

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: METALUX

Report Number: P236313

Luminaire Tested: **4SWLED-52HL-LN-UNV-L835-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236313  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-29)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SWLED-52HL-LN-UNV-L835-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 2 ROW LED, NARROW LENS  
Light Source: (224) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

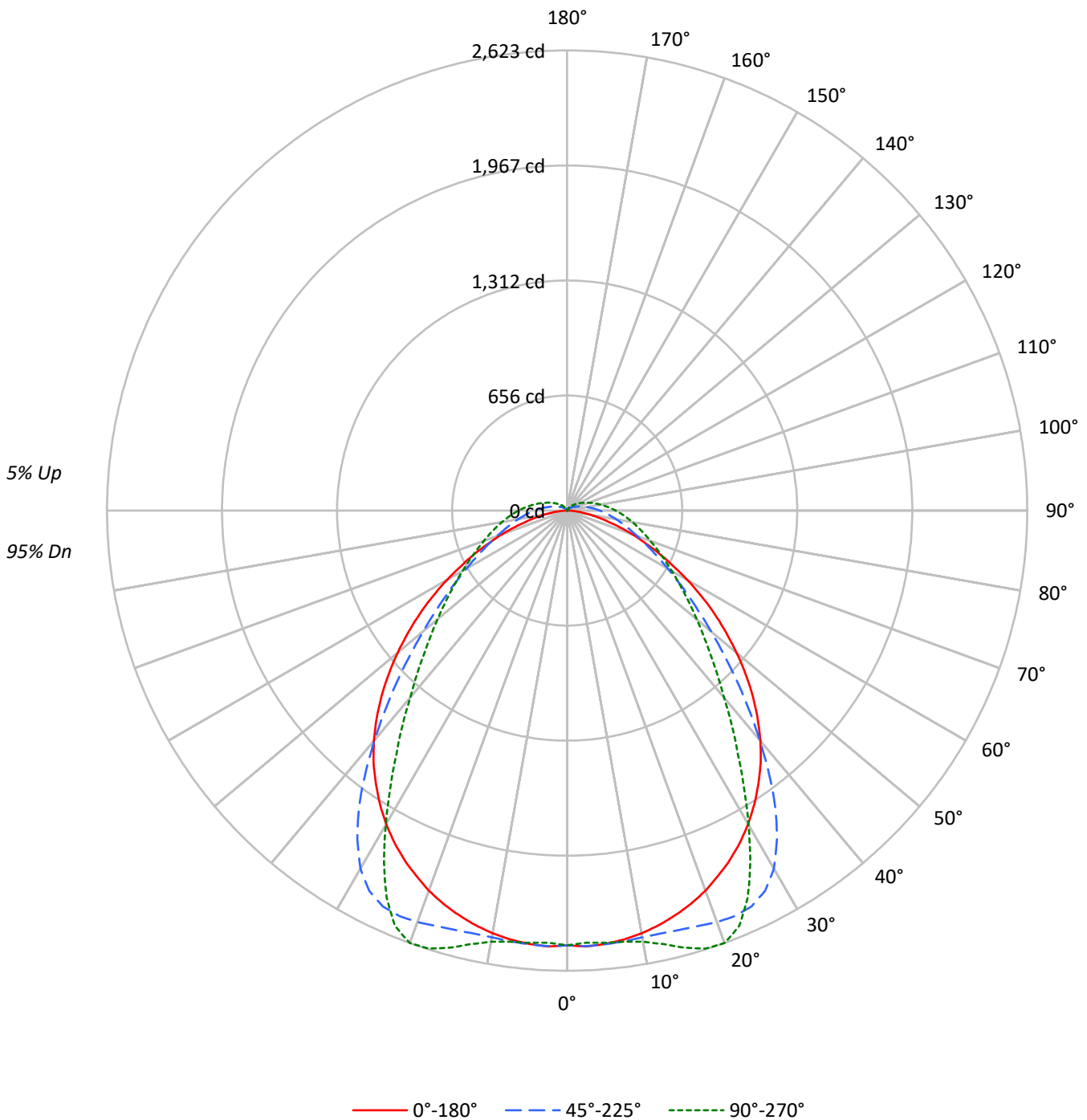
Lumens per Lamp: N/A  
Luminaire Lumens: 6622.0 lumens  
Efficiency: N/A  
Efficacy: 138.8 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.28  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 47.7  
Input Voltage (V): 120  
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

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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	50	30	10	0	
RCR																						
0	118	118	118	118	114	114	114	114	108	108	108	103	103	103	97	97	97	95				95
1	108	103	99	95	104	100	96	93	95	92	89	90	88	85	86	84	82	79				79
2	98	90	84	78	95	88	82	77	84	79	74	80	76	72	76	73	70	67				67
3	90	80	72	66	87	78	71	65	75	68	63	71	66	62	68	64	60	58				58
4	83	72	63	57	80	70	62	56	67	60	55	64	58	54	61	56	52	50				50
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	56	50	46	44				44
6	71	58	50	44	69	57	49	43	55	48	43	53	47	42	51	45	41	39				39
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	47	41	37	35				35
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33	31				31
9	58	45	37	32	56	44	37	31	43	36	31	41	35	31	40	34	30	28				28
10	54	41	34	29	53	41	33	29	39	33	28	38	32	28	37	32	28	26				26

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

	0°	45°	90°
0°	17780	17780	17780
5°	17805	17417	17230
10°	17716	17089	17011
15°	17562	17009	17352
20°	17374	17180	17548
25°	17100	17279	16320
30°	16741	16644	13989
35°	16234	14982	11686
40°	15575	12765	9817
45°	14651	10633	8427
50°	13497	8784	7352
55°	12195	7350	6532
60°	10698	6249	5906
65°	9110	5458	5432
70°	7516	4881	5121
75°	5884	4522	4934
80°	4397	4327	4869
85°	2888	4286	4911



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	235.8	3.6
10°-20°	700.6	10.6
20°-30°	1091.6	16.5
30°-40°	1203.7	18.2
40°-50°	1065.9	16.1
50°-60°	816.0	12.3
60°-70°	565.7	8.5
70°-80°	369.3	5.6
80°-90°	233.1	3.5
90°-100°	145.8	2.2
100°-110°	89.3	1.3
110°-120°	52.7	0.8
120°-130°	29.7	0.4
130°-140°	15.0	0.2
140°-150°	6.0	0.1
150°-160°	1.5	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	2028.0	30.6
0°-40°	3231.7	48.8
0°-60°	5113.7	77.2
0°-90°	6281.8	94.9
90°-120°	287.8	4.3
90°-150°	338.6	5.1
90°-180°	340.0	5.1
0°-180°	6622.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2478	2478	2478	2478	2478	
5°	2480	2463	2482	2473	2473	236
15°	2387	2389	2474	2545	2579	673
25°	2196	2269	2488	2479	2435	1011
35°	1900	2079	2070	1775	1697	1187
45°	1496	1661	1363	1173	1153	1151
55°	1026	1073	840	798	812	915
65°	578	587	529	565	587	576
75°	241	283	346	414	436	263
85°	50	124	231	303	325	57
90°	1	82	186	256	276	3
95°	0	54	147	212	233	0
105°	0	25	88	140	160	0
115°	0	13	53	91	106	0
125°	0	7	33	57	67	0
135°	1	2	19	35	41	0
145°	1	1	8	18	21	0
155°	1	1	1	5	8	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2477.7	2477.7	2477.7	2477.7	2477.7
2.5°	2487.2	2468.3	2485.3	2475.9	2465.2
5°	2479.6	2462.6	2481.5	2472.7	2473.3
7.5°	2466.4	2451.3	2476.5	2473.3	2479.0
10°	2446.9	2433.7	2469.6	2484.7	2494.7
12.5°	2419.8	2411.6	2468.9	2505.4	2531.2
15°	2387.1	2389.0	2474.0	2545.1	2579.1
17.5°	2349.3	2361.3	2483.4	2580.4	2618.1
20°	2305.3	2333.6	2496.0	2595.5	2623.2
22.5°	2251.7	2302.1	2501.0	2567.1	2563.4
25°	2196.4	2268.7	2488.4	2479.0	2434.9
27.5°	2133.4	2231.6	2443.7	2334.8	2261.2
30°	2062.9	2189.4	2357.5	2154.2	2067.3
32.5°	1985.5	2139.1	2225.9	1961.5	1875.9
35°	1900.5	2079.3	2070.4	1774.6	1697.2
37.5°	1812.4	1996.2	1890.4	1599.6	1541.7
40°	1713.5	1902.4	1706.6	1440.3	1390.0
42.5°	1607.1	1792.8	1529.7	1298.0	1266.6
45°	1496.3	1661.3	1362.9	1172.8	1153.3
47.5°	1379.9	1515.2	1208.0	1060.7	1053.2
50°	1261.5	1368.5	1068.9	962.5	963.8
52.5°	1141.3	1214.3	946.8	876.3	883.8
55°	1025.5	1073.3	839.8	798.2	812.1
57.5°	905.9	936.7	746.0	729.6	747.2
60°	792.5	809.5	662.2	668.5	688.7
62.5°	678.0	691.8	591.7	613.1	634.5
65°	578.5	587.3	528.8	564.7	586.7
67.5°	481.6	496.7	473.4	521.2	543.9
70°	394.1	414.8	424.9	482.8	504.9
72.5°	311.6	343.1	383.4	447.6	469.6
75°	241.1	282.6	346.2	414.2	436.2
77.5°	182.6	231.0	312.9	384.6	406.0
80°	128.4	188.2	283.3	356.3	377.7
82.5°	83.7	153.6	255.6	328.6	349.4
85°	49.7	124.0	231.0	302.8	324.8
87.5°	22.7	100.7	207.7	279.5	300.3
90°	0.6	82.5	186.3	256.2	276.4
92.5°	0.0	66.7	166.2	234.2	254.3
95°	0.0	53.5	146.7	212.1	232.9
97.5°	0.0	43.4	129.0	192.6	212.8
100°	0.0	35.9	113.9	174.4	194.5
102.5°	0.0	29.6	100.1	157.4	176.9
105°	0.0	24.6	88.1	140.4	160.5
107.5°	0.0	20.8	77.4	125.9	144.8
110°	0.0	17.6	68.0	112.7	130.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	15.7	59.8	101.4	117.7
115°	0.0	13.2	52.9	90.6	105.8
117.5°	0.0	12.0	46.6	81.2	95.1
120°	0.0	10.1	41.5	72.4	85.0
122.5°	0.0	8.8	36.5	64.2	75.5
125°	0.0	6.9	32.7	57.3	67.4
127.5°	0.0	5.7	29.0	51.0	59.8
130°	0.6	4.4	25.8	44.7	52.9
132.5°	0.6	3.1	22.0	39.7	46.0
135°	0.6	2.5	18.9	34.6	40.9
137.5°	0.6	1.3	15.7	30.2	35.3
140°	0.6	0.6	12.6	25.8	30.2
142.5°	0.6	0.6	10.1	22.0	25.8
145°	0.6	0.6	8.2	17.6	21.4
147.5°	0.6	0.6	5.7	13.8	17.6
150°	1.3	0.6	3.8	10.7	13.8
152.5°	1.3	0.6	2.5	7.6	10.7
155°	1.3	0.6	1.3	5.0	7.6
157.5°	1.3	1.3	0.6	3.1	4.4
160°	1.3	1.3	0.6	1.3	2.5
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)