

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: P295650

Luminaire Tested: **14RLN-LD5-31-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P295650  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1901-085-1)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14RLN-LD5-31-UNV-L92765-W2A1-U-4500K  
Description: RLN LED 1x4 TUNABLE WHITE TROFFER  
WITH STANDARD LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2827.0 lumens  
Efficiency: N/A  
Efficacy: 98.1 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.01 / 1.18  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

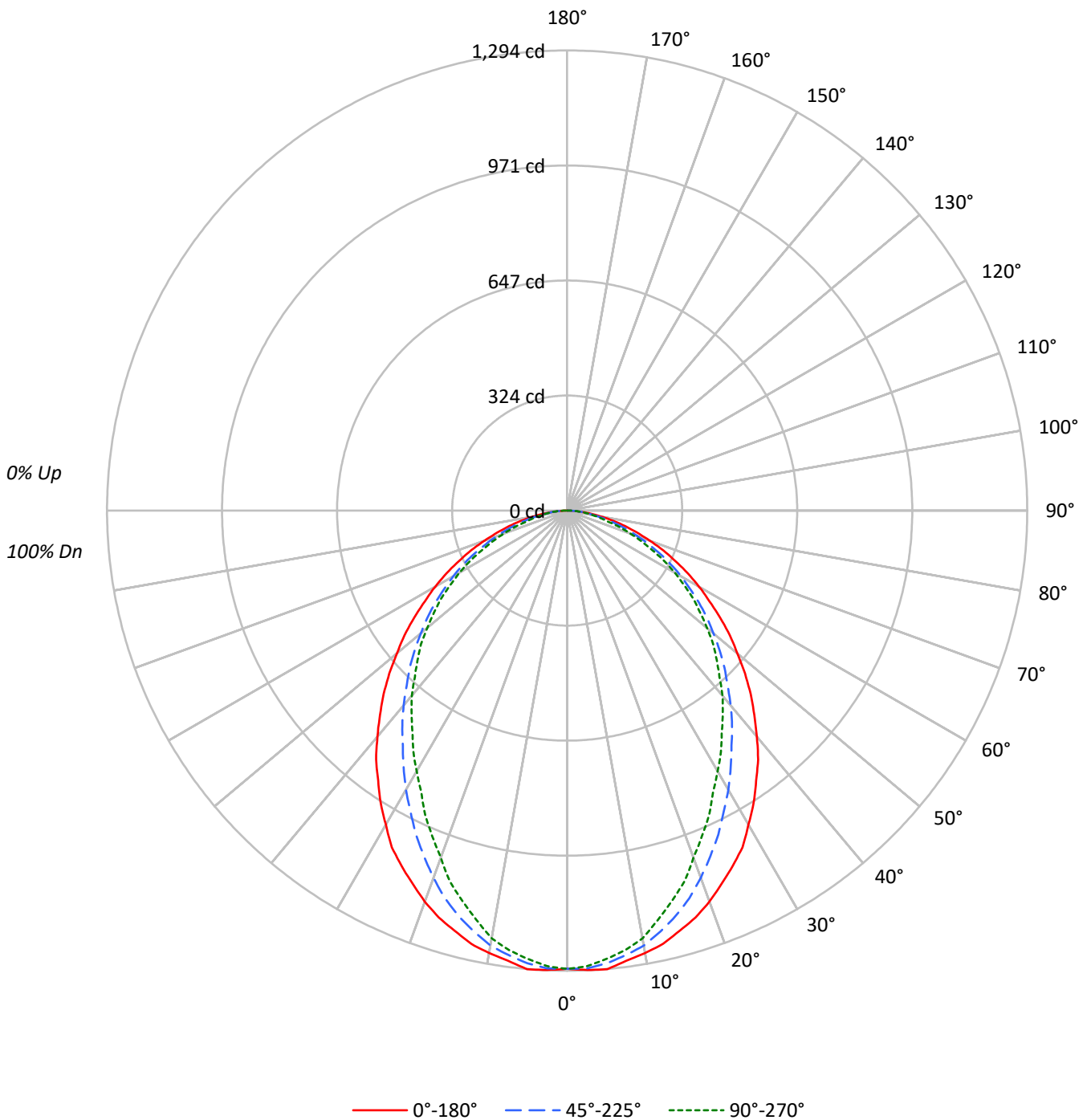
Input Watts (W): 28.83  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	85	73	65	58	82	72	64	58	69	63	57	67	61	56	65	60	56	54					54			
5	78	66	57	51	76	65	57	51	63	55	50	61	54	49	59	53	49	47					47			
6	72	60	51	45	70	59	50	45	57	50	44	55	49	44	54	48	43	41					41			
7	67	54	46	40	66	53	45	40	52	45	39	51	44	39	49	43	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33					33			
9	59	46	38	33	57	45	38	32	44	37	32	43	37	32	42	36	32	30					30			
10	55	42	35	30	54	42	35	30	41	34	29	40	34	29	39	33	29	28					28			

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

	0°	45°	90°
0°	3467	3467	3467
5°	3497	3451	3419
10°	3452	3393	3338
15°	3407	3287	3167
20°	3351	3146	2975
25°	3273	2985	2804
30°	3169	2816	2631
35°	3044	2648	2491
40°	2915	2513	2387
45°	2777	2381	2263
50°	2614	2249	2150
55°	2465	2123	2034
60°	2307	1992	1883
65°	2136	1840	1688
70°	1945	1654	1494
75°	1751	1477	1216
80°	1499	1203	1147
85°	1216	1142	1142



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.6	4.3
10°-20°	331.1	11.7
20°-30°	464.7	16.4
30°-40°	515.4	18.2
40°-50°	494.8	17.5
50°-60°	414.7	14.7
60°-70°	291.1	10.3
70°-80°	152.0	5.4
80°-90°	42.5	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°	916.5	32.4
0°-40°	1431.9	50.7
0°-60°	2341.4	82.8
0°-90°	2827.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2827.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1288	1288	1288	1288	1288	
5°	1294	1278	1278	1269	1266	122
15°	1223	1201	1180	1149	1137	345
25°	1102	1063	1005	956	944	507
35°	927	875	806	767	758	580
45°	730	674	626	602	595	562
55°	525	486	453	438	434	470
65°	336	313	289	271	265	333
75°	168	155	142	125	117	179
85°	39	37	37	37	37	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1288.4	1288.4	1288.4	1288.4	1288.4
2.5°	1293.2	1286.0	1288.4	1288.4	1282.5
5°	1294.4	1277.7	1277.7	1269.3	1265.7
7.5°	1276.5	1263.4	1261.0	1250.2	1246.6
10°	1263.4	1250.2	1241.9	1227.5	1221.6
12.5°	1247.8	1227.5	1212.0	1188.1	1178.6
15°	1222.8	1201.3	1179.8	1148.7	1136.8
17.5°	1200.1	1175.0	1142.8	1108.1	1095.0
20°	1170.2	1140.4	1098.6	1050.8	1038.9
22.5°	1135.6	1101.0	1052.0	1000.7	991.1
25°	1102.2	1062.7	1005.4	956.5	944.5
27.5°	1067.5	1019.8	954.1	901.5	889.6
30°	1019.8	970.8	906.3	855.0	846.6
32.5°	975.6	926.6	856.2	814.4	804.8
35°	926.6	875.3	806.0	766.6	758.3
37.5°	882.4	822.7	761.8	723.6	718.8
40°	829.9	776.2	715.3	686.6	679.4
42.5°	778.6	724.8	667.5	642.4	634.1
45°	729.6	673.5	625.7	601.8	594.7
47.5°	678.2	626.9	581.5	562.4	557.6
50°	624.5	579.1	537.3	519.4	513.5
52.5°	576.8	530.2	495.6	478.8	471.7
55°	525.4	486.0	452.6	438.2	433.5
57.5°	474.1	441.8	409.6	396.4	389.3
60°	428.7	396.4	370.2	354.6	349.9
62.5°	382.1	354.6	329.6	315.2	309.3
65°	335.5	312.9	289.0	271.1	265.1
67.5°	292.6	267.5	248.4	232.8	226.9
70°	247.2	229.3	210.2	195.8	189.9
72.5°	205.4	192.3	175.5	160.0	154.0
75°	168.4	155.2	142.1	125.4	117.0
77.5°	131.4	123.0	109.9	95.5	95.5
80°	96.7	91.9	77.6	75.2	74.0
82.5°	66.9	64.5	56.1	54.9	54.9
85°	39.4	37.0	37.0	37.0	37.0
87.5°	16.7	17.9	19.1	19.1	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)