

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: P229718

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229718  
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-L830-CD1-U  
Description: METALUX 2X4 RLN LED TROFFER  
Light Source: (252)3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

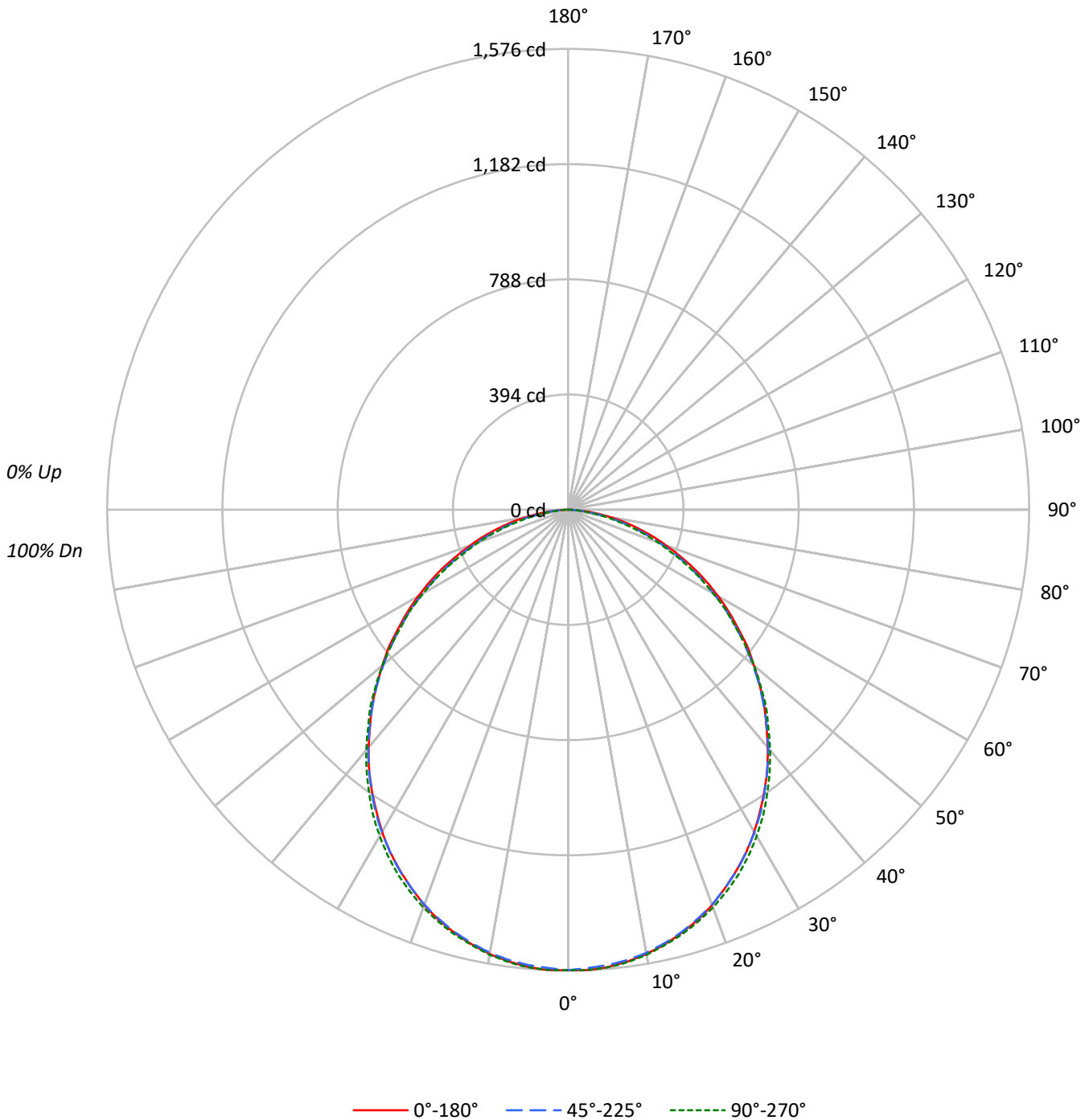
Lumens per Lamp: N/A  
Luminaire Lumens: 4040.0 lumens  
Efficiency: N/A  
Efficacy: 129.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.22 / 1.31  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

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°	2412	2412	2412
5°	2413	2403	2415
10°	2400	2394	2404
15°	2376	2372	2384
20°	2345	2343	2360
25°	2300	2302	2326
30°	2250	2252	2279
35°	2189	2191	2217
40°	2122	2127	2147
45°	2054	2048	2073
50°	1974	1963	1978
55°	1894	1870	1863
60°	1814	1760	1752
65°	1714	1640	1617
70°	1588	1491	1463
75°	1459	1316	1249
80°	1278	1098	998
85°	1049	759	603



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	148.8	3.7
10°-20°	422.7	10.5
20°-30°	628.9	15.6
30°-40°	734.7	18.2
40°-50°	730.4	18.1
50°-60°	627.6	15.5
60°-70°	450.7	11.2
70°-80°	240.0	5.9
80°-90°	56.2	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°	1200.3	29.7
0°-40°	1935.1	47.9
0°-60°	3293.0	81.5
0°-90°	4040.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4040.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1575	1575	1575	1575	1575	
5°	1570	1567	1563	1568	1571	149
15°	1498	1498	1496	1501	1504	423
25°	1361	1361	1362	1373	1376	627
35°	1170	1168	1172	1184	1186	732
45°	948	940	946	951	957	730
55°	709	700	700	700	698	636
65°	473	459	452	447	446	468
75°	247	233	222	216	211	263
85°	60	51	43	36	34	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1574.7	1574.7	1574.7	1574.7	1574.7
2.5°	1575.9	1573.4	1568.3	1574.7	1575.9
5°	1569.6	1567.0	1563.2	1568.3	1570.8
7.5°	1558.1	1555.6	1553.1	1558.1	1560.7
10°	1542.9	1541.6	1539.1	1545.4	1545.4
12.5°	1522.6	1521.3	1518.7	1525.1	1525.1
15°	1498.4	1498.4	1495.9	1500.9	1503.5
17.5°	1471.7	1470.4	1467.9	1474.3	1476.8
20°	1438.7	1438.7	1437.4	1445.0	1447.6
22.5°	1400.5	1400.5	1400.5	1410.7	1413.3
25°	1361.1	1361.1	1362.4	1372.6	1376.4
27.5°	1319.2	1317.9	1319.2	1330.6	1334.5
30°	1272.2	1269.6	1273.5	1284.9	1288.7
32.5°	1221.3	1218.8	1225.2	1235.3	1240.4
35°	1170.5	1168.0	1171.8	1184.5	1185.8
37.5°	1118.4	1112.0	1118.4	1129.8	1131.1
40°	1061.2	1056.1	1063.8	1068.8	1073.9
42.5°	1002.8	1000.2	1004.0	1012.9	1012.9
45°	948.1	940.5	945.6	950.6	957.0
47.5°	887.1	883.3	885.8	889.6	892.2
50°	828.6	822.3	823.6	827.4	829.9
52.5°	774.0	761.3	761.3	763.8	763.8
55°	709.2	700.3	700.3	700.3	697.7
57.5°	652.0	640.5	639.3	639.3	639.3
60°	592.2	578.3	574.5	574.5	571.9
62.5°	532.5	519.8	514.7	509.6	509.6
65°	472.8	458.8	452.4	447.4	446.1
67.5°	411.8	401.6	394.0	387.6	381.3
70°	354.6	343.1	333.0	326.6	326.6
72.5°	301.2	288.5	278.3	270.7	266.9
75°	246.6	232.6	222.4	216.1	211.0
77.5°	198.3	183.0	172.8	163.9	158.9
80°	144.9	133.4	124.5	115.7	113.1
82.5°	100.4	91.5	81.3	75.0	72.4
85°	59.7	50.8	43.2	35.6	34.3
87.5°	24.1	17.8	14.0	14.0	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)