

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: P234519

Luminaire Tested: **4WSNLED-LD4-52HL-F-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P234519  
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-LD4-52HL-F-UNV-L850-CD1-U  
Description: 4FT WSNLED WRAPAROUND  
Light Source: (224) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

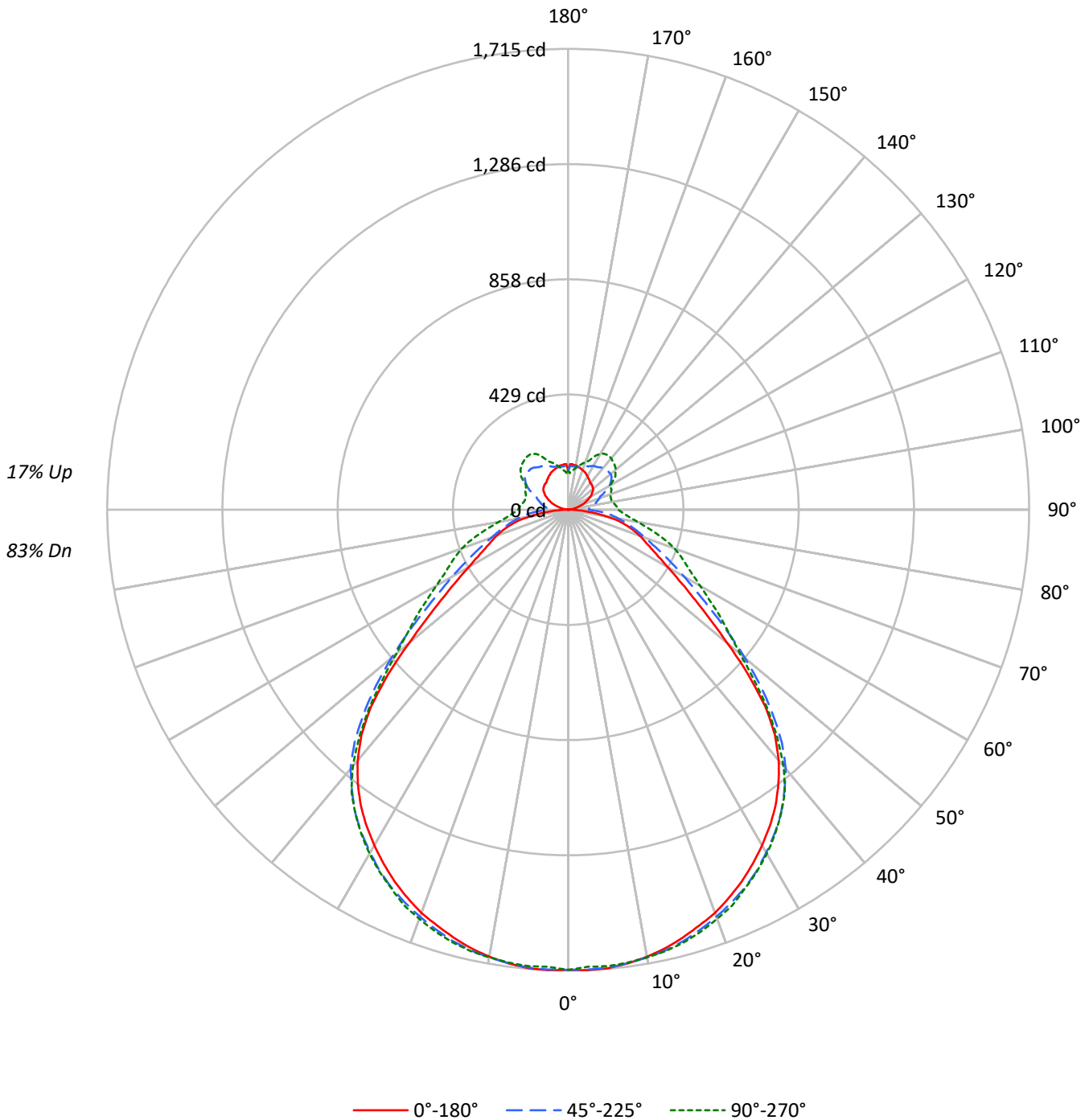
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5319.0 lumens  
Efficiency: N/A  
Efficacy: 109.0 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): 48.8  
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	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°	4609	4609	4609
5°	4614	4575	4556
10°	4591	4535	4524
15°	4554	4495	4492
20°	4521	4438	4437
25°	4469	4385	4364
30°	4402	4303	4284
35°	4322	4209	4170
40°	4170	4049	3963
45°	3830	3689	3546
50°	3118	3173	3040
55°	2533	2630	2737
60°	2183	2245	2507
65°	2028	1989	2431
70°	2053	1834	2459
75°	2087	1782	2392
80°	1932	1816	2382
85°	1406	1898	2718



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.4	3.1
10°-20°	467.9	8.8
20°-30°	711.8	13.4
30°-40°	853.7	16.0
40°-50°	812.6	15.3
50°-60°	578.7	10.9
60°-70°	393.4	7.4
70°-80°	265.4	5.0
80°-90°	152.2	2.9
90°-100°	98.3	1.8
100°-110°	110.6	2.1
110°-120°	137.5	2.6
120°-130°	157.7	3.0
130°-140°	149.9	2.8
140°-150°	121.4	2.3
150°-160°	83.6	1.6
160°-170°	47.0	0.9
170°-180°	15.1	0.3
0°-30°	1342.1	25.2
0°-40°	2195.8	41.3
0°-60°	3587.1	67.4
0°-90°	4398.1	82.7
90°-120°	346.4	6.5
90°-150°	775.3	14.6
90°-180°	921.0	17.3
0°-180°	5319.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1713	1713	1713	1713	1713	
5°	1713	1702	1710	1708	1705	163
15°	1648	1646	1661	1669	1666	465
25°	1527	1530	1553	1558	1556	703
35°	1344	1352	1380	1380	1380	838
45°	1038	1064	1076	1076	1048	785
55°	564	621	649	654	688	515
65°	340	363	386	410	484	342
75°	224	188	242	288	337	233
85°	62	88	139	193	214	69
90°	0	39	77	147	185	4
95°	5	36	80	149	178	7
105°	36	54	108	149	165	38
115°	75	118	147	165	178	75
125°	108	144	196	211	214	97
135°	126	152	206	237	242	97
145°	136	152	193	237	250	85
155°	152	154	178	206	211	70
165°	162	162	165	167	173	46
175°	170	170	162	142	144	16
180°	144	144	144	144	144	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1712.6	1712.6	1712.6	1712.6	1712.6
2.5°	1715.2	1707.5	1712.6	1712.6	1702.3
5°	1712.6	1702.3	1710.1	1707.5	1704.9
7.5°	1702.3	1694.6	1702.3	1704.9	1699.7
10°	1689.4	1681.7	1692.0	1694.6	1692.0
12.5°	1671.4	1666.3	1679.1	1684.3	1681.7
15°	1648.2	1645.7	1661.1	1668.8	1666.3
17.5°	1622.5	1619.9	1637.9	1648.2	1645.7
20°	1596.7	1594.2	1612.2	1619.9	1619.9
22.5°	1563.3	1563.3	1583.9	1591.6	1594.2
25°	1527.2	1529.8	1553.0	1558.1	1555.5
27.5°	1486.0	1488.6	1516.9	1519.5	1519.5
30°	1442.2	1447.4	1473.1	1475.7	1478.3
32.5°	1395.9	1401.0	1429.3	1429.3	1431.9
35°	1344.3	1352.1	1380.4	1380.4	1380.4
37.5°	1285.1	1295.4	1321.2	1321.2	1323.7
40°	1218.2	1233.6	1259.4	1256.8	1246.5
42.5°	1138.3	1158.9	1176.9	1174.4	1151.2
45°	1037.9	1063.6	1076.5	1076.5	1048.2
47.5°	909.1	947.7	970.9	960.6	937.4
50°	772.6	829.3	857.6	852.5	834.4
52.5°	656.7	721.1	749.4	746.9	752.0
55°	564.0	620.7	649.0	654.1	687.6
57.5°	489.3	540.8	564.0	579.5	620.7
60°	427.5	473.9	497.0	512.5	566.6
62.5°	378.6	414.6	437.8	455.8	520.2
65°	339.9	363.1	386.3	409.5	484.2
67.5°	309.0	314.2	339.9	373.4	453.3
70°	283.3	265.3	303.9	342.5	419.8
72.5°	255.0	224.1	273.0	311.6	381.2
75°	224.1	188.0	242.1	288.4	337.4
77.5°	190.6	157.1	216.3	262.7	296.2
80°	146.8	133.9	190.6	239.5	262.7
82.5°	103.0	110.7	164.8	218.9	234.4
85°	61.8	87.6	139.1	193.2	213.8
87.5°	28.3	64.4	105.6	167.4	198.3
90°	0.0	38.6	77.3	146.8	185.4
92.5°	2.6	38.6	77.3	149.4	182.9
95°	5.2	36.1	79.8	149.4	177.7
97.5°	10.3	36.1	87.6	146.8	172.6
100°	18.0	38.6	95.3	146.8	167.4
102.5°	25.8	41.2	103.0	149.4	164.8
105°	36.1	54.1	108.2	149.4	164.8
107.5°	46.4	72.1	115.9	151.9	164.8
110°	56.7	92.7	123.6	154.5	167.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	67.0	108.2	128.8	162.2	172.6
115°	74.7	118.5	146.8	164.8	177.7
117.5°	85.0	126.2	164.8	167.4	177.7
120°	92.7	133.9	177.7	177.7	180.3
122.5°	103.0	139.1	188.0	198.3	195.7
125°	108.2	144.2	195.7	211.2	213.8
127.5°	115.9	146.8	203.5	218.9	221.5
130°	121.0	149.4	206.0	226.6	231.8
132.5°	123.6	149.4	206.0	231.8	236.9
135°	126.2	151.9	206.0	236.9	242.1
137.5°	128.8	149.4	206.0	239.5	244.7
140°	128.8	149.4	203.5	239.5	249.8
142.5°	131.3	149.4	198.3	239.5	249.8
145°	136.5	151.9	193.2	236.9	249.8
147.5°	139.1	151.9	190.6	231.8	247.2
150°	144.2	151.9	188.0	224.1	239.5
152.5°	146.8	151.9	182.9	216.3	229.2
155°	151.9	154.5	177.7	206.0	211.2
157.5°	154.5	154.5	175.1	195.7	195.7
160°	157.1	157.1	170.0	185.4	188.0
162.5°	159.7	159.7	167.4	175.1	180.3
165°	162.2	162.2	164.8	167.4	172.6
167.5°	164.8	164.8	162.2	157.1	164.8
170°	167.4	167.4	162.2	149.4	157.1
172.5°	167.4	170.0	162.2	144.2	149.4
175°	170.0	170.0	162.2	141.6	144.2
177.5°	170.0	170.0	162.2	136.5	136.5
180°	144.2	144.2	144.2	144.2	144.2

(END OF REPORT)