

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: P229766

Luminaire Tested: **24RLN-LD5-31-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229766  
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-LD5-31-UNV-L940-CD1-U  
Description: METALUX 2X4 RLN LED TROFFER  
Light Source: (252)4000K CCT, 90 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2808.0 lumens  
Efficiency: N/A  
Efficacy: 122.6 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

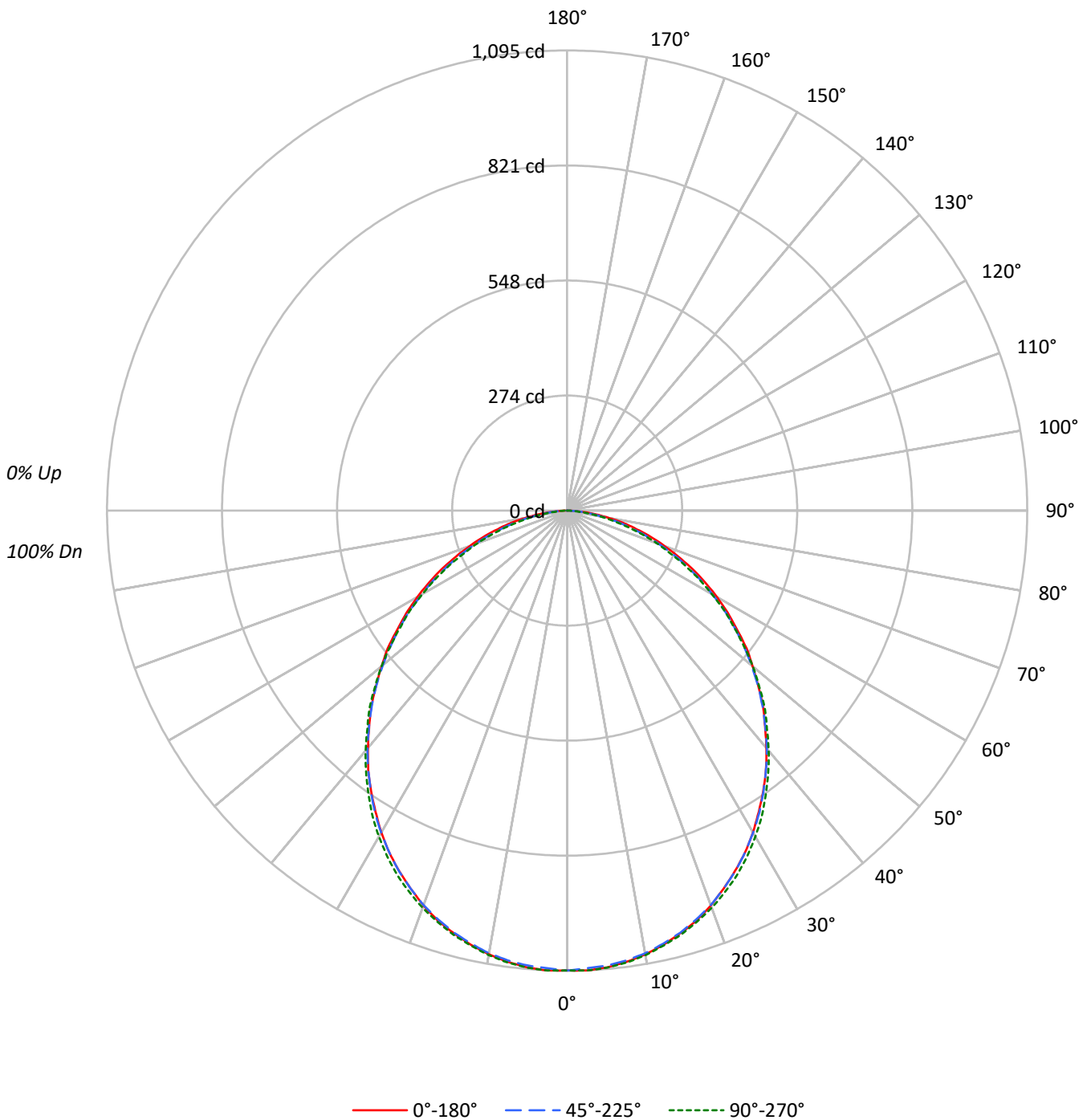
Input Watts (W): 22.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1676	1676	1676
5°	1677	1671	1679
10°	1668	1664	1671
15°	1652	1649	1657
20°	1630	1628	1640
25°	1599	1600	1617
30°	1564	1565	1584
35°	1521	1523	1541
40°	1475	1478	1492
45°	1427	1424	1441
50°	1372	1364	1374
55°	1316	1300	1295
60°	1261	1223	1218
65°	1191	1140	1124
70°	1104	1036	1017
75°	1014	915	868
80°	888	764	693
85°	729	527	420



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.4	3.7
10°-20°	293.8	10.5
20°-30°	437.1	15.6
30°-40°	510.7	18.2
40°-50°	507.7	18.1
50°-60°	436.2	15.5
60°-70°	313.2	11.2
70°-80°	166.9	5.9
80°-90°	39.1	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°	834.3	29.7
0°-40°	1345.0	47.9
0°-60°	2288.8	81.5
0°-90°	2808.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2808.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1094	1094	1094	1094	1094	
5°	1091	1089	1086	1090	1092	104
15°	1042	1042	1040	1043	1045	294
25°	946	946	947	954	957	436
35°	814	812	814	823	824	509
45°	659	654	657	661	665	507
55°	493	487	487	487	485	442
65°	329	319	314	311	310	325
75°	171	162	155	150	147	183
85°	42	35	30	25	24	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1094.5	1094.5	1094.5	1094.5	1094.5
2.5°	1095.4	1093.6	1090.1	1094.5	1095.4
5°	1090.9	1089.2	1086.5	1090.1	1091.8
7.5°	1083.0	1081.2	1079.5	1083.0	1084.8
10°	1072.4	1071.5	1069.7	1074.2	1074.2
12.5°	1058.2	1057.4	1055.6	1060.0	1060.0
15°	1041.5	1041.5	1039.7	1043.2	1045.0
17.5°	1022.9	1022.0	1020.3	1024.7	1026.4
20°	999.9	999.9	999.1	1004.4	1006.1
22.5°	973.4	973.4	973.4	980.5	982.3
25°	946.1	946.1	946.9	954.0	956.7
27.5°	916.9	916.0	916.9	924.9	927.5
30°	884.2	882.5	885.1	893.1	895.7
32.5°	848.9	847.1	851.5	858.6	862.1
35°	813.6	811.8	814.4	823.3	824.2
37.5°	777.3	772.9	777.3	785.3	786.2
40°	737.6	734.1	739.4	742.9	746.4
42.5°	697.0	695.2	697.8	704.0	704.0
45°	659.0	653.7	657.2	660.7	665.2
47.5°	616.6	613.9	615.7	618.3	620.1
50°	575.9	571.5	572.4	575.1	576.8
52.5°	538.0	529.1	529.1	530.9	530.9
55°	492.9	486.7	486.7	486.7	485.0
57.5°	453.2	445.2	444.3	444.3	444.3
60°	411.6	401.9	399.3	399.3	397.5
62.5°	370.1	361.3	357.8	354.2	354.2
65°	328.6	318.9	314.5	310.9	310.1
67.5°	286.2	279.1	273.8	269.4	265.0
70°	246.5	238.5	231.4	227.0	227.0
72.5°	209.4	200.5	193.5	188.2	185.5
75°	171.4	161.7	154.6	150.2	146.6
77.5°	137.8	127.2	120.1	114.0	110.4
80°	100.7	92.8	86.6	80.4	78.6
82.5°	69.8	63.6	56.5	52.1	50.4
85°	41.5	35.3	30.0	24.7	23.9
87.5°	16.8	12.4	9.7	9.7	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)