

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: P236227

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236227
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-20SL-LC-UNV-L840-CD1-U
Description: METALUX SWLED LINEAR LUMINAIRE
4FT FIXTURE WITH 1 ROW LED, CLEAR LENS
Light Source: (112) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

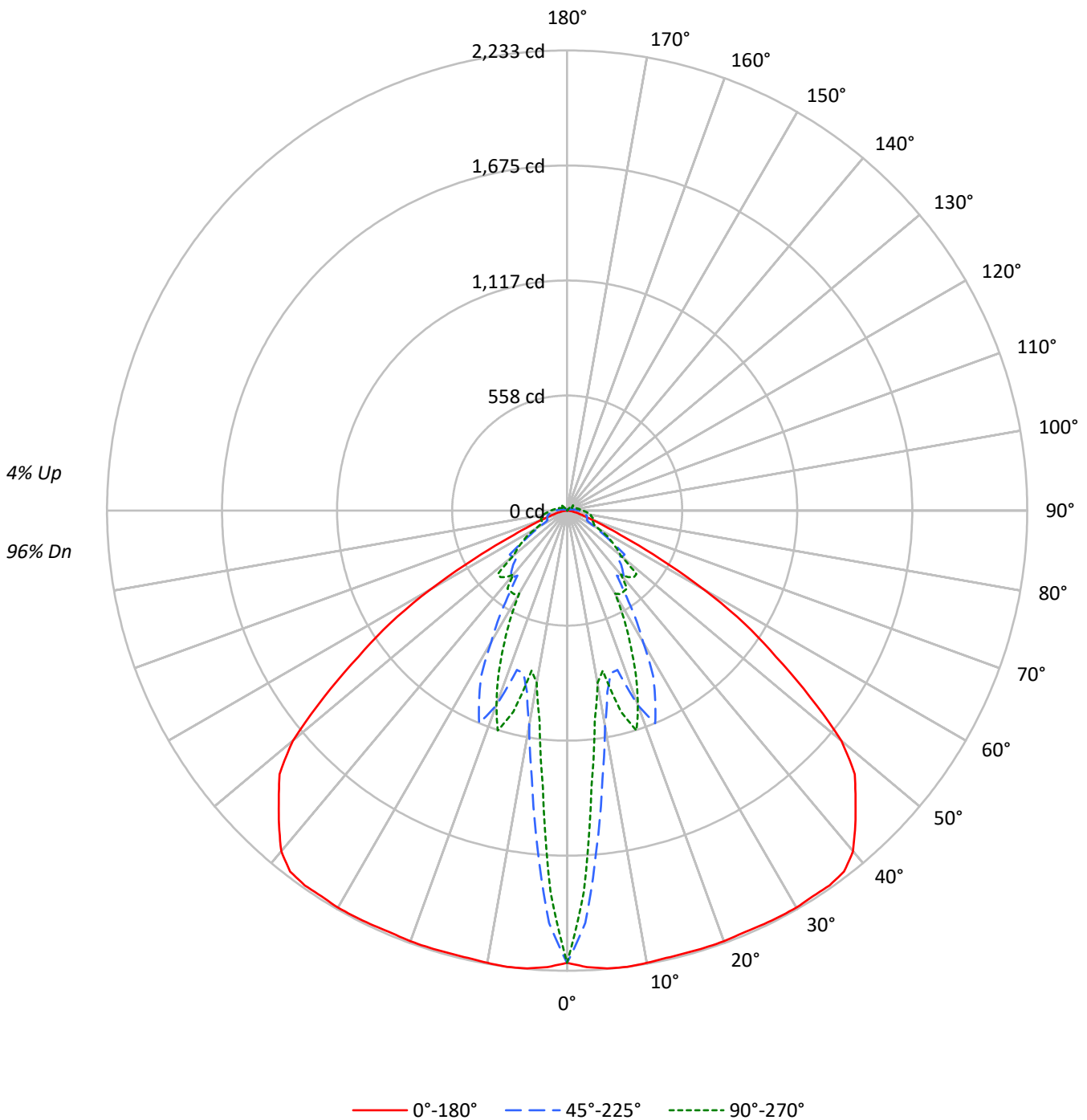
Lumens per Lamp: N/A
Luminaire Lumens: 2682.0 lumens
Efficiency: N/A
Efficacy: 152.4 lumens/watt
Spacing Criteria (0/90/45): 1.54 / 0.24 / 0.77
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

Input Watts (W): 17.6
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	115	115	115	115	109	109	109	104	104	104	99	99	99	99	99	99	96	
1	109	105	101	97	106	102	99	95	97	94	92	93	90	88	89	87	85	89	87	85	83	
2	100	93	87	82	98	91	85	81	87	82	78	83	79	76	80	77	74	80	77	74	72	
3	93	83	76	70	90	82	75	69	78	72	68	75	70	66	72	68	65	72	68	65	62	
4	86	75	67	61	83	73	66	61	71	64	59	68	63	58	65	61	57	65	61	57	55	
5	80	68	60	54	77	67	59	53	64	58	52	62	56	52	60	55	51	60	55	51	49	
6	74	62	54	48	72	61	53	47	59	52	47	57	51	46	55	50	45	55	50	45	44	
7	69	57	49	43	67	56	48	43	54	47	42	52	46	42	51	45	41	51	45	41	39	
8	65	52	44	39	63	51	44	39	50	43	38	48	42	38	47	41	37	47	41	37	36	
9	61	48	41	35	59	47	40	35	46	39	35	45	39	34	44	38	34	44	38	34	32	
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	35	31	41	35	31	30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15750	15750	15750
5°	16015	11543	9389
10°	16134	7334	5786
15°	16355	5613	6799
20°	16761	6935	6710
25°	17295	7017	4905
30°	18052	5206	3148
35°	18964	3491	3295
40°	19618	3203	2864
45°	19372	2882	3341
50°	18595	2862	2588
55°	14706	2261	2137
60°	10368	1375	1503
65°	4838	1091	1321
70°	2430	1180	1338
75°	1481	1278	1418
80°	966	1327	1503
85°	488	1375	1456



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.0	5.6
10°-20°	328.7	12.3
20°-30°	469.2	17.5
30°-40°	501.1	18.7
40°-50°	466.1	17.4
50°-60°	342.7	12.8
60°-70°	152.4	5.7
70°-80°	100.4	3.7
80°-90°	69.6	2.6
90°-100°	41.0	1.5
100°-110°	23.8	0.9
110°-120°	14.5	0.5
120°-130°	10.4	0.4
130°-140°	8.8	0.3
140°-150°	2.6	0.1
150°-160°	0.8	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	947.9	35.3
0°-40°	1449.0	54.0
0°-60°	2257.8	84.2
0°-90°	2580.2	96.2
90°-120°	79.2	3.0
90°-150°	101.0	3.8
90°-180°	102.0	3.8
0°-180°	2682.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2195	2195	2195	2195	2195	
5°	2230	1989	1645	1431	1348	213
15°	2223	1205	816	902	1010	630
25°	2222	777	1010	795	732	1029
35°	2220	936	482	490	479	1387
45°	1978	402	369	410	457	1523
55°	1237	240	258	261	266	1113
65°	307	93	106	134	143	357
75°	61	60	98	129	125	70
85°	8	35	74	93	96	11
90°	0	26	57	73	78	0
95°	0	19	42	55	64	0
105°	0	10	24	33	44	0
115°	0	6	15	22	29	0
125°	0	2	9	18	30	0
135°	0	1	8	24	30	0
145°	1	1	4	6	6	1
155°	1	1	2	2	2	0
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°	2194.8	2194.8	2194.8	2194.8	2194.8
2.5°	2217.1	2120.8	2003.2	1899.5	1855.0
5°	2230.4	1989.4	1644.6	1430.8	1347.8
7.5°	2233.4	1805.2	1311.3	1075.7	1026.8
10°	2228.4	1588.8	1059.9	874.7	848.5
12.5°	2223.5	1387.8	899.9	808.0	795.7
15°	2223.0	1205.1	816.4	901.8	1010.5
17.5°	2224.0	1028.3	810.5	1122.1	1119.6
20°	2224.0	898.4	1007.5	1071.2	1003.1
22.5°	2219.5	806.5	1117.2	950.2	875.2
25°	2221.5	776.9	1010.5	795.2	731.9
27.5°	2224.0	816.9	903.8	665.3	603.0
30°	2224.5	930.0	737.4	538.3	465.2
32.5°	2219.0	988.3	613.4	428.7	480.6
35°	2220.0	935.9	482.5	489.9	478.6
37.5°	2207.7	816.4	397.1	454.9	477.1
40°	2158.3	657.9	428.2	426.7	405.5
42.5°	2069.4	510.7	400.5	388.7	438.1
45°	1978.5	402.0	369.4	410.4	457.3
47.5°	1893.6	324.0	328.4	450.4	456.4
50°	1738.0	304.2	348.2	381.3	339.3
52.5°	1486.6	277.1	351.2	298.3	303.7
55°	1236.7	239.5	258.3	261.3	265.7
57.5°	1022.8	226.7	195.1	236.1	229.7
60°	768.0	197.6	145.7	185.7	175.3
62.5°	507.7	124.5	112.1	143.7	145.2
65°	307.2	92.9	105.7	133.8	142.7
67.5°	193.6	82.0	104.2	135.3	133.3
70°	127.4	74.1	102.7	135.3	131.9
72.5°	85.9	67.2	100.8	133.8	134.3
75°	60.7	59.8	97.8	129.4	125.4
77.5°	42.5	53.3	93.8	121.0	117.5
80°	28.2	46.9	86.9	112.1	116.6
82.5°	16.8	40.5	81.0	102.7	107.2
85°	8.4	35.1	74.1	92.9	96.3
87.5°	3.5	30.6	65.7	82.5	85.4
90°	0.0	26.2	57.3	73.1	77.5
92.5°	0.0	22.2	49.4	63.7	70.6
95°	0.0	18.8	42.0	54.8	63.7
97.5°	0.0	16.3	36.1	47.9	57.8
100°	0.0	13.8	31.1	41.5	52.8
102.5°	0.0	12.3	26.7	36.5	48.4
105°	0.0	10.4	23.7	32.6	44.0
107.5°	0.0	8.9	20.7	29.1	39.5
110°	0.0	7.9	18.3	26.7	35.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	6.9	16.8	24.2	31.6
115°	0.5	5.9	14.8	22.2	28.6
117.5°	0.5	4.9	13.3	20.2	26.7
120°	0.5	4.0	11.9	18.8	26.2
122.5°	0.5	3.0	10.4	17.8	27.2
125°	0.5	2.5	8.9	17.8	29.6
127.5°	0.5	2.0	7.4	19.8	34.1
130°	0.5	1.5	7.4	23.7	38.5
132.5°	0.5	1.0	7.4	26.2	37.0
135°	0.5	1.0	7.9	24.2	29.6
137.5°	0.5	1.0	7.9	18.8	21.2
140°	0.5	1.0	6.4	13.3	14.8
142.5°	0.5	1.0	4.4	9.4	9.9
145°	1.0	1.0	3.5	6.4	6.4
147.5°	1.0	1.0	2.5	4.4	4.4
150°	1.0	1.0	2.0	3.5	3.5
152.5°	1.0	1.0	1.5	3.0	2.5
155°	1.0	1.0	1.5	2.5	2.0
157.5°	1.0	1.0	1.0	2.0	1.5
160°	1.0	1.5	1.5	2.0	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)