

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: P235491

Luminaire Tested: **4WSNLED-LD4-60HL-F-UNV-L830-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P235491
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-LD4-60HL-F-UNV-L830-CD1-U
Description: 4FT WSNLED WRAPAROUND
Light Source: (224) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

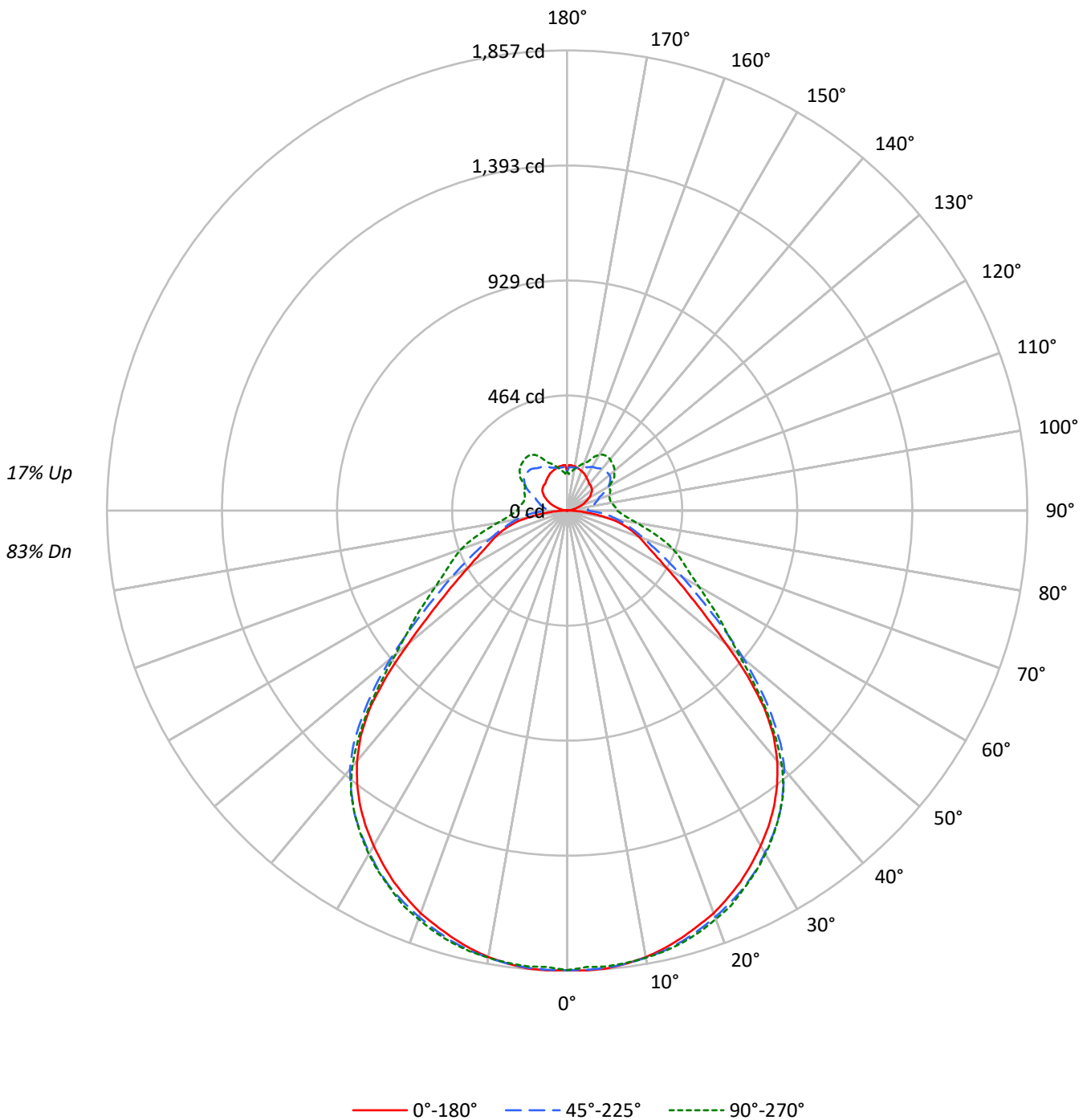
Lumens per Lamp: N/A
Luminaire Lumens: 5760.0 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 57.3
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°	4991	4991	4991
5°	4996	4954	4933
10°	4972	4911	4899
15°	4931	4867	4864
20°	4896	4806	4805
25°	4840	4749	4726
30°	4767	4660	4639
35°	4680	4558	4516
40°	4516	4384	4291
45°	4148	3995	3840
50°	3377	3436	3292
55°	2743	2848	2964
60°	2364	2432	2715
65°	2197	2153	2633
70°	2223	1986	2662
75°	2259	1930	2590
80°	2093	1966	2580
85°	1522	2055	2943



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.9	3.1
10°-20°	506.7	8.8
20°-30°	770.8	13.4
30°-40°	924.4	16.0
40°-50°	880.0	15.3
50°-60°	626.7	10.9
60°-70°	426.0	7.4
70°-80°	287.4	5.0
80°-90°	164.8	2.9
90°-100°	106.4	1.8
100°-110°	119.8	2.1
110°-120°	148.9	2.6
120°-130°	170.7	3.0
130°-140°	162.3	2.8
140°-150°	131.4	2.3
150°-160°	90.5	1.6
160°-170°	50.9	0.9
170°-180°	16.3	0.3
0°-30°	1453.4	25.2
0°-40°	2377.8	41.3
0°-60°	3884.5	67.4
0°-90°	4762.7	82.7
90°-120°	375.1	6.5
90°-150°	839.6	14.6
90°-180°	997.0	17.3
0°-180°	5760.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1855	1855	1855	1855	1855	
5°	1855	1844	1852	1849	1846	176
15°	1785	1782	1799	1807	1804	504
25°	1654	1657	1682	1687	1684	762
35°	1456	1464	1495	1495	1495	908
45°	1124	1152	1166	1166	1135	850
55°	611	672	703	708	745	558
65°	368	393	418	443	524	371
75°	243	204	262	312	365	253
85°	67	95	151	209	232	74
90°	0	42	84	159	201	5
95°	6	39	86	162	192	8
105°	39	59	117	162	178	42
115°	81	128	159	178	192	81
125°	117	156	212	229	232	105
135°	137	164	223	257	262	105
145°	148	164	209	257	270	92
155°	164	167	192	223	229	75
165°	176	176	178	181	187	50
175°	184	184	176	153	156	17
180°	156	156	156	156	156	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1854.6	1854.6	1854.6	1854.6	1854.6
2.5°	1857.4	1849.0	1854.6	1854.6	1843.5
5°	1854.6	1843.5	1851.8	1849.0	1846.3
7.5°	1843.5	1835.1	1843.5	1846.3	1840.7
10°	1829.5	1821.2	1832.3	1835.1	1832.3
12.5°	1810.0	1804.4	1818.4	1823.9	1821.2
15°	1784.9	1782.1	1798.8	1807.2	1804.4
17.5°	1757.0	1754.2	1773.7	1784.9	1782.1
20°	1729.1	1726.3	1745.9	1754.2	1754.2
22.5°	1692.9	1692.9	1715.2	1723.5	1726.3
25°	1653.8	1656.6	1681.7	1687.3	1684.5
27.5°	1609.2	1612.0	1642.7	1645.5	1645.5
30°	1561.8	1567.4	1595.3	1598.0	1600.8
32.5°	1511.6	1517.2	1547.8	1547.8	1550.6
35°	1455.8	1464.2	1494.9	1494.9	1494.9
37.5°	1391.7	1402.8	1430.7	1430.7	1433.5
40°	1319.2	1335.9	1363.8	1361.0	1349.8
42.5°	1232.7	1255.0	1274.5	1271.7	1246.6
45°	1123.9	1151.8	1165.8	1165.8	1135.1
47.5°	984.5	1026.3	1051.4	1040.3	1015.2
50°	836.7	898.0	928.7	923.1	903.6
52.5°	711.2	780.9	811.6	808.8	814.4
55°	610.8	672.1	702.8	708.4	744.6
57.5°	529.9	585.7	610.8	627.5	672.1
60°	463.0	513.2	538.3	555.0	613.6
62.5°	410.0	449.0	474.1	493.6	563.4
65°	368.1	393.2	418.3	443.4	524.3
67.5°	334.7	340.2	368.1	404.4	490.8
70°	306.8	287.3	329.1	370.9	454.6
72.5°	276.1	242.6	295.6	337.5	412.8
75°	242.6	203.6	262.2	312.4	365.3
77.5°	206.4	170.1	234.3	284.5	320.7
80°	159.0	145.0	206.4	259.4	284.5
82.5°	111.6	119.9	178.5	237.1	253.8
85°	66.9	94.8	150.6	209.2	231.5
87.5°	30.7	69.7	114.3	181.3	214.7
90°	0.0	41.8	83.7	159.0	200.8
92.5°	2.8	41.8	83.7	161.8	198.0
95°	5.6	39.0	86.5	161.8	192.4
97.5°	11.2	39.0	94.8	159.0	186.9
100°	19.5	41.8	103.2	159.0	181.3
102.5°	27.9	44.6	111.6	161.8	178.5
105°	39.0	58.6	117.1	161.8	178.5
107.5°	50.2	78.1	125.5	164.5	178.5
110°	61.4	100.4	133.9	167.3	181.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	72.5	117.1	139.4	175.7	186.9
115°	80.9	128.3	159.0	178.5	192.4
117.5°	92.0	136.7	178.5	181.3	192.4
120°	100.4	145.0	192.4	192.4	195.2
122.5°	111.6	150.6	203.6	214.7	212.0
125°	117.1	156.2	212.0	228.7	231.5
127.5°	125.5	159.0	220.3	237.1	239.8
130°	131.1	161.8	223.1	245.4	251.0
132.5°	133.9	161.8	223.1	251.0	256.6
135°	136.7	164.5	223.1	256.6	262.2
137.5°	139.4	161.8	223.1	259.4	264.9
140°	139.4	161.8	220.3	259.4	270.5
142.5°	142.2	161.8	214.7	259.4	270.5
145°	147.8	164.5	209.2	256.6	270.5
147.5°	150.6	164.5	206.4	251.0	267.7
150°	156.2	164.5	203.6	242.6	259.4
152.5°	159.0	164.5	198.0	234.3	248.2
155°	164.5	167.3	192.4	223.1	228.7
157.5°	167.3	167.3	189.6	212.0	212.0
160°	170.1	170.1	184.1	200.8	203.6
162.5°	172.9	172.9	181.3	189.6	195.2
165°	175.7	175.7	178.5	181.3	186.9
167.5°	178.5	178.5	175.7	170.1	178.5
170°	181.3	181.3	175.7	161.8	170.1
172.5°	181.3	184.1	175.7	156.2	161.8
175°	184.1	184.1	175.7	153.4	156.2
177.5°	184.1	184.1	175.7	147.8	147.8
180°	156.2	156.2	156.2	156.2	156.2

(END OF REPORT)