

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: P236317

Luminaire Tested: **4SWLED-56HL-LN-UNV-L840-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236317
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-56HL-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

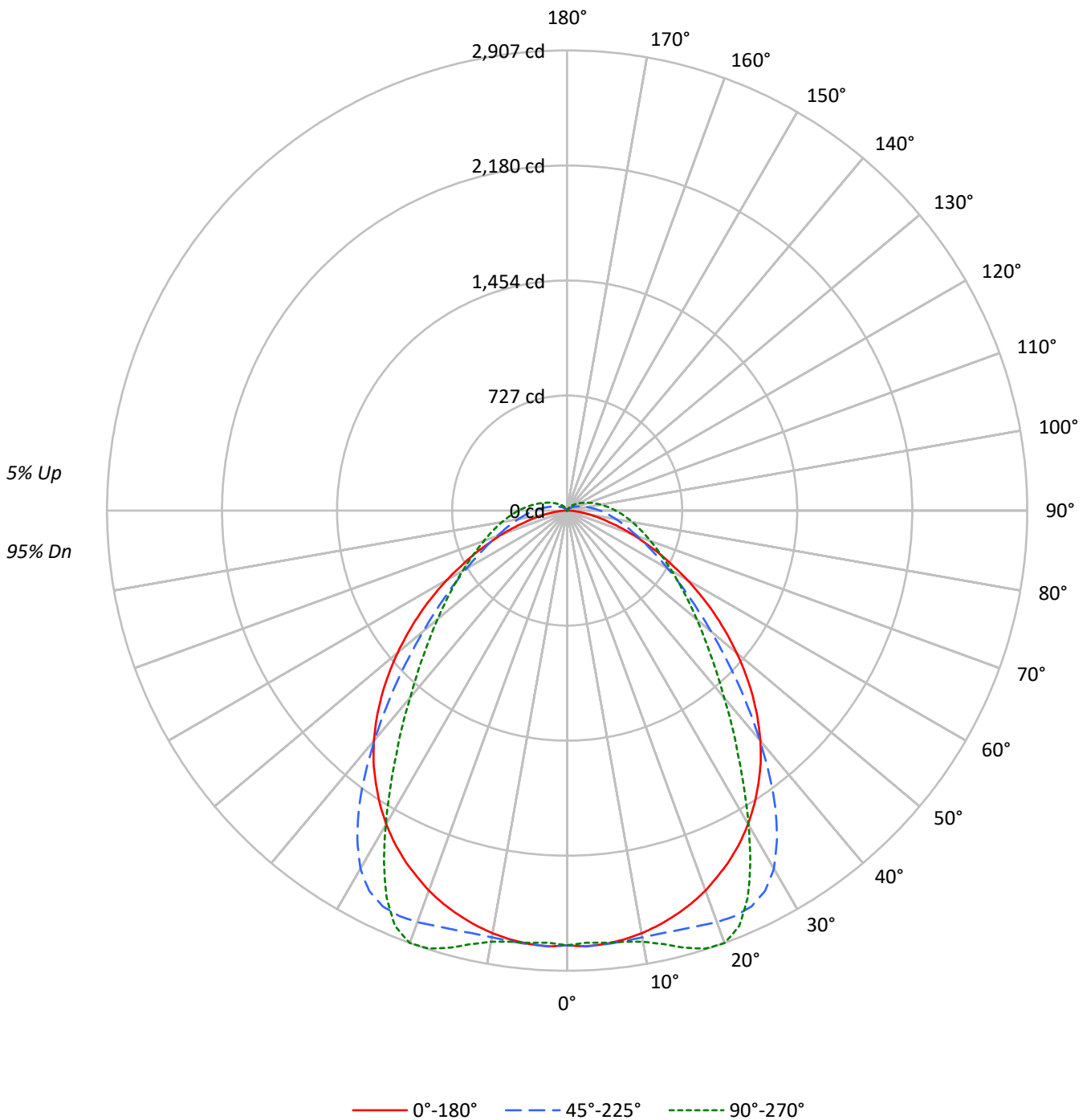
Lumens per Lamp: N/A
Luminaire Lumens: 7339.0 lumens
Efficiency: N/A
Efficacy: 138.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

Input Watts (W): 52.9
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	0
RCR																		
0	118	118	118	118	114	114	114	114	108	108	108	103	103	103	97	97	97	95
1	108	103	99	95	104	100	96	93	95	92	89	90	88	85	86	84	82	79
2	98	90	84	78	95	88	82	77	84	79	74	80	76	72	76	73	70	67
3	90	80	72	66	87	78	71	65	75	68	63	71	66	62	68	64	60	58
4	83	72	63	57	80	70	62	56	67	60	55	64	58	54	61	56	52	50
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	56	50	46	44
6	71	58	50	44	69	57	49	43	55	48	43	53	47	42	51	45	41	39
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	47	41	37	35
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33	31
9	58	45	37	32	56	44	37	31	43	36	31	41	35	31	40	34	30	28
10	54	41	34	29	53	41	33	29	39	33	28	38	32	28	37	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19705	19705	19705
5°	19733	19303	19095
10°	19634	18938	18854
15°	19464	18850	19231
20°	19255	19040	19448
25°	18951	19151	18087
30°	18554	18447	15503
35°	17992	16604	12951
40°	17262	14147	10880
45°	16238	11785	9339
50°	14958	9735	8148
55°	13515	8145	7239
60°	11858	6925	6545
65°	10098	6049	6020
70°	8328	5410	5675
75°	6521	5012	5469
80°	4873	4796	5397
85°	3202	4750	5444



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.3	3.6
10°-20°	776.5	10.6
20°-30°	1209.8	16.5
30°-40°	1334.0	18.2
40°-50°	1181.3	16.1
50°-60°	904.4	12.3
60°-70°	627.0	8.5
70°-80°	409.3	5.6
80°-90°	258.4	3.5
90°-100°	161.6	2.2
100°-110°	98.9	1.3
110°-120°	58.4	0.8
120°-130°	32.9	0.4
130°-140°	16.7	0.2
140°-150°	6.7	0.1
150°-160°	1.7	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	2247.6	30.6
0°-40°	3581.6	48.8
0°-60°	5667.3	77.2
0°-90°	6962.0	94.9
90°-120°	319.0	4.3
90°-150°	375.3	5.1
90°-180°	377.0	5.1
0°-180°	7339.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2746	2746	2746	2746	2746	
5°	2748	2729	2750	2740	2741	261
15°	2646	2648	2742	2821	2858	746
25°	2434	2514	2758	2747	2699	1121
35°	2106	2304	2295	1967	1881	1316
45°	1658	1841	1510	1300	1278	1276
55°	1136	1190	931	885	900	1015
65°	641	651	586	626	650	638
75°	267	313	384	459	484	291
85°	55	137	256	336	360	63
90°	1	91	206	284	306	4
95°	0	59	163	235	258	0
105°	0	27	98	156	178	0
115°	0	15	59	100	117	0
125°	0	8	36	64	75	0
135°	1	3	21	38	45	1
145°	1	1	9	20	24	0
155°	1	1	1	6	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°	2746.0	2746.0	2746.0	2746.0	2746.0
2.5°	2756.5	2735.6	2754.4	2743.9	2732.1
5°	2748.1	2729.3	2750.2	2740.4	2741.1
7.5°	2733.5	2716.7	2744.6	2741.1	2747.4
10°	2711.8	2697.2	2736.9	2753.7	2764.9
12.5°	2681.8	2672.8	2736.3	2776.7	2805.3
15°	2645.6	2647.6	2741.8	2820.7	2858.3
17.5°	2603.7	2617.0	2752.3	2859.7	2901.6
20°	2554.9	2586.3	2766.3	2876.5	2907.2
22.5°	2495.6	2551.4	2771.8	2845.1	2840.9
25°	2434.2	2514.4	2757.9	2747.4	2698.6
27.5°	2364.4	2473.2	2708.3	2587.6	2506.0
30°	2286.3	2426.5	2612.8	2387.4	2291.1
32.5°	2200.4	2370.7	2467.0	2173.9	2079.0
35°	2106.3	2304.4	2294.6	1966.7	1880.9
37.5°	2008.6	2212.3	2095.1	1772.8	1708.6
40°	1899.1	2108.4	1891.4	1596.3	1540.4
42.5°	1781.1	1987.0	1695.3	1438.6	1403.7
45°	1658.4	1841.1	1510.5	1299.8	1278.1
47.5°	1529.3	1679.3	1338.8	1175.6	1167.2
50°	1398.1	1516.7	1184.6	1066.7	1068.1
52.5°	1264.9	1345.8	1049.3	971.2	979.5
55°	1136.5	1189.5	930.7	884.6	900.0
57.5°	1003.9	1038.1	826.7	808.6	828.1
60°	878.4	897.2	733.9	740.9	763.2
62.5°	751.4	766.7	655.8	679.5	703.2
65°	641.2	650.9	586.0	625.8	650.2
67.5°	533.7	550.5	524.6	577.7	602.8
70°	436.7	459.8	470.9	535.1	559.5
72.5°	345.3	380.2	424.9	496.0	520.5
75°	267.2	313.3	383.7	459.1	483.5
77.5°	202.3	256.0	346.7	426.3	450.0
80°	142.3	208.6	314.0	394.9	418.6
82.5°	92.8	170.2	283.3	364.2	387.2
85°	55.1	137.4	256.0	335.6	360.0
87.5°	25.1	111.6	230.2	309.8	332.8
90°	0.7	91.4	206.5	284.0	306.3
92.5°	0.0	74.0	184.2	259.5	281.9
95°	0.0	59.3	162.6	235.1	258.1
97.5°	0.0	48.1	143.0	213.5	235.8
100°	0.0	39.8	126.3	193.3	215.6
102.5°	0.0	32.8	110.9	174.4	196.0
105°	0.0	27.2	97.7	155.6	177.9
107.5°	0.0	23.0	85.8	139.5	160.5
110°	0.0	19.5	75.3	124.9	144.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	17.4	66.3	112.3	130.5
115°	0.0	14.7	58.6	100.5	117.2
117.5°	0.0	13.3	51.6	90.0	105.3
120°	0.0	11.2	46.0	80.2	94.2
122.5°	0.0	9.8	40.5	71.2	83.7
125°	0.0	7.7	36.3	63.5	74.7
127.5°	0.0	6.3	32.1	56.5	66.3
130°	0.7	4.9	28.6	49.5	58.6
132.5°	0.7	3.5	24.4	44.0	50.9
135°	0.7	2.8	20.9	38.4	45.3
137.5°	0.7	1.4	17.4	33.5	39.1
140°	0.7	0.7	14.0	28.6	33.5
142.5°	0.7	0.7	11.2	24.4	28.6
145°	0.7	0.7	9.1	19.5	23.7
147.5°	0.7	0.7	6.3	15.3	19.5
150°	1.4	0.7	4.2	11.9	15.3
152.5°	1.4	0.7	2.8	8.4	11.9
155°	1.4	0.7	1.4	5.6	8.4
157.5°	1.4	1.4	0.7	3.5	4.9
160°	1.4	1.4	0.7	1.4	2.8
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)