

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: P234525

Luminaire Tested: **4WSNLED-LD4-60HL-F-UNV-L835-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P234525  
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-L835-CD1-U  
Description: 4FT WSNLED WRAPAROUND  
Light Source: (224) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

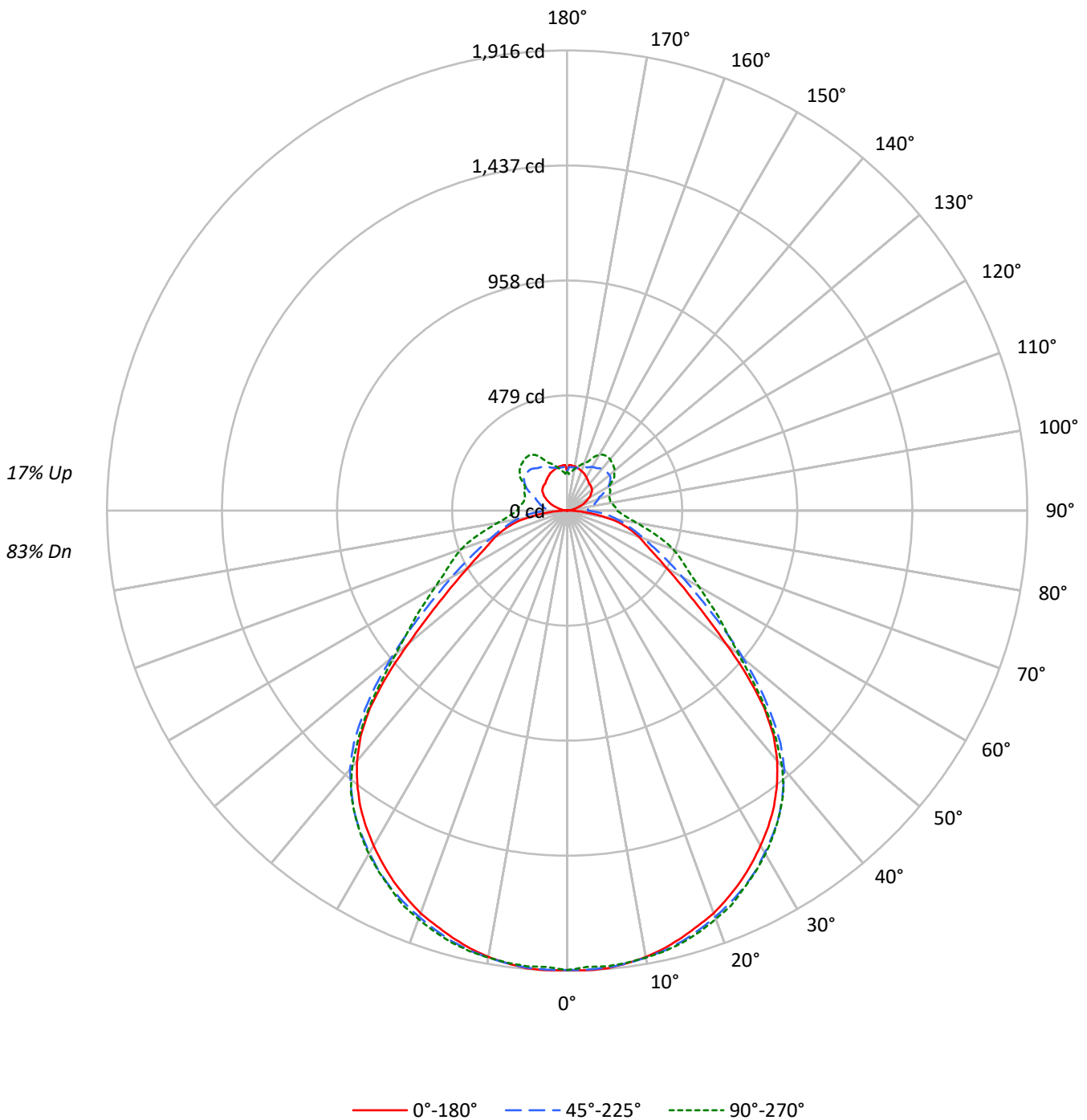
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5942.0 lumens  
Efficiency: N/A  
Efficacy: 103.7 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°	5148	5148	5148
5°	5154	5111	5089
10°	5129	5066	5054
15°	5087	5021	5018
20°	5051	4958	4957
25°	4993	4899	4875
30°	4917	4807	4786
35°	4828	4702	4658
40°	4658	4523	4427
45°	4279	4121	3961
50°	3484	3544	3397
55°	2830	2938	3058
60°	2438	2509	2800
65°	2266	2222	2716
70°	2293	2049	2747
75°	2331	1991	2672
80°	2159	2028	2662
85°	1570	2120	3036



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	181.4	3.1
10°-20°	522.7	8.8
20°-30°	795.2	13.4
30°-40°	953.6	16.0
40°-50°	907.8	15.3
50°-60°	646.5	10.9
60°-70°	439.5	7.4
70°-80°	296.5	5.0
80°-90°	170.0	2.9
90°-100°	109.8	1.8
100°-110°	123.6	2.1
110°-120°	153.6	2.6
120°-130°	176.1	3.0
130°-140°	167.5	2.8
140°-150°	135.6	2.3
150°-160°	93.3	1.6
160°-170°	52.6	0.9
170°-180°	16.8	0.3
0°-30°	1499.3	25.2
0°-40°	2452.9	41.3
0°-60°	4007.2	67.4
0°-90°	4913.2	82.7
90°-120°	386.9	6.5
90°-150°	866.1	14.6
90°-180°	1029.0	17.3
0°-180°	5942.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1913	1913	1913	1913	1913	
5°	1913	1902	1910	1908	1905	182
15°	1841	1838	1856	1864	1861	520
25°	1706	1709	1735	1741	1738	786
35°	1502	1510	1542	1542	1542	937
45°	1159	1188	1203	1203	1171	877
55°	630	693	725	731	768	576
65°	380	406	432	457	541	382
75°	250	210	270	322	377	261
85°	69	98	155	216	239	77
90°	0	43	86	164	207	5
95°	6	40	89	167	198	8
105°	40	60	121	167	184	43
115°	83	132	164	184	198	83
125°	121	161	219	236	239	108
135°	141	170	230	265	270	109
145°	152	170	216	265	279	95
155°	170	173	198	230	236	78
165°	181	181	184	187	193	51
175°	190	190	181	158	161	18
180°	161	161	161	161	161	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1913.2	1913.2	1913.2	1913.2	1913.2
2.5°	1916.1	1907.5	1913.2	1913.2	1901.7
5°	1913.2	1901.7	1910.3	1907.5	1904.6
7.5°	1901.7	1893.1	1901.7	1904.6	1898.8
10°	1887.3	1878.7	1890.2	1893.1	1890.2
12.5°	1867.2	1861.4	1875.8	1881.6	1878.7
15°	1841.3	1838.4	1855.7	1864.3	1861.4
17.5°	1812.5	1809.6	1829.8	1841.3	1838.4
20°	1783.8	1780.9	1801.0	1809.6	1809.6
22.5°	1746.4	1746.4	1769.4	1778.0	1780.9
25°	1706.1	1709.0	1734.8	1740.6	1737.7
27.5°	1660.0	1662.9	1694.6	1697.4	1697.4
30°	1611.1	1616.9	1645.7	1648.5	1651.4
32.5°	1559.3	1565.1	1596.7	1596.7	1599.6
35°	1501.8	1510.4	1542.1	1542.1	1542.1
37.5°	1435.6	1447.1	1475.9	1475.9	1478.8
40°	1360.8	1378.1	1406.9	1404.0	1392.5
42.5°	1271.6	1294.7	1314.8	1311.9	1286.0
45°	1159.4	1188.2	1202.6	1202.6	1170.9
47.5°	1015.6	1058.7	1084.6	1073.1	1047.2
50°	863.1	926.4	958.0	952.3	932.2
52.5°	733.6	805.6	837.2	834.3	840.1
55°	630.1	693.4	725.0	730.8	768.2
57.5°	546.6	604.2	630.1	647.3	693.4
60°	477.6	529.4	555.3	572.5	632.9
62.5°	422.9	463.2	489.1	509.2	581.2
65°	379.8	405.7	431.6	457.4	540.9
67.5°	345.2	351.0	379.8	417.2	506.4
70°	316.5	296.3	339.5	382.6	469.0
72.5°	284.8	250.3	305.0	348.1	425.8
75°	250.3	210.0	270.4	322.2	376.9
77.5°	212.9	175.5	241.7	293.5	330.9
80°	164.0	149.6	212.9	267.6	293.5
82.5°	115.1	123.7	184.1	244.5	261.8
85°	69.0	97.8	155.4	215.8	238.8
87.5°	31.6	71.9	118.0	187.0	221.5
90°	0.0	43.2	86.3	164.0	207.1
92.5°	2.9	43.2	86.3	166.9	204.3
95°	5.8	40.3	89.2	166.9	198.5
97.5°	11.5	40.3	97.8	164.0	192.8
100°	20.1	43.2	106.4	164.0	187.0
102.5°	28.8	46.0	115.1	166.9	184.1
105°	40.3	60.4	120.8	166.9	184.1
107.5°	51.8	80.6	129.5	169.7	184.1
110°	63.3	103.6	138.1	172.6	187.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	74.8	120.8	143.9	181.3	192.8
115°	83.4	132.3	164.0	184.1	198.5
117.5°	94.9	141.0	184.1	187.0	198.5
120°	103.6	149.6	198.5	198.5	201.4
122.5°	115.1	155.4	210.0	221.5	218.7
125°	120.8	161.1	218.7	235.9	238.8
127.5°	129.5	164.0	227.3	244.5	247.4
130°	135.2	166.9	230.2	253.2	258.9
132.5°	138.1	166.9	230.2	258.9	264.7
135°	141.0	169.7	230.2	264.7	270.4
137.5°	143.9	166.9	230.2	267.6	273.3
140°	143.9	166.9	227.3	267.6	279.1
142.5°	146.7	166.9	221.5	267.6	279.1
145°	152.5	169.7	215.8	264.7	279.1
147.5°	155.4	169.7	212.9	258.9	276.2
150°	161.1	169.7	210.0	250.3	267.6
152.5°	164.0	169.7	204.3	241.7	256.1
155°	169.7	172.6	198.5	230.2	235.9
157.5°	172.6	172.6	195.6	218.7	218.7
160°	175.5	175.5	189.9	207.1	210.0
162.5°	178.4	178.4	187.0	195.6	201.4
165°	181.3	181.3	184.1	187.0	192.8
167.5°	184.1	184.1	181.3	175.5	184.1
170°	187.0	187.0	181.3	166.9	175.5
172.5°	187.0	189.9	181.3	161.1	166.9
175°	189.9	189.9	181.3	158.2	161.1
177.5°	189.9	189.9	181.3	152.5	152.5
180°	161.1	161.1	161.1	161.1	161.1

(END OF REPORT)