

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: P236314

Luminaire Tested: **4SWLED-52HL-LN-UNV-L840-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236314
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-L840-CD1-U
Description: METALUX SWLED LINEAR LUMINAIRE
4FT FIXTURE WITH 2 ROW LED, NARROW LENS
Light Source: (224) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

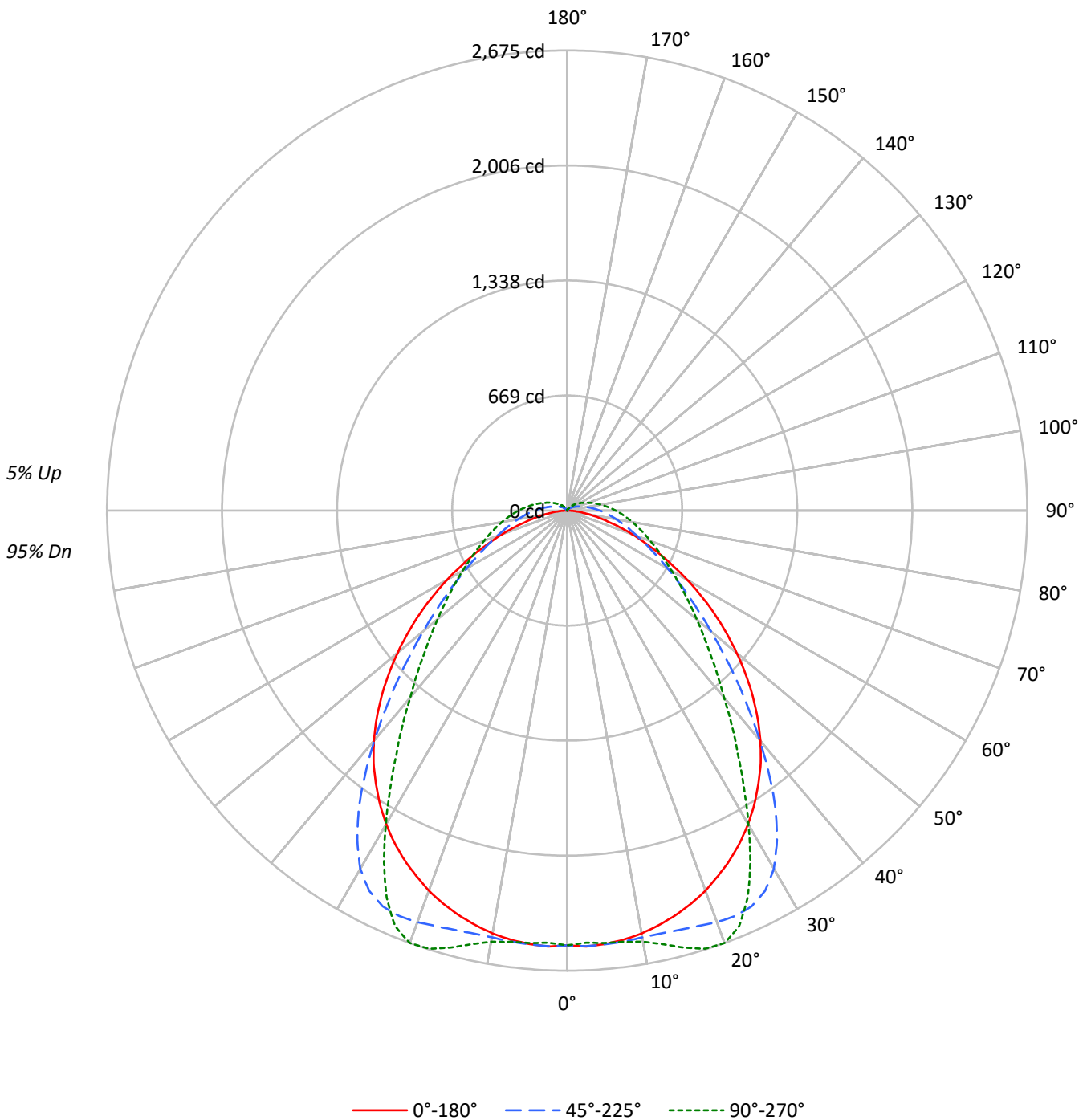
Lumens per Lamp: N/A
Luminaire Lumens: 6754.0 lumens
Efficiency: N/A
Efficacy: 141.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

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°	18134	18134	18134
5°	18160	17764	17573
10°	18069	17429	17351
15°	17913	17348	17698
20°	17720	17523	17897
25°	17440	17624	16645
30°	17074	16976	14268
35°	16558	15281	11918
40°	15886	13019	10013
45°	14944	10845	8594
50°	13766	8959	7499
55°	12438	7496	6662
60°	10912	6373	6023
65°	9292	5567	5540
70°	7665	4979	5223
75°	6001	4613	5032
80°	4486	4412	4966
85°	2947	4371	5010



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.5	3.6
10°-20°	714.6	10.6
20°-30°	1113.3	16.5
30°-40°	1227.7	18.2
40°-50°	1087.2	16.1
50°-60°	832.3	12.3
60°-70°	577.0	8.5
70°-80°	376.7	5.6
80°-90°	237.8	3.5
90°-100°	148.7	2.2
100°-110°	91.0	1.3
110°-120°	53.8	0.8
120°-130°	30.3	0.4
130°-140°	15.3	0.2
140°-150°	6.1	0.1
150°-160°	1.5	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	2068.4	30.6
0°-40°	3296.1	48.8
0°-60°	5215.6	77.2
0°-90°	6407.0	94.9
90°-120°	293.6	4.3
90°-150°	345.3	5.1
90°-180°	347.0	5.1
0°-180°	6754.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2527	2527	2527	2527	2527	
5°	2529	2512	2531	2522	2523	240
15°	2435	2437	2523	2596	2630	687
25°	2240	2314	2538	2528	2484	1031
35°	1938	2121	2112	1810	1731	1211
45°	1526	1694	1390	1196	1176	1174
55°	1046	1095	856	814	828	934
65°	590	599	539	576	598	588
75°	246	288	353	422	445	268
85°	51	126	236	309	331	58
90°	1	84	190	261	282	3
95°	0	55	150	216	238	0
105°	0	25	90	143	164	0
115°	0	14	54	92	108	0
125°	0	7	33	58	69	0
135°	1	3	19	35	42	0
145°	1	1	8	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°	2527.1	2527.1	2527.1	2527.1	2527.1
2.5°	2536.8	2517.5	2534.8	2525.2	2514.3
5°	2529.1	2511.7	2531.0	2522.0	2522.6
7.5°	2515.6	2500.2	2525.8	2522.6	2528.4
10°	2495.7	2482.2	2518.8	2534.2	2544.5
12.5°	2468.1	2459.7	2518.1	2555.4	2581.7
15°	2434.7	2436.6	2523.3	2595.8	2630.5
17.5°	2396.2	2408.4	2532.9	2631.8	2670.3
20°	2351.2	2380.1	2545.8	2647.2	2675.4
22.5°	2296.6	2348.0	2550.9	2618.3	2614.5
25°	2240.1	2314.0	2538.0	2528.4	2483.5
27.5°	2175.9	2276.1	2492.5	2381.4	2306.3
30°	2104.0	2233.1	2404.5	2197.1	2108.5
32.5°	2025.0	2181.7	2270.3	2000.6	1913.3
35°	1938.4	2120.7	2111.7	1810.0	1731.0
37.5°	1848.5	2036.0	1928.1	1631.5	1572.4
40°	1747.7	1940.3	1740.6	1469.0	1417.7
42.5°	1639.2	1828.6	1560.2	1323.9	1291.8
45°	1526.2	1694.4	1390.1	1196.1	1176.2
47.5°	1407.4	1545.4	1232.1	1081.9	1074.2
50°	1286.7	1395.8	1090.2	981.7	983.0
52.5°	1164.0	1238.5	965.7	893.7	901.4
55°	1045.9	1094.7	856.5	814.1	828.3
57.5°	923.9	955.4	760.8	744.1	762.1
60°	808.3	825.7	675.4	681.9	702.4
62.5°	691.5	705.6	603.5	625.4	647.2
65°	590.0	599.0	539.3	575.9	598.4
67.5°	491.2	506.6	482.8	531.6	554.7
70°	401.9	423.1	433.4	492.5	514.9
72.5°	317.8	349.9	391.0	456.5	479.0
75°	245.9	288.3	353.1	422.5	444.9
77.5°	186.2	235.6	319.1	392.3	414.1
80°	131.0	192.0	288.9	363.4	385.2
82.5°	85.4	156.7	260.7	335.2	356.3
85°	50.7	126.5	235.6	308.8	331.3
87.5°	23.1	102.7	211.9	285.1	306.3
90°	0.6	84.1	190.0	261.3	281.9
92.5°	0.0	68.1	169.5	238.8	259.4
95°	0.0	54.6	149.6	216.4	237.6
97.5°	0.0	44.3	131.6	196.5	217.0
100°	0.0	36.6	116.2	177.8	198.4
102.5°	0.0	30.2	102.1	160.5	180.4
105°	0.0	25.0	89.9	143.2	163.7
107.5°	0.0	21.2	79.0	128.4	147.7
110°	0.0	18.0	69.3	114.9	132.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	16.1	61.0	103.4	120.1
115°	0.0	13.5	53.9	92.5	107.9
117.5°	0.0	12.2	47.5	82.8	97.0
120°	0.0	10.3	42.4	73.8	86.7
122.5°	0.0	9.0	37.2	65.5	77.0
125°	0.0	7.1	33.4	58.4	68.7
127.5°	0.0	5.8	29.5	52.0	61.0
130°	0.6	4.5	26.3	45.6	53.9
132.5°	0.6	3.2	22.5	40.4	46.9
135°	0.6	2.6	19.3	35.3	41.7
137.5°	0.6	1.3	16.1	30.8	36.0
140°	0.6	0.6	12.8	26.3	30.8
142.5°	0.6	0.6	10.3	22.5	26.3
145°	0.6	0.6	8.3	18.0	21.8
147.5°	0.6	0.6	5.8	14.1	18.0
150°	1.3	0.6	3.9	10.9	14.1
152.5°	1.3	0.6	2.6	7.7	10.9
155°	1.3	0.6	1.3	5.1	7.7
157.5°	1.3	1.3	0.6	3.2	4.5
160°	1.3	1.3	0.6	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)