

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-LD5-14-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-LD5-14-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**

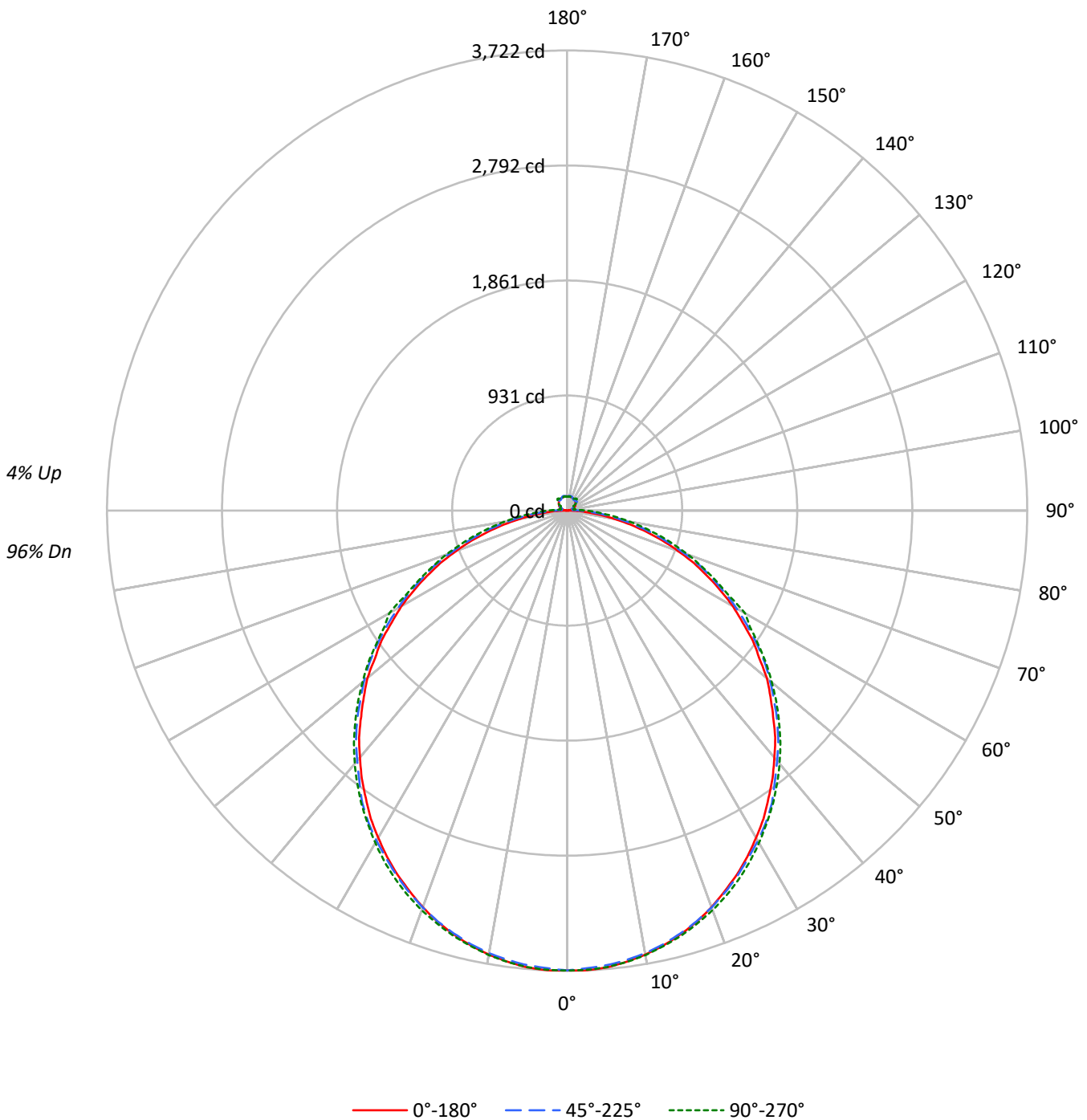
Lumens per Lamp: N/A  
Luminaire Lumens: 10980.0 lumens  
Efficiency: N/A  
Efficacy: 107.6 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 102  
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°	10920	10920	10920
5°	10904	10788	10819
10°	10823	10658	10677
15°	10713	10495	10513
20°	10569	10315	10333
25°	10400	10112	10137
30°	10211	9913	9898
35°	10003	9706	9655
40°	9786	9378	9383
45°	9546	9112	9074
50°	9350	8794	8731
55°	9059	8419	8356
60°	8712	7972	8206
65°	8238	7447	7414
70°	7655	6831	6853
75°	6872	6066	6146
80°	5788	5101	5349
85°	4388	3984	4445



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	351.5	3.2
10°-20°	1001.7	9.1
20°-30°	1505.1	13.7
30°-40°	1800.8	16.4
40°-50°	1851.4	16.9
50°-60°	1667.3	15.2
60°-70°	1281.4	11.7
70°-80°	762.9	6.9
80°-90°	276.4	2.5
90°-100°	59.6	0.5
100°-110°	49.5	0.5
110°-120°	58.4	0.5
120°-130°	72.2	0.7
130°-140°	78.9	0.7
140°-150°	67.7	0.6
150°-160°	50.9	0.5
160°-170°	33.1	0.3
170°-180°	11.1	0.1
0°-30°	2858.4	26.0
0°-40°	4659.1	42.4
0°-60°	8177.8	74.5
0°-90°	10498.6	95.6
90°-120°	167.5	1.5
90°-150°	386.3	3.5
90°-180°	481.0	4.4
0°-180°	10980.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3720	3720	3720	3720	3720	
5°	3708	3707	3691	3705	3707	352
15°	3549	3551	3541	3556	3560	1001
25°	3248	3254	3260	3283	3289	1496
35°	2840	2875	2888	2894	2900	1778
45°	2357	2382	2403	2426	2424	1822
55°	1833	1841	1868	1883	1887	1633
65°	1250	1261	1290	1315	1317	1239
75°	662	682	724	764	762	703
85°	168	200	246	283	296	184
90°	4	50	100	137	148	13
95°	14	33	48	69	77	14
105°	40	35	44	71	64	42
115°	64	71	50	52	52	63
125°	81	81	92	75	66	72
135°	94	92	106	112	110	73
145°	104	106	102	112	119	65
155°	110	118	110	106	106	51
165°	114	118	121	118	114	32
175°	116	116	118	116	112	11
180°	114	114	114	114	114	



TEST NUMBER: P#

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3720.0	3720.0	3720.0	3720.0	3720.0
2.5°	3722.0	3720.0	3704.6	3716.2	3718.1
5°	3708.5	3706.6	3691.2	3704.6	3706.6
7.5°	3681.5	3681.5	3666.1	3681.5	3683.5
10°	3646.9	3646.9	3635.3	3648.8	3650.7
12.5°	3602.6	3604.5	3593.0	3608.4	3608.4
15°	3548.7	3550.6	3541.0	3556.4	3560.2
17.5°	3487.1	3487.1	3483.2	3500.5	3502.5
20°	3413.9	3423.5	3415.8	3435.1	3438.9
22.5°	3331.1	3340.7	3340.7	3361.9	3367.7
25°	3248.3	3254.1	3259.9	3283.0	3288.7
27.5°	3155.9	3167.4	3169.4	3194.4	3200.2
30°	3055.8	3075.0	3084.6	3100.0	3103.9
32.5°	2955.6	2980.7	2992.2	2999.9	3001.8
35°	2840.1	2874.8	2888.2	2894.0	2899.8
37.5°	2728.4	2757.3	2761.2	2782.3	2788.1
40°	2607.1	2641.8	2641.8	2666.8	2672.6
42.5°	2491.6	2499.3	2528.2	2545.5	2553.2
45°	2356.8	2381.8	2403.0	2426.1	2424.2
47.5°	2229.7	2262.5	2268.2	2289.4	2295.2
50°	2108.4	2131.5	2143.1	2160.4	2160.4
52.5°	1958.2	1989.0	2014.1	2023.7	2029.5
55°	1833.1	1840.8	1867.7	1883.1	1887.0
57.5°	1681.0	1700.2	1725.2	1744.5	1754.1
60°	1548.1	1559.6	1580.8	1607.8	1661.7
62.5°	1397.9	1411.4	1438.3	1519.2	1463.4
65°	1249.6	1261.2	1290.1	1315.1	1317.0
67.5°	1109.1	1120.6	1161.1	1168.8	1174.5
70°	953.1	968.5	1003.2	1028.2	1037.8
72.5°	810.6	824.1	858.8	887.7	897.3
75°	662.4	681.6	724.0	764.4	762.5
77.5°	521.8	556.5	591.1	623.9	633.5
80°	390.9	417.8	464.0	498.7	512.2
82.5°	273.4	304.2	350.4	385.1	398.6
85°	167.5	200.3	246.5	283.0	296.5
87.5°	80.9	113.6	163.7	200.3	215.7
90°	3.9	50.1	100.1	136.7	148.3
92.5°	7.7	28.9	65.5	94.3	104.0
95°	13.5	32.7	48.1	69.3	77.0
97.5°	19.3	28.9	42.4	55.8	61.6
100°	27.0	28.9	48.1	50.1	53.9
102.5°	32.7	30.8	46.2	50.1	50.1
105°	40.4	34.7	44.3	71.2	63.5
107.5°	46.2	48.1	42.4	50.1	53.9
110°	52.0	55.8	46.2	53.9	53.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	57.8	63.5	50.1	50.1	53.9
115°	63.5	71.2	50.1	52.0	52.0
117.5°	69.3	73.2	59.7	55.8	55.8
120°	73.2	75.1	75.1	55.8	59.7
122.5°	77.0	78.9	84.7	61.6	59.7
125°	80.9	80.9	92.4	75.1	65.5
127.5°	84.7	84.7	98.2	88.6	78.9
130°	88.6	84.7	104.0	96.3	92.4
132.5°	92.4	88.6	105.9	104.0	100.1
135°	94.3	92.4	105.9	111.7	109.8
137.5°	98.2	96.3	102.1	117.5	115.5
140°	100.1	100.1	102.1	117.5	121.3
142.5°	102.1	102.1	102.1	115.5	121.3
145°	104.0	105.9	102.1	111.7	119.4
147.5°	105.9	109.8	102.1	109.8	113.6
150°	107.8	111.7	102.1	107.8	109.8
152.5°	109.8	115.5	105.9	105.9	107.8
155°	109.8	117.5	109.8	105.9	105.9
157.5°	111.7	117.5	111.7	105.9	105.9
160°	111.7	119.4	115.5	109.8	107.8
162.5°	113.6	119.4	119.4	113.6	111.7
165°	113.6	117.5	121.3	117.5	113.6
167.5°	115.5	117.5	121.3	119.4	115.5
170°	115.5	117.5	119.4	119.4	115.5
172.5°	115.5	117.5	119.4	117.5	115.5
175°	115.5	115.5	117.5	115.5	111.7
177.5°	115.5	115.5	115.5	113.6	111.7
180°	113.6	113.6	113.6	113.6	113.6

(END OF REPORT)