

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: P236348

Luminaire Tested: **4SWLED-56HL-LW-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236348  
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-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**

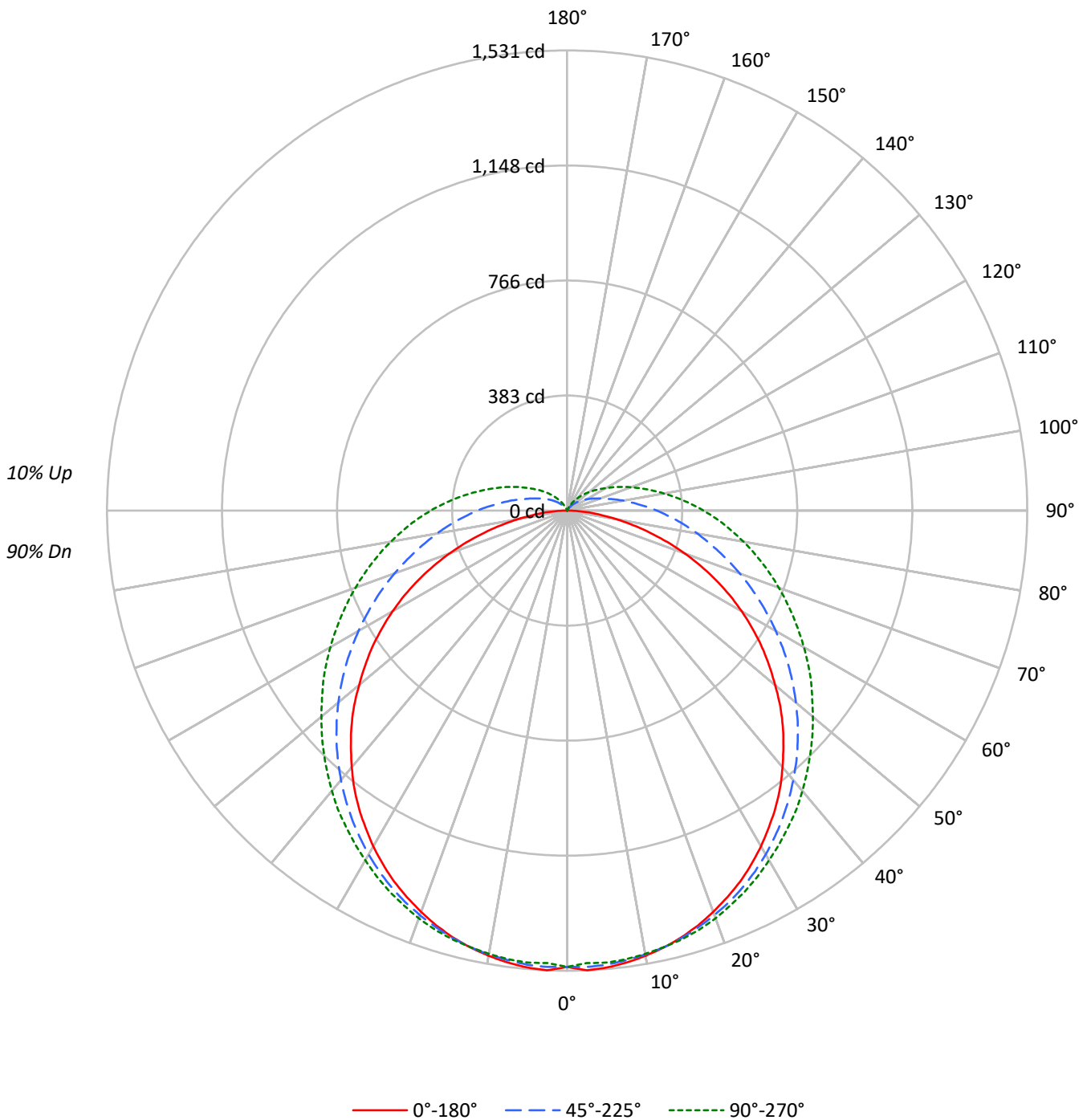
Lumens per Lamp: N/A  
Luminaire Lumens: 5769.0 lumens  
Efficiency: N/A  
Efficacy: 109.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

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°	10895	10895	10895
5°	10958	10646	10517
10°	10888	10377	10212
15°	10812	10123	9935
20°	10709	9859	9658
25°	10605	9603	9375
30°	10468	9329	9092
35°	10321	9044	8837
40°	10130	8754	8600
45°	9938	8467	8363
50°	9665	8166	8142
55°	9406	7869	7969
60°	9064	7565	7802
65°	8591	7278	7668
70°	7918	7015	7602
75°	6987	6807	7594
80°	5760	6712	7678
85°	4243	6774	7913



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.0	2.5
10°-20°	414.9	7.2
20°-30°	635.0	11.0
30°-40°	778.4	13.5
40°-50°	833.1	14.4
50°-60°	799.1	13.9
60°-70°	689.2	11.9
70°-80°	531.0	9.2
80°-90°	368.1	6.4
90°-100°	239.7	4.2
100°-110°	152.3	2.6
110°-120°	93.0	1.6
120°-130°	53.2	0.9
130°-140°	26.2	0.5
140°-150°	9.9	0.2
150°-160°	1.9	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1193.8	20.7
0°-40°	1972.3	34.2
0°-60°	3604.5	62.5
0°-90°	5192.8	90.0
90°-120°	485.0	8.4
90°-150°	574.3	10.0
90°-180°	576.0	10.0
0°-180°	5769.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1518	1518	1518	1518	1518	
5°	1526	1512	1517	1510	1510	145
15°	1470	1460	1472	1474	1477	415
25°	1362	1356	1383	1389	1399	627
35°	1208	1210	1250	1268	1284	755
45°	1015	1030	1085	1122	1145	782
55°	791	825	899	960	991	706
65°	546	598	705	790	828	539
75°	286	376	521	629	671	304
85°	73	199	365	480	523	79
90°	1	135	298	412	454	5
95°	0	91	238	348	387	0
105°	0	45	148	240	273	0
115°	0	25	94	158	185	0
125°	1	12	59	103	121	1
135°	1	3	32	62	73	1
145°	1	1	12	29	36	0
155°	1	1	1	7	11	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°	1518.2	1518.2	1518.2	1518.2	1518.2
2.5°	1531.1	1516.1	1519.7	1514.0	1506.8
5°	1526.1	1511.8	1516.8	1509.7	1509.7
7.5°	1516.8	1503.9	1508.9	1504.6	1505.4
10°	1503.9	1491.0	1499.6	1496.1	1497.5
12.5°	1488.9	1476.0	1488.2	1485.3	1487.5
15°	1469.6	1459.6	1472.4	1473.9	1476.7
17.5°	1447.4	1438.8	1453.1	1457.4	1461.7
20°	1420.9	1414.5	1432.4	1436.6	1443.8
22.5°	1392.3	1386.5	1409.4	1413.0	1420.9
25°	1362.2	1356.5	1383.0	1389.4	1398.7
27.5°	1327.1	1325.0	1353.6	1362.9	1372.2
30°	1289.9	1288.5	1321.4	1332.1	1343.6
32.5°	1249.1	1250.5	1286.3	1300.6	1314.2
35°	1208.3	1209.7	1249.8	1268.4	1283.5
37.5°	1163.9	1168.2	1211.2	1233.4	1252.7
40°	1114.5	1124.5	1170.4	1197.6	1217.6
42.5°	1065.1	1078.7	1128.8	1160.3	1181.1
45°	1015.0	1030.1	1085.2	1122.4	1144.6
47.5°	961.3	980.7	1040.1	1082.3	1106.7
50°	903.4	929.8	993.6	1042.9	1067.3
52.5°	847.5	877.6	946.3	1002.1	1027.9
55°	791.0	824.6	899.1	959.9	990.7
57.5°	731.6	768.1	850.4	917.0	950.6
60°	671.4	713.0	801.7	875.4	909.8
62.5°	609.2	656.4	753.0	832.5	869.0
65°	545.5	598.4	705.1	790.3	828.2
67.5°	481.0	541.2	657.8	750.2	788.8
70°	415.2	484.6	610.6	709.4	749.5
72.5°	350.8	429.5	564.8	667.9	710.1
75°	286.3	375.8	521.1	629.2	671.4
77.5°	224.8	325.0	478.2	591.3	633.5
80°	168.2	278.5	439.5	553.3	595.6
82.5°	116.0	236.9	401.6	516.8	558.3
85°	73.0	199.0	365.1	480.3	523.3
87.5°	35.1	165.4	330.0	446.0	488.2
90°	1.4	135.3	298.5	412.3	453.8
92.5°	0.0	111.0	267.7	379.4	420.2
95°	0.0	90.9	238.4	347.9	387.3
97.5°	0.0	75.2	212.6	318.5	356.5
100°	0.0	61.6	189.7	290.6	327.1
102.5°	0.0	52.3	168.2	264.1	299.2
105°	0.0	45.1	148.2	239.8	273.4
107.5°	0.0	38.7	132.4	217.6	249.1
110°	0.0	32.9	118.1	196.1	226.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.7	28.6	105.2	177.5	205.4
115°	0.0	25.1	94.5	158.2	185.4
117.5°	0.0	20.8	84.5	142.4	166.8
120°	0.0	17.9	75.2	128.1	149.6
122.5°	0.7	15.0	66.6	115.2	134.6
125°	0.7	12.2	58.7	103.1	121.0
127.5°	0.7	9.3	51.5	91.6	108.1
130°	0.7	7.2	44.4	80.9	95.2
132.5°	0.7	5.0	37.9	70.9	84.5
135°	0.7	2.9	31.5	61.6	73.0
137.5°	0.7	1.4	25.8	52.3	63.0
140°	0.7	0.7	20.8	44.4	53.7
142.5°	0.7	0.0	15.7	37.2	44.4
145°	0.7	0.7	12.2	29.3	36.5
147.5°	0.7	0.7	8.6	22.9	29.3
150°	0.7	0.7	5.0	16.5	22.2
152.5°	0.7	0.7	2.1	11.5	16.5
155°	0.7	0.7	0.7	7.2	10.7
157.5°	0.7	0.7	0.0	2.9	5.7
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)