

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: P296386

Luminaire Tested: **22RLN-LD5-31-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P296386  
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-L83050-W2A1-U-4500K  
Description: RLN LED 2x2 TUNABLE WHITE TROFFER  
WITH STANDARD LENS  
Light Source: (252) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3334.0 lumens  
Efficiency: N/A  
Efficacy: 129.9 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

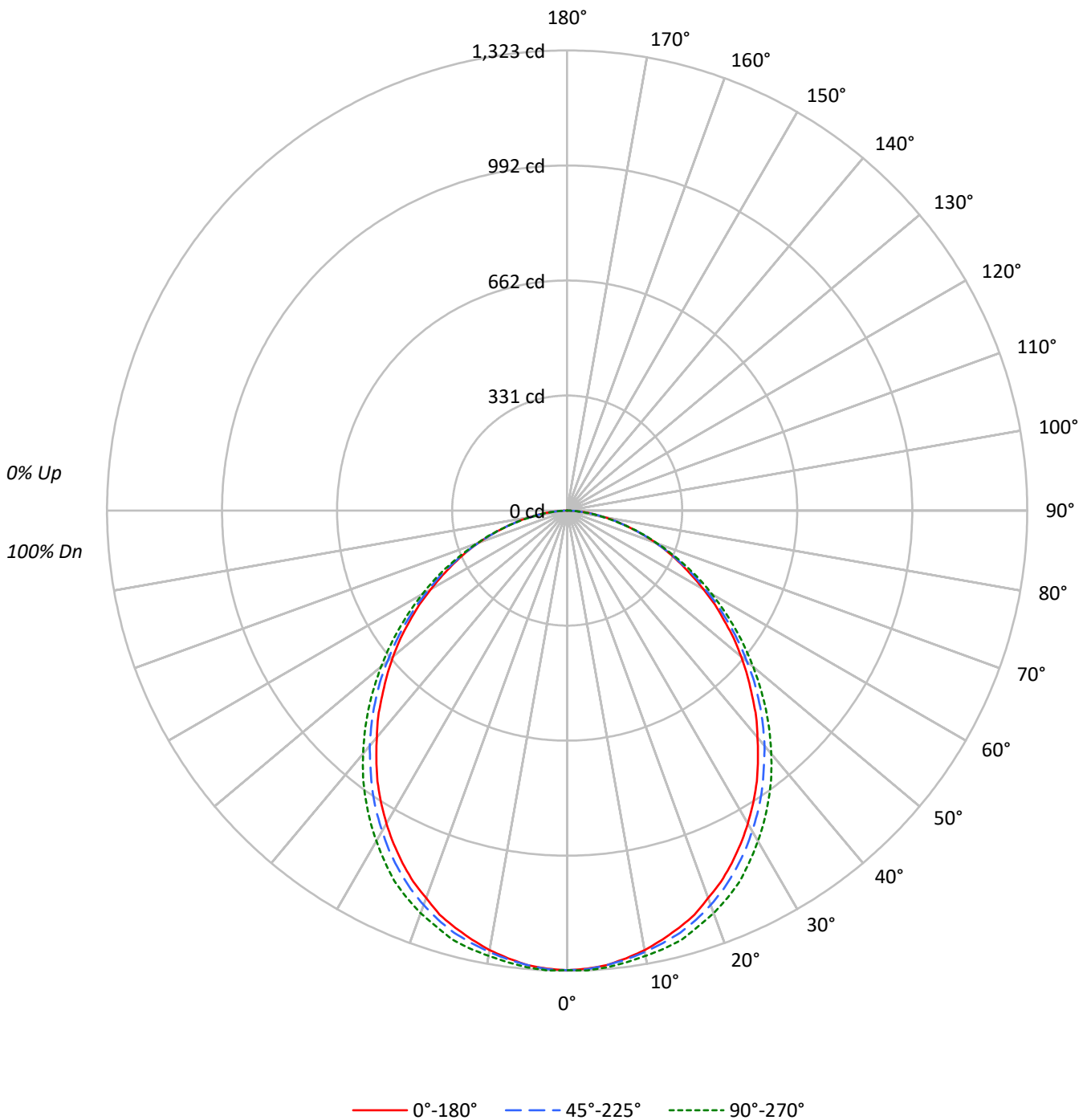
Input Watts (W): 25.668  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3556	3556	3556
5°	3543	3543	3561
10°	3507	3520	3552
15°	3459	3501	3556
20°	3394	3456	3527
25°	3322	3391	3489
30°	3228	3306	3409
35°	3123	3211	3320
40°	2990	3101	3206
45°	2860	2973	3075
50°	2735	2825	2923
55°	2589	2667	2761
60°	2433	2496	2585
65°	2287	2329	2402
70°	2132	2132	2171
75°	1902	1902	1902
80°	1674	1623	1623
85°	1334	1284	1179



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.6	3.7
10°-20°	354.3	10.6
20°-30°	526.4	15.8
30°-40°	610.9	18.3
40°-50°	601.5	18.0
50°-60°	509.0	15.3
60°-70°	363.0	10.9
70°-80°	195.1	5.9
80°-90°	49.2	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°	1005.3	30.2
0°-40°	1616.2	48.5
0°-60°	2726.7	81.8
0°-90°	3334.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3334.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1322	1322	1322	1322	1322	
5°	1312	1312	1312	1316	1318	124
15°	1242	1245	1257	1268	1277	350
25°	1119	1122	1142	1164	1175	515
35°	951	952	977	1001	1011	593
45°	751	756	781	800	808	581
55°	552	554	568	584	588	494
65°	359	359	366	372	377	356
75°	183	181	183	183	183	196
85°	43	42	42	38	38	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1321.5	1321.5	1321.5	1321.5	1321.5
2.5°	1318.2	1318.2	1319.9	1321.5	1323.2
5°	1311.6	1311.6	1311.6	1316.5	1318.2
7.5°	1298.3	1299.9	1301.6	1306.6	1309.9
10°	1283.3	1285.0	1288.3	1296.6	1299.9
12.5°	1263.3	1268.3	1273.3	1285.0	1289.9
15°	1241.7	1245.1	1256.7	1268.3	1276.6
17.5°	1218.5	1220.1	1233.4	1250.0	1253.4
20°	1185.2	1190.2	1206.8	1223.4	1231.8
22.5°	1155.3	1158.6	1176.9	1198.5	1205.2
25°	1118.7	1122.0	1142.0	1163.6	1175.2
27.5°	1080.5	1083.8	1105.4	1128.7	1137.0
30°	1038.9	1042.3	1063.9	1088.8	1097.1
32.5°	995.7	999.0	1022.3	1043.9	1055.6
35°	950.8	952.5	977.4	1000.7	1010.7
37.5°	901.0	906.0	929.2	952.5	964.1
40°	851.1	856.1	882.7	904.3	912.6
42.5°	804.6	811.2	832.8	852.8	861.1
45°	751.4	756.3	781.3	799.6	807.9
47.5°	703.2	708.1	729.7	748.0	753.0
50°	653.3	656.6	674.9	691.5	698.2
52.5°	603.4	605.1	621.7	638.3	643.3
55°	551.9	553.5	568.5	583.5	588.5
57.5°	503.7	503.7	517.0	528.6	533.6
60°	452.1	452.1	463.8	475.4	480.4
62.5°	403.9	403.9	415.6	423.9	430.5
65°	359.1	359.1	365.7	372.4	377.3
67.5°	315.8	310.8	317.5	325.8	324.1
70°	271.0	266.0	271.0	274.3	275.9
72.5°	226.1	222.7	226.1	227.7	231.1
75°	182.9	181.2	182.9	182.9	182.9
77.5°	146.3	141.3	144.6	143.0	141.3
80°	108.0	106.4	104.7	103.1	104.7
82.5°	74.8	73.1	73.1	69.8	69.8
85°	43.2	41.6	41.6	38.2	38.2
87.5°	16.6	16.6	15.0	15.0	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)