

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: P234527

Luminaire Tested: **4WSNLED-LD4-60HL-F-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P234527  
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-L850-CD1-U  
Description: 4FT WSNLED WRAPAROUND  
Light Source: (224) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

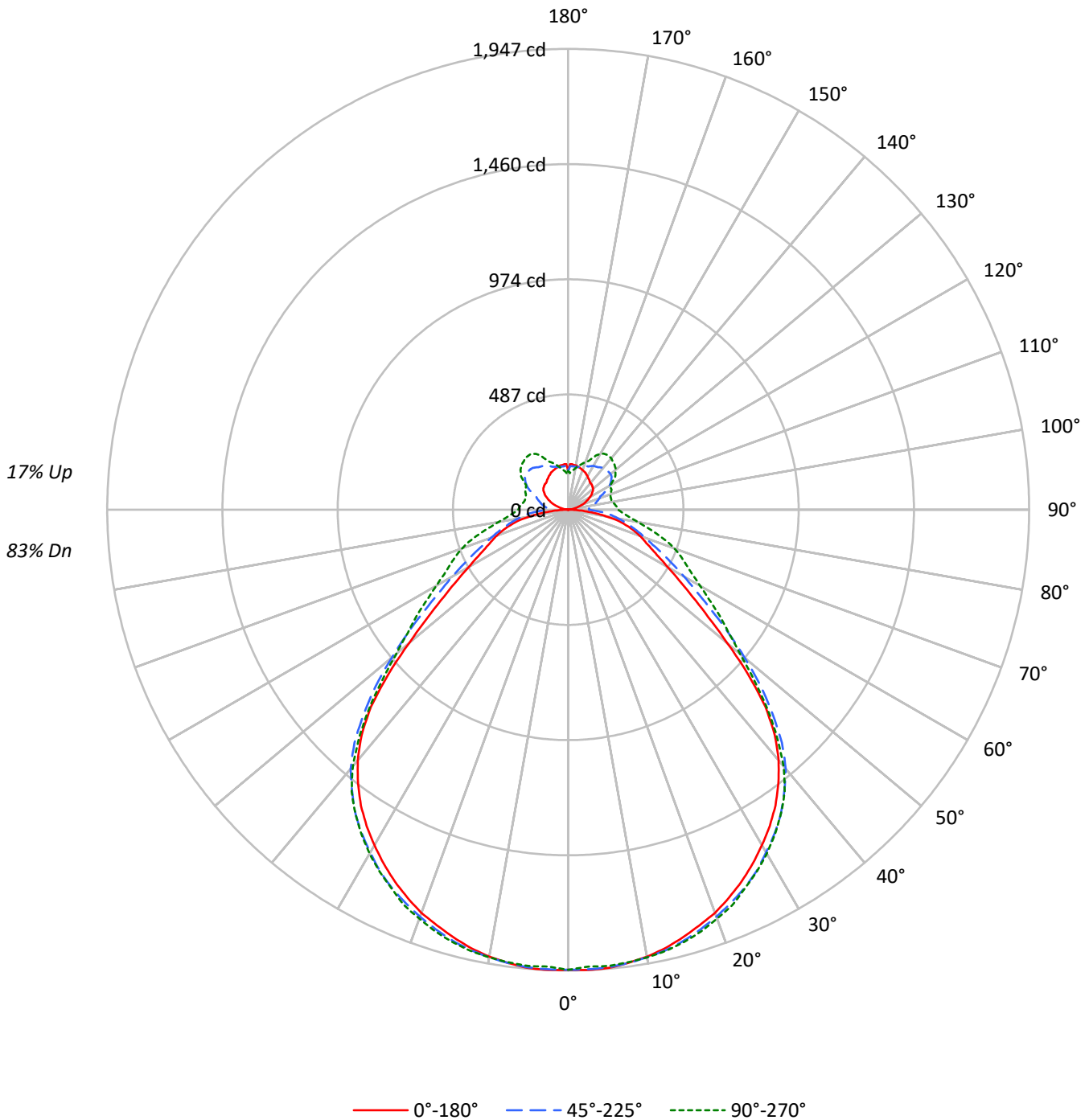
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6037.0 lumens  
Efficiency: N/A  
Efficacy: 105.4 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°	5231	5231	5231
5°	5236	5193	5170
10°	5211	5147	5134
15°	5168	5101	5098
20°	5131	5037	5036
25°	5073	4977	4953
30°	4996	4884	4862
35°	4905	4777	4733
40°	4733	4595	4498
45°	4347	4187	4024
50°	3539	3601	3451
55°	2875	2985	3107
60°	2477	2548	2845
65°	2302	2257	2759
70°	2330	2082	2791
75°	2368	2023	2715
80°	2193	2061	2703
85°	1597	2153	3084



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.3	3.1
10°-20°	531.0	8.8
20°-30°	807.9	13.4
30°-40°	968.9	16.0
40°-50°	922.3	15.3
50°-60°	656.8	10.9
60°-70°	446.5	7.4
70°-80°	301.2	5.0
80°-90°	172.7	2.9
90°-100°	111.5	1.8
100°-110°	125.5	2.1
110°-120°	156.0	2.6
120°-130°	178.9	3.0
130°-140°	170.1	2.8
140°-150°	137.7	2.3
150°-160°	94.8	1.6
160°-170°	53.4	0.9
170°-180°	17.1	0.3
0°-30°	1523.3	25.2
0°-40°	2492.2	41.3
0°-60°	4071.3	67.4
0°-90°	4991.7	82.7
90°-120°	393.1	6.5
90°-150°	879.9	14.6
90°-180°	1045.0	17.3
0°-180°	6037.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1944	1944	1944	1944	1944	
5°	1944	1932	1941	1938	1935	185
15°	1871	1868	1885	1894	1891	528
25°	1733	1736	1763	1768	1766	798
35°	1526	1535	1567	1567	1567	952
45°	1178	1207	1222	1222	1190	891
55°	640	704	737	742	780	585
65°	386	412	438	465	550	388
75°	254	213	275	327	383	265
85°	70	99	158	219	243	78
90°	0	44	88	167	210	5
95°	6	41	91	170	202	8
105°	41	61	123	170	187	43
115°	85	134	167	187	202	85
125°	123	164	222	240	243	110
135°	143	172	234	269	275	111
145°	155	172	219	269	284	97
155°	172	175	202	234	240	79
165°	184	184	187	190	196	52
175°	193	193	184	161	164	18
180°	164	164	164	164	164	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1943.8	1943.8	1943.8	1943.8	1943.8
2.5°	1946.7	1938.0	1943.8	1943.8	1932.1
5°	1943.8	1932.1	1940.9	1938.0	1935.0
7.5°	1932.1	1923.3	1932.1	1935.0	1929.2
10°	1917.5	1908.7	1920.4	1923.3	1920.4
12.5°	1897.0	1891.2	1905.8	1911.7	1908.7
15°	1870.7	1867.8	1885.3	1894.1	1891.2
17.5°	1841.5	1838.6	1859.0	1870.7	1867.8
20°	1812.3	1809.4	1829.8	1838.6	1838.6
22.5°	1774.3	1774.3	1797.7	1806.4	1809.4
25°	1733.4	1736.3	1762.6	1768.4	1765.5
27.5°	1686.6	1689.5	1721.7	1724.6	1724.6
30°	1636.9	1642.7	1672.0	1674.9	1677.8
32.5°	1584.3	1590.1	1622.3	1622.3	1625.2
35°	1525.8	1534.6	1566.7	1566.7	1566.7
37.5°	1458.6	1470.3	1499.5	1499.5	1502.4
40°	1382.6	1400.1	1429.4	1426.4	1414.7
42.5°	1292.0	1315.4	1335.8	1332.9	1306.6
45°	1178.0	1207.2	1221.8	1221.8	1189.7
47.5°	1031.8	1075.7	1102.0	1090.3	1064.0
50°	876.9	941.2	973.4	967.5	947.1
52.5°	745.4	818.4	850.6	847.7	853.5
55°	640.1	704.4	736.6	742.4	780.4
57.5°	555.4	613.8	640.1	657.7	704.4
60°	485.2	537.8	564.1	581.7	643.1
62.5°	429.7	470.6	496.9	517.4	590.5
65°	385.8	412.1	438.5	464.8	549.5
67.5°	350.8	356.6	385.8	423.8	514.5
70°	321.5	301.1	344.9	388.8	476.5
72.5°	289.4	254.3	309.8	353.7	432.6
75°	254.3	213.4	274.8	327.4	382.9
77.5°	216.3	178.3	245.5	298.1	336.1
80°	166.6	152.0	216.3	271.8	298.1
82.5°	116.9	125.7	187.1	248.5	266.0
85°	70.2	99.4	157.8	219.2	242.6
87.5°	32.2	73.1	119.8	190.0	225.1
90°	0.0	43.8	87.7	166.6	210.5
92.5°	2.9	43.8	87.7	169.5	207.5
95°	5.8	40.9	90.6	169.5	201.7
97.5°	11.7	40.9	99.4	166.6	195.8
100°	20.5	43.8	108.2	166.6	190.0
102.5°	29.2	46.8	116.9	169.5	187.1
105°	40.9	61.4	122.8	169.5	187.1
107.5°	52.6	81.8	131.5	172.5	187.1
110°	64.3	105.2	140.3	175.4	190.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	76.0	122.8	146.2	184.2	195.8
115°	84.8	134.5	166.6	187.1	201.7
117.5°	96.5	143.2	187.1	190.0	201.7
120°	105.2	152.0	201.7	201.7	204.6
122.5°	116.9	157.8	213.4	225.1	222.1
125°	122.8	163.7	222.1	239.7	242.6
127.5°	131.5	166.6	230.9	248.5	251.4
130°	137.4	169.5	233.8	257.2	263.1
132.5°	140.3	169.5	233.8	263.1	268.9
135°	143.2	172.5	233.8	268.9	274.8
137.5°	146.2	169.5	233.8	271.8	277.7
140°	146.2	169.5	230.9	271.8	283.5
142.5°	149.1	169.5	225.1	271.8	283.5
145°	154.9	172.5	219.2	268.9	283.5
147.5°	157.8	172.5	216.3	263.1	280.6
150°	163.7	172.5	213.4	254.3	271.8
152.5°	166.6	172.5	207.5	245.5	260.1
155°	172.5	175.4	201.7	233.8	239.7
157.5°	175.4	175.4	198.8	222.1	222.1
160°	178.3	178.3	192.9	210.5	213.4
162.5°	181.2	181.2	190.0	198.8	204.6
165°	184.2	184.2	187.1	190.0	195.8
167.5°	187.1	187.1	184.2	178.3	187.1
170°	190.0	190.0	184.2	169.5	178.3
172.5°	190.0	192.9	184.2	163.7	169.5
175°	192.9	192.9	184.2	160.8	163.7
177.5°	192.9	192.9	184.2	154.9	154.9
180°	163.7	163.7	163.7	163.7	163.7

(END OF REPORT)