

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: P229421

Luminaire Tested: **24ALNG-LD5-31-UNV-L830-CD1-SVPD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229421  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36086)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24ALNG-LD5-31-UNV-L830-CD1-SVPD1-U  
Description: METALUX 2X4 ARCLINE LED TROFFER WITH CURVED LENS AND SENSOR  
Light Source: (252)3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2913.0 lumens  
Efficiency: N/A  
Efficacy: 131.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.33  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

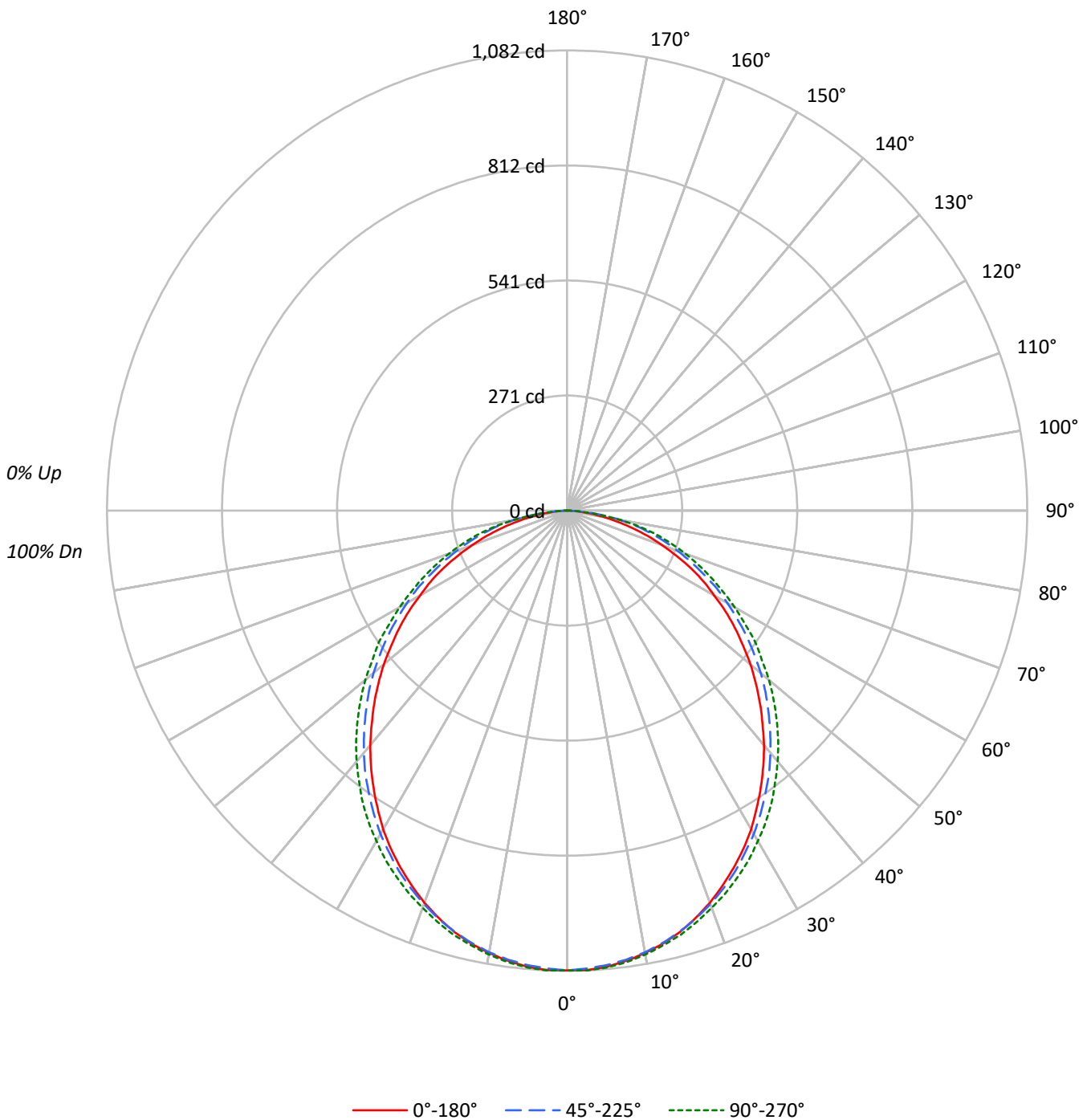
Input Watts (W): 22.13  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	75	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	64	75	69	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	50
5	76	63	54	48	74	62	54	47	60	53	47	58	51	46	56	50	46	44
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25

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

	0°	45°	90°
0°	1656	1656	1656
5°	1655	1649	1658
10°	1643	1640	1649
15°	1626	1625	1637
20°	1600	1604	1620
25°	1566	1581	1605
30°	1530	1552	1586
35°	1485	1519	1567
40°	1440	1486	1540
45°	1389	1450	1510
50°	1341	1416	1476
55°	1287	1374	1444
60°	1224	1333	1394
65°	1166	1281	1357
70°	1066	1234	1320
75°	932	1194	1284
80°	779	1118	1110
85°	540	793	708



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.1	3.5
10°-20°	289.6	9.9
20°-30°	431.7	14.8
30°-40°	509.7	17.5
40°-50°	516.6	17.7
50°-60°	458.2	15.7
60°-70°	347.5	11.9
70°-80°	205.8	7.1
80°-90°	51.9	1.8
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°	823.4	28.3
0°-40°	1333.0	45.8
0°-60°	2307.8	79.2
0°-90°	2913.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2913.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1081	1081	1081	1081	1081	
5°	1076	1076	1073	1076	1078	102
15°	1026	1026	1025	1029	1032	289
25°	927	929	935	947	950	427
35°	794	801	812	831	838	497
45°	641	650	669	690	697	495
55°	482	492	515	534	541	431
65°	322	331	353	369	374	317
75°	158	179	202	212	217	169
85°	31	46	45	41	40	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1081.2	1081.2	1081.2	1081.2	1081.2
2.5°	1081.2	1080.3	1077.4	1081.2	1082.2
5°	1076.4	1075.5	1072.6	1076.4	1078.4
7.5°	1067.8	1067.8	1064.9	1068.8	1070.7
10°	1056.3	1056.3	1054.4	1058.2	1060.1
12.5°	1042.8	1042.8	1040.9	1045.7	1046.7
15°	1025.5	1025.5	1024.6	1029.4	1032.3
17.5°	1004.4	1004.4	1006.3	1013.1	1014.0
20°	981.4	982.3	984.3	992.9	993.9
22.5°	954.5	957.4	961.2	970.8	973.7
25°	926.6	928.6	935.3	946.8	949.7
27.5°	896.9	899.8	906.5	920.9	925.7
30°	865.2	867.1	877.7	892.1	896.9
32.5°	829.7	834.5	846.0	863.3	869.0
35°	794.1	800.9	812.4	830.6	838.3
37.5°	757.6	763.4	779.7	798.0	803.7
40°	720.2	726.0	743.2	763.4	770.1
42.5°	679.9	688.5	706.7	726.9	734.6
45°	641.4	650.1	669.3	689.5	697.1
47.5°	602.1	610.7	632.8	650.1	658.7
50°	562.7	573.3	594.4	612.6	619.4
52.5°	521.4	532.0	554.1	572.3	577.1
55°	482.0	491.6	514.7	533.9	540.6
57.5°	441.7	452.3	474.4	493.6	495.5
60°	399.5	411.0	435.0	450.4	455.2
62.5°	362.0	371.6	397.5	410.0	412.9
65°	321.7	331.3	353.4	368.7	374.5
67.5°	278.5	291.9	315.0	330.3	334.2
70°	238.1	254.5	275.6	291.9	294.8
72.5°	197.8	215.1	239.1	252.5	255.4
75°	157.5	178.6	201.7	212.2	217.0
77.5°	122.0	142.1	165.2	174.8	173.8
80°	88.3	108.5	126.8	126.8	125.8
82.5°	56.7	76.8	86.4	83.5	81.6
85°	30.7	46.1	45.1	41.3	40.3
87.5°	12.5	15.4	11.5	8.6	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)