

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: P295616

Luminaire Tested: **14RLN-LD5-31-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P295616  
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-L93050-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: 2914.0 lumens  
Efficiency: N/A  
Efficacy: 98.8 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

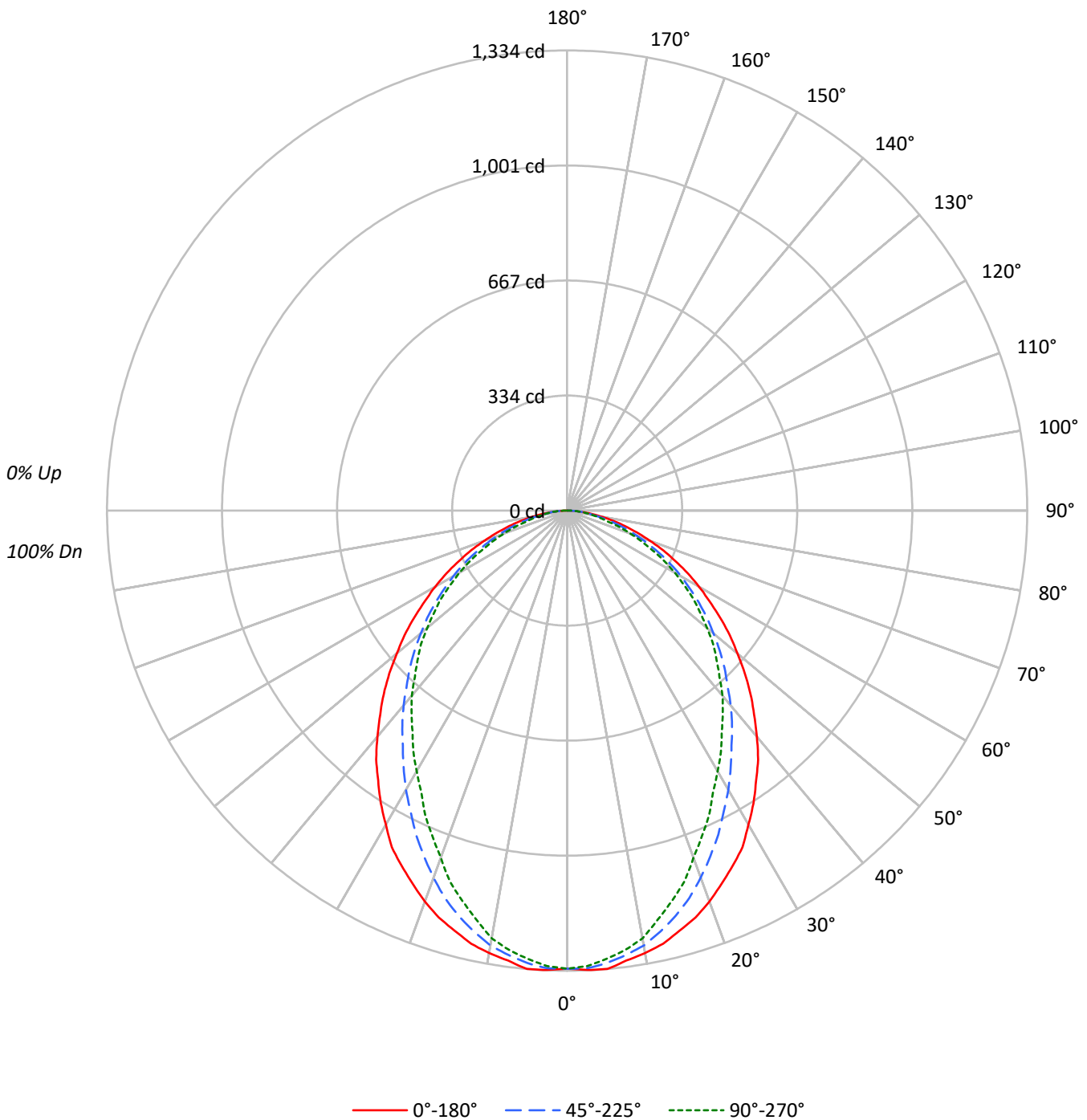
Input Watts (W): 29.481  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	3574	3574	3574
5°	3604	3558	3524
10°	3558	3498	3441
15°	3511	3388	3265
20°	3454	3243	3066
25°	3373	3077	2891
30°	3266	2903	2712
35°	3138	2729	2568
40°	3005	2590	2460
45°	2862	2455	2333
50°	2695	2319	2216
55°	2541	2189	2096
60°	2378	2054	1941
65°	2202	1897	1740
70°	2005	1704	1540
75°	1804	1523	1254
80°	1545	1240	1182
85°	1254	1179	1179



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.3	4.3
10°-20°	341.3	11.7
20°-30°	479.0	16.4
30°-40°	531.3	18.2
40°-50°	510.0	17.5
50°-60°	427.5	14.7
60°-70°	300.0	10.3
70°-80°	156.7	5.4
80°-90°	43.9	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°	944.7	32.4
0°-40°	1475.9	50.6
0°-60°	2413.4	82.8
0°-90°	2914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2914.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1328	1328	1328	1328	1328	
5°	1334	1317	1317	1308	1305	126
15°	1260	1238	1216	1184	1172	356
25°	1136	1096	1036	986	974	523
35°	955	902	831	790	782	598
45°	752	694	645	620	613	579
55°	542	501	466	452	447	484
65°	346	322	298	279	273	344
75°	174	160	146	129	121	184
85°	41	38	38	38	38	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1328.1	1328.1	1328.1	1328.1	1328.1
2.5°	1333.0	1325.6	1328.1	1328.1	1321.9
5°	1334.2	1317.0	1317.0	1308.4	1304.7
7.5°	1315.8	1302.2	1299.8	1288.7	1285.0
10°	1302.2	1288.7	1280.1	1265.3	1259.2
12.5°	1286.2	1265.3	1249.3	1224.7	1214.8
15°	1260.4	1238.2	1216.1	1184.1	1171.8
17.5°	1237.0	1211.2	1177.9	1142.2	1128.7
20°	1206.2	1175.5	1132.4	1083.1	1070.8
22.5°	1170.5	1134.8	1084.4	1031.5	1021.6
25°	1136.1	1095.5	1036.4	985.9	973.6
27.5°	1100.4	1051.1	983.4	929.3	917.0
30°	1051.1	1000.7	934.2	881.3	872.7
32.5°	1005.6	955.1	882.5	839.4	829.6
35°	955.1	902.2	830.8	790.2	781.6
37.5°	909.6	848.1	785.3	745.9	741.0
40°	855.4	800.1	737.3	707.7	700.4
42.5°	802.5	747.1	688.0	662.2	653.6
45°	752.0	694.2	645.0	620.3	613.0
47.5°	699.1	646.2	599.4	579.7	574.8
50°	643.7	597.0	553.9	535.4	529.3
52.5°	594.5	546.5	510.8	493.6	486.2
55°	541.6	501.0	466.5	451.7	446.8
57.5°	488.6	455.4	422.2	408.6	401.3
60°	441.9	408.6	381.6	365.6	360.6
62.5°	393.9	365.6	339.7	324.9	318.8
65°	345.9	322.5	297.9	279.4	273.2
67.5°	301.6	275.7	256.0	240.0	233.9
70°	254.8	236.3	216.6	201.9	195.7
72.5°	211.7	198.2	180.9	164.9	158.8
75°	173.5	160.0	146.5	129.2	120.6
77.5°	135.4	126.8	113.2	98.5	98.5
80°	99.7	94.8	80.0	77.5	76.3
82.5°	68.9	66.5	57.8	56.6	56.6
85°	40.6	38.2	38.2	38.2	38.2
87.5°	17.2	18.5	19.7	19.7	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)