

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: P475343

Luminaire Tested: **14CZ2-29-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475343  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-29-UNV-L830-CD1-U  
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

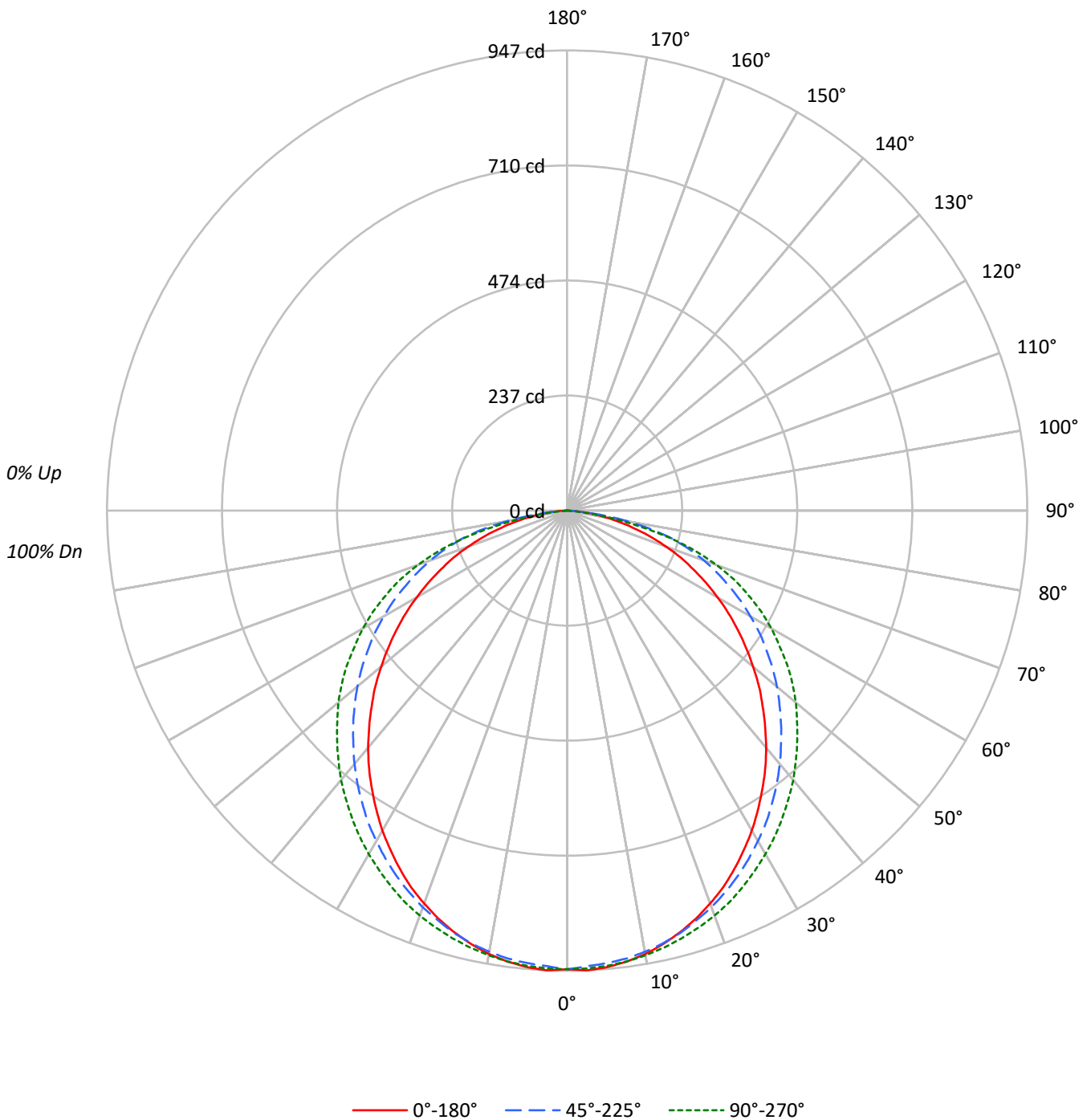
Lumens per Lamp: N/A  
Luminaire Lumens: 2721.2 lumens  
Efficiency: N/A  
Efficacy: 127.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.29 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.4  
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	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	29	55	42	34	28	41	33	28	40	33	28	39	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

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

	0°	45°	90°
0°	2540	2540	2540
5°	2548	2525	2540
10°	2532	2520	2540
15°	2503	2507	2539
20°	2464	2488	2540
25°	2417	2465	2538
30°	2362	2440	2537
35°	2300	2416	2537
40°	2238	2392	2543
45°	2165	2370	2548
50°	2092	2359	2573
55°	2012	2348	2594
60°	1924	2345	2613
65°	1826	2339	2618
70°	1700	2353	2568
75°	1508	2323	2303
80°	1265	1943	1568
85°	886	760	182



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.3	3.3
10°-20°	254.9	9.4
20°-30°	384.1	14.1
30°-40°	461.1	16.9
40°-50°	480.0	17.6
50°-60°	443.5	16.3
60°-70°	355.2	13.1
70°-80°	212.5	7.8
80°-90°	40.5	1.5
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°	728.3	26.8
0°-40°	1189.4	43.7
0°-60°	2112.9	77.6
0°-90°	2721.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2721.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	944	944	944	944	944	
5°	943	941	935	942	940	89
15°	898	898	900	911	911	253
25°	814	819	830	851	855	375
35°	700	711	735	764	772	438
45°	569	586	623	660	670	439
55°	429	452	500	539	553	384
65°	287	316	367	403	411	284
75°	145	181	223	226	222	155
85°	29	42	25	10	6	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	944.0	944.0	944.0	944.0	944.0
2.5°	947.2	944.5	938.6	944.5	943.1
5°	943.1	940.8	934.9	941.7	940.4
7.5°	936.3	934.4	929.9	937.2	935.8
10°	926.7	925.3	922.1	930.3	929.4
12.5°	913.5	913.9	912.1	922.1	921.2
15°	898.4	898.4	899.8	911.2	911.2
17.5°	880.7	881.6	884.3	899.4	899.8
20°	860.6	862.9	868.8	884.3	887.0
22.5°	839.2	841.9	850.1	868.4	872.5
25°	814.1	818.7	830.1	851.0	854.7
27.5°	787.7	794.5	808.6	831.4	836.0
30°	760.3	767.6	785.4	810.0	816.4
32.5°	730.7	740.3	761.7	787.7	795.0
35°	700.2	710.6	735.3	764.4	772.2
37.5°	669.6	681.0	708.8	740.3	748.0
40°	637.2	650.5	681.0	713.4	723.9
42.5°	603.1	617.6	651.4	686.9	697.0
45°	568.9	585.7	622.7	659.6	669.6
47.5°	535.6	552.9	593.0	631.3	641.8
50°	499.6	519.6	563.4	601.2	614.5
52.5°	464.5	486.8	532.9	571.2	584.4
55°	428.9	452.2	500.5	539.2	552.9
57.5°	394.3	418.9	470.0	508.2	517.8
60°	357.4	384.3	435.8	474.5	485.5
62.5°	322.7	350.5	402.5	439.9	450.4
65°	286.7	316.3	367.4	403.4	411.2
67.5°	253.0	282.6	334.1	365.1	372.9
70°	216.1	248.9	299.0	325.5	326.4
72.5°	181.0	214.2	263.0	279.9	277.6
75°	145.0	181.4	223.4	226.5	221.5
77.5°	112.6	149.1	177.8	167.7	157.7
80°	81.6	117.1	125.4	109.9	101.2
82.5°	53.8	82.0	75.7	54.2	46.5
85°	28.7	41.9	24.6	10.0	5.9
87.5°	10.9	7.3	2.7	2.3	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)