

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: P236211

Luminaire Tested: **2SWLED-24HL-LN-UNV-L835-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236211  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-9)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2SWLED-24HL-LN-UNV-L835-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
2FT FIXTURE WITH 2 ROW LED, NARROW LENS  
Light Source: (112) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

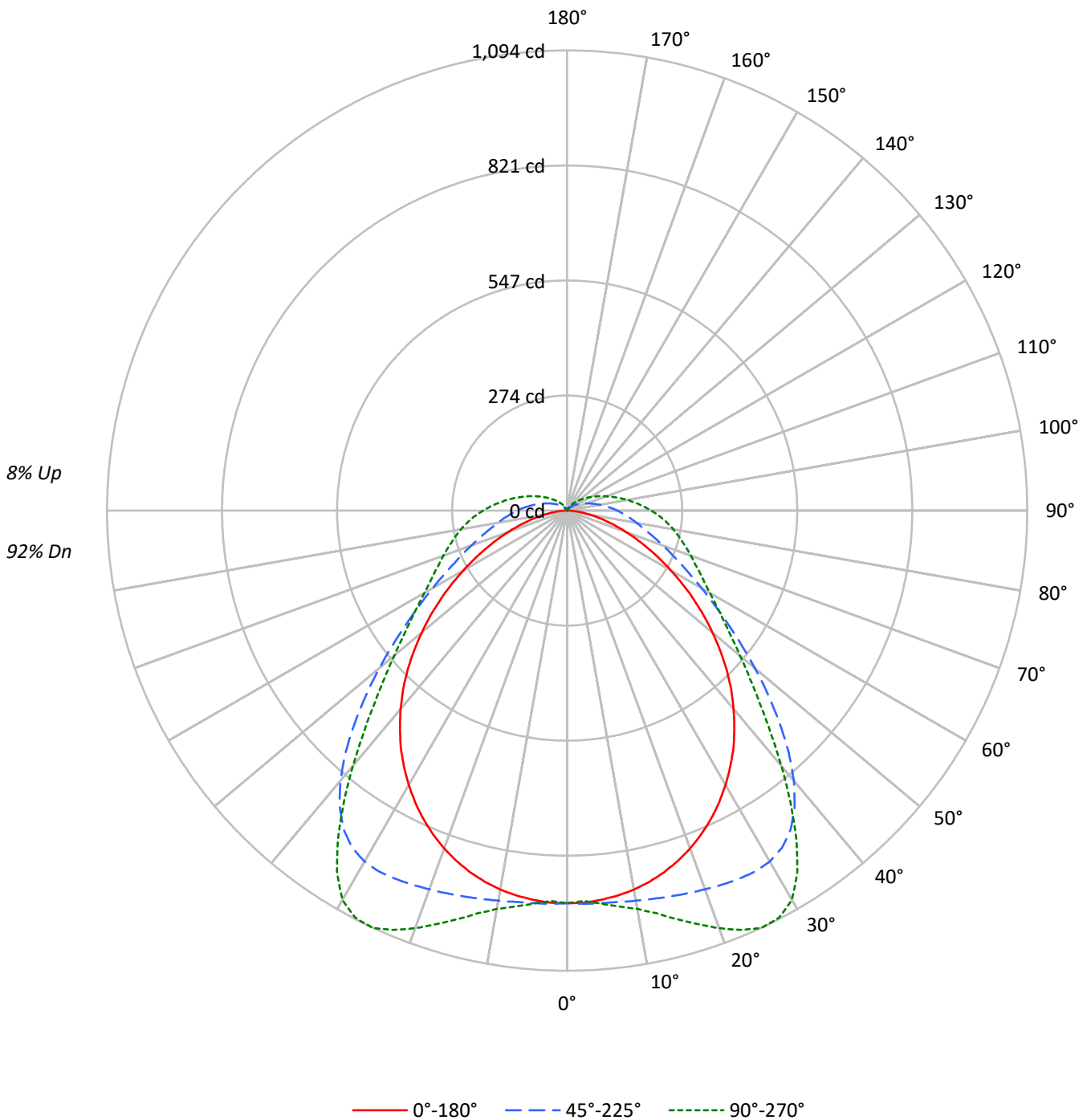
Lumens per Lamp: N/A  
Luminaire Lumens: 3134.0 lumens  
Efficiency: N/A  
Efficacy: 130.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.48 / 1.45  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 2' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 24  
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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92				
1	106	101	96	92	103	98	94	90	92	89	86	87	84	82	82	80	78	75				
2	97	88	81	75	93	85	79	74	81	75	71	76	72	68	72	69	65	63				
3	88	77	69	63	85	75	68	62	71	65	60	67	62	58	64	59	56	53				
4	81	69	60	53	78	67	59	53	63	57	51	60	54	49	57	52	48	46				
5	74	62	53	46	72	60	52	45	57	50	44	54	48	43	52	46	42	40				
6	69	56	47	40	66	54	46	40	52	44	39	49	43	38	47	41	37	35				
7	64	50	42	36	62	49	41	35	47	40	34	45	38	34	43	37	33	31				
8	59	46	38	32	57	45	37	31	43	36	31	41	35	30	39	34	30	28				
9	55	42	34	29	54	41	34	28	40	33	28	38	32	27	36	31	27	25				
10	52	39	31	26	50	38	31	26	37	30	25	35	29	25	34	28	24	22				

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

	0°	45°	90°
0°	13393	13393	13393
5°	13298	13120	13074
10°	13167	12978	13116
15°	12972	12974	13533
20°	12716	13080	14136
25°	12390	13276	14671
30°	11975	13433	14462
35°	11487	13209	13077
40°	10872	12328	11185
45°	10149	10926	9465
50°	9267	9358	8185
55°	8308	7904	7284
60°	7276	6767	6716
65°	6205	5908	6436
70°	5216	5361	6352
75°	4172	4979	6399
80°	3128	4848	6606
85°	2012	4920	6913



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.5	2.9
10°-20°	269.2	8.6
20°-30°	441.4	14.1
30°-40°	540.3	17.2
40°-50°	504.2	16.1
50°-60°	397.8	12.7
60°-70°	291.6	9.3
70°-80°	209.3	6.7
80°-90°	147.9	4.7
90°-100°	101.2	3.2
100°-110°	65.5	2.1
110°-120°	39.3	1.3
120°-130°	21.7	0.7
130°-140°	10.5	0.3
140°-150°	4.0	0.1
150°-160°	0.7	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	800.1	25.5
0°-40°	1340.4	42.8
0°-60°	2242.3	71.5
0°-90°	2891.2	92.3
90°-120°	206.0	6.6
90°-150°	242.1	7.7
90°-180°	243.0	7.8
0°-180°	3134.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	933	933	933	933	933	
5°	929	933	937	938	938	88
15°	890	910	950	988	1006	251
25°	809	857	966	1060	1094	372
35°	689	776	926	958	950	430
45°	536	643	714	664	648	413
55°	367	446	463	448	453	328
65°	211	264	296	329	348	212
75°	96	137	199	260	283	103
85°	22	67	141	204	229	25
90°	0	47	119	178	199	1
95°	0	34	98	152	172	0
105°	0	17	63	105	121	0
115°	0	10	39	68	80	0
125°	0	4	23	42	50	0
135°	0	1	13	25	29	0
145°	1	0	5	12	15	0
155°	1	1	0	3	3	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°	933.2	933.2	933.2	933.2	933.2
2.5°	933.2	936.7	935.8	932.4	928.9
5°	928.9	933.2	936.7	938.4	938.4
7.5°	922.9	929.8	938.4	947.0	949.6
10°	915.1	925.5	941.8	956.5	961.7
12.5°	903.9	918.6	945.3	969.4	980.7
15°	890.1	909.9	949.6	988.4	1005.7
17.5°	873.7	899.6	953.9	1007.4	1030.7
20°	854.7	887.5	958.2	1027.2	1056.6
22.5°	833.2	873.7	962.5	1045.3	1079.0
25°	809.0	857.3	966.0	1060.0	1094.5
27.5°	782.3	840.1	967.7	1064.3	1091.1
30°	753.0	821.1	963.4	1049.7	1068.6
32.5°	721.9	800.4	950.5	1014.3	1018.6
35°	689.1	776.2	926.3	958.2	949.6
37.5°	652.9	749.5	888.4	888.4	871.1
40°	615.8	719.3	838.3	813.3	791.8
42.5°	577.0	683.1	779.7	737.4	715.9
45°	536.5	642.6	714.1	664.1	647.7
47.5°	494.2	597.7	647.7	599.4	588.2
50°	451.1	548.5	582.2	541.6	536.5
52.5°	408.8	497.7	520.1	491.6	491.6
55°	366.6	445.9	463.2	448.5	452.8
57.5°	325.2	396.7	413.1	411.4	420.0
60°	285.5	348.4	369.1	379.5	391.6
62.5°	248.4	303.6	330.3	351.9	367.4
65°	211.3	263.9	295.8	328.6	347.6
67.5°	179.4	226.8	267.4	307.9	328.6
70°	149.2	191.5	242.4	290.7	313.1
72.5°	120.7	162.1	219.1	275.1	297.6
75°	95.7	137.1	199.2	259.6	282.9
77.5°	73.3	115.6	182.0	245.8	270.0
80°	53.5	96.6	167.3	232.9	256.2
82.5°	37.1	81.1	154.4	218.2	242.4
85°	22.4	67.3	141.4	204.4	228.6
87.5°	10.3	56.9	129.4	191.5	214.8
90°	0.0	47.4	119.0	178.5	199.2
92.5°	0.0	39.7	108.7	164.7	185.4
95°	0.0	33.6	97.5	151.8	171.6
97.5°	0.0	28.5	88.0	139.7	157.8
100°	0.0	23.3	79.3	127.6	145.8
102.5°	0.0	19.8	70.7	115.6	132.8
105°	0.0	17.2	63.0	105.2	120.7
107.5°	0.0	14.7	56.1	94.9	109.5
110°	0.0	12.9	49.2	85.4	99.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	11.2	44.0	76.8	89.7
115°	0.0	9.5	38.8	68.1	80.2
117.5°	0.0	7.8	34.5	60.4	71.6
120°	0.0	6.9	30.2	53.5	63.8
122.5°	0.0	5.2	26.7	48.3	56.9
125°	0.0	4.3	23.3	42.3	50.0
127.5°	0.0	3.4	20.7	37.1	44.0
130°	0.0	2.6	18.1	32.8	38.8
132.5°	0.0	1.7	15.5	28.5	33.6
135°	0.0	0.9	12.9	25.0	29.3
137.5°	0.0	0.0	10.3	20.7	25.0
140°	0.0	0.0	8.6	17.2	21.6
142.5°	0.0	0.0	6.9	14.7	18.1
145°	0.9	0.0	5.2	12.1	14.7
147.5°	0.9	0.0	3.4	9.5	11.2
150°	0.9	0.0	1.7	6.9	8.6
152.5°	0.9	0.0	0.0	4.3	6.0
155°	0.9	0.9	0.0	2.6	3.4
157.5°	0.9	0.9	0.0	0.0	1.7
160°	0.9	0.9	0.0	0.0	0.0
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)