

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: P236224

Luminaire Tested: **4SWLED-16SL-LC-UNV-L840-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236224
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-16SL-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

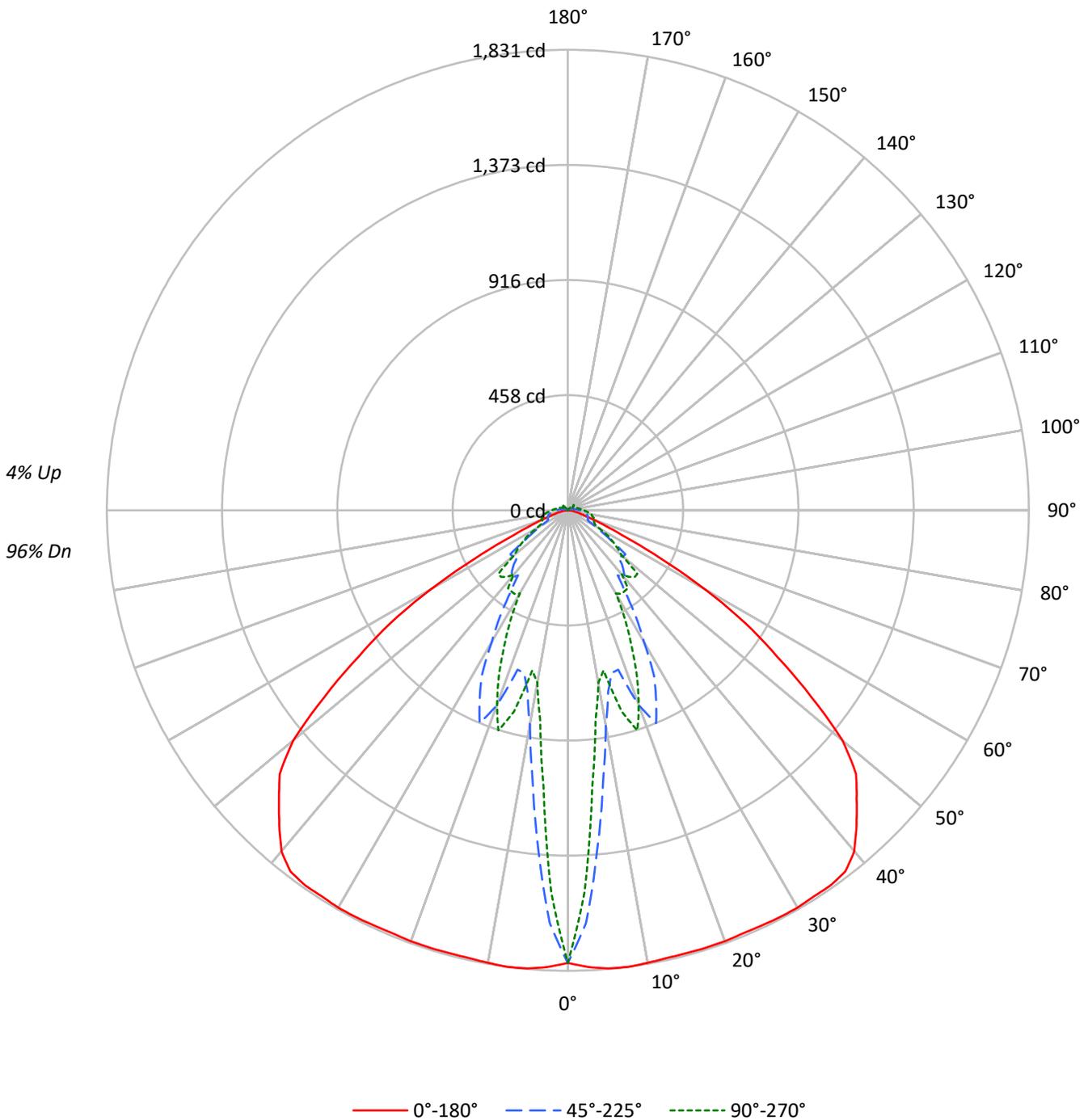
Lumens per Lamp: N/A
Luminaire Lumens: 2199.0 lumens
Efficiency: N/A
Efficacy: 153.8 lumens/watt
Spacing Criteria (0/90/45): 1.54 / 0.24 / 0.77
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

Input Watts (W): 14.3
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°	12914	12914	12914
5°	13131	9465	7698
10°	13228	6013	4744
15°	13410	4602	5574
20°	13743	5686	5502
25°	14180	5753	4022
30°	14801	4269	2582
35°	15548	2863	2702
40°	16085	2626	2348
45°	15884	2363	2740
50°	15246	2346	2122
55°	12058	1854	1753
60°	8501	1128	1233
65°	3967	895	1083
70°	1993	967	1096
75°	1215	1048	1164
80°	791	1089	1232
85°	401	1126	1195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.0	5.6
10°-20°	269.5	12.3
20°-30°	384.7	17.5
30°-40°	410.9	18.7
40°-50°	382.1	17.4
50°-60°	281.0	12.8
60°-70°	125.0	5.7
70°-80°	82.3	3.7
80°-90°	57.0	2.6
90°-100°	33.6	1.5
100°-110°	19.5	0.9
110°-120°	11.9	0.5
120°-130°	8.5	0.4
130°-140°	7.2	0.3
140°-150°	2.1	0.1
150°-160°	0.6	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	777.2	35.3
0°-40°	1188.1	54.0
0°-60°	1851.2	84.2
0°-90°	2115.5	96.2
90°-120°	65.0	3.0
90°-150°	82.8	3.8
90°-180°	83.0	3.8
0°-180°	2199.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1800	1800	1800	1800	1800	
5°	1829	1631	1348	1173	1105	174
15°	1823	988	669	739	828	517
25°	1821	637	828	652	600	843
35°	1820	767	396	402	392	1138
45°	1622	330	303	336	375	1249
55°	1014	196	212	214	218	913
65°	252	76	87	110	117	293
75°	50	49	80	106	103	58
85°	7	29	61	76	79	9
90°	0	22	47	60	64	0
95°	0	15	34	45	52	0
105°	0	8	19	27	36	0
115°	0	5	12	18	24	0
125°	0	2	7	15	24	0
135°	0	1	6	20	24	0
145°	1	1	3	5	5	0
155°	1	1	1	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°	1799.6	1799.6	1799.6	1799.6	1799.6
2.5°	1817.8	1738.8	1642.5	1557.4	1521.0
5°	1828.7	1631.1	1348.5	1173.1	1105.1
7.5°	1831.2	1480.1	1075.1	882.0	841.9
10°	1827.1	1302.7	869.0	717.2	695.7
12.5°	1823.1	1137.9	737.8	662.5	652.4
15°	1822.7	988.1	669.4	739.4	828.5
17.5°	1823.5	843.1	664.5	920.0	918.0
20°	1823.5	736.6	826.1	878.3	822.4
22.5°	1819.8	661.3	916.0	779.1	717.6
25°	1821.4	637.0	828.5	652.0	600.1
27.5°	1823.5	669.8	741.0	545.5	494.4
30°	1823.9	762.5	604.6	441.4	381.5
32.5°	1819.4	810.3	502.9	351.5	394.0
35°	1820.2	767.4	395.6	401.7	392.4
37.5°	1810.1	669.4	325.6	373.0	391.2
40°	1769.6	539.4	351.1	349.9	332.5
42.5°	1696.7	418.7	328.4	318.7	359.2
45°	1622.2	329.6	302.9	336.5	375.0
47.5°	1552.6	265.6	269.3	369.3	374.2
50°	1425.0	249.4	285.5	312.6	278.2
52.5°	1218.9	227.2	287.9	244.6	249.0
55°	1014.0	196.4	211.8	214.2	217.9
57.5°	838.6	185.9	160.0	193.6	188.3
60°	629.7	162.0	119.5	152.3	143.8
62.5°	416.3	102.0	91.9	117.8	119.1
65°	251.9	76.1	86.7	109.7	117.0
67.5°	158.7	67.2	85.4	111.0	109.3
70°	104.5	60.7	84.2	111.0	108.1
72.5°	70.5	55.1	82.6	109.7	110.1
75°	49.8	49.0	80.2	106.1	102.9
77.5°	34.8	43.7	76.9	99.2	96.4
80°	23.1	38.5	71.3	91.9	95.6
82.5°	13.8	33.2	66.4	84.2	87.9
85°	6.9	28.8	60.7	76.1	79.0
87.5°	2.8	25.1	53.9	67.6	70.1
90°	0.0	21.5	47.0	59.9	63.6
92.5°	0.0	18.2	40.5	52.2	57.9
95°	0.0	15.4	34.4	44.9	52.2
97.5°	0.0	13.4	29.6	39.3	47.4
100°	0.0	11.3	25.5	34.0	43.3
102.5°	0.0	10.1	21.9	30.0	39.7
105°	0.0	8.5	19.4	26.7	36.0
107.5°	0.0	7.3	17.0	23.9	32.4
110°	0.0	6.5	15.0	21.9	29.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	5.7	13.8	19.8	25.9
115°	0.4	4.9	12.1	18.2	23.5
117.5°	0.4	4.0	10.9	16.6	21.9
120°	0.4	3.2	9.7	15.4	21.5
122.5°	0.4	2.4	8.5	14.6	22.3
125°	0.4	2.0	7.3	14.6	24.3
127.5°	0.4	1.6	6.1	16.2	27.9
130°	0.4	1.2	6.1	19.4	31.6
132.5°	0.4	0.8	6.1	21.5	30.4
135°	0.4	0.8	6.5	19.8	24.3
137.5°	0.4	0.8	6.5	15.4	17.4
140°	0.4	0.8	5.3	10.9	12.1
142.5°	0.4	0.8	3.6	7.7	8.1
145°	0.8	0.8	2.8	5.3	5.3
147.5°	0.8	0.8	2.0	3.6	3.6
150°	0.8	0.8	1.6	2.8	2.8
152.5°	0.8	0.8	1.2	2.4	2.0
155°	0.8	0.8	1.2	2.0	1.6
157.5°	0.8	0.8	0.8	1.6	1.2
160°	0.8	1.2	1.2	1.6	1.2
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)