

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: P229838

Luminaire Tested: **24RLN-LD5-42-UNV-L830-CD1-SVPD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229838  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36062)  
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-L830-CD1-SVPD1-U  
Description: METALUX 2X4 RLN LED TROFFER WITH SENSOR  
Light Source: (252)3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3990.0 lumens  
Efficiency: N/A  
Efficacy: 127.9 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

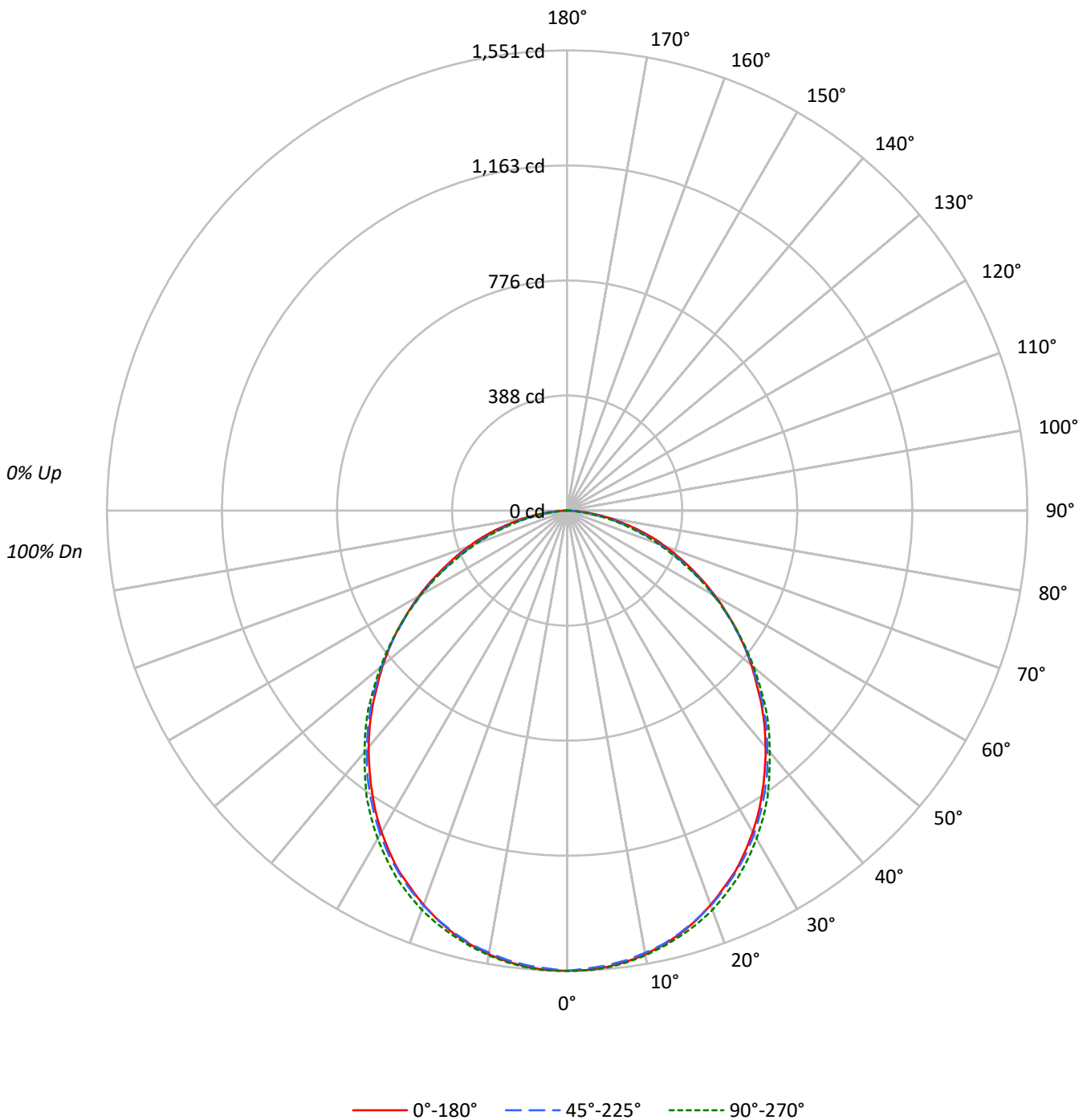
Input Watts (W): 31.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	76	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	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	31
9	58	44	36	31	56	44	36	31	43	35	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°	2376	2376	2376
5°	2374	2366	2377
10°	2362	2354	2367
15°	2341	2335	2351
20°	2305	2309	2334
25°	2267	2274	2304
30°	2213	2227	2258
35°	2148	2169	2202
40°	2081	2098	2124
45°	2006	2026	2053
50°	1932	1941	1956
55°	1856	1846	1852
60°	1767	1740	1748
65°	1667	1630	1603
70°	1576	1491	1457
75°	1451	1323	1278
80°	1277	1121	1053
85°	1005	782	580



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.4	3.7
10°-20°	416.3	10.4
20°-30°	620.5	15.6
30°-40°	725.5	18.2
40°-50°	720.4	18.1
50°-60°	618.6	15.5
60°-70°	445.7	11.2
70°-80°	240.0	6.0
80°-90°	56.6	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°	1183.3	29.7
0°-40°	1908.8	47.8
0°-60°	3247.8	81.4
0°-90°	3990.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3990.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1551	1551	1551	1551	1551	
5°	1544	1542	1539	1544	1546	147
15°	1476	1473	1473	1482	1483	416
25°	1342	1337	1346	1360	1363	617
35°	1149	1147	1160	1173	1178	719
45°	926	924	935	943	948	715
55°	695	689	691	695	694	621
65°	460	452	450	446	442	457
75°	245	230	224	217	216	260
85°	57	52	44	36	33	69
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1551.4	1551.4	1551.4	1551.4	1551.4
2.5°	1550.1	1548.8	1545.0	1550.1	1551.4
5°	1543.8	1542.5	1538.7	1543.8	1546.3
7.5°	1533.6	1531.1	1528.5	1533.6	1536.1
10°	1518.4	1515.8	1513.3	1519.6	1522.2
12.5°	1499.3	1496.8	1496.8	1501.8	1504.4
15°	1476.4	1472.6	1472.6	1481.5	1482.8
17.5°	1447.2	1444.7	1445.9	1456.1	1459.9
20°	1414.2	1412.9	1416.7	1428.1	1432.0
22.5°	1377.3	1376.0	1382.4	1396.4	1398.9
25°	1341.7	1336.7	1345.6	1359.5	1363.3
27.5°	1297.3	1293.5	1304.9	1317.6	1321.4
30°	1251.5	1247.7	1259.2	1273.1	1276.9
32.5°	1202.0	1199.4	1210.9	1224.8	1228.7
35°	1148.6	1147.3	1160.0	1172.8	1177.8
37.5°	1095.2	1094.0	1108.0	1118.1	1119.4
40°	1040.6	1038.1	1049.5	1060.9	1062.2
42.5°	984.7	980.9	993.6	1002.5	1006.3
45°	926.3	923.7	935.2	942.8	947.9
47.5°	866.5	866.5	872.9	881.8	883.1
50°	810.6	806.8	814.4	819.5	820.8
52.5°	752.2	748.4	754.7	756.0	758.5
55°	695.0	688.7	691.2	695.0	693.7
57.5°	635.3	625.1	630.2	630.2	632.8
60°	576.8	568.0	568.0	568.0	570.5
62.5°	518.4	509.5	509.5	508.2	507.0
65°	460.0	452.3	449.8	446.0	442.2
67.5°	404.0	395.2	390.1	385.0	381.2
70°	352.0	336.7	332.9	325.3	325.3
72.5°	299.9	284.6	277.0	271.9	270.6
75°	245.2	230.0	223.6	217.3	216.0
77.5°	191.9	181.7	171.5	166.4	163.9
80°	144.8	136.0	127.1	118.2	119.4
82.5°	99.1	90.2	83.9	76.2	73.7
85°	57.2	52.1	44.5	35.6	33.0
87.5°	24.1	17.8	12.7	12.7	12.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)