

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: P236230

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

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236230  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-16)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SWLED-28SL-LC-UNV-L840-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 1 ROW LED, CLEAR LENS  
Light Source: (112) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

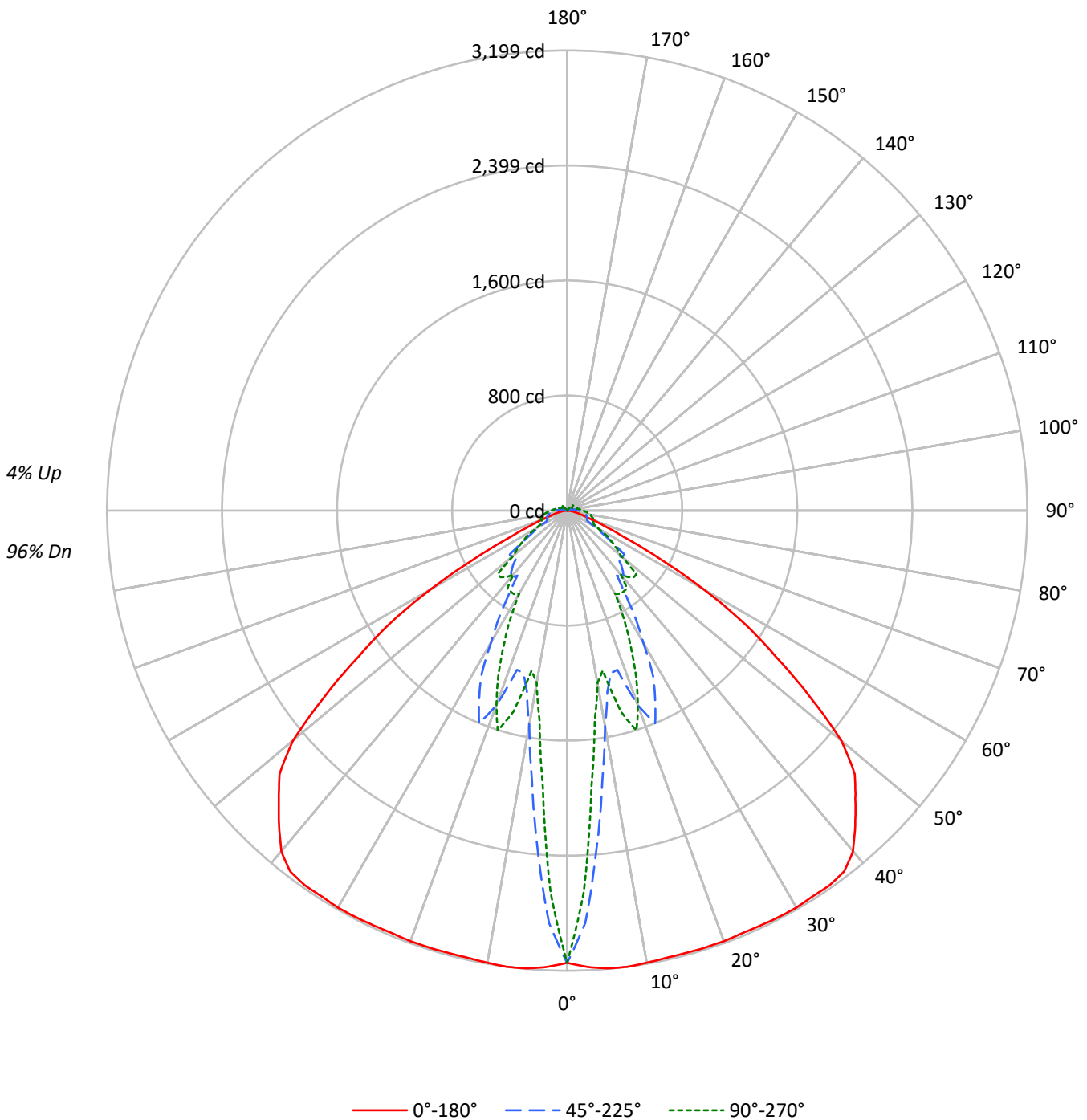
Lumens per Lamp: N/A  
Luminaire Lumens: 3842.0 lumens  
Efficiency: N/A  
Efficacy: 154.9 lumens/watt  
Spacing Criteria (0/90/45): 1.54 / 0.24 / 0.77  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

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	109	109	109	104	104	104	99	99	99	96				
1	109	105	101	97	106	102	99	95	97	94	92	93	90	88	89	87	85	83				
2	100	93	87	82	98	91	85	81	87	82	78	83	79	76	80	77	74	72				
3	93	83	76	70	90	82	75	69	78	72	68	75	70	66	72	68	65	62				
4	86	75	67	61	83	73	66	61	71	64	59	68	63	58	65	61	57	55				
5	80	68	60	54	77	67	59	53	64	58	52	62	56	52	60	55	51	49				
6	74	62	54	48	72	61	53	47	59	52	47	57	51	46	55	50	45	44				
7	69	57	49	43	67	56	48	43	54	47	42	52	46	42	51	45	41	39				
8	65	52	44	39	63	51	44	39	50	43	38	48	42	38	47	41	37	36				
9	61	48	41	35	59	47	40	35	46	39	35	45	39	34	44	38	34	32				
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	35	31	30				

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

	0°	45°	90°
0°	22562	22562	22562
5°	22942	16536	13451
10°	23112	10506	8289
15°	23429	8040	9739
20°	24010	9934	9612
25°	24776	10051	7027
30°	25860	7458	4510
35°	27166	5002	4721
40°	28103	4588	4103
45°	27751	4129	4787
50°	26637	4099	3708
55°	21067	3238	3061
60°	14852	1969	2154
65°	6931	1563	1893
70°	3480	1691	1916
75°	2123	1830	2032
80°	1380	1901	2153
85°	697	1968	2087



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	214.9	5.6
10°-20°	470.8	12.3
20°-30°	672.1	17.5
30°-40°	717.8	18.7
40°-50°	667.7	17.4
50°-60°	490.9	12.8
60°-70°	218.4	5.7
70°-80°	143.8	3.7
80°-90°	99.6	2.6
90°-100°	58.8	1.5
100°-110°	34.0	0.9
110°-120°	20.7	0.5
120°-130°	14.9	0.4
130°-140°	12.6	0.3
140°-150°	3.7	0.1
150°-160°	1.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1357.9	35.3
0°-40°	2075.7	54.0
0°-60°	3234.3	84.2
0°-90°	3696.1	96.2
90°-120°	113.5	3.0
90°-150°	144.7	3.8
90°-180°	146.0	3.8
0°-180°	3842.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3144	3144	3144	3144	3144	
5°	3195	2850	2356	2050	1931	305
15°	3184	1726	1170	1292	1448	903
25°	3182	1113	1448	1139	1048	1474
35°	3180	1341	691	702	686	1988
45°	2834	576	529	588	655	2182
55°	1772	343	370	374	381	1595
65°	440	133	151	192	204	512
75°	87	86	140	185	180	101
85°	12	50	106	133	138	16
90°	0	38	82	105	111	1
95°	0	27	60	78	91	0
105°	0	15	34	47	63	0
115°	1	8	21	32	41	0
125°	1	4	13	26	42	1
135°	1	1	11	35	42	1
145°	1	1	5	9	9	1
155°	1	1	2	4	3	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°	3144.1	3144.1	3144.1	3144.1	3144.1
2.5°	3176.0	3038.0	2869.6	2721.0	2657.4
5°	3195.1	2849.8	2356.0	2049.6	1930.8
7.5°	3199.3	2585.9	1878.4	1540.9	1470.9
10°	3192.2	2276.0	1518.3	1253.0	1215.5
12.5°	3185.2	1988.1	1289.1	1157.5	1139.8
15°	3184.5	1726.3	1169.5	1291.9	1447.5
17.5°	3185.9	1473.0	1161.0	1607.4	1603.9
20°	3185.9	1286.9	1443.3	1534.6	1436.9
22.5°	3179.5	1155.3	1600.4	1361.2	1253.7
25°	3182.3	1112.9	1447.5	1139.1	1048.5
27.5°	3185.9	1170.2	1294.7	953.0	863.9
30°	3186.6	1332.2	1056.3	771.2	666.5
32.5°	3178.8	1415.7	878.7	614.1	688.4
35°	3180.2	1340.7	691.2	701.8	685.6
37.5°	3162.5	1169.5	568.8	651.6	683.4
40°	3091.8	942.4	613.4	611.3	580.9
42.5°	2964.4	731.6	573.8	556.8	627.6
45°	2834.2	575.9	529.2	587.9	655.1
47.5°	2712.6	464.1	470.5	645.2	653.7
50°	2489.7	435.8	498.8	546.2	486.1
52.5°	2129.6	396.9	503.0	427.3	435.1
55°	1771.6	343.1	370.0	374.3	380.6
57.5°	1465.2	324.7	279.5	338.2	329.0
60°	1100.2	283.0	208.7	266.0	251.2
62.5°	727.3	178.3	160.6	205.9	208.0
65°	440.1	133.0	151.4	191.7	204.5
67.5°	277.3	117.4	149.3	193.9	191.0
70°	182.5	106.1	147.2	193.9	188.9
72.5°	123.1	96.2	144.3	191.7	192.4
75°	87.0	85.6	140.1	185.4	179.7
77.5°	60.8	76.4	134.4	173.3	168.4
80°	40.3	67.2	124.5	160.6	167.0
82.5°	24.1	58.0	116.0	147.2	153.5
85°	12.0	50.2	106.1	133.0	138.0
87.5°	5.0	43.9	94.1	118.2	122.4
90°	0.0	37.5	82.1	104.7	111.1
92.5°	0.0	31.8	70.7	91.3	101.2
95°	0.0	26.9	60.1	78.5	91.3
97.5°	0.0	23.3	51.6	68.6	82.8
100°	0.0	19.8	44.6	59.4	75.7
102.5°	0.0	17.7	38.2	52.4	69.3
105°	0.0	14.9	34.0	46.7	63.0
107.5°	0.0	12.7	29.7	41.7	56.6
110°	0.0	11.3	26.2	38.2	50.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	9.9	24.1	34.7	45.3
115°	0.7	8.5	21.2	31.8	41.0
117.5°	0.7	7.1	19.1	29.0	38.2
120°	0.7	5.7	17.0	26.9	37.5
122.5°	0.7	4.2	14.9	25.5	38.9
125°	0.7	3.5	12.7	25.5	42.4
127.5°	0.7	2.8	10.6	28.3	48.8
130°	0.7	2.1	10.6	34.0	55.2
132.5°	0.7	1.4	10.6	37.5	53.1
135°	0.7	1.4	11.3	34.7	42.4
137.5°	0.7	1.4	11.3	26.9	30.4
140°	0.7	1.4	9.2	19.1	21.2
142.5°	0.7	1.4	6.4	13.4	14.1
145°	1.4	1.4	5.0	9.2	9.2
147.5°	1.4	1.4	3.5	6.4	6.4
150°	1.4	1.4	2.8	5.0	5.0
152.5°	1.4	1.4	2.1	4.2	3.5
155°	1.4	1.4	2.1	3.5	2.8
157.5°	1.4	1.4	1.4	2.8	2.1
160°	1.4	2.1	2.1	2.8	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)