

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: P229360

Luminaire Tested: **24ALNG-LD5-42-UNV-L830-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229360  
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-LD5-42-UNV-L830-CD1-U  
Description: METALUX 2X4 ARCLINE LED TROFFER WITH CURVED LENS  
Light Source: (252)3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4093.0 lumens  
Efficiency: N/A  
Efficacy: 133.8 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

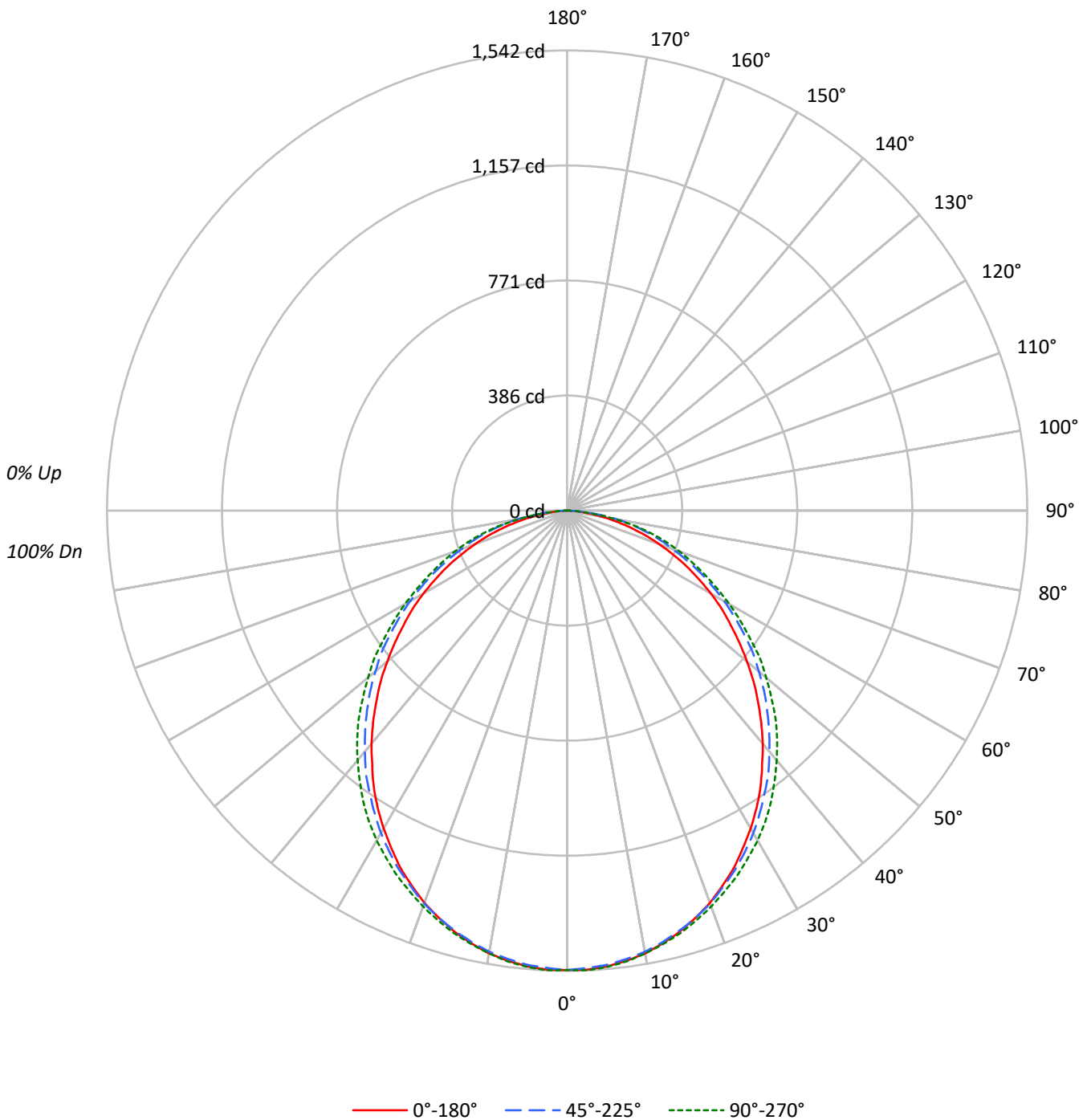
Input Watts (W): 30.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	2358	2358	2358
5°	2357	2350	2360
10°	2343	2335	2343
15°	2315	2310	2324
20°	2280	2284	2301
25°	2234	2247	2280
30°	2175	2207	2257
35°	2113	2158	2227
40°	2039	2108	2185
45°	1959	2054	2140
50°	1874	1998	2073
55°	1788	1936	2000
60°	1703	1863	1922
65°	1600	1781	1842
70°	1468	1687	1794
75°	1289	1618	1705
80°	1041	1511	1431
85°	738	996	798



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.3	3.6
10°-20°	412.0	10.1
20°-30°	613.8	15.0
30°-40°	724.2	17.7
40°-50°	731.1	17.9
50°-60°	642.1	15.7
60°-70°	478.9	11.7
70°-80°	278.9	6.8
80°-90°	66.6	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°	1171.1	28.6
0°-40°	1895.3	46.3
0°-60°	3268.6	79.9
0°-90°	4093.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4093.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1540	1540	1540	1540	1540	
5°	1533	1532	1528	1533	1535	145
15°	1460	1459	1457	1464	1466	412
25°	1322	1323	1330	1344	1349	608
35°	1130	1137	1154	1181	1191	706
45°	904	918	948	977	988	698
55°	669	690	725	748	749	600
65°	441	460	491	506	508	436
75°	218	244	273	287	288	232
85°	42	61	57	48	45	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1539.7	1539.7	1539.7	1539.7	1539.7
2.5°	1539.7	1538.5	1534.0	1538.5	1541.9
5°	1532.9	1531.7	1528.3	1532.9	1535.1
7.5°	1521.5	1520.4	1515.8	1522.7	1523.8
10°	1506.8	1504.5	1501.1	1505.6	1506.8
12.5°	1485.2	1484.1	1480.7	1486.3	1487.5
15°	1460.2	1459.1	1456.8	1463.7	1465.9
17.5°	1430.7	1431.9	1430.7	1438.7	1439.8
20°	1399.0	1400.1	1401.2	1410.3	1411.5
22.5°	1360.4	1361.5	1364.9	1377.4	1380.8
25°	1321.8	1323.0	1329.8	1344.5	1349.1
27.5°	1275.3	1279.8	1290.1	1308.2	1312.7
30°	1229.9	1234.5	1248.1	1269.6	1276.4
32.5°	1181.1	1185.7	1201.6	1225.4	1235.6
35°	1130.1	1136.9	1153.9	1181.1	1191.3
37.5°	1073.3	1085.8	1108.5	1134.6	1141.4
40°	1020.0	1029.1	1054.1	1085.8	1092.6
42.5°	962.2	974.6	1001.9	1033.6	1041.6
45°	904.3	917.9	948.5	976.9	988.2
47.5°	847.6	862.3	895.2	924.7	928.1
50°	786.3	804.4	838.5	866.8	870.2
52.5°	727.3	748.8	785.2	807.8	815.8
55°	669.4	689.8	725.0	747.7	748.8
57.5°	615.0	632.0	666.0	685.3	688.7
60°	556.0	573.0	608.2	624.0	627.4
62.5°	497.0	515.1	549.2	565.0	567.3
65°	441.4	459.5	491.3	506.0	508.3
67.5°	382.4	405.1	432.3	451.6	453.8
70°	327.9	350.6	376.7	396.0	400.5
72.5°	273.4	299.5	325.6	340.4	346.1
75°	217.8	243.9	273.4	287.1	288.2
77.5°	166.8	191.7	222.4	230.3	226.9
80°	118.0	145.2	171.3	170.2	162.2
82.5°	74.9	101.0	111.2	104.4	99.8
85°	42.0	61.3	56.7	47.7	45.4
87.5°	17.0	18.2	13.6	9.1	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)