

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: P229459

Luminaire Tested: **14RLN-LD5-31-UNV-L835-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229459  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36058)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14RLN-LD5-31-UNV-L835-CD1-U  
Description: METALUX 1X4 RLN LED TROFFER  
Light Source: (112)3500K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3160.0 lumens  
Efficiency: N/A  
Efficacy: 103.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.31  
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')  
CIE Type: Direct

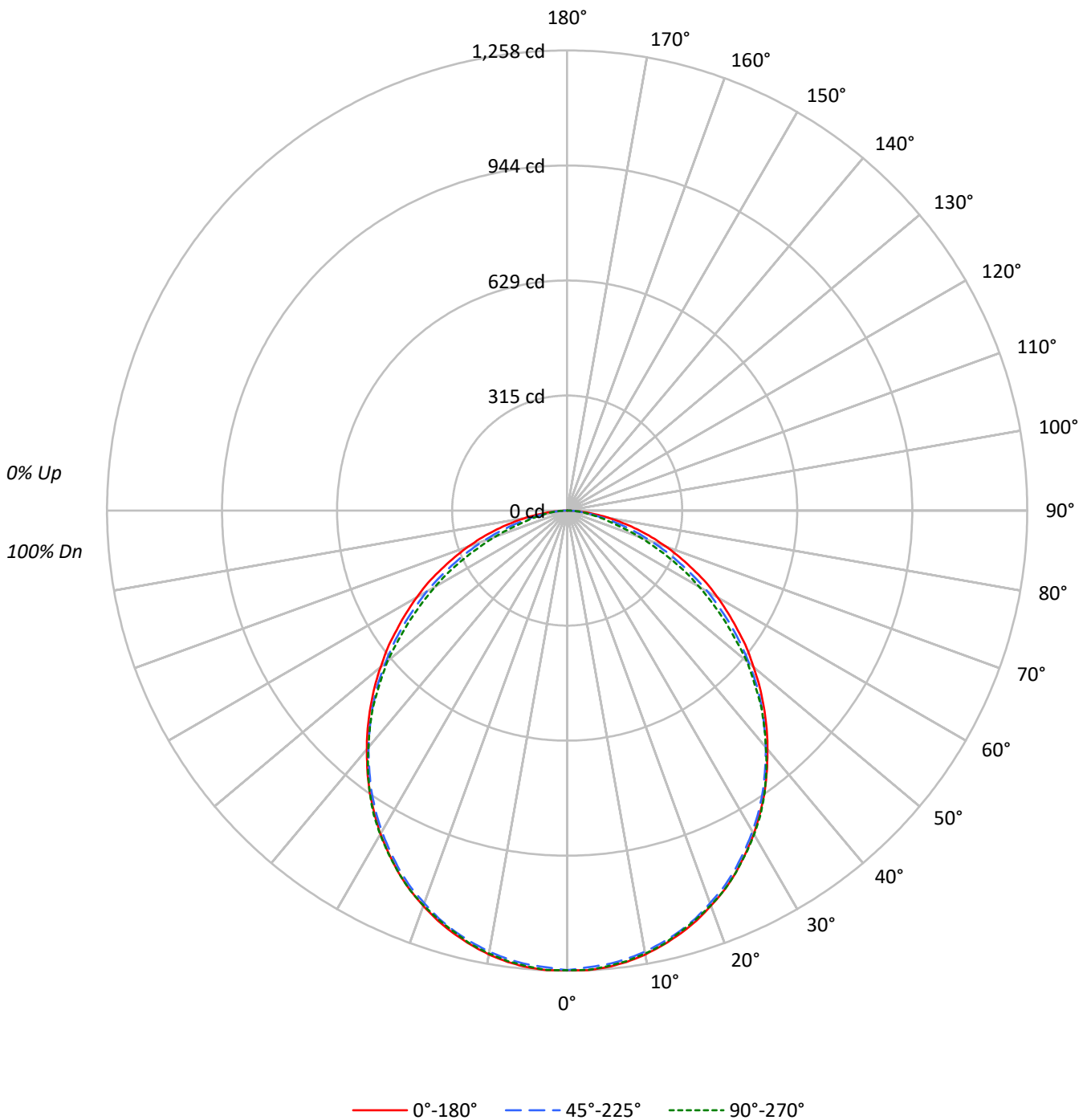
Input Watts (W): 30.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P229459

CATALOG NUMBER: 14RLN-LD5-31-UNV-L835-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P229459

CATALOG NUMBER: 14RLN-LD5-31-UNV-L835-CD1-U

**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	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	103	99	96	98	95	93		95	92	90		91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77		84	79	76		81	77	74	72
3	91	81	74	67	89	80	73	67	77	71	66		74	69	64		72	67	63	61
4	84	72	64	57	82	71	63	57	69	62	56		66	60	56		64	59	55	53
5	77	65	56	50	75	64	56	50	62	55	49		60	53	48		58	52	48	46
6	72	59	50	44	70	58	49	43	56	49	43		54	48	43		53	47	42	40
7	66	53	45	39	65	52	44	39	51	44	38		50	43	38		48	42	38	36
8	62	49	40	35	60	48	40	35	47	40	34		45	39	34		44	38	34	32
9	58	45	37	31	57	44	36	31	43	36	31		42	36	31		41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28		39	33	28		38	32	28	26

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

	0°	45°	90°
0°	4233	4233	4233
5°	4239	4213	4231
10°	4216	4190	4208
15°	4177	4152	4161
20°	4124	4096	4118
25°	4059	4030	4059
30°	3973	3943	3979
35°	3871	3839	3871
40°	3747	3716	3720
45°	3623	3574	3563
50°	3488	3399	3362
55°	3344	3207	3088
60°	3202	2993	2810
65°	3027	2705	2476
70°	2823	2402	2081
75°	2588	2011	1608
80°	2230	1506	1385
85°	1802	1260	1291



TEST NUMBER: P229459

CATALOG NUMBER: 14RLN-LD5-31-UNV-L835-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.6	3.8
10°-20°	336.7	10.7
20°-30°	501.2	15.9
30°-40°	585.9	18.5
40°-50°	579.0	18.3
50°-60°	488.9	15.5
60°-70°	338.6	10.7
70°-80°	169.0	5.3
80°-90°	42.0	1.3
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°	956.6	30.3
0°-40°	1542.5	48.8
0°-60°	2610.4	82.6
0°-90°	3160.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3160.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1256	1256	1256	1256	1256	
5°	1253	1251	1246	1252	1251	119
15°	1197	1196	1190	1196	1193	338
25°	1092	1089	1084	1091	1092	502
35°	941	936	933	940	941	588
45°	760	752	750	748	748	587
55°	569	559	546	534	526	510
65°	380	362	339	322	311	377
75°	199	181	154	134	124	210
85°	47	36	33	33	33	55
90°	0	0	0	0	0	



TEST NUMBER: P229459

CATALOG NUMBER: 14RLN-LD5-31-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1256.3	1256.3	1256.3	1256.3	1256.3
2.5°	1257.9	1255.6	1250.1	1256.3	1257.1
5°	1253.2	1250.9	1245.5	1251.7	1250.9
7.5°	1244.7	1241.6	1236.9	1242.4	1242.4
10°	1232.3	1229.9	1224.5	1230.7	1229.9
12.5°	1216.0	1214.4	1209.0	1215.2	1214.4
15°	1197.3	1195.8	1190.3	1195.8	1192.7
17.5°	1175.6	1174.8	1168.6	1172.5	1171.7
20°	1150.0	1148.4	1142.2	1150.0	1148.4
22.5°	1122.8	1119.7	1115.8	1122.0	1122.8
25°	1091.7	1088.6	1084.0	1090.9	1091.7
27.5°	1056.0	1053.7	1049.0	1059.1	1057.6
30°	1021.1	1018.7	1013.3	1021.8	1022.6
32.5°	980.7	978.4	974.5	983.0	984.6
35°	941.1	936.4	933.3	940.3	941.1
37.5°	896.8	892.2	889.1	896.1	894.5
40°	851.8	846.4	844.8	850.2	845.6
42.5°	807.5	800.5	797.4	800.5	797.4
45°	760.2	751.6	750.1	748.5	747.7
47.5°	714.4	705.0	701.2	695.7	691.8
50°	665.4	655.3	648.4	642.9	641.4
52.5°	619.6	608.0	597.9	593.2	580.8
55°	569.2	559.1	545.9	534.2	525.7
57.5°	521.8	508.6	493.1	480.6	469.8
60°	475.2	458.1	444.1	424.7	417.0
62.5°	429.4	410.0	390.6	369.6	365.7
65°	379.7	361.8	339.3	321.5	310.6
67.5°	332.3	313.7	292.0	267.1	257.0
70°	286.5	266.3	243.8	219.7	211.2
72.5°	242.3	222.1	198.8	173.2	163.1
75°	198.8	180.9	154.5	133.6	123.5
77.5°	154.5	139.8	114.1	97.1	95.5
80°	114.9	101.7	77.6	73.8	71.4
82.5°	79.2	66.8	55.1	52.8	51.2
85°	46.6	35.7	32.6	32.6	33.4
87.5°	17.9	15.5	15.5	15.5	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)