

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: P284712

Luminaire Tested: **4SNLED-LD5-81HL-SLW-UNV-L940-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: P284712
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-L940-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: 7000.0 lumens
Efficiency: N/A
Efficacy: 88.6 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

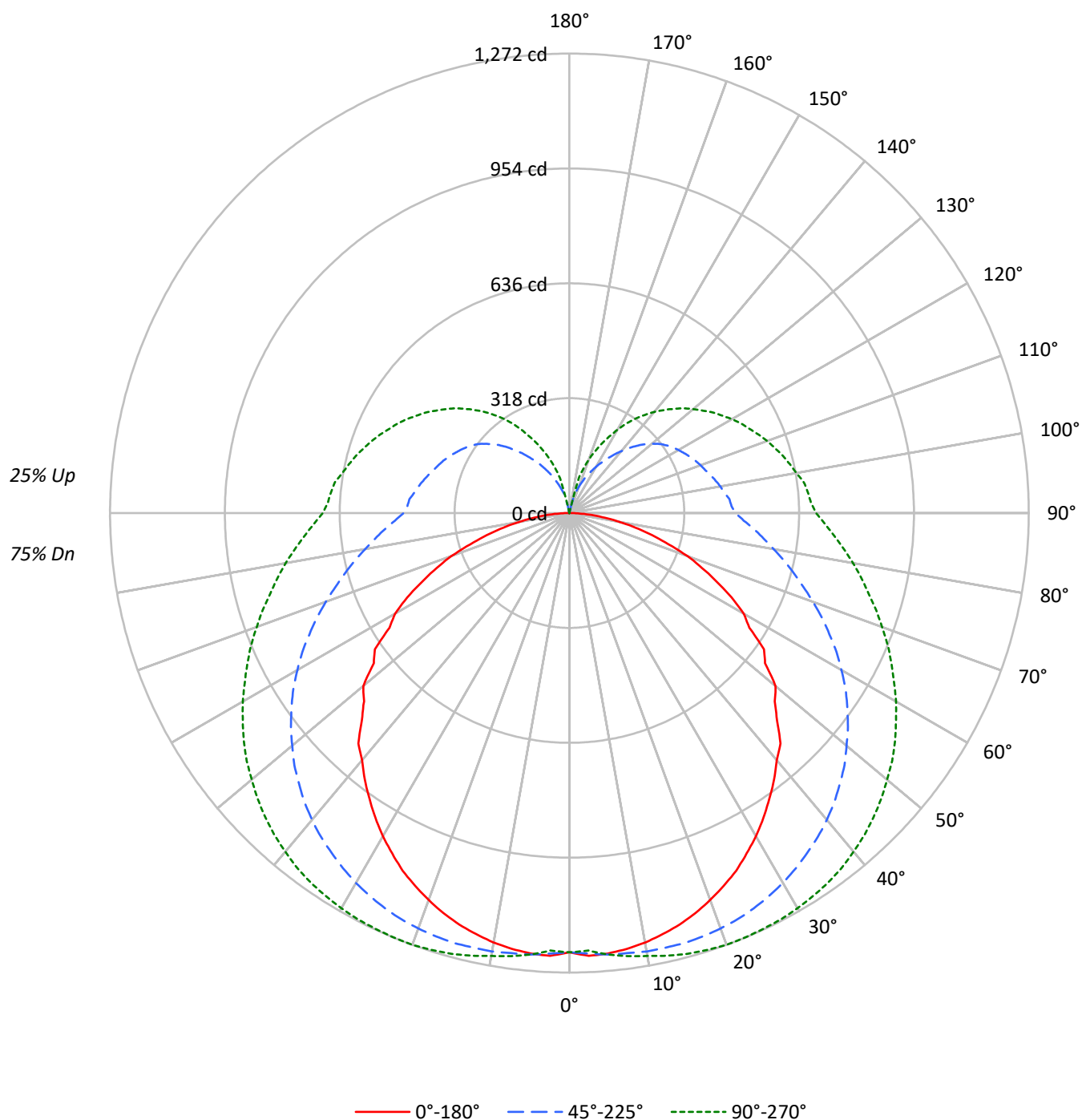
Input Watts (W): 79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9825	9825	9825
5°	9900	9708	9636
10°	9852	9623	9583
15°	9785	9571	9603
20°	9692	9527	9622
25°	9600	9492	9636
30°	9467	9463	9688
35°	9320	9430	9754
40°	9181	9423	9818
45°	9006	9401	9895
50°	9033	9380	9974
55°	8872	9380	10093
60°	8548	9386	10229
65°	8073	9397	10420
70°	7553	9468	10713
75°	6627	9687	11146
80°	5598	10152	11863
85°	4154	11099	12913



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.8	1.7
10°-20°	346.3	4.9
20°-30°	550.4	7.9
30°-40°	706.4	10.1
40°-50°	797.6	11.4
50°-60°	813.9	11.6
60°-70°	754.0	10.8
70°-80°	638.4	9.1
80°-90°	509.6	7.3
90°-100°	432.7	6.2
100°-110°	385.5	5.5
110°-120°	328.3	4.7
120°-130°	260.8	3.7
130°-140°	185.0	2.6
140°-150°	110.5	1.6
150°-160°	51.5	0.7
160°-170°	12.2	0.2
170°-180°	0.0	0.0
0°-30°	1013.5	14.5
0°-40°	1719.8	24.6
0°-60°	3331.4	47.6
0°-90°	5233.4	74.8
90°-120°	1146.6	16.4
90°-150°	1702.8	24.3
90°-180°	1767.0	25.2
0°-180°	7000.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1216	1216	1216	1216	1216	
5°	1224	1214	1227	1227	1227	116
15°	1179	1189	1232	1255	1263	333
25°	1092	1128	1207	1250	1270	503
35°	965	1036	1148	1219	1249	604
45°	813	923	1059	1151	1191	631
55°	658	768	939	1054	1100	578
65°	450	601	794	931	984	447
75°	237	420	643	801	857	252
85°	61	270	513	679	737	66
90°	3	221	459	625	683	5
95°	0	207	444	607	663	0
105°	0	191	405	558	612	0
115°	0	178	368	502	551	0
125°	0	153	327	442	485	0
135°	0	114	263	373	408	0
145°	0	74	184	280	319	1
155°	2	46	114	171	212	1
165°	2	25	51	71	100	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°	1215.8	1215.8	1215.8	1215.8	1215.8
2.5°	1226.9	1214.0	1220.7	1218.9	1212.2
5°	1223.8	1214.0	1226.9	1226.9	1226.9
7.5°	1217.1	1210.4	1228.6	1235.3	1237.1
10°	1207.3	1207.3	1232.2	1242.0	1245.1
12.5°	1194.0	1198.9	1232.2	1246.8	1254.8
15°	1179.4	1189.1	1232.2	1254.8	1263.3
17.5°	1161.2	1177.6	1228.6	1256.6	1268.1
20°	1139.9	1164.7	1223.8	1256.6	1271.7
22.5°	1116.8	1148.3	1217.1	1253.5	1271.7
25°	1092.4	1128.3	1207.3	1249.9	1269.9
27.5°	1062.6	1108.8	1195.8	1245.1	1268.1
30°	1032.9	1085.7	1182.5	1238.4	1263.3
32.5°	1000.0	1060.9	1166.1	1228.6	1256.6
35°	965.4	1036.4	1148.3	1218.9	1248.6
37.5°	930.8	1006.7	1130.1	1205.6	1238.4
40°	893.1	977.0	1108.8	1189.1	1223.8
42.5°	865.1	945.9	1085.7	1172.7	1209.1
45°	812.7	922.8	1059.1	1151.4	1190.9
47.5°	771.5	878.4	1032.9	1130.1	1170.9
50°	745.3	842.0	1001.8	1105.2	1148.3
52.5°	682.7	817.6	972.1	1080.8	1126.5
55°	657.8	768.3	939.2	1054.2	1100.4
57.5°	590.4	733.7	906.4	1024.9	1072.4
60°	557.5	685.8	870.0	995.2	1044.4
62.5°	506.5	644.9	834.0	962.3	1013.4
65°	450.5	600.6	794.5	930.8	983.6
67.5°	398.2	556.2	756.8	898.0	953.9
70°	347.1	510.0	717.3	865.1	921.0
72.5°	287.6	463.8	679.1	834.0	890.0
75°	237.0	419.5	643.2	801.2	857.1
77.5°	187.3	376.8	608.5	771.5	827.4
80°	141.6	335.6	573.9	740.4	797.6
82.5°	98.5	300.9	542.9	710.6	766.6
85°	60.8	269.9	513.1	679.1	736.8
87.5°	28.0	241.9	483.4	649.8	708.9
90°	3.1	220.6	459.0	625.0	682.7
92.5°	1.8	213.9	449.2	613.4	669.4
95°	0.0	207.3	444.3	606.8	662.7
97.5°	0.0	200.6	432.8	597.0	654.7
100°	0.0	197.5	424.3	582.4	638.3
102.5°	0.0	192.6	414.6	569.0	625.0
105°	0.0	190.9	404.8	557.5	612.1
107.5°	0.0	187.3	394.6	542.9	597.0
110°	0.0	184.2	386.6	529.5	582.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	181.1	378.2	516.7	567.3
115°	0.0	177.5	368.4	501.6	550.8
117.5°	0.0	172.7	358.6	486.9	536.2
120°	0.0	166.0	348.9	473.6	519.8
122.5°	0.0	159.4	338.7	457.2	501.6
125°	0.0	153.1	327.1	442.5	485.2
127.5°	0.0	142.9	314.3	426.1	465.6
130°	0.0	133.2	297.8	409.7	447.4
132.5°	1.8	123.4	281.4	391.5	429.2
135°	0.0	113.6	263.2	373.3	407.9
137.5°	0.0	105.2	243.2	353.8	386.6
140°	0.0	95.4	223.7	330.7	365.3
142.5°	0.0	83.9	204.2	305.8	342.2
145°	0.0	74.1	184.2	279.6	319.1
147.5°	1.8	65.7	166.0	251.7	294.3
150°	1.8	59.0	148.3	223.7	266.3
152.5°	1.8	52.8	130.1	197.5	238.4
155°	1.8	46.2	113.6	170.9	212.2
157.5°	1.8	39.5	95.4	144.7	184.2
160°	1.8	34.6	79.0	121.6	158.0
162.5°	1.8	29.7	64.4	95.4	130.1
165°	1.8	24.9	51.0	70.6	100.3
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)