

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: P236321

Luminaire Tested: **4SWLED-60HL-LN-UNV-L850-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236321
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-L850-CD1-U
Description: METALUX SWLED LINEAR LUMINAIRE
4FT FIXTURE WITH 2 ROW LED, NARROW LENS
Light Source: (224) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

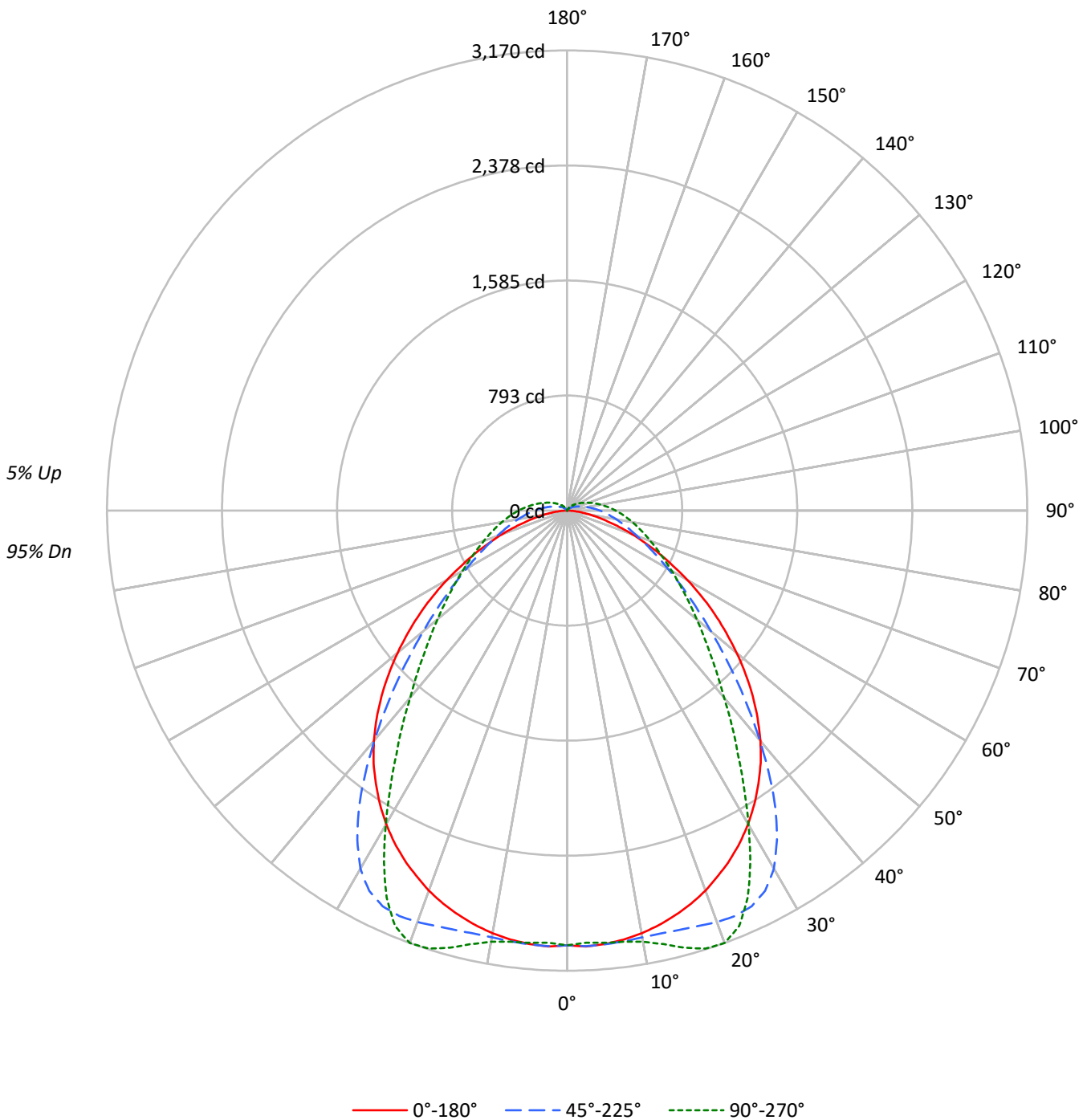
Lumens per Lamp: N/A
Luminaire Lumens: 8003.0 lumens
Efficiency: N/A
Efficacy: 139.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

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

TEST NUMBER: P236321

CATALOG NUMBER: 4SWLED-60HL-LN-UNV-L850-CD1-U

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°	21488	21488	21488
5°	21518	21049	20823
10°	21410	20652	20559
15°	21225	20556	20971
20°	20997	20763	21207
25°	20666	20883	19723
30°	20232	20116	16906
35°	19620	18107	14122
40°	18823	15427	11864
45°	17707	12850	10184
50°	16312	10616	8886
55°	14737	8882	7894
60°	12930	7553	7137
65°	11011	6597	6565
70°	9083	5899	6189
75°	7112	5466	5963
80°	5315	5229	5885
85°	3493	5180	5937



TEST NUMBER: P236321

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.0	3.6
10°-20°	846.8	10.6
20°-30°	1319.2	16.5
30°-40°	1454.7	18.2
40°-50°	1288.2	16.1
50°-60°	986.2	12.3
60°-70°	683.7	8.5
70°-80°	446.3	5.6
80°-90°	281.8	3.5
90°-100°	176.2	2.2
100°-110°	107.9	1.3
110°-120°	63.7	0.8
120°-130°	35.9	0.4
130°-140°	18.2	0.2
140°-150°	7.3	0.1
150°-160°	1.8	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	2450.9	30.6
0°-40°	3905.7	48.8
0°-60°	6180.1	77.2
0°-90°	7591.9	94.9
90°-120°	347.9	4.3
90°-150°	409.2	5.1
90°-180°	411.0	5.1
0°-180°	8003.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2994	2994	2994	2994	2994	
5°	2997	2976	2999	2988	2989	285
15°	2885	2887	2990	3076	3117	814
25°	2654	2742	3007	2996	2943	1222
35°	2297	2513	2502	2145	2051	1435
45°	1808	2008	1647	1417	1394	1391
55°	1239	1297	1015	965	981	1106
65°	699	710	639	682	709	696
75°	291	342	418	501	527	317
85°	60	150	279	366	393	69
90°	1	100	225	310	334	4
95°	0	65	177	256	282	0
105°	0	30	106	170	194	0
115°	0	16	64	110	128	0
125°	0	8	40	69	81	0
135°	1	3	23	42	50	1
145°	1	1	10	21	26	1
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



TEST NUMBER: P236321

CATALOG NUMBER: 4SWLED-60HL-LN-UNV-L850-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2994.5	2994.5	2994.5	2994.5	2994.5
2.5°	3005.9	2983.1	3003.6	2992.2	2979.3
5°	2996.7	2976.2	2999.0	2988.4	2989.1
7.5°	2980.8	2962.5	2992.9	2989.1	2996.0
10°	2957.2	2941.2	2984.6	3002.8	3015.0
12.5°	2924.5	2914.6	2983.8	3027.9	3059.1
15°	2884.9	2887.2	2989.9	3075.9	3117.0
17.5°	2839.3	2853.7	3001.3	3118.5	3164.1
20°	2786.0	2820.2	3016.5	3136.7	3170.2
22.5°	2721.3	2782.2	3022.6	3102.5	3097.9
25°	2654.4	2741.9	3007.4	2996.0	2942.7
27.5°	2578.3	2697.0	2953.4	2821.8	2732.8
30°	2493.1	2646.0	2849.2	2603.4	2498.4
32.5°	2399.5	2585.2	2690.2	2370.6	2267.2
35°	2296.8	2512.9	2502.2	2144.7	2051.1
37.5°	2190.3	2412.5	2284.7	1933.2	1863.2
40°	2070.9	2299.1	2062.5	1740.7	1679.8
42.5°	1942.3	2166.7	1848.7	1568.7	1530.7
45°	1808.4	2007.7	1647.1	1417.4	1393.8
47.5°	1667.7	1831.2	1460.0	1281.9	1272.8
50°	1524.6	1654.0	1291.8	1163.2	1164.8
52.5°	1379.3	1467.6	1144.2	1059.0	1068.1
55°	1239.3	1297.1	1014.9	964.7	981.4
57.5°	1094.8	1132.1	901.5	881.8	903.1
60°	957.8	978.4	800.4	808.0	832.3
62.5°	819.4	836.1	715.1	741.0	766.9
65°	699.2	709.8	639.1	682.4	709.1
67.5°	582.0	600.3	572.1	629.9	657.3
70°	476.3	501.4	513.5	583.5	610.2
72.5°	376.6	414.6	463.3	540.9	567.5
75°	291.4	341.6	418.4	500.6	527.2
77.5°	220.6	279.2	378.1	464.8	490.7
80°	155.2	227.5	342.4	430.6	456.5
82.5°	101.2	185.6	308.9	397.1	422.2
85°	60.1	149.9	279.2	365.9	392.6
87.5°	27.4	121.7	251.1	337.8	362.9
90°	0.8	99.7	225.2	309.6	334.0
92.5°	0.0	80.6	200.8	283.0	307.4
95°	0.0	64.7	177.3	256.4	281.5
97.5°	0.0	52.5	156.0	232.8	257.1
100°	0.0	43.4	137.7	210.7	235.1
102.5°	0.0	35.8	121.0	190.2	213.8
105°	0.0	29.7	106.5	169.7	194.0
107.5°	0.0	25.1	93.6	152.2	175.0
110°	0.0	21.3	82.2	136.2	157.5



TEST NUMBER: P236321

CATALOG NUMBER: 4SWLED-60HL-LN-UNV-L850-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	19.0	72.3	122.5	142.3
115°	0.0	16.0	63.9	109.6	127.8
117.5°	0.0	14.5	56.3	98.1	114.9
120°	0.0	12.2	50.2	87.5	102.7
122.5°	0.0	10.7	44.1	77.6	91.3
125°	0.0	8.4	39.6	69.2	81.4
127.5°	0.0	6.8	35.0	61.6	72.3
130°	0.8	5.3	31.2	54.0	63.9
132.5°	0.8	3.8	26.6	47.9	55.5
135°	0.8	3.0	22.8	41.8	49.5
137.5°	0.8	1.5	19.0	36.5	42.6
140°	0.8	0.8	15.2	31.2	36.5
142.5°	0.8	0.8	12.2	26.6	31.2
145°	0.8	0.8	9.9	21.3	25.9
147.5°	0.8	0.8	6.8	16.7	21.3
150°	1.5	0.8	4.6	12.9	16.7
152.5°	1.5	0.8	3.0	9.1	12.9
155°	1.5	0.8	1.5	6.1	9.1
157.5°	1.5	1.5	0.8	3.8	5.3
160°	1.5	1.5	0.8	1.5	3.0
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)