

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: P296424

Luminaire Tested: **22RLN-LD5-31-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P296424  
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-L82765-W2A1-U-4000K  
Description: RLN LED 2x2 TUNABLE WHITE TROFFER  
WITH STANDARD LENS  
Light Source: (252) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3139.0 lumens  
Efficiency: N/A  
Efficacy: 126.9 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

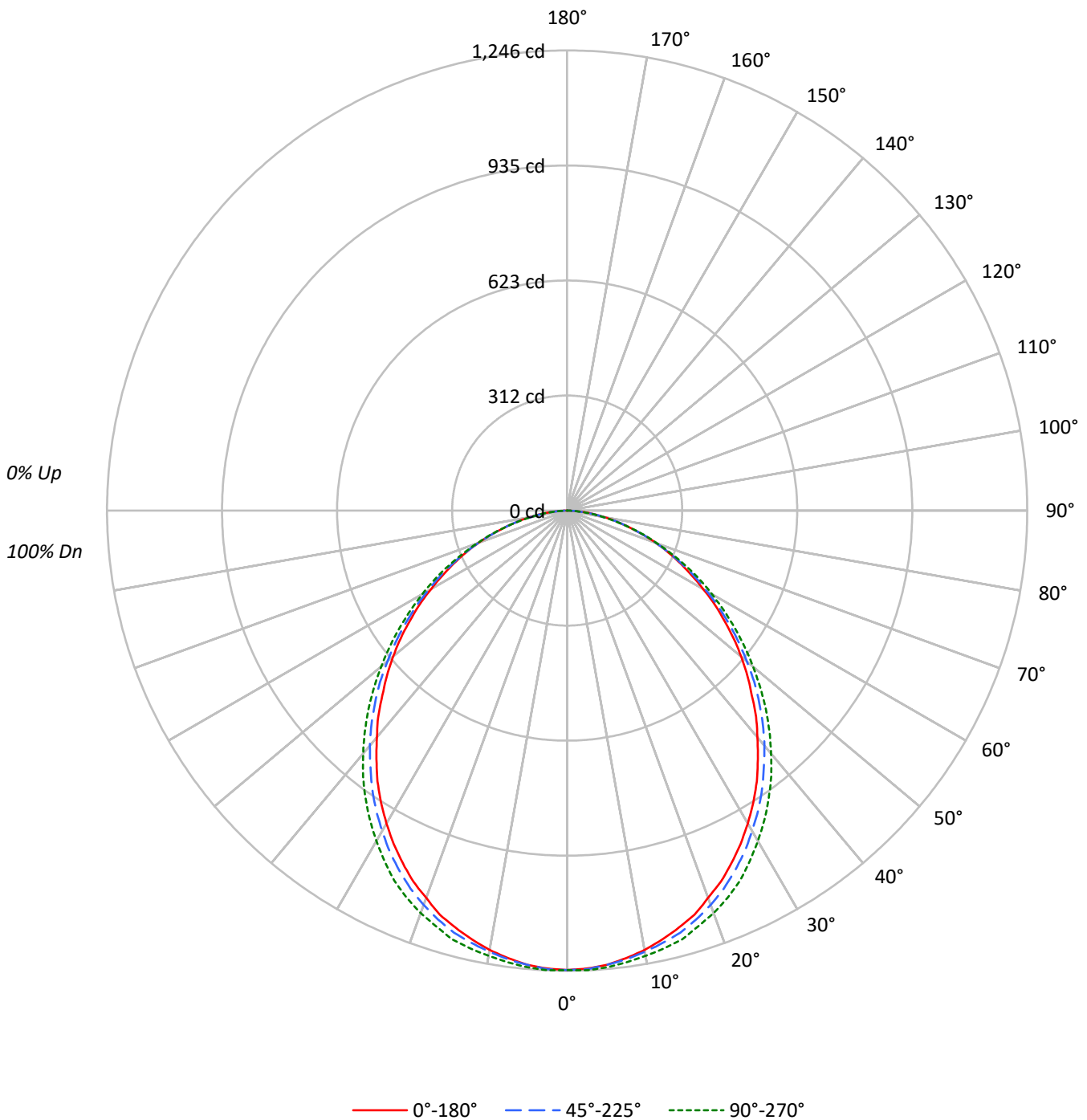
Input Watts (W): 24.738  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	109	105	101	97	107	102	99	95	98	95	92	94	92	90	91	89	87	85					85			
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	71					71			
3	91	81	73	67	89	79	72	66	77	70	65	74	68	64	71	67	63	61					61			
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55	64	59	54	52					52			
5	77	65	56	49	75	64	55	49	61	54	49	59	53	48	58	52	48	46					46			
6	71	58	50	43	70	57	49	43	56	48	43	54	47	42	52	47	42	40					40			
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	38	36					36			
8	62	49	40	34	60	48	40	34	47	39	34	45	39	34	44	38	34	32					32			
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29					29			
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26					26			

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

	0°	45°	90°
0°	3348	3348	3348
5°	3336	3336	3353
10°	3301	3314	3344
15°	3257	3296	3349
20°	3196	3254	3321
25°	3127	3192	3285
30°	3040	3112	3210
35°	2941	3023	3126
40°	2815	2920	3018
45°	2692	2799	2895
50°	2575	2660	2752
55°	2438	2511	2599
60°	2291	2350	2434
65°	2153	2192	2262
70°	2007	2007	2044
75°	1790	1790	1790
80°	1576	1528	1528
85°	1257	1207	1112



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.3	3.7
10°-20°	333.6	10.6
20°-30°	495.6	15.8
30°-40°	575.2	18.3
40°-50°	566.3	18.0
50°-60°	479.3	15.3
60°-70°	341.8	10.9
70°-80°	183.7	5.9
80°-90°	46.3	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°	946.5	30.2
0°-40°	1521.7	48.5
0°-60°	2567.3	81.8
0°-90°	3139.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3139.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1244	1244	1244	1244	1244	
5°	1235	1235	1235	1240	1241	117
15°	1169	1172	1183	1194	1202	330
25°	1053	1056	1075	1096	1106	485
35°	895	897	920	942	952	559
45°	707	712	736	753	761	547
55°	520	521	535	549	554	465
65°	338	338	344	351	355	335
75°	172	171	172	172	172	185
85°	41	39	39	36	36	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1244.2	1244.2	1244.2	1244.2	1244.2
2.5°	1241.1	1241.1	1242.7	1244.2	1245.8
5°	1234.8	1234.8	1234.8	1239.5	1241.1
7.5°	1222.3	1223.9	1225.5	1230.1	1233.3
10°	1208.2	1209.8	1212.9	1220.8	1223.9
12.5°	1189.5	1194.1	1198.8	1209.8	1214.5
15°	1169.1	1172.2	1183.2	1194.1	1202.0
17.5°	1147.2	1148.8	1161.3	1176.9	1180.1
20°	1115.9	1120.6	1136.2	1151.9	1159.7
22.5°	1087.7	1090.9	1108.1	1128.4	1134.7
25°	1053.3	1056.4	1075.2	1095.5	1106.5
27.5°	1017.3	1020.4	1040.8	1062.7	1070.5
30°	978.2	981.3	1001.6	1025.1	1032.9
32.5°	937.5	940.6	962.5	982.9	993.8
35°	895.2	896.8	920.3	942.2	951.6
37.5°	848.3	853.0	874.9	896.8	907.7
40°	801.3	806.0	831.1	851.4	859.2
42.5°	757.5	763.8	784.1	802.9	810.7
45°	707.4	712.1	735.6	752.8	760.6
47.5°	662.0	666.7	687.1	704.3	709.0
50°	615.1	618.2	635.4	651.1	657.3
52.5°	568.1	569.7	585.3	601.0	605.7
55°	519.6	521.2	535.3	549.3	554.0
57.5°	474.2	474.2	486.7	497.7	502.4
60°	425.7	425.7	436.7	447.6	452.3
62.5°	380.3	380.3	391.3	399.1	405.4
65°	338.1	338.1	344.3	350.6	355.3
67.5°	297.4	292.7	298.9	306.8	305.2
70°	255.1	250.4	255.1	258.2	259.8
72.5°	212.8	209.7	212.8	214.4	217.5
75°	172.2	170.6	172.2	172.2	172.2
77.5°	137.7	133.0	136.2	134.6	133.0
80°	101.7	100.2	98.6	97.0	98.6
82.5°	70.4	68.9	68.9	65.7	65.7
85°	40.7	39.1	39.1	36.0	36.0
87.5°	15.7	15.7	14.1	14.1	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)