

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: P236349

Luminaire Tested: **4SWLED-60HL-LW-UNV-L835-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236349
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-L835-CD1-U
Description: METALUX SWLED LINEAR LUMINAIRE
4FT FIXTURE WITH 2 ROW LED, WIDE LENS
Light Source: (224) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

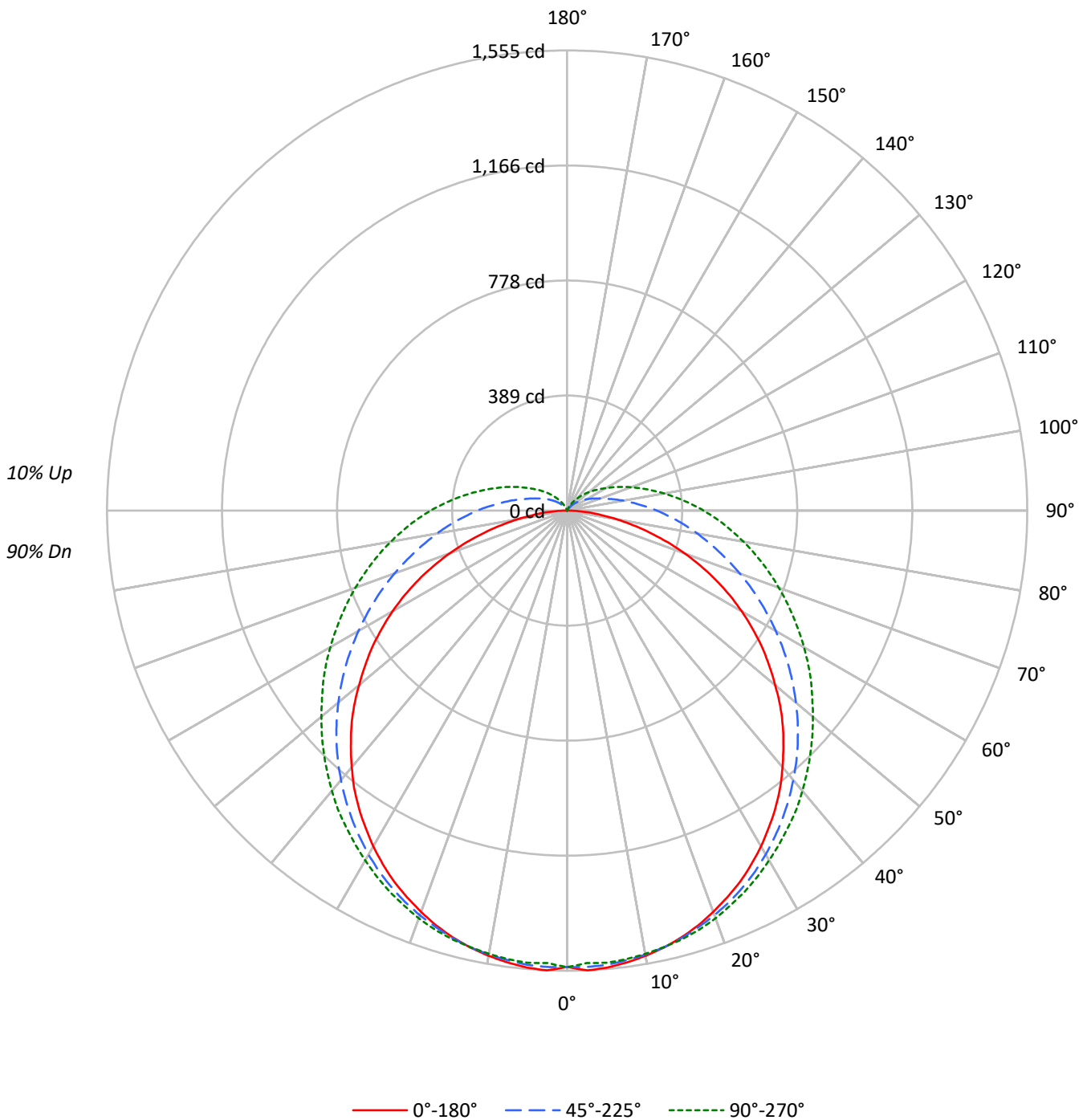
Lumens per Lamp: N/A
Luminaire Lumens: 5860.0 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

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°	11067	11067	11067
5°	11131	10814	10683
10°	11061	10541	10372
15°	10983	10283	10092
20°	10877	10014	9811
25°	10773	9755	9523
30°	10633	9476	9235
35°	10485	9186	8976
40°	10290	8892	8735
45°	10095	8600	8495
50°	9817	8294	8270
55°	9555	7992	8094
60°	9207	7685	7926
65°	8726	7393	7789
70°	8042	7125	7722
75°	7097	6914	7714
80°	5852	6818	7800
85°	4312	6880	8037



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.2	2.5
10°-20°	421.4	7.2
20°-30°	645.0	11.0
30°-40°	790.7	13.5
40°-50°	846.3	14.4
50°-60°	811.7	13.9
60°-70°	700.1	11.9
70°-80°	539.3	9.2
80°-90°	373.9	6.4
90°-100°	243.5	4.2
100°-110°	154.7	2.6
110°-120°	94.4	1.6
120°-130°	54.0	0.9
130°-140°	26.7	0.5
140°-150°	10.0	0.2
150°-160°	1.9	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1212.7	20.7
0°-40°	2003.4	34.2
0°-60°	3661.3	62.5
0°-90°	5274.7	90.0
90°-120°	492.6	8.4
90°-150°	583.3	10.0
90°-180°	585.0	10.0
0°-180°	5860.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1542	1542	1542	1542	1542	
5°	1550	1536	1541	1534	1534	147
15°	1493	1483	1496	1497	1500	421
25°	1384	1378	1405	1411	1421	637
35°	1227	1229	1270	1288	1304	767
45°	1031	1046	1102	1140	1163	794
55°	804	838	913	975	1006	717
65°	554	608	716	803	841	548
75°	291	382	529	639	682	309
85°	74	202	371	488	532	80
90°	2	137	303	419	461	5
95°	0	92	242	353	393	0
105°	0	46	150	244	278	0
115°	0	25	96	161	188	0
125°	1	12	60	105	123	1
135°	1	3	32	62	74	1
145°	1	1	12	30	37	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°	1542.2	1542.2	1542.2	1542.2	1542.2
2.5°	1555.3	1540.0	1543.7	1537.8	1530.6
5°	1550.2	1535.7	1540.7	1533.5	1533.5
7.5°	1540.7	1527.7	1532.7	1528.4	1529.1
10°	1527.7	1514.6	1523.3	1519.7	1521.1
12.5°	1512.4	1499.3	1511.7	1508.8	1510.9
15°	1492.8	1482.6	1495.7	1497.1	1500.0
17.5°	1470.2	1461.5	1476.0	1480.4	1484.8
20°	1443.3	1436.8	1454.9	1459.3	1466.6
22.5°	1414.2	1408.4	1431.7	1435.3	1443.3
25°	1383.7	1377.9	1404.8	1411.3	1420.8
27.5°	1348.1	1345.9	1375.0	1384.4	1393.9
30°	1310.2	1308.8	1342.2	1353.1	1364.8
32.5°	1268.8	1270.3	1306.6	1321.2	1335.0
35°	1227.4	1228.8	1269.5	1288.4	1303.7
37.5°	1182.3	1186.6	1230.3	1252.8	1272.4
40°	1132.1	1142.3	1188.8	1216.5	1236.8
42.5°	1081.9	1095.8	1146.7	1178.6	1199.7
45°	1031.0	1046.3	1102.3	1140.1	1162.6
47.5°	976.5	996.1	1056.5	1099.4	1124.1
50°	917.6	944.5	1009.2	1059.4	1084.1
52.5°	860.9	891.4	961.2	1018.0	1044.1
55°	803.5	837.6	913.2	975.1	1006.3
57.5°	743.1	780.2	863.8	931.4	965.6
60°	682.0	724.2	814.4	889.3	924.2
62.5°	618.8	666.8	764.9	845.6	882.7
65°	554.1	607.9	716.2	802.7	841.3
67.5°	488.6	549.7	668.2	762.0	801.3
70°	421.7	492.3	620.2	720.6	761.3
72.5°	356.3	436.3	573.7	678.4	721.3
75°	290.8	381.7	529.3	639.1	682.0
77.5°	228.3	330.1	485.7	600.6	643.5
80°	170.9	282.8	446.4	562.1	605.0
82.5°	117.8	240.7	407.9	525.0	567.1
85°	74.2	202.1	370.8	487.9	531.5
87.5°	35.6	168.0	335.2	453.0	495.9
90°	1.5	137.4	303.2	418.8	461.0
92.5°	0.0	112.7	271.9	385.4	426.8
95°	0.0	92.3	242.1	353.4	393.4
97.5°	0.0	76.3	216.0	323.6	362.1
100°	0.0	62.5	192.7	295.2	332.3
102.5°	0.0	53.1	170.9	268.3	303.9
105°	0.0	45.8	150.5	243.6	277.8
107.5°	0.0	39.3	134.5	221.0	253.0
110°	0.0	33.4	120.0	199.2	230.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.7	29.1	106.9	180.3	208.7
115°	0.0	25.4	96.0	160.7	188.3
117.5°	0.0	21.1	85.8	144.7	169.4
120°	0.0	18.2	76.3	130.2	152.0
122.5°	0.7	15.3	67.6	117.1	136.7
125°	0.7	12.4	59.6	104.7	122.9
127.5°	0.7	9.5	52.4	93.1	109.8
130°	0.7	7.3	45.1	82.2	96.7
132.5°	0.7	5.1	38.5	72.0	85.8
135°	0.7	2.9	32.0	62.5	74.2
137.5°	0.7	1.5	26.2	53.1	64.0
140°	0.7	0.7	21.1	45.1	54.5
142.5°	0.7	0.0	16.0	37.8	45.1
145°	0.7	0.7	12.4	29.8	37.1
147.5°	0.7	0.7	8.7	23.3	29.8
150°	0.7	0.7	5.1	16.7	22.5
152.5°	0.7	0.7	2.2	11.6	16.7
155°	0.7	0.7	0.7	7.3	10.9
157.5°	0.7	0.7	0.0	2.9	5.8
160°	1.5	0.7	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)