

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: P236249

Luminaire Tested: **4SWLED-28SL-LN-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236249  
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-L850-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 1 ROW LED, NARROW LENS  
Light Source: (112) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

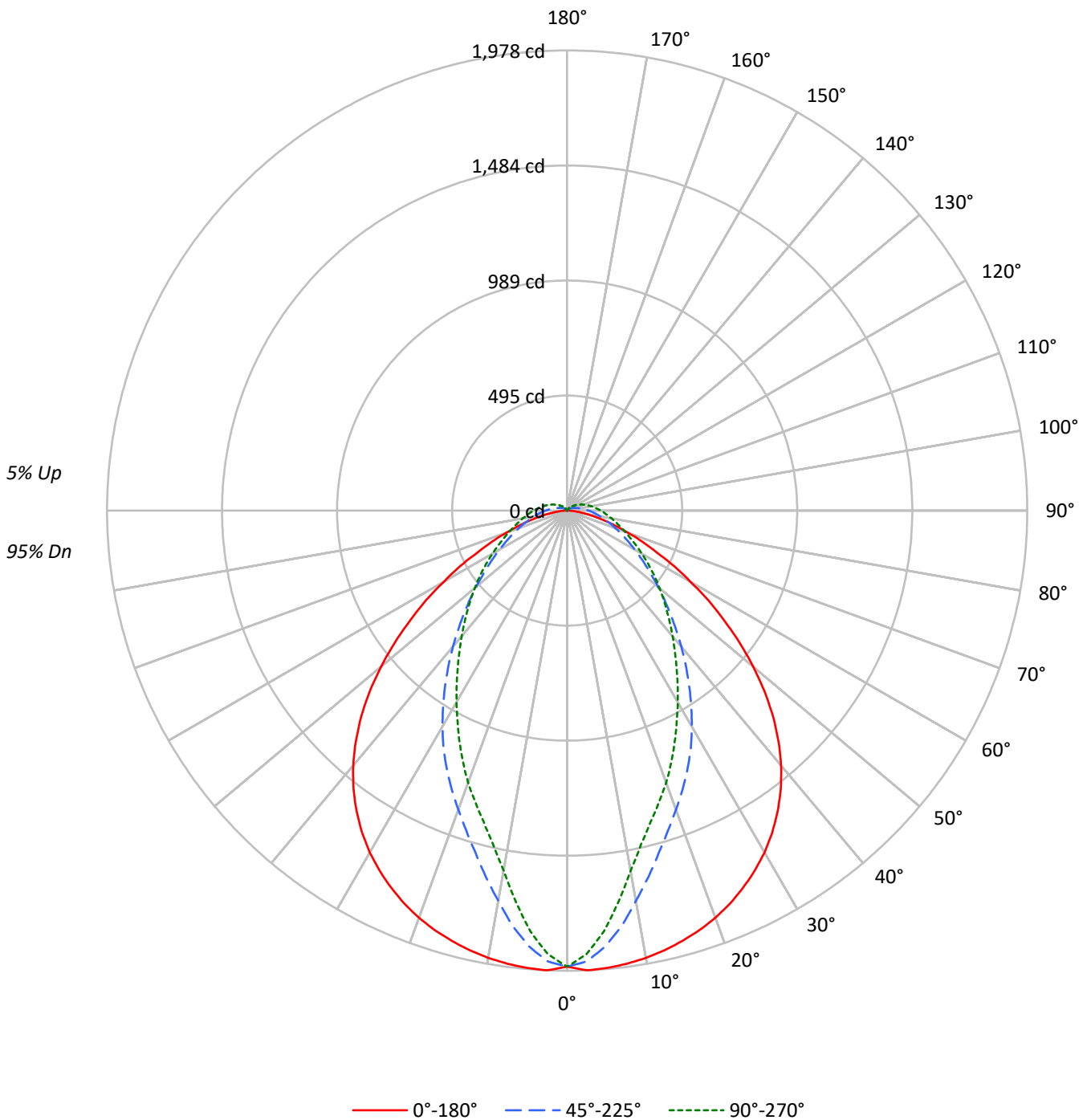
Lumens per Lamp: N/A  
Luminaire Lumens: 3677.1 lumens  
Efficiency: N/A  
Efficacy: 148.3 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 0.78 / 1  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

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

TEST NUMBER: P236249

CATALOG NUMBER: 4SWLED-28SL-LN-UNV-L850-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P236249

CATALOG NUMBER: 4SWLED-28SL-LN-UNV-L850-CD1-U

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

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

	0°	45°	90°
0°	14068	14068	14068
5°	14171	13199	12640
10°	14136	11787	10714
15°	14086	10468	9326
20°	14036	9415	8325
25°	13928	8506	7338
30°	13770	7566	6431
35°	13477	6605	5639
40°	13008	5708	4979
45°	12256	4889	4419
50°	11171	4195	3955
55°	9800	3622	3539
60°	8254	3165	3182
65°	6666	2811	2884
70°	5304	2545	2674
75°	4005	2324	2546
80°	2883	2207	2500
85°	1773	2156	2515



TEST NUMBER: P236249

CATALOG NUMBER: 4SWLED-28SL-LN-UNV-L850-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.7	4.8
10°-20°	444.1	12.1
20°-30°	602.2	16.4
30°-40°	639.6	17.4
40°-50°	572.0	15.6
50°-60°	443.2	12.1
60°-70°	306.3	8.3
70°-80°	195.8	5.3
80°-90°	119.9	3.3
90°-100°	74.6	2.0
100°-110°	46.8	1.3
110°-120°	28.7	0.8
120°-130°	16.3	0.4
130°-140°	8.3	0.2
140°-150°	3.4	0.1
150°-160°	1.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1221.0	33.2
0°-40°	1860.6	50.6
0°-60°	2875.8	78.2
0°-90°	3497.8	95.1
90°-120°	150.0	4.1
90°-150°	178.0	4.8
90°-180°	179.0	4.9
0°-180°	3677.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1960	1960	1960	1960	1960	
5°	1974	1926	1880	1830	1814	188
15°	1915	1727	1523	1412	1386	541
25°	1789	1454	1225	1122	1095	824
35°	1578	1151	913	833	819	985
45°	1252	807	627	600	605	961
55°	824	497	414	429	440	738
65°	423	282	272	302	312	429
75°	164	142	178	216	225	180
85°	30	64	116	155	166	37
90°	1	41	92	131	144	2
95°	0	26	72	110	124	0
105°	0	12	43	76	89	0
115°	0	6	27	50	61	0
125°	0	4	17	32	38	0
135°	1	2	10	19	22	1
145°	1	1	4	10	12	0
155°	2	1	2	4	4	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P236249

CATALOG NUMBER: 4SWLED-28SL-LN-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1960.4	1960.4	1960.4	1960.4	1960.4
2.5°	1977.8	1945.9	1939.3	1920.5	1908.1
5°	1973.5	1925.5	1880.5	1829.7	1814.4
7.5°	1964.7	1890.7	1799.9	1714.3	1694.6
10°	1952.4	1843.5	1703.4	1598.1	1571.2
12.5°	1935.7	1788.3	1612.6	1496.4	1469.6
15°	1914.6	1726.6	1522.6	1411.5	1386.1
17.5°	1891.4	1663.4	1442.0	1336.0	1313.5
20°	1862.4	1593.0	1367.9	1263.4	1244.5
22.5°	1829.0	1526.2	1296.8	1191.5	1169.7
25°	1789.0	1454.3	1224.9	1121.8	1094.9
27.5°	1745.5	1381.7	1150.8	1046.3	1020.9
30°	1696.8	1308.4	1071.7	970.0	950.4
32.5°	1640.9	1231.4	991.8	899.6	882.9
35°	1577.7	1150.8	912.7	832.8	819.0
37.5°	1508.8	1066.6	836.4	768.2	759.5
40°	1431.1	980.2	763.1	708.6	705.0
42.5°	1344.7	893.8	691.9	653.5	653.5
45°	1251.7	806.7	626.6	600.5	604.8
47.5°	1150.8	720.3	566.3	553.3	560.5
50°	1044.1	639.7	510.4	509.0	518.4
52.5°	935.2	564.9	458.9	467.6	478.5
55°	824.1	496.6	413.9	429.1	440.0
57.5°	720.3	434.2	373.2	394.3	404.4
60°	611.4	378.3	335.4	360.9	371.0
62.5°	519.9	326.7	303.5	329.6	339.8
65°	423.3	281.7	272.3	302.0	311.5
67.5°	349.2	241.1	245.4	277.4	286.1
70°	278.1	204.0	221.5	254.9	263.6
72.5°	220.0	169.9	199.7	234.5	243.2
75°	164.1	142.3	177.9	216.4	225.1
77.5°	119.8	118.3	160.5	199.7	209.1
80°	84.2	96.6	144.5	183.0	193.9
82.5°	54.5	78.4	130.0	167.7	178.6
85°	30.5	63.9	116.2	154.7	166.3
87.5°	14.5	51.6	103.8	143.0	155.4
90°	0.7	41.4	92.2	131.4	144.5
92.5°	0.0	32.7	82.0	120.5	134.3
95°	0.0	26.1	71.9	110.4	124.2
97.5°	0.0	21.1	63.2	100.9	114.7
100°	0.0	16.7	55.9	91.5	106.0
102.5°	0.0	13.8	48.6	83.5	98.0
105°	0.0	11.6	42.8	75.5	89.3
107.5°	0.0	10.2	37.8	68.3	82.0
110°	0.0	8.7	34.1	61.7	74.8



TEST NUMBER: P236249

CATALOG NUMBER: 4SWLED-28SL-LN-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	8.0	29.8	55.9	68.3
115°	0.0	6.5	26.9	50.1	61.0
117.5°	0.0	5.8	24.0	45.0	55.2
120°	0.0	5.1	21.1	40.7	49.4
122.5°	0.0	4.4	18.9	35.6	43.6
125°	0.0	3.6	16.7	31.9	38.5
127.5°	0.7	2.9	15.2	28.3	33.4
130°	0.7	2.2	13.1	24.7	29.8
132.5°	0.7	2.2	11.6	21.8	25.4
135°	0.7	1.5	10.2	18.9	22.5
137.5°	0.7	1.5	8.7	16.7	18.9
140°	0.7	0.7	7.3	13.8	16.7
142.5°	0.7	0.7	5.8	11.6	13.8
145°	0.7	0.7	4.4	10.2	11.6
147.5°	0.7	0.7	3.6	8.0	9.4
150°	0.7	0.7	2.9	6.5	7.3
152.5°	0.7	0.7	2.2	5.1	5.8
155°	1.5	0.7	1.5	3.6	4.4
157.5°	1.5	1.5	1.5	2.9	2.9
160°	1.5	1.5	1.5	1.5	2.2
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)