

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: P236242

Luminaire Tested: **4SWLED-16SL-LN-UNV-L840-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236242  
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-16SL-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**

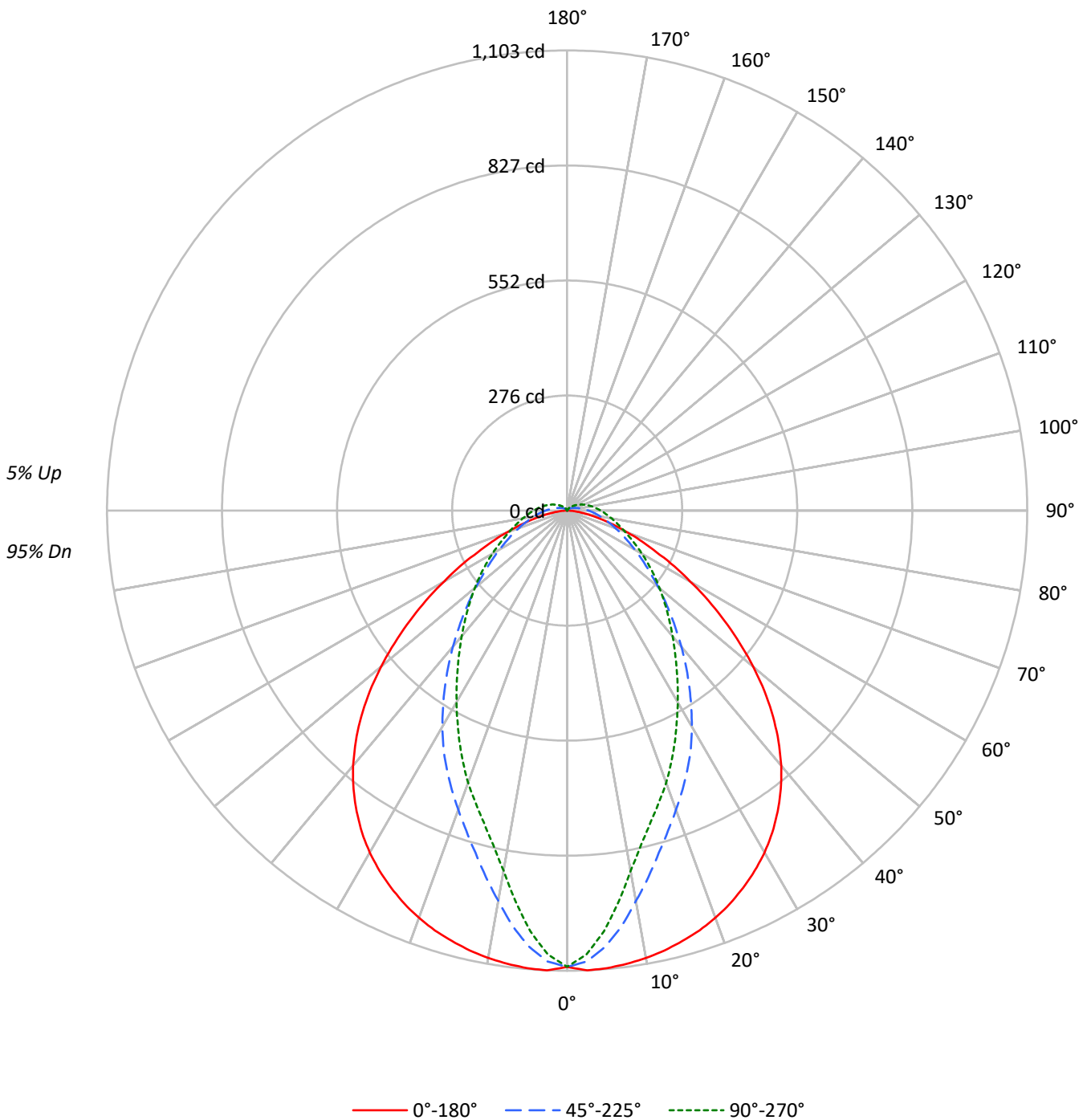
Lumens per Lamp: N/A  
Luminaire Lumens: 2051.0 lumens  
Efficiency: N/A  
Efficacy: 143.4 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 0.78 / 1  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 14.3  
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°	7847	7847	7847
5°	7904	7362	7051
10°	7884	6574	5976
15°	7858	5839	5201
20°	7829	5252	4644
25°	7769	4744	4093
30°	7681	4221	3587
35°	7518	3684	3145
40°	7255	3184	2778
45°	6836	2727	2465
50°	6231	2340	2206
55°	5467	2020	1974
60°	4603	1766	1775
65°	3718	1568	1608
70°	2958	1419	1491
75°	2233	1296	1419
80°	1609	1231	1394
85°	988	1202	1402



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.4	4.8
10°-20°	247.7	12.1
20°-30°	335.9	16.4
30°-40°	356.8	17.4
40°-50°	319.0	15.6
50°-60°	247.2	12.1
60°-70°	170.9	8.3
70°-80°	109.2	5.3
80°-90°	66.9	3.3
90°-100°	41.6	2.0
100°-110°	26.1	1.3
110°-120°	16.0	0.8
120°-130°	9.1	0.4
130°-140°	4.6	0.2
140°-150°	1.9	0.1
150°-160°	0.6	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	681.0	33.2
0°-40°	1037.8	50.6
0°-60°	1604.1	78.2
0°-90°	1951.0	95.1
90°-120°	83.7	4.1
90°-150°	99.3	4.8
90°-180°	100.0	4.9
0°-180°	2051.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1094	1094	1094	1094	1094	
5°	1101	1074	1049	1021	1012	105
15°	1068	963	849	787	773	302
25°	998	811	683	626	611	460
35°	880	642	509	464	457	549
45°	698	450	350	335	337	536
55°	460	277	231	239	245	412
65°	236	157	152	168	174	239
75°	92	79	99	121	126	101
85°	17	36	65	86	93	20
90°	0	23	51	73	81	1
95°	0	15	40	62	69	0
105°	0	6	24	42	50	0
115°	0	4	15	28	34	0
125°	0	2	9	18	22	0
135°	0	1	6	10	13	0
145°	0	0	2	6	6	0
155°	1	0	1	2	2	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°	1093.5	1093.5	1093.5	1093.5	1093.5
2.5°	1103.2	1085.4	1081.7	1071.2	1064.3
5°	1100.8	1074.0	1048.9	1020.6	1012.1
7.5°	1095.9	1054.6	1004.0	956.2	945.3
10°	1089.0	1028.3	950.1	891.4	876.4
12.5°	1079.7	997.5	899.5	834.7	819.7
15°	1068.0	963.1	849.3	787.3	773.1
17.5°	1055.0	927.8	804.3	745.2	732.6
20°	1038.8	888.6	763.0	704.7	694.2
22.5°	1020.2	851.3	723.3	664.6	652.4
25°	997.9	811.2	683.2	625.7	610.7
27.5°	973.6	770.7	641.9	583.6	569.4
30°	946.5	729.8	597.8	541.1	530.1
32.5°	915.3	686.9	553.2	501.8	492.5
35°	880.1	641.9	509.1	464.5	456.8
37.5°	841.6	594.9	466.6	428.5	423.6
40°	798.2	546.7	425.7	395.3	393.3
42.5°	750.1	498.5	386.0	364.5	364.5
45°	698.2	450.0	349.5	334.9	337.4
47.5°	641.9	401.8	315.9	308.6	312.7
50°	582.4	356.8	284.7	283.9	289.2
52.5°	521.6	315.1	256.0	260.8	266.9
55°	459.7	277.0	230.8	239.4	245.4
57.5°	401.8	242.2	208.2	219.9	225.6
60°	341.0	211.0	187.1	201.3	207.0
62.5°	290.0	182.2	169.3	183.9	189.5
65°	236.1	157.1	151.9	168.5	173.7
67.5°	194.8	134.5	136.9	154.7	159.6
70°	155.1	113.8	123.5	142.2	147.0
72.5°	122.7	94.8	111.4	130.8	135.7
75°	91.5	79.4	99.2	120.7	125.5
77.5°	66.8	66.0	89.5	111.4	116.6
80°	47.0	53.9	80.6	102.1	108.1
82.5°	30.4	43.7	72.5	93.6	99.6
85°	17.0	35.6	64.8	86.3	92.7
87.5°	8.1	28.8	57.9	79.8	86.7
90°	0.4	23.1	51.4	73.3	80.6
92.5°	0.0	18.2	45.8	67.2	74.9
95°	0.0	14.6	40.1	61.6	69.3
97.5°	0.0	11.7	35.2	56.3	64.0
100°	0.0	9.3	31.2	51.0	59.1
102.5°	0.0	7.7	27.1	46.6	54.7
105°	0.0	6.5	23.9	42.1	49.8
107.5°	0.0	5.7	21.1	38.1	45.8
110°	0.0	4.9	19.0	34.4	41.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	4.5	16.6	31.2	38.1
115°	0.0	3.6	15.0	27.9	34.0
117.5°	0.0	3.2	13.4	25.1	30.8
120°	0.0	2.8	11.7	22.7	27.5
122.5°	0.0	2.4	10.5	19.8	24.3
125°	0.0	2.0	9.3	17.8	21.5
127.5°	0.4	1.6	8.5	15.8	18.6
130°	0.4	1.2	7.3	13.8	16.6
132.5°	0.4	1.2	6.5	12.1	14.2
135°	0.4	0.8	5.7	10.5	12.6
137.5°	0.4	0.8	4.9	9.3	10.5
140°	0.4	0.4	4.0	7.7	9.3
142.5°	0.4	0.4	3.2	6.5	7.7
145°	0.4	0.4	2.4	5.7	6.5
147.5°	0.4	0.4	2.0	4.5	5.3
150°	0.4	0.4	1.6	3.6	4.0
152.5°	0.4	0.4	1.2	2.8	3.2
155°	0.8	0.4	0.8	2.0	2.4
157.5°	0.8	0.8	0.8	1.6	1.6
160°	0.8	0.8	0.8	0.8	1.2
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)