

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: P236310

Luminaire Tested: **4SWLED-48HL-LN-UNV-L835-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236310
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-48HL-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

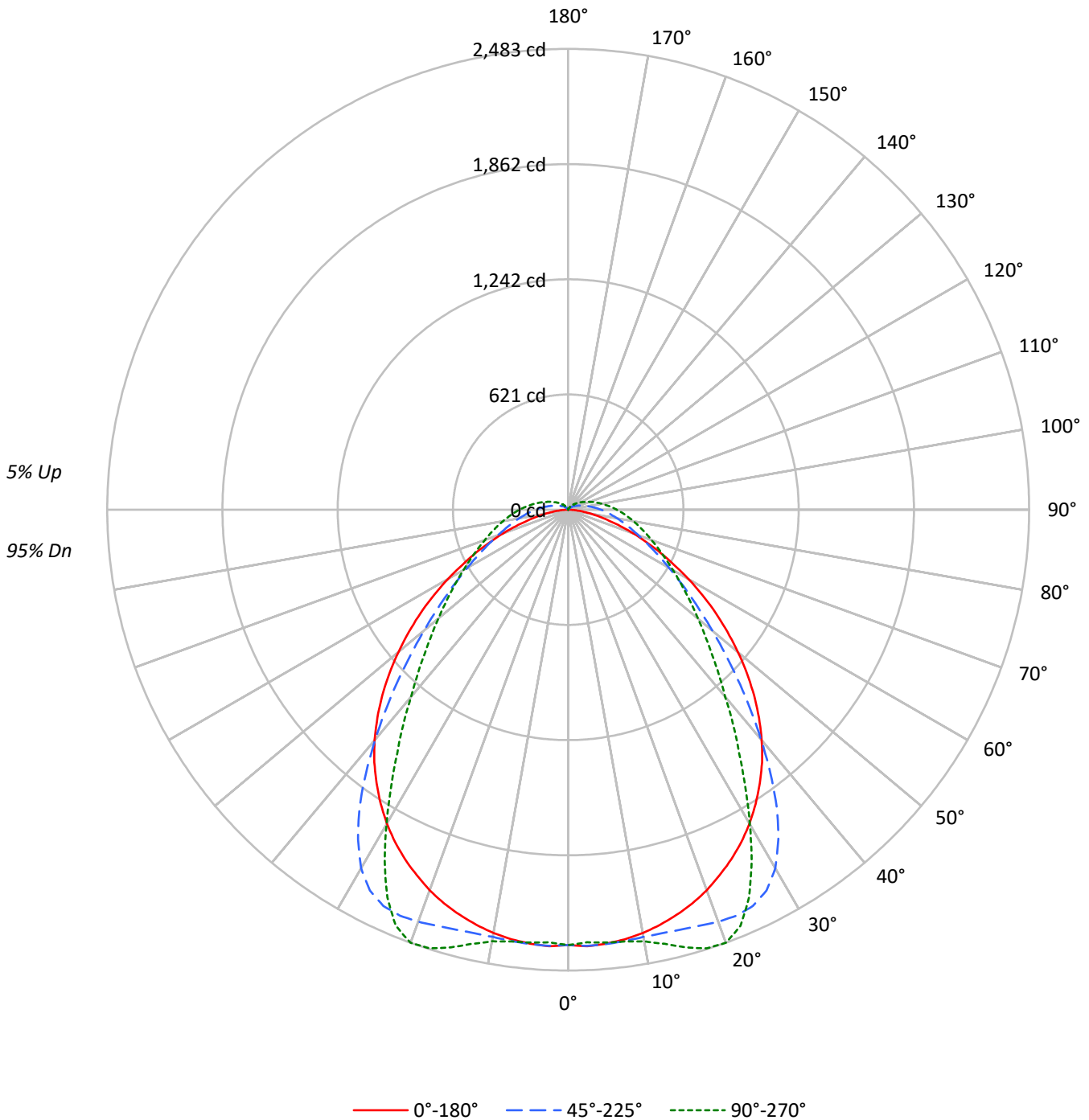
Lumens per Lamp: N/A
Luminaire Lumens: 6268.0 lumens
Efficiency: N/A
Efficacy: 140.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

Input Watts (W): 44.6
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°	16830	16830	16830
5°	16853	16486	16309
10°	16769	16175	16103
15°	16624	16099	16424
20°	16445	16262	16610
25°	16185	16356	15448
30°	15846	15755	13241
35°	15366	14182	11061
40°	14742	12083	9292
45°	13867	10064	7976
50°	12776	8315	6959
55°	11542	6957	6183
60°	10127	5915	5590
65°	8624	5166	5141
70°	7113	4620	4847
75°	5569	4281	4670
80°	4164	4095	4609
85°	2737	4058	4650



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.2	3.6
10°-20°	663.2	10.6
20°-30°	1033.2	16.5
30°-40°	1139.4	18.2
40°-50°	1008.9	16.1
50°-60°	772.4	12.3
60°-70°	535.5	8.5
70°-80°	349.6	5.6
80°-90°	220.7	3.5
90°-100°	138.0	2.2
100°-110°	84.5	1.3
110°-120°	49.9	0.8
120°-130°	28.1	0.4
130°-140°	14.2	0.2
140°-150°	5.7	0.1
150°-160°	1.4	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1919.6	30.6
0°-40°	3058.9	48.8
0°-60°	4840.3	77.2
0°-90°	5946.0	94.9
90°-120°	272.4	4.3
90°-150°	320.5	5.1
90°-180°	322.0	5.1
0°-180°	6268.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2345	2345	2345	2345	2345	
5°	2347	2331	2349	2340	2341	223
15°	2260	2261	2342	2409	2441	637
25°	2079	2148	2355	2346	2305	957
35°	1799	1968	1960	1680	1606	1124
45°	1416	1572	1290	1110	1092	1090
55°	971	1016	795	756	769	867
65°	548	556	500	534	555	545
75°	228	268	328	392	413	248
85°	47	117	219	287	308	54
90°	1	78	176	242	262	3
95°	0	51	139	201	220	0
105°	0	23	83	133	152	0
115°	0	12	50	86	100	0
125°	0	7	31	54	64	0
135°	1	2	18	33	39	0
145°	1	1	8	17	20	0
155°	1	1	1	5	7	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°	2345.3	2345.3	2345.3	2345.3	2345.3
2.5°	2354.2	2336.3	2352.4	2343.5	2333.4
5°	2347.1	2331.0	2348.9	2340.5	2341.1
7.5°	2334.6	2320.3	2344.1	2341.1	2346.5
10°	2316.1	2303.6	2337.5	2351.8	2361.4
12.5°	2290.5	2282.7	2336.9	2371.5	2395.9
15°	2259.5	2261.3	2341.7	2409.0	2441.2
17.5°	2223.7	2235.1	2350.6	2442.4	2478.2
20°	2182.0	2208.8	2362.6	2456.7	2482.9
22.5°	2131.4	2179.0	2367.3	2429.9	2426.3
25°	2078.9	2147.5	2355.4	2346.5	2304.8
27.5°	2019.4	2112.3	2313.1	2210.0	2140.3
30°	1952.6	2072.4	2231.5	2039.0	1956.8
32.5°	1879.3	2024.7	2106.9	1856.7	1775.6
35°	1798.9	1968.1	1959.8	1679.7	1606.4
37.5°	1715.5	1889.5	1789.4	1514.1	1459.2
40°	1621.9	1800.7	1615.4	1363.3	1315.6
42.5°	1521.2	1697.0	1447.9	1228.7	1198.9
45°	1416.3	1572.5	1290.0	1110.1	1091.6
47.5°	1306.1	1434.2	1143.4	1004.0	996.9
50°	1194.1	1295.4	1011.8	911.1	912.3
52.5°	1080.3	1149.4	896.2	829.4	836.6
55°	970.6	1015.9	794.9	755.5	768.7
57.5°	857.4	886.6	706.1	690.6	707.3
60°	750.2	766.3	626.8	632.8	651.9
62.5°	641.7	654.8	560.1	580.4	600.6
65°	547.6	555.9	500.5	534.5	555.3
67.5°	455.8	470.1	448.1	493.4	514.8
70°	373.0	392.7	402.2	457.0	477.9
72.5°	294.9	324.7	362.9	423.7	444.5
75°	228.2	267.5	327.7	392.1	412.9
77.5°	172.8	218.7	296.1	364.1	384.3
80°	121.6	178.2	268.1	337.3	357.5
82.5°	79.2	145.4	241.9	311.0	330.7
85°	47.1	117.4	218.7	286.6	307.5
87.5°	21.5	95.3	196.6	264.6	284.2
90°	0.6	78.1	176.4	242.5	261.6
92.5°	0.0	63.2	157.3	221.7	240.7
95°	0.0	50.6	138.8	200.8	220.5
97.5°	0.0	41.1	122.2	182.3	201.4
100°	0.0	34.0	107.8	165.1	184.1
102.5°	0.0	28.0	94.7	149.0	167.4
105°	0.0	23.2	83.4	132.9	151.9
107.5°	0.0	19.7	73.3	119.2	137.0
110°	0.0	16.7	64.4	106.7	123.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	14.9	56.6	95.9	111.4
115°	0.0	12.5	50.1	85.8	100.1
117.5°	0.0	11.3	44.1	76.9	90.0
120°	0.0	9.5	39.3	68.5	80.4
122.5°	0.0	8.3	34.6	60.8	71.5
125°	0.0	6.6	31.0	54.2	63.8
127.5°	0.0	5.4	27.4	48.3	56.6
130°	0.6	4.2	24.4	42.3	50.1
132.5°	0.6	3.0	20.9	37.5	43.5
135°	0.6	2.4	17.9	32.8	38.7
137.5°	0.6	1.2	14.9	28.6	33.4
140°	0.6	0.6	11.9	24.4	28.6
142.5°	0.6	0.6	9.5	20.9	24.4
145°	0.6	0.6	7.7	16.7	20.3
147.5°	0.6	0.6	5.4	13.1	16.7
150°	1.2	0.6	3.6	10.1	13.1
152.5°	1.2	0.6	2.4	7.2	10.1
155°	1.2	0.6	1.2	4.8	7.2
157.5°	1.2	1.2	0.6	3.0	4.2
160°	1.2	1.2	0.6	1.2	2.4
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)