

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: P295579

Luminaire Tested: **14RLN-LD5-31-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P295579  
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-L82765-W2A1-U-4000K  
Description: RLN LED 1x4 TUNABLE WHITE TROFFER  
WITH STANDARD LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3114.0 lumens  
Efficiency: N/A  
Efficacy: 108.7 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

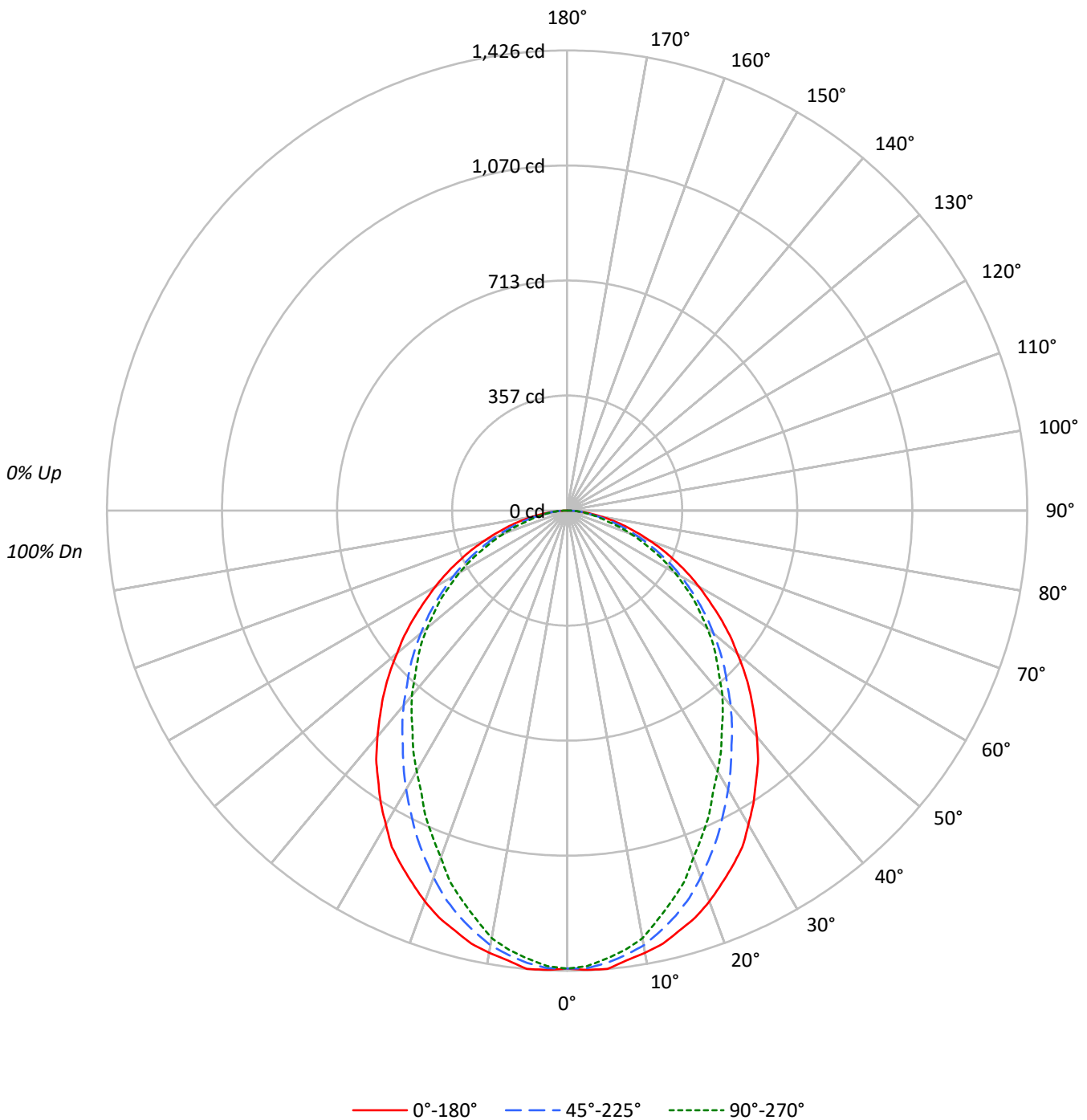
Input Watts (W): 28.644  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P295579

CATALOG NUMBER: 14RLN-LD5-31-UNV-L82765-W2A1-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P295579

CATALOG NUMBER: 14RLN-LD5-31-UNV-L82765-W2A1-U-4000K

**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°	3819	3819	3819
5°	3851	3802	3766
10°	3803	3738	3677
15°	3752	3620	3489
20°	3691	3465	3277
25°	3605	3288	3089
30°	3490	3102	2898
35°	3353	2916	2744
40°	3211	2768	2629
45°	3059	2623	2493
50°	2880	2478	2368
55°	2715	2339	2240
60°	2541	2195	2074
65°	2353	2027	1859
70°	2142	1821	1645
75°	1929	1627	1340
80°	1650	1325	1265
85°	1340	1260	1260



TEST NUMBER: P295579

CATALOG NUMBER: 14RLN-LD5-31-UNV-L82765-W2A1-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.9	4.3
10°-20°	364.7	11.7
20°-30°	511.9	16.4
30°-40°	567.8	18.2
40°-50°	545.0	17.5
50°-60°	456.8	14.7
60°-70°	320.6	10.3
70°-80°	167.4	5.4
80°-90°	46.9	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°	1009.5	32.4
0°-40°	1577.2	50.6
0°-60°	2579.1	82.8
0°-90°	3114.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3114.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1419	1419	1419	1419	1419	
5°	1426	1407	1407	1398	1394	135
15°	1347	1323	1300	1265	1252	380
25°	1214	1171	1108	1054	1040	559
35°	1021	964	888	844	835	639
45°	804	742	689	663	655	619
55°	579	535	498	483	478	518
65°	370	345	318	299	292	367
75°	186	171	156	138	129	197
85°	43	41	41	41	41	51
90°	0	0	0	0	0	



TEST NUMBER: P295579

CATALOG NUMBER: 14RLN-LD5-31-UNV-L82765-W2A1-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1419.2	1419.2	1419.2	1419.2	1419.2
2.5°	1424.5	1416.6	1419.2	1419.2	1412.7
5°	1425.8	1407.4	1407.4	1398.2	1394.2
7.5°	1406.1	1391.6	1389.0	1377.1	1373.2
10°	1391.6	1377.1	1367.9	1352.2	1345.6
12.5°	1374.5	1352.2	1335.1	1308.7	1298.2
15°	1346.9	1323.2	1299.5	1265.3	1252.2
17.5°	1321.9	1294.3	1258.8	1220.6	1206.2
20°	1289.0	1256.1	1210.1	1157.5	1144.3
22.5°	1250.9	1212.7	1158.8	1102.2	1091.7
25°	1214.0	1170.6	1107.5	1053.6	1040.4
27.5°	1175.9	1123.3	1050.9	993.1	979.9
30°	1123.3	1069.4	998.3	941.8	932.6
32.5°	1074.6	1020.7	943.1	897.1	886.5
35°	1020.7	964.1	887.8	844.4	835.2
37.5°	972.0	906.3	839.2	797.1	791.8
40°	914.2	855.0	787.9	756.3	748.4
42.5°	857.6	798.4	735.3	707.6	698.4
45°	803.7	741.8	689.2	662.9	655.0
47.5°	747.1	690.5	640.6	619.5	614.3
50°	687.9	637.9	591.9	572.2	565.6
52.5°	635.3	584.0	545.9	527.4	519.6
55°	578.7	535.3	498.5	482.7	477.5
57.5°	522.2	486.7	451.2	436.7	428.8
60°	472.2	436.7	407.8	390.7	385.4
62.5°	420.9	390.7	363.0	347.2	340.7
65°	369.6	344.6	318.3	298.6	292.0
67.5°	322.3	294.6	273.6	256.5	249.9
70°	272.3	252.5	231.5	215.7	209.1
72.5°	226.2	211.8	193.4	176.3	169.7
75°	185.5	171.0	156.5	138.1	128.9
77.5°	144.7	135.5	121.0	105.2	105.2
80°	106.5	101.3	85.5	82.9	81.6
82.5°	73.7	71.0	61.8	60.5	60.5
85°	43.4	40.8	40.8	40.8	40.8
87.5°	18.4	19.7	21.0	21.0	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)