

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: P#

Luminaire Tested: **4ILED-LD5-5-W-FLUPL-UNV-L835-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34183)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4ILED-LD5-5-W-FLUPL-UNV-L835-CD1-U  
Description: Metalux 4' ILED WITH FROST LENS WITH UPL DISTRIBUTION

Light Source: (1) 3500 CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

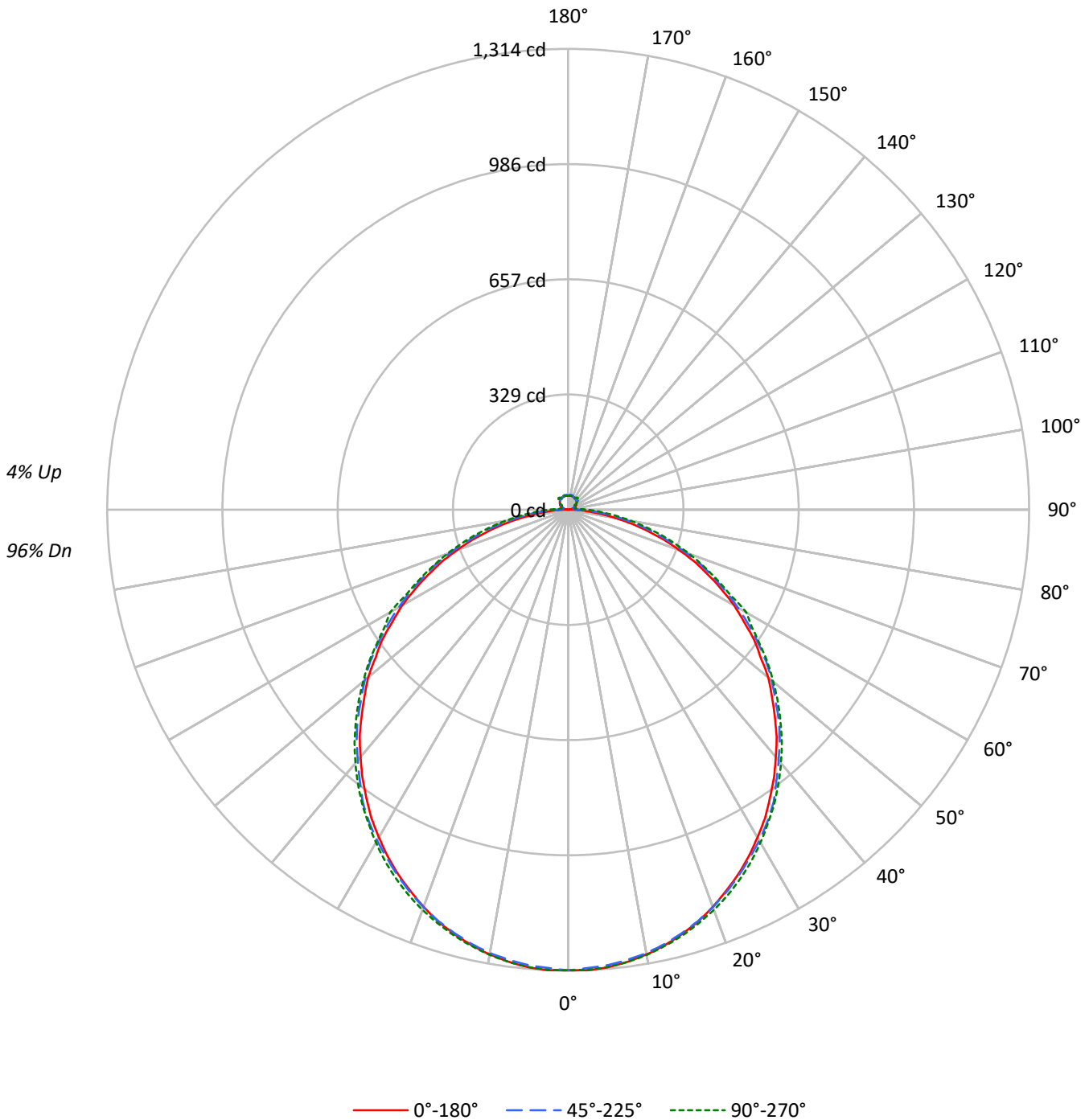
Lumens per Lamp: N/A  
Luminaire Lumens: 3877.0 lumens  
Efficiency: N/A  
Efficacy: 115.7 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 33.5  
Input Voltage (V):  
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



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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	103	103	103	98	98	98	96				
1	107	103	98	94	104	100	96	92	95	91	89	90	87	85	86	84	82	79				
2	98	89	82	76	95	87	81	75	83	77	73	79	74	70	75	72	68	66				
3	89	78	70	63	86	76	69	63	73	66	61	69	64	59	66	62	58	55				
4	81	69	60	54	79	68	59	53	65	58	52	62	56	51	59	54	50	47				
5	75	62	53	46	72	60	52	46	58	50	45	55	49	44	53	48	43	41				
6	69	56	47	40	67	55	46	40	52	45	39	50	44	39	48	42	38	36				
7	64	50	42	36	62	49	41	35	48	40	35	46	39	34	44	38	34	32				
8	60	46	38	32	58	45	37	31	43	36	31	42	35	31	40	35	30	28				
9	56	42	34	28	54	41	34	28	40	33	28	39	32	28	37	31	27	25				
10	52	39	31	26	51	38	31	26	37	30	25	36	29	25	35	29	25	23				

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

	0°	45°	90°
0°	3856	3856	3856
5°	3850	3809	3820
10°	3822	3763	3770
15°	3783	3706	3712
20°	3732	3642	3649
25°	3672	3570	3579
30°	3606	3500	3495
35°	3532	3427	3409
40°	3455	3311	3313
45°	3371	3218	3204
50°	3302	3105	3083
55°	3198	2973	2950
60°	3076	2815	2897
65°	2909	2629	2618
70°	2703	2412	2420
75°	2427	2141	2170
80°	2043	1802	1888
85°	1548	1406	1570



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.1	3.2
10°-20°	353.7	9.1
20°-30°	531.5	13.7
30°-40°	635.8	16.4
40°-50°	653.7	16.9
50°-60°	588.7	15.2
60°-70°	452.5	11.7
70°-80°	269.4	6.9
80°-90°	97.6	2.5
90°-100°	21.0	0.5
100°-110°	17.5	0.5
110°-120°	20.6	0.5
120°-130°	25.5	0.7
130°-140°	27.8	0.7
140°-150°	23.9	0.6
150°-160°	18.0	0.5
160°-170°	11.7	0.3
170°-180°	3.9	0.1
0°-30°	1009.3	26.0
0°-40°	1645.1	42.4
0°-60°	2887.6	74.5
0°-90°	3707.0	95.6
90°-120°	59.1	1.5
90°-150°	136.4	3.5
90°-180°	170.0	4.4
0°-180°	3877.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1314	1314	1314	1314	1314	
5°	1310	1309	1303	1308	1309	124
15°	1253	1254	1250	1256	1257	353
25°	1147	1149	1151	1159	1161	528
35°	1003	1015	1020	1022	1024	628
45°	832	841	848	857	856	643
55°	647	650	660	665	666	576
65°	441	445	456	464	465	437
75°	234	241	256	270	269	248
85°	59	71	87	100	105	65
90°	1	18	35	48	52	5
95°	5	12	17	24	27	5
105°	14	12	16	25	22	15
115°	22	25	18	18	18	22
125°	29	29	33	26	23	26
135°	33	33	37	39	39	26
145°	37	37	36	39	42	23
155°	39	42	39	37	37	18
165°	40	42	43	42	40	11
175°	41	41	42	41	39	4
180°	40	40	40	40	40	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1313.5	1313.5	1313.5	1313.5	1313.5
2.5°	1314.2	1313.5	1308.1	1312.2	1312.9
5°	1309.5	1308.8	1303.3	1308.1	1308.8
7.5°	1299.9	1299.9	1294.5	1299.9	1300.6
10°	1287.7	1287.7	1283.6	1288.4	1289.1
12.5°	1272.1	1272.7	1268.7	1274.1	1274.1
15°	1253.0	1253.7	1250.3	1255.7	1257.1
17.5°	1231.3	1231.3	1229.9	1236.0	1236.7
20°	1205.4	1208.8	1206.1	1212.9	1214.3
22.5°	1176.2	1179.6	1179.6	1187.1	1189.1
25°	1147.0	1149.0	1151.0	1159.2	1161.2
27.5°	1114.3	1118.4	1119.1	1127.9	1130.0
30°	1079.0	1085.8	1089.2	1094.6	1096.0
32.5°	1043.6	1052.5	1056.5	1059.3	1059.9
35°	1002.8	1015.1	1019.8	1021.9	1023.9
37.5°	963.4	973.6	975.0	982.4	984.5
40°	920.6	932.8	932.8	941.6	943.7
42.5°	879.8	882.5	892.7	898.8	901.5
45°	832.2	841.0	848.5	856.7	856.0
47.5°	787.3	798.9	800.9	808.4	810.4
50°	744.5	752.6	756.7	762.8	762.8
52.5°	691.4	702.3	711.2	714.6	716.6
55°	647.2	650.0	659.5	664.9	666.3
57.5°	593.5	600.3	609.2	616.0	619.4
60°	546.6	550.7	558.2	567.7	586.7
62.5°	493.6	498.4	507.9	536.4	516.7
65°	441.2	445.3	455.5	464.4	465.0
67.5°	391.6	395.7	410.0	412.7	414.7
70°	336.5	342.0	354.2	363.1	366.5
72.5°	286.2	291.0	303.2	313.4	316.8
75°	233.9	240.7	255.6	269.9	269.2
77.5°	184.2	196.5	208.7	220.3	223.7
80°	138.0	147.5	163.9	176.1	180.8
82.5°	96.5	107.4	123.7	136.0	140.7
85°	59.1	70.7	87.0	99.9	104.7
87.5°	28.6	40.1	57.8	70.7	76.1
90°	1.4	17.7	35.4	48.3	52.4
92.5°	2.7	10.2	23.1	33.3	36.7
95°	4.8	11.6	17.0	24.5	27.2
97.5°	6.8	10.2	15.0	19.7	21.8
100°	9.5	10.2	17.0	17.7	19.0
102.5°	11.6	10.9	16.3	17.7	17.7
105°	14.3	12.2	15.6	25.2	22.4
107.5°	16.3	17.0	15.0	17.7	19.0
110°	18.4	19.7	16.3	19.0	19.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	20.4	22.4	17.7	17.7	19.0
115°	22.4	25.2	17.7	18.4	18.4
117.5°	24.5	25.8	21.1	19.7	19.7
120°	25.8	26.5	26.5	19.7	21.1
122.5°	27.2	27.9	29.9	21.8	21.1
125°	28.6	28.6	32.6	26.5	23.1
127.5°	29.9	29.9	34.7	31.3	27.9
130°	31.3	29.9	36.7	34.0	32.6
132.5°	32.6	31.3	37.4	36.7	35.4
135°	33.3	32.6	37.4	39.4	38.8
137.5°	34.7	34.0	36.0	41.5	40.8
140°	35.4	35.4	36.0	41.5	42.8
142.5°	36.0	36.0	36.0	40.8	42.8
145°	36.7	37.4	36.0	39.4	42.2
147.5°	37.4	38.8	36.0	38.8	40.1
150°	38.1	39.4	36.0	38.1	38.8
152.5°	38.8	40.8	37.4	37.4	38.1
155°	38.8	41.5	38.8	37.4	37.4
157.5°	39.4	41.5	39.4	37.4	37.4
160°	39.4	42.2	40.8	38.8	38.1
162.5°	40.1	42.2	42.2	40.1	39.4
165°	40.1	41.5	42.8	41.5	40.1
167.5°	40.8	41.5	42.8	42.2	40.8
170°	40.8	41.5	42.2	42.2	40.8
172.5°	40.8	41.5	42.2	41.5	40.8
175°	40.8	40.8	41.5	40.8	39.4
177.5°	40.8	40.8	40.8	40.1	39.4
180°	40.1	40.1	40.1	40.1	40.1

(END OF REPORT)