

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: P236191

Luminaire Tested: **2SWLED-16SL-LN-UNV-L840-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236191  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-5)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2SWLED-16SL-LN-UNV-L840-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
2FT FIXTURE WITH 1 ROW LED, NARROW LENS  
Light Source: (56) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

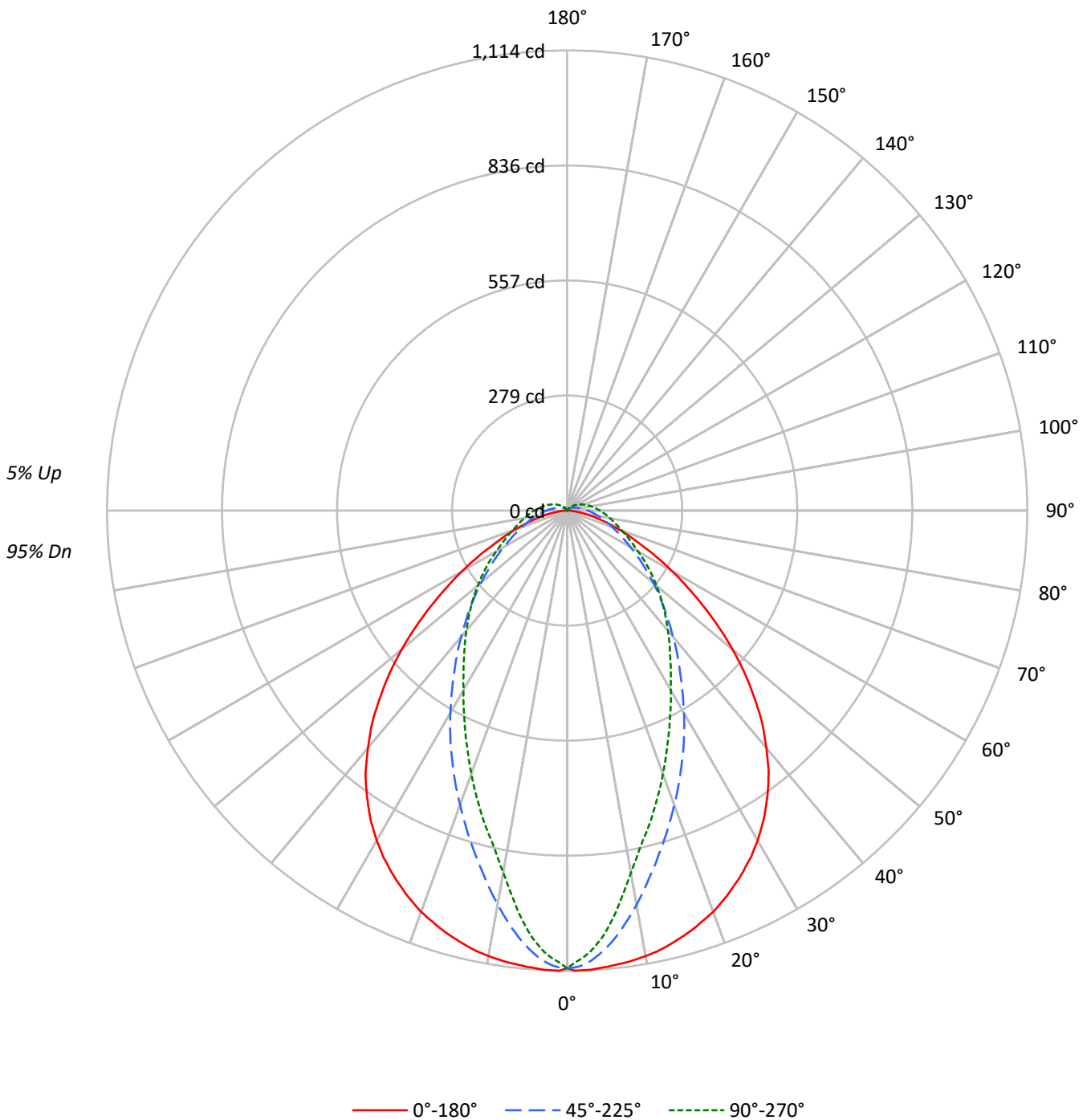
Lumens per Lamp: N/A  
Luminaire Lumens: 1983.0 lumens  
Efficiency: N/A  
Efficacy: 124.7 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 0.74 / 0.96  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 2' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 15.9  
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	114	114	114	114	108	108	108	103	103	103	97	97	97	95				95
1	108	103	99	96	105	101	97	93	95	92	90	91	88	86	86	84	83	80				80
2	99	91	85	80	96	89	83	78	85	80	76	81	77	73	77	74	71	69				69
3	91	81	74	68	88	79	72	67	76	70	65	72	67	63	69	65	62	59				59
4	84	73	65	59	82	71	64	58	68	62	57	65	60	55	63	58	54	52				52
5	78	66	58	52	76	65	57	51	62	55	50	60	54	49	57	52	48	46				46
6	73	60	52	46	70	59	51	45	57	50	45	55	49	44	53	47	43	41				41
7	68	55	47	41	66	54	46	41	52	45	40	50	44	40	49	43	39	37				37
8	63	51	43	37	62	50	42	37	48	41	36	47	40	36	45	40	35	34				34
9	59	47	39	34	58	46	39	34	45	38	33	43	37	33	42	36	32	31				31
10	56	44	36	31	55	43	36	31	42	35	31	40	34	30	39	34	30	28				28

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

	0°	45°	90°
0°	15900	15900	15900
5°	15871	14910	14349
10°	15757	13350	12138
15°	15583	11754	10484
20°	15384	10350	9068
25°	15059	9072	7835
30°	14665	7881	6790
35°	14086	6799	5990
40°	13243	5865	5361
45°	12122	5069	4817
50°	10735	4381	4305
55°	9110	3773	3842
60°	7480	3258	3406
65°	5879	2858	3081
70°	4639	2561	2871
75°	3505	2372	2728
80°	2444	2237	2694
85°	1446	2182	2773



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.0	5.0
10°-20°	249.8	12.6
20°-30°	328.4	16.6
30°-40°	341.1	17.2
40°-50°	303.0	15.3
50°-60°	233.0	11.8
60°-70°	159.0	8.0
70°-80°	103.1	5.2
80°-90°	64.7	3.3
90°-100°	41.2	2.1
100°-110°	26.7	1.3
110°-120°	16.8	0.8
120°-130°	9.7	0.5
130°-140°	4.9	0.2
140°-150°	2.0	0.1
150°-160°	0.6	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	677.1	34.1
0°-40°	1018.2	51.3
0°-60°	1554.3	78.4
0°-90°	1881.1	94.9
90°-120°	84.7	4.3
90°-150°	101.3	5.1
90°-180°	102.0	5.1
0°-180°	1983.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1108	1108	1108	1108	1108	
5°	1109	1094	1064	1038	1030	105
15°	1069	983	860	794	779	302
25°	983	814	660	598	584	453
35°	845	624	477	439	435	527
45°	641	427	331	326	330	493
55°	402	264	221	232	239	361
65°	200	148	143	160	166	203
75°	80	76	95	115	121	88
85°	16	34	63	84	92	18
90°	0	22	50	72	80	1
95°	0	14	39	61	69	0
105°	0	7	25	43	51	0
115°	0	4	16	30	35	0
125°	0	2	10	19	23	0
135°	1	1	6	11	14	0
145°	1	1	2	6	6	1
155°	1	1	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°	1107.9	1107.9	1107.9	1107.9	1107.9
1°	1114.4	1112.0	1106.3	1097.5	1094.3
2°	1113.6	1109.5	1100.7	1088.6	1083.8
3°	1112.8	1105.5	1091.9	1075.0	1069.3
4°	1110.4	1100.7	1079.0	1058.1	1050.9
5°	1108.7	1094.3	1064.5	1038.0	1029.9
6°	1106.3	1087.0	1048.4	1014.7	1004.2
7°	1103.9	1079.0	1029.9	989.7	976.9
8°	1101.5	1070.1	1009.8	962.4	947.1
9°	1098.3	1060.5	989.7	935.9	918.2
10°	1095.1	1050.0	968.8	909.3	890.0
11°	1091.1	1038.8	947.1	882.8	864.3
12°	1087.0	1025.9	924.6	858.7	840.2
13°	1081.4	1012.3	902.9	836.2	817.7
14°	1075.8	998.6	882.0	814.5	799.2
15°	1069.3	983.3	860.3	793.6	779.1
16°	1062.9	968.0	840.2	772.7	758.2
17°	1056.5	952.0	819.3	752.6	738.1
18°	1048.4	935.9	798.4	732.5	718.0
19°	1041.2	919.8	778.3	713.2	697.9
20°	1034.0	902.9	758.2	693.1	677.8
22.5°	1009.8	860.3	709.1	644.8	629.5
25°	983.3	814.5	660.1	598.2	584.5
26°	972.1	796.8	641.6	580.5	566.8
27°	960.0	778.3	622.3	562.8	549.9
28°	948.7	759.8	603.0	545.9	533.9
29°	935.1	741.3	584.5	529.0	518.6
30°	922.2	722.0	565.2	513.0	501.7
32.5°	886.0	673.0	519.4	474.4	467.1
35°	845.0	623.9	476.8	439.0	435.0
37.5°	801.6	574.1	437.4	409.2	406.8
40°	750.1	524.2	398.8	379.5	379.5
42.5°	699.5	474.4	363.4	352.2	353.8
45°	640.8	426.9	331.3	325.6	329.6
47.5°	583.7	381.1	300.7	300.7	305.5
50°	522.6	339.3	272.6	276.6	282.2
52.5°	461.5	299.9	245.2	254.1	260.5
55°	402.0	263.7	221.1	232.4	238.8
57.5°	345.7	230.8	197.8	212.3	218.7
60°	293.5	198.6	177.7	193.0	198.6
62.5°	246.0	172.1	159.2	175.3	181.7
65°	200.2	147.9	143.1	160.0	166.4
67.5°	164.8	127.0	128.6	147.1	152.8
70°	132.7	107.7	115.8	135.1	141.5
72.5°	105.3	90.9	104.5	124.6	130.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	80.4	75.6	94.9	115.0	120.6
77.5°	59.5	62.7	85.2	106.1	112.6
80°	41.8	51.5	77.2	98.1	104.5
82.5°	27.3	41.8	69.1	90.9	98.1
85°	16.1	33.8	62.7	84.4	91.7
87.5°	7.2	27.3	56.3	78.0	85.2
90°	0.0	22.5	49.8	71.6	79.6
92.5°	0.0	17.7	45.0	65.9	74.0
95°	0.0	14.5	39.4	61.1	69.1
97.5°	0.0	12.1	35.4	56.3	63.5
100°	0.0	9.6	31.4	51.5	59.5
102.5°	0.0	8.0	28.1	46.6	54.7
105°	0.0	7.2	24.9	42.6	50.7
107.5°	0.0	5.6	22.5	39.4	46.6
110°	0.0	4.8	20.1	36.2	42.6
112.5°	0.0	4.8	17.7	32.2	38.6
115°	0.0	4.0	16.1	29.7	35.4
117.5°	0.0	3.2	14.5	26.5	32.2
120°	0.0	2.4	12.9	24.1	28.9
122.5°	0.0	2.4	11.3	21.7	25.7
125°	0.0	1.6	10.5	19.3	23.3
127.5°	0.0	1.6	8.8	16.9	20.1
130°	0.0	0.8	8.0	15.3	17.7
132.5°	0.0	0.8	7.2	12.9	15.3
135°	0.8	0.8	5.6	11.3	13.7
137.5°	0.0	0.8	4.8	9.6	11.3
140°	0.8	0.8	4.0	8.0	9.6
142.5°	0.8	0.8	3.2	7.2	8.0
145°	0.8	0.8	2.4	5.6	6.4
147.5°	0.8	0.8	1.6	4.8	5.6
150°	0.8	0.8	1.6	3.2	4.0
152.5°	0.8	0.8	0.8	2.4	3.2
155°	0.8	0.8	0.8	1.6	2.4
157.5°	0.8	0.8	0.8	0.8	1.6
160°	0.8	0.8	0.8	0.8	0.8
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)