

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: P236336

Luminaire Tested: **4SWLED-80HL-LN-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236336  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-29)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SWLED-80HL-LN-UNV-L850-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 2 ROW LED, NARROW LENS  
Light Source: (224) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

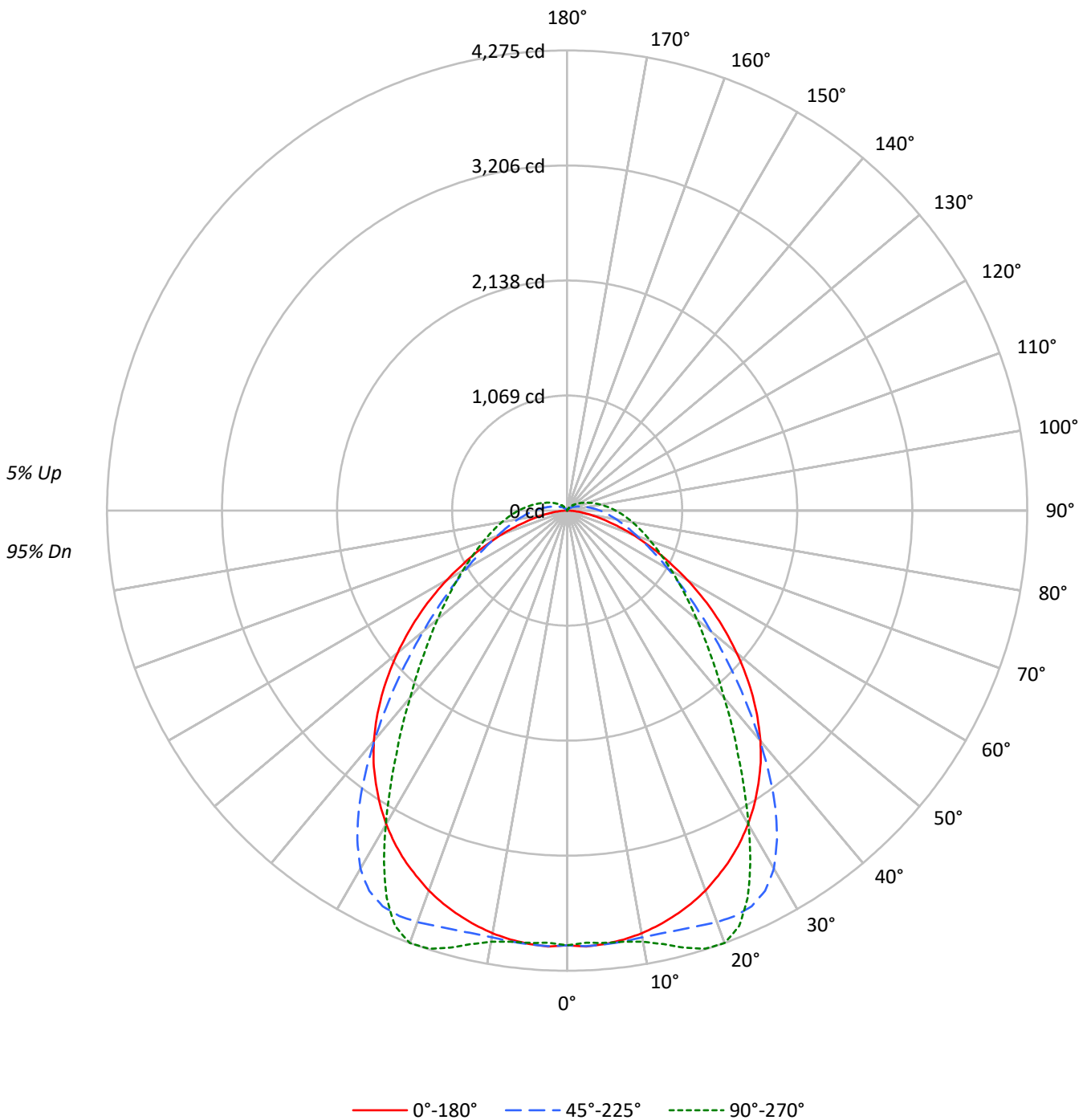
Lumens per Lamp: N/A  
Luminaire Lumens: 10793.0 lumens  
Efficiency: N/A  
Efficacy: 131.0 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.28  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 82.4  
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	0
RCR																		
0	118	118	118	118	114	114	114	114	108	108	108	103	103	103	97	97	97	95
1	108	103	99	95	104	100	96	93	95	92	89	90	88	85	86	84	82	79
2	98	90	84	78	95	88	82	77	84	79	74	80	76	72	76	73	70	67
3	90	80	72	66	87	78	71	65	75	68	63	71	66	62	68	64	60	58
4	83	72	63	57	80	70	62	56	67	60	55	64	58	54	61	56	52	50
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	56	50	46	44
6	71	58	50	44	69	57	49	43	55	48	43	53	47	42	51	45	41	39
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	47	41	37	35
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33	31
9	58	45	37	32	56	44	37	31	43	36	31	41	35	31	40	34	30	28
10	54	41	34	29	53	41	33	29	39	33	28	38	32	28	37	32	28	26

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

	0°	45°	90°
0°	28979	28979	28979
5°	29020	28388	28083
10°	28874	27852	27727
15°	28624	27721	28282
20°	28317	28001	28601
25°	27870	28163	26599
30°	27286	27128	22800
35°	26459	24420	19045
40°	25385	20805	16000
45°	23879	17330	13735
50°	21998	14318	11983
55°	19876	11978	10646
60°	17439	10185	9626
65°	14849	8897	8853
70°	12249	7957	8347
75°	9591	7371	8042
80°	7167	7052	7936
85°	4713	6985	8005



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	384.3	3.6
10°-20°	1141.9	10.6
20°-30°	1779.1	16.5
30°-40°	1961.9	18.2
40°-50°	1737.3	16.1
50°-60°	1330.1	12.3
60°-70°	922.0	8.5
70°-80°	601.9	5.6
80°-90°	380.0	3.5
90°-100°	237.7	2.2
100°-110°	145.5	1.3
110°-120°	86.0	0.8
120°-130°	48.4	0.4
130°-140°	24.5	0.2
140°-150°	9.8	0.1
150°-160°	2.4	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	3305.4	30.6
0°-40°	5267.2	48.8
0°-60°	8334.6	77.2
0°-90°	10238.6	94.9
90°-120°	469.1	4.3
90°-150°	551.9	5.1
90°-180°	554.0	5.1
0°-180°	10793.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4038	4038	4038	4038	4038	
5°	4042	4014	4045	4030	4031	384
15°	3891	3894	4032	4148	4204	1098
25°	3580	3698	4056	4040	3969	1648
35°	3098	3389	3375	2892	2766	1935
45°	2439	2708	2221	1912	1880	1876
55°	1671	1749	1369	1301	1324	1492
65°	943	957	862	920	956	939
75°	393	461	564	675	711	428
85°	81	202	376	494	529	93
90°	1	134	304	418	450	5
95°	0	87	239	346	380	0
105°	0	40	144	229	262	0
115°	0	22	86	148	172	0
125°	0	11	53	93	110	0
135°	1	4	31	56	67	1
145°	1	1	13	29	35	1
155°	2	1	2	8	12	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°	4038.4	4038.4	4038.4	4038.4	4038.4
2.5°	4053.8	4023.0	4050.7	4035.3	4017.9
5°	4041.5	4013.8	4044.6	4030.2	4031.2
7.5°	4019.9	3995.3	4036.3	4031.2	4040.4
10°	3988.1	3966.6	4025.1	4049.7	4066.1
12.5°	3944.0	3930.7	4024.0	4083.5	4125.6
15°	3890.6	3893.7	4032.2	4148.2	4203.6
17.5°	3829.1	3848.6	4047.6	4205.6	4267.2
20°	3757.3	3803.4	4068.2	4230.3	4275.4
22.5°	3670.1	3752.1	4076.4	4184.1	4177.9
25°	3579.8	3697.8	4055.8	4040.4	3968.6
27.5°	3477.2	3637.2	3983.0	3805.5	3685.4
30°	3362.3	3568.5	3842.4	3511.0	3369.4
32.5°	3236.1	3486.4	3628.0	3197.1	3057.5
35°	3097.5	3388.9	3374.6	2892.3	2766.1
37.5°	2953.9	3253.5	3081.1	2607.1	2512.7
40°	2792.8	3100.6	2781.5	2347.5	2265.4
42.5°	2619.4	2922.1	2493.2	2115.6	2064.3
45°	2438.8	2707.7	2221.3	1911.5	1879.7
47.5°	2249.0	2469.6	1968.9	1728.8	1716.5
50°	2056.1	2230.6	1742.2	1568.8	1570.8
52.5°	1860.2	1979.2	1543.1	1428.2	1440.5
55°	1671.4	1749.4	1368.7	1301.0	1323.6
57.5°	1476.4	1526.7	1215.8	1189.2	1217.9
60°	1291.8	1319.5	1079.4	1089.6	1122.5
62.5°	1105.0	1127.6	964.5	999.3	1034.2
65°	942.9	957.3	861.9	920.3	956.2
67.5°	784.9	809.5	771.6	849.5	886.5
70°	642.3	676.1	692.6	787.0	822.9
72.5°	507.9	559.2	624.8	729.5	765.4
75°	393.0	460.7	564.3	675.1	711.0
77.5°	297.5	376.5	509.9	626.9	661.8
80°	209.3	306.8	461.7	580.7	615.6
82.5°	136.5	250.3	416.6	535.6	569.4
85°	81.1	202.1	376.5	493.5	529.4
87.5°	36.9	164.2	338.6	455.6	489.4
90°	1.0	134.4	303.7	417.6	450.4
92.5°	0.0	108.8	270.9	381.7	414.5
95°	0.0	87.2	239.1	345.8	379.6
97.5°	0.0	70.8	210.3	314.0	346.8
100°	0.0	58.5	185.7	284.2	317.0
102.5°	0.0	48.2	163.1	256.5	288.3
105°	0.0	40.0	143.6	228.8	261.6
107.5°	0.0	33.9	126.2	205.2	236.0
110°	0.0	28.7	110.8	183.7	212.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	25.7	97.5	165.2	191.9
115°	0.0	21.5	86.2	147.7	172.4
117.5°	0.0	19.5	75.9	132.4	154.9
120°	0.0	16.4	67.7	118.0	138.5
122.5°	0.0	14.4	59.5	104.7	123.1
125°	0.0	11.3	53.4	93.4	109.8
127.5°	0.0	9.2	47.2	83.1	97.5
130°	1.0	7.2	42.1	72.8	86.2
132.5°	1.0	5.1	35.9	64.6	74.9
135°	1.0	4.1	30.8	56.4	66.7
137.5°	1.0	2.1	25.7	49.2	57.5
140°	1.0	1.0	20.5	42.1	49.2
142.5°	1.0	1.0	16.4	35.9	42.1
145°	1.0	1.0	13.3	28.7	34.9
147.5°	1.0	1.0	9.2	22.6	28.7
150°	2.1	1.0	6.2	17.4	22.6
152.5°	2.1	1.0	4.1	12.3	17.4
155°	2.1	1.0	2.1	8.2	12.3
157.5°	2.1	2.1	1.0	5.1	7.2
160°	2.1	2.1	1.0	2.1	4.1
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)