

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: P236335

Luminaire Tested: **4SWLED-80HL-LN-UNV-L840-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236335
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-L840-CD1-U
Description: METALUX SWLED LINEAR LUMINAIRE
4FT FIXTURE WITH 2 ROW LED, NARROW LENS
Light Source: (224) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

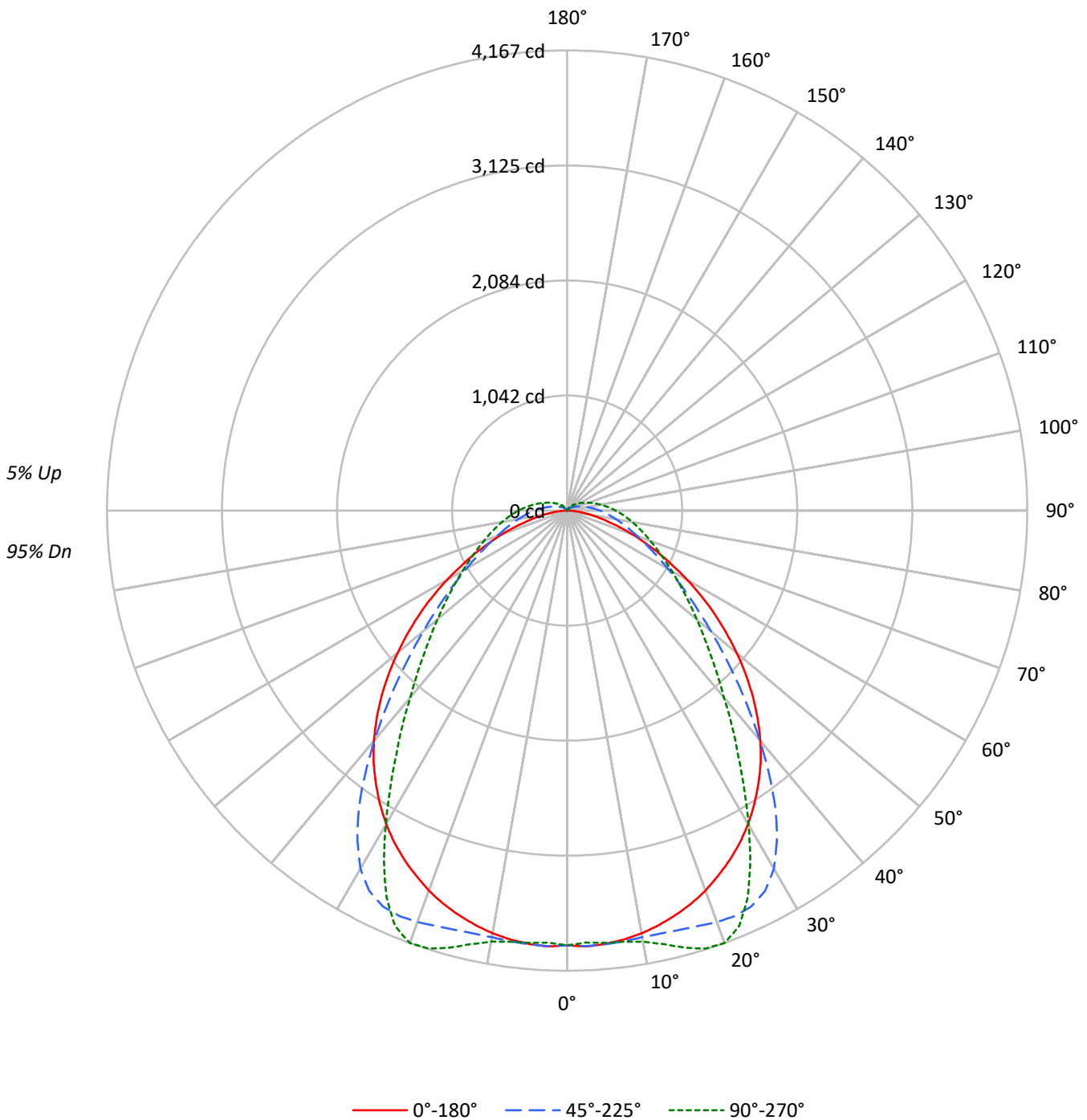
Lumens per Lamp: N/A
Luminaire Lumens: 10519.1 lumens
Efficiency: N/A
Efficacy: 127.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

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°	28244	28244	28244
5°	28283	27667	27370
10°	28142	27145	27023
15°	27898	27018	27564
20°	27598	27290	27875
25°	27163	27449	25924
30°	26593	26439	22221
35°	25788	23799	18562
40°	24741	20277	15594
45°	23273	16890	13385
50°	21440	13954	11679
55°	19370	11675	10376
60°	16996	9927	9382
65°	14473	8671	8629
70°	11938	7754	8135
75°	9347	7185	7838
80°	6986	6873	7735
85°	4591	6809	7803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.6	3.6
10°-20°	1113.0	10.6
20°-30°	1734.0	16.5
30°-40°	1912.1	18.2
40°-50°	1693.2	16.1
50°-60°	1296.3	12.3
60°-70°	898.7	8.5
70°-80°	586.7	5.6
80°-90°	370.4	3.5
90°-100°	231.6	2.2
100°-110°	141.8	1.3
110°-120°	83.8	0.8
120°-130°	47.2	0.4
130°-140°	23.9	0.2
140°-150°	9.6	0.1
150°-160°	2.4	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	3221.5	30.6
0°-40°	5133.5	48.8
0°-60°	8123.0	77.2
0°-90°	9978.7	94.9
90°-120°	457.2	4.3
90°-150°	537.9	5.1
90°-180°	540.0	5.1
0°-180°	10519.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3936	3936	3936	3936	3936	
5°	3939	3912	3942	3928	3929	374
15°	3792	3795	3930	4043	4097	1070
25°	3489	3604	3953	3938	3868	1606
35°	3019	3303	3289	2819	2696	1886
45°	2377	2639	2165	1863	1832	1829
55°	1629	1705	1334	1268	1290	1454
65°	919	933	840	897	932	915
75°	383	449	550	658	693	417
85°	79	197	367	481	516	90
90°	1	131	296	407	439	5
95°	0	85	233	337	370	0
105°	0	39	140	223	255	0
115°	0	21	84	144	168	0
125°	0	11	52	91	107	0
135°	1	4	30	55	65	1
145°	1	1	13	28	34	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°	3935.9	3935.9	3935.9	3935.9	3935.9
2.5°	3950.9	3920.9	3947.9	3932.9	3915.9
5°	3938.9	3911.9	3941.9	3927.9	3928.9
7.5°	3917.9	3893.9	3933.9	3928.9	3937.9
10°	3886.9	3865.9	3922.9	3946.9	3962.9
12.5°	3843.9	3830.9	3921.9	3979.9	4020.9
15°	3791.9	3794.9	3929.9	4042.9	4096.9
17.5°	3731.9	3750.9	3944.9	4098.9	4158.9
20°	3661.9	3706.9	3964.9	4122.9	4166.9
22.5°	3576.9	3656.9	3972.9	4077.9	4071.9
25°	3488.9	3603.9	3952.9	3937.9	3867.9
27.5°	3388.9	3544.9	3881.9	3708.9	3591.9
30°	3276.9	3477.9	3744.9	3421.9	3283.9
32.5°	3153.9	3397.9	3535.9	3115.9	2979.9
35°	3018.9	3302.9	3288.9	2818.9	2695.9
37.5°	2878.9	3170.9	3002.9	2540.9	2448.9
40°	2721.9	3021.9	2710.9	2287.9	2207.9
42.5°	2552.9	2847.9	2429.9	2061.9	2011.9
45°	2376.9	2638.9	2164.9	1862.9	1831.9
47.5°	2191.9	2406.9	1918.9	1684.9	1672.9
50°	2003.9	2173.9	1697.9	1529.0	1531.0
52.5°	1812.9	1928.9	1504.0	1392.0	1404.0
55°	1628.9	1704.9	1334.0	1268.0	1290.0
57.5°	1439.0	1488.0	1185.0	1159.0	1187.0
60°	1259.0	1286.0	1052.0	1062.0	1094.0
62.5°	1077.0	1099.0	940.0	974.0	1008.0
65°	919.0	933.0	840.0	897.0	932.0
67.5°	765.0	789.0	752.0	828.0	864.0
70°	626.0	659.0	675.0	767.0	802.0
72.5°	495.0	545.0	609.0	711.0	746.0
75°	383.0	449.0	550.0	658.0	693.0
77.5°	290.0	367.0	497.0	611.0	645.0
80°	204.0	299.0	450.0	566.0	600.0
82.5°	133.0	244.0	406.0	522.0	555.0
85°	79.0	197.0	367.0	481.0	516.0
87.5°	36.0	160.0	330.0	444.0	477.0
90°	1.0	131.0	296.0	407.0	439.0
92.5°	0.0	106.0	264.0	372.0	404.0
95°	0.0	85.0	233.0	337.0	370.0
97.5°	0.0	69.0	205.0	306.0	338.0
100°	0.0	57.0	181.0	277.0	309.0
102.5°	0.0	47.0	159.0	250.0	281.0
105°	0.0	39.0	140.0	223.0	255.0
107.5°	0.0	33.0	123.0	200.0	230.0
110°	0.0	28.0	108.0	179.0	207.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	25.0	95.0	161.0	187.0
115°	0.0	21.0	84.0	144.0	168.0
117.5°	0.0	19.0	74.0	129.0	151.0
120°	0.0	16.0	66.0	115.0	135.0
122.5°	0.0	14.0	58.0	102.0	120.0
125°	0.0	11.0	52.0	91.0	107.0
127.5°	0.0	9.0	46.0	81.0	95.0
130°	1.0	7.0	41.0	71.0	84.0
132.5°	1.0	5.0	35.0	63.0	73.0
135°	1.0	4.0	30.0	55.0	65.0
137.5°	1.0	2.0	25.0	48.0	56.0
140°	1.0	1.0	20.0	41.0	48.0
142.5°	1.0	1.0	16.0	35.0	41.0
145°	1.0	1.0	13.0	28.0	34.0
147.5°	1.0	1.0	9.0	22.0	28.0
150°	2.0	1.0	6.0	17.0	22.0
152.5°	2.0	1.0	4.0	12.0	17.0
155°	2.0	1.0	2.0	8.0	12.0
157.5°	2.0	2.0	1.0	5.0	7.0
160°	2.0	2.0	1.0	2.0	4.0
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)