

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: P236324

Luminaire Tested: **4SWLED-64HL-LN-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236324  
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-64HL-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**

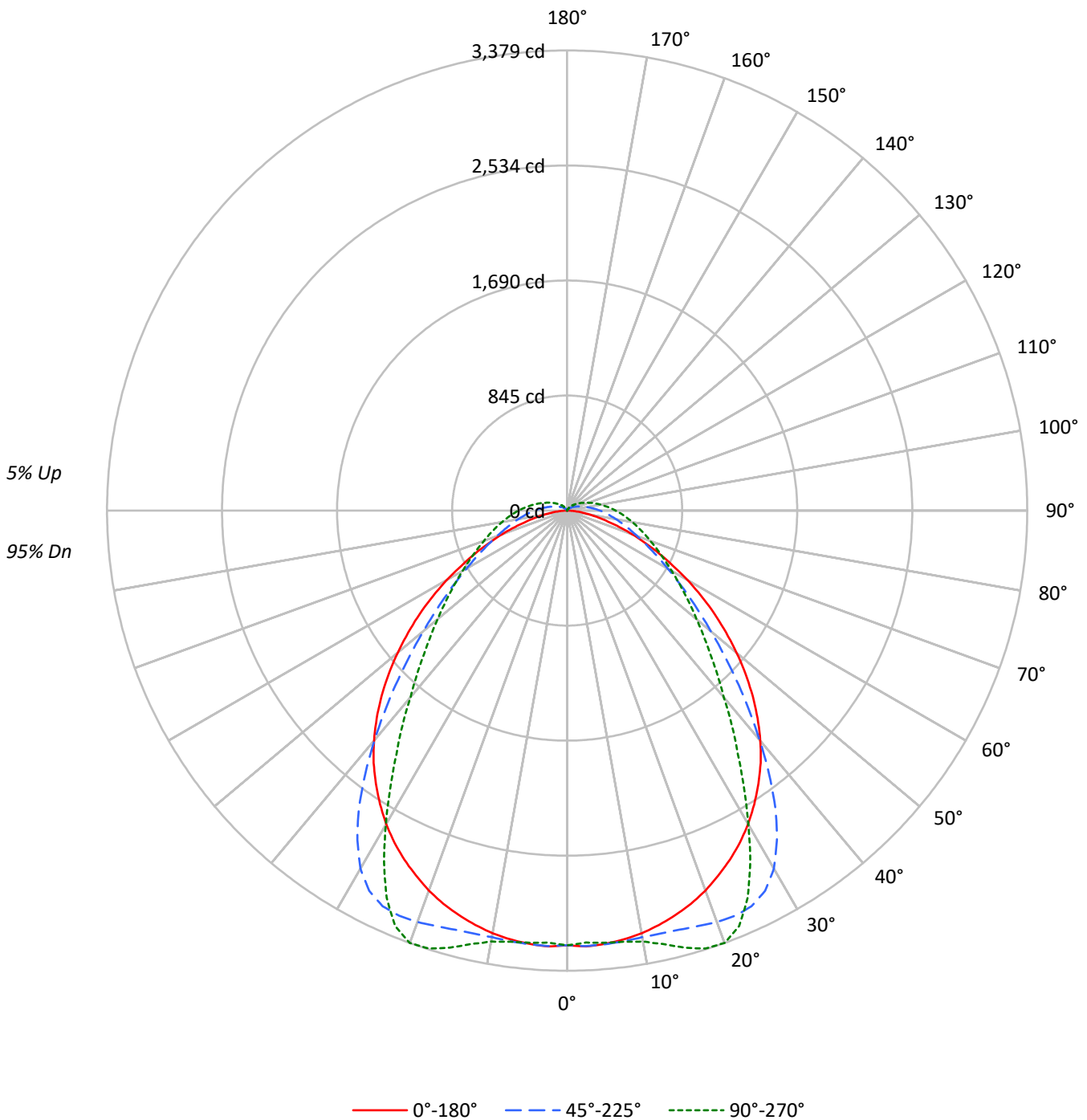
Lumens per Lamp: N/A  
Luminaire Lumens: 8529.0 lumens  
Efficiency: N/A  
Efficacy: 137.6 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.28  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 62  
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°	22901	22901	22901
5°	22932	22432	22192
10°	22818	22009	21911
15°	22620	21907	22349
20°	22377	22127	22602
25°	22024	22256	21019
30°	21562	21437	18017
35°	20909	19297	15051
40°	20060	16441	12644
45°	18871	13695	10854
50°	17384	11314	9469
55°	15707	9466	8413
60°	13780	8049	7607
65°	11734	7030	6997
70°	9680	6287	6596
75°	7578	5825	6355
80°	5664	5573	6272
85°	3725	5521	6327



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	303.7	3.6
10°-20°	902.4	10.6
20°-30°	1405.9	16.5
30°-40°	1550.3	18.2
40°-50°	1372.9	16.1
50°-60°	1051.0	12.3
60°-70°	728.6	8.5
70°-80°	475.7	5.6
80°-90°	300.3	3.5
90°-100°	187.8	2.2
100°-110°	115.0	1.3
110°-120°	67.9	0.8
120°-130°	38.3	0.4
130°-140°	19.4	0.2
140°-150°	7.8	0.1
150°-160°	1.9	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	2612.0	30.6
0°-40°	4162.4	48.8
0°-60°	6586.3	77.2
0°-90°	8090.9	94.9
90°-120°	370.7	4.3
90°-150°	436.1	5.1
90°-180°	438.0	5.1
0°-180°	8529.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3191	3191	3191	3191	3191	
5°	3194	3172	3196	3185	3186	303
15°	3074	3077	3186	3278	3322	867
25°	2829	2922	3205	3193	3136	1302
35°	2448	2678	2667	2286	2186	1529
45°	1927	2140	1755	1510	1485	1483
55°	1321	1382	1082	1028	1046	1179
65°	745	756	681	727	756	742
75°	310	364	446	534	562	338
85°	64	160	298	390	418	73
90°	1	106	240	330	356	4
95°	0	69	189	273	300	0
105°	0	32	114	181	207	0
115°	0	17	68	117	136	0
125°	0	9	42	74	87	0
135°	1	3	24	45	53	1
145°	1	1	10	23	28	1
155°	2	1	2	6	10	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°	3191.3	3191.3	3191.3	3191.3	3191.3
2.5°	3203.4	3179.1	3201.0	3188.8	3175.1
5°	3193.7	3171.8	3196.1	3184.8	3185.6
7.5°	3176.7	3157.2	3189.7	3185.6	3192.9
10°	3151.6	3134.5	3180.7	3200.2	3213.2
12.5°	3116.7	3106.1	3179.9	3227.0	3260.2
15°	3074.5	3077.0	3186.4	3278.0	3321.8
17.5°	3025.9	3041.3	3198.6	3323.4	3372.1
20°	2969.1	3005.6	3214.8	3342.9	3378.6
22.5°	2900.2	2965.1	3221.3	3306.4	3301.5
25°	2828.9	2922.1	3205.1	3192.9	3136.1
27.5°	2747.8	2874.3	3147.5	3007.2	2912.4
30°	2657.0	2819.9	3036.4	2774.5	2662.6
32.5°	2557.2	2755.1	2867.0	2526.4	2416.2
35°	2447.8	2678.0	2666.7	2285.6	2185.9
37.5°	2334.3	2571.0	2434.8	2060.2	1985.6
40°	2207.0	2450.2	2198.1	1855.1	1790.2
42.5°	2070.0	2309.1	1970.2	1671.9	1631.3
45°	1927.3	2139.7	1755.4	1510.5	1485.4
47.5°	1777.3	1951.6	1555.9	1366.2	1356.5
50°	1624.8	1762.7	1376.7	1239.7	1241.3
52.5°	1470.0	1564.0	1219.4	1128.6	1138.4
55°	1320.8	1382.4	1081.6	1028.1	1045.9
57.5°	1166.7	1206.5	960.8	939.7	962.4
60°	1020.8	1042.7	853.0	861.1	887.0
62.5°	873.2	891.1	762.1	789.7	817.3
65°	745.1	756.5	681.1	727.3	755.7
67.5°	620.3	639.7	609.7	671.3	700.5
70°	507.6	534.3	547.3	621.9	650.3
72.5°	401.3	441.9	493.8	576.5	604.9
75°	310.5	364.0	445.9	533.5	561.9
77.5°	235.1	297.6	403.0	495.4	523.0
80°	165.4	242.4	364.9	458.9	486.5
82.5°	107.8	197.8	329.2	423.2	450.0
85°	64.1	159.7	297.6	390.0	418.4
87.5°	29.2	129.7	267.6	360.0	386.7
90°	0.8	106.2	240.0	330.0	355.9
92.5°	0.0	85.9	214.0	301.6	327.6
95°	0.0	68.9	188.9	273.2	300.0
97.5°	0.0	55.9	166.2	248.1	274.0
100°	0.0	46.2	146.8	224.6	250.5
102.5°	0.0	38.1	128.9	202.7	227.8
105°	0.0	31.6	113.5	180.8	206.8
107.5°	0.0	26.8	99.7	162.2	186.5
110°	0.0	22.7	87.6	145.1	167.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	20.3	77.0	130.5	151.6
115°	0.0	17.0	68.1	116.8	136.2
117.5°	0.0	15.4	60.0	104.6	122.4
120°	0.0	13.0	53.5	93.2	109.5
122.5°	0.0	11.4	47.0	82.7	97.3
125°	0.0	8.9	42.2	73.8	86.8
127.5°	0.0	7.3	37.3	65.7	77.0
130°	0.8	5.7	33.2	57.6	68.1
132.5°	0.8	4.1	28.4	51.1	59.2
135°	0.8	3.2	24.3	44.6	52.7
137.5°	0.8	1.6	20.3	38.9	45.4
140°	0.8	0.8	16.2	33.2	38.9
142.5°	0.8	0.8	13.0	28.4	33.2
145°	0.8	0.8	10.5	22.7	27.6
147.5°	0.8	0.8	7.3	17.8	22.7
150°	1.6	0.8	4.9	13.8	17.8
152.5°	1.6	0.8	3.2	9.7	13.8
155°	1.6	0.8	1.6	6.5	9.7
157.5°	1.6	1.6	0.8	4.1	5.7
160°	1.6	1.6	0.8	1.6	3.2
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)