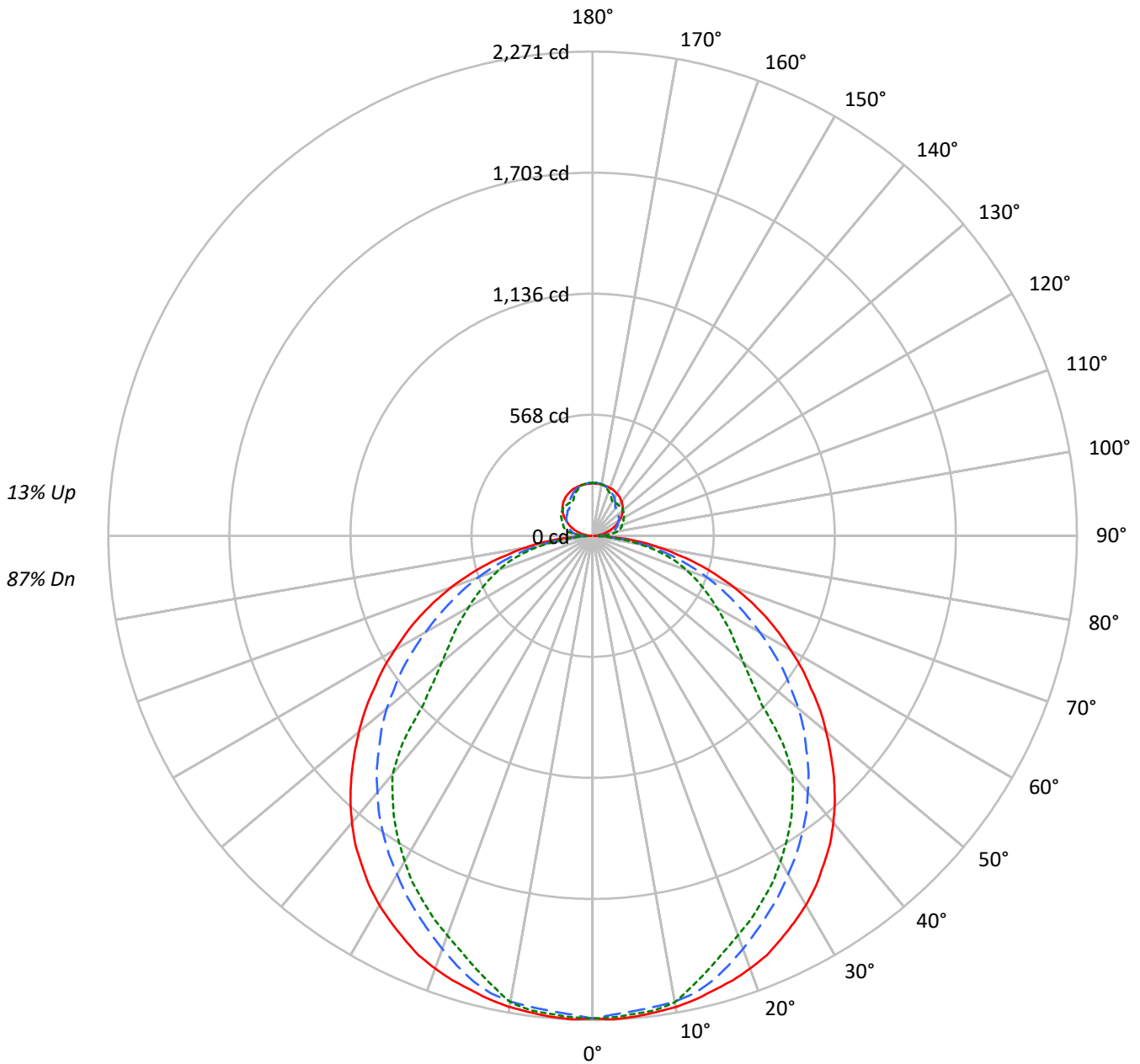
Lumens per Lamp: N/A
Luminaire Lumens: 7046.0 lumens
Efficiency: N/A
Efficacy: 118.4 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 59.5
Input Voltage (V): NR
Input Current (A_{in}): 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: P520536

CATALOG NUMBER: 4WSLA-175-L835-UPL8-UNV-U

Luminous Intensity Polar Plot





TEST NUMBER: P520536

CATALOG NUMBER: 4WSLA-175-L835-UPL8-UNV-U

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	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°	12185	12185	12185
5°	12231	12091	12161
10°	12266	12124	12142
15°	12288	12052	11725
20°	12370	11810	11419
25°	12400	11587	11201
30°	12430	11397	10953
35°	12393	11237	10659
40°	12336	11032	10253
45°	12174	10786	8554
50°	11974	10556	7719
55°	11737	10209	7428
60°	11537	9748	7224
65°	11367	9335	7218
70°	11072	8971	7330
75°	10568	8536	7384
80°	9893	7674	6865
85°	9053	5434	4625



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.3	3.0
10°-20°	609.4	8.6
20°-30°	910.5	12.9
30°-40°	1086.9	15.4
40°-50°	1087.0	15.4
50°-60°	940.7	13.4
60°-70°	722.1	10.2
70°-80°	442.4	6.3
80°-90°	124.5	1.8
90°-100°	70.4	1.0
100°-110°	111.7	1.6
110°-120°	130.6	1.9
120°-130°	141.0	2.0
130°-140°	139.0	2.0
140°-150°	122.9	1.7
150°-160°	101.2	1.4
160°-170°	67.7	1.0
170°-180°	23.6	0.3
0°-30°	1734.2	24.6
0°-40°	2821.1	40.0
0°-60°	4848.8	68.8
0°-90°	6137.8	87.1
90°-120°	312.8	4.4
90°-150°	715.7	10.2
90°-180°	908.0	12.9
0°-180°	7046.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2264	2264	2264	2264	2264	
5°	2264	2258	2238	2254	2251	215
15°	2205	2202	2163	2124	2104	624
25°	2088	2062	1951	1899	1886	963
35°	1886	1837	1710	1648	1622	1181
45°	1600	1554	1417	1290	1124	1233
55°	1251	1222	1088	870	792	1121
65°	893	860	733	590	567	882
75°	508	482	410	355	355	536
85°	147	120	88	75	75	153
90°	6	23	36	46	49	10
95°	26	55	75	78	78	26
105°	75	78	111	130	137	79
115°	124	104	130	150	160	121
125°	166	134	150	173	179	148
135°	199	179	166	182	192	153
145°	222	212	186	182	189	138
155°	234	231	218	208	205	108
165°	241	244	238	238	238	68
175°	244	248	248	251	251	23
180°	248	248	248	248	248	



TEST NUMBER: P520536

CATALOG NUMBER: 4WSLA-175-L835-UPL8-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2264.0	2264.0	2264.0	2264.0	2264.0
2.5°	2270.6	2264.0	2247.8	2264.0	2260.8
5°	2264.0	2257.5	2238.0	2254.3	2251.0
7.5°	2254.3	2247.8	2228.2	2247.8	2244.5
10°	2244.5	2238.0	2218.4	2231.5	2221.7
12.5°	2228.2	2221.7	2198.9	2182.6	2163.1
15°	2205.4	2202.2	2163.1	2124.0	2104.4
17.5°	2185.9	2176.1	2114.2	2068.6	2045.8
20°	2159.8	2143.5	2062.1	2010.0	1993.7
22.5°	2130.5	2104.4	2006.7	1957.8	1944.8
25°	2088.1	2062.1	1951.3	1899.2	1886.2
27.5°	2045.8	2013.2	1895.9	1843.8	1830.8
30°	2000.2	1954.6	1834.0	1785.2	1762.4
32.5°	1948.1	1902.4	1775.4	1720.0	1694.0
35°	1886.2	1837.3	1710.3	1648.4	1622.3
37.5°	1827.5	1775.4	1645.1	1576.7	1540.9
40°	1755.9	1703.7	1570.2	1495.2	1459.4
42.5°	1680.9	1632.1	1498.5	1407.3	1319.3
45°	1599.5	1553.9	1417.1	1290.0	1123.9
47.5°	1514.8	1475.7	1342.1	1169.5	1009.9
50°	1430.1	1391.0	1260.7	1055.5	921.9
52.5°	1345.4	1312.8	1169.5	961.0	850.2
55°	1250.9	1221.6	1088.0	869.8	791.6
57.5°	1166.2	1136.9	993.6	794.9	729.7
60°	1071.8	1045.7	905.6	719.9	671.1
62.5°	983.8	954.5	817.7	654.8	618.9
65°	892.6	860.0	733.0	589.6	566.8
67.5°	798.1	765.5	651.5	531.0	518.0
70°	703.6	677.6	570.1	472.4	465.8
72.5°	605.9	576.6	488.6	417.0	417.0
75°	508.2	482.1	410.5	355.1	355.1
77.5°	407.2	394.2	329.0	289.9	293.2
80°	319.2	303.0	247.6	221.5	221.5
82.5°	234.5	215.0	166.1	146.6	153.1
85°	146.6	120.5	88.0	74.9	74.9
87.5°	45.6	35.8	26.1	29.3	29.3
90°	6.5	22.8	35.8	45.6	48.9
92.5°	16.3	42.3	52.1	61.9	65.2
95°	26.1	55.4	74.9	78.2	78.2
97.5°	35.8	61.9	91.2	104.2	104.2
100°	48.9	65.2	97.7	117.3	120.5
102.5°	61.9	71.7	104.2	123.8	130.3
105°	74.9	78.2	110.8	130.3	136.8



TEST NUMBER: P520536

CATALOG NUMBER: 4WSLA-175-L835-UPL8-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	110.8	97.7	123.8	146.6	153.1
115°	123.8	104.2	130.3	149.9	159.6
117.5°	133.6	114.0	136.8	156.4	162.9
120°	143.3	120.5	140.1	162.9	169.4
122.5°	156.4	127.0	146.6	166.1	175.9
125°	166.1	133.6	149.9	172.7	179.2
127.5°	175.9	146.6	153.1	175.9	182.4
130°	182.4	159.6	156.4	179.2	185.7
132.5°	192.2	169.4	159.6	182.4	188.9
135°	198.7	179.2	166.1	182.4	192.2
137.5°	205.2	188.9	166.1	182.4	188.9
140°	211.7	198.7	169.4	182.4	188.9
142.5°	215.0	205.2	172.7	182.4	188.9
145°	221.5	211.7	185.7	182.4	188.9
147.5°	224.8	218.3	195.5	182.4	188.9
150°	228.0	224.8	205.2	185.7	185.7
152.5°	231.3	228.0	211.7	198.7	192.2
155°	234.5	231.3	218.3	208.5	205.2
157.5°	237.8	237.8	224.8	218.3	215.0
160°	237.8	241.1	231.3	224.8	221.5
162.5°	241.1	244.3	234.5	231.3	228.0
165°	241.1	244.3	237.8	237.8	237.8
167.5°	244.3	247.6	244.3	241.1	241.1
170°	244.3	247.6	244.3	244.3	244.3
172.5°	244.3	247.6	247.6	247.6	247.6
175°	244.3	247.6	247.6	250.8	250.8
177.5°	244.3	247.6	247.6	247.6	247.6
180°	247.6	247.6	247.6	247.6	247.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	88.0	84.7	114.0	136.8	143.3
110°	97.7	91.2	120.5	140.1	146.6



(END OF REPORT)