

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: P236245

Luminaire Tested: **4SWLED-20SL-LN-UNV-L840-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236245  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-17)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SWLED-20SL-LN-UNV-L840-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 1 ROW LED, NARROW LENS  
Light Source: (112) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

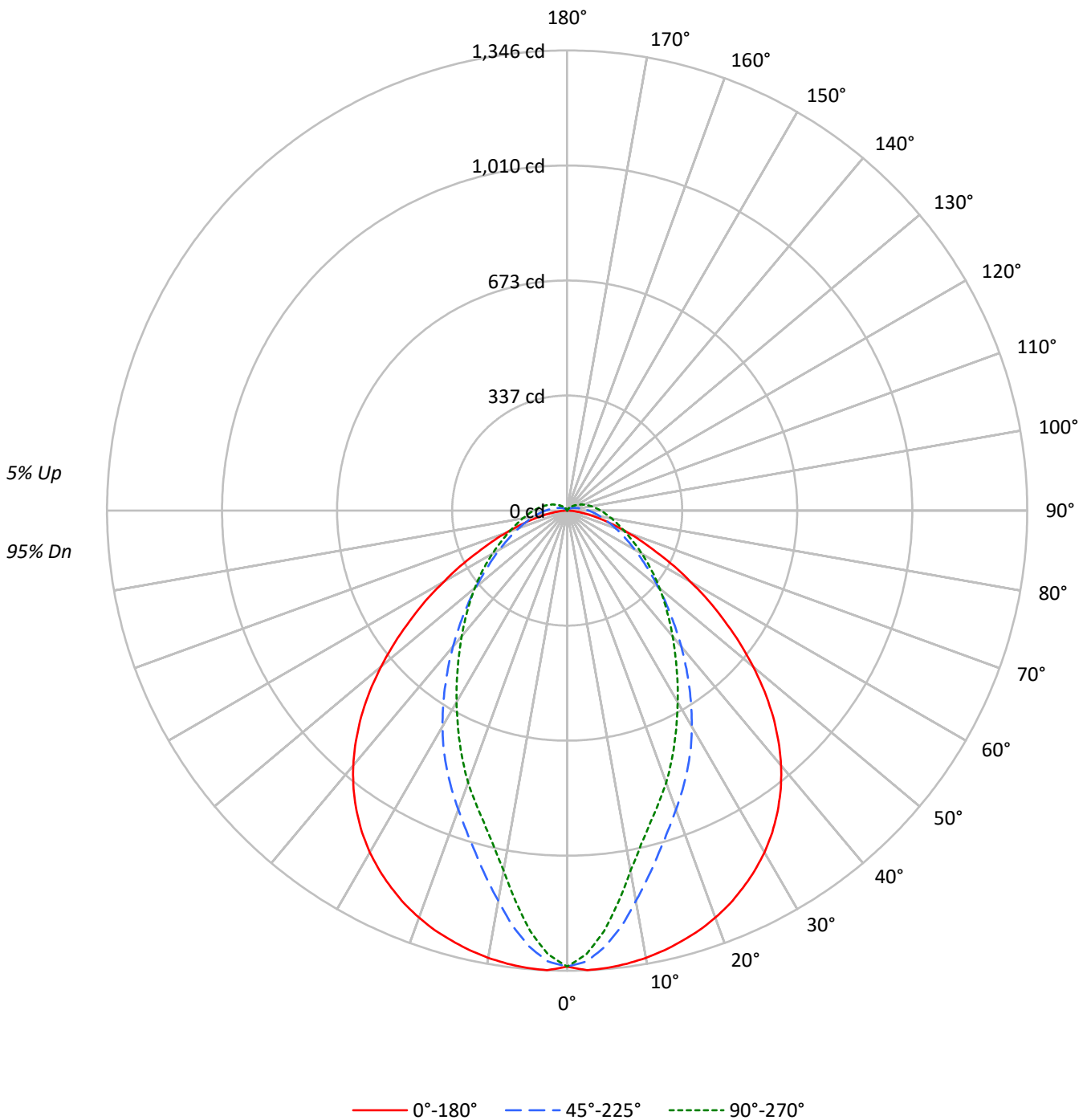
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2502.0 lumens  
Efficiency: N/A  
Efficacy: 142.2 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 0.78 / 1  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct  
  
Input Watts (W): 17.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: P236245

CATALOG NUMBER: 4SWLED-20SL-LN-UNV-L840-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P236245

CATALOG NUMBER: 4SWLED-20SL-LN-UNV-L840-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	0
RCR																		
0	118	118	118	118	115	115	115	115	108	108	108	103	103	103	98	98	98	95
1	108	103	99	95	105	101	97	93	95	92	90	91	88	86	86	84	83	80
2	99	91	85	79	96	89	83	78	85	80	75	81	77	73	77	74	71	68
3	91	81	73	67	88	79	72	66	76	70	65	72	67	63	69	65	61	59
4	84	73	65	58	81	71	63	58	68	61	56	65	60	55	63	58	54	52
5	78	66	57	51	75	64	56	51	62	55	50	59	53	49	57	52	48	46
6	72	60	51	45	70	59	51	45	56	49	44	54	48	43	52	47	43	41
7	67	55	46	41	65	54	46	40	52	45	40	50	44	39	48	43	38	37
8	63	50	42	37	61	49	42	36	48	41	36	46	40	35	45	39	35	33
9	59	46	39	33	57	46	38	33	44	37	33	43	37	32	41	36	32	30
10	56	43	36	31	54	42	35	30	41	35	30	40	34	30	39	33	29	28

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

	0°	45°	90°
0°	9572	9572	9572
5°	9642	8981	8601
10°	9618	8020	7290
15°	9585	7123	6345
20°	9550	6407	5665
25°	9477	5788	4993
30°	9370	5148	4376
35°	9171	4494	3837
40°	8851	3884	3388
45°	8339	3327	3007
50°	7601	2854	2691
55°	6668	2464	2408
60°	5616	2154	2165
65°	4536	1913	1962
70°	3608	1731	1819
75°	2726	1581	1733
80°	1962	1501	1700
85°	1209	1466	1710



TEST NUMBER: P236245

CATALOG NUMBER: 4SWLED-20SL-LN-UNV-L840-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.9	4.8
10°-20°	302.2	12.1
20°-30°	409.7	16.4
30°-40°	435.2	17.4
40°-50°	389.2	15.6
50°-60°	301.5	12.1
60°-70°	208.4	8.3
70°-80°	133.2	5.3
80°-90°	81.6	3.3
90°-100°	50.7	2.0
100°-110°	31.8	1.3
110°-120°	19.5	0.8
120°-130°	11.1	0.4
130°-140°	5.7	0.2
140°-150°	2.3	0.1
150°-160°	0.8	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	830.8	33.2
0°-40°	1266.1	50.6
0°-60°	1956.8	78.2
0°-90°	2380.0	95.1
90°-120°	102.1	4.1
90°-150°	121.1	4.8
90°-180°	122.0	4.9
0°-180°	2502.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1334	1334	1334	1334	1334	
5°	1343	1310	1280	1245	1235	128
15°	1303	1175	1036	960	943	368
25°	1217	990	834	763	745	561
35°	1074	783	621	567	557	670
45°	852	549	426	409	412	654
55°	561	338	282	292	299	502
65°	288	192	185	206	212	292
75°	112	97	121	147	153	123
85°	21	44	79	105	113	25
90°	0	28	63	89	98	1
95°	0	18	49	75	84	0
105°	0	8	29	51	61	0
115°	0	4	18	34	42	0
125°	0	2	11	22	26	0
135°	0	1	7	13	15	0
145°	0	0	3	7	8	0
155°	1	0	1	2	3	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P236245

CATALOG NUMBER: 4SWLED-20SL-LN-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1333.9	1333.9	1333.9	1333.9	1333.9
2.5°	1345.8	1324.1	1319.6	1306.8	1298.4
5°	1342.8	1310.2	1279.6	1245.0	1234.6
7.5°	1336.9	1286.5	1224.8	1166.5	1153.1
10°	1328.5	1254.4	1159.0	1087.4	1069.1
12.5°	1317.1	1216.8	1097.3	1018.2	1000.0
15°	1302.8	1174.9	1036.0	960.4	943.1
17.5°	1287.0	1131.9	981.2	909.1	893.7
20°	1267.2	1083.9	930.8	859.6	846.8
22.5°	1244.5	1038.5	882.4	810.7	795.9
25°	1217.3	989.6	833.5	763.3	745.0
27.5°	1187.7	940.2	783.1	711.9	694.6
30°	1154.6	890.3	729.2	660.1	646.7
32.5°	1116.6	837.9	674.9	612.1	600.8
35°	1073.6	783.1	621.0	566.7	557.3
37.5°	1026.6	725.8	569.1	522.7	516.8
40°	973.8	667.0	519.2	482.2	479.7
42.5°	915.0	608.2	470.8	444.6	444.6
45°	851.7	548.9	426.4	408.6	411.5
47.5°	783.1	490.1	385.4	376.5	381.4
50°	710.4	435.3	347.3	346.3	352.8
52.5°	636.3	384.4	312.2	318.2	325.6
55°	560.7	337.9	281.6	292.0	299.4
57.5°	490.1	295.4	253.9	268.3	275.2
60°	416.0	257.4	228.3	245.5	252.5
62.5°	353.7	222.3	206.5	224.3	231.2
65°	288.0	191.7	185.3	205.5	211.9
67.5°	237.6	164.0	167.0	188.7	194.7
70°	189.2	138.8	150.7	173.4	179.3
72.5°	149.7	115.6	135.9	159.6	165.5
75°	111.7	96.8	121.0	147.2	153.2
77.5°	81.5	80.5	109.2	135.9	142.3
80°	57.3	65.7	98.3	124.5	131.9
82.5°	37.1	53.4	88.4	114.1	121.5
85°	20.8	43.5	79.0	105.2	113.1
87.5°	9.9	35.1	70.6	97.3	105.7
90°	0.5	28.2	62.7	89.4	98.3
92.5°	0.0	22.2	55.8	82.0	91.4
95°	0.0	17.8	48.9	75.1	84.5
97.5°	0.0	14.3	43.0	68.7	78.1
100°	0.0	11.4	38.0	62.3	72.1
102.5°	0.0	9.4	33.1	56.8	66.7
105°	0.0	7.9	29.1	51.4	60.8
107.5°	0.0	6.9	25.7	46.4	55.8
110°	0.0	5.9	23.2	42.0	50.9



TEST NUMBER: P236245

CATALOG NUMBER: 4SWLED-20SL-LN-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	5.4	20.3	38.0	46.4
115°	0.0	4.4	18.3	34.1	41.5
117.5°	0.0	4.0	16.3	30.6	37.5
120°	0.0	3.5	14.3	27.7	33.6
122.5°	0.0	3.0	12.8	24.2	29.6
125°	0.0	2.5	11.4	21.7	26.2
127.5°	0.5	2.0	10.4	19.3	22.7
130°	0.5	1.5	8.9	16.8	20.3
132.5°	0.5	1.5	7.9	14.8	17.3
135°	0.5	1.0	6.9	12.8	15.3
137.5°	0.5	1.0	5.9	11.4	12.8
140°	0.5	0.5	4.9	9.4	11.4
142.5°	0.5	0.5	4.0	7.9	9.4
145°	0.5	0.5	3.0	6.9	7.9
147.5°	0.5	0.5	2.5	5.4	6.4
150°	0.5	0.5	2.0	4.4	4.9
152.5°	0.5	0.5	1.5	3.5	4.0
155°	1.0	0.5	1.0	2.5	3.0
157.5°	1.0	1.0	1.0	2.0	2.0
160°	1.0	1.0	1.0	1.0	1.5
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)