

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: P235488

Luminaire Tested: **4WSNLED-LD4-48HL-F-UNV-L830-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P235488
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-L830-CD1-U
Description: 4FT WSNLED WRAPAROUND
Light Source: (224) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

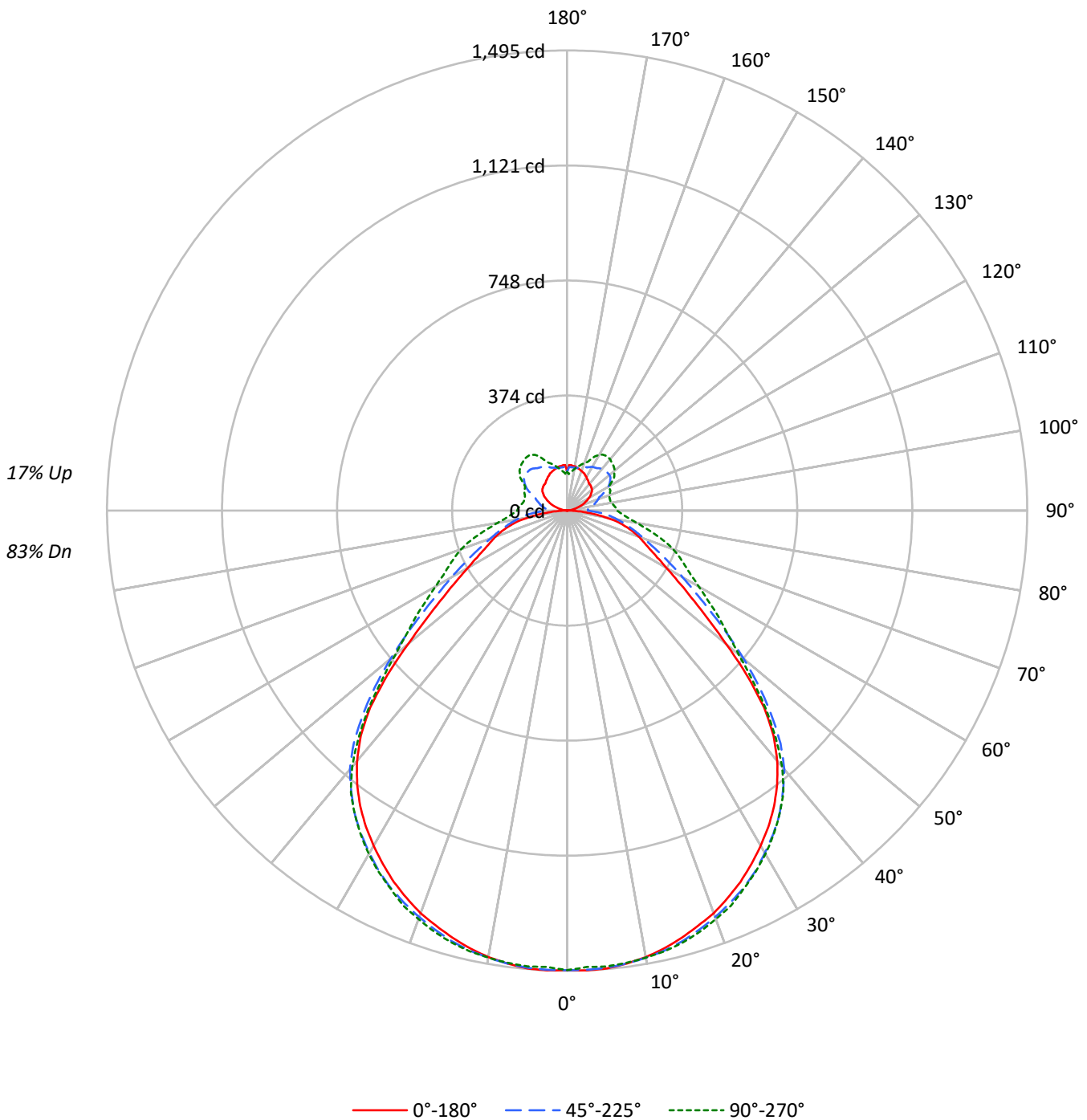
Lumens per Lamp: N/A
Luminaire Lumens: 4637.0 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

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°	4018	4018	4018
5°	4022	3988	3971
10°	4002	3954	3944
15°	3970	3918	3916
20°	3941	3869	3868
25°	3896	3823	3805
30°	3838	3751	3735
35°	3768	3669	3635
40°	3635	3530	3455
45°	3339	3216	3091
50°	2718	2766	2650
55°	2208	2293	2387
60°	1903	1957	2185
65°	1769	1734	2120
70°	1790	1599	2143
75°	1818	1553	2085
80°	1685	1582	2077
85°	1226	1654	2368



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.6	3.1
10°-20°	407.9	8.8
20°-30°	620.5	13.4
30°-40°	744.2	16.0
40°-50°	708.4	15.3
50°-60°	504.5	10.9
60°-70°	343.0	7.4
70°-80°	231.4	5.0
80°-90°	132.6	2.9
90°-100°	85.7	1.8
100°-110°	96.4	2.1
110°-120°	119.8	2.6
120°-130°	137.4	3.0
130°-140°	130.7	2.8
140°-150°	105.8	2.3
150°-160°	72.8	1.6
160°-170°	41.0	0.9
170°-180°	13.1	0.3
0°-30°	1170.0	25.2
0°-40°	1914.2	41.3
0°-60°	3127.1	67.4
0°-90°	3834.1	82.7
90°-120°	301.9	6.5
90°-150°	675.8	14.6
90°-180°	803.0	17.3
0°-180°	4637.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1493	1493	1493	1493	1493	
5°	1493	1484	1491	1488	1486	142
15°	1437	1435	1448	1455	1453	406
25°	1331	1334	1354	1358	1356	613
35°	1172	1179	1203	1203	1203	731
45°	905	927	938	938	914	685
55°	492	541	566	570	600	449
65°	296	317	337	357	422	298
75°	195	164	211	252	294	204
85°	54	76	121	168	186	60
90°	0	34	67	128	162	4
95°	4	31	70	130	155	6
105°	31	47	94	130	144	33
115°	65	103	128	144	155	65
125°	94	126	171	184	186	85
135°	110	132	180	207	211	85
145°	119	132	168	207	218	74
155°	132	135	155	180	184	61
165°	141	141	144	146	150	40
175°	148	148	141	124	126	14
180°	126	126	126	126	126	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1493.0	1493.0	1493.0	1493.0	1493.0
2.5°	1495.3	1488.5	1493.0	1493.0	1484.1
5°	1493.0	1484.1	1490.8	1488.5	1486.3
7.5°	1484.1	1477.3	1484.1	1486.3	1481.8
10°	1472.8	1466.1	1475.1	1477.3	1475.1
12.5°	1457.1	1452.6	1463.8	1468.3	1466.1
15°	1436.9	1434.7	1448.1	1454.9	1452.6
17.5°	1414.5	1412.2	1427.9	1436.9	1434.7
20°	1392.0	1389.8	1405.5	1412.2	1412.2
22.5°	1362.8	1362.8	1380.8	1387.5	1389.8
25°	1331.4	1333.6	1353.8	1358.3	1356.1
27.5°	1295.5	1297.7	1322.4	1324.6	1324.6
30°	1257.3	1261.8	1284.2	1286.5	1288.7
32.5°	1216.9	1221.4	1246.1	1246.1	1248.3
35°	1172.0	1178.7	1203.4	1203.4	1203.4
37.5°	1120.3	1129.3	1151.8	1151.8	1154.0
40°	1062.0	1075.4	1097.9	1095.6	1086.7
42.5°	992.4	1010.3	1026.0	1023.8	1003.6
45°	904.8	927.3	938.5	938.5	913.8
47.5°	792.5	826.2	846.4	837.4	817.2
50°	673.5	722.9	747.6	743.1	727.4
52.5°	572.5	628.6	653.3	651.1	655.6
55°	491.7	541.1	565.8	570.3	599.5
57.5°	426.6	471.5	491.7	505.2	541.1
60°	372.7	413.1	433.3	446.8	493.9
62.5°	330.0	361.5	381.7	397.4	453.5
65°	296.4	316.6	336.8	357.0	422.1
67.5°	269.4	273.9	296.4	325.5	395.1
70°	247.0	231.3	264.9	298.6	366.0
72.5°	222.3	195.3	238.0	271.7	332.3
75°	195.3	163.9	211.0	251.5	294.1
77.5°	166.1	137.0	188.6	229.0	258.2
80°	128.0	116.7	166.1	208.8	229.0
82.5°	89.8	96.5	143.7	190.8	204.3
85°	53.9	76.3	121.2	168.4	186.3
87.5°	24.7	56.1	92.1	145.9	172.9
90°	0.0	33.7	67.4	128.0	161.7
92.5°	2.2	33.7	67.4	130.2	159.4
95°	4.5	31.4	69.6	130.2	154.9
97.5°	9.0	31.4	76.3	128.0	150.4
100°	15.7	33.7	83.1	128.0	145.9
102.5°	22.5	35.9	89.8	130.2	143.7
105°	31.4	47.1	94.3	130.2	143.7
107.5°	40.4	62.9	101.0	132.5	143.7
110°	49.4	80.8	107.8	134.7	145.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.4	94.3	112.3	141.4	150.4
115°	65.1	103.3	128.0	143.7	154.9
117.5°	74.1	110.0	143.7	145.9	154.9
120°	80.8	116.7	154.9	154.9	157.2
122.5°	89.8	121.2	163.9	172.9	170.6
125°	94.3	125.7	170.6	184.1	186.3
127.5°	101.0	128.0	177.4	190.8	193.1
130°	105.5	130.2	179.6	197.6	202.1
132.5°	107.8	130.2	179.6	202.1	206.6
135°	110.0	132.5	179.6	206.6	211.0
137.5°	112.3	130.2	179.6	208.8	213.3
140°	112.3	130.2	177.4	208.8	217.8
142.5°	114.5	130.2	172.9	208.8	217.8
145°	119.0	132.5	168.4	206.6	217.8
147.5°	121.2	132.5	166.1	202.1	215.5
150°	125.7	132.5	163.9	195.3	208.8
152.5°	128.0	132.5	159.4	188.6	199.8
155°	132.5	134.7	154.9	179.6	184.1
157.5°	134.7	134.7	152.7	170.6	170.6
160°	137.0	137.0	148.2	161.7	163.9
162.5°	139.2	139.2	145.9	152.7	157.2
165°	141.4	141.4	143.7	145.9	150.4
167.5°	143.7	143.7	141.4	137.0	143.7
170°	145.9	145.9	141.4	130.2	137.0
172.5°	145.9	148.2	141.4	125.7	130.2
175°	148.2	148.2	141.4	123.5	125.7
177.5°	148.2	148.2	141.4	119.0	119.0
180°	125.7	125.7	125.7	125.7	125.7

(END OF REPORT)