

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: P234507

Luminaire Tested: **4WSNLED-LD4-40SL-F-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P234507  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-169-11)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4WSNLED-LD4-40SL-F-UNV-L850-CD1-U  
Description: 4FT WSNLED WRAPAROUND  
Light Source: (224) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

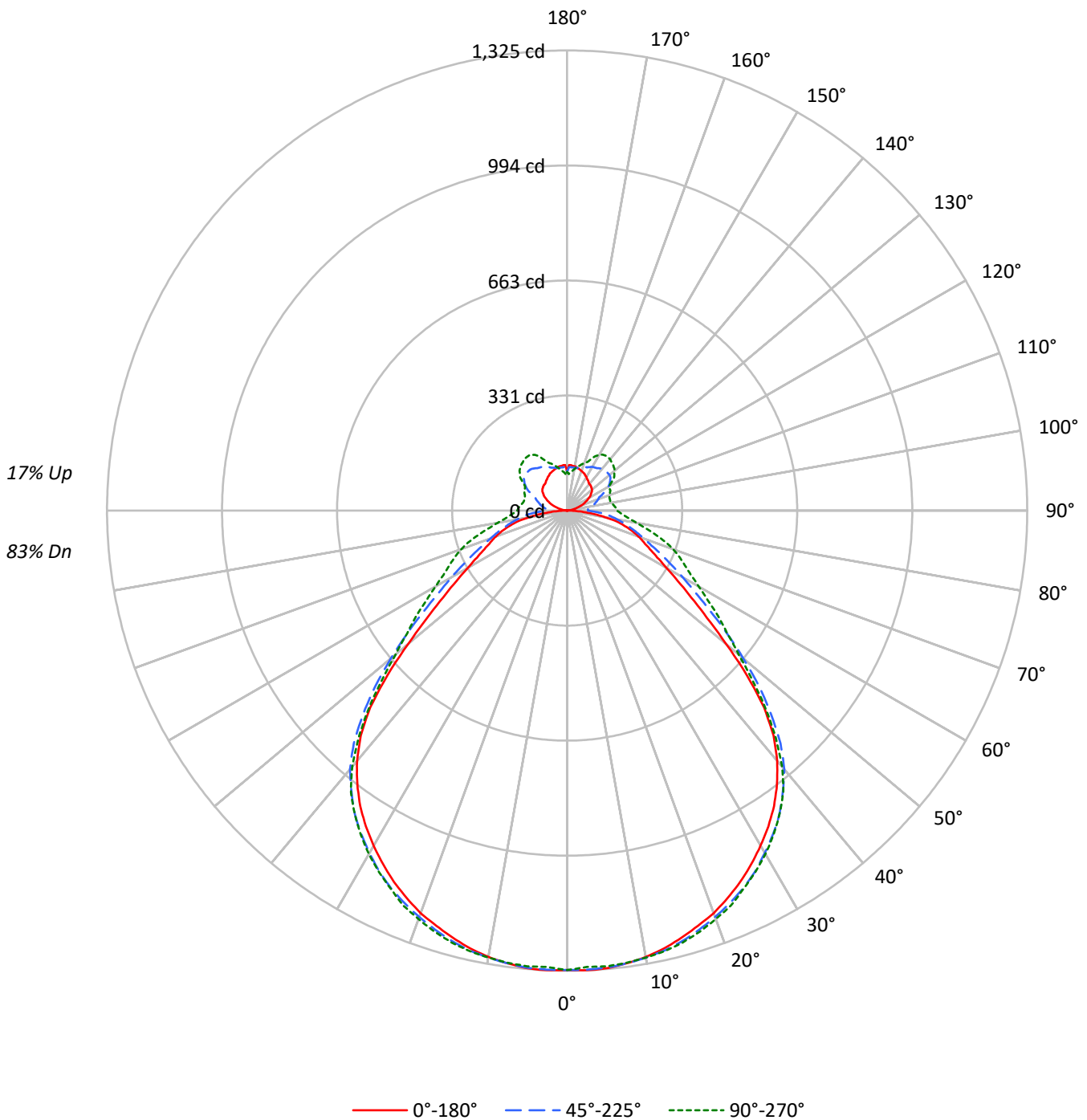
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4109.0 lumens  
Efficiency: N/A  
Efficacy: 114.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.12')  
CIE Type: Semi-Direct  
  
Input Watts (W): 35.9  
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			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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	83
1	105	100	96	92	100	96	93	89	89	86	83	82	80	78	76	74	72	69
2	96	88	82	76	92	85	79	74	78	74	70	73	69	65	67	64	62	59
3	88	78	70	64	84	75	68	62	70	64	59	65	60	56	60	56	53	50
4	81	69	61	55	77	67	59	53	62	56	51	58	53	48	54	50	46	43
5	74	62	54	47	71	60	52	46	56	49	44	52	47	42	49	44	40	38
6	69	56	48	42	66	54	46	41	51	44	39	48	42	37	44	40	36	33
7	64	51	43	37	61	49	42	36	46	40	35	43	38	33	41	36	32	30
8	59	47	38	33	57	45	38	32	42	36	31	40	34	30	38	32	29	27
9	56	43	35	30	53	41	34	29	39	33	28	37	31	27	35	30	26	24
10	52	39	32	27	50	38	31	26	36	30	25	34	29	25	32	27	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3560	3560	3560
5°	3564	3534	3519
10°	3547	3503	3495
15°	3518	3472	3470
20°	3493	3429	3428
25°	3453	3388	3372
30°	3400	3324	3310
35°	3339	3252	3221
40°	3221	3128	3061
45°	2959	2850	2739
50°	2409	2451	2349
55°	1957	2032	2115
60°	1686	1735	1936
65°	1567	1536	1878
70°	1585	1417	1899
75°	1612	1377	1848
80°	1493	1402	1840
85°	1085	1465	2099



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.5	3.1
10°-20°	361.4	8.8
20°-30°	549.9	13.4
30°-40°	659.5	16.0
40°-50°	627.8	15.3
50°-60°	447.0	10.9
60°-70°	303.9	7.4
70°-80°	205.0	5.0
80°-90°	117.5	2.9
90°-100°	75.9	1.8
100°-110°	85.5	2.1
110°-120°	106.2	2.6
120°-130°	121.8	3.0
130°-140°	115.8	2.8
140°-150°	93.8	2.3
150°-160°	64.6	1.6
160°-170°	36.3	0.9
170°-180°	11.6	0.3
0°-30°	1036.8	25.2
0°-40°	1696.3	41.3
0°-60°	2771.1	67.4
0°-90°	3397.5	82.7
90°-120°	267.6	6.5
90°-150°	598.9	14.6
90°-180°	711.0	17.3
0°-180°	4109.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1323	1323	1323	1323	1323	
5°	1323	1315	1321	1319	1317	126
15°	1273	1271	1283	1289	1287	359
25°	1180	1182	1200	1204	1202	543
35°	1038	1044	1066	1066	1066	648
45°	802	822	832	832	810	607
55°	436	480	501	505	531	398
65°	263	280	298	316	374	264
75°	173	145	187	223	261	180
85°	48	68	107	149	165	53
90°	0	30	60	113	143	3
95°	4	28	62	115	137	5
105°	28	42	84	115	127	30
115°	58	92	113	127	137	58
125°	84	111	151	163	165	75
135°	98	117	159	183	187	75
145°	105	117	149	183	193	66
155°	117	119	137	159	163	54
165°	125	125	127	129	133	35
175°	131	131	125	109	111	12
180°	111	111	111	111	111	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1323.0	1323.0	1323.0	1323.0	1323.0
2.5°	1325.0	1319.0	1323.0	1323.0	1315.1
5°	1323.0	1315.1	1321.0	1319.0	1317.1
7.5°	1315.1	1309.1	1315.1	1317.1	1313.1
10°	1305.1	1299.2	1307.1	1309.1	1307.1
12.5°	1291.2	1287.2	1297.2	1301.1	1299.2
15°	1273.3	1271.3	1283.2	1289.2	1287.2
17.5°	1253.4	1251.4	1265.3	1273.3	1271.3
20°	1233.5	1231.5	1245.4	1251.4	1251.4
22.5°	1207.6	1207.6	1223.6	1229.5	1231.5
25°	1179.8	1181.8	1199.7	1203.7	1201.7
27.5°	1148.0	1149.9	1171.8	1173.8	1173.8
30°	1114.1	1118.1	1138.0	1140.0	1142.0
32.5°	1078.3	1082.3	1104.2	1104.2	1106.2
35°	1038.5	1044.5	1066.4	1066.4	1066.4
37.5°	992.8	1000.7	1020.6	1020.6	1022.6
40°	941.0	953.0	972.9	970.9	962.9
42.5°	879.4	895.3	909.2	907.2	889.3
45°	801.8	821.7	831.6	831.6	809.7
47.5°	702.3	732.1	750.0	742.1	724.2
50°	596.9	640.6	662.5	658.5	644.6
52.5°	507.3	557.1	578.9	577.0	580.9
55°	435.7	479.5	501.4	505.3	531.2
57.5°	378.0	417.8	435.7	447.6	479.5
60°	330.3	366.1	384.0	395.9	437.7
62.5°	292.5	320.3	338.2	352.1	401.9
65°	262.6	280.5	298.4	316.3	374.0
67.5°	238.7	242.7	262.6	288.5	350.2
70°	218.8	204.9	234.8	264.6	324.3
72.5°	197.0	173.1	210.9	240.7	294.4
75°	173.1	145.2	187.0	222.8	260.6
77.5°	147.2	121.4	167.1	202.9	228.8
80°	113.4	103.5	147.2	185.0	202.9
82.5°	79.6	85.5	127.3	169.1	181.0
85°	47.7	67.6	107.4	149.2	165.1
87.5°	21.9	49.7	81.6	129.3	153.2
90°	0.0	29.8	59.7	113.4	143.2
92.5°	2.0	29.8	59.7	115.4	141.3
95°	4.0	27.9	61.7	115.4	137.3
97.5°	8.0	27.9	67.6	113.4	133.3
100°	13.9	29.8	73.6	113.4	129.3
102.5°	19.9	31.8	79.6	115.4	127.3
105°	27.9	41.8	83.6	115.4	127.3
107.5°	35.8	55.7	89.5	117.4	127.3
110°	43.8	71.6	95.5	119.4	129.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	51.7	83.6	99.5	125.3	133.3
115°	57.7	91.5	113.4	127.3	137.3
117.5°	65.7	97.5	127.3	129.3	137.3
120°	71.6	103.5	137.3	137.3	139.3
122.5°	79.6	107.4	145.2	153.2	151.2
125°	83.6	111.4	151.2	163.1	165.1
127.5°	89.5	113.4	157.2	169.1	171.1
130°	93.5	115.4	159.2	175.1	179.1
132.5°	95.5	115.4	159.2	179.1	183.0
135°	97.5	117.4	159.2	183.0	187.0
137.5°	99.5	115.4	159.2	185.0	189.0
140°	99.5	115.4	157.2	185.0	193.0
142.5°	101.5	115.4	153.2	185.0	193.0
145°	105.4	117.4	149.2	183.0	193.0
147.5°	107.4	117.4	147.2	179.1	191.0
150°	111.4	117.4	145.2	173.1	185.0
152.5°	113.4	117.4	141.3	167.1	177.1
155°	117.4	119.4	137.3	159.2	163.1
157.5°	119.4	119.4	135.3	151.2	151.2
160°	121.4	121.4	131.3	143.2	145.2
162.5°	123.3	123.3	129.3	135.3	139.3
165°	125.3	125.3	127.3	129.3	133.3
167.5°	127.3	127.3	125.3	121.4	127.3
170°	129.3	129.3	125.3	115.4	121.4
172.5°	129.3	131.3	125.3	111.4	115.4
175°	131.3	131.3	125.3	109.4	111.4
177.5°	131.3	131.3	125.3	105.4	105.4
180°	111.4	111.4	111.4	111.4	111.4

(END OF REPORT)