

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: P229848

Luminaire Tested: **24RLN-LD5-42-UNV-L835-CD1-SVPD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229848  
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-L835-CD1-SVPD1-U  
Description: METALUX 2X4 RLN LED TROFFER WITH SENSOR  
Light Source: (252)3500K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4156.0 lumens  
Efficiency: N/A  
Efficacy: 133.2 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

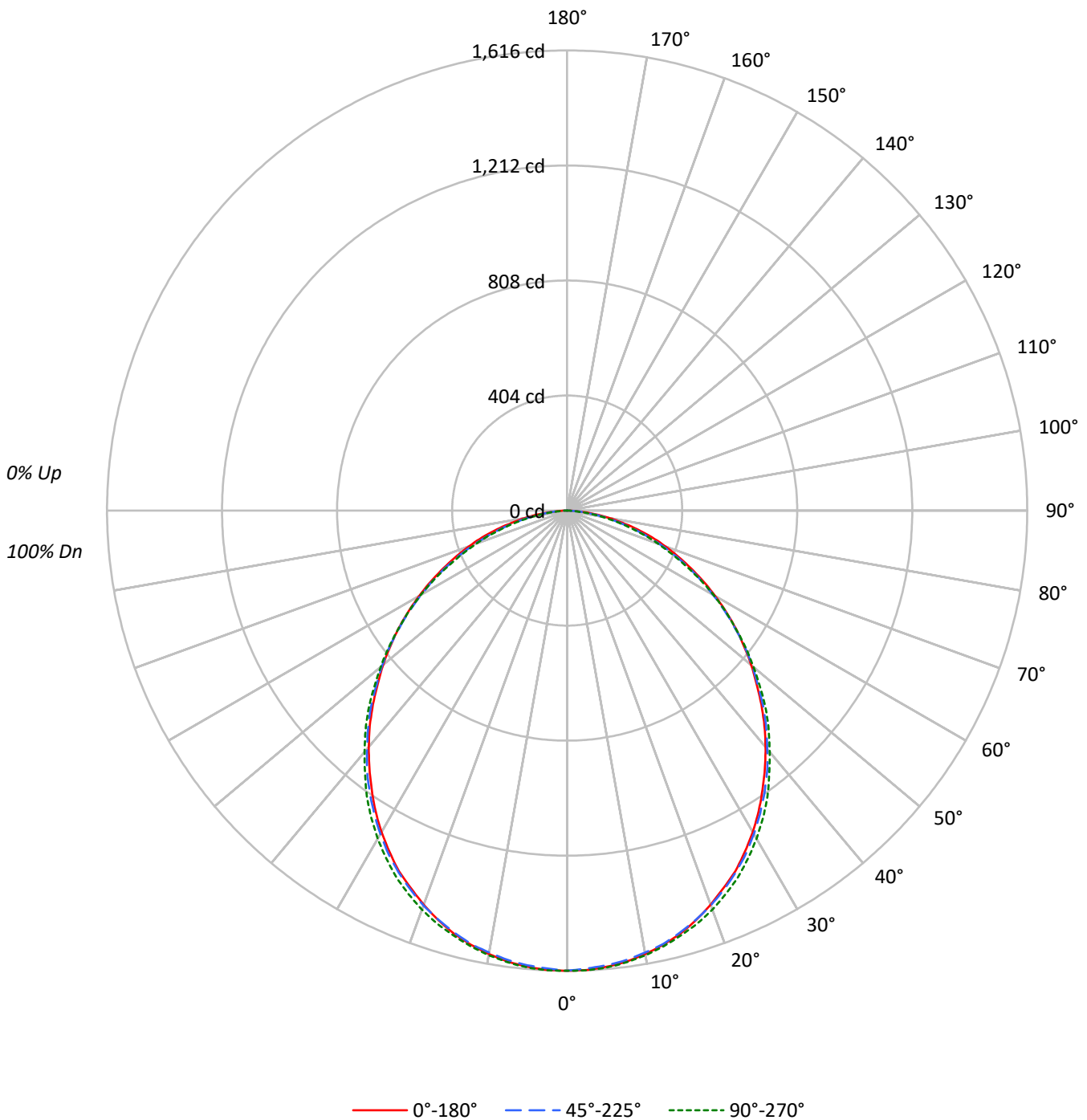
Input Watts (W): 31.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2475	2475	2475
5°	2472	2464	2476
10°	2460	2451	2466
15°	2438	2432	2449
20°	2401	2405	2431
25°	2362	2369	2400
30°	2306	2320	2352
35°	2237	2259	2294
40°	2167	2186	2212
45°	2090	2110	2139
50°	2012	2021	2037
55°	1933	1923	1930
60°	1840	1812	1820
65°	1736	1698	1669
70°	1642	1553	1517
75°	1511	1378	1332
80°	1331	1167	1097
85°	1047	814	605



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.5	3.7
10°-20°	433.6	10.4
20°-30°	646.4	15.6
30°-40°	755.6	18.2
40°-50°	750.4	18.1
50°-60°	644.4	15.5
60°-70°	464.2	11.2
70°-80°	249.9	6.0
80°-90°	58.9	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°	1232.5	29.7
0°-40°	1988.2	47.8
0°-60°	3382.9	81.4
0°-90°	4156.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4156.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1616	1616	1616	1616	1616	
5°	1608	1607	1603	1608	1611	153
15°	1538	1534	1534	1543	1544	433
25°	1398	1392	1402	1416	1420	642
35°	1196	1195	1208	1222	1227	748
45°	965	962	974	982	987	744
55°	724	717	720	724	723	646
65°	479	471	468	464	461	476
75°	255	240	233	226	225	271
85°	60	54	46	37	34	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1615.9	1615.9	1615.9	1615.9	1615.9
2.5°	1614.6	1613.3	1609.3	1614.6	1615.9
5°	1608.0	1606.7	1602.7	1608.0	1610.6
7.5°	1597.4	1594.8	1592.1	1597.4	1600.1
10°	1581.5	1578.9	1576.2	1582.8	1585.5
12.5°	1561.7	1559.0	1559.0	1564.3	1567.0
15°	1537.8	1533.9	1533.9	1543.1	1544.5
17.5°	1507.4	1504.8	1506.1	1516.7	1520.6
20°	1473.0	1471.7	1475.6	1487.6	1491.5
22.5°	1434.6	1433.3	1439.9	1454.5	1457.1
25°	1397.6	1392.3	1401.5	1416.1	1420.1
27.5°	1351.2	1347.3	1359.2	1372.4	1376.4
30°	1303.6	1299.6	1311.5	1326.1	1330.1
32.5°	1252.0	1249.3	1261.2	1275.8	1279.8
35°	1196.4	1195.1	1208.3	1221.5	1226.8
37.5°	1140.8	1139.5	1154.0	1164.6	1166.0
40°	1083.9	1081.3	1093.2	1105.1	1106.4
42.5°	1025.7	1021.7	1034.9	1044.2	1048.2
45°	964.8	962.1	974.1	982.0	987.3
47.5°	902.6	902.6	909.2	918.5	919.8
50°	844.4	840.4	848.3	853.6	854.9
52.5°	783.5	779.5	786.1	787.5	790.1
55°	723.9	717.3	720.0	723.9	722.6
57.5°	661.7	651.1	656.4	656.4	659.1
60°	600.8	591.6	591.6	591.6	594.2
62.5°	540.0	530.7	530.7	529.4	528.1
65°	479.1	471.1	468.5	464.5	460.6
67.5°	420.9	411.6	406.3	401.0	397.0
70°	366.6	350.7	346.7	338.8	338.8
72.5°	312.3	296.5	288.5	283.2	281.9
75°	255.4	239.5	232.9	226.3	225.0
77.5°	199.8	189.3	178.7	173.4	170.7
80°	150.9	141.6	132.3	123.1	124.4
82.5°	103.2	94.0	87.3	79.4	76.8
85°	59.6	54.3	46.3	37.1	34.4
87.5°	25.1	18.5	13.2	13.2	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)