

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: P229728

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229728  
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-L835-CD1-U  
Description: METALUX 2X4 RLN LED TROFFER  
Light Source: (252)3500K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4208.0 lumens  
Efficiency: N/A  
Efficacy: 134.9 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

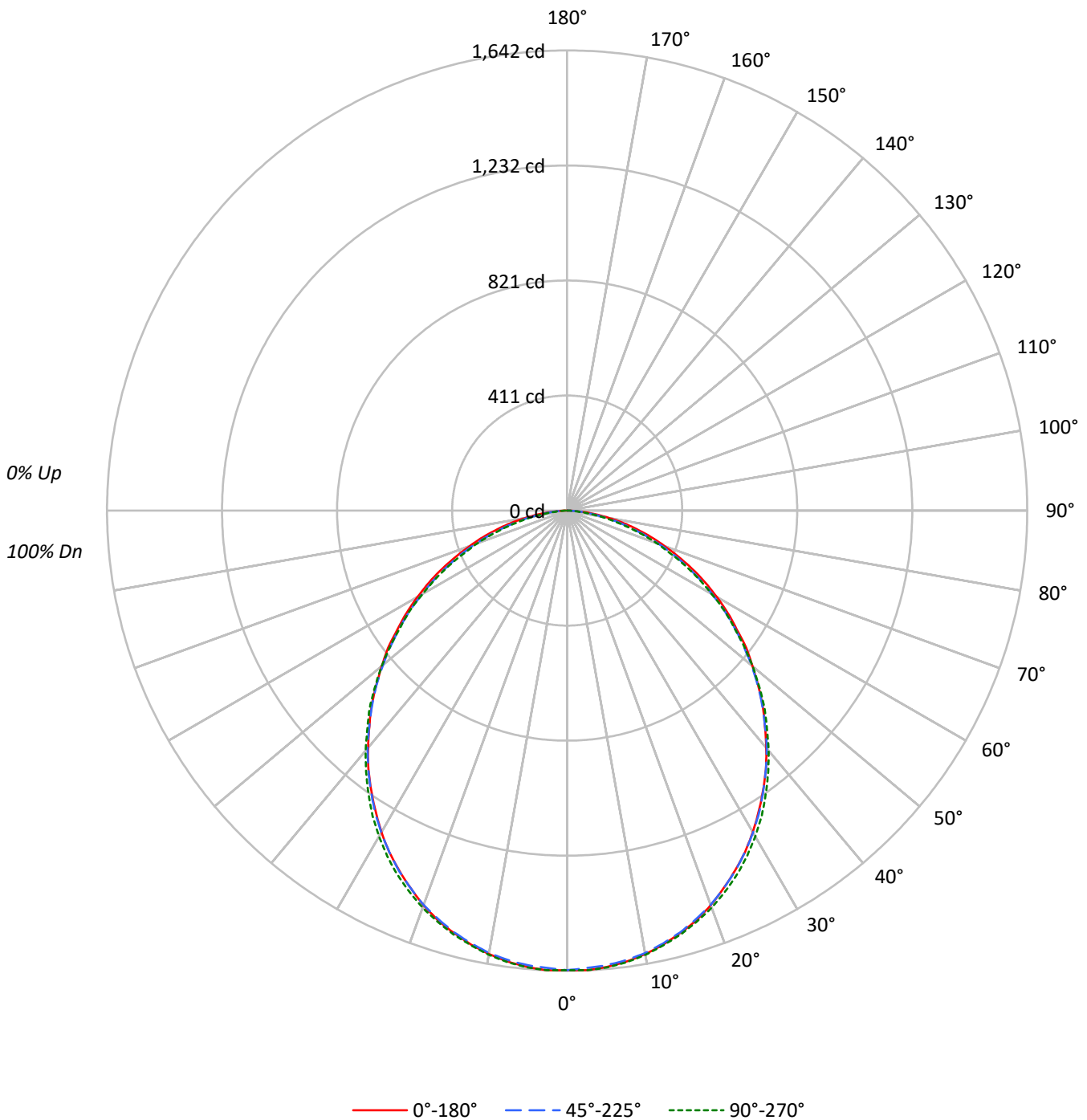
Input Watts (W): 31.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2512	2512	2512
5°	2514	2503	2516
10°	2499	2493	2504
15°	2475	2471	2483
20°	2443	2440	2458
25°	2396	2398	2423
30°	2344	2346	2374
35°	2280	2282	2309
40°	2210	2215	2237
45°	2139	2133	2159
50°	2057	2044	2060
55°	1973	1948	1941
60°	1890	1833	1825
65°	1785	1708	1684
70°	1654	1553	1524
75°	1520	1371	1300
80°	1331	1144	1039
85°	1093	791	627



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.0	3.7
10°-20°	440.2	10.5
20°-30°	655.0	15.6
30°-40°	765.3	18.2
40°-50°	760.8	18.1
50°-60°	653.7	15.5
60°-70°	469.4	11.2
70°-80°	250.0	5.9
80°-90°	58.6	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°	1250.2	29.7
0°-40°	2015.5	47.9
0°-60°	3430.0	81.5
0°-90°	4208.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4208.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1640	1640	1640	1640	1640	
5°	1635	1632	1628	1634	1636	155
15°	1561	1561	1558	1563	1566	440
25°	1418	1418	1419	1430	1434	653
35°	1219	1216	1220	1234	1235	762
45°	988	980	985	990	997	760
55°	739	729	729	729	727	663
65°	492	478	471	466	465	487
75°	257	242	232	225	220	273
85°	62	53	45	37	36	73
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1640.1	1640.1	1640.1	1640.1	1640.1
2.5°	1641.5	1638.8	1633.5	1640.1	1641.5
5°	1634.8	1632.2	1628.2	1633.5	1636.2
7.5°	1622.9	1620.3	1617.6	1622.9	1625.6
10°	1607.0	1605.7	1603.1	1609.7	1609.7
12.5°	1585.9	1584.5	1581.9	1588.5	1588.5
15°	1560.7	1560.7	1558.1	1563.4	1566.0
17.5°	1532.9	1531.6	1528.9	1535.6	1538.2
20°	1498.5	1498.5	1497.2	1505.1	1507.8
22.5°	1458.8	1458.8	1458.8	1469.4	1472.0
25°	1417.7	1417.7	1419.1	1429.7	1433.6
27.5°	1374.1	1372.7	1374.1	1386.0	1390.0
30°	1325.1	1322.4	1326.4	1338.3	1342.3
32.5°	1272.1	1269.5	1276.1	1286.7	1292.0
35°	1219.2	1216.5	1220.5	1233.7	1235.1
37.5°	1164.9	1158.3	1164.9	1176.8	1178.1
40°	1105.3	1100.0	1108.0	1113.3	1118.6
42.5°	1044.4	1041.8	1045.8	1055.0	1055.0
45°	987.5	979.6	984.9	990.2	996.8
47.5°	924.0	920.0	922.7	926.6	929.3
50°	863.1	856.5	857.8	861.8	864.4
52.5°	806.2	792.9	792.9	795.6	795.6
55°	738.7	729.4	729.4	729.4	726.7
57.5°	679.1	667.2	665.9	665.9	665.9
60°	616.9	602.3	598.3	598.3	595.7
62.5°	554.7	541.4	536.1	530.8	530.8
65°	492.4	477.9	471.3	466.0	464.6
67.5°	428.9	418.3	410.4	403.7	397.1
70°	369.3	357.4	346.8	340.2	340.2
72.5°	313.7	300.5	289.9	282.0	278.0
75°	256.8	242.2	231.7	225.0	219.7
77.5°	206.5	190.6	180.0	170.8	165.5
80°	150.9	139.0	129.7	120.5	117.8
82.5°	104.6	95.3	84.7	78.1	75.5
85°	62.2	53.0	45.0	37.1	35.7
87.5°	25.2	18.5	14.6	14.6	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)