

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: P189412

Luminaire Tested: **4SWLED-LD4-44HL-LW-UNV-L840-CD2-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P189412
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26866)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SWLED-LD4-44HL-LW-UNV-L840-CD2-U
Description: [LUMINAIRE]METALUX LED STAIRWELL WITH FROSTED LENS

Light Source: EATON LED 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

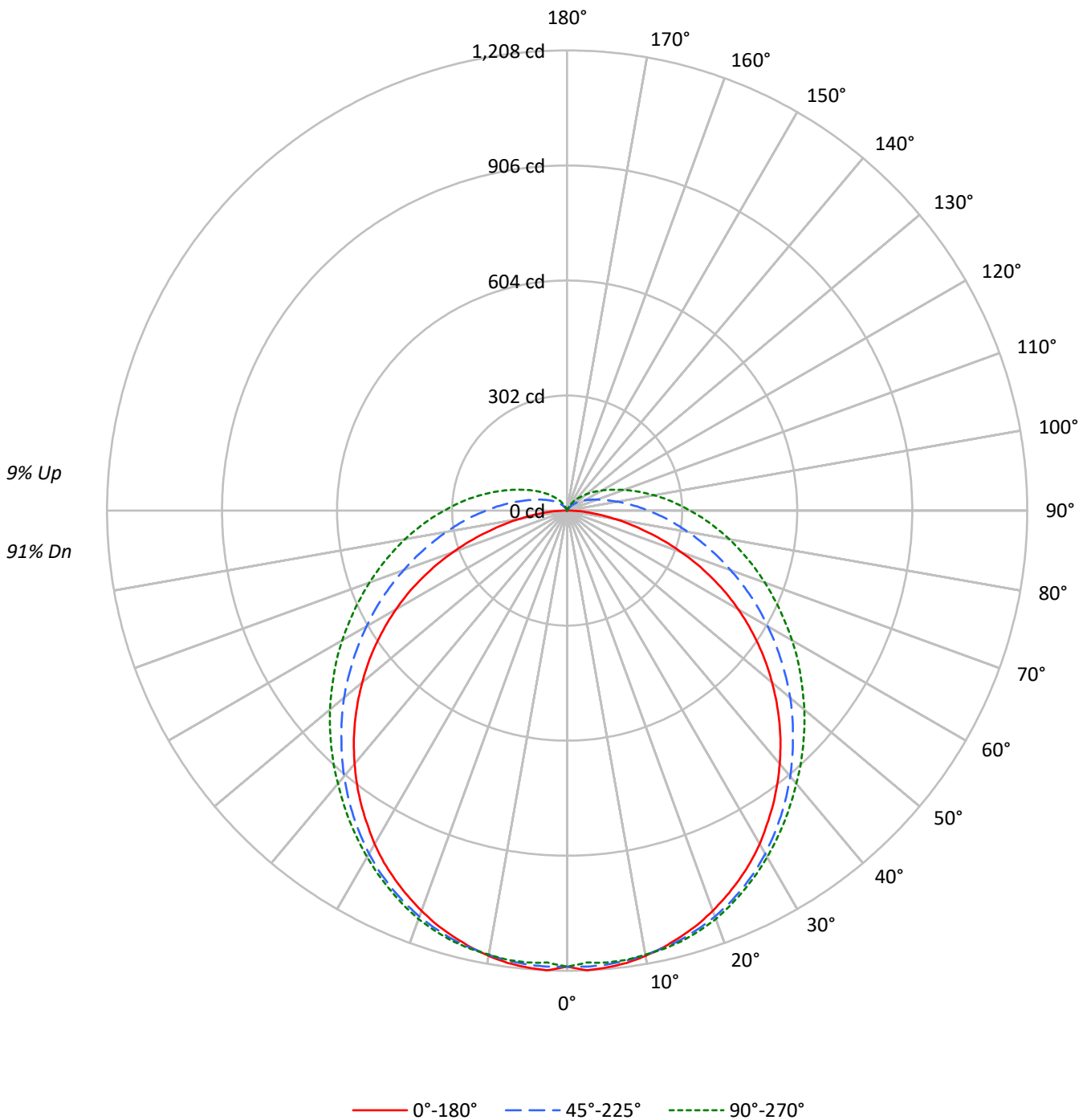
Lumens per Lamp: N/A
Luminaire Lumens: 4397.0 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.75' x H: 0.17')
CIE Type: Direct

Input Watts (W): 39.2
Input Voltage (V): NR
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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	91
1	104	99	94	89	101	95	91	87	89	86	82	84	81	78	79	76	74	71
2	94	85	77	71	91	82	75	69	77	71	66	72	68	63	68	64	61	58
3	85	74	65	58	82	72	64	57	67	60	55	63	57	53	59	55	51	48
4	78	65	56	49	75	63	55	48	59	52	46	56	50	45	53	47	43	40
5	72	58	49	42	69	56	48	41	53	45	40	50	44	38	47	42	37	35
6	66	52	43	36	63	51	42	36	48	40	35	45	39	33	43	37	32	30
7	61	47	38	32	59	46	37	31	43	36	30	41	34	30	39	33	29	26
8	57	43	34	28	55	42	34	28	40	32	27	38	31	26	36	30	26	24
9	53	39	31	25	51	38	30	25	36	29	24	35	28	24	33	27	23	21
10	50	36	28	23	48	35	28	23	34	27	22	32	26	21	31	25	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9163	9163	9163
5°	9214	8924	8809
10°	9154	8676	8531
15°	9062	8447	8281
20°	8962	8206	8000
25°	8847	7944	7688
30°	8712	7663	7387
35°	8543	7362	7094
40°	8363	7055	6811
45°	8171	6745	6563
50°	7943	6449	6327
55°	7693	6131	6099
60°	7379	5819	5900
65°	6960	5532	5710
70°	6356	5235	5564
75°	5527	4990	5457
80°	4527	4785	5406
85°	3232	4693	5425



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.6	2.6
10°-20°	327.7	7.5
20°-30°	499.9	11.4
30°-40°	607.4	13.8
40°-50°	643.4	14.6
50°-60°	610.7	13.9
60°-70°	520.4	11.8
70°-80°	394.5	9.0
80°-90°	267.0	6.1
90°-100°	170.5	3.9
100°-110°	107.5	2.4
110°-120°	65.8	1.5
120°-130°	38.3	0.9
130°-140°	19.7	0.4
140°-150°	8.2	0.2
150°-160°	2.2	0.0
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	941.1	21.4
0°-40°	1548.5	35.2
0°-60°	2802.6	63.7
0°-90°	3984.5	90.6
90°-120°	343.8	7.8
90°-150°	410.0	9.3
90°-180°	412.0	9.4
0°-180°	4397.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1197	1197	1197	1197	1197	
5°	1204	1190	1196	1191	1191	114
15°	1157	1148	1165	1167	1169	327
25°	1069	1067	1092	1094	1099	493
35°	943	949	979	985	996	590
45°	788	803	838	859	876	608
55°	613	638	686	727	747	548
65°	421	459	532	592	616	416
75°	218	285	386	464	491	233
85°	56	146	265	347	376	60
90°	3	97	212	295	322	4
95°	0	64	170	248	275	0
105°	0	32	106	168	192	0
115°	0	19	67	112	129	0
125°	0	11	43	73	85	0
135°	0	5	24	45	53	0
145°	1	3	11	23	28	0
155°	1	1	3	7	10	0
165°	1	1	1	1	2	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°	1197.1	1197.1	1197.1	1197.1	1197.1
2.5°	1208.0	1193.8	1198.5	1193.8	1187.7
5°	1203.9	1190.4	1196.5	1191.0	1191.0
7.5°	1197.8	1184.3	1191.7	1188.3	1189.7
10°	1187.0	1174.8	1184.3	1182.9	1183.6
12.5°	1173.5	1162.6	1175.5	1175.5	1178.2
15°	1157.2	1148.4	1164.7	1167.4	1169.4
17.5°	1139.6	1131.5	1150.4	1154.5	1156.5
20°	1118.0	1112.5	1134.2	1136.2	1141.0
22.5°	1094.3	1090.9	1114.6	1115.9	1121.3
25°	1069.2	1067.2	1092.2	1094.3	1099.0
27.5°	1041.5	1040.8	1067.9	1069.9	1076.0
30°	1011.0	1012.4	1040.1	1043.5	1050.3
32.5°	976.5	981.9	1009.7	1014.4	1023.2
35°	942.7	948.8	978.6	985.3	995.5
37.5°	906.1	915.6	945.4	954.2	965.7
40°	868.2	879.7	910.9	923.1	935.9
42.5°	829.0	841.9	875.0	891.9	906.8
45°	788.4	803.3	838.5	859.4	875.7
47.5°	745.8	764.0	801.9	826.3	844.6
50°	702.4	722.1	764.7	793.1	812.8
52.5°	658.5	680.1	725.5	760.0	779.6
55°	613.1	637.5	686.2	726.8	747.1
57.5°	566.4	592.8	647.6	692.3	715.3
60°	519.1	548.8	607.7	658.5	682.1
62.5°	471.0	504.2	570.5	625.3	648.3
65°	420.9	458.8	531.9	591.5	615.8
67.5°	370.2	413.5	494.0	558.3	583.3
70°	318.7	368.8	456.1	527.2	552.2
72.5°	268.0	326.2	420.9	494.7	521.1
75°	217.9	284.9	386.4	463.6	490.6
77.5°	173.2	245.0	352.6	434.5	460.9
80°	128.6	207.8	321.4	404.7	431.8
82.5°	89.3	174.6	292.3	375.6	403.3
85°	55.5	145.5	264.6	347.2	375.6
87.5°	26.4	119.8	237.5	320.1	349.2
90°	2.7	97.4	212.5	295.1	322.1
92.5°	0.0	79.2	190.8	270.7	298.4
95°	0.0	64.3	169.9	247.7	275.4
97.5°	0.0	52.8	150.9	226.0	253.1
100°	0.0	44.0	134.0	205.7	231.4
102.5°	0.0	37.2	118.4	186.1	211.1
105°	0.0	31.8	105.6	168.5	192.2
107.5°	0.0	27.7	94.1	152.3	174.6
110°	0.0	24.4	83.9	137.4	158.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	21.0	75.1	123.8	143.5
115°	0.0	18.9	67.0	111.7	129.3
117.5°	0.0	16.2	60.2	100.8	117.1
120°	0.0	14.2	53.5	90.7	105.6
122.5°	0.0	12.9	48.0	81.9	95.4
125°	0.0	10.8	42.6	73.1	85.3
127.5°	0.0	8.8	37.2	65.0	75.8
130°	0.0	7.4	32.5	58.2	67.7
132.5°	0.0	6.1	27.7	51.4	60.2
135°	0.0	4.7	23.7	44.7	52.8
137.5°	0.7	4.1	20.3	39.3	46.0
140°	0.0	3.4	16.9	33.2	39.3
142.5°	0.7	2.7	13.5	27.7	33.8
145°	0.7	2.7	10.8	23.0	28.4
147.5°	0.7	2.0	8.1	18.3	23.0
150°	0.7	1.4	6.1	14.2	18.3
152.5°	0.7	1.4	4.7	10.2	14.2
155°	0.7	0.7	3.4	7.4	10.2
157.5°	0.7	0.7	2.7	5.4	6.8
160°	0.7	0.7	2.0	3.4	4.7
162.5°	0.7	0.7	1.4	2.0	3.4
165°	0.7	0.7	0.7	1.4	2.0
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)