

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-LD5-16-W-FLUPL-UNV-L840-CD2-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-LD5-16-W-FLUPL-UNV-L840-CD2-U  
Description: Metalux 4' ILED WITH FROST LENS WITH UPL DISTRIBUTION

Light Source: (1) 4000 CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

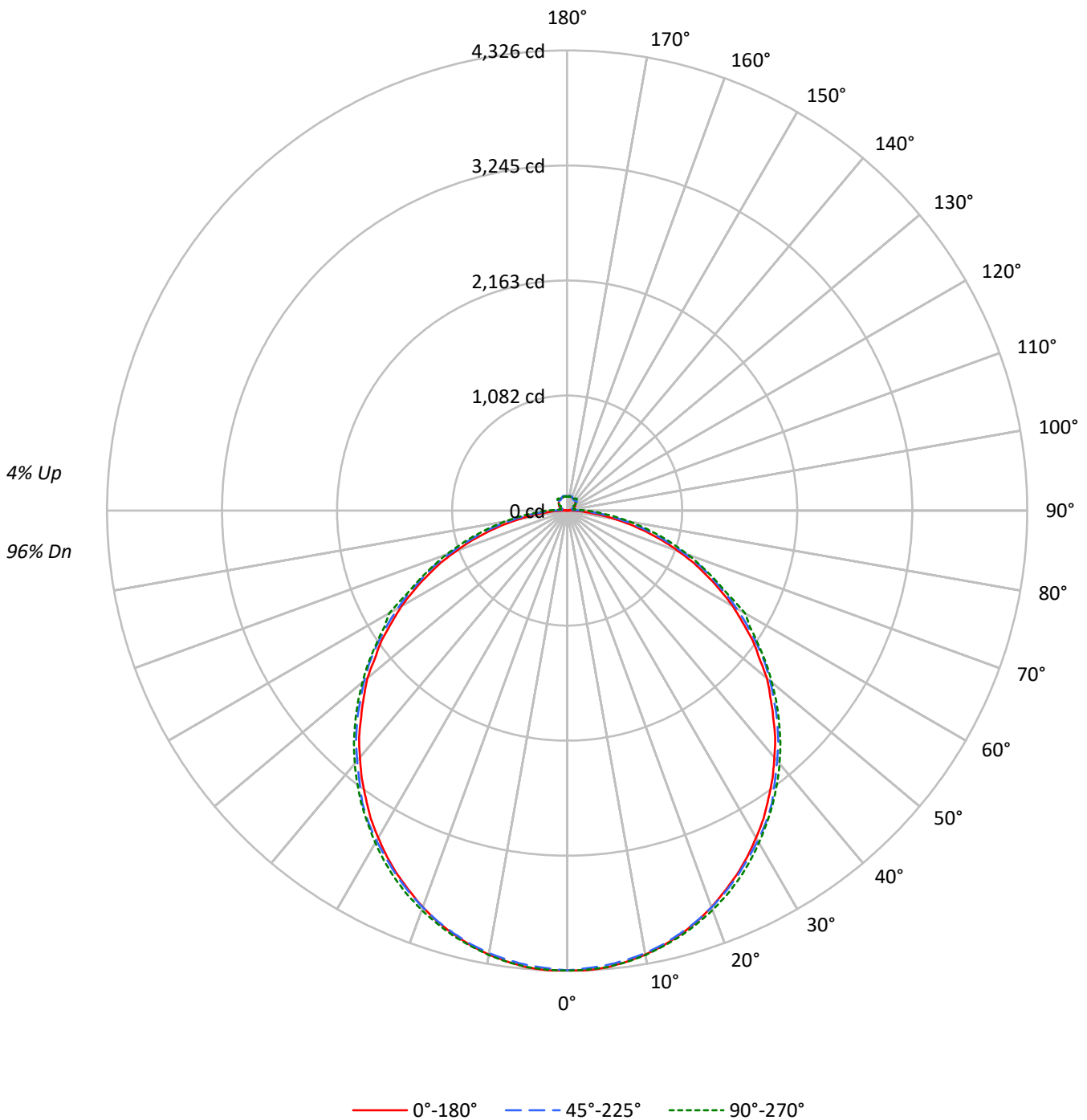
Lumens per Lamp: N/A  
Luminaire Lumens: 12761.0 lumens  
Efficiency: N/A  
Efficacy: 100.8 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 126.6  
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	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°	12692	12692	12692
5°	12673	12538	12574
10°	12579	12387	12409
15°	12451	12197	12218
20°	12283	11988	12009
25°	12087	11752	11781
30°	11867	11522	11504
35°	11626	11281	11220
40°	11373	10899	10905
45°	11094	10590	10546
50°	10867	10220	10148
55°	10528	9785	9711
60°	10125	9265	9537
65°	9575	8655	8617
70°	8896	7939	7966
75°	7986	7049	7143
80°	6726	5929	6217
85°	5100	4629	5166



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	408.6	3.2
10°-20°	1164.2	9.1
20°-30°	1749.3	13.7
30°-40°	2092.9	16.4
40°-50°	2151.6	16.9
50°-60°	1937.8	15.2
60°-70°	1489.3	11.7
70°-80°	886.6	6.9
80°-90°	321.3	2.5
90°-100°	69.2	0.5
100°-110°	57.5	0.5
110°-120°	67.8	0.5
120°-130°	84.0	0.7
130°-140°	91.7	0.7
140°-150°	78.7	0.6
150°-160°	59.2	0.5
160°-170°	38.5	0.3
170°-180°	12.9	0.1
0°-30°	3322.0	26.0
0°-40°	5414.9	42.4
0°-60°	9504.3	74.5
0°-90°	12201.5	95.6
90°-120°	194.6	1.5
90°-150°	448.9	3.5
90°-180°	560.0	4.4
0°-180°	12761.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4324	4324	4324	4324	4324	
5°	4310	4308	4290	4306	4308	409
15°	4124	4126	4115	4133	4138	1163
25°	3775	3782	3789	3816	3822	1739
35°	3301	3341	3357	3363	3370	2066
45°	2739	2768	2793	2820	2817	2117
55°	2130	2139	2171	2189	2193	1897
65°	1452	1466	1499	1528	1531	1440
75°	770	792	841	888	886	817
85°	195	233	286	329	345	214
90°	4	58	116	159	172	15
95°	16	38	56	81	90	16
105°	47	40	52	83	74	49
115°	74	83	58	60	60	73
125°	94	94	107	87	76	84
135°	110	107	123	130	128	85
145°	121	123	119	130	139	76
155°	128	136	128	123	123	59
165°	132	136	141	136	132	38
175°	134	134	136	134	130	13
180°	132	132	132	132	132	



TEST NUMBER: P#

CATALOG NUMBER: 4ILED-LD5-16-W-FLUPL-UNV-L840-CD2-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4323.5	4323.5	4323.5	4323.5	4323.5
2.5°	4325.7	4323.5	4305.5	4319.0	4321.2
5°	4310.0	4307.8	4289.9	4305.5	4307.8
7.5°	4278.7	4278.7	4260.8	4278.7	4280.9
10°	4238.4	4238.4	4225.0	4240.7	4242.9
12.5°	4186.9	4189.2	4175.8	4193.7	4193.7
15°	4124.3	4126.5	4115.3	4133.2	4137.7
17.5°	4052.7	4052.7	4048.2	4068.3	4070.6
20°	3967.6	3978.8	3969.9	3992.3	3996.7
22.5°	3871.4	3882.6	3882.6	3907.2	3913.9
25°	3775.2	3781.9	3788.6	3815.5	3822.2
27.5°	3667.8	3681.2	3683.4	3712.5	3719.2
30°	3551.4	3573.8	3585.0	3602.9	3607.4
32.5°	3435.0	3464.1	3477.6	3486.5	3488.7
35°	3300.8	3341.1	3356.7	3363.4	3370.1
37.5°	3171.0	3204.5	3209.0	3233.6	3240.4
40°	3030.0	3070.3	3070.3	3099.4	3106.1
42.5°	2895.7	2904.7	2938.2	2958.4	2967.3
45°	2739.1	2768.2	2792.8	2819.6	2817.4
47.5°	2591.4	2629.4	2636.1	2660.8	2667.5
50°	2450.4	2477.3	2490.7	2510.8	2510.8
52.5°	2275.9	2311.7	2340.8	2351.9	2358.7
55°	2130.4	2139.3	2170.7	2188.6	2193.1
57.5°	1953.6	1976.0	2005.1	2027.5	2038.6
60°	1799.2	1812.6	1837.2	1868.6	1931.2
62.5°	1624.7	1640.3	1671.6	1765.6	1700.7
65°	1452.3	1465.8	1499.3	1528.4	1530.7
67.5°	1289.0	1302.4	1349.4	1358.4	1365.1
70°	1107.7	1125.6	1165.9	1195.0	1206.2
72.5°	942.1	957.8	998.1	1031.6	1042.8
75°	769.8	792.2	841.4	888.4	886.2
77.5°	606.4	646.7	687.0	725.1	736.2
80°	454.3	485.6	539.3	579.6	595.3
82.5°	317.8	353.6	407.3	447.6	463.2
85°	194.7	232.7	286.4	329.0	344.6
87.5°	94.0	132.0	190.2	232.7	250.6
90°	4.5	58.2	116.4	158.9	172.3
92.5°	9.0	33.6	76.1	109.7	120.8
95°	15.7	38.0	55.9	80.6	89.5
97.5°	22.4	33.6	49.2	64.9	71.6
100°	31.3	33.6	55.9	58.2	62.7
102.5°	38.0	35.8	53.7	58.2	58.2
105°	47.0	40.3	51.5	82.8	73.8
107.5°	53.7	55.9	49.2	58.2	62.7
110°	60.4	64.9	53.7	62.7	62.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	67.1	73.8	58.2	58.2	62.7
115°	73.8	82.8	58.2	60.4	60.4
117.5°	80.6	85.0	69.4	64.9	64.9
120°	85.0	87.3	87.3	64.9	69.4
122.5°	89.5	91.8	98.5	71.6	69.4
125°	94.0	94.0	107.4	87.3	76.1
127.5°	98.5	98.5	114.1	102.9	91.8
130°	102.9	98.5	120.8	111.9	107.4
132.5°	107.4	102.9	123.1	120.8	116.4
135°	109.7	107.4	123.1	129.8	127.6
137.5°	114.1	111.9	118.6	136.5	134.3
140°	116.4	116.4	118.6	136.5	141.0
142.5°	118.6	118.6	118.6	134.3	141.0
145°	120.8	123.1	118.6	129.8	138.7
147.5°	123.1	127.6	118.6	127.6	132.0
150°	125.3	129.8	118.6	125.3	127.6
152.5°	127.6	134.3	123.1	123.1	125.3
155°	127.6	136.5	127.6	123.1	123.1
157.5°	129.8	136.5	129.8	123.1	123.1
160°	129.8	138.7	134.3	127.6	125.3
162.5°	132.0	138.7	138.7	132.0	129.8
165°	132.0	136.5	141.0	136.5	132.0
167.5°	134.3	136.5	141.0	138.7	134.3
170°	134.3	136.5	138.7	138.7	134.3
172.5°	134.3	136.5	138.7	136.5	134.3
175°	134.3	134.3	136.5	134.3	129.8
177.5°	134.3	134.3	134.3	132.0	129.8
180°	132.0	132.0	132.0	132.0	132.0

(END OF REPORT)