

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: P284556

Luminaire Tested: **4SNLED-LD5-81HL-SLW-UNV-L840-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: P284556
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-L840-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: 8278.0 lumens
Efficiency: N/A
Efficacy: 104.8 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

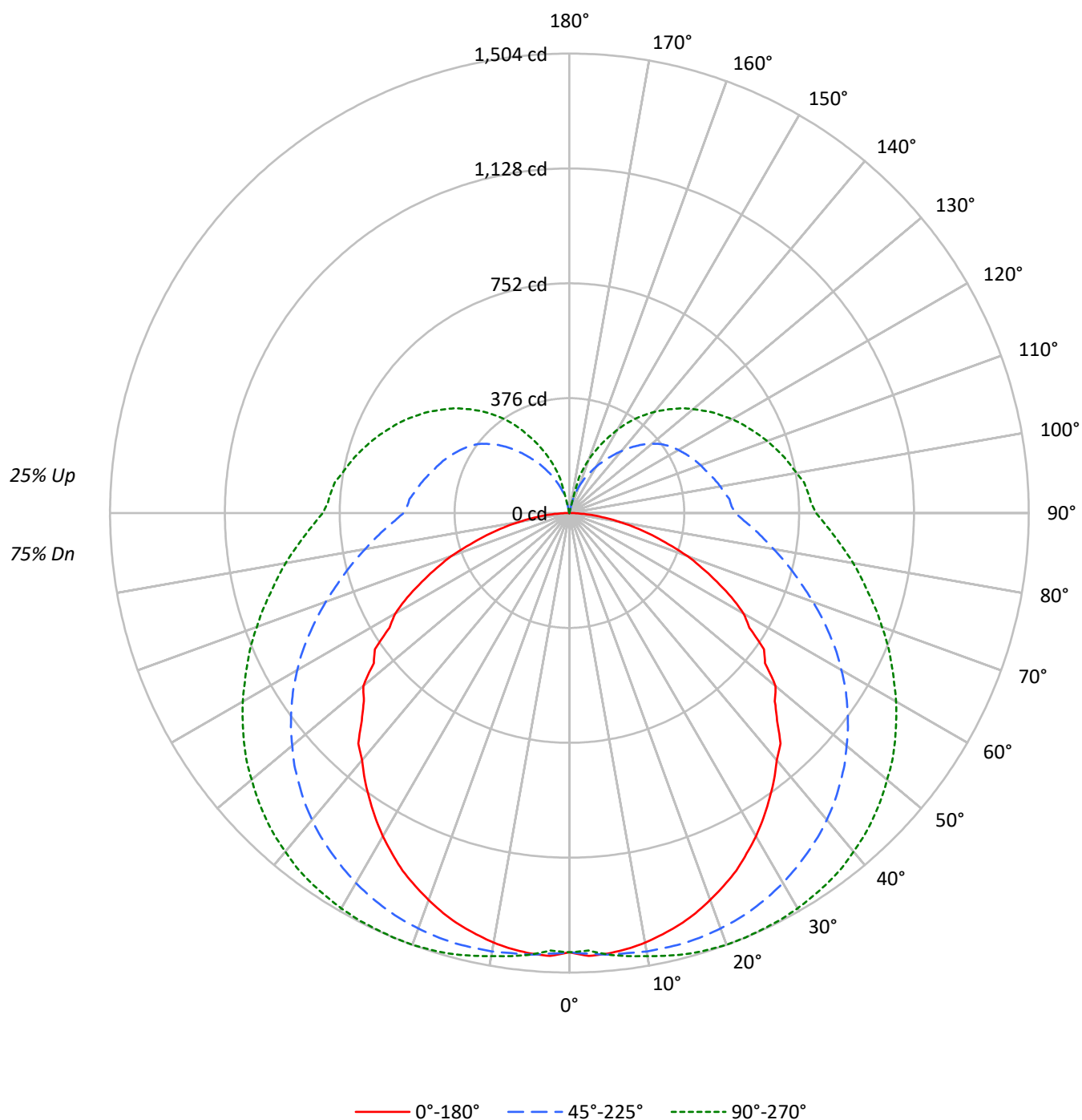
Input Watts (W): 79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P284556

CATALOG NUMBER: 4SNLED-LD5-81HL-SLW-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P284556

CATALOG NUMBER: 4SNLED-LD5-81HL-SLW-UNV-L840-CD1-U

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°	11618	11618	11618
5°	11708	11481	11395
10°	11652	11380	11332
15°	11571	11319	11356
20°	11462	11266	11378
25°	11353	11226	11396
30°	11196	11191	11457
35°	11022	11151	11535
40°	10856	11143	11610
45°	10651	11116	11702
50°	10682	11093	11795
55°	10491	11093	11935
60°	10108	11100	12097
65°	9548	11114	12322
70°	8932	11197	12669
75°	7838	11455	13181
80°	6617	12006	14030
85°	4912	13126	15272



TEST NUMBER: P284556

CATALOG NUMBER: 4SNLED-LD5-81HL-SLW-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.2	1.7
10°-20°	409.5	4.9
20°-30°	650.8	7.9
30°-40°	835.3	10.1
40°-50°	943.3	11.4
50°-60°	962.5	11.6
60°-70°	891.7	10.8
70°-80°	754.9	9.1
80°-90°	602.6	7.3
90°-100°	511.7	6.2
100°-110°	455.9	5.5
110°-120°	388.3	4.7
120°-130°	308.4	3.7
130°-140°	218.8	2.6
140°-150°	130.6	1.6
150°-160°	60.9	0.7
160°-170°	14.5	0.2
170°-180°	0.0	0.0
0°-30°	1198.5	14.5
0°-40°	2033.8	24.6
0°-60°	3939.6	47.6
0°-90°	6188.9	74.8
90°-120°	1355.9	16.4
90°-150°	2013.8	24.3
90°-180°	2089.0	25.2
0°-180°	8278.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1438	1438	1438	1438	1438	
5°	1447	1436	1451	1451	1451	137
15°	1395	1406	1457	1484	1494	393
25°	1292	1334	1428	1478	1502	595
35°	1142	1226	1358	1441	1477	715
45°	961	1091	1252	1362	1408	746
55°	778	909	1111	1247	1301	683
65°	533	710	940	1101	1163	529
75°	280	496	761	948	1014	298
85°	72	319	607	803	871	78
90°	4	261	543	739	807	6
95°	0	245	525	718	784	0
105°	0	226	479	659	724	0
115°	0	210	436	593	651	0
125°	0	181	387	523	574	0
135°	0	134	311	442	482	0
145°	0	88	218	331	377	1
155°	2	55	134	202	251	1
165°	2	29	60	84	119	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P284556

CATALOG NUMBER: 4SNLED-LD5-81HL-SLW-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1437.7	1437.7	1437.7	1437.7	1437.7
2.5°	1450.9	1435.6	1443.5	1441.4	1433.5
5°	1447.2	1435.6	1450.9	1450.9	1450.9
7.5°	1439.3	1431.4	1453.0	1460.8	1462.9
10°	1427.8	1427.8	1457.2	1468.7	1472.4
12.5°	1412.0	1417.8	1457.2	1474.5	1483.9
15°	1394.7	1406.2	1457.2	1483.9	1493.9
17.5°	1373.2	1392.6	1453.0	1486.0	1499.7
20°	1348.0	1377.4	1447.2	1486.0	1503.9
22.5°	1320.7	1357.9	1439.3	1482.3	1503.9
25°	1291.8	1334.3	1427.8	1478.2	1501.8
27.5°	1256.6	1311.2	1414.1	1472.4	1499.7
30°	1221.5	1283.9	1398.4	1464.5	1493.9
32.5°	1182.6	1254.5	1378.9	1453.0	1486.0
35°	1141.7	1225.7	1357.9	1441.4	1476.6
37.5°	1100.7	1190.5	1336.4	1425.7	1464.5
40°	1056.1	1155.3	1311.2	1406.2	1447.2
42.5°	1023.1	1118.6	1283.9	1386.8	1429.9
45°	961.1	1091.3	1252.4	1361.6	1408.3
47.5°	912.3	1038.8	1221.5	1336.4	1384.7
50°	881.3	995.8	1184.7	1307.0	1357.9
52.5°	807.3	966.9	1149.6	1278.2	1332.2
55°	777.9	908.6	1110.7	1246.7	1301.3
57.5°	698.1	867.7	1071.9	1212.0	1268.2
60°	659.3	811.0	1028.8	1176.9	1235.1
62.5°	598.9	762.7	986.3	1138.0	1198.4
65°	532.8	710.2	939.6	1100.7	1163.2
67.5°	470.8	657.7	895.0	1061.9	1128.0
70°	410.5	603.1	848.3	1023.1	1089.2
72.5°	340.1	548.5	803.1	986.3	1052.4
75°	280.3	496.0	760.6	947.5	1013.6
77.5°	221.5	445.6	719.7	912.3	978.4
80°	167.4	396.8	678.7	875.6	943.3
82.5°	116.5	355.9	642.0	840.4	906.5
85°	71.9	319.1	606.8	803.1	871.4
87.5°	33.1	286.1	571.6	768.5	838.3
90°	3.7	260.9	542.8	739.1	807.3
92.5°	2.1	253.0	531.2	725.4	791.6
95°	0.0	245.1	525.4	717.6	783.7
97.5°	0.0	237.3	511.8	706.0	774.2
100°	0.0	233.6	501.8	688.7	754.8
102.5°	0.0	227.8	490.3	672.9	739.1
105°	0.0	225.7	478.7	659.3	723.9
107.5°	0.0	221.5	466.6	642.0	706.0
110°	0.0	217.8	457.2	626.2	688.7



TEST NUMBER: P284556

CATALOG NUMBER: 4SNLED-LD5-81HL-SLW-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	214.2	447.2	611.0	670.8
115°	0.0	210.0	435.7	593.1	651.4
117.5°	0.0	204.2	424.1	575.8	634.1
120°	0.0	196.3	412.6	560.1	614.7
122.5°	0.0	188.4	400.5	540.7	593.1
125°	0.0	181.1	386.9	523.3	573.7
127.5°	0.0	169.0	371.6	503.9	550.6
130°	0.0	157.5	352.2	484.5	529.1
132.5°	2.1	145.9	332.8	463.0	507.6
135°	0.0	134.4	311.3	441.5	482.4
137.5°	0.0	124.4	287.7	418.4	457.2
140°	0.0	112.9	264.6	391.1	432.0
142.5°	0.0	99.2	241.5	361.7	404.7
145°	0.0	87.7	217.8	330.7	377.4
147.5°	2.1	77.7	196.3	297.6	348.0
150°	2.1	69.8	175.3	264.6	314.9
152.5°	2.1	62.5	153.8	233.6	281.9
155°	2.1	54.6	134.4	202.1	250.9
157.5°	2.1	46.7	112.9	171.1	217.8
160°	2.1	40.9	93.4	143.8	186.9
162.5°	2.1	35.2	76.1	112.9	153.8
165°	2.1	29.4	60.4	83.5	118.6
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)