

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: P236363

Luminaire Tested: **4SWLED-78HL-LW-UNV-L850-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236363
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-78HL-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

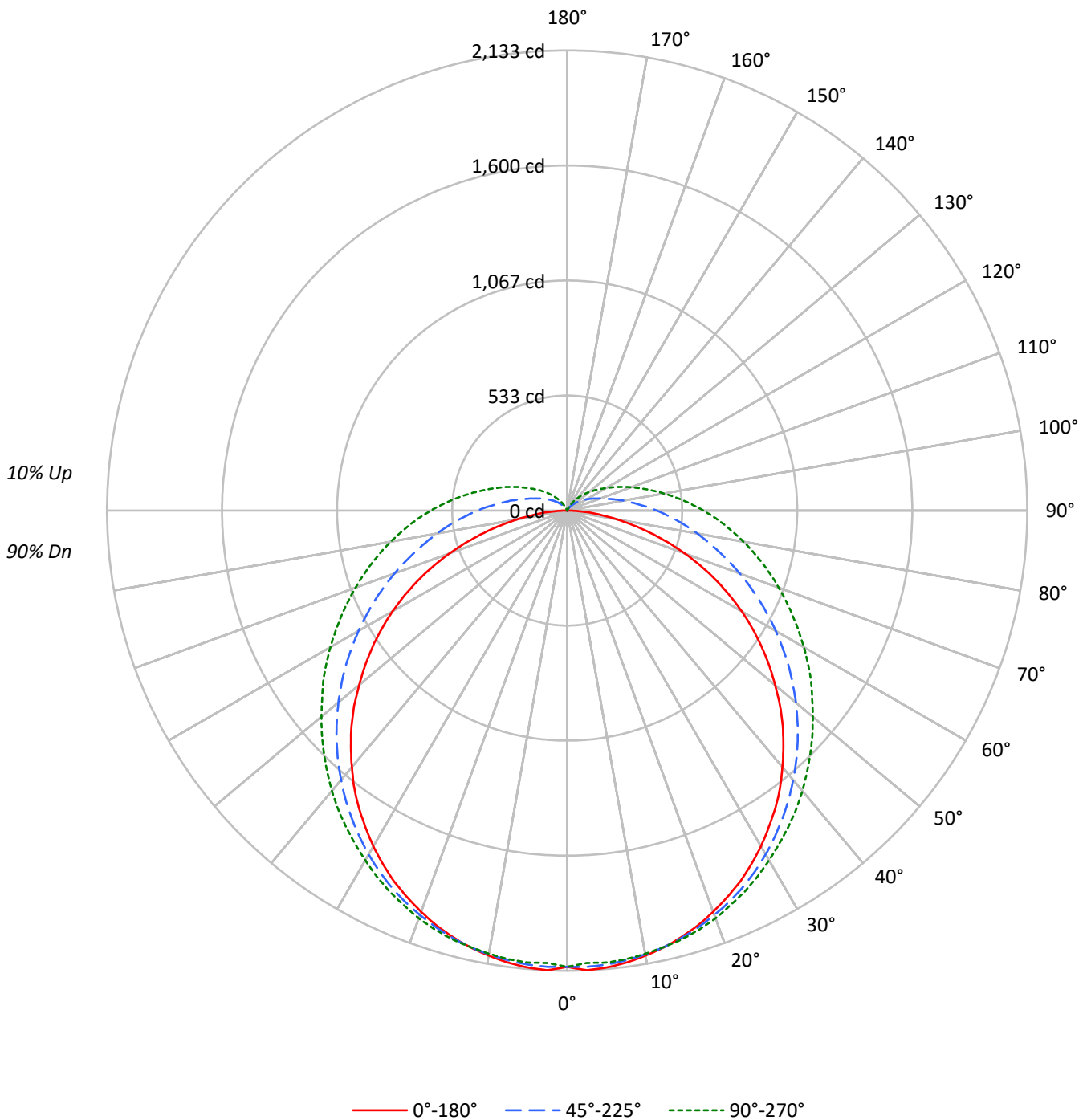
Lumens per Lamp: N/A
Luminaire Lumens: 8036.0 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

Input Watts (W): 79.4
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°	15176	15176	15176
5°	15264	14830	14650
10°	15167	14455	14224
15°	15061	14101	13840
20°	14917	13733	13454
25°	14773	13377	13058
30°	14581	12996	12665
35°	14377	12598	12310
40°	14111	12194	11979
45°	13844	11793	11650
50°	13462	11374	11341
55°	13102	10961	11100
60°	12626	10538	10868
65°	11966	10137	10681
70°	11029	9771	10590
75°	9733	9482	10579
80°	8023	9350	10695
85°	5910	9434	11022



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.5	2.5
10°-20°	577.9	7.2
20°-30°	884.5	11.0
30°-40°	1084.3	13.5
40°-50°	1160.5	14.4
50°-60°	1113.1	13.9
60°-70°	960.0	11.9
70°-80°	739.6	9.2
80°-90°	512.8	6.4
90°-100°	333.9	4.2
100°-110°	212.2	2.6
110°-120°	129.5	1.6
120°-130°	74.1	0.9
130°-140°	36.6	0.5
140°-150°	13.8	0.2
150°-160°	2.6	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1663.0	20.7
0°-40°	2747.3	34.2
0°-60°	5020.9	62.5
0°-90°	7233.4	90.0
90°-120°	675.5	8.4
90°-150°	800.0	10.0
90°-180°	803.0	10.0
0°-180°	8036.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2115	2115	2115	2115	2115	
5°	2126	2106	2113	2103	2103	202
15°	2047	2033	2051	2053	2057	578
25°	1898	1890	1926	1935	1948	874
35°	1683	1685	1741	1767	1788	1052
45°	1414	1435	1512	1564	1594	1089
55°	1102	1149	1252	1337	1380	984
65°	760	834	982	1101	1154	751
75°	399	524	726	876	935	424
85°	102	277	508	669	729	110
90°	2	188	416	574	632	7
95°	0	127	332	485	539	0
105°	0	63	206	334	381	0
115°	0	35	132	220	258	0
125°	1	17	82	144	168	1
135°	1	4	44	86	102	1
145°	1	1	17	41	51	1
155°	1	1	1	10	15	1
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°	2114.9	2114.9	2114.9	2114.9	2114.9
2.5°	2132.8	2111.9	2116.9	2108.9	2098.9
5°	2125.8	2105.9	2112.9	2102.9	2102.9
7.5°	2112.9	2094.9	2101.9	2095.9	2096.9
10°	2094.9	2077.0	2088.9	2084.0	2085.9
12.5°	2074.0	2056.0	2073.0	2069.0	2072.0
15°	2047.1	2033.1	2051.0	2053.0	2057.0
17.5°	2016.1	2004.2	2024.1	2030.1	2036.1
20°	1979.3	1970.3	1995.2	2001.2	2011.2
22.5°	1939.4	1931.4	1963.3	1968.3	1979.3
25°	1897.5	1889.5	1926.4	1935.4	1948.3
27.5°	1848.6	1845.6	1885.5	1898.5	1911.5
30°	1796.8	1794.8	1840.7	1855.6	1871.6
32.5°	1740.0	1741.9	1791.8	1811.7	1830.7
35°	1683.1	1685.1	1740.9	1766.9	1787.8
37.5°	1621.3	1627.3	1687.1	1718.0	1744.9
40°	1552.5	1566.5	1630.3	1668.2	1696.1
42.5°	1483.7	1502.6	1572.4	1616.3	1645.2
45°	1413.9	1434.8	1511.6	1563.5	1594.4
47.5°	1339.1	1366.0	1448.8	1507.6	1541.5
50°	1258.3	1295.2	1384.0	1452.8	1486.7
52.5°	1180.6	1222.5	1318.2	1395.9	1431.8
55°	1101.8	1148.7	1252.4	1337.1	1380.0
57.5°	1019.0	1069.9	1184.6	1277.3	1324.2
60°	935.3	993.1	1116.8	1219.5	1267.3
62.5°	848.5	914.3	1049.0	1159.6	1210.5
65°	759.8	833.6	982.1	1100.8	1153.7
67.5°	670.1	753.8	916.3	1045.0	1098.8
70°	578.3	675.0	850.5	988.1	1044.0
72.5°	488.6	598.3	786.7	930.3	989.1
75°	398.8	523.5	725.9	876.5	935.3
77.5°	313.1	452.7	666.1	823.6	882.4
80°	234.3	387.9	612.2	770.8	829.6
82.5°	161.5	330.0	559.4	719.9	777.7
85°	101.7	277.2	508.5	669.1	728.9
87.5°	48.9	230.3	459.7	621.2	680.0
90°	2.0	188.5	415.8	574.3	632.2
92.5°	0.0	154.6	372.9	528.5	585.3
95°	0.0	126.6	332.0	484.6	539.4
97.5°	0.0	104.7	296.1	443.7	496.6
100°	0.0	85.8	264.2	404.8	455.7
102.5°	0.0	72.8	234.3	367.9	416.8
105°	0.0	62.8	206.4	334.0	380.9
107.5°	0.0	53.8	184.5	303.1	347.0
110°	0.0	45.9	164.5	273.2	316.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.0	39.9	146.6	247.3	286.2
115°	0.0	34.9	131.6	220.4	258.3
117.5°	0.0	28.9	117.7	198.4	232.3
120°	0.0	24.9	104.7	178.5	208.4
122.5°	1.0	20.9	92.7	160.5	187.5
125°	1.0	17.0	81.8	143.6	168.5
127.5°	1.0	13.0	71.8	127.6	150.6
130°	1.0	10.0	61.8	112.7	132.6
132.5°	1.0	7.0	52.8	98.7	117.7
135°	1.0	4.0	43.9	85.8	101.7
137.5°	1.0	2.0	35.9	72.8	87.7
140°	1.0	1.0	28.9	61.8	74.8
142.5°	1.0	0.0	21.9	51.8	61.8
145°	1.0	1.0	17.0	40.9	50.9
147.5°	1.0	1.0	12.0	31.9	40.9
150°	1.0	1.0	7.0	22.9	30.9
152.5°	1.0	1.0	3.0	16.0	22.9
155°	1.0	1.0	1.0	10.0	15.0
157.5°	1.0	1.0	0.0	4.0	8.0
160°	2.0	1.0	0.0	0.0	2.0
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)