

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: P520533

Luminaire Tested: **4WSLA-175-L830-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: P520533
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-L830-UPL8-UNV-U
Description: 4 FOOT, 1750 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 80 CRI
LEDS WITH 8% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

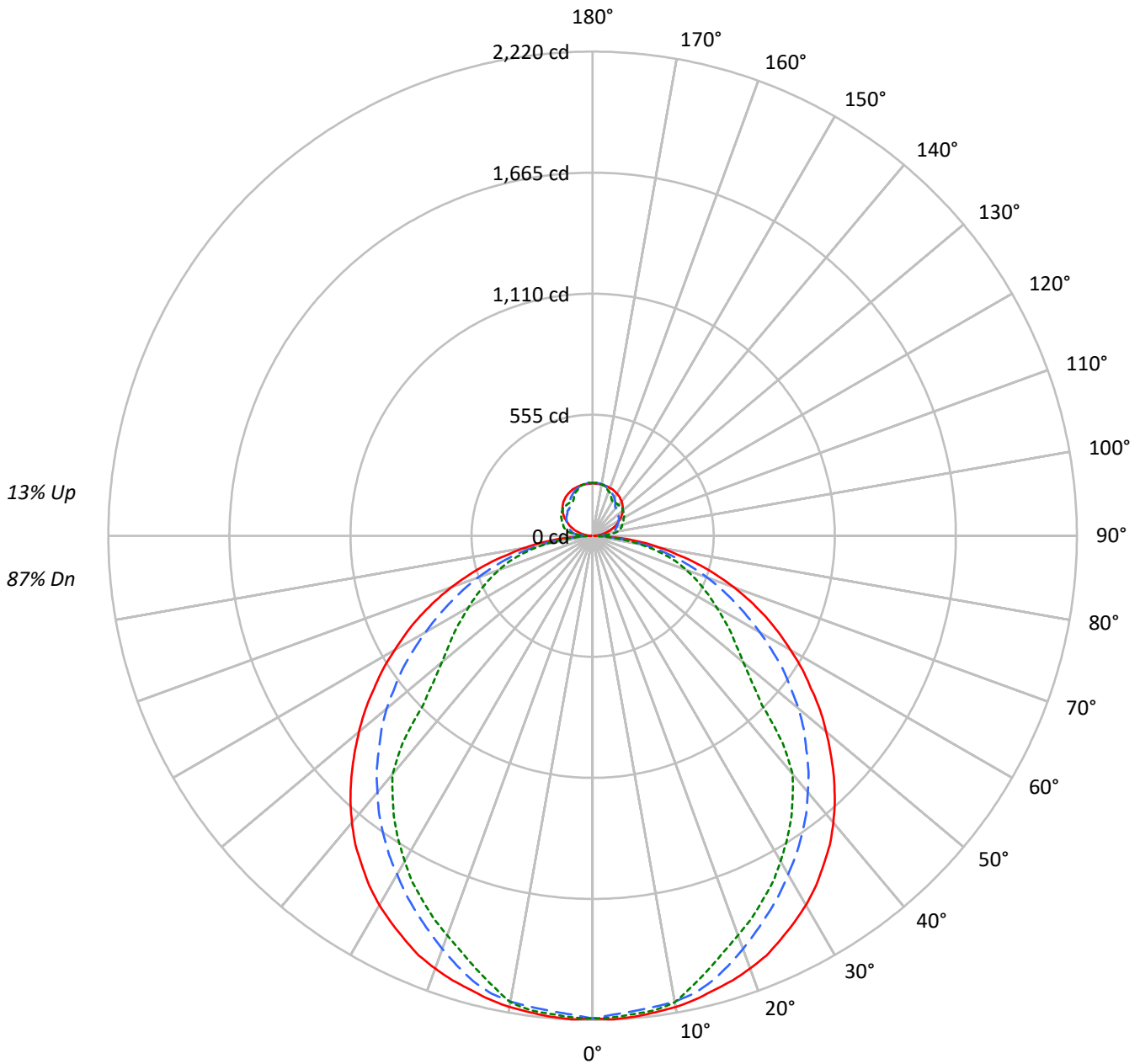
Lumens per Lamp: N/A
Luminaire Lumens: 6888.0 lumens
Efficiency: N/A
Efficacy: 115.8 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

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

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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	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°	11912	11912	11912
5°	11957	11820	11888
10°	11991	11852	11869
15°	12013	11782	11462
20°	12093	11545	11163
25°	12122	11328	10950
30°	12151	11142	10707
35°	12115	10985	10420
40°	12060	10784	10023
45°	11901	10544	8362
50°	11705	10319	7546
55°	11475	9980	7262
60°	11277	9529	7061
65°	11112	9124	7056
70°	10825	8770	7166
75°	10331	8345	7218
80°	9673	7500	6713
85°	8849	5311	4520



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.5	3.0
10°-20°	595.7	8.6
20°-30°	890.1	12.9
30°-40°	1062.5	15.4
40°-50°	1062.6	15.4
50°-60°	919.6	13.4
60°-70°	705.9	10.2
70°-80°	432.5	6.3
80°-90°	121.8	1.8
90°-100°	68.8	1.0
100°-110°	109.2	1.6
110°-120°	127.7	1.9
120°-130°	137.9	2.0
130°-140°	135.8	2.0
140°-150°	120.2	1.7
150°-160°	98.9	1.4
160°-170°	66.2	1.0
170°-180°	23.1	0.3
0°-30°	1695.3	24.6
0°-40°	2757.8	40.0
0°-60°	4740.0	68.8
0°-90°	6000.2	87.1
90°-120°	305.8	4.4
90°-150°	699.7	10.2
90°-180°	888.0	12.9
0°-180°	6888.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2213	2213	2213	2213	2213	
5°	2213	2207	2188	2204	2200	211
15°	2156	2153	2115	2076	2057	610
25°	2041	2016	1908	1857	1844	942
35°	1844	1796	1672	1611	1586	1155
45°	1564	1519	1385	1261	1099	1206
55°	1223	1194	1064	850	774	1096
65°	873	841	716	576	554	862
75°	497	471	401	347	347	524
85°	143	118	86	73	73	150
90°	6	22	35	45	48	10
95°	26	54	73	76	76	25
105°	73	76	108	127	134	77
115°	121	102	127	146	156	118
125°	162	131	146	169	175	145
135°	194	175	162	178	188	150
145°	217	207	182	178	185	135
155°	229	226	213	204	201	106
165°	236	239	232	232	232	67
175°	239	242	242	245	245	23
180°	242	242	242	242	242	



TEST NUMBER: P520533

CATALOG NUMBER: 4WSLA-175-L830-UPL8-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2213.3	2213.3	2213.3	2213.3	2213.3
2.5°	2219.6	2213.3	2197.4	2213.3	2210.1
5°	2213.3	2206.9	2187.8	2203.7	2200.5
7.5°	2203.7	2197.4	2178.2	2197.4	2194.2
10°	2194.2	2187.8	2168.7	2181.4	2171.9
12.5°	2178.2	2171.9	2149.6	2133.7	2114.6
15°	2156.0	2152.8	2114.6	2076.3	2057.2
17.5°	2136.8	2127.3	2066.8	2022.2	1999.9
20°	2111.4	2095.4	2015.8	1964.9	1949.0
22.5°	2082.7	2057.2	1961.7	1913.9	1901.2
25°	2041.3	2015.8	1907.6	1856.6	1843.9
27.5°	1999.9	1968.1	1853.4	1802.5	1789.7
30°	1955.3	1910.7	1792.9	1745.1	1722.9
32.5°	1904.4	1859.8	1735.6	1681.5	1656.0
35°	1843.9	1796.1	1671.9	1611.4	1585.9
37.5°	1786.5	1735.6	1608.2	1541.3	1506.3
40°	1716.5	1665.5	1535.0	1461.7	1426.7
42.5°	1643.2	1595.5	1464.9	1375.7	1289.8
45°	1563.6	1519.0	1385.3	1261.1	1098.7
47.5°	1480.8	1442.6	1312.0	1143.3	987.2
50°	1398.0	1359.8	1232.4	1031.8	901.2
52.5°	1315.2	1283.4	1143.3	939.4	831.2
55°	1222.9	1194.2	1063.6	850.3	773.9
57.5°	1140.1	1111.4	971.3	777.0	713.3
60°	1047.7	1022.2	885.3	703.8	656.0
62.5°	961.7	933.1	799.3	640.1	605.1
65°	872.6	840.7	716.5	576.4	554.1
67.5°	780.2	748.4	636.9	519.1	506.3
70°	687.9	662.4	557.3	461.8	455.4
72.5°	592.3	563.7	477.7	407.6	407.6
75°	496.8	471.3	401.3	347.1	347.1
77.5°	398.1	385.3	321.6	283.4	286.6
80°	312.1	296.2	242.0	216.6	216.6
82.5°	229.3	210.2	162.4	143.3	149.7
85°	143.3	117.8	86.0	73.2	73.2
87.5°	44.6	35.0	25.5	28.7	28.7
90°	6.4	22.3	35.0	44.6	47.8
92.5°	15.9	41.4	51.0	60.5	63.7
95°	25.5	54.1	73.2	76.4	76.4
97.5°	35.0	60.5	89.2	101.9	101.9
100°	47.8	63.7	95.5	114.6	117.8
102.5°	60.5	70.1	101.9	121.0	127.4
105°	73.2	76.4	108.3	127.4	133.8



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CATALOG NUMBER: 4WSLA-175-L830-UPL8-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	108.3	95.5	121.0	143.3	149.7
115°	121.0	101.9	127.4	146.5	156.0
117.5°	130.6	111.5	133.8	152.9	159.2
120°	140.1	117.8	136.9	159.2	165.6
122.5°	152.9	124.2	143.3	162.4	172.0
125°	162.4	130.6	146.5	168.8	175.2
127.5°	172.0	143.3	149.7	172.0	178.3
130°	178.3	156.0	152.9	175.2	181.5
132.5°	187.9	165.6	156.0	178.3	184.7
135°	194.3	175.2	162.4	178.3	187.9
137.5°	200.6	184.7	162.4	178.3	184.7
140°	207.0	194.3	165.6	178.3	184.7
142.5°	210.2	200.6	168.8	178.3	184.7
145°	216.6	207.0	181.5	178.3	184.7
147.5°	219.7	213.4	191.1	178.3	184.7
150°	222.9	219.7	200.6	181.5	181.5
152.5°	226.1	222.9	207.0	194.3	187.9
155°	229.3	226.1	213.4	203.8	200.6
157.5°	232.5	232.5	219.7	213.4	210.2
160°	232.5	235.7	226.1	219.7	216.6
162.5°	235.7	238.8	229.3	226.1	222.9
165°	235.7	238.8	232.5	232.5	232.5
167.5°	238.8	242.0	238.8	235.7	235.7
170°	238.8	242.0	238.8	238.8	238.8
172.5°	238.8	242.0	242.0	242.0	242.0
175°	238.8	242.0	242.0	245.2	245.2
177.5°	238.8	242.0	242.0	242.0	242.0
180°	242.0	242.0	242.0	242.0	242.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	86.0	82.8	111.5	133.8	140.1
110°	95.5	89.2	117.8	136.9	143.3



(END OF REPORT)