

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: P#

Luminaire Tested: **4SNLED-LD5-90HL-SLN-UNV-L835-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27402)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SNLED-LD5-90HL-SLN-UNV-L835-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
SQUARE NARROW LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

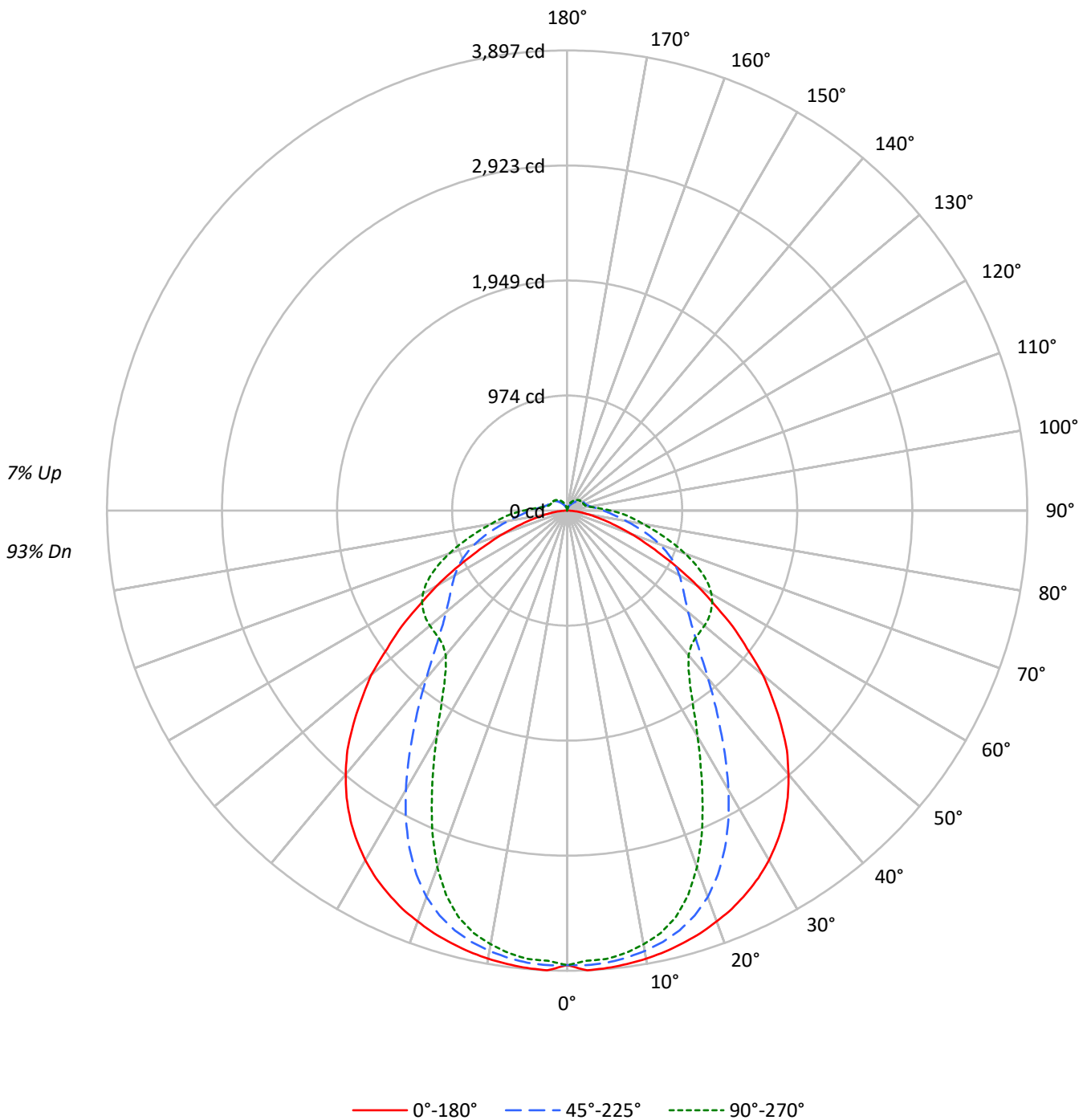
Lumens per Lamp: N/A  
Luminaire Lumens: 9678.9 lumens  
Efficiency: N/A  
Efficacy: 122.5 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 0.96 / 1.11  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Direct

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				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	114	114	114	114	107	107	107	101	101	101	95	95	95	93
1	107	102	97	93	103	99	94	91	93	90	87	88	85	83	83	81	79	76
2	97	89	82	76	94	86	80	75	81	76	72	77	73	69	73	70	66	64
3	89	78	70	64	86	76	69	63	72	66	61	68	63	59	65	61	57	54
4	82	70	61	55	79	68	60	54	65	58	52	61	55	51	58	53	49	47
5	75	63	54	47	73	61	53	47	58	51	46	55	49	44	53	48	43	41
6	70	57	48	42	67	55	47	41	53	46	40	51	44	39	48	43	39	36
7	65	52	43	37	63	51	42	37	48	41	36	46	40	35	44	39	35	32
8	61	47	39	33	59	46	39	33	44	37	32	43	36	32	41	35	31	29
9	57	44	36	30	55	43	35	30	41	34	29	40	33	29	38	33	28	27
10	53	40	33	28	52	40	32	27	38	32	27	37	31	27	35	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	31102	31102	31102
5°	31460	30415	29939
10°	31450	29575	28707
15°	31460	28583	27070
20°	31474	27110	24311
25°	31487	24842	20587
30°	31337	21859	16933
35°	30890	18598	14190
40°	29986	15750	12828
45°	28398	13689	12731
50°	26233	12513	13178
55°	23100	12028	13639
60°	19490	11856	13826
65°	15677	11594	13396
70°	12592	10995	12354
75°	9493	9951	10963
80°	7009	8935	9752
85°	4687	8430	8970



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	364.1	3.8
10°-20°	1029.2	10.6
20°-30°	1438.7	14.9
30°-40°	1492.3	15.4
40°-50°	1378.7	14.2
50°-60°	1230.9	12.7
60°-70°	997.5	10.3
70°-80°	663.5	6.9
80°-90°	379.9	3.9
90°-100°	210.2	2.2
100°-110°	142.3	1.5
110°-120°	118.5	1.2
120°-130°	96.4	1.0
130°-140°	69.5	0.7
140°-150°	41.9	0.4
150°-160°	20.1	0.2
160°-170°	5.2	0.1
170°-180°	0.0	0.0
0°-30°	2832.0	29.3
0°-40°	4324.3	44.7
0°-60°	6933.9	71.6
0°-90°	8974.8	92.7
90°-120°	471.0	4.9
90°-150°	678.8	7.0
90°-180°	704.0	7.3
0°-180°	9678.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3849	3849	3849	3849	3849	
5°	3889	3824	3844	3817	3812	370
15°	3792	3712	3680	3596	3561	1071
25°	3583	3424	3160	2828	2713	1651
35°	3200	2848	2265	1902	1816	1996
45°	2562	2031	1542	1487	1532	1970
55°	1713	1295	1204	1400	1487	1523
65°	875	783	980	1201	1264	884
75°	340	425	661	810	843	372
85°	69	197	390	498	512	79
90°	3	139	308	371	368	5
95°	3	117	244	261	253	2
105°	2	102	176	171	162	2
115°	2	92	156	154	149	2
125°	2	79	137	144	140	2
135°	3	58	109	127	127	2
145°	3	37	75	99	105	2
155°	3	23	47	62	75	2
165°	3	13	23	30	40	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-SLN-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3848.8	3848.8	3848.8	3848.8	3848.8
2.5°	3897.3	3833.7	3853.8	3837.0	3815.3
5°	3888.9	3823.7	3843.7	3817.0	3812.0
7.5°	3873.8	3808.6	3820.3	3788.5	3780.2
10°	3853.8	3785.2	3786.9	3741.7	3730.0
12.5°	3827.0	3751.7	3741.7	3679.8	3663.1
15°	3791.9	3711.6	3679.8	3596.2	3561.1
17.5°	3753.4	3659.7	3594.5	3465.7	3410.5
20°	3701.6	3596.2	3482.4	3286.7	3213.2
22.5°	3649.7	3519.2	3336.9	3076.0	2977.3
25°	3582.8	3423.9	3159.6	2828.4	2713.0
27.5°	3507.5	3311.8	2955.6	2574.2	2450.4
30°	3418.9	3176.4	2731.4	2325.0	2207.9
32.5°	3315.2	3024.1	2495.6	2100.8	1992.1
35°	3199.8	2848.5	2264.8	1901.8	1816.5
37.5°	3067.6	2656.2	2050.7	1741.2	1686.0
40°	2917.1	2447.1	1853.3	1617.4	1599.0
42.5°	2754.8	2243.0	1684.4	1537.2	1553.9
45°	2562.5	2030.6	1542.2	1487.0	1532.1
47.5°	2360.1	1823.2	1426.8	1458.5	1523.8
50°	2164.4	1630.8	1336.4	1440.1	1517.1
52.5°	1921.9	1458.5	1264.5	1423.4	1507.1
55°	1712.8	1294.6	1204.3	1400.0	1487.0
57.5°	1471.9	1147.4	1150.8	1369.9	1456.9
60°	1271.2	1013.6	1098.9	1328.1	1411.7
62.5°	1067.1	893.2	1042.1	1272.9	1348.2
65°	874.8	782.8	980.2	1201.0	1264.5
67.5°	714.2	682.4	909.9	1114.0	1167.5
70°	578.7	590.4	833.0	1017.0	1062.1
72.5°	444.9	505.1	749.3	913.3	951.7
75°	339.5	424.9	660.7	809.6	843.0
77.5°	250.9	354.6	580.4	715.9	744.3
80°	177.3	292.7	505.1	633.9	655.7
82.5°	118.8	240.9	443.3	560.3	580.4
85°	68.6	197.4	389.7	498.4	511.8
87.5°	28.4	163.9	346.2	434.9	441.6
90°	3.3	138.8	307.8	371.3	368.0
92.5°	3.3	125.4	274.3	311.1	302.7
95°	3.3	117.1	244.2	260.9	252.6
97.5°	3.3	112.1	217.4	224.1	215.8
100°	1.7	108.7	199.0	199.0	190.7
102.5°	1.7	105.4	185.7	180.6	174.0
105°	1.7	102.0	175.6	170.6	162.2
107.5°	1.7	100.4	168.9	163.9	155.6
110°	1.7	97.0	163.9	158.9	152.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.7	95.3	160.6	157.2	148.9
115°	1.7	92.0	155.6	153.9	148.9
117.5°	1.7	88.7	152.2	152.2	147.2
120°	1.7	85.3	147.2	150.5	145.5
122.5°	1.7	82.0	142.2	147.2	142.2
125°	1.7	78.6	137.2	143.8	140.5
127.5°	3.3	73.6	130.5	140.5	137.2
130°	1.7	68.6	123.8	137.2	135.5
132.5°	3.3	63.6	117.1	132.1	132.1
135°	3.3	58.5	108.7	127.1	127.1
137.5°	3.3	51.9	100.4	120.4	122.1
140°	3.3	46.8	92.0	113.7	117.1
142.5°	3.3	41.8	83.6	107.0	112.1
145°	3.3	36.8	75.3	98.7	105.4
147.5°	3.3	33.5	66.9	88.7	98.7
150°	3.3	28.4	60.2	80.3	90.3
152.5°	3.3	25.1	53.5	71.9	83.6
155°	3.3	23.4	46.8	61.9	75.3
157.5°	3.3	20.1	40.1	53.5	66.9
160°	3.3	16.7	33.5	46.8	56.9
162.5°	3.3	15.1	28.4	38.5	50.2
165°	3.3	13.4	23.4	30.1	40.1
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)