

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: P520558

Luminaire Tested: **4WSLA-200-L835-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: P520558
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-689-5)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4WSLA-200-L835-UNV-U
Description: 4 FOOT, 2000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 80 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

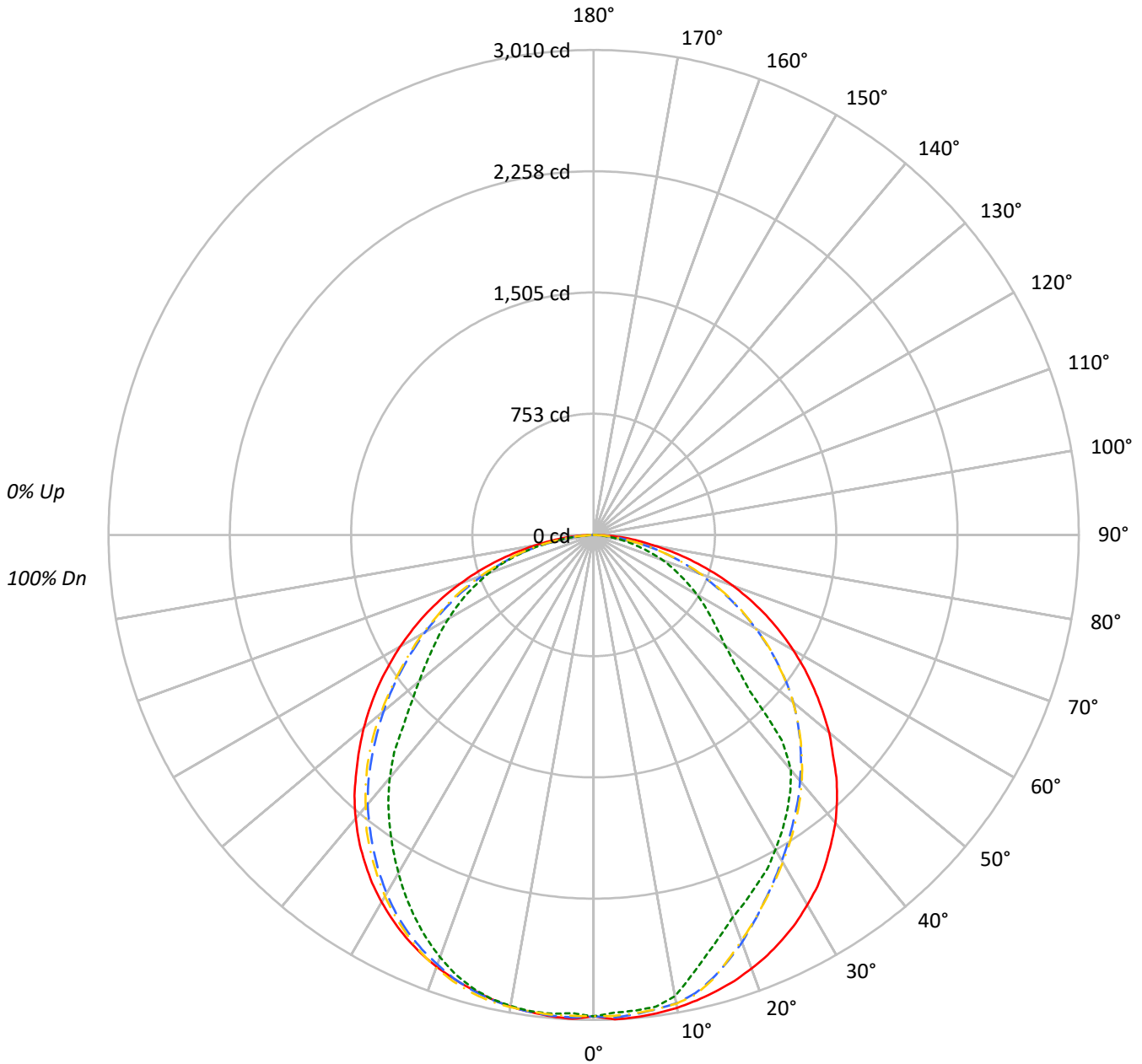
Lumens per Lamp: N/A
Luminaire Lumens: 8014.0 lumens
Efficiency: N/A
Efficacy: 105.0 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P520558

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

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84																			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70																			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60																			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51																			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44																			
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39																			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34																			
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31																			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28																			
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	16078	16078	16078	16078
5°	16235	16009	16209	16113
10°	16291	15888	16247	16221
15°	16342	15047	16270	16216
20°	16403	14457	16338	15971
25°	16455	14219	16370	15570
30°	16474	14013	16354	15059
35°	16448	13741	16279	14500
40°	16394	13377	16135	13827
45°	16211	10393	15846	12686
50°	15969	8897	15579	11835
55°	15685	8331	15279	11384
60°	15388	7952	14922	11196
65°	15022	7531	14511	11061
70°	14425	7163	13821	10894
75°	13431	6299	12797	10364
80°	11920	5266	11176	8793
85°	11282	3761	9899	5045



TEST NUMBER: P520558

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.9	3.5
10°-20°	809.6	10.1
20°-30°	1209.8	15.1
30°-40°	1440.0	18.0
40°-50°	1439.4	18.0
50°-60°	1238.6	15.5
60°-70°	932.2	11.6
70°-80°	531.2	6.6
80°-90°	129.3	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2303.2	28.7
0°-40°	3743.2	46.7
0°-60°	6421.2	80.1
0°-90°	8014.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8014.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2987	2987	2987	2987	2987	
5°	3005	2963	3000	2982	3005	286
15°	2933	2700	2920	2910	2933	829
25°	2771	2394	2757	2622	2771	1278
35°	2503	2092	2478	2207	2503	1566
45°	2130	1366	2082	1667	2130	1640
55°	1672	888	1628	1213	1672	1495
65°	1180	591	1140	869	1180	1165
75°	646	303	615	498	646	684
85°	183	61	160	82	183	199
90°	0	0	0	0	0	



TEST NUMBER: P520558

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2987.4	2987.4	2987.4	2987.4	2987.4	2987.4	2987.4	2987.4	2987.4	2987.4	2987.4
2.5°	3009.8	2982.5	2998.6	2993.8	2968.1	2977.7	2987.4	2977.7	3006.6	2980.9	2998.6
5°	3005.0	2976.1	2985.8	2976.1	2963.3	2966.5	2980.9	2971.3	3000.2	2972.9	2995.4
7.5°	2995.4	2960.1	2969.7	2964.9	2953.7	2955.3	2969.7	2961.7	2987.4	2961.7	2987.4
10°	2980.9	2944.1	2952.1	2931.3	2907.2	2924.9	2953.7	2945.7	2972.9	2944.1	2972.9
12.5°	2958.5	2921.6	2913.6	2844.7	2801.4	2835.1	2923.2	2923.2	2948.9	2921.6	2952.1
15°	2932.9	2892.8	2849.5	2745.4	2700.5	2734.1	2855.9	2897.6	2920.0	2892.8	2923.2
17.5°	2902.4	2855.9	2772.6	2650.8	2609.1	2642.8	2767.8	2859.1	2888.0	2859.1	2886.4
20°	2863.9	2809.5	2690.9	2551.4	2524.2	2554.6	2679.6	2812.7	2852.7	2817.5	2836.7
22.5°	2822.3	2756.6	2599.5	2474.5	2461.7	2480.9	2594.7	2755.0	2807.9	2771.0	2783.8
25°	2771.0	2694.1	2508.2	2404.0	2394.4	2405.6	2511.4	2687.7	2756.6	2718.1	2722.9
27.5°	2716.5	2633.2	2421.6	2344.7	2335.1	2339.9	2428.0	2612.3	2697.3	2658.8	2650.8
30°	2650.8	2561.0	2335.1	2264.6	2254.9	2272.6	2347.9	2535.4	2631.6	2593.1	2569.1
32.5°	2585.1	2482.5	2250.1	2195.6	2176.4	2192.4	2264.6	2455.3	2559.4	2519.4	2479.3
35°	2503.4	2399.2	2162.0	2107.5	2091.5	2109.1	2181.2	2371.9	2477.7	2437.6	2383.2
37.5°	2418.4	2311.0	2081.9	2032.2	2003.3	2024.2	2096.3	2285.4	2392.8	2351.1	2283.8
40°	2333.5	2218.1	1992.1	1940.8	1904.0	1934.4	2008.1	2194.0	2296.6	2258.1	2181.2
42.5°	2234.1	2125.1	1904.0	1831.8	1727.7	1825.4	1913.6	2102.7	2197.2	2160.4	2067.4
45°	2129.9	2025.8	1811.0	1636.3	1365.5	1652.3	1817.4	2006.5	2081.9	2046.6	1945.6
47.5°	2011.3	1923.2	1716.4	1450.4	1187.6	1466.4	1719.7	1915.2	1972.9	1934.4	1822.2
50°	1907.2	1820.6	1617.1	1293.3	1062.6	1311.0	1615.5	1812.6	1860.7	1825.4	1700.4
52.5°	1788.6	1713.2	1509.7	1153.9	969.6	1171.5	1506.5	1706.8	1745.3	1703.6	1578.6
55°	1671.6	1604.3	1395.9	1030.5	887.9	1046.5	1392.7	1597.8	1628.3	1580.2	1450.4
57.5°	1553.0	1492.1	1278.9	919.9	812.5	937.6	1286.9	1485.7	1506.5	1445.6	1327.0
60°	1429.6	1378.3	1160.3	822.2	738.8	836.6	1157.1	1373.5	1386.3	1320.6	1206.8
62.5°	1306.2	1259.7	1041.7	732.4	663.5	742.0	1049.7	1254.9	1262.9	1200.4	1083.4
65°	1179.6	1136.3	926.3	637.9	591.4	653.9	934.3	1131.5	1139.5	1069.0	963.2
67.5°	1048.1	1012.9	802.9	565.7	522.5	570.5	819.0	1006.5	1011.3	942.4	846.2
70°	916.7	886.3	694.0	487.2	455.2	488.8	705.2	868.6	878.3	804.5	727.6
72.5°	782.1	758.1	588.2	405.5	376.6	405.5	594.6	742.0	748.4	687.5	612.2
75°	645.9	628.2	480.8	325.3	302.9	323.7	484.0	615.4	615.4	557.7	498.4
77.5°	514.5	501.6	368.6	250.0	234.0	246.8	370.2	487.2	484.0	439.1	392.7
80°	384.6	375.0	264.4	181.1	169.9	176.3	264.4	360.6	360.6	328.5	272.5
82.5°	275.7	264.4	174.7	118.6	112.2	115.4	171.5	251.6	256.4	232.4	184.3
85°	182.7	157.1	94.6	65.7	60.9	62.5	89.7	145.8	160.3	134.6	96.2
87.5°	80.1	52.9	24.0	9.6	4.8	6.4	19.2	46.5	60.9	40.1	12.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P520558

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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2987.4	2987.4	2987.4	2987.4	2987.4	2987.4
2.5°	2997.0	2971.3	2980.9	2987.4	2980.9	3009.8
5°	2993.8	2982.5	2980.9	2989.0	2976.1	3005.0
7.5°	2989.0	2982.5	2980.9	2984.1	2968.1	2995.4
10°	2977.7	2968.1	2971.3	2976.1	2955.3	2980.9
12.5°	2956.9	2947.3	2948.9	2964.9	2936.1	2958.5
15°	2921.6	2910.4	2921.6	2939.3	2913.6	2932.9
17.5°	2875.2	2857.5	2876.8	2904.0	2884.8	2902.4
20°	2815.9	2788.6	2809.5	2859.1	2841.5	2863.9
22.5°	2743.8	2710.1	2730.9	2803.0	2798.2	2822.3
25°	2662.0	2621.9	2650.8	2738.9	2748.6	2771.0
27.5°	2570.7	2525.8	2564.3	2668.4	2690.9	2716.5
30°	2471.3	2423.2	2468.1	2589.9	2623.6	2650.8
32.5°	2368.7	2315.8	2367.1	2501.7	2549.8	2585.1
35°	2261.4	2206.9	2264.6	2410.4	2468.1	2503.4
37.5°	2146.0	2093.1	2155.6	2314.2	2383.2	2418.4
40°	2027.4	1968.1	2038.6	2200.4	2291.8	2333.5
42.5°	1905.6	1831.8	1918.4	2093.1	2192.4	2234.1
45°	1769.3	1666.8	1783.8	1979.3	2083.5	2129.9
47.5°	1633.1	1530.5	1649.1	1857.5	1969.7	2011.3
50°	1501.7	1413.5	1508.1	1724.5	1854.3	1907.2
52.5°	1381.5	1309.4	1389.5	1594.6	1735.7	1788.6
55°	1269.3	1213.2	1278.9	1466.4	1610.7	1671.6
57.5°	1163.5	1128.3	1173.1	1344.6	1495.3	1553.0
60°	1064.2	1040.1	1072.2	1224.4	1359.1	1429.6
62.5°	966.4	953.6	977.6	1097.8	1232.4	1306.2
65°	871.8	868.6	881.5	987.2	1099.4	1179.6
67.5°	777.3	775.7	783.7	870.2	969.6	1048.1
70°	682.7	692.3	687.5	743.6	839.8	916.7
72.5°	586.6	601.0	593.0	628.2	721.2	782.1
75°	479.2	498.4	482.4	522.5	580.2	645.9
77.5°	368.6	389.4	370.2	405.5	468.0	514.5
80°	264.4	283.7	267.6	294.9	349.4	384.6
82.5°	166.7	181.1	168.3	195.5	250.0	275.7
85°	73.7	81.7	84.9	105.8	153.9	182.7
87.5°	3.2	1.6	3.2	20.8	54.5	80.1
90°	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°









(END OF REPORT)