

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: P295971

Luminaire Tested: **24RLN-LD5-45-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P295971  
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-LD5-45-UNV-L93050-W2A1-U-4500K  
Description: RLN LED 2x4 TUNABLE WHITE TROFFER WITH STANDARD LENS  
Light Source: (504) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4247.0 lumens  
Efficiency: N/A  
Efficacy: 129.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.29  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

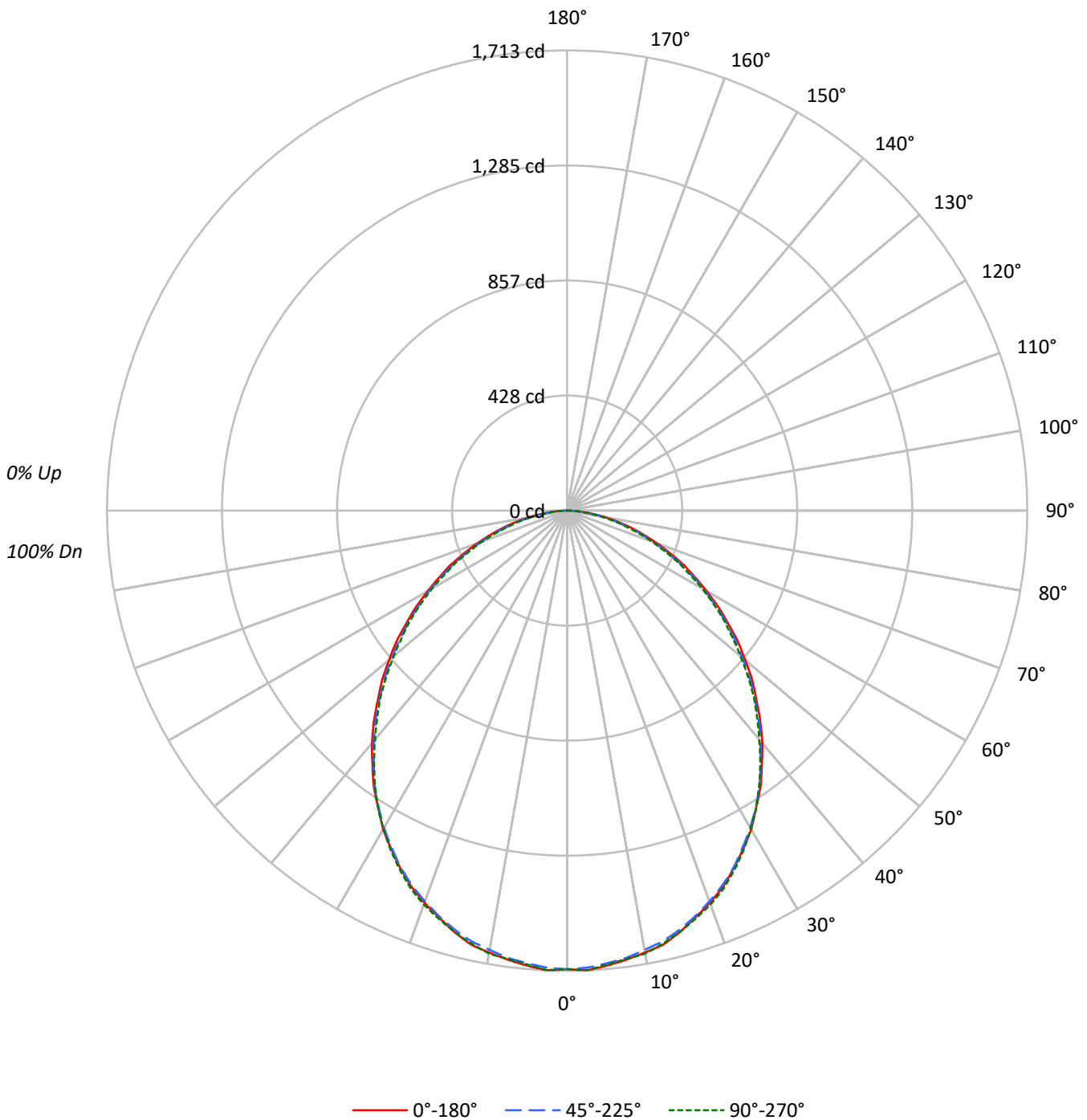
Input Watts (W): 32.829  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2297	2297	2297
5°	2296	2285	2291
10°	2282	2269	2288
15°	2262	2250	2262
20°	2225	2217	2235
25°	2181	2176	2189
30°	2129	2118	2124
35°	2061	2053	2048
40°	1985	1966	1954
45°	1895	1877	1869
50°	1810	1781	1761
55°	1713	1687	1671
60°	1611	1582	1563
65°	1522	1466	1453
70°	1396	1342	1315
75°	1282	1204	1154
80°	1125	1051	987
85°	909	846	719



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.1	3.8
10°-20°	456.6	10.8
20°-30°	675.5	15.9
30°-40°	779.6	18.4
40°-50°	761.4	17.9
50°-60°	643.0	15.1
60°-70°	458.0	10.8
70°-80°	248.0	5.8
80°-90°	64.0	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°	1293.2	30.4
0°-40°	2072.8	48.8
0°-60°	3477.1	81.9
0°-90°	4247.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4247.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1707	1707	1707	1707	1707	
5°	1700	1700	1692	1696	1696	161
15°	1624	1617	1615	1622	1624	457
25°	1469	1461	1466	1472	1474	676
35°	1255	1245	1250	1245	1247	783
45°	996	988	986	982	982	770
55°	730	721	719	712	712	655
65°	478	469	460	455	456	471
75°	247	238	232	226	222	261
85°	59	58	55	48	47	69
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1707.2	1707.2	1707.2	1707.2	1707.2
2.5°	1712.7	1705.8	1703.1	1704.4	1712.7
5°	1700.3	1700.3	1692.1	1696.2	1696.2
7.5°	1686.6	1688.0	1679.8	1686.6	1683.9
10°	1670.2	1666.1	1660.6	1671.5	1674.3
12.5°	1655.1	1645.5	1642.8	1649.6	1651.0
15°	1623.6	1616.7	1615.4	1622.2	1623.6
17.5°	1588.0	1589.3	1583.9	1593.5	1592.1
20°	1553.7	1551.0	1548.2	1559.2	1560.6
22.5°	1515.4	1507.1	1509.9	1519.5	1522.2
25°	1468.8	1460.6	1466.0	1471.5	1474.3
27.5°	1419.4	1415.3	1414.0	1420.8	1423.6
30°	1370.1	1363.3	1363.3	1371.5	1367.4
32.5°	1309.8	1304.4	1307.1	1309.8	1311.2
35°	1255.0	1245.4	1249.6	1245.4	1246.8
37.5°	1190.6	1183.8	1182.4	1181.0	1181.0
40°	1130.4	1124.9	1119.4	1119.4	1112.5
42.5°	1064.6	1057.7	1055.0	1050.9	1046.8
45°	996.1	987.9	986.5	982.4	982.4
47.5°	934.4	922.1	920.7	912.5	912.5
50°	864.5	856.3	850.8	845.4	841.3
52.5°	801.5	793.3	785.1	779.6	775.5
55°	730.3	720.7	719.3	712.5	712.5
57.5°	665.9	657.7	652.2	644.0	645.3
60°	598.7	590.5	587.8	580.9	580.9
62.5°	535.7	528.9	524.8	517.9	512.4
65°	478.2	468.6	460.4	454.9	456.3
67.5°	415.1	404.2	400.1	394.6	390.5
70°	354.9	348.0	341.2	334.3	334.3
72.5°	298.7	291.8	287.7	279.5	276.8
75°	246.6	238.4	231.6	226.1	222.0
77.5°	194.6	186.3	182.2	175.4	175.4
80°	145.2	139.8	135.6	132.9	127.4
82.5°	100.0	97.3	93.2	89.1	84.9
85°	58.9	57.5	54.8	48.0	46.6
87.5°	23.3	23.3	20.6	19.2	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)