

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: P284634

Luminaire Tested: **4SNLED-LD5-81HL-SLW-UNV-L930-CD1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P284634
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P#)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 45NLED-LD5-81HL-SLW-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
SQUARE FROSTED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6442.0 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.56 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

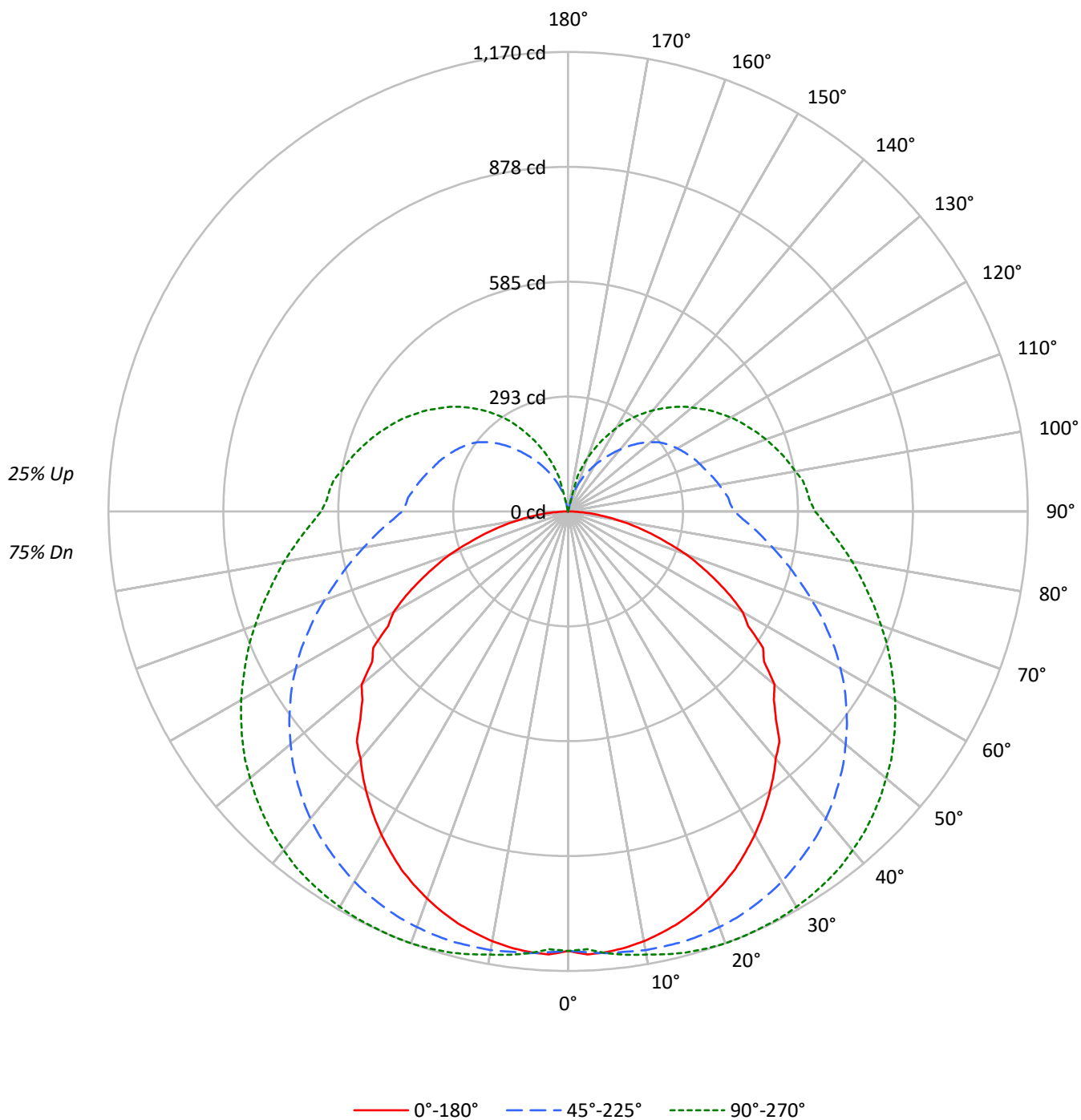
Input Watts (W): 79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	113	113	113	113	107	107	107	107	97	97	97	88	88	88	79	79	79	75		
1	100	94	89	84	95	89	84	80	80	76	73	72	69	66	64	62	60	56		
2	90	80	72	66	85	76	69	63	68	63	58	61	57	53	55	51	48	44		
3	81	69	60	53	76	66	58	51	59	53	47	53	48	43	47	43	39	36		
4	74	61	51	44	69	58	49	43	52	45	39	47	41	36	42	37	33	30		
5	67	54	44	37	63	51	43	36	46	39	33	42	35	31	37	32	28	25		
6	62	48	39	32	58	46	37	31	41	34	29	37	31	27	34	28	24	22		
7	57	43	34	28	54	41	33	27	37	30	25	34	28	23	30	25	21	19		
8	53	39	31	25	50	37	29	24	34	27	22	31	25	21	28	23	19	17		
9	49	36	27	22	47	34	26	21	31	24	20	28	23	18	26	21	17	15		
10	46	33	25	20	44	31	24	19	29	22	18	26	21	16	24	19	15	13		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9042	9042	9042
5°	9111	8934	8868
10°	9067	8856	8818
15°	9005	8809	8838
20°	8920	8767	8854
25°	8835	8736	8868
30°	8713	8709	8916
35°	8577	8678	8977
40°	8449	8672	9035
45°	8288	8652	9107
50°	8313	8633	9179
55°	8165	8633	9287
60°	7867	8638	9414
65°	7430	8649	9589
70°	6950	8713	9859
75°	6098	8915	10258
80°	5151	9344	10919
85°	3826	10214	11884



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.5	1.7
10°-20°	318.7	4.9
20°-30°	506.5	7.9
30°-40°	650.1	10.1
40°-50°	734.1	11.4
50°-60°	749.0	11.6
60°-70°	693.9	10.8
70°-80°	587.5	9.1
80°-90°	469.0	7.3
90°-100°	398.2	6.2
100°-110°	354.8	5.5
110°-120°	302.2	4.7
120°-130°	240.0	3.7
130°-140°	170.3	2.6
140°-150°	101.7	1.6
150°-160°	47.4	0.7
160°-170°	11.3	0.2
170°-180°	0.0	0.0
0°-30°	932.7	14.5
0°-40°	1582.8	24.6
0°-60°	3065.9	47.6
0°-90°	4816.2	74.8
90°-120°	1055.2	16.4
90°-150°	1567.1	24.3
90°-180°	1626.0	25.2
0°-180°	6442.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1119	1119	1119	1119	1119	
5°	1126	1117	1129	1129	1129	107
15°	1085	1094	1134	1155	1163	306
25°	1005	1038	1111	1150	1169	463
35°	888	954	1057	1122	1149	556
45°	748	849	975	1060	1096	581
55°	605	707	864	970	1013	532
65°	415	553	731	857	905	412
75°	218	386	592	737	789	232
85°	56	248	472	625	678	61
90°	3	203	422	575	628	5
95°	0	191	409	558	610	0
105°	0	176	372	513	563	0
115°	0	163	339	462	507	0
125°	0	141	301	407	446	0
135°	0	105	242	344	375	0
145°	0	68	170	257	294	1
155°	2	42	105	157	195	1
165°	2	23	47	65	92	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P284634

CATALOG NUMBER: 4SNLED-LD5-81HL-SLW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1118.9	1118.9	1118.9	1118.9	1118.9
2.5°	1129.1	1117.2	1123.3	1121.7	1115.6
5°	1126.2	1117.2	1129.1	1129.1	1129.1
7.5°	1120.1	1114.0	1130.7	1136.8	1138.5
10°	1111.1	1111.1	1134.0	1143.0	1145.8
12.5°	1098.8	1103.3	1134.0	1147.4	1154.8
15°	1085.4	1094.3	1134.0	1154.8	1162.6
17.5°	1068.6	1083.7	1130.7	1156.4	1167.1
20°	1049.0	1071.9	1126.2	1156.4	1170.3
22.5°	1027.8	1056.8	1120.1	1153.6	1170.3
25°	1005.3	1038.4	1111.1	1150.3	1168.7
27.5°	977.9	1020.4	1100.5	1145.8	1167.1
30°	950.6	999.2	1088.2	1139.7	1162.6
32.5°	920.3	976.3	1073.1	1130.7	1156.4
35°	888.5	953.8	1056.8	1121.7	1149.1
37.5°	856.6	926.5	1040.0	1109.5	1139.7
40°	821.9	899.1	1020.4	1094.3	1126.2
42.5°	796.1	870.5	999.2	1079.2	1112.7
45°	747.9	849.3	974.7	1059.6	1096.0
47.5°	710.0	808.4	950.6	1040.0	1077.6
50°	685.9	774.9	922.0	1017.1	1056.8
52.5°	628.3	752.4	894.6	994.7	1036.7
55°	605.4	707.1	864.4	970.2	1012.6
57.5°	543.3	675.2	834.1	943.2	986.9
60°	513.1	631.1	800.6	915.8	961.2
62.5°	466.1	593.5	767.6	885.6	932.6
65°	414.6	552.7	731.2	856.6	905.2
67.5°	366.4	511.8	696.5	826.4	877.8
70°	319.4	469.4	660.1	796.1	847.6
72.5°	264.7	426.9	625.0	767.6	819.0
75°	218.1	386.0	591.9	737.3	788.8
77.5°	172.4	346.8	560.0	710.0	761.4
80°	130.3	308.8	528.2	681.4	734.1
82.5°	90.7	277.0	499.6	654.0	705.5
85°	56.0	248.4	472.2	625.0	678.1
87.5°	25.7	222.6	444.8	598.0	652.4
90°	2.9	203.0	422.4	575.2	628.3
92.5°	1.6	196.9	413.4	564.5	616.0
95°	0.0	190.8	408.9	558.4	609.9
97.5°	0.0	184.6	398.3	549.4	602.5
100°	0.0	181.8	390.5	535.9	587.4
102.5°	0.0	177.3	381.5	523.7	575.2
105°	0.0	175.7	372.5	513.1	563.3
107.5°	0.0	172.4	363.1	499.6	549.4
110°	0.0	169.5	355.8	487.3	535.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	166.7	348.0	475.5	522.1
115°	0.0	163.4	339.0	461.6	506.9
117.5°	0.0	158.9	330.1	448.1	493.5
120°	0.0	152.8	321.1	435.9	478.3
122.5°	0.0	146.6	311.7	420.7	461.6
125°	0.0	140.9	301.1	407.3	446.5
127.5°	0.0	131.5	289.2	392.2	428.5
130°	0.0	122.5	274.1	377.0	411.8
132.5°	1.6	113.6	259.0	360.3	395.0
135°	0.0	104.6	242.2	343.5	375.4
137.5°	0.0	96.8	223.9	325.6	355.8
140°	0.0	87.8	205.9	304.3	336.2
142.5°	0.0	77.2	187.9	281.4	314.9
145°	0.0	68.2	169.5	257.3	293.7
147.5°	1.6	60.5	152.8	231.6	270.8
150°	1.6	54.3	136.4	205.9	245.1
152.5°	1.6	48.6	119.7	181.8	219.4
155°	1.6	42.5	104.6	157.3	195.3
157.5°	1.6	36.4	87.8	133.2	169.5
160°	1.6	31.9	72.7	111.9	145.4
162.5°	1.6	27.4	59.2	87.8	119.7
165°	1.6	22.9	47.0	64.9	92.3
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)