

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: P229748

Luminaire Tested: **24RLN-LD5-42-UNV-L930-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229748  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36038)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RLN-LD5-42-UNV-L930-CD1-U  
Description: METALUX 2X4 RLN LED TROFFER  
Light Source: (252)3000K CCT, 90 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

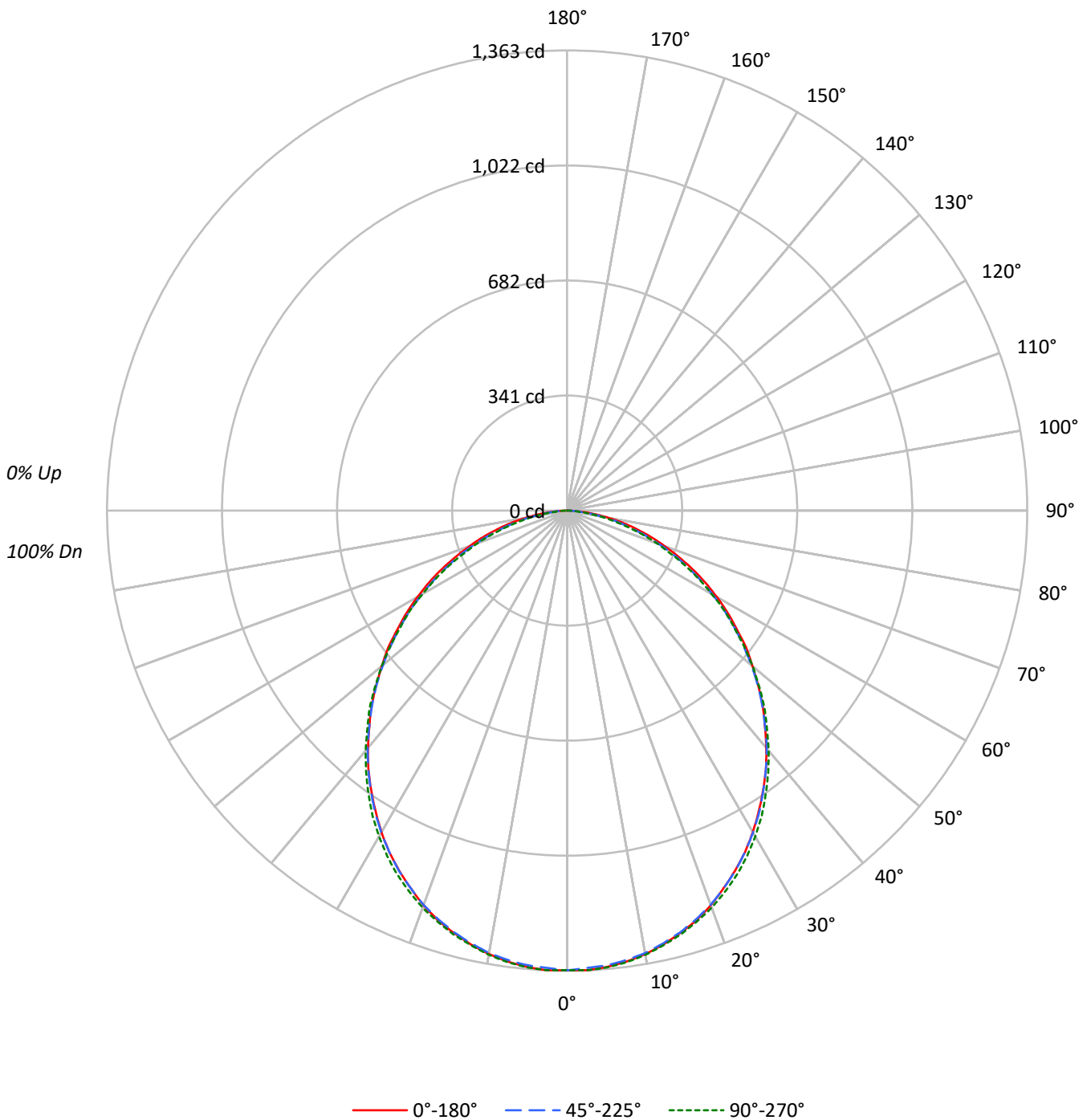
Lumens per Lamp: N/A  
Luminaire Lumens: 3493.0 lumens  
Efficiency: N/A  
Efficacy: 112.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.22 / 1.31  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 31.2  
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	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	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	60
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	38	34	44	38	33	32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	28
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26

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

	0°	45°	90°
0°	2085	2085	2085
5°	2087	2078	2088
10°	2075	2070	2078
15°	2054	2051	2061
20°	2028	2026	2040
25°	1989	1991	2011
30°	1945	1947	1971
35°	1892	1894	1917
40°	1834	1839	1856
45°	1776	1771	1792
50°	1707	1697	1710
55°	1637	1617	1611
60°	1569	1522	1515
65°	1482	1418	1398
70°	1373	1289	1265
75°	1262	1138	1079
80°	1105	950	863
85°	907	657	522



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.7	3.7
10°-20°	365.4	10.5
20°-30°	543.7	15.6
30°-40°	635.3	18.2
40°-50°	631.5	18.1
50°-60°	542.6	15.5
60°-70°	389.7	11.2
70°-80°	207.5	5.9
80°-90°	48.6	1.4
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°	1037.8	29.7
0°-40°	1673.1	47.9
0°-60°	2847.2	81.5
0°-90°	3493.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3493.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1362	1362	1362	1362	1362	
5°	1357	1355	1352	1356	1358	129
15°	1296	1296	1293	1298	1300	365
25°	1177	1177	1178	1187	1190	542
35°	1012	1010	1013	1024	1025	633
45°	820	813	818	822	827	631
55°	613	606	606	606	603	550
65°	409	397	391	387	386	404
75°	213	201	192	187	182	227
85°	52	44	37	31	30	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1361.5	1361.5	1361.5	1361.5	1361.5
2.5°	1362.6	1360.4	1356.0	1361.5	1362.6
5°	1357.1	1354.9	1351.6	1356.0	1358.2
7.5°	1347.2	1345.0	1342.8	1347.2	1349.4
10°	1334.0	1332.9	1330.7	1336.2	1336.2
12.5°	1316.4	1315.3	1313.1	1318.6	1318.6
15°	1295.5	1295.5	1293.3	1297.7	1299.9
17.5°	1272.5	1271.4	1269.2	1274.6	1276.8
20°	1243.9	1243.9	1242.8	1249.4	1251.6
22.5°	1210.9	1210.9	1210.9	1219.7	1221.9
25°	1176.9	1176.9	1178.0	1186.7	1190.0
27.5°	1140.6	1139.5	1140.6	1150.5	1153.8
30°	1099.9	1097.7	1101.0	1110.9	1114.2
32.5°	1056.0	1053.8	1059.3	1068.1	1072.5
35°	1012.0	1009.8	1013.1	1024.1	1025.2
37.5°	967.0	961.5	967.0	976.9	978.0
40°	917.5	913.1	919.7	924.1	928.5
42.5°	867.0	864.8	868.1	875.8	875.8
45°	819.7	813.1	817.5	821.9	827.4
47.5°	767.0	763.7	765.9	769.2	771.4
50°	716.4	710.9	712.0	715.3	717.5
52.5°	669.2	658.2	658.2	660.4	660.4
55°	613.2	605.5	605.5	605.5	603.3
57.5°	563.7	553.8	552.7	552.7	552.7
60°	512.1	500.0	496.7	496.7	494.5
62.5°	460.4	449.4	445.0	440.6	440.6
65°	408.8	396.7	391.2	386.8	385.7
67.5°	356.0	347.2	340.6	335.1	329.7
70°	306.6	296.7	287.9	282.4	282.4
72.5°	260.4	249.4	240.6	234.1	230.8
75°	213.2	201.1	192.3	186.8	182.4
77.5°	171.4	158.2	149.4	141.7	137.4
80°	125.3	115.4	107.7	100.0	97.8
82.5°	86.8	79.1	70.3	64.8	62.6
85°	51.6	44.0	37.4	30.8	29.7
87.5°	20.9	15.4	12.1	12.1	12.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)