

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: P178998

Luminaire Tested: **22ALNG-LD4-31-UNV-EL14W-L830-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P178998  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34296)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22ALNG-LD4-31-UNV-EL14W-L830-CD1-U  
Description: METALUX ARCLINE 2X2 TROFFER LUMINAIRE  
  
Light Source: EATON LED 3000K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

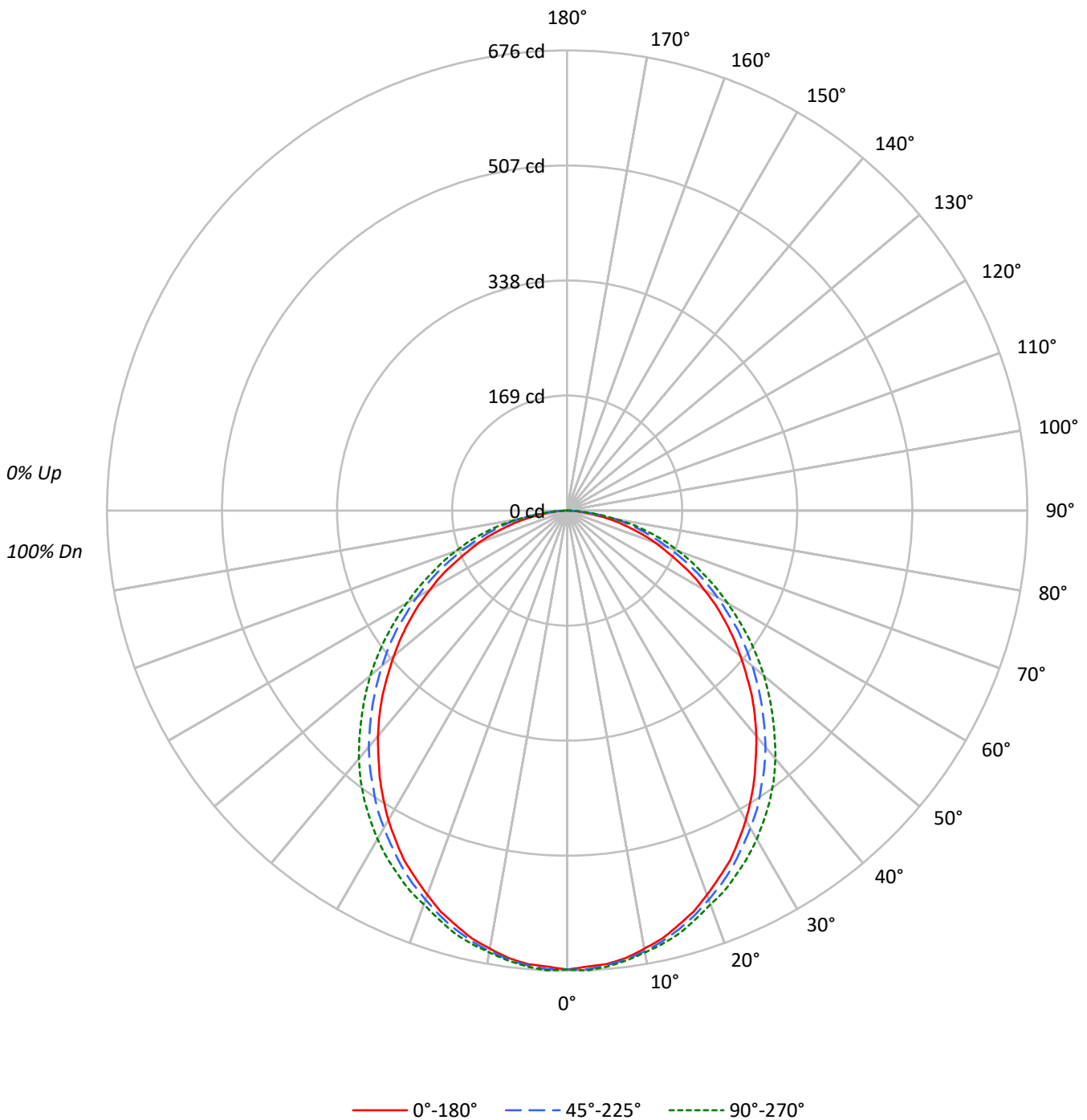
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1754.0 lumens  
Efficiency: N/A  
Efficacy: 137.0 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.23 / 1.31  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.27')  
CIE Type: Direct  
  
Input Watts (W): 12.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	59	52	47	57	51	46	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	1815	1815	1815
5°	1785	1781	1795
10°	1744	1737	1759
15°	1696	1687	1726
20°	1639	1628	1680
25°	1582	1570	1646
30°	1513	1506	1606
35°	1439	1439	1558
40°	1364	1372	1501
45°	1285	1291	1431
50°	1198	1210	1361
55°	1114	1127	1277
60°	1013	1031	1186
65°	904	929	1091
70°	791	808	997
75°	639	687	874
80°	464	533	646
85°	252	256	298



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.6	3.6
10°-20°	179.3	10.2
20°-30°	265.6	15.1
30°-40°	311.6	17.8
40°-50°	311.9	17.8
50°-60°	272.1	15.5
60°-70°	202.1	11.5
70°-80°	117.9	6.7
80°-90°	30.0	1.7
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°	508.4	29.0
0°-40°	820.1	46.8
0°-60°	1404.1	80.1
0°-90°	1754.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1754.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	669	669	670	672	672	63
15°	631	633	636	640	642	178
25°	567	568	576	586	589	260
35°	480	484	497	514	519	300
45°	383	387	404	419	427	295
55°	283	289	306	319	325	253
65°	183	191	206	215	221	182
75°	92	100	113	123	126	99
85°	21	25	26	25	25	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	674.3	674.3	674.3	674.3	674.3
2.5°	670.5	672.4	674.3	674.3	676.2
5°	668.6	668.6	670.5	672.4	672.4
7.5°	662.9	662.9	664.8	666.7	666.7
10°	653.5	653.5	657.3	659.2	659.2
12.5°	644.1	646.0	647.8	651.6	651.6
15°	630.8	632.7	636.5	640.3	642.2
17.5°	617.6	617.6	623.3	627.1	629.0
20°	600.6	602.5	608.2	613.8	615.7
22.5°	583.6	585.5	593.1	600.6	604.4
25°	566.6	568.5	576.1	585.5	589.3
27.5°	545.8	549.6	557.2	568.5	574.2
30°	525.1	528.8	538.3	551.5	557.2
32.5°	502.4	508.1	519.4	532.6	538.3
35°	479.7	483.5	496.7	513.7	519.4
37.5°	455.2	460.9	476.0	491.1	498.6
40°	432.5	436.3	453.3	468.4	476.0
42.5°	408.0	411.7	428.7	443.9	451.4
45°	383.4	387.2	404.2	419.3	426.9
47.5°	357.0	362.6	379.6	396.6	402.3
50°	332.4	340.0	355.1	370.2	377.7
52.5°	307.9	313.5	330.5	345.6	351.3
55°	283.3	289.0	306.0	319.2	324.9
57.5°	258.8	264.4	279.5	292.8	298.4
60°	232.3	238.0	255.0	266.3	272.0
62.5°	209.7	215.3	230.4	239.9	247.4
65°	183.2	190.8	205.9	215.3	221.0
67.5°	158.7	168.1	181.3	192.7	198.3
70°	137.9	145.4	156.8	168.1	173.8
72.5°	115.2	122.8	134.1	145.4	151.1
75°	92.5	100.1	113.3	122.8	126.5
77.5°	71.8	79.3	92.5	100.1	102.0
80°	52.9	60.4	71.8	73.7	73.7
82.5°	35.9	41.6	47.2	47.2	47.2
85°	20.8	24.6	26.4	24.6	24.6
87.5°	9.4	9.4	7.6	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)