

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: P236315

Luminaire Tested: **4SWLED-52HL-LN-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236315  
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-L850-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 2 ROW LED, NARROW LENS  
Light Source: (224) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

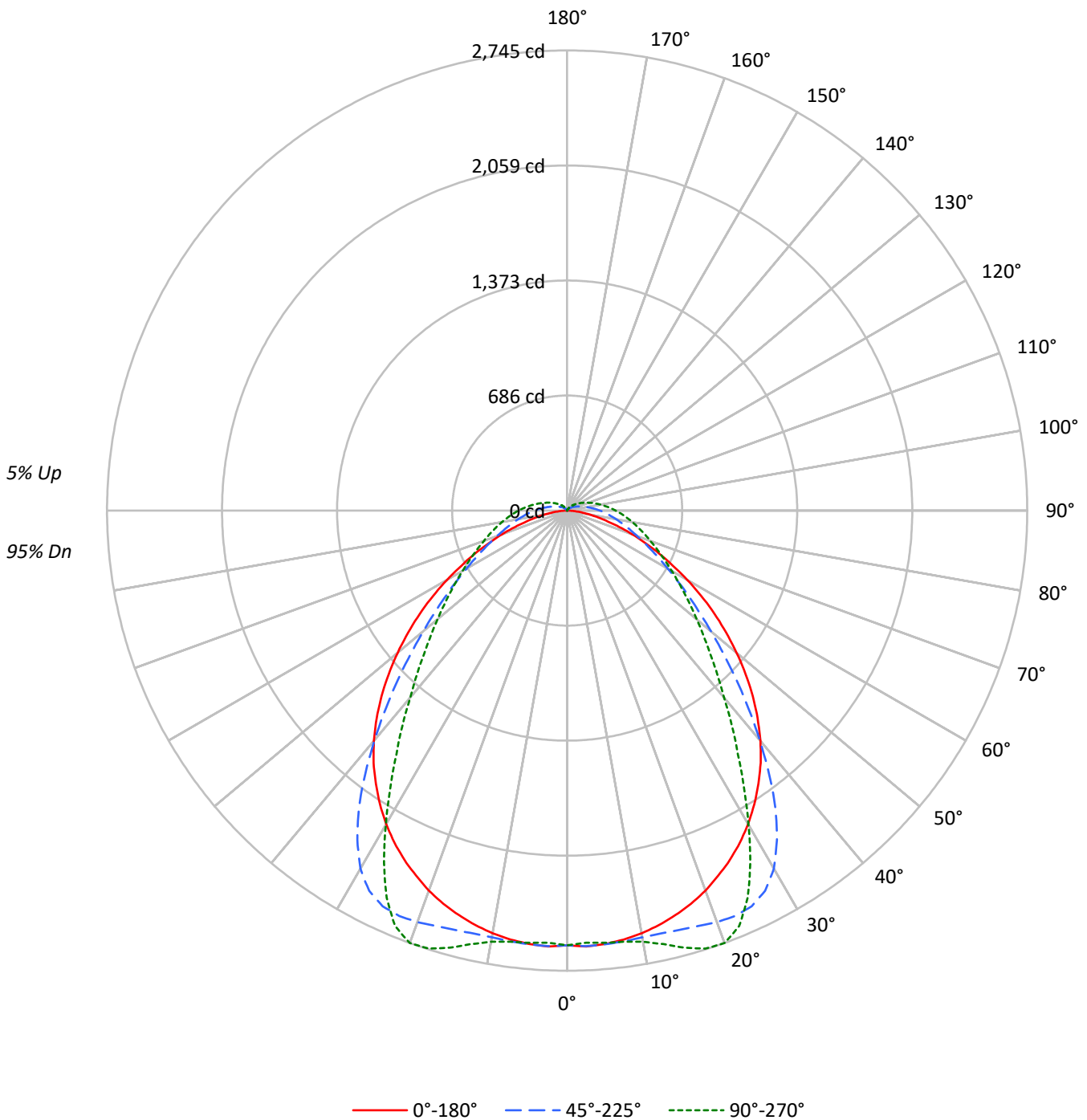
Lumens per Lamp: N/A  
Luminaire Lumens: 6930.0 lumens  
Efficiency: N/A  
Efficacy: 145.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.28  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

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°	18607	18607	18607
5°	18633	18227	18032
10°	18540	17883	17803
15°	18379	17799	18159
20°	18182	17979	18364
25°	17895	18083	17079
30°	17519	17419	14640
35°	16989	15679	12229
40°	16299	13359	10274
45°	15332	11128	8819
50°	14125	9193	7694
55°	12762	7691	6835
60°	11196	6539	6180
65°	9534	5712	5685
70°	7865	5109	5359
75°	6157	4733	5163
80°	4602	4528	5096
85°	3022	4486	5140



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	246.8	3.6
10°-20°	733.2	10.6
20°-30°	1142.3	16.5
30°-40°	1259.7	18.2
40°-50°	1115.5	16.1
50°-60°	854.0	12.3
60°-70°	592.0	8.5
70°-80°	386.5	5.6
80°-90°	244.0	3.5
90°-100°	152.6	2.2
100°-110°	93.4	1.3
110°-120°	55.2	0.8
120°-130°	31.1	0.4
130°-140°	15.7	0.2
140°-150°	6.3	0.1
150°-160°	1.6	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	2122.3	30.6
0°-40°	3382.0	48.8
0°-60°	5351.5	77.2
0°-90°	6574.0	94.9
90°-120°	301.2	4.3
90°-150°	354.4	5.1
90°-180°	356.0	5.1
0°-180°	6930.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2593	2593	2593	2593	2593	
5°	2595	2577	2597	2588	2588	247
15°	2498	2500	2589	2664	2699	705
25°	2298	2374	2604	2594	2548	1058
35°	1989	2176	2167	1857	1776	1242
45°	1566	1738	1426	1227	1207	1205
55°	1073	1123	879	835	850	958
65°	605	615	553	591	614	603
75°	252	296	362	434	456	275
85°	52	130	242	317	340	59
90°	1	86	195	268	289	3
95°	0	56	154	222	244	0
105°	0	26	92	147	168	0
115°	0	14	55	95	111	0
125°	0	7	34	60	70	0
135°	1	3	20	36	43	1
145°	1	1	9	18	22	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°	2593.0	2593.0	2593.0	2593.0	2593.0
2.5°	2602.9	2583.1	2600.9	2591.0	2579.8
5°	2595.0	2577.2	2596.9	2587.7	2588.4
7.5°	2581.1	2565.3	2591.7	2588.4	2594.3
10°	2560.7	2546.9	2584.4	2600.2	2610.8
12.5°	2532.4	2523.8	2583.8	2622.0	2649.0
15°	2498.1	2500.1	2589.0	2663.5	2699.0
17.5°	2458.6	2471.1	2598.9	2700.4	2739.9
20°	2412.5	2442.1	2612.1	2716.2	2745.2
22.5°	2356.5	2409.2	2617.4	2686.5	2682.6
25°	2298.5	2374.3	2604.2	2594.3	2548.2
27.5°	2232.6	2335.4	2557.4	2443.4	2366.4
30°	2158.8	2291.3	2467.2	2254.4	2163.5
32.5°	2077.8	2238.6	2329.5	2052.8	1963.2
35°	1988.9	2176.0	2166.7	1857.1	1776.1
37.5°	1896.6	2089.0	1978.3	1674.0	1613.4
40°	1793.2	1990.9	1786.0	1507.3	1454.6
42.5°	1681.9	1876.2	1600.9	1358.4	1325.5
45°	1565.9	1738.5	1426.3	1227.3	1206.9
47.5°	1444.1	1585.7	1264.2	1110.1	1102.2
50°	1320.2	1432.2	1118.6	1007.3	1008.6
52.5°	1194.4	1270.8	990.8	917.0	924.9
55°	1073.2	1123.2	878.8	835.3	849.8
57.5°	948.0	980.3	780.7	763.5	782.0
60°	829.4	847.2	693.0	699.6	720.7
62.5°	709.5	724.0	619.3	641.7	664.1
65°	605.4	614.6	553.4	590.9	614.0
67.5°	504.0	519.8	495.4	545.5	569.2
70°	412.4	434.1	444.7	505.3	528.3
72.5°	326.1	359.0	401.2	468.4	491.5
75°	252.3	295.8	362.3	433.5	456.5
77.5°	191.0	241.8	327.4	402.5	424.9
80°	134.4	197.0	296.5	372.9	395.3
82.5°	87.6	160.7	267.5	343.9	365.6
85°	52.0	129.8	241.8	316.9	339.9
87.5°	23.7	105.4	217.4	292.5	314.2
90°	0.7	86.3	195.0	268.1	289.2
92.5°	0.0	69.8	173.9	245.1	266.1
95°	0.0	56.0	153.5	222.0	243.8
97.5°	0.0	45.5	135.1	201.6	222.7
100°	0.0	37.6	119.2	182.5	203.6
102.5°	0.0	31.0	104.7	164.7	185.1
105°	0.0	25.7	92.2	146.9	168.0
107.5°	0.0	21.7	81.0	131.8	151.5
110°	0.0	18.4	71.1	117.9	136.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	16.5	62.6	106.1	123.2
115°	0.0	13.8	55.3	94.9	110.7
117.5°	0.0	12.5	48.8	85.0	99.5
120°	0.0	10.5	43.5	75.8	88.9
122.5°	0.0	9.2	38.2	67.2	79.1
125°	0.0	7.2	34.3	59.9	70.5
127.5°	0.0	5.9	30.3	53.4	62.6
130°	0.7	4.6	27.0	46.8	55.3
132.5°	0.7	3.3	23.1	41.5	48.1
135°	0.7	2.6	19.8	36.2	42.8
137.5°	0.7	1.3	16.5	31.6	36.9
140°	0.7	0.7	13.2	27.0	31.6
142.5°	0.7	0.7	10.5	23.1	27.0
145°	0.7	0.7	8.6	18.4	22.4
147.5°	0.7	0.7	5.9	14.5	18.4
150°	1.3	0.7	4.0	11.2	14.5
152.5°	1.3	0.7	2.6	7.9	11.2
155°	1.3	0.7	1.3	5.3	7.9
157.5°	1.3	1.3	0.7	3.3	4.6
160°	1.3	1.3	0.7	1.3	2.6
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)