

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-L830-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-L830-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
SQUARE NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

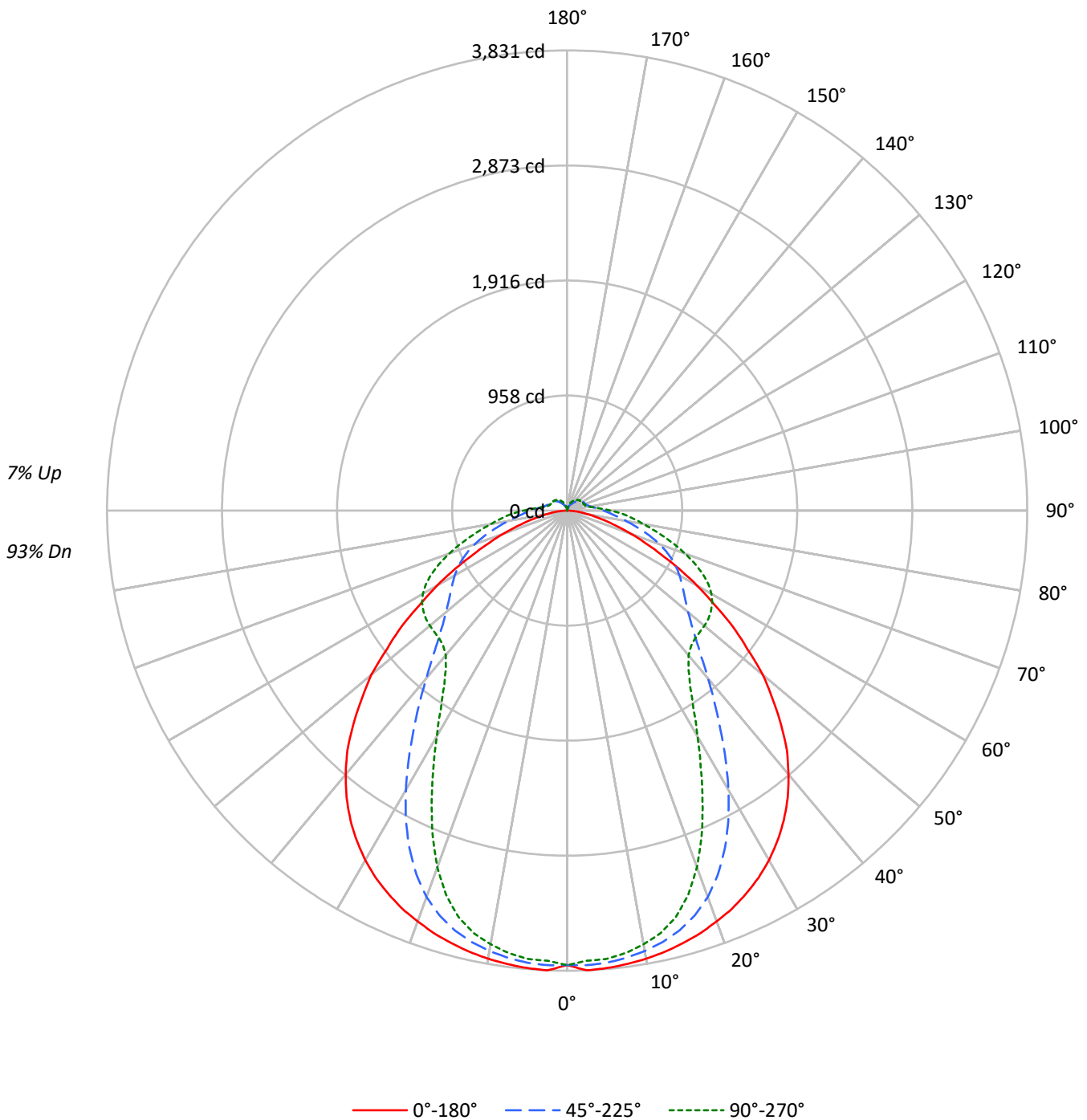
Lumens per Lamp: N/A
Luminaire Lumens: 9515.0 lumens
Efficiency: N/A
Efficacy: 120.4 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 0.96 / 1.11
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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°	30575	30575	30575
5°	30927	29899	29432
10°	30917	29073	28221
15°	30926	28099	26611
20°	30940	26651	23899
25°	30953	24421	20238
30°	30806	21488	16646
35°	30367	18283	13950
40°	29478	15484	12611
45°	27917	13456	12515
50°	25789	12302	12954
55°	22709	11824	13407
60°	19161	11655	13592
65°	15412	11398	13169
70°	12379	10809	12144
75°	9334	9782	10777
80°	6890	8785	9587
85°	4605	8287	8819



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	358.0	3.8
10°-20°	1011.8	10.6
20°-30°	1414.3	14.9
30°-40°	1467.0	15.4
40°-50°	1355.3	14.2
50°-60°	1210.0	12.7
60°-70°	980.6	10.3
70°-80°	652.2	6.9
80°-90°	373.5	3.9
90°-100°	206.6	2.2
100°-110°	139.9	1.5
110°-120°	116.5	1.2
120°-130°	94.7	1.0
130°-140°	68.3	0.7
140°-150°	41.2	0.4
150°-160°	19.8	0.2
160°-170°	5.1	0.1
170°-180°	0.0	0.0
0°-30°	2784.0	29.3
0°-40°	4251.1	44.7
0°-60°	6816.4	71.6
0°-90°	8822.8	92.7
90°-120°	463.1	4.9
90°-150°	667.3	7.0
90°-180°	692.0	7.3
0°-180°	9515.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3784	3784	3784	3784	3784	
5°	3823	3759	3779	3752	3747	364
15°	3728	3649	3618	3535	3501	1053
25°	3522	3366	3106	2780	2667	1623
35°	3146	2800	2226	1870	1786	1963
45°	2519	1996	1516	1462	1506	1937
55°	1684	1273	1184	1376	1462	1497
65°	860	770	964	1181	1243	869
75°	334	418	650	796	829	366
85°	67	194	383	490	503	78
90°	3	136	303	365	362	5
95°	3	115	240	256	248	2
105°	2	100	173	168	160	2
115°	2	90	153	151	146	2
125°	2	77	135	141	138	2
135°	3	58	107	125	125	2
145°	3	36	74	97	104	2
155°	3	23	46	61	74	2
165°	3	13	23	30	40	1
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°	3783.5	3783.5	3783.5	3783.5	3783.5
2.5°	3831.2	3768.7	3788.5	3772.0	3750.7
5°	3823.0	3758.9	3778.6	3752.3	3747.4
7.5°	3808.2	3744.1	3755.6	3724.3	3716.1
10°	3788.5	3721.1	3722.7	3678.3	3666.8
12.5°	3762.2	3688.2	3678.3	3617.5	3601.0
15°	3727.6	3648.7	3617.5	3535.3	3500.7
17.5°	3689.8	3597.7	3533.6	3407.0	3352.7
20°	3638.8	3535.3	3423.4	3231.1	3158.7
22.5°	3587.9	3459.6	3280.4	3023.9	2926.9
25°	3522.1	3365.9	3106.1	2780.5	2667.1
27.5°	3448.1	3255.7	2905.5	2530.6	2408.9
30°	3361.0	3122.5	2685.1	2285.6	2170.5
32.5°	3259.0	2972.9	2453.3	2065.2	1958.4
35°	3145.6	2800.3	2226.4	1869.6	1785.7
37.5°	3015.7	2611.2	2015.9	1711.7	1657.5
40°	2867.7	2405.6	1821.9	1590.0	1572.0
42.5°	2708.2	2205.0	1655.8	1511.1	1527.6
45°	2519.1	1996.2	1516.0	1461.8	1506.2
47.5°	2320.1	1792.3	1402.6	1433.8	1498.0
50°	2127.7	1603.2	1313.8	1415.7	1491.4
52.5°	1889.3	1433.8	1243.1	1399.3	1481.5
55°	1683.8	1272.7	1183.9	1376.3	1461.8
57.5°	1447.0	1128.0	1131.3	1346.7	1432.2
60°	1249.7	996.4	1080.3	1305.6	1387.8
62.5°	1049.1	878.1	1024.4	1251.3	1325.3
65°	860.0	769.5	963.6	1180.6	1243.1
67.5°	702.1	670.9	894.5	1095.1	1147.7
70°	568.9	580.4	818.9	999.7	1044.1
72.5°	437.4	496.6	736.6	897.8	935.6
75°	333.8	417.7	649.5	795.8	828.7
77.5°	246.6	348.6	570.6	703.8	731.7
80°	174.3	287.8	496.6	623.2	644.6
82.5°	116.7	236.8	435.7	550.8	570.6
85°	67.4	194.0	383.1	490.0	503.2
87.5°	28.0	161.1	340.4	427.5	434.1
90°	3.3	136.5	302.6	365.0	361.7
92.5°	3.3	123.3	269.7	305.8	297.6
95°	3.3	115.1	240.1	256.5	248.3
97.5°	3.3	110.2	213.8	220.3	212.1
100°	1.6	106.9	195.7	195.7	187.5
102.5°	1.6	103.6	182.5	177.6	171.0
105°	1.6	100.3	172.7	167.7	159.5
107.5°	1.6	98.7	166.1	161.1	152.9
110°	1.6	95.4	161.1	156.2	149.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.6	93.7	157.9	154.6	146.3
115°	1.6	90.4	152.9	151.3	146.3
117.5°	1.6	87.1	149.6	149.6	144.7
120°	1.6	83.9	144.7	148.0	143.1
122.5°	1.6	80.6	139.8	144.7	139.8
125°	1.6	77.3	134.8	141.4	138.1
127.5°	3.3	72.3	128.3	138.1	134.8
130°	1.6	67.4	121.7	134.8	133.2
132.5°	3.3	62.5	115.1	129.9	129.9
135°	3.3	57.6	106.9	125.0	125.0
137.5°	3.3	51.0	98.7	118.4	120.0
140°	3.3	46.0	90.4	111.8	115.1
142.5°	3.3	41.1	82.2	105.2	110.2
145°	3.3	36.2	74.0	97.0	103.6
147.5°	3.3	32.9	65.8	87.1	97.0
150°	3.3	28.0	59.2	78.9	88.8
152.5°	3.3	24.7	52.6	70.7	82.2
155°	3.3	23.0	46.0	60.8	74.0
157.5°	3.3	19.7	39.5	52.6	65.8
160°	3.3	16.4	32.9	46.0	55.9
162.5°	3.3	14.8	28.0	37.8	49.3
165°	3.3	13.2	23.0	29.6	39.5
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)