

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: P295814

Luminaire Tested: **24RLN-LD5-31-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P295814  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-085-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RLN-LD5-31-UNV-L83050-W2A1-U-3500K  
Description: RLN LED 2x4 TUNABLE WHITE TROFFER  
WITH STANDARD LENS  
Light Source: (504) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3100.0 lumens  
Efficiency: N/A  
Efficacy: 146.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.29  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

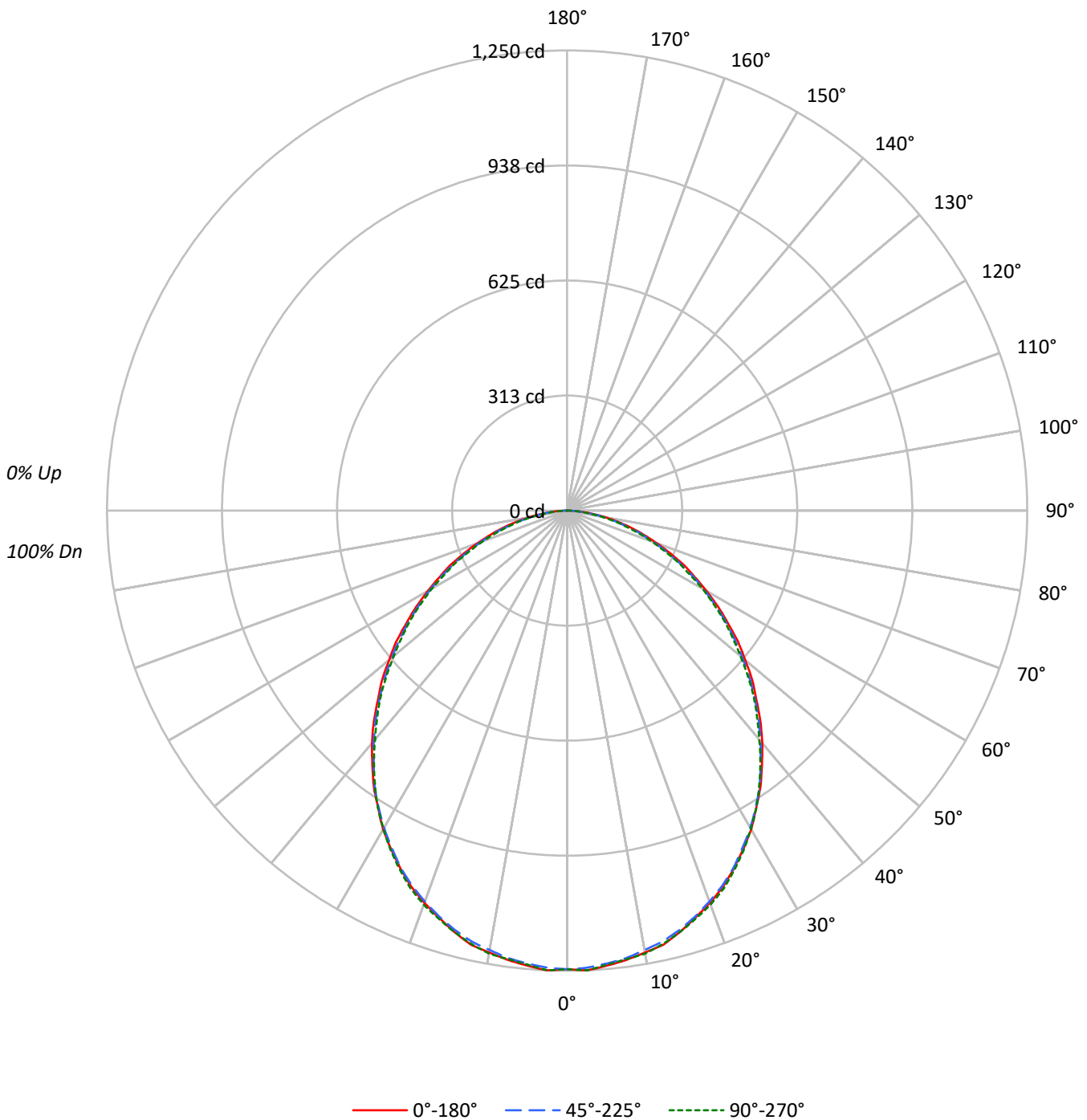
Input Watts (W): 21.204  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	72
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55	52
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	39	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	35	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	57	44	36	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1677	1677	1677
5°	1676	1668	1672
10°	1666	1656	1670
15°	1651	1642	1651
20°	1624	1618	1631
25°	1592	1589	1598
30°	1554	1546	1551
35°	1505	1498	1495
40°	1449	1435	1426
45°	1384	1370	1365
50°	1321	1300	1285
55°	1250	1232	1220
60°	1176	1154	1141
65°	1111	1070	1060
70°	1019	980	960
75°	936	879	842
80°	821	767	721
85°	664	618	525



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.6	3.8
10°-20°	333.3	10.8
20°-30°	493.0	15.9
30°-40°	569.0	18.4
40°-50°	555.8	17.9
50°-60°	469.3	15.1
60°-70°	334.2	10.8
70°-80°	181.0	5.8
80°-90°	46.7	1.5
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°	943.9	30.4
0°-40°	1513.0	48.8
0°-60°	2538.1	81.9
0°-90°	3100.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3100.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1246	1246	1246	1246	1246	
5°	1241	1241	1235	1238	1238	118
15°	1185	1180	1179	1184	1185	334
25°	1072	1066	1070	1074	1076	494
35°	916	909	912	909	910	572
45°	727	721	720	717	717	562
55°	533	526	525	520	520	478
65°	349	342	336	332	333	344
75°	180	174	169	165	162	190
85°	43	42	40	35	34	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1246.1	1246.1	1246.1	1246.1	1246.1
2.5°	1250.1	1245.1	1243.1	1244.1	1250.1
5°	1241.1	1241.1	1235.1	1238.1	1238.1
7.5°	1231.1	1232.1	1226.1	1231.1	1229.1
10°	1219.1	1216.1	1212.1	1220.1	1222.1
12.5°	1208.1	1201.1	1199.1	1204.1	1205.1
15°	1185.1	1180.1	1179.1	1184.1	1185.1
17.5°	1159.1	1160.1	1156.1	1163.1	1162.1
20°	1134.1	1132.1	1130.1	1138.1	1139.1
22.5°	1106.1	1100.1	1102.1	1109.1	1111.1
25°	1072.1	1066.1	1070.1	1074.1	1076.1
27.5°	1036.1	1033.1	1032.1	1037.1	1039.1
30°	1000.1	995.1	995.1	1001.1	998.1
32.5°	956.1	952.1	954.1	956.1	957.1
35°	916.1	909.1	912.1	909.1	910.1
37.5°	869.1	864.1	863.1	862.1	862.1
40°	825.1	821.1	817.1	817.1	812.1
42.5°	777.1	772.1	770.1	767.1	764.1
45°	727.1	721.1	720.1	717.1	717.1
47.5°	682.1	673.1	672.1	666.1	666.1
50°	631.1	625.1	621.1	617.1	614.1
52.5°	585.1	579.1	573.1	569.1	566.1
55°	533.0	526.0	525.0	520.0	520.0
57.5°	486.0	480.0	476.0	470.0	471.0
60°	437.0	431.0	429.0	424.0	424.0
62.5°	391.0	386.0	383.0	378.0	374.0
65°	349.0	342.0	336.0	332.0	333.0
67.5°	303.0	295.0	292.0	288.0	285.0
70°	259.0	254.0	249.0	244.0	244.0
72.5°	218.0	213.0	210.0	204.0	202.0
75°	180.0	174.0	169.0	165.0	162.0
77.5°	142.0	136.0	133.0	128.0	128.0
80°	106.0	102.0	99.0	97.0	93.0
82.5°	73.0	71.0	68.0	65.0	62.0
85°	43.0	42.0	40.0	35.0	34.0
87.5°	17.0	17.0	15.0	14.0	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)