

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: P236347

Luminaire Tested: **4SWLED-56HL-LW-UNV-L840-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236347  
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-56HL-LW-UNV-L840-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 2 ROW LED, WIDE LENS  
Light Source: (224) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

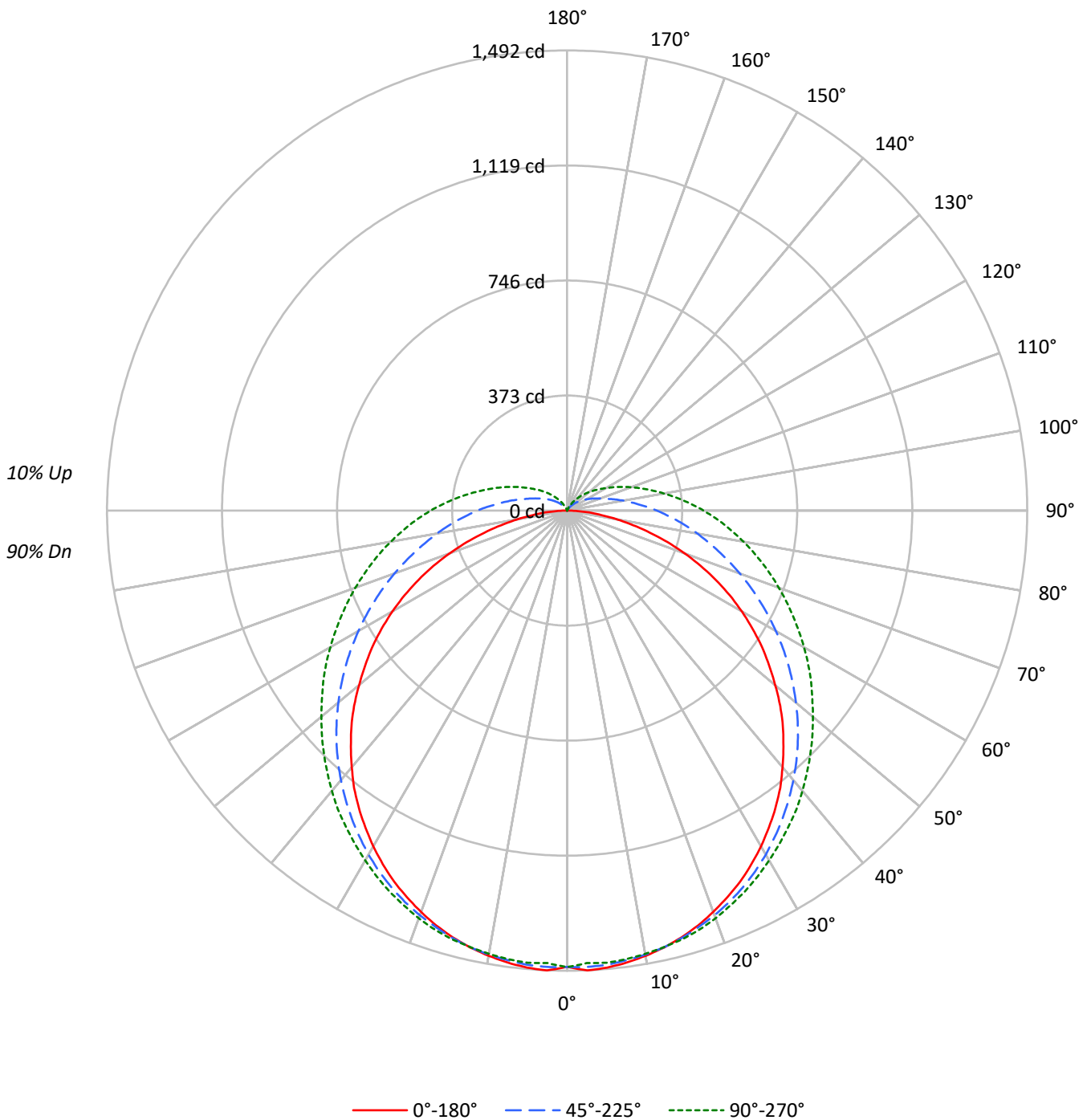
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5623.0 lumens  
Efficiency: N/A  
Efficacy: 106.3 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): 52.9  
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	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°	10619	10619	10619
5°	10681	10376	10251
10°	10613	10114	9953
15°	10538	9867	9684
20°	10437	9609	9414
25°	10337	9360	9137
30°	10203	9093	8862
35°	10060	8815	8614
40°	9874	8532	8382
45°	9687	8252	8151
50°	9420	7958	7936
55°	9169	7669	7767
60°	8834	7373	7605
65°	8372	7093	7473
70°	7718	6837	7410
75°	6811	6635	7402
80°	5616	6543	7484
85°	4138	6601	7712



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.3	2.5
10°-20°	404.4	7.2
20°-30°	618.9	11.0
30°-40°	758.7	13.5
40°-50°	812.0	14.4
50°-60°	778.9	13.9
60°-70°	671.8	11.9
70°-80°	517.5	9.2
80°-90°	358.8	6.4
90°-100°	233.6	4.2
100°-110°	148.5	2.6
110°-120°	90.6	1.6
120°-130°	51.9	0.9
130°-140°	25.6	0.5
140°-150°	9.6	0.2
150°-160°	1.9	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1163.6	20.7
0°-40°	1922.3	34.2
0°-60°	3513.3	62.5
0°-90°	5061.4	90.0
90°-120°	472.7	8.4
90°-150°	559.8	10.0
90°-180°	562.0	10.0
0°-180°	5623.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1480	1480	1480	1480	1480	
5°	1488	1474	1478	1472	1472	141
15°	1432	1423	1435	1437	1439	404
25°	1328	1322	1348	1354	1363	611
35°	1178	1179	1218	1236	1251	736
45°	989	1004	1058	1094	1116	762
55°	771	804	876	936	966	688
65°	532	583	687	770	807	525
75°	279	366	508	613	654	296
85°	71	194	356	468	510	77
90°	1	132	291	402	442	5
95°	0	89	232	339	378	0
105°	0	44	144	234	266	0
115°	0	24	92	154	181	0
125°	1	12	57	100	118	1
135°	1	3	31	60	71	1
145°	1	1	12	29	36	0
155°	1	1	1	7	10	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°	1479.8	1479.8	1479.8	1479.8	1479.8
2.5°	1492.4	1477.7	1481.2	1475.6	1468.7
5°	1487.5	1473.5	1478.4	1471.5	1471.5
7.5°	1478.4	1465.9	1470.8	1466.6	1467.3
10°	1465.9	1453.3	1461.7	1458.2	1459.6
12.5°	1451.2	1438.7	1450.5	1447.7	1449.8
15°	1432.4	1422.6	1435.2	1436.6	1439.4
17.5°	1410.8	1402.4	1416.3	1420.5	1424.7
20°	1384.9	1378.7	1396.1	1400.3	1407.3
22.5°	1357.0	1351.4	1373.8	1377.3	1384.9
25°	1327.7	1322.1	1348.0	1354.2	1363.3
27.5°	1293.5	1291.4	1319.4	1328.4	1337.5
30°	1257.3	1255.9	1288.0	1298.4	1309.6
32.5°	1217.5	1218.9	1253.8	1267.7	1281.0
35°	1177.7	1179.1	1218.2	1236.3	1251.0
37.5°	1134.5	1138.6	1180.5	1202.1	1221.0
40°	1086.3	1096.1	1140.7	1167.3	1186.8
42.5°	1038.2	1051.4	1100.3	1131.0	1151.2
45°	989.3	1004.0	1057.7	1094.0	1115.6
47.5°	937.0	955.9	1013.8	1054.9	1078.6
50°	880.5	906.3	968.4	1016.6	1040.3
52.5°	826.1	855.4	922.4	976.8	1001.9
55°	771.0	803.8	876.3	935.6	965.6
57.5°	713.1	748.6	828.9	893.8	926.5
60°	654.4	694.9	781.4	853.3	886.8
62.5°	593.7	639.8	734.0	811.4	847.0
65°	531.6	583.3	687.2	770.3	807.2
67.5°	468.9	527.5	641.2	731.2	768.9
70°	404.7	472.3	595.1	691.4	730.5
72.5°	341.9	418.6	550.5	651.0	692.1
75°	279.1	366.3	507.9	613.3	654.4
77.5°	219.1	316.8	466.1	576.3	617.5
80°	164.0	271.4	428.4	539.3	580.5
82.5°	113.0	230.9	391.4	503.7	544.2
85°	71.2	194.0	355.8	468.2	510.0
87.5°	34.2	161.2	321.6	434.7	475.8
90°	1.4	131.9	290.9	401.9	442.3
92.5°	0.0	108.1	260.9	369.8	409.6
95°	0.0	88.6	232.3	339.1	377.5
97.5°	0.0	73.3	207.2	310.5	347.5
100°	0.0	60.0	184.9	283.3	318.8
102.5°	0.0	50.9	164.0	257.5	291.6
105°	0.0	44.0	144.4	233.7	266.5
107.5°	0.0	37.7	129.1	212.1	242.8
110°	0.0	32.1	115.1	191.2	221.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.7	27.9	102.6	173.0	200.2
115°	0.0	24.4	92.1	154.2	180.7
117.5°	0.0	20.2	82.3	138.8	162.6
120°	0.0	17.4	73.3	124.9	145.8
122.5°	0.7	14.7	64.9	112.3	131.2
125°	0.7	11.9	57.2	100.5	117.9
127.5°	0.7	9.1	50.2	89.3	105.4
130°	0.7	7.0	43.3	78.8	92.8
132.5°	0.7	4.9	37.0	69.1	82.3
135°	0.7	2.8	30.7	60.0	71.2
137.5°	0.7	1.4	25.1	50.9	61.4
140°	0.7	0.7	20.2	43.3	52.3
142.5°	0.7	0.0	15.3	36.3	43.3
145°	0.7	0.7	11.9	28.6	35.6
147.5°	0.7	0.7	8.4	22.3	28.6
150°	0.7	0.7	4.9	16.0	21.6
152.5°	0.7	0.7	2.1	11.2	16.0
155°	0.7	0.7	0.7	7.0	10.5
157.5°	0.7	0.7	0.0	2.8	5.6
160°	1.4	0.7	0.0	0.0	1.4
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)