

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: P236350

Luminaire Tested: **4SWLED-60HL-LW-UNV-L840-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236350
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-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

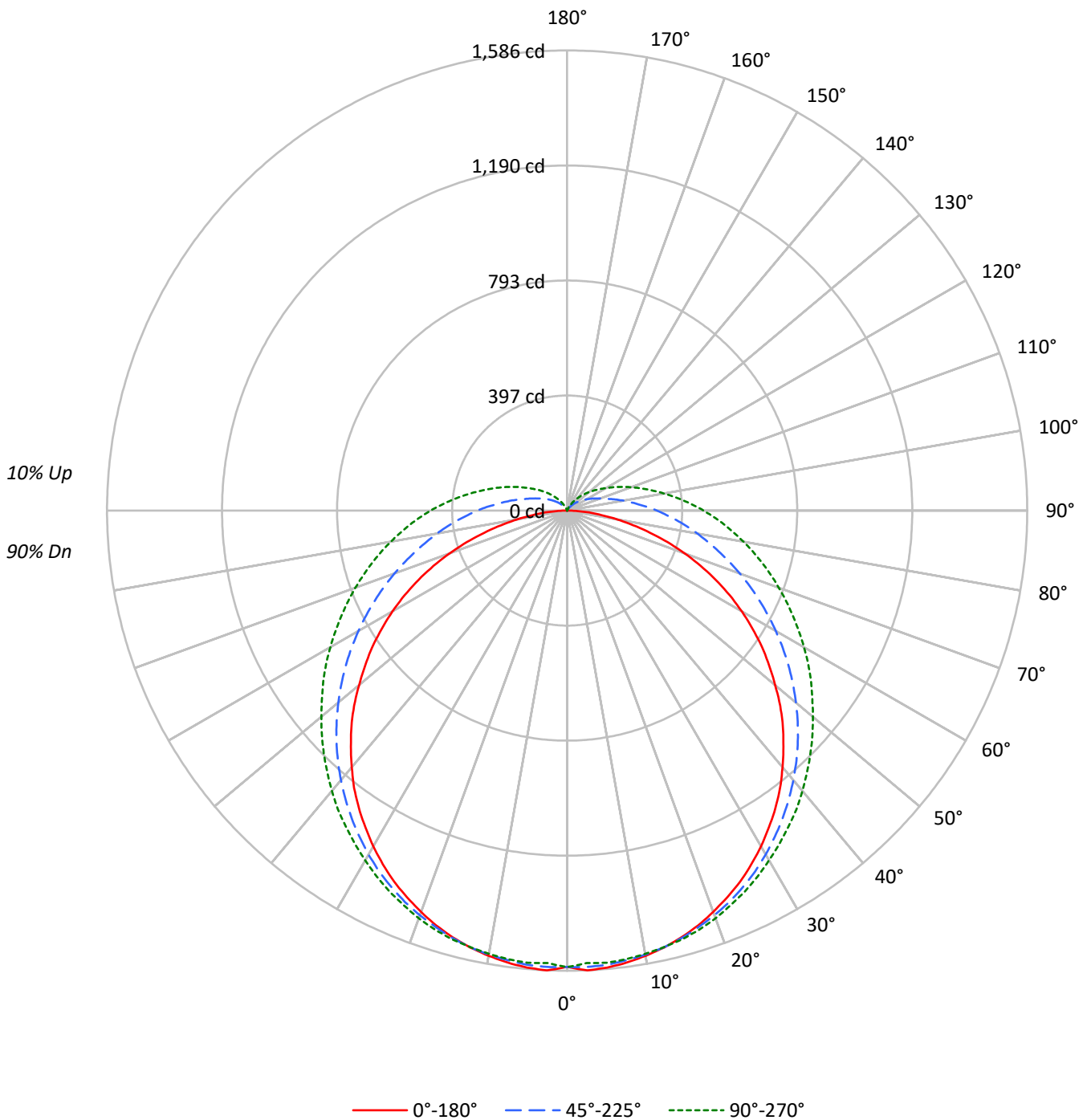
Lumens per Lamp: N/A
Luminaire Lumens: 5977.0 lumens
Efficiency: N/A
Efficacy: 104.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

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	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°	11288	11288	11288
5°	11353	11030	10896
10°	11282	10751	10580
15°	11202	10488	10294
20°	11094	10214	10007
25°	10988	9949	9712
30°	10845	9665	9419
35°	10694	9370	9155
40°	10496	9070	8910
45°	10297	8772	8665
50°	10013	8460	8435
55°	9745	8152	8256
60°	9390	7838	8083
65°	8899	7540	7945
70°	8202	7267	7876
75°	7241	7053	7868
80°	5969	6955	7954
85°	4394	7017	8197



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.2	2.5
10°-20°	429.8	7.2
20°-30°	657.9	11.0
30°-40°	806.5	13.5
40°-50°	863.1	14.4
50°-60°	827.9	13.9
60°-70°	714.1	11.9
70°-80°	550.1	9.2
80°-90°	381.4	6.4
90°-100°	248.3	4.2
100°-110°	157.8	2.6
110°-120°	96.3	1.6
120°-130°	55.1	0.9
130°-140°	27.2	0.5
140°-150°	10.2	0.2
150°-160°	2.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1236.9	20.7
0°-40°	2043.4	34.2
0°-60°	3734.4	62.5
0°-90°	5380.0	90.0
90°-120°	502.5	8.4
90°-150°	595.0	10.0
90°-180°	597.0	10.0
0°-180°	5977.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1573	1573	1573	1573	1573	
5°	1581	1566	1572	1564	1564	150
15°	1523	1512	1526	1527	1530	430
25°	1411	1405	1433	1440	1449	650
35°	1252	1253	1295	1314	1330	783
45°	1052	1067	1124	1163	1186	810
55°	820	854	932	994	1026	732
65°	565	620	730	819	858	559
75°	297	389	540	652	696	315
85°	76	206	378	498	542	82
90°	2	140	309	427	470	5
95°	0	94	247	360	401	0
105°	0	47	154	248	283	0
115°	0	26	98	164	192	0
125°	1	13	61	107	125	1
135°	1	3	33	64	76	1
145°	1	1	13	30	38	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°	1573.0	1573.0	1573.0	1573.0	1573.0
2.5°	1586.3	1570.8	1574.5	1568.5	1561.1
5°	1581.1	1566.3	1571.5	1564.1	1564.1
7.5°	1571.5	1558.2	1563.3	1558.9	1559.6
10°	1558.2	1544.8	1553.7	1550.0	1551.5
12.5°	1542.6	1529.2	1541.8	1538.9	1541.1
15°	1522.6	1512.2	1525.5	1527.0	1530.0
17.5°	1499.6	1490.7	1505.5	1510.0	1514.4
20°	1472.1	1465.5	1484.0	1488.4	1495.9
22.5°	1442.5	1436.5	1460.3	1464.0	1472.1
25°	1411.3	1405.4	1432.8	1439.5	1449.1
27.5°	1375.0	1372.7	1402.4	1412.1	1421.7
30°	1336.4	1334.9	1369.0	1380.2	1392.0
32.5°	1294.1	1295.6	1332.7	1347.5	1361.6
35°	1251.9	1253.3	1294.9	1314.2	1329.7
37.5°	1205.9	1210.3	1254.8	1277.8	1297.8
40°	1154.7	1165.1	1212.6	1240.7	1261.5
42.5°	1103.5	1117.6	1169.5	1202.2	1223.7
45°	1051.6	1067.2	1124.3	1162.9	1185.9
47.5°	996.0	1016.0	1077.6	1121.3	1146.6
50°	935.9	963.4	1029.4	1080.5	1105.8
52.5°	878.1	909.2	980.4	1038.3	1065.0
55°	819.5	854.4	931.5	994.5	1026.4
57.5°	757.9	795.8	881.1	950.0	984.9
60°	695.6	738.7	830.6	907.0	942.6
62.5°	631.1	680.1	780.2	862.5	900.3
65°	565.1	620.0	730.5	818.8	858.1
67.5°	498.4	560.7	681.6	777.2	817.3
70°	430.1	502.1	632.6	735.0	776.5
72.5°	363.4	445.0	585.1	691.9	735.7
75°	296.7	389.4	539.9	651.9	695.6
77.5°	232.9	336.7	495.4	612.6	656.3
80°	174.3	288.5	455.4	573.3	617.0
82.5°	120.1	245.5	416.1	535.5	578.5
85°	75.6	206.2	378.2	497.6	542.1
87.5°	36.3	171.3	341.9	462.0	505.8
90°	1.5	140.2	309.3	427.2	470.2
92.5°	0.0	115.0	277.4	393.1	435.3
95°	0.0	94.2	247.0	360.4	401.2
97.5°	0.0	77.9	220.3	330.0	369.3
100°	0.0	63.8	196.5	301.1	338.9
102.5°	0.0	54.1	174.3	273.7	310.0
105°	0.0	46.7	153.5	248.4	283.3
107.5°	0.0	40.0	137.2	225.5	258.1
110°	0.0	34.1	122.4	203.2	235.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.7	29.7	109.0	183.9	212.8
115°	0.0	26.0	97.9	163.9	192.1
117.5°	0.0	21.5	87.5	147.6	172.8
120°	0.0	18.5	77.9	132.8	155.0
122.5°	0.7	15.6	69.0	119.4	139.4
125°	0.7	12.6	60.8	106.8	125.3
127.5°	0.7	9.6	53.4	94.9	112.0
130°	0.7	7.4	46.0	83.8	98.6
132.5°	0.7	5.2	39.3	73.4	87.5
135°	0.7	3.0	32.6	63.8	75.6
137.5°	0.7	1.5	26.7	54.1	65.3
140°	0.7	0.7	21.5	46.0	55.6
142.5°	0.7	0.0	16.3	38.6	46.0
145°	0.7	0.7	12.6	30.4	37.8
147.5°	0.7	0.7	8.9	23.7	30.4
150°	0.7	0.7	5.2	17.1	23.0
152.5°	0.7	0.7	2.2	11.9	17.1
155°	0.7	0.7	0.7	7.4	11.1
157.5°	0.7	0.7	0.0	3.0	5.9
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)