

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: P236215

Luminaire Tested: **2SWLED-28HL-LN-UNV-L840-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236215  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-9)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2SWLED-28HL-LN-UNV-L840-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
2FT FIXTURE WITH 2 ROW LED, NARROW LENS  
Light Source: (112) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

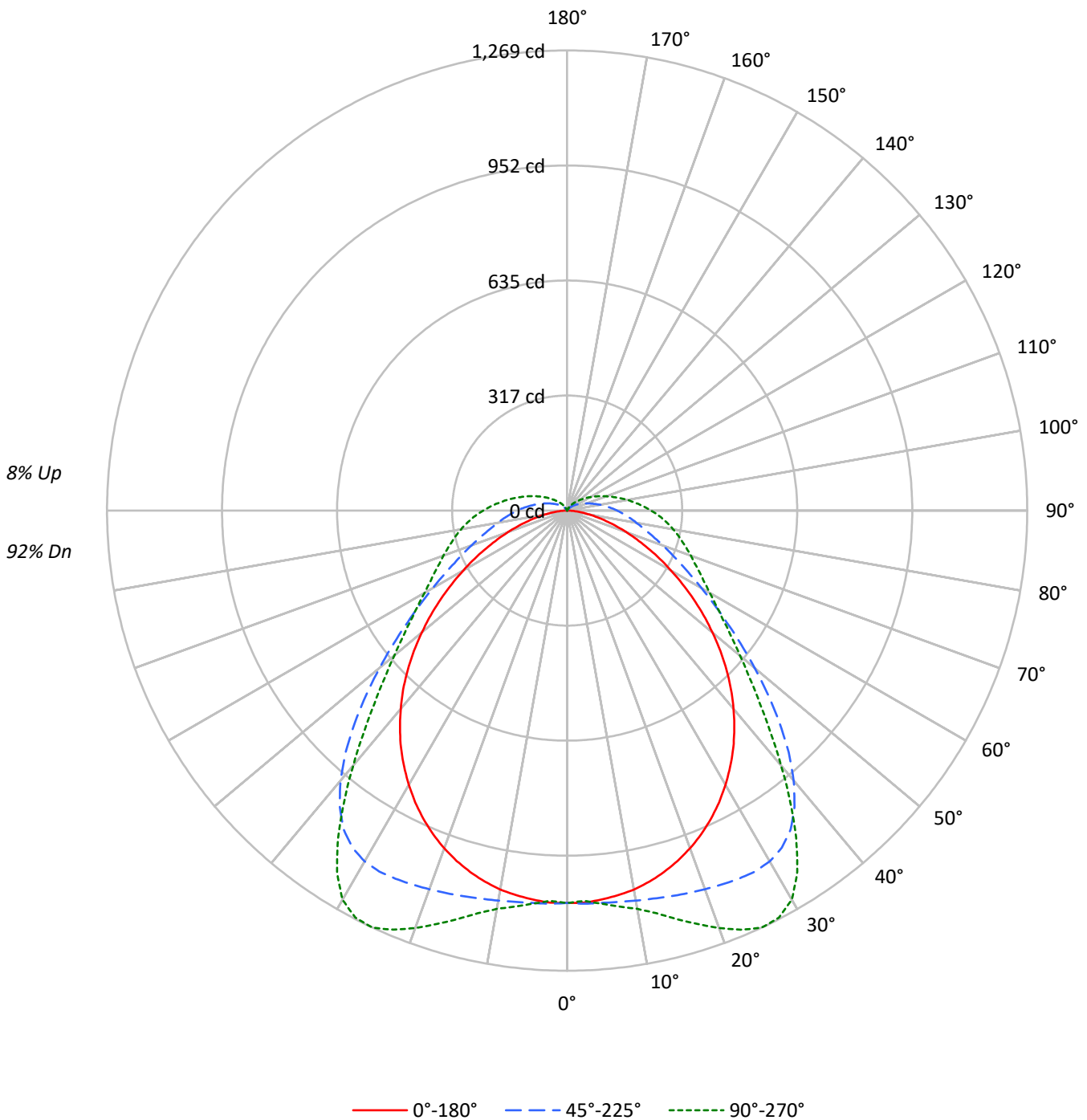
Lumens per Lamp: N/A  
Luminaire Lumens: 3633.9 lumens  
Efficiency: N/A  
Efficacy: 130.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.48 / 1.45  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 2' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 27.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92
1	106	101	96	92	103	98	94	90	92	89	86	87	84	82	82	80	78	75
2	97	88	81	75	93	85	79	74	81	75	71	76	72	68	72	69	65	63
3	88	77	69	63	85	75	68	62	71	65	60	67	62	58	64	59	56	53
4	81	69	60	53	78	67	59	53	63	57	51	60	54	49	57	52	48	46
5	74	62	53	46	72	60	52	45	57	50	44	54	48	43	52	46	42	40
6	69	56	47	40	66	54	46	40	52	44	39	49	43	38	47	41	37	35
7	64	50	42	36	62	49	41	35	47	40	34	45	38	34	43	37	33	31
8	59	46	38	32	57	45	37	31	43	36	31	41	35	30	39	34	30	28
9	55	42	34	29	54	41	34	28	40	33	28	38	32	27	36	31	27	25
10	52	39	31	26	50	38	31	26	37	30	25	35	29	25	34	28	24	22

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

	0°	45°	90°
0°	15530	15530	15530
5°	15419	15213	15160
10°	15267	15049	15208
15°	15041	15044	15691
20°	14746	15167	16391
25°	14367	15393	17012
30°	13885	15576	16769
35°	13320	15317	15163
40°	12607	14295	12969
45°	11768	12670	10976
50°	10744	10851	9491
55°	9631	9165	8446
60°	8436	7847	7787
65°	7195	6851	7462
70°	6048	6215	7364
75°	4838	5773	7420
80°	3625	5622	7658
85°	2335	5707	8014



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.7	2.9
10°-20°	312.1	8.6
20°-30°	511.9	14.1
30°-40°	626.5	17.2
40°-50°	584.6	16.1
50°-60°	461.2	12.7
60°-70°	338.1	9.3
70°-80°	242.6	6.7
80°-90°	171.5	4.7
90°-100°	117.3	3.2
100°-110°	75.9	2.1
110°-120°	45.6	1.3
120°-130°	25.1	0.7
130°-140°	12.1	0.3
140°-150°	4.6	0.1
150°-160°	0.8	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	927.7	25.5
0°-40°	1554.2	42.8
0°-60°	2600.1	71.6
0°-90°	3352.4	92.3
90°-120°	238.8	6.6
90°-150°	280.7	7.7
90°-180°	282.0	7.8
0°-180°	3633.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1082	1082	1082	1082	1082	
5°	1077	1082	1086	1088	1088	102
15°	1032	1055	1101	1146	1166	291
25°	938	994	1120	1229	1269	432
35°	799	900	1074	1111	1101	499
45°	622	745	828	770	751	479
55°	425	517	537	520	525	380
65°	245	306	343	381	403	245
75°	111	159	231	301	328	120
85°	26	78	164	237	265	29
90°	0	55	138	207	231	2
95°	0	39	113	176	199	0
105°	0	20	73	122	140	0
115°	0	11	45	79	93	0
125°	0	5	27	49	58	0
135°	0	1	15	29	34	0
145°	1	0	6	14	17	0
155°	1	1	0	3	4	0
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°	1082.1	1082.1	1082.1	1082.1	1082.1
2.5°	1082.1	1086.1	1085.1	1081.1	1077.1
5°	1077.1	1082.1	1086.1	1088.1	1088.1
7.5°	1070.1	1078.1	1088.1	1098.1	1101.1
10°	1061.1	1073.1	1092.1	1109.1	1115.1
12.5°	1048.1	1065.1	1096.1	1124.1	1137.1
15°	1032.1	1055.1	1101.1	1146.1	1166.1
17.5°	1013.1	1043.1	1106.1	1168.1	1195.1
20°	991.1	1029.1	1111.1	1191.1	1225.1
22.5°	966.1	1013.1	1116.1	1212.1	1251.1
25°	938.1	994.1	1120.1	1229.1	1269.1
27.5°	907.1	974.1	1122.1	1234.1	1265.1
30°	873.1	952.1	1117.1	1217.1	1239.1
32.5°	837.1	928.1	1102.1	1176.1	1181.1
35°	799.1	900.1	1074.1	1111.1	1101.1
37.5°	757.1	869.1	1030.1	1030.1	1010.1
40°	714.1	834.1	972.1	943.1	918.1
42.5°	669.1	792.1	904.1	855.1	830.1
45°	622.1	745.1	828.1	770.1	751.1
47.5°	573.1	693.1	751.1	695.1	682.1
50°	523.0	636.1	675.1	628.1	622.1
52.5°	474.0	577.1	603.1	570.1	570.1
55°	425.0	517.0	537.1	520.0	525.0
57.5°	377.0	460.0	479.0	477.0	487.0
60°	331.0	404.0	428.0	440.0	454.0
62.5°	288.0	352.0	383.0	408.0	426.0
65°	245.0	306.0	343.0	381.0	403.0
67.5°	208.0	263.0	310.0	357.0	381.0
70°	173.0	222.0	281.0	337.0	363.0
72.5°	140.0	188.0	254.0	319.0	345.0
75°	111.0	159.0	231.0	301.0	328.0
77.5°	85.0	134.0	211.0	285.0	313.0
80°	62.0	112.0	194.0	270.0	297.0
82.5°	43.0	94.0	179.0	253.0	281.0
85°	26.0	78.0	164.0	237.0	265.0
87.5°	12.0	66.0	150.0	222.0	249.0
90°	0.0	55.0	138.0	207.0	231.0
92.5°	0.0	46.0	126.0	191.0	215.0
95°	0.0	39.0	113.0	176.0	199.0
97.5°	0.0	33.0	102.0	162.0	183.0
100°	0.0	27.0	92.0	148.0	169.0
102.5°	0.0	23.0	82.0	134.0	154.0
105°	0.0	20.0	73.0	122.0	140.0
107.5°	0.0	17.0	65.0	110.0	127.0
110°	0.0	15.0	57.0	99.0	115.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	13.0	51.0	89.0	104.0
115°	0.0	11.0	45.0	79.0	93.0
117.5°	0.0	9.0	40.0	70.0	83.0
120°	0.0	8.0	35.0	62.0	74.0
122.5°	0.0	6.0	31.0	56.0	66.0
125°	0.0	5.0	27.0	49.0	58.0
127.5°	0.0	4.0	24.0	43.0	51.0
130°	0.0	3.0	21.0	38.0	45.0
132.5°	0.0	2.0	18.0	33.0	39.0
135°	0.0	1.0	15.0	29.0	34.0
137.5°	0.0	0.0	12.0	24.0	29.0
140°	0.0	0.0	10.0	20.0	25.0
142.5°	0.0	0.0	8.0	17.0	21.0
145°	1.0	0.0	6.0	14.0	17.0
147.5°	1.0	0.0	4.0	11.0	13.0
150°	1.0	0.0	2.0	8.0	10.0
152.5°	1.0	0.0	0.0	5.0	7.0
155°	1.0	1.0	0.0	3.0	4.0
157.5°	1.0	1.0	0.0	0.0	2.0
160°	1.0	1.0	0.0	0.0	0.0
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)