

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: P189287

Luminaire Tested: **4SWLED-LD4-40SL-LC-UNV-L840-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P189287  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26537)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SWLED-LD4-40SL-LC-UNV-L840-CD1-U  
Description: [LUMINAIRE]METALUX LED STAIRWELL WITH NARROW CLEAR LENS  
  
Light Source: EATON LED 4000K  
Ballast/Driver: ELECTRONIC DRIVER

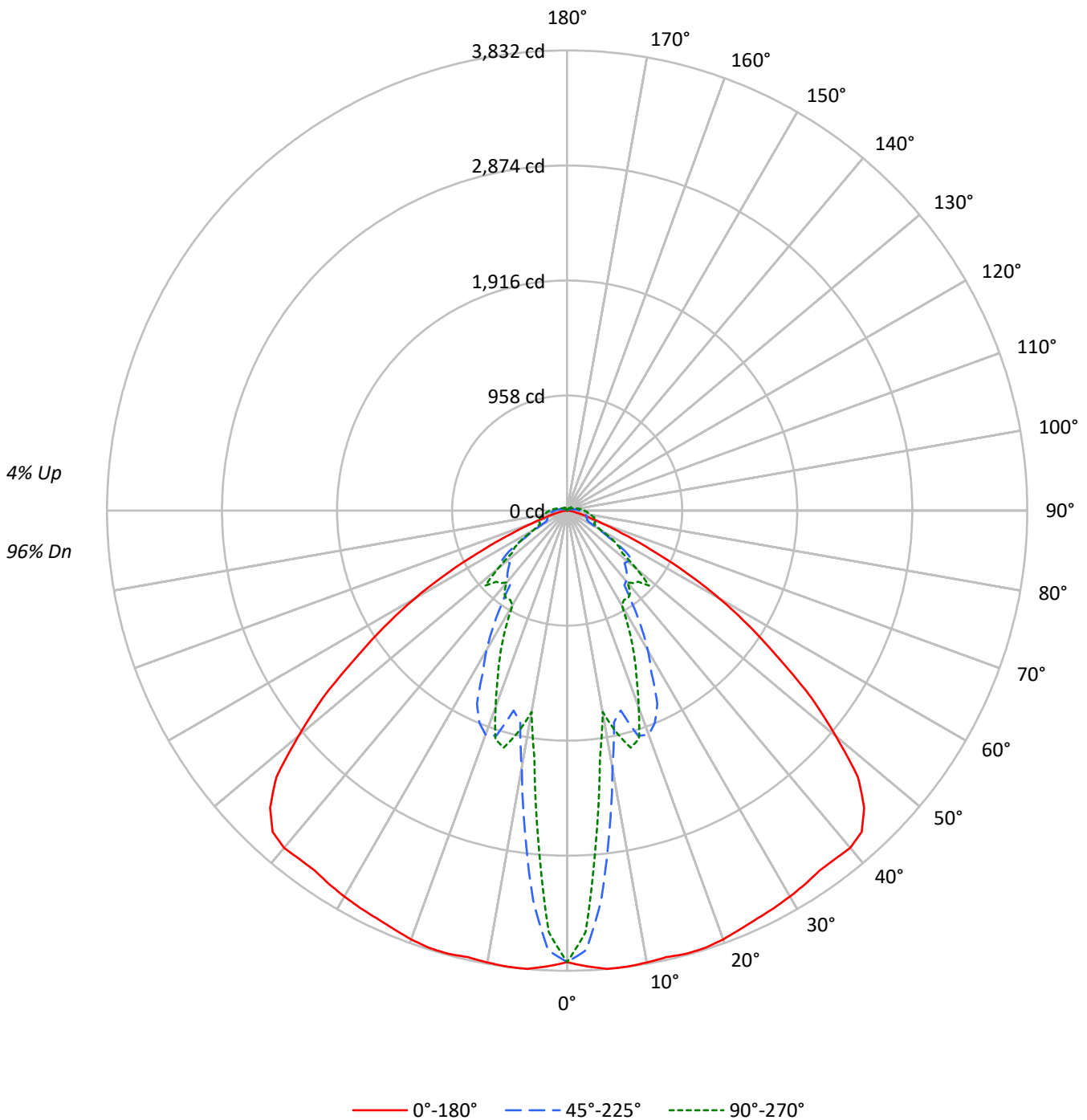
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4974.9 lumens  
Efficiency: N/A  
Efficacy: 116.8 lumens/watt  
Spacing Criteria (0/90/45): 1.5 / 0.3 / 0.78  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.75' x H: 0.17')  
CIE Type: Direct  
  
Input Watts (W): 42.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	50	30	10	0	
RCR																						
0	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	96				
1	109	105	101	97	106	102	99	96	97	94	92	93	91	88	89	87	85	83				
2	101	93	87	82	98	91	86	81	87	82	78	83	80	76	80	77	74	72				
3	93	83	76	70	90	82	75	70	78	73	68	75	70	66	72	68	65	63				
4	86	75	67	61	83	74	66	61	71	64	59	68	63	58	66	61	57	55				
5	80	68	60	54	77	67	59	53	64	58	53	62	56	52	60	55	51	49				
6	74	62	54	48	72	61	53	48	59	52	47	57	51	46	55	50	46	44				
7	69	57	49	43	67	56	48	43	54	47	42	52	46	42	51	45	41	39				
8	65	52	44	39	63	51	44	39	50	43	38	48	42	38	47	42	38	36				
9	61	48	41	36	59	48	40	35	46	40	35	45	39	35	44	38	34	33				
10	57	45	38	33	56	44	37	33	43	37	32	42	36	32	41	36	32	30				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	28786	28786	28786
5°	29326	24283	20379
10°	29471	15939	12271
15°	29927	12495	14481
20°	30454	14371	12235
25°	31007	12921	9216
30°	31979	9916	6387
35°	33189	7128	6333
40°	35327	5910	5679
45°	36256	5600	6273
50°	33029	5555	5885
55°	27123	5287	4335
60°	20858	2669	2744
65°	12719	1897	2303
70°	6205	2001	2532
75°	3265	2159	2615
80°	1926	2204	2449
85°	1002	2247	2458



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	285.6	5.7
10°-20°	645.8	13.0
20°-30°	861.9	17.3
30°-40°	882.3	17.7
40°-50°	864.4	17.4
50°-60°	645.1	13.0
60°-70°	303.1	6.1
70°-80°	184.1	3.7
80°-90°	123.2	2.5
90°-100°	76.9	1.5
100°-110°	42.9	0.9
110°-120°	24.4	0.5
120°-130°	14.3	0.3
130°-140°	13.6	0.3
140°-150°	5.8	0.1
150°-160°	1.4	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1793.3	36.0
0°-40°	2675.6	53.8
0°-60°	4185.1	84.1
0°-90°	4795.6	96.4
90°-120°	144.2	2.9
90°-150°	177.9	3.6
90°-180°	179.0	3.6
0°-180°	4974.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3761	3761	3761	3761	3761	
5°	3832	3664	3256	2878	2755	365
15°	3822	2476	1723	2016	2045	1081
25°	3748	1815	1776	1425	1317	1735
35°	3662	1531	948	882	889	2308
45°	3498	843	696	798	837	2646
55°	2162	463	592	515	531	1946
65°	769	192	182	246	248	803
75°	129	112	167	234	235	156
85°	17	63	127	164	170	22
90°	1	47	103	134	142	1
95°	0	34	82	105	116	0
105°	0	18	45	59	73	0
115°	1	9	26	40	46	1
125°	1	4	14	25	30	1
135°	2	3	13	36	48	1
145°	2	2	8	14	15	1
155°	3	3	4	6	5	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3760.7	3760.7	3760.7	3760.7	3760.7
2.5°	3799.2	3747.5	3662.4	3557.0	3513.4
5°	3831.6	3664.4	3256.0	2878.0	2755.4
7.5°	3830.6	3463.7	2690.5	2192.0	2082.5
10°	3821.5	3164.8	2175.7	1763.3	1702.5
12.5°	3809.3	2835.5	1804.8	1769.4	1892.0
15°	3821.5	2475.7	1722.8	2015.6	2045.0
17.5°	3818.4	2147.4	1968.0	2027.8	1991.3
20°	3799.2	1865.6	1986.2	1896.0	1745.0
22.5°	3771.8	1716.7	1910.2	1609.3	1509.9
25°	3747.5	1815.0	1776.5	1424.8	1317.4
27.5°	3731.3	1920.4	1518.1	1232.3	1116.7
30°	3711.0	1777.5	1345.8	1027.6	908.0
32.5°	3687.7	1639.7	1145.1	840.1	882.7
35°	3662.4	1531.2	947.5	881.6	888.7
37.5°	3659.3	1398.5	783.3	830.0	861.4
40°	3667.4	1253.6	763.1	815.8	780.3
42.5°	3629.9	1050.9	738.8	719.5	819.8
45°	3498.2	843.1	696.2	798.5	837.1
47.5°	3283.4	653.6	647.6	812.7	925.2
50°	2920.6	553.3	658.7	818.8	756.0
52.5°	2567.9	514.8	687.1	611.1	579.7
55°	2161.5	463.1	591.8	514.8	531.0
57.5°	1808.9	431.7	405.4	429.7	441.8
60°	1467.4	419.5	278.7	312.1	317.2
62.5°	1111.7	307.1	198.6	255.4	263.5
65°	769.2	192.5	182.4	246.3	248.3
67.5°	495.5	159.1	178.4	249.3	252.3
70°	311.1	142.9	174.3	245.2	251.3
72.5°	197.6	127.7	170.2	241.2	246.3
75°	128.7	112.5	167.2	234.1	235.1
77.5°	85.1	99.3	157.1	221.9	216.9
80°	54.7	85.1	148.0	203.7	195.6
82.5°	32.4	73.0	138.8	185.4	182.4
85°	17.2	62.8	126.7	164.2	170.2
87.5°	6.1	53.7	114.5	148.0	156.1
90°	1.0	46.6	103.4	133.8	141.9
92.5°	0.0	40.5	92.2	119.6	128.7
95°	0.0	34.5	82.1	105.4	116.5
97.5°	0.0	29.4	72.0	92.2	105.4
100°	0.0	25.3	61.8	79.0	93.2
102.5°	0.0	21.3	52.7	67.9	83.1
105°	0.0	18.2	44.6	58.8	73.0
107.5°	0.0	15.2	38.5	52.7	63.8
110°	0.0	13.2	33.4	47.6	55.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	10.1	30.4	43.6	49.7
115°	1.0	9.1	26.3	39.5	45.6
117.5°	1.0	7.1	23.3	35.5	40.5
120°	1.0	6.1	19.3	31.4	36.5
122.5°	1.0	5.1	17.2	28.4	32.4
125°	1.0	4.1	14.2	25.3	30.4
127.5°	1.0	4.1	13.2	24.3	32.4
130°	1.0	4.1	12.2	27.4	39.5
132.5°	2.0	3.0	12.2	32.4	46.6
135°	2.0	3.0	13.2	35.5	47.6
137.5°	2.0	3.0	14.2	32.4	39.5
140°	2.0	3.0	13.2	26.3	29.4
142.5°	2.0	3.0	10.1	20.3	21.3
145°	2.0	2.0	8.1	14.2	15.2
147.5°	2.0	3.0	6.1	11.1	11.1
150°	2.0	2.0	5.1	8.1	8.1
152.5°	2.0	3.0	4.1	7.1	6.1
155°	3.0	3.0	4.1	6.1	5.1
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)