

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: P236247

Luminaire Tested: **4SWLED-28SL-LN-UNV-L835-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236247  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-17)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SWLED-28SL-LN-UNV-L835-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 1 ROW LED, NARROW LENS  
Light Source: (112) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

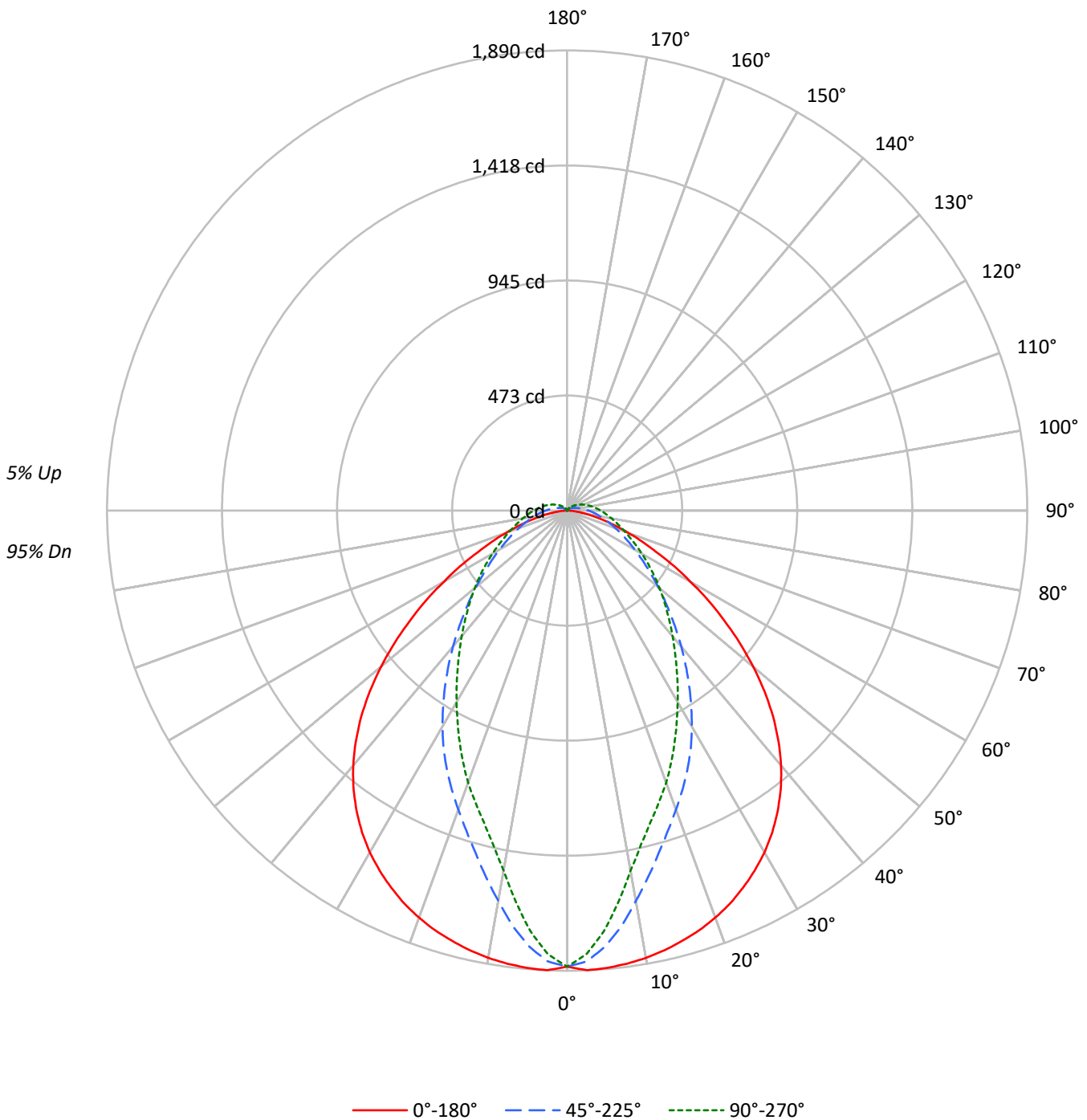
Lumens per Lamp: N/A  
Luminaire Lumens: 3513.1 lumens  
Efficiency: N/A  
Efficacy: 141.7 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 0.78 / 1  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 24.8  
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	50	30	10	0		
RCR																										
0	118	118	118	118	115	115	115	115	108	108	108	103	103	103	98	98	98	95					95			
1	108	103	99	95	105	101	97	93	95	92	90	91	88	86	86	84	83	80					80			
2	99	91	85	79	96	89	83	78	85	80	75	81	77	73	77	74	71	68					68			
3	91	81	73	67	88	79	72	66	76	70	65	72	67	63	69	65	61	59					59			
4	84	73	65	58	81	71	63	58	68	61	56	65	60	55	63	58	54	52					52			
5	78	66	57	51	75	64	56	51	62	55	50	59	53	49	57	52	48	46					46			
6	72	60	51	45	70	59	51	45	56	49	44	54	48	43	52	47	43	41					41			
7	67	55	46	41	65	54	46	40	52	45	40	50	44	39	48	43	38	37					37			
8	63	50	42	37	61	49	42	36	48	41	36	46	40	35	45	39	35	33					33			
9	59	46	39	33	57	46	38	33	44	37	33	43	37	32	41	36	32	30					30			
10	56	43	36	31	54	42	35	30	41	35	30	40	34	30	39	33	29	28					28			

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

	0°	45°	90°
0°	13441	13441	13441
5°	13538	12610	12076
10°	13505	11261	10236
15°	13458	10001	8909
20°	13410	8995	7954
25°	13307	8126	7011
30°	13156	7229	6144
35°	12876	6310	5388
40°	12428	5454	4758
45°	11709	4671	4222
50°	10672	4008	3778
55°	9362	3460	3382
60°	7885	3024	3040
65°	6369	2685	2755
70°	5067	2431	2554
75°	3827	2221	2432
80°	2757	2108	2388
85°	1691	2059	2403



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.9	4.8
10°-20°	424.3	12.1
20°-30°	575.3	16.4
30°-40°	611.1	17.4
40°-50°	546.5	15.6
50°-60°	423.4	12.1
60°-70°	292.7	8.3
70°-80°	187.1	5.3
80°-90°	114.6	3.3
90°-100°	71.2	2.0
100°-110°	44.7	1.3
110°-120°	27.4	0.8
120°-130°	15.6	0.4
130°-140°	7.9	0.2
140°-150°	3.3	0.1
150°-160°	1.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1166.5	33.2
0°-40°	1777.6	50.6
0°-60°	2747.5	78.2
0°-90°	3341.8	95.1
90°-120°	143.3	4.1
90°-150°	170.1	4.8
90°-180°	171.0	4.9
0°-180°	3513.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1873	1873	1873	1873	1873	
5°	1885	1840	1797	1748	1734	179
15°	1829	1650	1455	1348	1324	517
25°	1709	1390	1170	1072	1046	788
35°	1507	1100	872	796	782	941
45°	1196	771	599	574	578	918
55°	787	474	395	410	420	705
65°	404	269	260	289	298	410
75°	157	136	170	207	215	172
85°	29	61	111	148	159	35
90°	1	40	88	126	138	2
95°	0	25	69	105	119	0
105°	0	11	41	72	85	0
115°	0	6	26	48	58	0
125°	0	4	16	30	37	0
135°	1	1	10	18	22	1
145°	1	1	4	10	11	0
155°	1	1	1	4	4	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°	1873.0	1873.0	1873.0	1873.0	1873.0
2.5°	1889.6	1859.1	1852.8	1834.8	1823.0
5°	1885.4	1839.7	1796.6	1748.1	1733.5
7.5°	1877.1	1806.4	1719.6	1637.8	1619.1
10°	1865.3	1761.3	1627.4	1526.8	1501.1
12.5°	1849.4	1708.5	1540.7	1429.7	1404.0
15°	1829.2	1649.6	1454.7	1348.5	1324.2
17.5°	1807.1	1589.2	1377.7	1276.4	1254.9
20°	1779.3	1521.9	1306.9	1207.0	1189.0
22.5°	1747.4	1458.1	1238.9	1138.3	1117.5
25°	1709.2	1389.5	1170.2	1071.7	1046.1
27.5°	1667.6	1320.1	1099.5	999.6	975.3
30°	1621.1	1250.0	1023.9	926.8	908.0
32.5°	1567.7	1176.5	947.6	859.5	843.5
35°	1507.4	1099.5	872.0	795.7	782.5
37.5°	1441.5	1019.0	799.1	733.9	725.6
40°	1367.3	936.5	729.1	677.0	673.6
42.5°	1284.7	853.9	661.1	624.3	624.3
45°	1195.9	770.7	598.7	573.7	577.8
47.5°	1099.5	688.1	541.1	528.6	535.5
50°	997.5	611.1	487.7	486.3	495.3
52.5°	893.5	539.7	438.4	446.7	457.1
55°	787.3	474.5	395.4	410.0	420.4
57.5°	688.1	414.8	356.6	376.7	386.4
60°	584.1	361.4	320.5	344.8	354.5
62.5°	496.7	312.2	290.0	314.9	324.6
65°	404.4	269.2	260.1	288.6	297.6
67.5°	333.7	230.3	234.5	265.0	273.3
70°	265.7	194.9	211.6	243.5	251.8
72.5°	210.2	162.3	190.8	224.1	232.4
75°	156.8	136.0	170.0	206.7	215.0
77.5°	114.5	113.1	153.3	190.8	199.8
80°	80.5	92.3	138.0	174.8	185.2
82.5°	52.0	74.9	124.2	160.2	170.6
85°	29.1	61.0	111.0	147.8	158.9
87.5°	13.9	49.3	99.2	136.7	148.4
90°	0.7	39.5	88.1	125.6	138.0
92.5°	0.0	31.2	78.4	115.2	128.3
95°	0.0	25.0	68.7	105.4	118.6
97.5°	0.0	20.1	60.4	96.4	109.6
100°	0.0	16.0	53.4	87.4	101.3
102.5°	0.0	13.2	46.5	79.8	93.6
105°	0.0	11.1	40.9	72.1	85.3
107.5°	0.0	9.7	36.1	65.2	78.4
110°	0.0	8.3	32.6	59.0	71.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	7.6	28.4	53.4	65.2
115°	0.0	6.2	25.7	47.9	58.3
117.5°	0.0	5.5	22.9	43.0	52.7
120°	0.0	4.9	20.1	38.8	47.2
122.5°	0.0	4.2	18.0	34.0	41.6
125°	0.0	3.5	16.0	30.5	36.8
127.5°	0.7	2.8	14.6	27.1	31.9
130°	0.7	2.1	12.5	23.6	28.4
132.5°	0.7	2.1	11.1	20.8	24.3
135°	0.7	1.4	9.7	18.0	21.5
137.5°	0.7	1.4	8.3	16.0	18.0
140°	0.7	0.7	6.9	13.2	16.0
142.5°	0.7	0.7	5.5	11.1	13.2
145°	0.7	0.7	4.2	9.7	11.1
147.5°	0.7	0.7	3.5	7.6	9.0
150°	0.7	0.7	2.8	6.2	6.9
152.5°	0.7	0.7	2.1	4.9	5.5
155°	1.4	0.7	1.4	3.5	4.2
157.5°	1.4	1.4	1.4	2.8	2.8
160°	1.4	1.4	1.4	1.4	2.1
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)