

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: P189415

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P189415
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26220)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SWLED-LD4-40SL-LW-UNV-L840-CD1-U
Description: [LUMINAIRE]METALUX LED STAIRWELL WITH FROSTED LENS

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

Summary

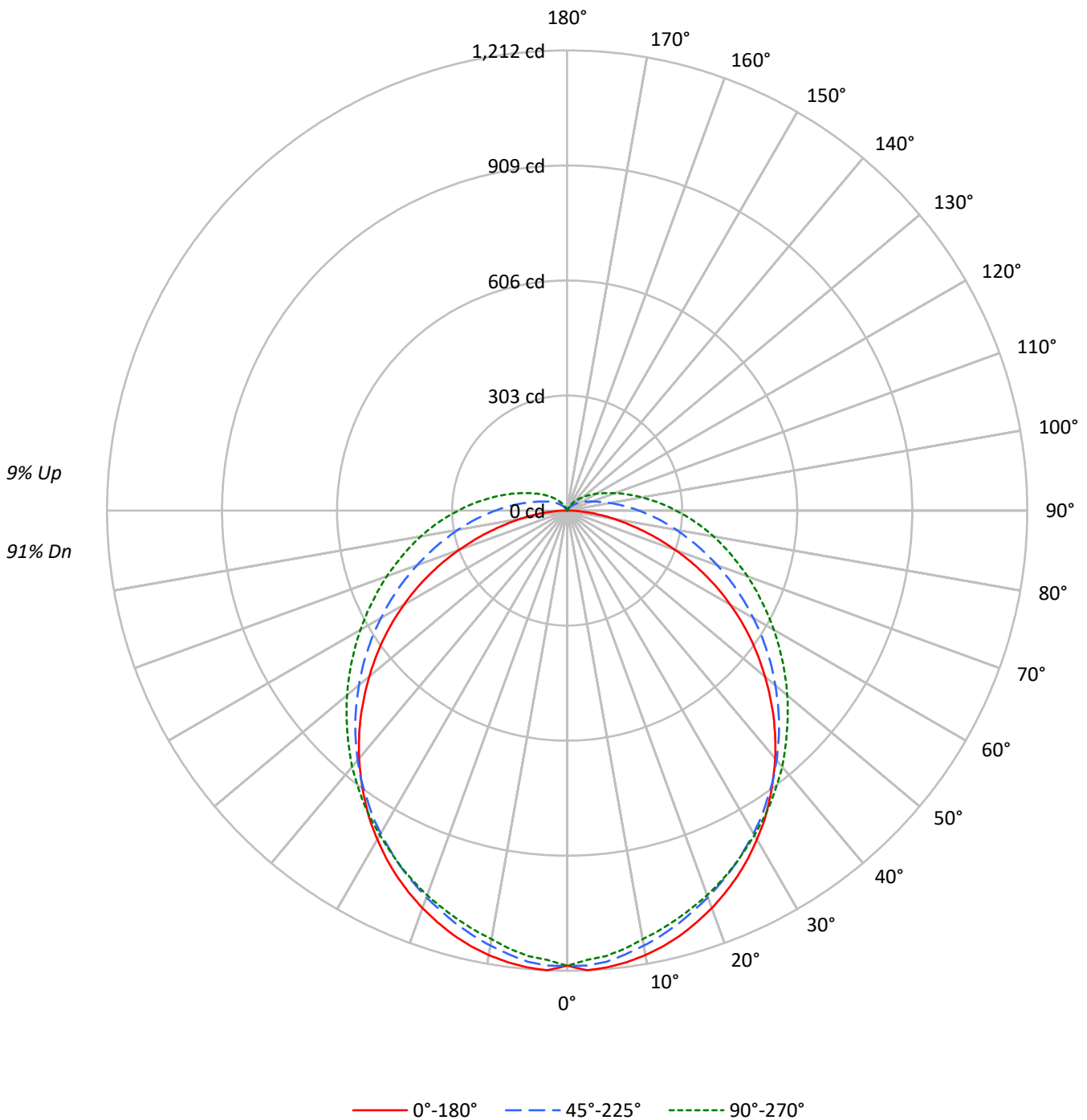
Lumens per Lamp: N/A
Luminaire Lumens: 4103.3 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.23 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.75' x H: 0.17')
CIE Type: Direct

Input Watts (W): 42.6
Input Voltage (V): NR
Input Current (A_{in}): 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

TEST NUMBER: P189415

CATALOG NUMBER: 4SWLED-LD4-40SL-LW-UNV-L840-CD1-U

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	100	100	100	94	94	94	91
1	105	99	94	90	101	96	91	87	90	86	83	85	82	79	80	77	75	72
2	95	85	78	71	91	83	76	70	78	72	67	73	68	64	69	65	61	59
3	86	74	66	59	82	72	64	58	68	61	55	64	58	53	60	56	51	49
4	78	66	56	49	75	64	55	49	60	53	47	57	50	45	54	48	44	41
5	72	58	49	42	69	57	48	42	54	46	40	51	44	39	48	42	38	35
6	66	53	43	37	64	51	42	36	48	41	35	46	39	34	44	38	33	31
7	61	48	39	32	59	46	38	32	44	36	31	42	35	30	40	34	29	27
8	57	43	35	29	55	42	34	28	40	33	28	38	32	27	36	31	26	24
9	53	40	31	26	51	39	31	25	37	30	25	35	29	24	34	28	24	22
10	50	37	29	23	48	36	28	23	34	27	22	33	26	22	31	26	21	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9175	9175	9175
5°	9244	8895	8710
10°	9166	8524	8263
15°	9064	8177	7890
20°	8932	7844	7560
25°	8788	7535	7241
30°	8616	7234	6941
35°	8424	6933	6675
40°	8210	6648	6415
45°	7970	6348	6139
50°	7698	6037	5893
55°	7407	5731	5655
60°	7063	5422	5436
65°	6641	5127	5241
70°	6047	4828	5088
75°	5271	4564	4969
80°	4418	4349	4902
85°	3215	4202	4887



TEST NUMBER: P189415

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.6	2.7
10°-20°	318.1	7.8
20°-30°	477.9	11.6
30°-40°	577.3	14.1
40°-50°	608.0	14.8
50°-60°	572.3	13.9
60°-70°	483.3	11.8
70°-80°	362.2	8.8
80°-90°	241.0	5.9
90°-100°	149.2	3.6
100°-110°	91.3	2.2
110°-120°	54.8	1.3
120°-130°	31.6	0.8
130°-140°	15.9	0.4
140°-150°	6.2	0.2
150°-160°	1.4	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	908.6	22.1
0°-40°	1485.9	36.2
0°-60°	2666.2	65.0
0°-90°	3752.7	91.5
90°-120°	295.3	7.2
90°-150°	349.0	8.5
90°-180°	351.0	8.6
0°-180°	4103.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1199	1199	1199	1199	1199	
5°	1208	1189	1193	1181	1178	115
15°	1158	1130	1127	1117	1114	326
25°	1062	1031	1036	1032	1035	489
35°	930	906	922	930	937	581
45°	769	760	789	808	819	593
55°	590	599	642	676	693	527
65°	402	430	493	544	565	397
75°	208	264	353	423	447	222
85°	55	132	237	311	338	60
90°	4	86	189	262	286	5
95°	0	56	148	217	241	0
105°	0	27	88	144	165	0
115°	0	15	55	93	108	0
125°	0	8	35	61	71	1
135°	1	3	19	37	43	1
145°	1	1	8	18	22	1
155°	1	1	1	5	7	0
165°	1	1	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P189415

CATALOG NUMBER: 4SWLED-LD4-40SL-LW-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1198.7	1198.7	1198.7	1198.7	1198.7
2.5°	1211.7	1194.7	1199.7	1192.7	1184.6
5°	1207.7	1188.6	1192.7	1180.6	1177.6
7.5°	1199.7	1179.6	1178.6	1167.6	1163.5
10°	1188.6	1166.6	1163.5	1150.5	1146.5
12.5°	1174.6	1149.5	1146.5	1132.4	1131.4
15°	1157.5	1130.4	1127.4	1117.4	1114.3
17.5°	1136.4	1108.3	1105.3	1097.3	1096.3
20°	1114.3	1085.2	1084.2	1076.2	1078.2
22.5°	1089.3	1059.1	1060.1	1054.1	1057.1
25°	1062.1	1031.0	1036.0	1032.0	1035.0
27.5°	1032.0	1000.9	1008.9	1007.9	1010.9
30°	999.9	969.8	981.8	982.8	986.9
32.5°	966.8	938.7	953.7	956.7	961.8
35°	929.6	905.5	921.6	929.6	936.7
37.5°	891.5	869.4	891.5	900.5	908.5
40°	852.3	834.3	858.3	870.4	881.4
42.5°	811.2	798.1	824.2	839.3	850.3
45°	769.0	760.0	789.1	808.2	819.2
47.5°	724.8	719.8	752.9	775.0	788.1
50°	680.7	680.7	715.8	742.9	757.0
52.5°	635.5	640.5	679.7	709.8	724.8
55°	590.3	599.3	641.5	675.6	692.7
57.5°	544.1	557.2	604.4	642.5	660.6
60°	496.9	515.0	566.2	609.4	628.5
62.5°	449.8	472.8	529.1	577.3	597.3
65°	401.6	429.7	492.9	544.1	565.2
67.5°	352.4	387.5	455.8	513.0	535.1
70°	303.2	344.3	420.6	482.9	505.0
72.5°	255.0	304.2	386.5	451.8	474.9
75°	207.8	264.0	353.4	422.6	446.7
77.5°	164.6	225.9	321.3	393.5	418.6
80°	125.5	190.7	292.1	365.4	391.5
82.5°	87.3	159.6	264.0	338.3	364.4
85°	55.2	132.5	236.9	311.2	338.3
87.5°	29.1	108.4	211.8	286.1	312.2
90°	4.0	86.3	188.7	262.0	286.1
92.5°	1.0	69.3	167.7	238.9	264.0
95°	0.0	56.2	147.6	216.8	240.9
97.5°	0.0	45.2	130.5	196.8	219.9
100°	0.0	37.1	114.4	177.7	199.8
102.5°	0.0	31.1	100.4	159.6	181.7
105°	0.0	27.1	88.3	143.6	164.6
107.5°	0.0	23.1	78.3	128.5	148.6
110°	0.0	20.1	69.3	115.5	133.5



TEST NUMBER: P189415

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	17.1	62.2	103.4	120.5
115°	0.0	15.1	55.2	93.4	108.4
117.5°	0.0	13.1	50.2	84.3	97.4
120°	0.0	11.0	44.2	75.3	88.3
122.5°	1.0	10.0	39.2	68.3	79.3
125°	0.0	8.0	35.1	61.2	71.3
127.5°	1.0	6.0	30.1	54.2	63.2
130°	1.0	5.0	26.1	48.2	56.2
132.5°	1.0	4.0	22.1	42.2	49.2
135°	1.0	3.0	19.1	37.1	43.2
137.5°	1.0	2.0	16.1	31.1	37.1
140°	1.0	1.0	13.1	26.1	32.1
142.5°	1.0	1.0	10.0	22.1	27.1
145°	1.0	1.0	8.0	18.1	22.1
147.5°	1.0	1.0	6.0	14.1	18.1
150°	1.0	1.0	4.0	11.0	14.1
152.5°	1.0	1.0	3.0	7.0	10.0
155°	1.0	1.0	1.0	5.0	7.0
157.5°	1.0	1.0	0.0	3.0	4.0
160°	1.0	1.0	0.0	1.0	1.0
162.5°	1.0	1.0	0.0	0.0	0.0
165°	1.0	1.0	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)