

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: P236319

Luminaire Tested: **4SWLED-60HL-LN-UNV-L835-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236319
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-60HL-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

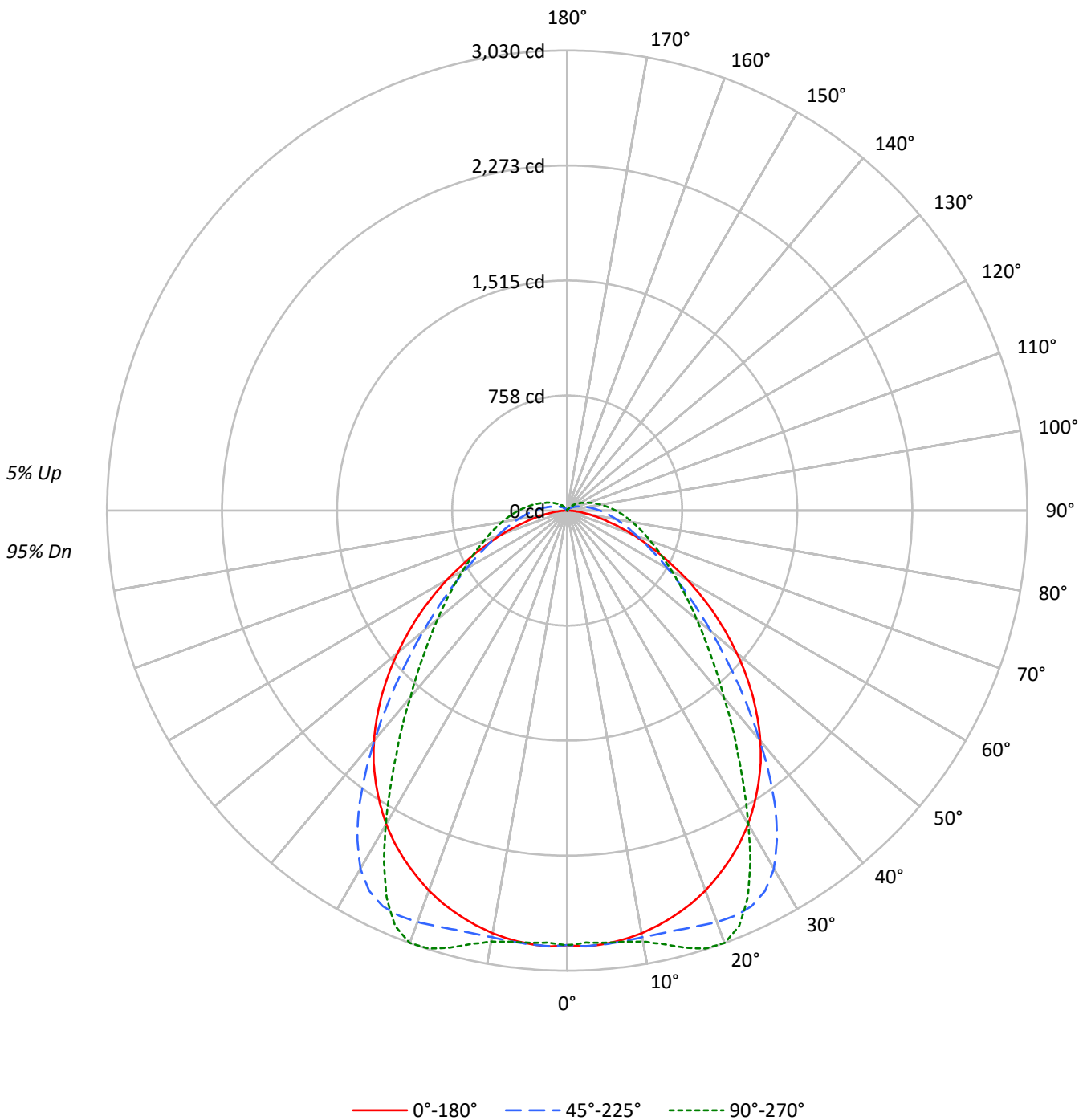
Lumens per Lamp: N/A
Luminaire Lumens: 7648.0 lumens
Efficiency: N/A
Efficacy: 133.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

Input Watts (W): 57.2
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	50	30	10	0	
RCR																						
0	118	118	118	118	114	114	114	114	108	108	108	103	103	103	97	97	97	95				95
1	108	103	99	95	104	100	96	93	95	92	89	90	88	85	86	84	82	79				79
2	98	90	84	78	95	88	82	77	84	79	74	80	76	72	76	73	70	67				67
3	90	80	72	66	87	78	71	65	75	68	63	71	66	62	68	64	60	58				58
4	83	72	63	57	80	70	62	56	67	60	55	64	58	54	61	56	52	50				50
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	56	50	46	44				44
6	71	58	50	44	69	57	49	43	55	48	43	53	47	42	51	45	41	39				39
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	47	41	37	35				35
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33	31				31
9	58	45	37	32	56	44	37	31	43	36	31	41	35	31	40	34	30	28				28
10	54	41	34	29	53	41	33	29	39	33	28	38	32	28	37	32	28	26				26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20535	20535	20535
5°	20563	20116	19899
10°	20461	19736	19648
15°	20283	19644	20041
20°	20065	19842	20267
25°	19748	19957	18848
30°	19335	19223	16156
35°	18749	17303	13496
40°	17988	14743	11338
45°	16921	12280	9732
50°	15588	10145	8491
55°	14085	8488	7544
60°	12356	7217	6821
65°	10523	6304	6274
70°	8679	5638	5915
75°	6797	5224	5698
80°	5078	4997	5623
85°	3336	4950	5673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.3	3.6
10°-20°	809.2	10.6
20°-30°	1260.7	16.5
30°-40°	1390.2	18.2
40°-50°	1231.1	16.1
50°-60°	942.5	12.3
60°-70°	653.4	8.5
70°-80°	426.5	5.6
80°-90°	269.3	3.5
90°-100°	168.4	2.2
100°-110°	103.1	1.3
110°-120°	60.9	0.8
120°-130°	34.3	0.4
130°-140°	17.4	0.2
140°-150°	7.0	0.1
150°-160°	1.7	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	2342.2	30.6
0°-40°	3732.4	48.8
0°-60°	5906.0	77.2
0°-90°	7255.1	94.9
90°-120°	332.4	4.3
90°-150°	391.1	5.1
90°-180°	393.0	5.1
0°-180°	7648.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2862	2862	2862	2862	2862	
5°	2864	2844	2866	2856	2856	272
15°	2757	2759	2857	2939	2979	778
25°	2537	2620	2874	2863	2812	1168
35°	2195	2401	2391	2050	1960	1371
45°	1728	1919	1574	1354	1332	1330
55°	1184	1240	970	922	938	1057
65°	668	678	611	652	678	665
75°	278	326	400	478	504	303
85°	57	143	267	350	375	66
90°	1	95	215	296	319	4
95°	0	62	169	245	269	0
105°	0	28	102	162	185	0
115°	0	15	61	105	122	0
125°	0	8	38	66	78	0
135°	1	3	22	40	47	1
145°	1	1	10	20	25	0
155°	2	1	2	6	9	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°	2861.6	2861.6	2861.6	2861.6	2861.6
2.5°	2872.5	2850.7	2870.4	2859.5	2847.1
5°	2863.8	2844.2	2866.0	2855.8	2856.5
7.5°	2848.6	2831.1	2860.2	2856.5	2863.1
10°	2826.0	2810.7	2852.2	2869.6	2881.3
12.5°	2794.7	2785.3	2851.5	2893.6	2923.4
15°	2756.9	2759.1	2857.3	2939.4	2978.7
17.5°	2713.3	2727.1	2868.2	2980.1	3023.8
20°	2662.4	2695.1	2882.7	2997.6	3029.6
22.5°	2600.6	2658.8	2888.5	2964.9	2960.5
25°	2536.6	2620.3	2874.0	2863.1	2812.2
27.5°	2463.9	2577.4	2822.4	2696.6	2611.5
30°	2382.5	2528.7	2722.8	2487.9	2387.6
32.5°	2293.1	2470.5	2570.8	2265.5	2166.6
35°	2194.9	2401.4	2391.2	2049.5	1960.1
37.5°	2093.2	2305.5	2183.3	1847.4	1780.5
40°	1979.0	2197.1	1971.0	1663.5	1605.3
42.5°	1856.1	2070.6	1766.7	1499.2	1462.8
45°	1728.2	1918.7	1574.0	1354.5	1331.9
47.5°	1593.7	1750.0	1395.2	1225.1	1216.3
50°	1457.0	1580.6	1234.5	1111.6	1113.1
52.5°	1318.1	1402.5	1093.5	1012.0	1020.8
55°	1184.4	1239.6	969.9	921.9	937.9
57.5°	1046.2	1081.8	861.5	842.6	863.0
60°	915.3	935.0	764.8	772.1	795.4
62.5°	783.0	799.0	683.4	708.1	732.9
65°	668.2	678.3	610.7	652.2	677.6
67.5°	556.2	573.6	546.7	602.0	628.2
70°	455.1	479.1	490.8	557.6	583.1
72.5°	359.9	396.2	442.8	516.9	542.4
75°	278.5	326.4	399.9	478.4	503.8
77.5°	210.8	266.8	361.3	444.2	468.9
80°	148.3	217.4	327.2	411.5	436.2
82.5°	96.7	177.4	295.2	379.5	403.5
85°	57.4	143.2	266.8	349.7	375.2
87.5°	26.2	116.3	239.9	322.8	346.8
90°	0.7	95.2	215.2	295.9	319.2
92.5°	0.0	77.1	191.9	270.5	293.7
95°	0.0	61.8	169.4	245.0	269.0
97.5°	0.0	50.2	149.0	222.5	245.7
100°	0.0	41.4	131.6	201.4	224.7
102.5°	0.0	34.2	115.6	181.8	204.3
105°	0.0	28.4	101.8	162.1	185.4
107.5°	0.0	24.0	89.4	145.4	167.2
110°	0.0	20.4	78.5	130.1	150.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	18.2	69.1	117.1	136.0
115°	0.0	15.3	61.1	104.7	122.1
117.5°	0.0	13.8	53.8	93.8	109.8
120°	0.0	11.6	48.0	83.6	98.2
122.5°	0.0	10.2	42.2	74.2	87.2
125°	0.0	8.0	37.8	66.2	77.8
127.5°	0.0	6.5	33.4	58.9	69.1
130°	0.7	5.1	29.8	51.6	61.1
132.5°	0.7	3.6	25.4	45.8	53.1
135°	0.7	2.9	21.8	40.0	47.3
137.5°	0.7	1.5	18.2	34.9	40.7
140°	0.7	0.7	14.5	29.8	34.9
142.5°	0.7	0.7	11.6	25.4	29.8
145°	0.7	0.7	9.5	20.4	24.7
147.5°	0.7	0.7	6.5	16.0	20.4
150°	1.5	0.7	4.4	12.4	16.0
152.5°	1.5	0.7	2.9	8.7	12.4
155°	1.5	0.7	1.5	5.8	8.7
157.5°	1.5	1.5	0.7	3.6	5.1
160°	1.5	1.5	0.7	1.5	2.9
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)