

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: P236351

Luminaire Tested: **4SWLED-60HL-LW-UNV-L850-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236351
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-60HL-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

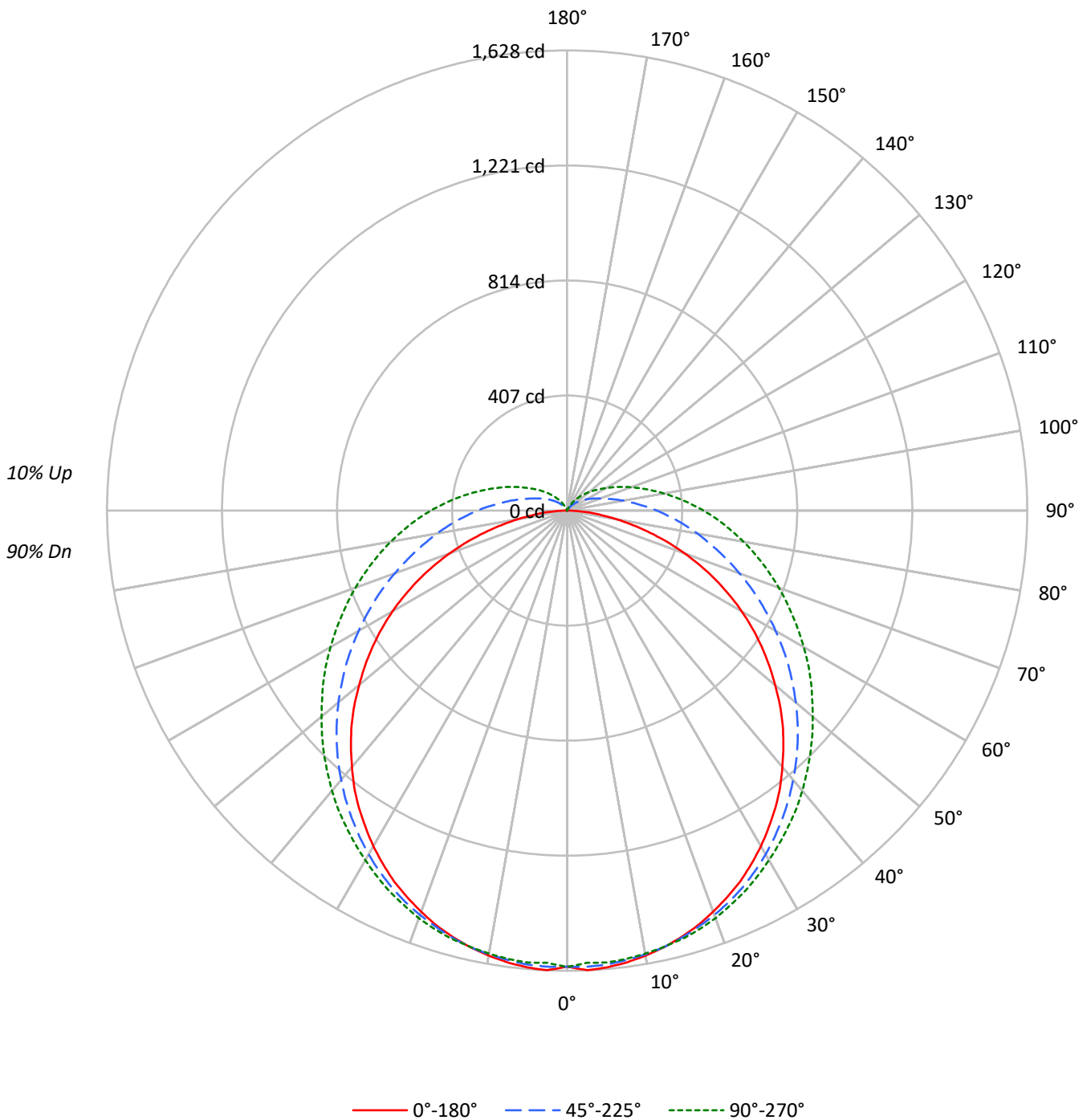
Lumens per Lamp: N/A
Luminaire Lumens: 6132.0 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

Input Watts (W): 57.2
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°	11581	11581	11581
5°	11647	11316	11179
10°	11574	11030	10854
15°	11492	10760	10561
20°	11382	10479	10267
25°	11273	10208	9964
30°	11127	9916	9664
35°	10971	9613	9393
40°	10768	9305	9141
45°	10564	8999	8889
50°	10273	8679	8654
55°	9997	8363	8470
60°	9635	8042	8293
65°	9131	7735	8150
70°	8416	7456	8080
75°	7426	7236	8072
80°	6123	7136	8161
85°	4510	7199	8410



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.0	2.5
10°-20°	441.0	7.2
20°-30°	675.0	11.0
30°-40°	827.4	13.5
40°-50°	885.5	14.4
50°-60°	849.4	13.9
60°-70°	732.6	11.9
70°-80°	564.4	9.2
80°-90°	391.3	6.4
90°-100°	254.8	4.2
100°-110°	161.9	2.6
110°-120°	98.8	1.6
120°-130°	56.6	0.9
130°-140°	27.9	0.5
140°-150°	10.5	0.2
150°-160°	2.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1269.0	20.7
0°-40°	2096.4	34.2
0°-60°	3831.3	62.5
0°-90°	5519.6	90.0
90°-120°	515.5	8.4
90°-150°	610.4	10.0
90°-180°	612.0	10.0
0°-180°	6132.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1614	1614	1614	1614	1614	
5°	1622	1607	1612	1605	1605	154
15°	1562	1551	1565	1567	1570	441
25°	1448	1442	1470	1477	1487	667
35°	1284	1286	1328	1348	1364	803
45°	1079	1095	1154	1193	1217	831
55°	841	876	956	1020	1053	751
65°	580	636	749	840	880	573
75°	304	400	554	669	714	323
85°	78	212	388	510	556	84
90°	2	144	317	438	482	6
95°	0	97	253	370	412	0
105°	0	48	158	255	291	0
115°	0	27	100	168	197	0
125°	1	13	62	110	129	1
135°	1	3	34	65	78	1
145°	1	1	13	31	39	1
155°	1	1	1	8	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°	1613.8	1613.8	1613.8	1613.8	1613.8
2.5°	1627.5	1611.5	1615.3	1609.2	1601.6
5°	1622.1	1606.9	1612.3	1604.7	1604.7
7.5°	1612.3	1598.6	1603.9	1599.3	1600.1
10°	1598.6	1584.9	1594.0	1590.2	1591.7
12.5°	1582.6	1568.9	1581.8	1578.8	1581.1
15°	1562.0	1551.4	1565.1	1566.6	1569.7
17.5°	1538.5	1529.3	1544.5	1549.1	1553.7
20°	1510.3	1503.5	1522.5	1527.0	1534.7
22.5°	1479.9	1473.8	1498.1	1501.9	1510.3
25°	1447.9	1441.8	1470.0	1476.8	1486.7
27.5°	1410.6	1408.3	1438.8	1448.7	1458.6
30°	1371.1	1369.5	1404.5	1416.0	1428.1
32.5°	1327.7	1329.2	1367.3	1382.5	1396.9
35°	1284.3	1285.9	1328.5	1348.2	1364.2
37.5°	1237.2	1241.7	1287.4	1311.0	1331.5
40°	1184.7	1195.3	1244.0	1272.9	1294.2
42.5°	1132.2	1146.6	1199.9	1233.4	1255.4
45°	1078.9	1094.9	1153.5	1193.0	1216.6
47.5°	1021.8	1042.4	1105.5	1150.4	1176.3
50°	960.2	988.4	1056.1	1108.6	1134.4
52.5°	900.9	932.8	1005.9	1065.2	1092.6
55°	840.7	876.5	955.6	1020.3	1053.0
57.5°	777.6	816.4	903.9	974.7	1010.4
60°	713.7	757.8	852.2	930.5	967.1
62.5°	647.5	697.7	800.4	884.9	923.7
65°	579.8	636.1	749.4	840.0	880.3
67.5°	511.3	575.2	699.2	797.4	838.5
70°	441.3	515.1	649.0	754.0	796.6
72.5°	372.8	456.5	600.3	709.9	754.8
75°	304.3	399.5	553.9	668.8	713.7
77.5°	238.9	345.4	508.3	628.5	673.4
80°	178.8	296.0	467.2	588.1	633.0
82.5°	123.3	251.8	426.8	549.3	593.5
85°	77.6	211.5	388.0	510.5	556.2
87.5°	37.3	175.8	350.8	474.0	518.9
90°	1.5	143.8	317.3	438.3	482.4
92.5°	0.0	117.9	284.6	403.3	446.6
95°	0.0	96.6	253.4	369.8	411.6
97.5°	0.0	79.9	226.0	338.6	378.9
100°	0.0	65.4	201.6	308.9	347.7
102.5°	0.0	55.5	178.8	280.8	318.0
105°	0.0	47.9	157.5	254.9	290.6
107.5°	0.0	41.1	140.8	231.3	264.8
110°	0.0	35.0	125.5	208.5	241.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.8	30.4	111.8	188.7	218.4
115°	0.0	26.6	100.4	168.1	197.1
117.5°	0.0	22.1	89.8	151.4	177.3
120°	0.0	19.0	79.9	136.2	159.0
122.5°	0.8	16.0	70.8	122.5	143.0
125°	0.8	12.9	62.4	109.6	128.6
127.5°	0.8	9.9	54.8	97.4	114.9
130°	0.8	7.6	47.2	86.0	101.2
132.5°	0.8	5.3	40.3	75.3	89.8
135°	0.8	3.0	33.5	65.4	77.6
137.5°	0.8	1.5	27.4	55.5	67.0
140°	0.8	0.8	22.1	47.2	57.1
142.5°	0.8	0.0	16.7	39.6	47.2
145°	0.8	0.8	12.9	31.2	38.8
147.5°	0.8	0.8	9.1	24.3	31.2
150°	0.8	0.8	5.3	17.5	23.6
152.5°	0.8	0.8	2.3	12.2	17.5
155°	0.8	0.8	0.8	7.6	11.4
157.5°	0.8	0.8	0.0	3.0	6.1
160°	1.5	0.8	0.0	0.0	1.5
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)