

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: P236231

Luminaire Tested: **4SWLED-28SL-LC-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236231  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-16)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SWLED-28SL-LC-UNV-L850-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 1 ROW LED, CLEAR LENS  
Light Source: (112) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

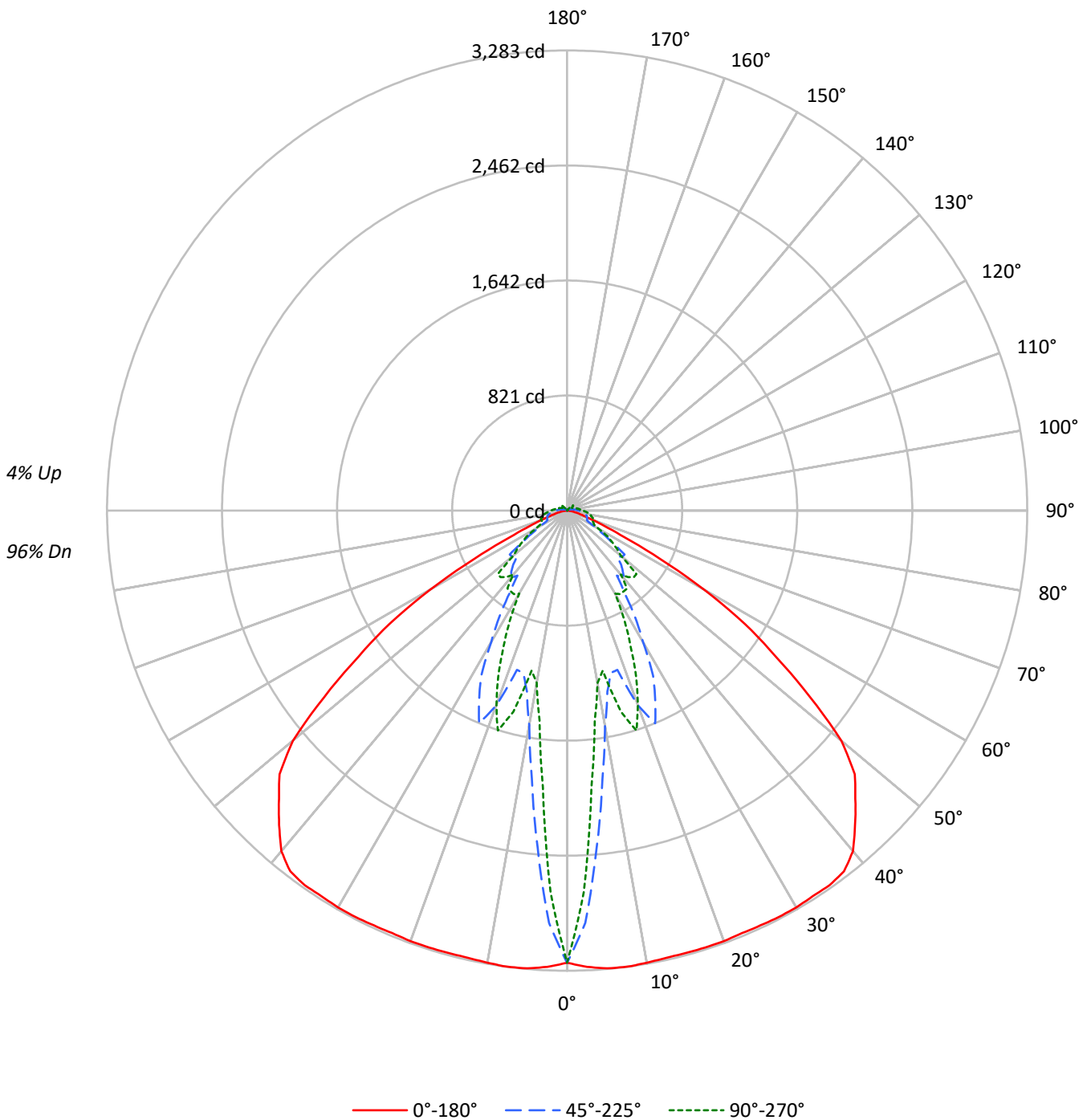
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3942.0 lumens  
Efficiency: N/A  
Efficacy: 159.0 lumens/watt  
Spacing Criteria (0/90/45): 1.54 / 0.24 / 0.77  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 24.8  
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: P236231  
CATALOG NUMBER: 4SWLED-28SL-LC-UNV-L850-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P236231

CATALOG NUMBER: 4SWLED-28SL-LC-UNV-L850-CD1-U

**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	115	115	115	115	109	109	109	104	104	104	99	99	99	96				
1	109	105	101	97	106	102	99	95	97	94	92	93	90	88	89	87	85	83				
2	100	93	87	82	98	91	85	81	87	82	78	83	79	76	80	77	74	72				
3	93	83	76	70	90	82	75	69	78	72	68	75	70	66	72	68	65	62				
4	86	75	67	61	83	73	66	61	71	64	59	68	63	58	65	61	57	55				
5	80	68	60	54	77	67	59	53	64	58	52	62	56	52	60	55	51	49				
6	74	62	54	48	72	61	53	47	59	52	47	57	51	46	55	50	45	44				
7	69	57	49	43	67	56	48	43	54	47	42	52	46	42	51	45	41	39				
8	65	52	44	39	63	51	44	39	50	43	38	48	42	38	47	41	37	36				
9	61	48	41	35	59	47	40	35	46	39	35	45	39	34	44	38	34	32				
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	35	31	30				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	23150	23150	23150
5°	23539	16966	13800
10°	23714	10779	8504
15°	24038	8249	9992
20°	24635	10193	9862
25°	25421	10313	7210
30°	26533	7652	4627
35°	27873	5132	4843
40°	28834	4708	4209
45°	28473	4236	4912
50°	27330	4206	3804
55°	21616	3323	3141
60°	15238	2020	2210
65°	7110	1603	1942
70°	3572	1735	1966
75°	2179	1877	2086
80°	1418	1952	2208
85°	715	2020	2141



TEST NUMBER: P236231

CATALOG NUMBER: 4SWLED-28SL-LC-UNV-L850-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.5	5.6
10°-20°	483.1	12.3
20°-30°	689.6	17.5
30°-40°	736.5	18.7
40°-50°	685.0	17.4
50°-60°	503.7	12.8
60°-70°	224.0	5.7
70°-80°	147.5	3.7
80°-90°	102.2	2.6
90°-100°	60.3	1.5
100°-110°	34.9	0.9
110°-120°	21.3	0.5
120°-130°	15.3	0.4
130°-140°	12.9	0.3
140°-150°	3.8	0.1
150°-160°	1.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1393.2	35.3
0°-40°	2129.7	54.0
0°-60°	3318.5	84.2
0°-90°	3792.3	96.2
90°-120°	116.5	3.0
90°-150°	148.5	3.8
90°-180°	150.0	3.8
0°-180°	3942.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3226	3226	3226	3226	3226	
5°	3278	2924	2417	2103	1981	313
15°	3267	1771	1200	1326	1485	927
25°	3265	1142	1485	1169	1076	1512
35°	3263	1376	709	720	703	2039
45°	2908	591	543	603	672	2239
55°	1818	352	380	384	390	1636
65°	452	136	155	197	210	525
75°	89	88	144	190	184	103
85°	12	52	109	136	142	16
90°	0	38	84	107	114	1
95°	0	28	62	81	94	0
105°	0	15	35	48	65	0
115°	1	9	22	33	42	0
125°	1	4	13	26	44	1
135°	1	2	12	36	44	1
145°	2	2	5	9	9	1
155°	2	2	2	4	3	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P236231

CATALOG NUMBER: 4SWLED-28SL-LC-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3226.0	3226.0	3226.0	3226.0	3226.0
2.5°	3258.6	3117.1	2944.3	2791.9	2726.5
5°	3278.2	2924.0	2417.3	2103.0	1981.0
7.5°	3282.6	2653.2	1927.3	1581.0	1509.2
10°	3275.3	2335.3	1557.8	1285.6	1247.1
12.5°	3268.1	2039.8	1322.6	1187.6	1169.4
15°	3267.3	1771.2	1199.9	1325.5	1485.2
17.5°	3268.8	1511.4	1191.2	1649.3	1645.6
20°	3268.8	1320.4	1480.9	1574.5	1474.3
22.5°	3262.3	1185.4	1642.0	1396.7	1286.3
25°	3265.2	1141.9	1485.2	1168.7	1075.8
27.5°	3268.8	1200.7	1328.4	977.8	886.3
30°	3269.5	1366.9	1083.8	791.2	683.8
32.5°	3261.5	1452.6	901.6	630.1	706.3
35°	3263.0	1375.6	709.2	720.1	703.4
37.5°	3244.8	1199.9	583.6	668.6	701.2
40°	3172.2	966.9	629.4	627.2	596.0
42.5°	3041.6	750.6	588.7	571.3	643.9
45°	2908.0	590.9	543.0	603.2	672.2
47.5°	2783.2	476.2	482.7	662.0	670.7
50°	2554.5	447.2	511.8	560.4	498.7
52.5°	2185.0	407.2	516.1	438.5	446.4
55°	1817.7	352.1	379.7	384.0	390.5
57.5°	1503.4	333.2	286.7	347.0	337.6
60°	1128.8	290.4	214.1	272.9	257.7
62.5°	746.2	182.9	164.8	211.2	213.4
65°	451.5	136.5	155.3	196.7	209.8
67.5°	284.6	120.5	153.2	198.9	196.0
70°	187.3	108.9	151.0	198.9	193.8
72.5°	126.3	98.7	148.1	196.7	197.4
75°	89.3	87.8	143.7	190.2	184.4
77.5°	62.4	78.4	137.9	177.8	172.8
80°	41.4	69.0	127.8	164.8	171.3
82.5°	24.7	59.5	119.1	151.0	157.5
85°	12.3	51.5	108.9	136.5	141.6
87.5°	5.1	45.0	96.5	121.2	125.6
90°	0.0	38.5	84.2	107.4	114.0
92.5°	0.0	32.7	72.6	93.6	103.8
95°	0.0	27.6	61.7	80.6	93.6
97.5°	0.0	24.0	53.0	70.4	84.9
100°	0.0	20.3	45.7	61.0	77.7
102.5°	0.0	18.1	39.2	53.7	71.1
105°	0.0	15.2	34.8	47.9	64.6
107.5°	0.0	13.1	30.5	42.8	58.1
110°	0.0	11.6	26.9	39.2	52.3



TEST NUMBER: P236231

CATALOG NUMBER: 4SWLED-28SL-LC-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	10.2	24.7	35.6	46.5
115°	0.7	8.7	21.8	32.7	42.1
117.5°	0.7	7.3	19.6	29.8	39.2
120°	0.7	5.8	17.4	27.6	38.5
122.5°	0.7	4.4	15.2	26.1	39.9
125°	0.7	3.6	13.1	26.1	43.6
127.5°	0.7	2.9	10.9	29.0	50.1
130°	0.7	2.2	10.9	34.8	56.6
132.5°	0.7	1.5	10.9	38.5	54.4
135°	0.7	1.5	11.6	35.6	43.6
137.5°	0.7	1.5	11.6	27.6	31.2
140°	0.7	1.5	9.4	19.6	21.8
142.5°	0.7	1.5	6.5	13.8	14.5
145°	1.5	1.5	5.1	9.4	9.4
147.5°	1.5	1.5	3.6	6.5	6.5
150°	1.5	1.5	2.9	5.1	5.1
152.5°	1.5	1.5	2.2	4.4	3.6
155°	1.5	1.5	2.2	3.6	2.9
157.5°	1.5	1.5	1.5	2.9	2.2
160°	1.5	2.2	2.2	2.9	2.2
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)