

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: P296470

Luminaire Tested: **22RLN-LD5-31-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P296470  
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-4500K  
Description: RLN LED 2x2 TUNABLE WHITE TROFFER  
WITH STANDARD LENS  
Light Source: (252) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2937.0 lumens  
Efficiency: N/A  
Efficacy: 115.3 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

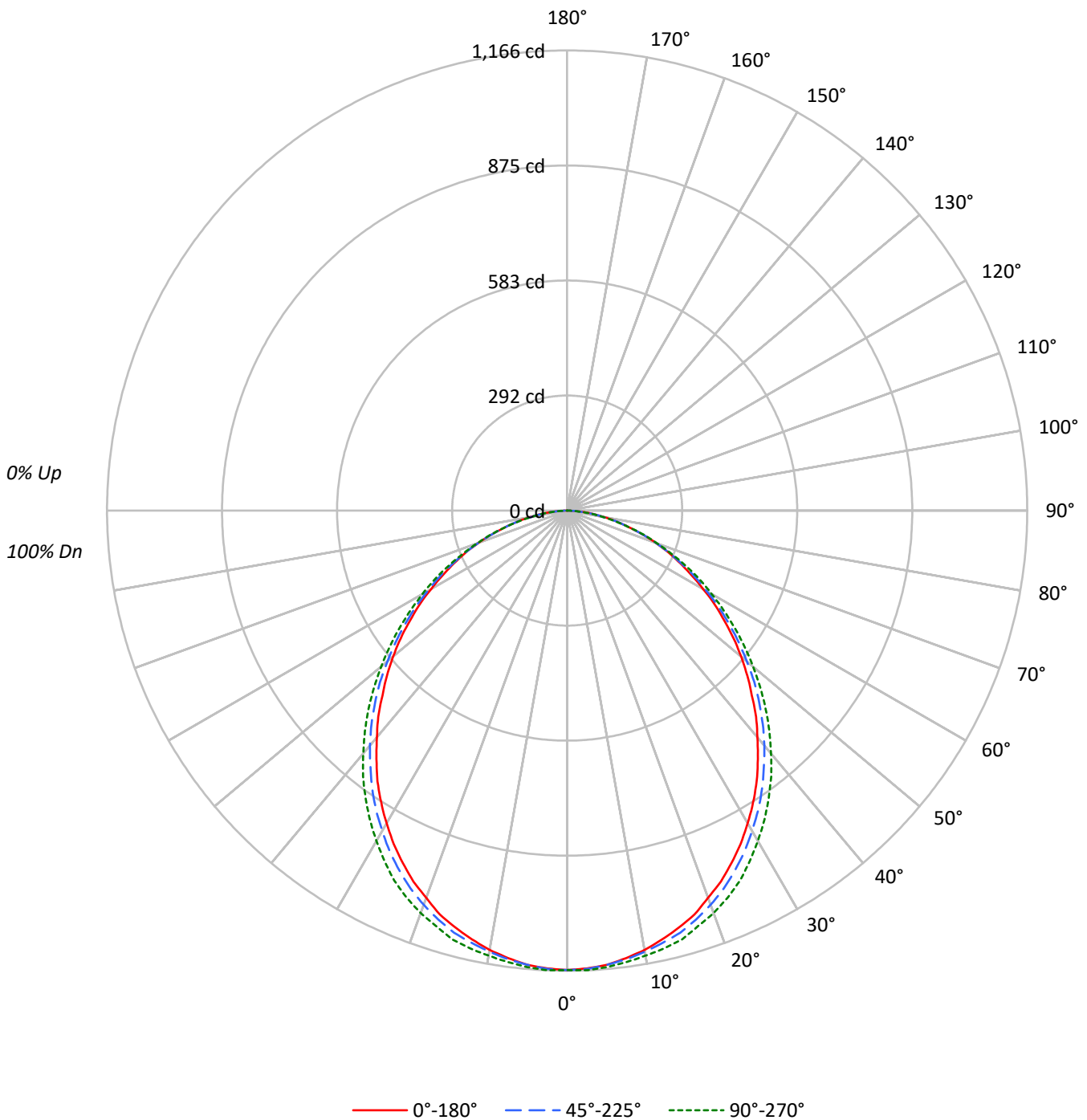
Input Watts (W): 25.482  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3133	3133	3133
5°	3121	3121	3137
10°	3089	3101	3129
15°	3048	3084	3133
20°	2990	3044	3107
25°	2926	2987	3074
30°	2844	2912	3003
35°	2752	2828	2925
40°	2634	2732	2824
45°	2519	2619	2708
50°	2409	2489	2575
55°	2281	2350	2432
60°	2144	2199	2278
65°	2014	2052	2117
70°	1878	1878	1913
75°	1675	1675	1675
80°	1475	1430	1430
85°	1176	1130	1041



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.8	3.7
10°-20°	312.1	10.6
20°-30°	463.7	15.8
30°-40°	538.1	18.3
40°-50°	529.9	18.0
50°-60°	448.4	15.3
60°-70°	319.8	10.9
70°-80°	171.9	5.9
80°-90°	43.3	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°	885.6	30.2
0°-40°	1423.8	48.5
0°-60°	2402.1	81.8
0°-90°	2937.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2937.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1164	1164	1164	1164	1164	
5°	1155	1155	1155	1160	1161	109
15°	1094	1097	1107	1117	1125	308
25°	986	988	1006	1025	1035	454
35°	838	839	861	882	890	523
45°	662	666	688	704	712	512
55°	486	488	501	514	518	435
65°	316	316	322	328	332	314
75°	161	160	161	161	161	173
85°	38	37	37	34	34	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1164.2	1164.2	1164.2	1164.2	1164.2
2.5°	1161.2	1161.2	1162.7	1164.2	1165.6
5°	1155.4	1155.4	1155.4	1159.8	1161.2
7.5°	1143.7	1145.1	1146.6	1151.0	1153.9
10°	1130.5	1131.9	1134.9	1142.2	1145.1
12.5°	1112.9	1117.3	1121.7	1131.9	1136.3
15°	1093.9	1096.8	1107.1	1117.3	1124.6
17.5°	1073.4	1074.8	1086.6	1101.2	1104.1
20°	1044.1	1048.5	1063.1	1077.8	1085.1
22.5°	1017.7	1020.7	1036.8	1055.8	1061.7
25°	985.5	988.4	1006.0	1025.0	1035.3
27.5°	951.8	954.8	973.8	994.3	1001.6
30°	915.2	918.2	937.2	959.2	966.5
32.5°	877.1	880.1	900.6	919.6	929.9
35°	837.6	839.1	861.0	881.5	890.3
37.5°	793.7	798.1	818.6	839.1	849.3
40°	749.8	754.1	777.6	796.6	803.9
42.5°	708.7	714.6	733.6	751.2	758.5
45°	661.9	666.3	688.2	704.4	711.7
47.5°	619.4	623.8	642.9	659.0	663.4
50°	575.5	578.4	594.5	609.2	615.0
52.5°	531.6	533.0	547.7	562.3	566.7
55°	486.2	487.6	500.8	514.0	518.4
57.5°	443.7	443.7	455.4	465.7	470.1
60°	398.3	398.3	408.6	418.8	423.2
62.5°	355.8	355.8	366.1	373.4	379.3
65°	316.3	316.3	322.2	328.0	332.4
67.5°	278.2	273.8	279.7	287.0	285.5
70°	238.7	234.3	238.7	241.6	243.1
72.5°	199.2	196.2	199.2	200.6	203.5
75°	161.1	159.6	161.1	161.1	161.1
77.5°	128.9	124.5	127.4	125.9	124.5
80°	95.2	93.7	92.3	90.8	92.3
82.5°	65.9	64.4	64.4	61.5	61.5
85°	38.1	36.6	36.6	33.7	33.7
87.5°	14.6	14.6	13.2	13.2	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)