

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: P296468

Luminaire Tested: **22RLN-LD5-31-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P296468  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-085-11)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22RLN-LD5-31-UNV-L93050-W2A1-U-3500K  
Description: RLN LED 2x2 TUNABLE WHITE TROFFER  
WITH STANDARD LENS  
Light Source: (252) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2673.0 lumens  
Efficiency: N/A  
Efficacy: 107.2 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.23 / 1.3  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

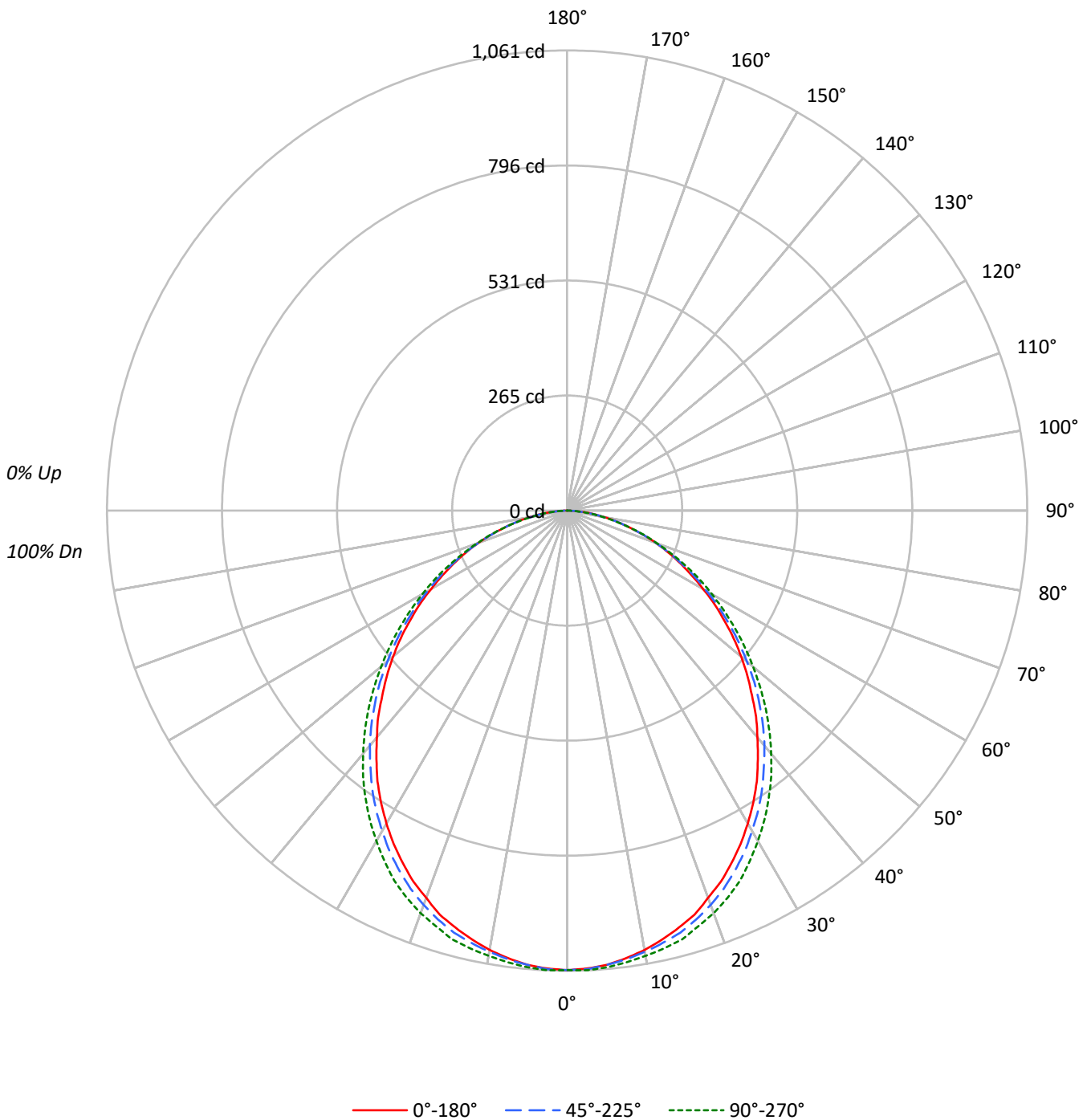
Input Watts (W): 24.924  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	105	101	97	107	102	99	95	98	95	92	94	92	90	91	89	87	85																												
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	71																												
3	91	81	73	67	89	79	72	66	77	70	65	74	68	64	71	67	63	61																												
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55	64	59	54	52																												
5	77	65	56	49	75	64	55	49	61	54	49	59	53	48	58	52	48	46																												
6	71	58	50	43	70	57	49	43	56	48	43	54	47	42	52	47	42	40																												
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	38	36																												
8	62	49	40	34	60	48	40	34	47	39	34	45	39	34	44	38	34	32																												
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29																												
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26																												

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

	0°	45°	90°
0°	2851	2851	2851
5°	2840	2840	2855
10°	2811	2822	2848
15°	2773	2807	2851
20°	2721	2771	2828
25°	2663	2719	2798
30°	2588	2650	2733
35°	2504	2574	2662
40°	2397	2486	2570
45°	2293	2384	2465
50°	2193	2265	2343
55°	2076	2138	2213
60°	1951	2001	2073
65°	1833	1867	1926
70°	1709	1709	1740
75°	1524	1524	1524
80°	1342	1302	1302
85°	1071	1028	948



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.9	3.7
10°-20°	284.1	10.6
20°-30°	422.0	15.8
30°-40°	489.8	18.3
40°-50°	482.2	18.0
50°-60°	408.1	15.3
60°-70°	291.1	10.9
70°-80°	156.4	5.9
80°-90°	39.4	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°	806.0	30.2
0°-40°	1295.8	48.5
0°-60°	2186.1	81.8
0°-90°	2673.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2673.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1060	1060	1060	1060	1060	
5°	1052	1052	1052	1056	1057	100
15°	996	998	1008	1017	1024	281
25°	897	900	916	933	942	413
35°	762	764	784	802	810	476
45°	602	606	626	641	648	466
55°	442	444	456	468	472	396
65°	288	288	293	298	302	286
75°	147	145	147	147	147	157
85°	35	33	33	31	31	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1059.5	1059.5	1059.5	1059.5	1059.5
2.5°	1056.9	1056.9	1058.2	1059.5	1060.9
5°	1051.5	1051.5	1051.5	1055.5	1056.9
7.5°	1040.9	1042.2	1043.5	1047.5	1050.2
10°	1028.9	1030.2	1032.9	1039.5	1042.2
12.5°	1012.9	1016.9	1020.9	1030.2	1034.2
15°	995.5	998.2	1007.5	1016.9	1023.5
17.5°	976.9	978.2	988.9	1002.2	1004.9
20°	950.2	954.2	967.6	980.9	987.6
22.5°	926.2	928.9	943.6	960.9	966.2
25°	896.9	899.6	915.6	932.9	942.2
27.5°	866.3	868.9	886.3	904.9	911.6
30°	833.0	835.6	852.9	872.9	879.6
32.5°	798.3	801.0	819.6	837.0	846.3
35°	762.3	763.7	783.6	802.3	810.3
37.5°	722.3	726.3	745.0	763.7	773.0
40°	682.4	686.4	707.7	725.0	731.7
42.5°	645.0	650.4	667.7	683.7	690.4
45°	602.4	606.4	626.4	641.0	647.7
47.5°	563.7	567.7	585.1	599.7	603.7
50°	523.8	526.4	541.1	554.4	559.7
52.5°	483.8	485.1	498.4	511.8	515.8
55°	442.5	443.8	455.8	467.8	471.8
57.5°	403.8	403.8	414.5	423.8	427.8
60°	362.5	362.5	371.8	381.2	385.2
62.5°	323.9	323.9	333.2	339.8	345.2
65°	287.9	287.9	293.2	298.5	302.5
67.5°	253.2	249.2	254.6	261.2	259.9
70°	217.2	213.2	217.2	219.9	221.2
72.5°	181.3	178.6	181.3	182.6	185.2
75°	146.6	145.3	146.6	146.6	146.6
77.5°	117.3	113.3	115.9	114.6	113.3
80°	86.6	85.3	84.0	82.6	84.0
82.5°	60.0	58.6	58.6	56.0	56.0
85°	34.7	33.3	33.3	30.7	30.7
87.5°	13.3	13.3	12.0	12.0	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)