

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: P229828

Luminaire Tested: **24RLN-LD5-42-RDP-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229828  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36059)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RLN-LD5-42-RDP-UNV-L940-CD1-U  
Description: METALUX 2X4 RLN LED TROFFER WITH RDP LENS  
Light Source: (252)4000K CCT, 90 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3082.0 lumens  
Efficiency: N/A  
Efficacy: 98.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.38  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

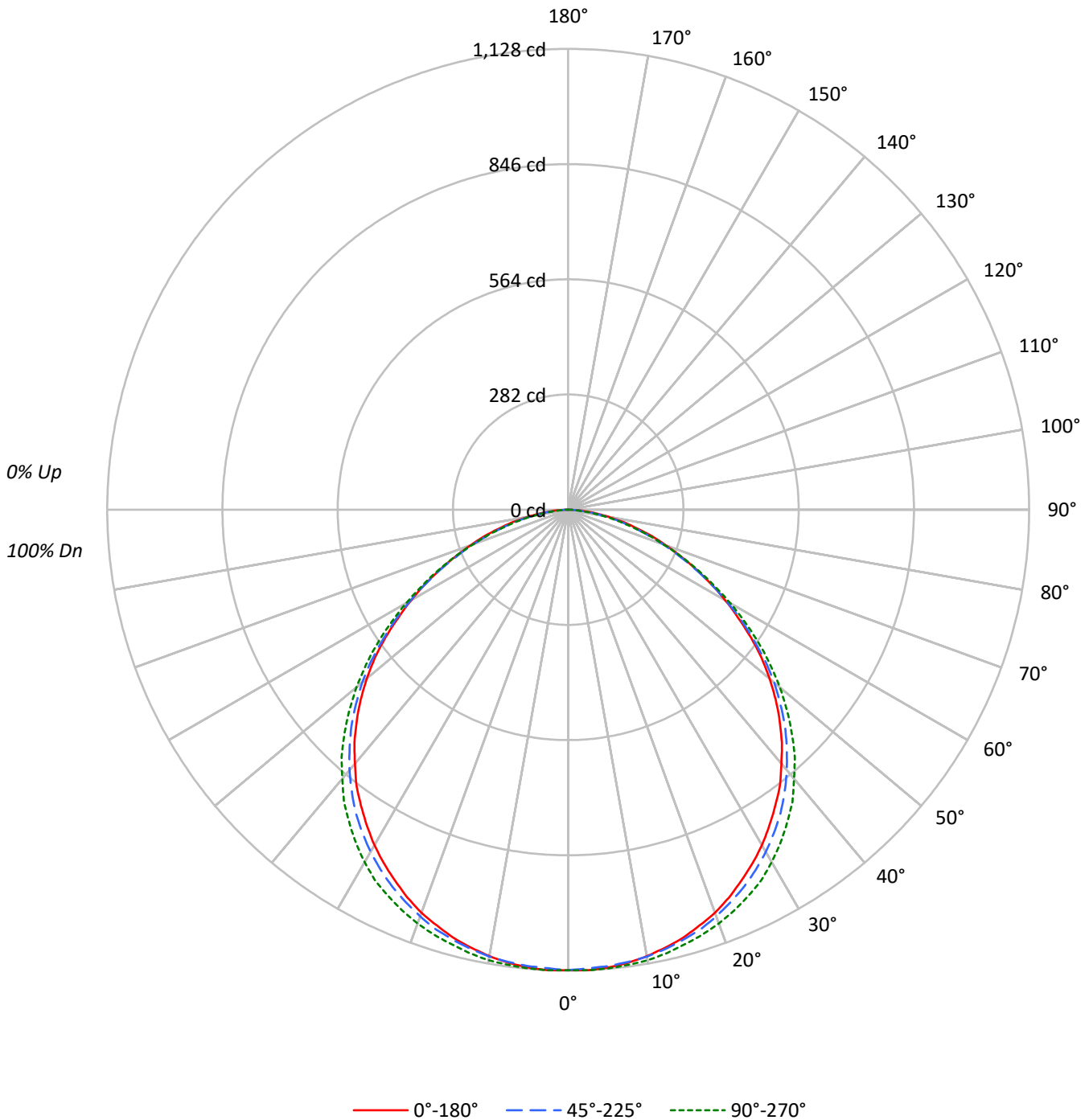
Input Watts (W): 31.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	90		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	66	63	60
4	83	72	63	57	81	70	62	56	68	61	55		66	60	55		63	58	54	52
5	77	64	55	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		53	47	42		52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33		45	38	33		43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	27	52	40	33	27	39	32	27		38	32	27		37	31	27	25

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

	0°	45°	90°
0°	1726	1726	1726
5°	1729	1724	1733
10°	1726	1727	1742
15°	1720	1728	1746
20°	1711	1727	1757
25°	1693	1721	1763
30°	1677	1710	1762
35°	1653	1694	1747
40°	1622	1665	1718
45°	1585	1626	1677
50°	1532	1569	1610
55°	1458	1477	1521
60°	1361	1368	1404
65°	1250	1242	1271
70°	1136	1105	1110
75°	1010	955	948
80°	877	784	763
85°	719	555	432



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.9	3.5
10°-20°	308.2	10.0
20°-30°	470.4	15.3
30°-40°	567.1	18.4
40°-50°	578.3	18.8
50°-60°	494.9	16.1
60°-70°	340.9	11.1
70°-80°	174.8	5.7
80°-90°	40.7	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°	885.4	28.7
0°-40°	1452.5	47.1
0°-60°	2525.7	81.9
0°-90°	3082.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3082.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1127	1127	1127	1127	1127	
5°	1125	1122	1121	1125	1127	107
15°	1085	1084	1090	1098	1101	306
25°	1002	1006	1018	1036	1043	462
35°	884	887	906	926	934	553
45°	732	733	751	769	774	564
55°	546	542	553	565	569	487
65°	345	337	343	345	351	343
75°	171	164	161	161	160	184
85°	41	36	32	28	25	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1127.1	1127.1	1127.1	1127.1	1127.1
2.5°	1128.3	1125.9	1123.6	1125.9	1128.3
5°	1124.8	1122.4	1121.3	1124.8	1127.1
7.5°	1118.9	1116.6	1116.6	1121.3	1123.6
10°	1109.6	1108.4	1110.7	1115.4	1120.1
12.5°	1097.9	1097.9	1101.4	1107.2	1111.9
15°	1085.0	1083.8	1089.7	1097.9	1101.4
17.5°	1067.5	1068.6	1076.8	1086.2	1090.9
20°	1049.9	1051.1	1059.3	1072.1	1078.0
22.5°	1027.7	1030.1	1039.4	1055.8	1061.6
25°	1002.0	1005.5	1018.4	1035.9	1042.9
27.5°	976.3	979.8	993.8	1013.7	1023.0
30°	948.2	952.9	966.9	988.0	996.1
32.5°	916.6	920.2	937.7	958.7	966.9
35°	883.9	887.4	906.1	926.0	934.2
37.5°	851.2	851.2	869.9	893.3	901.4
40°	811.4	812.6	832.5	854.7	859.4
42.5°	774.0	774.0	791.5	812.6	820.8
45°	731.9	733.1	750.6	769.3	774.0
47.5°	688.7	688.7	703.9	721.4	726.1
50°	643.1	640.7	658.3	672.3	675.8
52.5°	596.3	592.8	606.8	618.5	623.2
55°	546.0	542.5	553.0	564.7	569.4
57.5°	493.4	488.7	500.4	510.9	513.3
60°	444.3	437.3	446.6	452.5	458.3
62.5°	395.2	387.0	394.0	397.5	402.2
65°	344.9	336.7	342.6	344.9	350.8
67.5°	297.0	291.1	292.3	295.8	298.1
70°	253.7	246.7	246.7	246.7	247.9
72.5°	214.0	203.4	202.3	203.4	203.4
75°	170.7	163.7	161.3	161.3	160.2
77.5°	136.8	127.4	126.3	123.9	121.6
80°	99.4	91.2	88.9	87.7	86.5
82.5°	69.0	62.0	59.6	57.3	53.8
85°	40.9	36.2	31.6	28.1	24.6
87.5°	15.2	14.0	11.7	10.5	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)