

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: P236248

Luminaire Tested: **4SWLED-28SL-LN-UNV-L840-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236248  
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-L840-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 1 ROW LED, NARROW LENS  
Light Source: (112) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

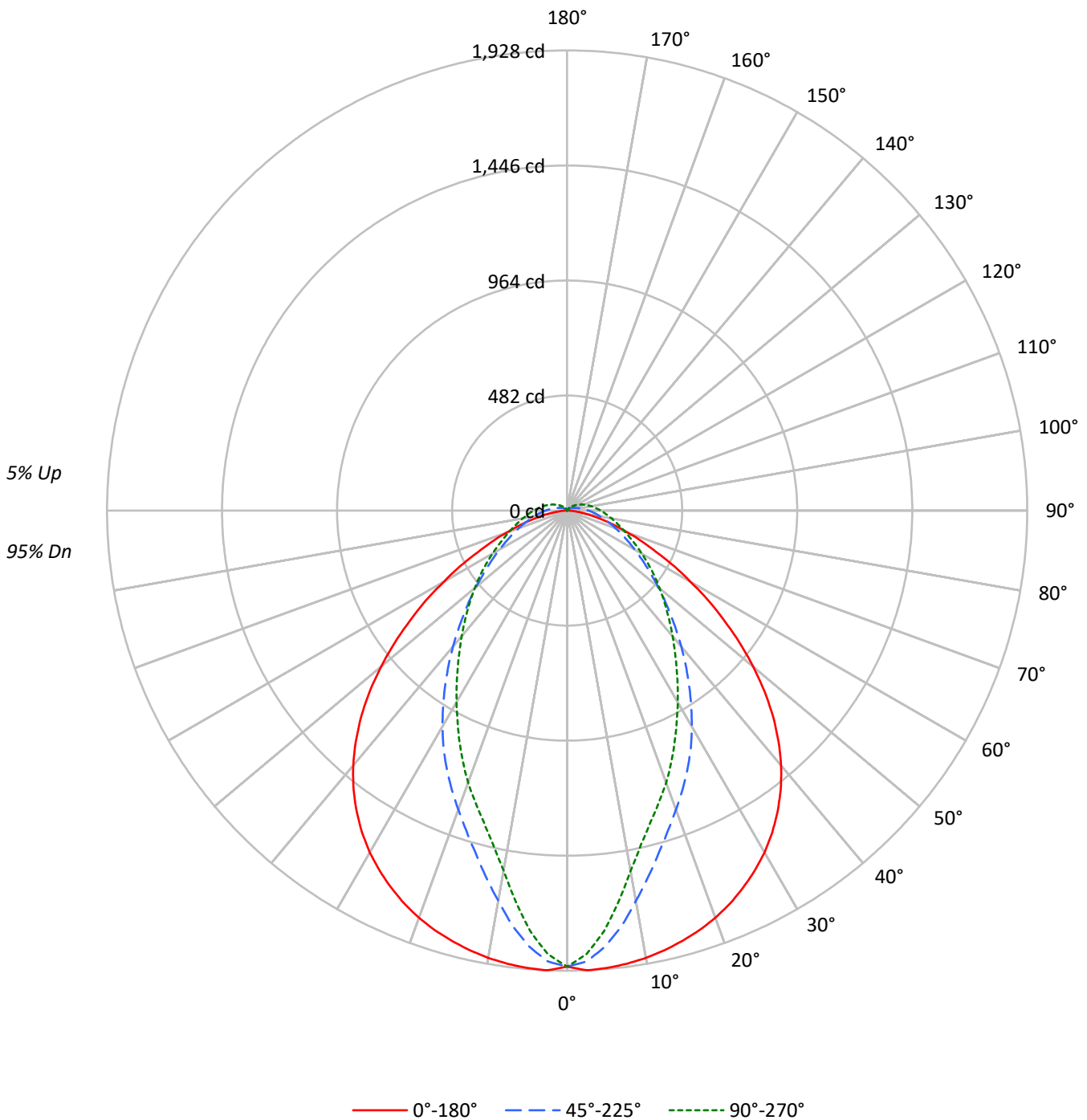
Lumens per Lamp: N/A  
Luminaire Lumens: 3584.0 lumens  
Efficiency: N/A  
Efficacy: 144.5 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 0.78 / 1  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

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	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°	13712	13712	13712
5°	13812	12865	12321
10°	13778	11489	10443
15°	13730	10203	9090
20°	13681	9177	8114
25°	13576	8290	7153
30°	13422	7375	6269
35°	13136	6437	5497
40°	12679	5563	4854
45°	11946	4765	4307
50°	10888	4089	3855
55°	9551	3530	3450
60°	8044	3086	3101
65°	6498	2739	2811
70°	5170	2480	2606
75°	3902	2265	2481
80°	2811	2150	2437
85°	1726	2100	2451



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.3	4.8
10°-20°	432.9	12.1
20°-30°	586.9	16.4
30°-40°	623.5	17.4
40°-50°	557.5	15.6
50°-60°	432.0	12.1
60°-70°	298.6	8.3
70°-80°	190.8	5.3
80°-90°	116.9	3.3
90°-100°	72.7	2.0
100°-110°	45.6	1.3
110°-120°	28.0	0.8
120°-130°	15.9	0.4
130°-140°	8.1	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°	1190.1	33.2
0°-40°	1813.6	50.6
0°-60°	2803.0	78.2
0°-90°	3409.3	95.1
90°-120°	146.2	4.1
90°-150°	173.5	4.8
90°-180°	175.0	4.9
0°-180°	3584.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1911	1911	1911	1911	1911	
5°	1924	1877	1833	1783	1769	183
15°	1866	1683	1484	1376	1351	527
25°	1744	1418	1194	1093	1067	803
35°	1538	1122	890	812	798	960
45°	1220	786	611	585	590	937
55°	803	484	403	418	429	719
65°	413	275	265	294	304	418
75°	160	139	173	211	219	176
85°	30	62	113	151	162	36
90°	1	40	90	128	141	2
95°	0	26	70	108	121	0
105°	0	11	42	74	87	0
115°	0	6	26	49	59	0
125°	0	4	16	31	38	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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CATALOG NUMBER: 4SWLED-28SL-LN-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1910.8	1910.8	1910.8	1910.8	1910.8
2.5°	1927.8	1896.7	1890.3	1871.9	1859.8
5°	1923.5	1876.8	1833.0	1783.4	1768.6
7.5°	1915.1	1842.9	1754.4	1670.9	1651.8
10°	1903.0	1796.9	1660.3	1557.7	1531.5
12.5°	1886.7	1743.1	1571.8	1458.6	1432.4
15°	1866.2	1682.9	1484.1	1375.8	1351.0
17.5°	1843.6	1621.4	1405.5	1302.2	1280.2
20°	1815.3	1552.7	1333.3	1231.4	1213.0
22.5°	1782.7	1487.6	1264.0	1161.3	1140.1
25°	1743.8	1417.5	1193.9	1093.4	1067.2
27.5°	1701.3	1346.8	1121.7	1019.8	995.0
30°	1653.9	1275.3	1044.6	945.5	926.4
32.5°	1599.4	1200.3	966.7	876.8	860.6
35°	1537.8	1121.7	889.6	811.7	798.3
37.5°	1470.6	1039.6	815.3	748.8	740.3
40°	1394.9	955.4	743.8	690.7	687.2
42.5°	1310.7	871.2	674.4	636.9	636.9
45°	1220.1	786.3	610.7	585.3	589.5
47.5°	1121.7	702.0	552.0	539.3	546.3
50°	1017.7	623.5	497.5	496.1	505.3
52.5°	911.5	550.6	447.3	455.8	466.4
55°	803.2	484.1	403.4	418.3	428.9
57.5°	702.0	423.2	363.8	384.3	394.2
60°	595.9	368.7	327.0	351.7	361.6
62.5°	506.7	318.5	295.8	321.3	331.2
65°	412.6	274.6	265.4	294.4	303.6
67.5°	340.4	235.0	239.2	270.3	278.8
70°	271.1	198.9	215.9	248.4	256.9
72.5°	214.4	165.6	194.6	228.6	237.1
75°	159.9	138.7	173.4	210.9	219.4
77.5°	116.8	115.4	156.4	194.6	203.8
80°	82.1	94.1	140.8	178.3	189.0
82.5°	53.1	76.4	126.7	163.5	174.1
85°	29.7	62.3	113.2	150.7	162.1
87.5°	14.2	50.2	101.2	139.4	151.4
90°	0.7	40.3	89.9	128.1	140.8
92.5°	0.0	31.8	80.0	117.5	130.9
95°	0.0	25.5	70.1	107.6	121.0
97.5°	0.0	20.5	61.6	98.4	111.8
100°	0.0	16.3	54.5	89.2	103.3
102.5°	0.0	13.4	47.4	81.4	95.5
105°	0.0	11.3	41.8	73.6	87.0
107.5°	0.0	9.9	36.8	66.5	80.0
110°	0.0	8.5	33.3	60.2	72.9



TEST NUMBER: P236248

CATALOG NUMBER: 4SWLED-28SL-LN-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	7.8	29.0	54.5	66.5
115°	0.0	6.4	26.2	48.8	59.4
117.5°	0.0	5.7	23.4	43.9	53.8
120°	0.0	5.0	20.5	39.6	48.1
122.5°	0.0	4.2	18.4	34.7	42.5
125°	0.0	3.5	16.3	31.1	37.5
127.5°	0.7	2.8	14.9	27.6	32.6
130°	0.7	2.1	12.7	24.1	29.0
132.5°	0.7	2.1	11.3	21.2	24.8
135°	0.7	1.4	9.9	18.4	21.9
137.5°	0.7	1.4	8.5	16.3	18.4
140°	0.7	0.7	7.1	13.4	16.3
142.5°	0.7	0.7	5.7	11.3	13.4
145°	0.7	0.7	4.2	9.9	11.3
147.5°	0.7	0.7	3.5	7.8	9.2
150°	0.7	0.7	2.8	6.4	7.1
152.5°	0.7	0.7	2.1	5.0	5.7
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)