

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: P236342

Luminaire Tested: **4SWLED-48HL-LW-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236342  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-27)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SWLED-48HL-LW-UNV-L850-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 2 ROW LED, WIDE LENS  
Light Source: (224) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

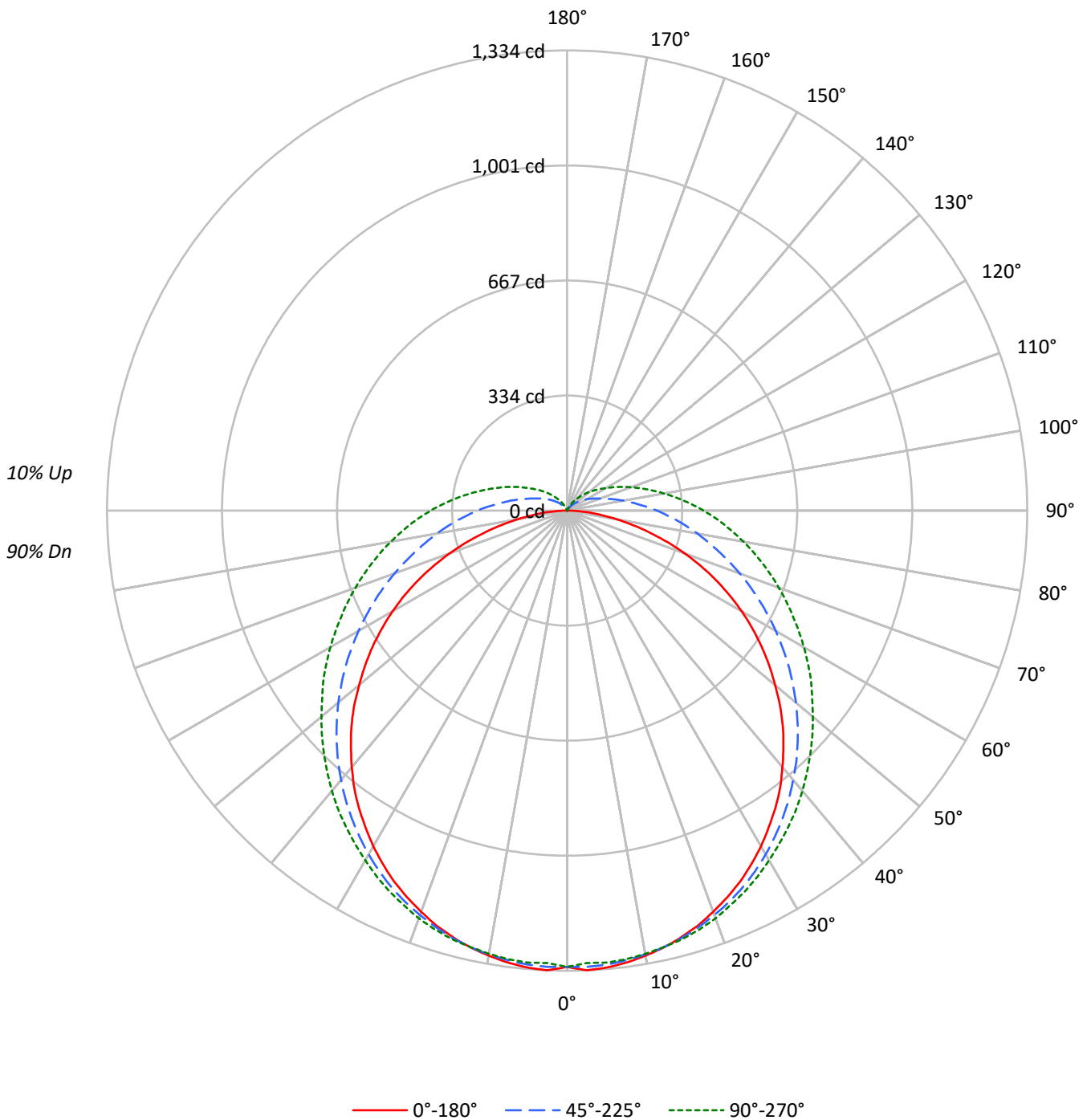
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5026.0 lumens  
Efficiency: N/A  
Efficacy: 112.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct  
  
Input Watts (W): 44.6  
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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	104	98	93	88	100	95	90	86	89	85	82	83	80	77	78	75	73	70
2	94	84	77	70	90	82	75	69	76	71	66	72	67	63	67	63	60	57
3	85	73	65	57	82	71	63	56	67	60	54	62	57	52	59	54	50	47
4	78	65	55	48	74	63	54	47	59	51	45	55	49	44	52	47	42	40
5	71	58	48	41	68	56	47	40	52	45	39	49	43	38	47	41	36	34
6	65	52	42	36	63	50	41	35	47	40	34	45	38	33	42	36	32	29
7	61	47	38	31	58	45	37	31	43	35	30	41	34	29	38	32	28	26
8	56	42	34	28	54	41	33	27	39	32	27	37	31	26	35	29	25	23
9	53	39	30	25	51	38	30	24	36	29	24	34	28	23	32	27	22	21
10	49	36	28	22	47	35	27	22	33	26	21	32	25	21	30	24	20	19

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

	0°	45°	90°
0°	9492	9492	9492
5°	9547	9275	9162
10°	9486	9041	8896
15°	9419	8819	8656
20°	9329	8589	8415
25°	9240	8366	8167
30°	9120	8128	7920
35°	8992	7880	7699
40°	8826	7626	7492
45°	8658	7376	7286
50°	8420	7114	7093
55°	8195	6855	6942
60°	7897	6591	6797
65°	7484	6341	6680
70°	6898	6112	6623
75°	6089	5931	6617
80°	5020	5848	6690
85°	3696	5900	6894



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.4	2.5
10°-20°	361.4	7.2
20°-30°	553.2	11.0
30°-40°	678.2	13.5
40°-50°	725.8	14.4
50°-60°	696.2	13.9
60°-70°	600.5	11.9
70°-80°	462.6	9.2
80°-90°	320.7	6.4
90°-100°	208.8	4.2
100°-110°	132.7	2.6
110°-120°	81.0	1.6
120°-130°	46.3	0.9
130°-140°	22.9	0.5
140°-150°	8.6	0.2
150°-160°	1.6	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1040.1	20.7
0°-40°	1718.3	34.2
0°-60°	3140.3	62.5
0°-90°	4524.1	90.0
90°-120°	422.5	8.4
90°-150°	500.3	10.0
90°-180°	502.0	10.0
0°-180°	5026.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1323	1323	1323	1323	1323	
5°	1330	1317	1322	1315	1315	126
15°	1280	1272	1283	1284	1286	361
25°	1187	1182	1205	1210	1219	547
35°	1053	1054	1089	1105	1118	658
45°	884	897	945	978	997	681
55°	689	718	783	836	863	615
65°	475	521	614	688	722	470
75°	250	327	454	548	585	265
85°	64	173	318	418	456	69
90°	1	118	260	359	395	5
95°	0	79	208	303	337	0
105°	0	39	129	209	238	0
115°	0	22	82	138	162	0
125°	1	11	51	90	105	0
135°	1	2	27	54	64	0
145°	1	1	11	26	32	0
155°	1	1	1	6	9	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°	1322.7	1322.7	1322.7	1322.7	1322.7
2.5°	1333.9	1320.8	1324.0	1319.0	1312.7
5°	1329.6	1317.1	1321.5	1315.2	1315.2
7.5°	1321.5	1310.2	1314.6	1310.9	1311.5
10°	1310.2	1299.0	1306.5	1303.4	1304.6
12.5°	1297.1	1285.9	1296.5	1294.0	1295.9
15°	1280.3	1271.6	1282.8	1284.0	1286.5
17.5°	1261.0	1253.5	1266.0	1269.7	1273.4
20°	1237.9	1232.3	1247.9	1251.6	1257.9
22.5°	1213.0	1208.0	1227.9	1231.0	1237.9
25°	1186.8	1181.8	1204.8	1210.5	1218.6
27.5°	1156.2	1154.3	1179.3	1187.4	1195.5
30°	1123.8	1122.5	1151.2	1160.6	1170.5
32.5°	1088.2	1089.5	1120.7	1133.1	1145.0
35°	1052.7	1053.9	1088.9	1105.1	1118.2
37.5°	1014.0	1017.8	1055.2	1074.5	1091.3
40°	971.0	979.7	1019.6	1043.3	1060.8
42.5°	928.0	939.8	983.5	1010.9	1029.0
45°	884.3	897.4	945.4	977.8	997.2
47.5°	837.5	854.4	906.1	942.9	964.1
50°	787.0	810.1	865.6	908.6	929.8
52.5°	738.4	764.6	824.4	873.1	895.5
55°	689.1	718.4	783.3	836.3	863.1
57.5°	637.3	669.2	740.9	798.9	828.2
60°	585.0	621.1	698.5	762.7	792.6
62.5°	530.7	571.9	656.1	725.3	757.1
65°	475.2	521.4	614.3	688.5	721.5
67.5°	419.1	471.5	573.1	653.6	687.2
70°	361.7	422.2	532.0	618.0	652.9
72.5°	305.6	374.2	492.0	581.8	618.6
75°	249.5	327.4	454.0	548.2	585.0
77.5°	195.8	283.1	416.6	515.1	551.9
80°	146.6	242.6	382.9	482.1	518.9
82.5°	101.0	206.4	349.9	450.3	486.4
85°	63.6	173.4	318.0	418.5	455.9
87.5°	30.6	144.1	287.5	388.5	425.3
90°	1.2	117.9	260.1	359.2	395.4
92.5°	0.0	96.7	233.2	330.5	366.1
95°	0.0	79.2	207.7	303.1	337.4
97.5°	0.0	65.5	185.2	277.5	310.6
100°	0.0	53.6	165.3	253.2	285.0
102.5°	0.0	45.5	146.6	230.1	260.7
105°	0.0	39.3	129.1	208.9	238.2
107.5°	0.0	33.7	115.4	189.6	217.0
110°	0.0	28.7	102.9	170.9	197.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.6	24.9	91.7	154.7	179.0
115°	0.0	21.8	82.3	137.8	161.5
117.5°	0.0	18.1	73.6	124.1	145.3
120°	0.0	15.6	65.5	111.6	130.3
122.5°	0.6	13.1	58.0	100.4	117.2
125°	0.6	10.6	51.1	89.8	105.4
127.5°	0.6	8.1	44.9	79.8	94.2
130°	0.6	6.2	38.7	70.5	82.9
132.5°	0.6	4.4	33.1	61.7	73.6
135°	0.6	2.5	27.4	53.6	63.6
137.5°	0.6	1.2	22.5	45.5	54.9
140°	0.6	0.6	18.1	38.7	46.8
142.5°	0.6	0.0	13.7	32.4	38.7
145°	0.6	0.6	10.6	25.6	31.8
147.5°	0.6	0.6	7.5	20.0	25.6
150°	0.6	0.6	4.4	14.3	19.3
152.5°	0.6	0.6	1.9	10.0	14.3
155°	0.6	0.6	0.6	6.2	9.4
157.5°	0.6	0.6	0.0	2.5	5.0
160°	1.2	0.6	0.0	0.0	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)