

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: P235489

Luminaire Tested: **4WSNLED-LD4-52HL-F-UNV-L830-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P235489
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-L830-CD1-U
Description: 4FT WSNLED WRAPAROUND
Light Source: (224) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

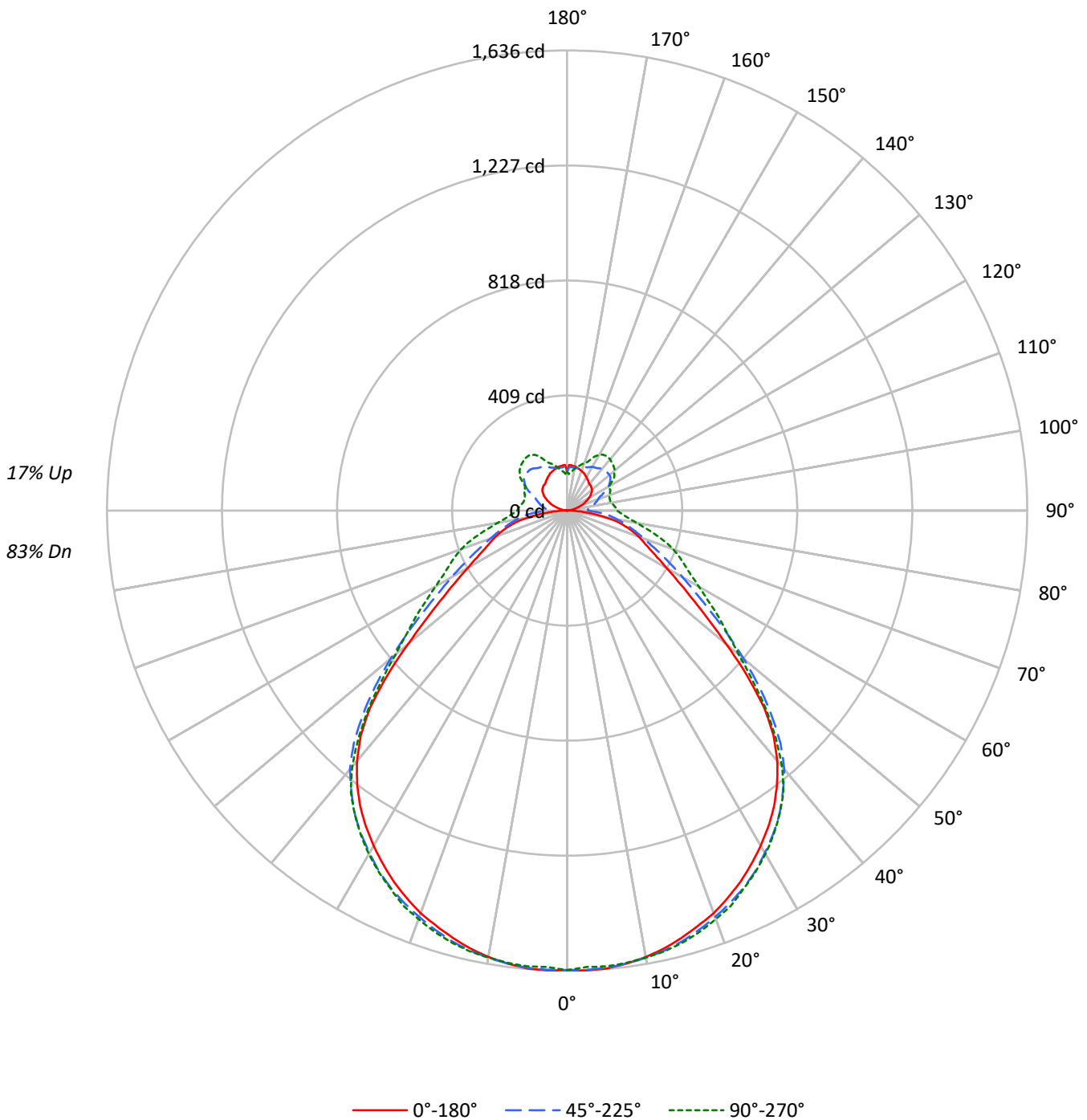
Lumens per Lamp: N/A
Luminaire Lumens: 5074.0 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

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°	4396	4396	4396
5°	4401	4364	4346
10°	4380	4326	4315
15°	4344	4288	4285
20°	4313	4234	4233
25°	4264	4183	4163
30°	4199	4105	4087
35°	4123	4015	3978
40°	3978	3862	3781
45°	3654	3519	3382
50°	2975	3026	2900
55°	2416	2509	2611
60°	2082	2142	2391
65°	1935	1897	2319
70°	1958	1750	2346
75°	1990	1700	2281
80°	1843	1732	2272
85°	1342	1811	2592



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.9	3.1
10°-20°	446.3	8.8
20°-30°	679.0	13.4
30°-40°	814.3	16.0
40°-50°	775.2	15.3
50°-60°	552.0	10.9
60°-70°	375.3	7.4
70°-80°	253.2	5.0
80°-90°	145.2	2.9
90°-100°	93.7	1.8
100°-110°	105.5	2.1
110°-120°	131.1	2.6
120°-130°	150.4	3.0
130°-140°	143.0	2.8
140°-150°	115.8	2.3
150°-160°	79.7	1.6
160°-170°	44.9	0.9
170°-180°	14.4	0.3
0°-30°	1280.3	25.2
0°-40°	2094.6	41.3
0°-60°	3421.9	67.4
0°-90°	4195.5	82.7
90°-120°	330.4	6.5
90°-150°	739.5	14.6
90°-180°	879.0	17.3
0°-180°	5074.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1634	1634	1634	1634	1634	
5°	1634	1624	1631	1629	1626	155
15°	1572	1570	1585	1592	1590	444
25°	1457	1459	1481	1486	1484	671
35°	1282	1290	1317	1317	1317	800
45°	990	1015	1027	1027	1000	749
55°	538	592	619	624	656	491
65°	324	346	368	391	462	327
75°	214	179	231	275	322	223
85°	59	84	133	184	204	65
90°	0	37	74	140	177	4
95°	5	34	76	142	170	7
105°	34	52	103	142	157	37
115°	71	113	140	157	170	71
125°	103	138	187	202	204	93
135°	120	145	196	226	231	93
145°	130	145	184	226	238	81
155°	145	147	170	196	202	66
165°	155	155	157	160	165	44
175°	162	162	155	135	138	15
180°	138	138	138	138	138	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1633.7	1633.7	1633.7	1633.7	1633.7
2.5°	1636.2	1628.8	1633.7	1633.7	1623.9
5°	1633.7	1623.9	1631.3	1628.8	1626.4
7.5°	1623.9	1616.5	1623.9	1626.4	1621.5
10°	1611.6	1604.3	1614.1	1616.5	1614.1
12.5°	1594.4	1589.5	1601.8	1606.7	1604.3
15°	1572.3	1569.9	1584.6	1592.0	1589.5
17.5°	1547.8	1545.3	1562.5	1572.3	1569.9
20°	1523.2	1520.7	1537.9	1545.3	1545.3
22.5°	1491.2	1491.2	1510.9	1518.3	1520.7
25°	1456.9	1459.3	1481.4	1486.3	1483.9
27.5°	1417.5	1420.0	1447.0	1449.5	1449.5
30°	1375.8	1380.7	1405.3	1407.7	1410.2
32.5°	1331.6	1336.5	1363.5	1363.5	1366.0
35°	1282.4	1289.8	1316.8	1316.8	1316.8
37.5°	1225.9	1235.7	1260.3	1260.3	1262.8
40°	1162.0	1176.8	1201.4	1198.9	1189.1
42.5°	1085.9	1105.5	1122.7	1120.3	1098.2
45°	990.1	1014.6	1026.9	1026.9	999.9
47.5°	867.2	904.1	926.2	916.4	894.3
50°	737.0	791.1	818.1	813.2	796.0
52.5°	626.5	687.9	714.9	712.5	717.4
55°	538.0	592.1	619.1	624.0	656.0
57.5°	466.8	515.9	538.0	552.8	592.1
60°	407.8	452.0	474.2	488.9	540.5
62.5°	361.1	395.5	417.6	434.8	496.3
65°	324.3	346.4	368.5	390.6	461.9
67.5°	294.8	299.7	324.3	356.2	432.4
70°	270.2	253.0	289.9	326.7	400.5
72.5°	243.2	213.7	260.4	297.3	363.6
75°	213.7	179.3	230.9	275.2	321.8
77.5°	181.8	149.9	206.4	250.6	282.5
80°	140.0	127.8	181.8	228.5	250.6
82.5°	98.3	105.6	157.2	208.8	223.6
85°	59.0	83.5	132.7	184.3	203.9
87.5°	27.0	61.4	100.7	159.7	189.2
90°	0.0	36.9	73.7	140.0	176.9
92.5°	2.5	36.9	73.7	142.5	174.4
95°	4.9	34.4	76.2	142.5	169.5
97.5°	9.8	34.4	83.5	140.0	164.6
100°	17.2	36.9	90.9	140.0	159.7
102.5°	24.6	39.3	98.3	142.5	157.2
105°	34.4	51.6	103.2	142.5	157.2
107.5°	44.2	68.8	110.6	144.9	157.2
110°	54.0	88.4	117.9	147.4	159.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	63.9	103.2	122.8	154.8	164.6
115°	71.2	113.0	140.0	157.2	169.5
117.5°	81.1	120.4	157.2	159.7	169.5
120°	88.4	127.8	169.5	169.5	172.0
122.5°	98.3	132.7	179.3	189.2	186.7
125°	103.2	137.6	186.7	201.5	203.9
127.5°	110.6	140.0	194.1	208.8	211.3
130°	115.5	142.5	196.5	216.2	221.1
132.5°	117.9	142.5	196.5	221.1	226.0
135°	120.4	144.9	196.5	226.0	230.9
137.5°	122.8	142.5	196.5	228.5	233.4
140°	122.8	142.5	194.1	228.5	238.3
142.5°	125.3	142.5	189.2	228.5	238.3
145°	130.2	144.9	184.3	226.0	238.3
147.5°	132.7	144.9	181.8	221.1	235.8
150°	137.6	144.9	179.3	213.7	228.5
152.5°	140.0	144.9	174.4	206.4	218.7
155°	144.9	147.4	169.5	196.5	201.5
157.5°	147.4	147.4	167.1	186.7	186.7
160°	149.9	149.9	162.1	176.9	179.3
162.5°	152.3	152.3	159.7	167.1	172.0
165°	154.8	154.8	157.2	159.7	164.6
167.5°	157.2	157.2	154.8	149.9	157.2
170°	159.7	159.7	154.8	142.5	149.9
172.5°	159.7	162.1	154.8	137.6	142.5
175°	162.1	162.1	154.8	135.1	137.6
177.5°	162.1	162.1	154.8	130.2	130.2
180°	137.6	137.6	137.6	137.6	137.6

(END OF REPORT)