

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: P236318

Luminaire Tested: **4SWLED-56HL-LN-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236318  
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-56HL-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**

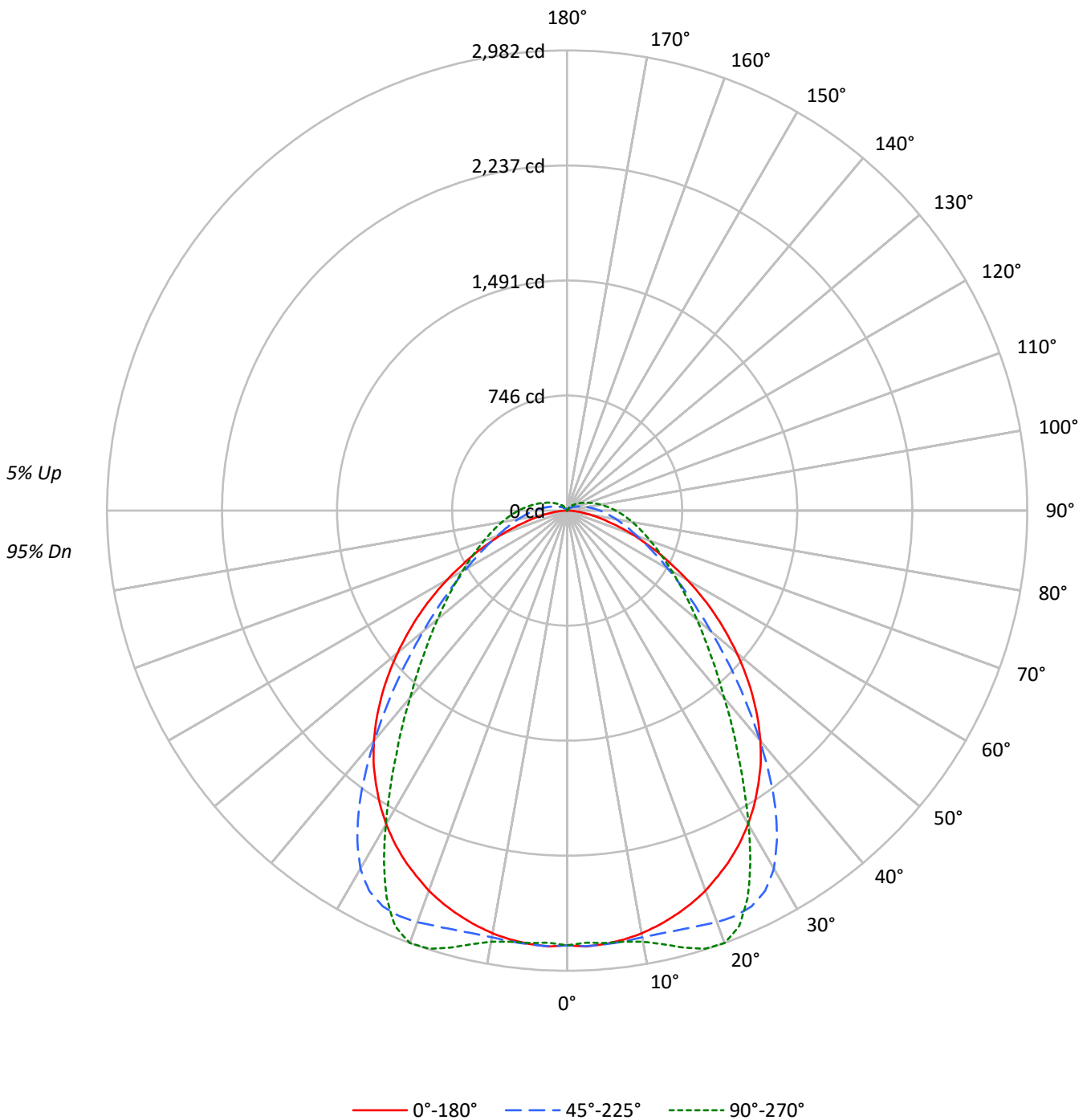
Lumens per Lamp: N/A  
Luminaire Lumens: 7529.0 lumens  
Efficiency: N/A  
Efficacy: 142.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.28  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 52.9  
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°	20215	20215	20215
5°	20244	19802	19590
10°	20142	19429	19342
15°	19967	19338	19729
20°	19753	19533	19951
25°	19442	19646	18555
30°	19033	18924	15905
35°	18458	17034	13286
40°	17708	14513	11161
45°	16658	12090	9581
50°	15345	9987	8359
55°	13865	8356	7427
60°	12164	7105	6715
65°	10359	6206	6176
70°	8544	5550	5822
75°	6689	5143	5610
80°	5000	4919	5536
85°	3284	4874	5584



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	268.1	3.6
10°-20°	796.6	10.6
20°-30°	1241.1	16.5
30°-40°	1368.6	18.2
40°-50°	1211.9	16.1
50°-60°	927.8	12.3
60°-70°	643.2	8.5
70°-80°	419.9	5.6
80°-90°	265.1	3.5
90°-100°	165.8	2.2
100°-110°	101.5	1.3
110°-120°	60.0	0.8
120°-130°	33.8	0.4
130°-140°	17.1	0.2
140°-150°	6.9	0.1
150°-160°	1.7	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	2305.8	30.6
0°-40°	3674.3	48.8
0°-60°	5814.1	77.2
0°-90°	7142.3	94.9
90°-120°	327.2	4.3
90°-150°	385.0	5.1
90°-180°	387.0	5.1
0°-180°	7529.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2817	2817	2817	2817	2817	
5°	2819	2800	2821	2811	2812	268
15°	2714	2716	2813	2894	2932	766
25°	2497	2580	2829	2818	2768	1150
35°	2161	2364	2354	2018	1930	1350
45°	1701	1889	1550	1333	1311	1309
55°	1166	1220	955	908	923	1041
65°	658	668	601	642	667	655
75°	274	321	394	471	496	298
85°	56	141	263	344	369	65
90°	1	94	212	291	314	4
95°	0	61	167	241	265	0
105°	0	28	100	160	182	0
115°	0	15	60	103	120	0
125°	0	8	37	65	77	0
135°	1	3	22	39	46	1
145°	1	1	9	20	24	0
155°	1	1	1	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°	2817.1	2817.1	2817.1	2817.1	2817.1
2.5°	2827.8	2806.4	2825.7	2815.0	2802.8
5°	2819.3	2799.9	2821.4	2811.4	2812.1
7.5°	2804.2	2787.1	2815.7	2812.1	2818.5
10°	2782.0	2767.0	2807.8	2825.0	2836.4
12.5°	2751.3	2742.0	2807.1	2848.6	2877.9
15°	2714.0	2716.2	2812.8	2893.7	2932.3
17.5°	2671.1	2684.7	2823.6	2933.8	2976.7
20°	2621.0	2653.2	2837.9	2951.0	2982.4
22.5°	2560.2	2617.4	2843.6	2918.7	2914.5
25°	2497.2	2579.5	2829.3	2818.5	2768.4
27.5°	2425.6	2537.3	2778.5	2654.6	2570.9
30°	2345.4	2489.3	2680.4	2449.2	2350.5
32.5°	2257.4	2432.0	2530.8	2230.2	2132.9
35°	2160.8	2364.1	2354.0	2017.6	1929.6
37.5°	2060.6	2269.6	2149.3	1818.7	1752.8
40°	1948.2	2162.9	1940.3	1637.6	1580.3
42.5°	1827.3	2038.4	1739.2	1475.8	1440.0
45°	1701.3	1888.8	1549.6	1333.4	1311.2
47.5°	1568.9	1722.8	1373.5	1206.0	1197.4
50°	1434.3	1556.0	1215.3	1094.4	1095.8
52.5°	1297.6	1380.6	1076.5	996.3	1004.9
55°	1165.9	1220.3	954.8	907.5	923.3
57.5°	1029.9	1065.0	848.1	829.5	849.6
60°	901.1	920.4	752.9	760.1	783.0
62.5°	770.8	786.6	672.8	697.1	721.5
65°	657.8	667.8	601.2	642.0	667.1
67.5°	547.5	564.7	538.2	592.6	618.4
70°	448.0	471.7	483.1	549.0	574.0
72.5°	354.3	390.1	435.9	508.9	533.9
75°	274.1	321.4	393.7	471.0	496.0
77.5°	207.6	262.7	355.7	437.3	461.6
80°	146.0	214.0	322.1	405.1	429.4
82.5°	95.2	174.6	290.6	373.6	397.2
85°	56.5	141.0	262.7	344.3	369.3
87.5°	25.8	114.5	236.2	317.8	341.4
90°	0.7	93.8	211.9	291.3	314.2
92.5°	0.0	75.9	189.0	266.3	289.2
95°	0.0	60.8	166.8	241.2	264.8
97.5°	0.0	49.4	146.7	219.0	241.9
100°	0.0	40.8	129.5	198.3	221.2
102.5°	0.0	33.6	113.8	178.9	201.1
105°	0.0	27.9	100.2	159.6	182.5
107.5°	0.0	23.6	88.0	143.1	164.6
110°	0.0	20.0	77.3	128.1	148.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	17.9	68.0	115.2	133.8
115°	0.0	15.0	60.1	103.1	120.2
117.5°	0.0	13.6	53.0	92.3	108.1
120°	0.0	11.5	47.2	82.3	96.6
122.5°	0.0	10.0	41.5	73.0	85.9
125°	0.0	7.9	37.2	65.1	76.6
127.5°	0.0	6.4	32.9	58.0	68.0
130°	0.7	5.0	29.3	50.8	60.1
132.5°	0.7	3.6	25.1	45.1	52.2
135°	0.7	2.9	21.5	39.4	46.5
137.5°	0.7	1.4	17.9	34.4	40.1
140°	0.7	0.7	14.3	29.3	34.4
142.5°	0.7	0.7	11.5	25.1	29.3
145°	0.7	0.7	9.3	20.0	24.3
147.5°	0.7	0.7	6.4	15.7	20.0
150°	1.4	0.7	4.3	12.2	15.7
152.5°	1.4	0.7	2.9	8.6	12.2
155°	1.4	0.7	1.4	5.7	8.6
157.5°	1.4	1.4	0.7	3.6	5.0
160°	1.4	1.4	0.7	1.4	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)