

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: P236334

Luminaire Tested: **4SWLED-80HL-LN-UNV-L835-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236334  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-29)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SWLED-80HL-LN-UNV-L835-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 2 ROW LED, NARROW LENS  
Light Source: (224) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

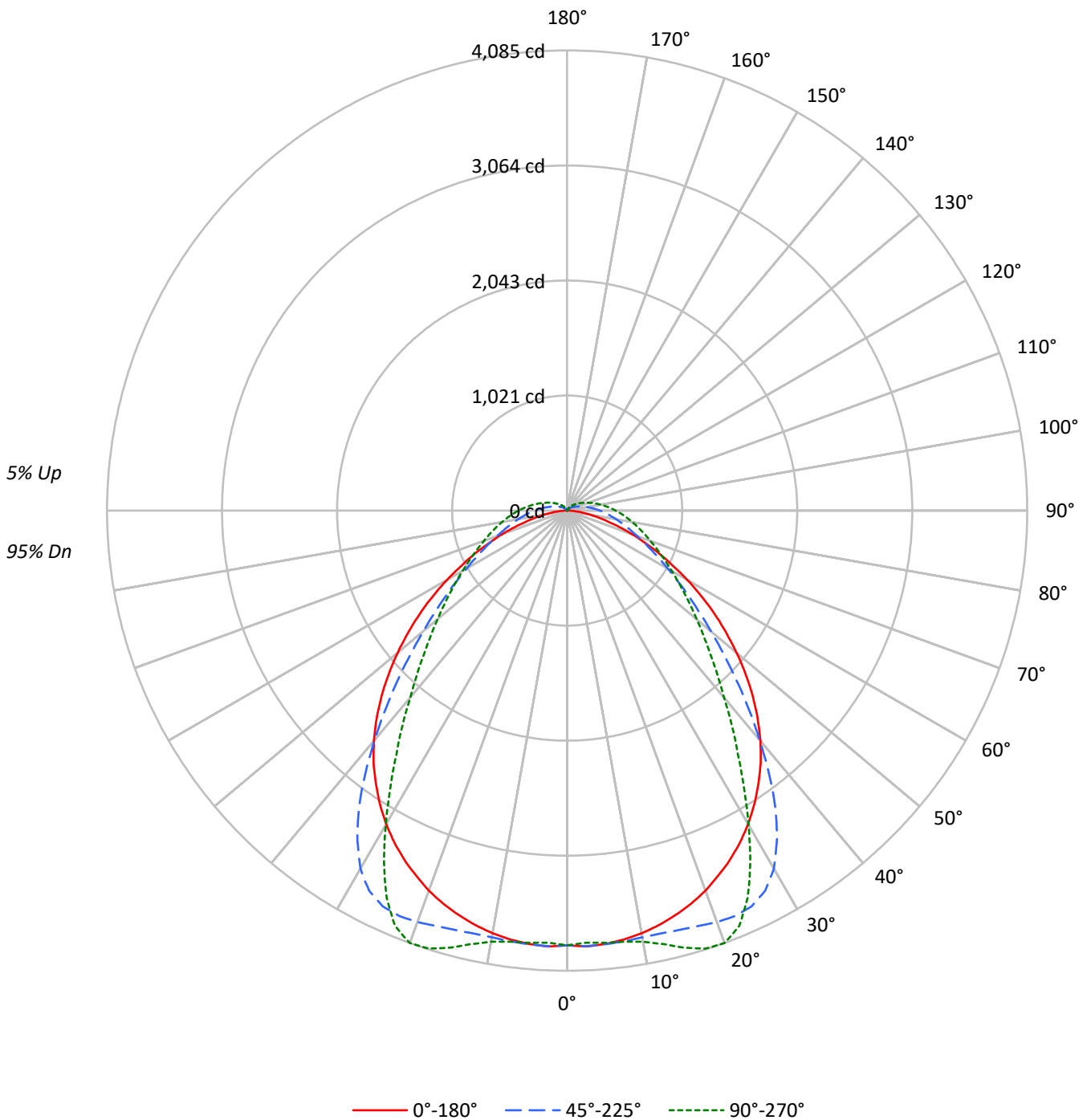
Lumens per Lamp: N/A  
Luminaire Lumens: 10313.0 lumens  
Efficiency: N/A  
Efficacy: 125.2 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.28  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 82.4  
Input Voltage (V): 120  
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	118	118	118	118	114	114	114	114	108	108	108		103	103	103		97	97	97	95
1	108	103	99	95	104	100	96	93	95	92	89		90	88	85		86	84	82	79
2	98	90	84	78	95	88	82	77	84	79	74		80	76	72		76	73	70	67
3	90	80	72	66	87	78	71	65	75	68	63		71	66	62		68	64	60	58
4	83	72	63	57	80	70	62	56	67	60	55		64	58	54		61	56	52	50
5	77	64	56	50	74	63	55	49	60	53	48		58	52	47		56	50	46	44
6	71	58	50	44	69	57	49	43	55	48	43		53	47	42		51	45	41	39
7	66	53	45	39	64	52	44	39	50	43	38		48	42	37		47	41	37	35
8	62	49	41	35	60	48	40	35	46	39	34		44	38	34		43	37	33	31
9	58	45	37	32	56	44	37	31	43	36	31		41	35	31		40	34	30	28
10	54	41	34	29	53	41	33	29	39	33	28		38	32	28		37	32	28	26

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

	0°	45°	90°
0°	27691	27691	27691
5°	27729	27125	26834
10°	27591	26614	26494
15°	27351	26489	27024
20°	27057	26756	27329
25°	26631	26911	25416
30°	26072	25921	21786
35°	25283	23333	18199
40°	24256	19880	15289
45°	22818	16559	13124
50°	21020	13681	11450
55°	18991	11445	10173
60°	16662	9732	9197
65°	14189	8500	8459
70°	11704	7603	7976
75°	9164	7044	7684
80°	6849	6738	7583
85°	4504	6675	7650



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	367.2	3.6
10°-20°	1091.2	10.6
20°-30°	1700.0	16.5
30°-40°	1874.6	18.2
40°-50°	1660.1	16.1
50°-60°	1270.9	12.3
60°-70°	881.0	8.5
70°-80°	575.2	5.6
80°-90°	363.1	3.5
90°-100°	227.1	2.2
100°-110°	139.0	1.3
110°-120°	82.1	0.8
120°-130°	46.3	0.4
130°-140°	23.4	0.2
140°-150°	9.4	0.1
150°-160°	2.3	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	3158.4	30.6
0°-40°	5033.0	48.8
0°-60°	7963.9	77.2
0°-90°	9783.3	94.9
90°-120°	448.2	4.3
90°-150°	527.3	5.1
90°-180°	530.0	5.1
0°-180°	10313.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3859	3859	3859	3859	3859	
5°	3862	3835	3865	3851	3852	367
15°	3718	3721	3853	3964	4017	1049
25°	3421	3533	3876	3861	3792	1575
35°	2960	3238	3224	2764	2643	1849
45°	2330	2587	2122	1826	1796	1793
55°	1597	1672	1308	1243	1265	1426
65°	901	915	824	879	914	897
75°	376	440	539	645	679	409
85°	78	193	360	472	506	89
90°	1	128	290	399	430	5
95°	0	83	228	330	363	0
105°	0	38	137	219	250	0
115°	0	21	82	141	165	0
125°	0	11	51	89	105	0
135°	1	4	29	54	64	1
145°	1	1	13	28	33	1
155°	2	1	2	8	12	1
165°	0	0	0	0	0	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°	3858.8	3858.8	3858.8	3858.8	3858.8
2.5°	3873.5	3844.1	3870.6	3855.9	3839.2
5°	3861.7	3835.3	3864.7	3851.0	3851.9
7.5°	3841.1	3817.6	3856.8	3851.9	3860.8
10°	3810.8	3790.2	3846.1	3869.6	3885.3
12.5°	3768.6	3755.9	3845.1	3901.9	3942.1
15°	3717.6	3720.6	3852.9	3963.7	4016.6
17.5°	3658.8	3677.4	3867.6	4018.6	4077.4
20°	3590.2	3634.3	3887.2	4042.1	4085.3
22.5°	3506.8	3585.3	3895.1	3998.0	3992.1
25°	3420.6	3533.3	3875.5	3860.8	3792.1
27.5°	3322.5	3475.5	3805.9	3636.2	3521.5
30°	3212.7	3409.8	3671.5	3354.9	3219.6
32.5°	3092.1	3331.3	3466.6	3054.9	2921.5
35°	2959.8	3238.2	3224.5	2763.7	2643.1
37.5°	2822.5	3108.8	2944.1	2491.2	2401.0
40°	2668.6	2962.7	2657.8	2243.1	2164.7
42.5°	2502.9	2792.1	2382.3	2021.6	1972.5
45°	2330.4	2587.2	2122.5	1826.5	1796.1
47.5°	2149.0	2359.8	1881.4	1651.9	1640.2
50°	1964.7	2131.4	1664.7	1499.0	1501.0
52.5°	1777.4	1891.2	1474.5	1364.7	1376.5
55°	1597.0	1671.6	1307.8	1243.1	1264.7
57.5°	1410.8	1458.8	1161.8	1136.3	1163.7
60°	1234.3	1260.8	1031.4	1041.2	1072.5
62.5°	1055.9	1077.4	921.6	954.9	988.2
65°	901.0	914.7	823.5	879.4	913.7
67.5°	750.0	773.5	737.2	811.8	847.1
70°	613.7	646.1	661.8	752.0	786.3
72.5°	485.3	534.3	597.1	697.1	731.4
75°	375.5	440.2	539.2	645.1	679.4
77.5°	284.3	359.8	487.3	599.0	632.3
80°	200.0	293.1	441.2	554.9	588.2
82.5°	130.4	239.2	398.0	511.8	544.1
85°	77.5	193.1	359.8	471.6	505.9
87.5°	35.3	156.9	323.5	435.3	467.6
90°	1.0	128.4	290.2	399.0	430.4
92.5°	0.0	103.9	258.8	364.7	396.1
95°	0.0	83.3	228.4	330.4	362.7
97.5°	0.0	67.6	201.0	300.0	331.4
100°	0.0	55.9	177.4	271.6	302.9
102.5°	0.0	46.1	155.9	245.1	275.5
105°	0.0	38.2	137.3	218.6	250.0
107.5°	0.0	32.4	120.6	196.1	225.5
110°	0.0	27.5	105.9	175.5	202.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	24.5	93.1	157.8	183.3
115°	0.0	20.6	82.4	141.2	164.7
117.5°	0.0	18.6	72.5	126.5	148.0
120°	0.0	15.7	64.7	112.7	132.4
122.5°	0.0	13.7	56.9	100.0	117.6
125°	0.0	10.8	51.0	89.2	104.9
127.5°	0.0	8.8	45.1	79.4	93.1
130°	1.0	6.9	40.2	69.6	82.4
132.5°	1.0	4.9	34.3	61.8	71.6
135°	1.0	3.9	29.4	53.9	63.7
137.5°	1.0	2.0	24.5	47.1	54.9
140°	1.0	1.0	19.6	40.2	47.1
142.5°	1.0	1.0	15.7	34.3	40.2
145°	1.0	1.0	12.7	27.5	33.3
147.5°	1.0	1.0	8.8	21.6	27.5
150°	2.0	1.0	5.9	16.7	21.6
152.5°	2.0	1.0	3.9	11.8	16.7
155°	2.0	1.0	2.0	7.8	11.8
157.5°	2.0	2.0	1.0	4.9	6.9
160°	2.0	2.0	1.0	2.0	3.9
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
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)