

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-LD5-11-W-FLUPL-UNV-L840-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-LD5-11-W-FLUPL-UNV-L840-CD1-U
Description: Metalux 4' ILED WITH FROST LENS WITH UPL DISTRIBUTION

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

Summary

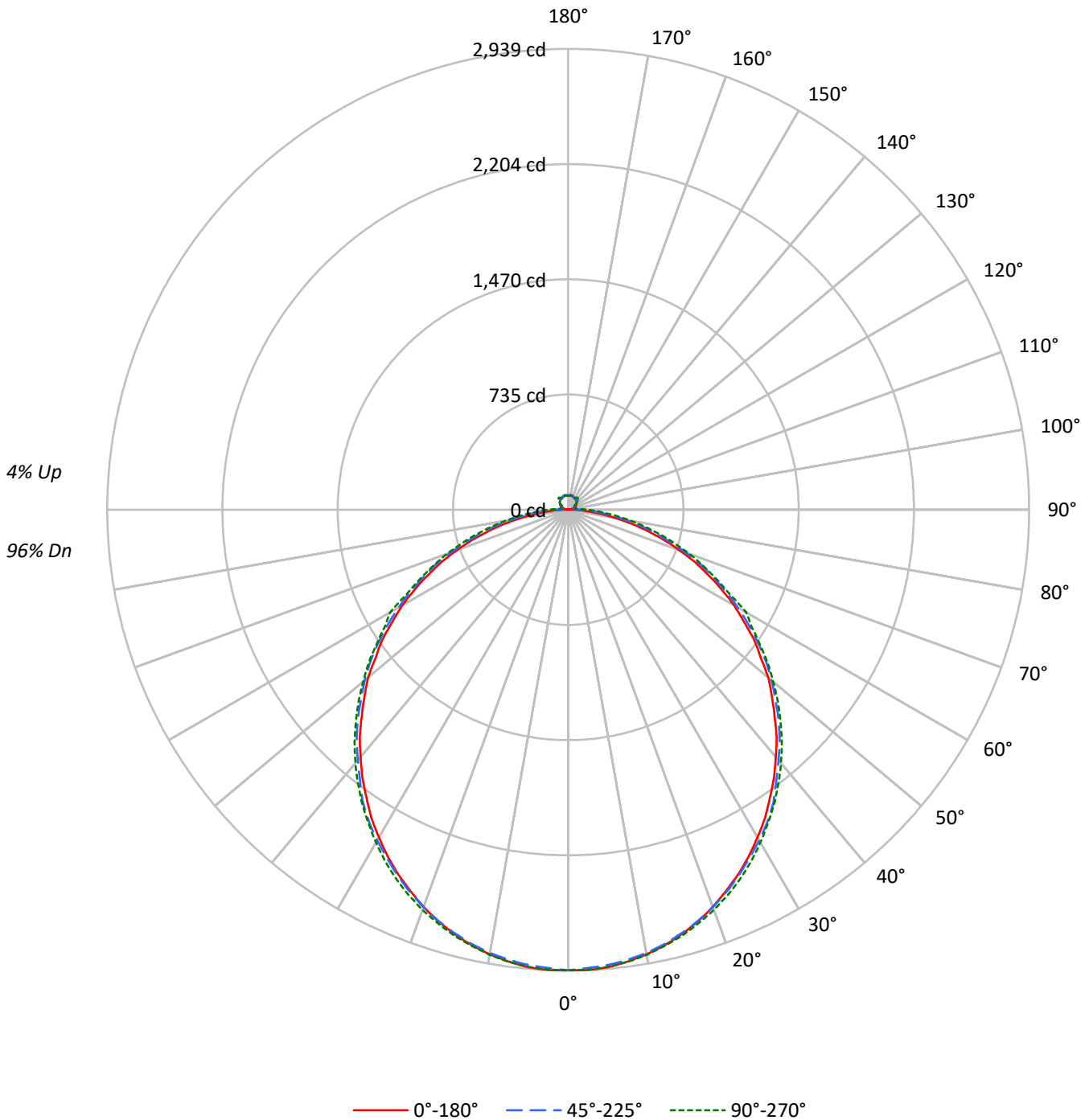
Lumens per Lamp: N/A
Luminaire Lumens: 8670.0 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 83.9
Input Voltage (V):
Input Current (A_{in}): 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°	8623	8623	8623
5°	8610	8518	8543
10°	8546	8416	8431
15°	8459	8287	8301
20°	8345	8145	8159
25°	8212	7984	8004
30°	8063	7828	7816
35°	7899	7664	7623
40°	7727	7405	7409
45°	7538	7195	7165
50°	7383	6944	6894
55°	7153	6648	6598
60°	6879	6295	6479
65°	6505	5880	5854
70°	6045	5394	5412
75°	5426	4790	4853
80°	4569	4028	4224
85°	3466	3146	3509



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.6	3.2
10°-20°	791.0	9.1
20°-30°	1188.5	13.7
30°-40°	1421.9	16.4
40°-50°	1461.9	16.9
50°-60°	1316.6	15.2
60°-70°	1011.8	11.7
70°-80°	602.4	6.9
80°-90°	218.3	2.5
90°-100°	47.0	0.5
100°-110°	39.1	0.5
110°-120°	46.1	0.5
120°-130°	57.0	0.7
130°-140°	62.3	0.7
140°-150°	53.5	0.6
150°-160°	40.2	0.5
160°-170°	26.1	0.3
170°-180°	8.8	0.1
0°-30°	2257.0	26.0
0°-40°	3678.9	42.4
0°-60°	6457.4	74.5
0°-90°	8289.9	95.6
90°-120°	132.2	1.5
90°-150°	305.0	3.5
90°-180°	380.0	4.4
0°-180°	8670.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2937	2937	2937	2937	2937	
5°	2928	2927	2915	2925	2927	278
15°	2802	2804	2796	2808	2811	790
25°	2565	2570	2574	2592	2597	1181
35°	2243	2270	2281	2285	2290	1404
45°	1861	1881	1898	1916	1914	1438
55°	1447	1454	1475	1487	1490	1289
65°	987	996	1019	1038	1040	978
75°	523	538	572	604	602	555
85°	132	158	195	224	234	145
90°	3	40	79	108	117	10
95°	11	26	38	55	61	11
105°	32	27	35	56	50	33
115°	50	56	40	41	41	50
125°	64	64	73	59	52	57
135°	74	73	84	88	87	58
145°	82	84	81	88	94	52
155°	87	93	87	84	84	40
165°	90	93	96	93	90	25
175°	91	91	93	91	88	9
180°	90	90	90	90	90	



TEST NUMBER: P#

CATALOG NUMBER: 4ILED-LD5-11-W-FLUPL-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2937.4	2937.4	2937.4	2937.4	2937.4
2.5°	2938.9	2937.4	2925.2	2934.4	2935.9
5°	2928.3	2926.8	2914.6	2925.2	2926.8
7.5°	2907.0	2907.0	2894.8	2907.0	2908.5
10°	2879.6	2879.6	2870.5	2881.2	2882.7
12.5°	2844.7	2846.2	2837.1	2849.2	2849.2
15°	2802.1	2803.6	2796.0	2808.2	2811.2
17.5°	2753.4	2753.4	2750.4	2764.1	2765.6
20°	2695.7	2703.3	2697.2	2712.4	2715.4
22.5°	2630.3	2637.9	2637.9	2654.6	2659.2
25°	2564.9	2569.5	2574.0	2592.3	2596.8
27.5°	2491.9	2501.1	2502.6	2522.3	2526.9
30°	2412.9	2428.1	2435.7	2447.8	2450.9
32.5°	2333.8	2353.6	2362.7	2368.8	2370.3
35°	2242.6	2270.0	2280.6	2285.2	2289.7
37.5°	2154.4	2177.2	2180.3	2197.0	2201.5
40°	2058.6	2086.0	2086.0	2105.8	2110.3
42.5°	1967.4	1973.5	1996.3	2010.0	2016.1
45°	1861.0	1880.7	1897.5	1915.7	1914.2
47.5°	1760.6	1786.5	1791.0	1807.8	1812.3
50°	1664.8	1683.1	1692.2	1705.9	1705.9
52.5°	1546.2	1570.6	1590.3	1597.9	1602.5
55°	1447.4	1453.5	1474.8	1487.0	1490.0
57.5°	1327.3	1342.5	1362.3	1377.5	1385.1
60°	1222.4	1231.5	1248.2	1269.5	1312.1
62.5°	1103.8	1114.5	1135.7	1199.6	1155.5
65°	986.7	995.9	1018.7	1038.4	1040.0
67.5°	875.8	884.9	916.8	922.9	927.4
70°	752.6	764.8	792.1	811.9	819.5
72.5°	640.1	650.7	678.1	700.9	708.5
75°	523.0	538.2	571.7	603.6	602.1
77.5°	412.0	439.4	466.8	492.6	500.2
80°	308.6	329.9	366.4	393.8	404.4
82.5°	215.9	240.2	276.7	304.1	314.7
85°	132.3	158.1	194.6	223.5	234.1
87.5°	63.9	89.7	129.2	158.1	170.3
90°	3.0	39.5	79.1	107.9	117.1
92.5°	6.1	22.8	51.7	74.5	82.1
95°	10.6	25.8	38.0	54.7	60.8
97.5°	15.2	22.8	33.4	44.1	48.7
100°	21.3	22.8	38.0	39.5	42.6
102.5°	25.8	24.3	36.5	39.5	39.5
105°	31.9	27.4	35.0	56.3	50.2
107.5°	36.5	38.0	33.4	39.5	42.6
110°	41.1	44.1	36.5	42.6	42.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	45.6	50.2	39.5	39.5	42.6
115°	50.2	56.3	39.5	41.1	41.1
117.5°	54.7	57.8	47.1	44.1	44.1
120°	57.8	59.3	59.3	44.1	47.1
122.5°	60.8	62.3	66.9	48.7	47.1
125°	63.9	63.9	73.0	59.3	51.7
127.5°	66.9	66.9	77.5	69.9	62.3
130°	69.9	66.9	82.1	76.0	73.0
132.5°	73.0	69.9	83.6	82.1	79.1
135°	74.5	73.0	83.6	88.2	86.7
137.5°	77.5	76.0	80.6	92.7	91.2
140°	79.1	79.1	80.6	92.7	95.8
142.5°	80.6	80.6	80.6	91.2	95.8
145°	82.1	83.6	80.6	88.2	94.3
147.5°	83.6	86.7	80.6	86.7	89.7
150°	85.1	88.2	80.6	85.1	86.7
152.5°	86.7	91.2	83.6	83.6	85.1
155°	86.7	92.7	86.7	83.6	83.6
157.5°	88.2	92.7	88.2	83.6	83.6
160°	88.2	94.3	91.2	86.7	85.1
162.5°	89.7	94.3	94.3	89.7	88.2
165°	89.7	92.7	95.8	92.7	89.7
167.5°	91.2	92.7	95.8	94.3	91.2
170°	91.2	92.7	94.3	94.3	91.2
172.5°	91.2	92.7	94.3	92.7	91.2
175°	91.2	91.2	92.7	91.2	88.2
177.5°	91.2	91.2	91.2	89.7	88.2
180°	89.7	89.7	89.7	89.7	89.7

(END OF REPORT)