

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: P234513

Luminaire Tested: **4WSNLED-LD4-48HL-F-UNV-L835-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P234513
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-LD4-48HL-F-UNV-L835-CD1-U
Description: 4FT WSNLED WRAPAROUND
Light Source: (224) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

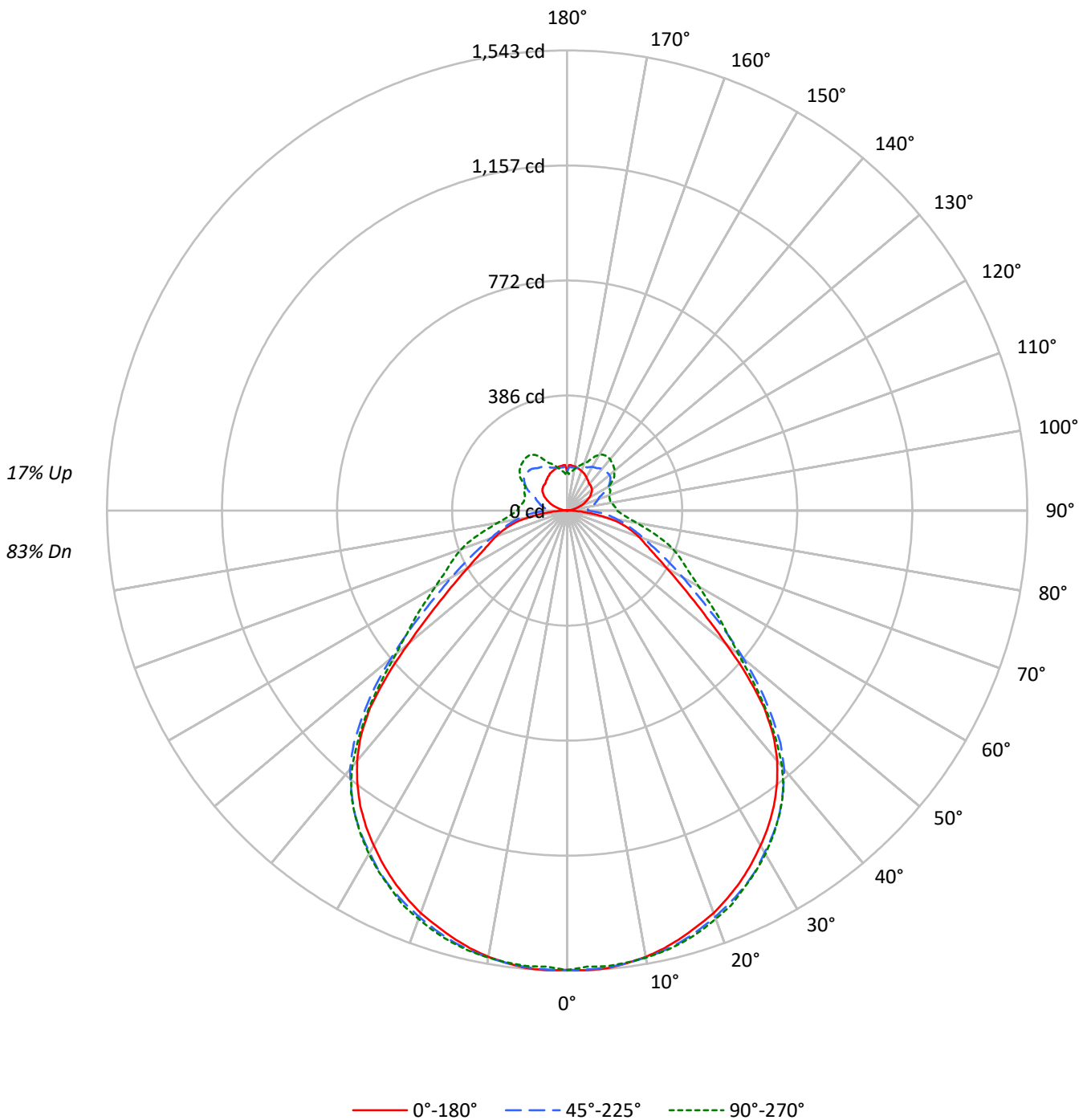
Lumens per Lamp: N/A
Luminaire Lumens: 4784.0 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 43.7
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°	4145	4145	4145
5°	4150	4115	4097
10°	4129	4079	4069
15°	4096	4042	4040
20°	4066	3992	3991
25°	4020	3944	3925
30°	3959	3870	3853
35°	3887	3786	3750
40°	3750	3641	3564
45°	3445	3318	3189
50°	2805	2853	2735
55°	2278	2365	2462
60°	1963	2020	2255
65°	1825	1789	2187
70°	1846	1650	2211
75°	1876	1603	2151
80°	1738	1633	2143
85°	1265	1707	2445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.1	3.1
10°-20°	420.8	8.8
20°-30°	640.2	13.4
30°-40°	767.8	16.0
40°-50°	730.9	15.3
50°-60°	520.5	10.9
60°-70°	353.8	7.4
70°-80°	238.7	5.0
80°-90°	136.9	2.9
90°-100°	88.4	1.8
100°-110°	99.5	2.1
110°-120°	123.6	2.6
120°-130°	141.8	3.0
130°-140°	134.8	2.8
140°-150°	109.2	2.3
150°-160°	75.2	1.6
160°-170°	42.3	0.9
170°-180°	13.6	0.3
0°-30°	1207.1	25.2
0°-40°	1974.9	41.3
0°-60°	3226.3	67.4
0°-90°	3955.7	82.7
90°-120°	311.5	6.5
90°-150°	697.2	14.6
90°-180°	828.0	17.3
0°-180°	4784.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1540	1540	1540	1540	1540	
5°	1540	1531	1538	1536	1533	146
15°	1482	1480	1494	1501	1499	419
25°	1374	1376	1397	1401	1399	633
35°	1209	1216	1242	1242	1242	754
45°	934	957	968	968	943	706
55°	507	558	584	588	618	463
65°	306	327	348	368	436	308
75°	202	169	218	259	303	210
85°	56	79	125	174	192	62
90°	0	35	70	132	167	4
95°	5	32	72	134	160	6
105°	32	49	97	134	148	34
115°	67	107	132	148	160	67
125°	97	130	176	190	192	87
135°	114	137	185	213	218	88
145°	123	137	174	213	225	77
155°	137	139	160	185	190	63
165°	146	146	148	151	155	41
175°	153	153	146	127	130	14
180°	130	130	130	130	130	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1540.4	1540.4	1540.4	1540.4	1540.4
2.5°	1542.7	1535.7	1540.4	1540.4	1531.1
5°	1540.4	1531.1	1538.0	1535.7	1533.4
7.5°	1531.1	1524.2	1531.1	1533.4	1528.8
10°	1519.5	1512.6	1521.8	1524.2	1521.8
12.5°	1503.3	1498.7	1510.3	1514.9	1512.6
15°	1482.5	1480.1	1494.0	1501.0	1498.7
17.5°	1459.3	1457.0	1473.2	1482.5	1480.1
20°	1436.1	1433.8	1450.0	1457.0	1457.0
22.5°	1406.0	1406.0	1424.5	1431.5	1433.8
25°	1373.6	1375.9	1396.8	1401.4	1399.1
27.5°	1336.5	1338.8	1364.3	1366.6	1366.6
30°	1297.2	1301.8	1324.9	1327.3	1329.6
32.5°	1255.5	1260.1	1285.6	1285.6	1287.9
35°	1209.1	1216.1	1241.6	1241.6	1241.6
37.5°	1155.9	1165.1	1188.3	1188.3	1190.6
40°	1095.6	1109.5	1132.7	1130.4	1121.1
42.5°	1023.8	1042.4	1058.6	1056.3	1035.4
45°	933.5	956.6	968.2	968.2	942.8
47.5°	817.7	852.4	873.3	864.0	843.1
50°	694.9	745.9	771.3	766.7	750.5
52.5°	590.7	648.6	674.1	671.7	676.4
55°	507.3	558.2	583.7	588.4	618.5
57.5°	440.1	486.4	507.3	521.2	558.2
60°	384.5	426.2	447.1	461.0	509.6
62.5°	340.5	372.9	393.8	410.0	467.9
65°	305.8	326.6	347.5	368.3	435.5
67.5°	278.0	282.6	305.8	335.9	407.7
70°	254.8	238.6	273.3	308.1	377.6
72.5°	229.3	201.5	245.5	280.3	342.8
75°	201.5	169.1	217.7	259.4	303.4
77.5°	171.4	141.3	194.6	236.3	266.4
80°	132.0	120.4	171.4	215.4	236.3
82.5°	92.7	99.6	148.2	196.9	210.8
85°	55.6	78.8	125.1	173.7	192.3
87.5°	25.5	57.9	95.0	150.6	178.4
90°	0.0	34.7	69.5	132.0	166.8
92.5°	2.3	34.7	69.5	134.3	164.5
95°	4.6	32.4	71.8	134.3	159.8
97.5°	9.3	32.4	78.8	132.0	155.2
100°	16.2	34.7	85.7	132.0	150.6
102.5°	23.2	37.1	92.7	134.3	148.2
105°	32.4	48.6	97.3	134.3	148.2
107.5°	41.7	64.9	104.2	136.7	148.2
110°	51.0	83.4	111.2	139.0	150.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	60.2	97.3	115.8	145.9	155.2
115°	67.2	106.6	132.0	148.2	159.8
117.5°	76.4	113.5	148.2	150.6	159.8
120°	83.4	120.4	159.8	159.8	162.1
122.5°	92.7	125.1	169.1	178.4	176.0
125°	97.3	129.7	176.0	189.9	192.3
127.5°	104.2	132.0	183.0	196.9	199.2
130°	108.9	134.3	185.3	203.8	208.5
132.5°	111.2	134.3	185.3	208.5	213.1
135°	113.5	136.7	185.3	213.1	217.7
137.5°	115.8	134.3	185.3	215.4	220.1
140°	115.8	134.3	183.0	215.4	224.7
142.5°	118.1	134.3	178.4	215.4	224.7
145°	122.8	136.7	173.7	213.1	224.7
147.5°	125.1	136.7	171.4	208.5	222.4
150°	129.7	136.7	169.1	201.5	215.4
152.5°	132.0	136.7	164.5	194.6	206.2
155°	136.7	139.0	159.8	185.3	189.9
157.5°	139.0	139.0	157.5	176.0	176.0
160°	141.3	141.3	152.9	166.8	169.1
162.5°	143.6	143.6	150.6	157.5	162.1
165°	145.9	145.9	148.2	150.6	155.2
167.5°	148.2	148.2	145.9	141.3	148.2
170°	150.6	150.6	145.9	134.3	141.3
172.5°	150.6	152.9	145.9	129.7	134.3
175°	152.9	152.9	145.9	127.4	129.7
177.5°	152.9	152.9	145.9	122.8	122.8
180°	129.7	129.7	129.7	129.7	129.7

(END OF REPORT)