

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: P229441

Luminaire Tested: **24ALNG-LD5-31-UNV-L840-CD1-SVPD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229441  
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-L840-CD1-SVPD1-U  
Description: METALUX 2X4 ARCLINE LED TROFFER WITH CURVED LENS AND SENSOR  
Light Source: (252)4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3034.0 lumens  
Efficiency: N/A  
Efficacy: 137.1 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

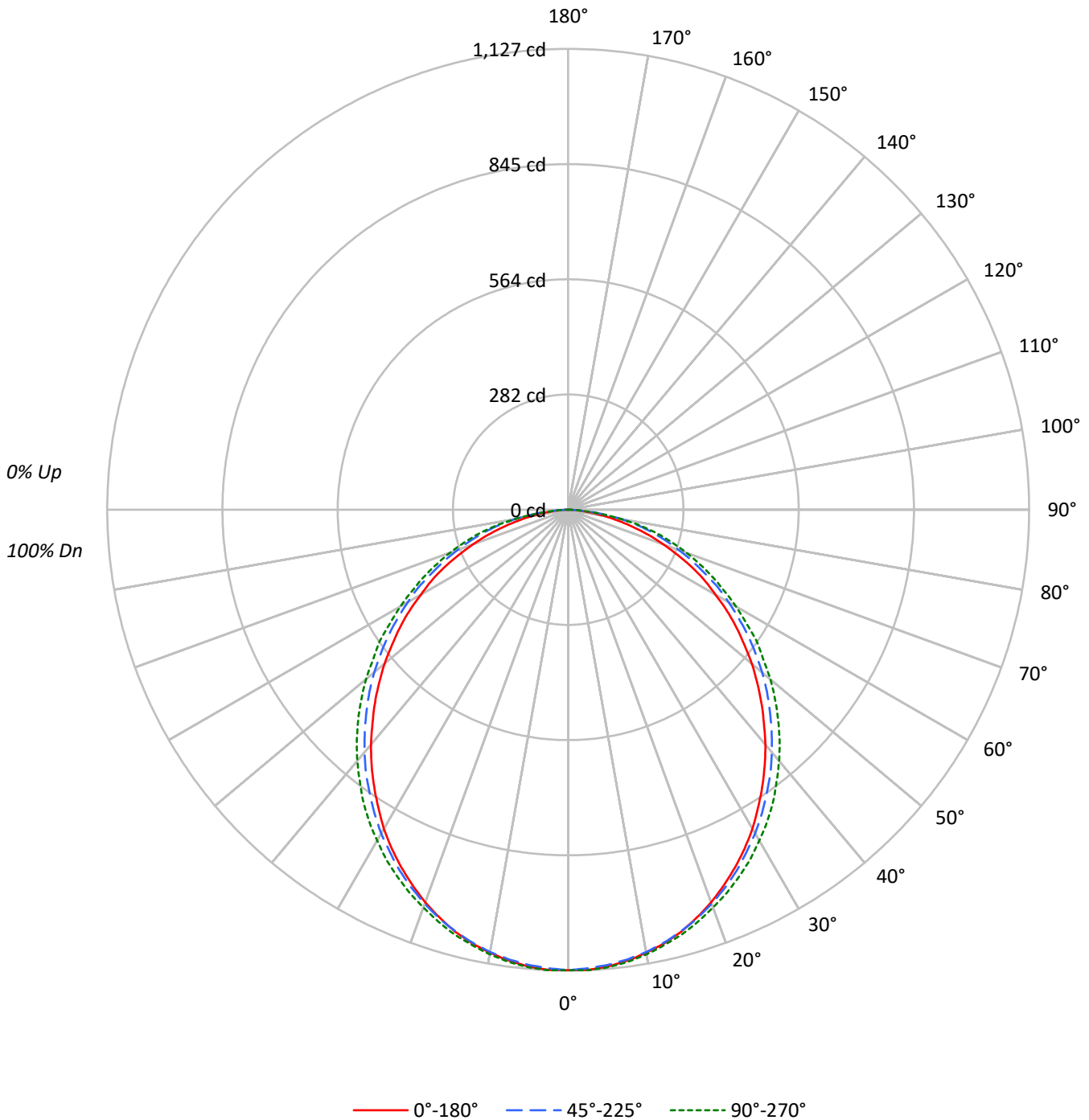
Input Watts (W): 22.13  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1725	1725	1725
5°	1724	1718	1727
10°	1711	1708	1717
15°	1694	1692	1705
20°	1666	1671	1687
25°	1631	1646	1672
30°	1594	1617	1652
35°	1546	1582	1632
40°	1500	1548	1604
45°	1447	1510	1573
50°	1397	1475	1537
55°	1341	1432	1504
60°	1275	1388	1452
65°	1214	1334	1414
70°	1111	1285	1375
75°	971	1243	1337
80°	811	1164	1155
85°	562	826	738



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.3	3.5
10°-20°	301.6	9.9
20°-30°	449.6	14.8
30°-40°	530.8	17.5
40°-50°	538.1	17.7
50°-60°	477.2	15.7
60°-70°	361.9	11.9
70°-80°	214.3	7.1
80°-90°	54.1	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°	857.5	28.3
0°-40°	1388.4	45.8
0°-60°	2403.6	79.2
0°-90°	3034.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3034.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1126	1126	1126	1126	1126	
5°	1121	1120	1117	1121	1123	106
15°	1068	1068	1067	1072	1075	301
25°	965	967	974	986	989	444
35°	827	834	846	865	873	517
45°	668	677	697	718	726	515
55°	502	512	536	556	563	449
65°	335	345	368	384	390	330
75°	164	186	210	221	226	176
85°	32	48	47	43	42	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1126.2	1126.2	1126.2	1126.2	1126.2
2.5°	1126.2	1125.2	1122.2	1126.2	1127.2
5°	1121.2	1120.2	1117.2	1121.2	1123.2
7.5°	1112.2	1112.2	1109.2	1113.2	1115.2
10°	1100.2	1100.2	1098.2	1102.2	1104.2
12.5°	1086.2	1086.2	1084.2	1089.2	1090.2
15°	1068.1	1068.1	1067.1	1072.1	1075.1
17.5°	1046.1	1046.1	1048.1	1055.1	1056.1
20°	1022.1	1023.1	1025.1	1034.1	1035.1
22.5°	994.1	997.1	1001.1	1011.1	1014.1
25°	965.1	967.1	974.1	986.1	989.1
27.5°	934.1	937.1	944.1	959.1	964.1
30°	901.1	903.1	914.1	929.1	934.1
32.5°	864.1	869.1	881.1	899.1	905.1
35°	827.1	834.1	846.1	865.1	873.1
37.5°	789.1	795.1	812.1	831.1	837.1
40°	750.1	756.1	774.1	795.1	802.1
42.5°	708.1	717.1	736.1	757.1	765.1
45°	668.1	677.1	697.1	718.1	726.1
47.5°	627.1	636.1	659.1	677.1	686.1
50°	586.1	597.1	619.1	638.1	645.1
52.5°	543.1	554.1	577.1	596.1	601.1
55°	502.1	512.1	536.1	556.1	563.1
57.5°	460.1	471.1	494.1	514.1	516.1
60°	416.1	428.1	453.1	469.1	474.1
62.5°	377.1	387.1	414.1	427.1	430.1
65°	335.0	345.0	368.1	384.1	390.1
67.5°	290.0	304.0	328.0	344.0	348.0
70°	248.0	265.0	287.0	304.0	307.0
72.5°	206.0	224.0	249.0	263.0	266.0
75°	164.0	186.0	210.0	221.0	226.0
77.5°	127.0	148.0	172.0	182.0	181.0
80°	92.0	113.0	132.0	132.0	131.0
82.5°	59.0	80.0	90.0	87.0	85.0
85°	32.0	48.0	47.0	43.0	42.0
87.5°	13.0	16.0	12.0	9.0	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)