

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: 4SWLED-LD4-72HL-LN-UNV-L840-CD2-U

Luminaire Tested: **4SWLED-LD4-78HL-LN-UNV-L840-CD2-SVPDx**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: 4SWLED-LD4-72HL-LN-UNV-L840-CD2-U
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SWLED-LD4-78HL-LN-UNV-L840-CD2-SVPDx
Description: METALUX LED STAIRWELL 6400 LM DBL ROW WITH NARROW FROSTED LENS
Light Source: -
Ballast/Driver: -

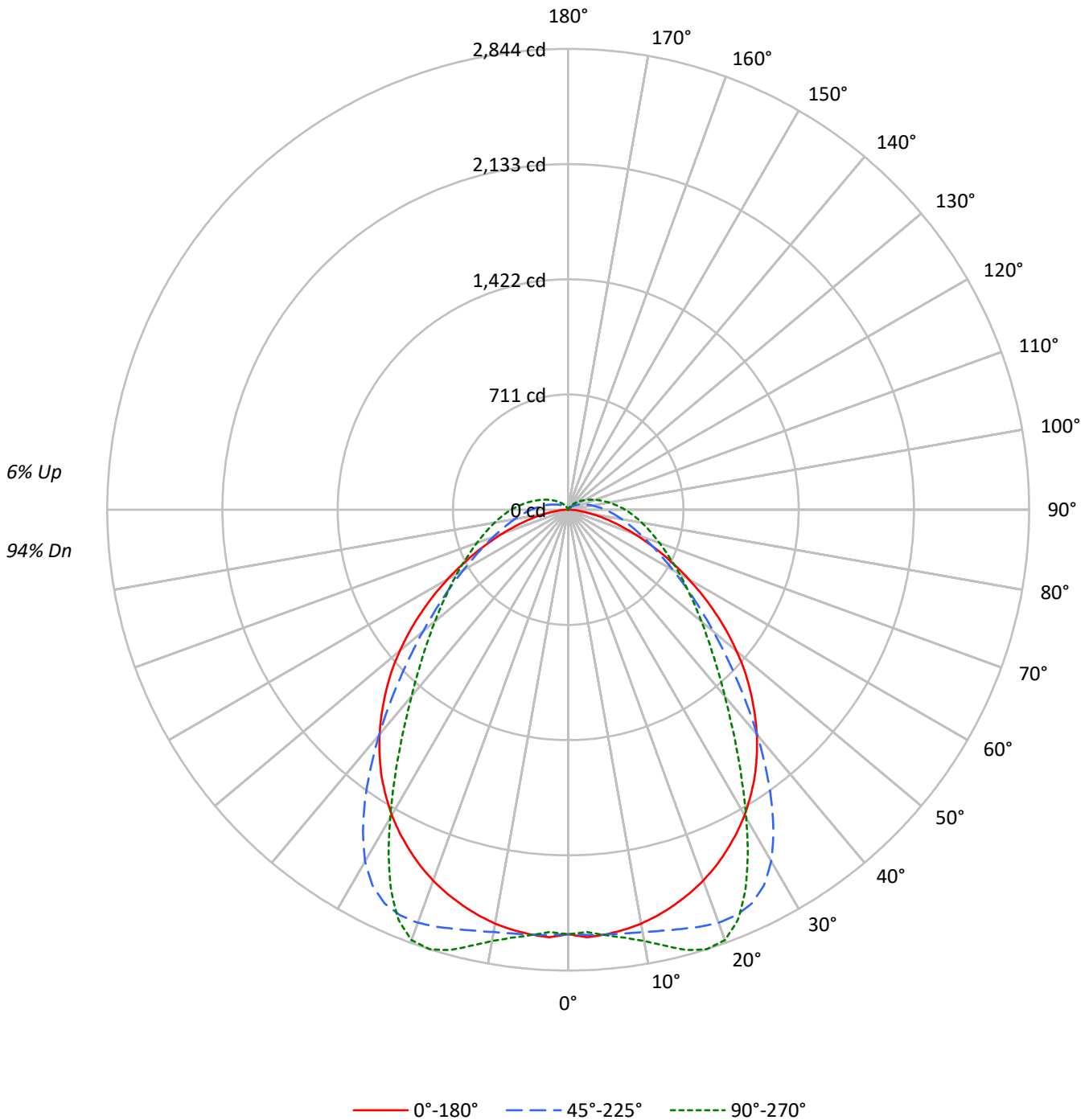
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7296.0 lumens
Efficiency: N/A
Efficacy: 120.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.75' x H: 0.17')
CIE Type: Direct

Input Watts (W): 60.4
Input Voltage (V): 120.01
Input Current (Ain): 0.55633
Voltage Rise (V): NR
Power Factor: 0.9984
Total Harmonic Distortion (THDi): 8.06%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 24 HR
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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	107	102	98	94	104	99	95	92	94	91	88	89	86	84	84	82	80	78
2	98	90	83	77	95	87	81	76	83	78	73	79	74	71	75	71	68	66
3	90	79	72	65	87	77	70	64	74	67	62	70	65	61	67	62	59	56
4	83	71	62	56	80	69	61	55	66	59	54	63	57	52	60	55	51	49
5	76	64	55	49	74	62	54	48	60	52	47	57	51	46	55	49	45	43
6	71	58	49	43	68	56	48	42	54	47	42	52	46	41	50	44	40	38
7	66	53	44	38	64	51	44	38	49	42	37	47	41	36	46	40	36	34
8	61	48	40	34	59	47	39	34	45	38	33	44	37	33	42	37	32	30
9	57	44	36	31	56	43	36	31	42	35	30	40	34	30	39	33	29	28
10	54	41	33	28	52	40	33	28	39	32	28	38	31	27	36	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20052	20052	20052
5°	20143	19628	19492
10°	20003	19389	19476
15°	19790	19430	19922
20°	19528	19625	19817
25°	19176	19499	18100
30°	18750	18462	15454
35°	18190	16432	12937
40°	17433	14046	10939
45°	16491	11770	9458
50°	15332	9855	8361
55°	13885	8353	7496
60°	12224	7160	6853
65°	10436	6264	6359
70°	8612	5637	6031
75°	6841	5217	5834
80°	5091	4980	5767
85°	3349	4915	5810



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.1	3.4
10°-20°	754.8	10.3
20°-30°	1167.0	16.0
30°-40°	1280.6	17.6
40°-50°	1144.3	15.7
50°-60°	895.7	12.3
60°-70°	638.6	8.8
70°-80°	430.5	5.9
80°-90°	282.6	3.9
90°-100°	185.6	2.5
100°-110°	119.8	1.6
110°-120°	73.4	1.0
120°-130°	41.6	0.6
130°-140°	20.4	0.3
140°-150°	7.8	0.1
150°-160°	1.7	0.0
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	2172.9	29.8
0°-40°	3453.5	47.3
0°-60°	5493.5	75.3
0°-90°	6845.3	93.8
90°-120°	378.8	5.2
90°-150°	448.7	6.2
90°-180°	451.0	6.2
0°-180°	7296.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2620	2620	2620	2620	2620	
5°	2632	2606	2632	2630	2636	250
15°	2527	2546	2679	2774	2813	713
25°	2318	2438	2681	2636	2587	1067
35°	2007	2222	2184	1891	1815	1253
45°	1591	1751	1463	1282	1262	1226
55°	1106	1136	935	901	918	989
65°	631	642	602	654	686	629
75°	270	320	404	494	524	291
85°	58	146	277	372	402	65
90°	2	99	228	321	350	4
95°	0	69	185	272	300	0
105°	0	34	119	188	214	0
115°	0	20	75	126	146	0
125°	0	9	46	81	94	0
135°	1	4	24	47	56	1
145°	1	1	10	22	28	1
155°	1	1	2	6	8	1
165°	2	1	1	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°	2619.7	2619.7	2619.7	2619.7	2619.7
2.5°	2641.0	2611.4	2627.1	2619.7	2608.6
5°	2631.8	2605.8	2631.8	2629.9	2635.5
7.5°	2616.0	2596.6	2637.3	2652.2	2664.2
10°	2593.8	2582.7	2646.6	2682.7	2702.2
12.5°	2563.2	2566.0	2661.4	2723.5	2755.9
15°	2527.1	2546.5	2679.0	2774.5	2813.4
17.5°	2484.4	2525.2	2698.5	2808.8	2844.0
20°	2436.2	2499.3	2712.4	2804.1	2826.4
22.5°	2380.6	2471.5	2709.6	2747.6	2738.3
25°	2317.6	2438.1	2680.9	2635.5	2587.3
27.5°	2250.0	2400.1	2614.2	2475.2	2400.1
30°	2175.8	2354.7	2505.7	2279.6	2197.2
32.5°	2094.3	2296.3	2356.5	2083.2	1997.9
35°	2007.2	2222.2	2184.2	1891.4	1815.4
37.5°	1911.7	2131.4	1999.8	1710.6	1648.6
40°	1809.8	2021.1	1813.5	1548.5	1503.1
42.5°	1703.2	1893.2	1632.8	1406.7	1375.2
45°	1591.1	1751.4	1463.2	1281.6	1262.1
47.5°	1478.1	1598.5	1308.5	1168.5	1163.0
50°	1355.7	1442.8	1168.5	1069.4	1074.0
52.5°	1232.5	1286.2	1044.4	980.4	991.5
55°	1106.5	1136.1	935.0	900.7	918.3
57.5°	981.4	998.0	834.9	829.4	853.5
60°	860.0	868.3	747.8	764.5	792.3
62.5°	741.3	748.8	670.9	706.1	737.6
65°	631.1	642.2	602.3	654.2	685.7
67.5°	527.3	546.7	544.0	607.9	641.3
70°	431.8	458.7	491.1	566.2	598.6
72.5°	345.7	382.7	446.7	529.1	560.6
75°	269.7	319.7	404.0	493.9	524.5
77.5°	202.0	263.2	367.0	461.5	492.1
80°	144.6	216.8	334.5	430.0	460.6
82.5°	96.4	177.0	304.9	401.3	431.8
85°	57.5	146.4	277.1	372.5	402.2
87.5°	25.9	120.5	251.1	346.6	377.2
90°	1.9	99.2	228.0	320.6	350.3
92.5°	0.0	82.5	205.7	296.5	325.3
95°	0.0	68.6	185.3	271.5	300.2
97.5°	0.0	56.5	165.9	249.3	277.1
100°	0.0	47.3	149.2	228.0	254.8
102.5°	0.0	39.8	133.4	207.6	233.5
105°	0.0	34.3	118.6	188.1	214.1
107.5°	0.0	29.7	106.6	171.4	194.6
110°	0.0	25.9	94.5	154.8	177.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	22.2	84.3	139.9	161.2
115°	0.0	19.5	75.1	126.0	145.5
117.5°	0.0	16.7	66.7	113.1	130.7
120°	0.0	13.9	59.3	101.0	117.7
122.5°	0.0	12.0	52.8	89.9	105.6
125°	0.0	9.3	46.3	80.6	93.6
127.5°	0.9	8.3	39.8	71.4	83.4
130°	0.9	6.5	34.3	63.0	73.2
132.5°	0.9	4.6	28.7	54.7	63.9
135°	0.9	3.7	24.1	47.3	55.6
137.5°	0.9	2.8	20.4	39.8	48.2
140°	0.9	1.9	16.7	33.4	40.8
142.5°	0.9	1.9	13.0	27.8	34.3
145°	0.9	0.9	10.2	22.2	27.8
147.5°	0.9	0.9	7.4	17.6	22.2
150°	0.9	0.9	4.6	13.0	17.6
152.5°	1.9	0.9	2.8	9.3	12.0
155°	0.9	0.9	1.9	5.6	8.3
157.5°	1.9	0.9	0.9	2.8	4.6
160°	1.9	0.9	0.9	1.9	2.8
162.5°	1.9	0.9	0.9	0.9	0.9
165°	1.9	0.9	0.9	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)