

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: P229387

Luminaire Tested: **24ALNG-LD5-80-UNV-L840-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229387  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36066)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24ALNG-LD5-80-UNV-L840-CD1-U  
Description: METALUX 2X4 ARCLINE LED TROFFER WITH CURVED LENS  
Light Source: (252)3500K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7992.0 lumens  
Efficiency: N/A  
Efficacy: 122.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

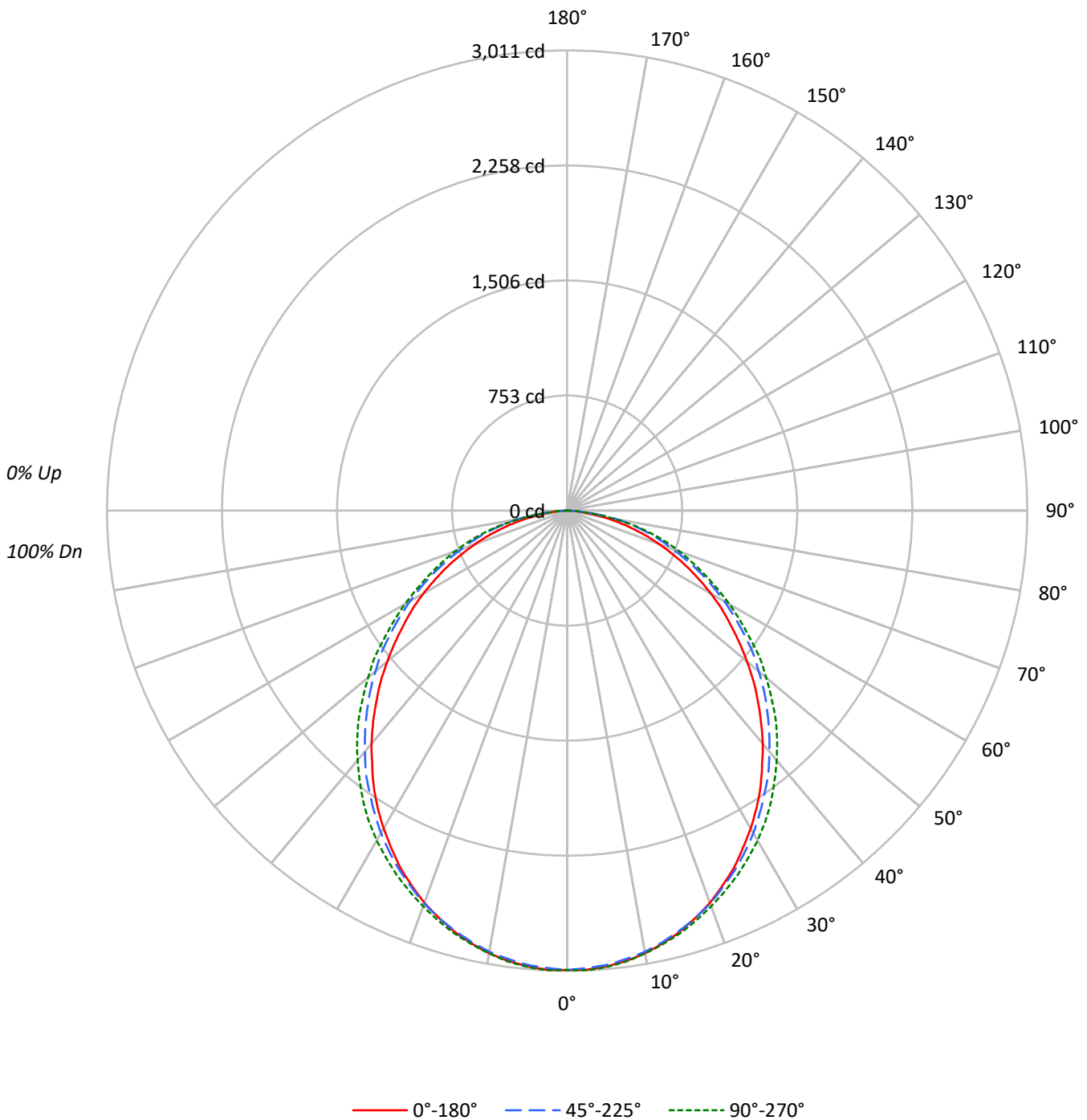
Input Watts (W): 65.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	54	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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

	0°	45°	90°
0°	4605	4605	4605
5°	4602	4588	4609
10°	4576	4558	4576
15°	4521	4511	4539
20°	4452	4460	4492
25°	4362	4388	4452
30°	4247	4310	4408
35°	4126	4213	4349
40°	3982	4115	4266
45°	3825	4012	4180
50°	3658	3901	4049
55°	3490	3780	3905
60°	3325	3638	3753
65°	3123	3477	3597
70°	2867	3294	3502
75°	2517	3159	3330
80°	2032	2950	2794
85°	1441	1947	1557



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	283.8	3.6
10°-20°	804.4	10.1
20°-30°	1198.6	15.0
30°-40°	1414.1	17.7
40°-50°	1427.6	17.9
50°-60°	1253.8	15.7
60°-70°	935.1	11.7
70°-80°	544.6	6.8
80°-90°	130.1	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2286.8	28.6
0°-40°	3700.8	46.3
0°-60°	6382.2	79.9
0°-90°	7992.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7992.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3006	3006	3006	3006	3006	
5°	2993	2991	2984	2993	2998	284
15°	2851	2849	2845	2858	2862	804
25°	2581	2583	2596	2625	2634	1187
35°	2207	2220	2253	2306	2326	1378
45°	1766	1792	1852	1908	1930	1363
55°	1307	1347	1416	1460	1462	1171
65°	862	897	959	988	992	851
75°	425	476	534	560	563	453
85°	82	120	111	93	89	102
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3006.4	3006.4	3006.4	3006.4	3006.4
2.5°	3006.4	3004.1	2995.3	3004.1	3010.8
5°	2993.1	2990.9	2984.2	2993.1	2997.5
7.5°	2970.9	2968.7	2959.8	2973.1	2975.3
10°	2942.1	2937.7	2931.0	2939.9	2942.1
12.5°	2900.0	2897.8	2891.2	2902.2	2904.5
15°	2851.3	2849.1	2844.6	2857.9	2862.4
17.5°	2793.7	2795.9	2793.7	2809.2	2811.4
20°	2731.6	2733.9	2736.1	2753.8	2756.0
22.5°	2656.3	2658.5	2665.2	2689.6	2696.2
25°	2581.0	2583.2	2596.5	2625.3	2634.2
27.5°	2490.2	2499.0	2519.0	2554.4	2563.3
30°	2401.5	2410.4	2437.0	2479.1	2492.4
32.5°	2306.3	2315.1	2346.2	2392.7	2412.6
35°	2206.6	2219.9	2253.1	2306.3	2326.2
37.5°	2095.8	2120.2	2164.5	2215.4	2228.7
40°	1991.7	2009.4	2058.2	2120.2	2133.5
42.5°	1878.7	1903.1	1956.2	2018.3	2033.8
45°	1765.7	1792.3	1852.1	1907.5	1929.7
47.5°	1654.9	1683.7	1748.0	1805.6	1812.2
50°	1535.3	1570.8	1637.2	1692.6	1699.2
52.5°	1420.1	1462.2	1533.1	1577.4	1592.9
55°	1307.1	1347.0	1415.7	1460.0	1462.2
57.5°	1200.8	1234.0	1300.5	1338.1	1344.8
60°	1085.6	1118.8	1187.5	1218.5	1225.1
62.5°	970.4	1005.8	1072.3	1103.3	1107.7
65°	861.8	897.3	959.3	988.1	992.5
67.5°	746.6	790.9	844.1	881.7	886.2
70°	640.3	684.6	735.5	773.2	782.1
72.5°	533.9	584.9	635.8	664.6	675.7
75°	425.4	476.3	533.9	560.5	562.7
77.5°	325.7	374.4	434.2	449.7	443.1
80°	230.4	283.6	334.5	332.3	316.8
82.5°	146.2	197.2	217.1	203.8	195.0
85°	82.0	119.6	110.8	93.0	88.6
87.5°	33.2	35.4	26.6	17.7	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)