

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: P296111

Luminaire Tested: **24RLN-LD5-45-RDP-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P296111  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36059-R2)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RLN-LD5-45-RDP-UNV-L83050-W2A1-U-4500K  
Description: RLN LED 2x4 TUNABLE WHITE TROFFER  
WITH RDP LENS  
Light Source: (504) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3997.0 lumens  
Efficiency: N/A  
Efficacy: 120.7 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

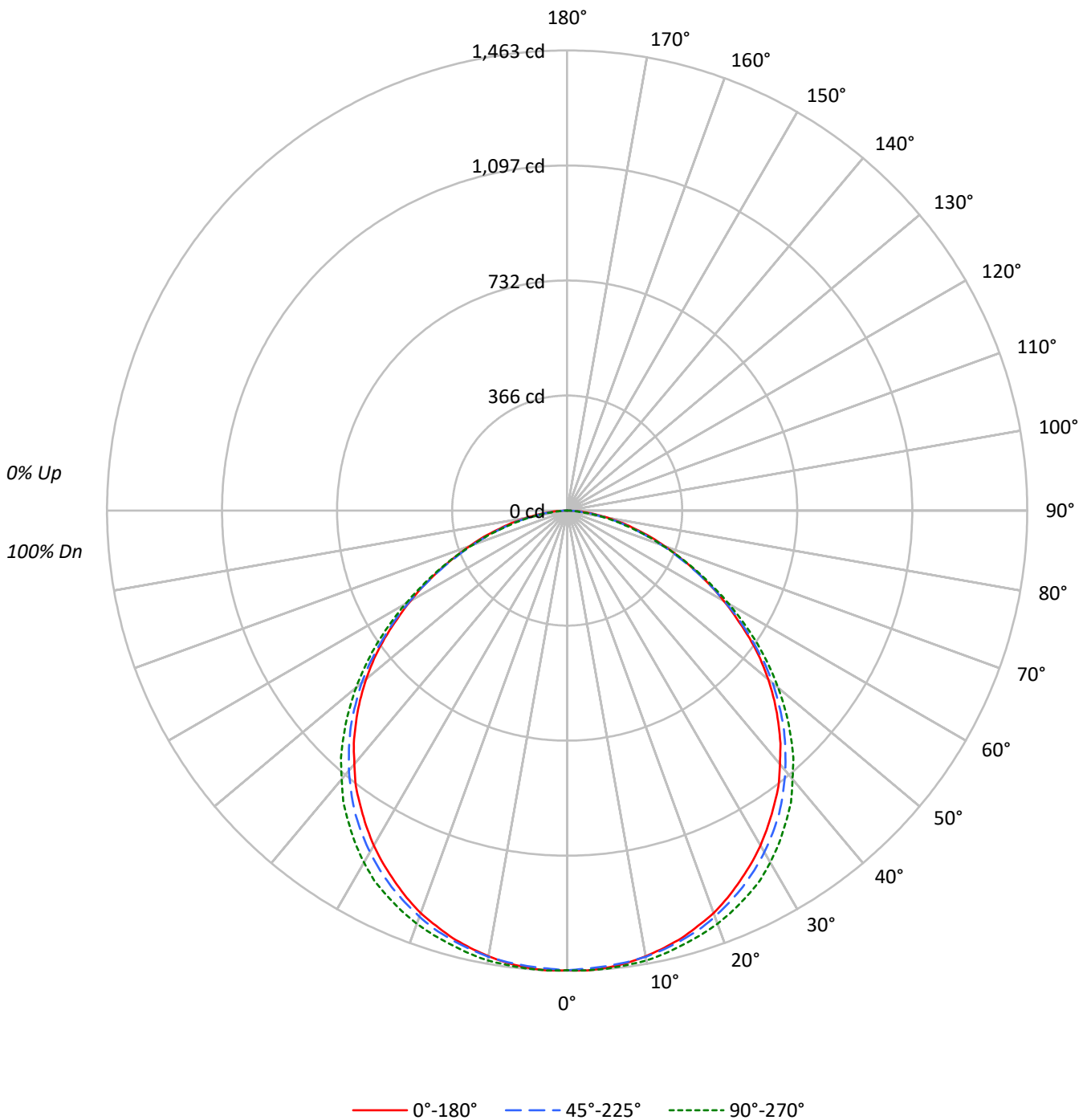
Input Watts (W): 33.108  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63	60
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	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	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	33	27	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	1967	1967	1967
5°	1970	1964	1974
10°	1966	1968	1985
15°	1960	1969	1990
20°	1950	1967	2002
25°	1929	1961	2008
30°	1911	1948	2007
35°	1883	1930	1990
40°	1848	1896	1958
45°	1806	1852	1910
50°	1746	1787	1834
55°	1661	1682	1732
60°	1551	1559	1600
65°	1424	1415	1448
70°	1294	1258	1265
75°	1151	1088	1080
80°	999	893	869
85°	820	631	491



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.6	3.5
10°-20°	399.6	10.0
20°-30°	610.0	15.3
30°-40°	735.4	18.4
40°-50°	750.0	18.8
50°-60°	641.8	16.1
60°-70°	442.1	11.1
70°-80°	226.6	5.7
80°-90°	52.8	1.3
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°	1148.3	28.7
0°-40°	1883.7	47.1
0°-60°	3275.5	81.9
0°-90°	3997.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3997.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1462	1462	1462	1462	1462	
5°	1459	1456	1454	1459	1462	139
15°	1407	1406	1413	1424	1428	397
25°	1300	1304	1321	1343	1352	599
35°	1146	1151	1175	1201	1212	717
45°	949	951	974	998	1004	731
55°	708	704	717	732	738	632
65°	447	437	444	447	455	444
75°	221	212	209	209	208	239
85°	53	47	41	36	32	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1461.7	1461.7	1461.7	1461.7	1461.7
2.5°	1463.2	1460.2	1457.2	1460.2	1463.2
5°	1458.7	1455.7	1454.1	1458.7	1461.7
7.5°	1451.1	1448.1	1448.1	1454.1	1457.2
10°	1439.0	1437.5	1440.5	1446.6	1452.6
12.5°	1423.8	1423.8	1428.4	1435.9	1442.0
15°	1407.1	1405.6	1413.2	1423.8	1428.4
17.5°	1384.4	1385.9	1396.5	1408.6	1414.7
20°	1361.6	1363.2	1373.8	1390.5	1398.0
22.5°	1332.8	1335.9	1348.0	1369.2	1376.8
25°	1299.5	1304.0	1320.7	1343.4	1352.5
27.5°	1266.1	1270.7	1288.9	1314.6	1326.8
30°	1229.7	1235.8	1254.0	1281.3	1291.9
32.5°	1188.8	1193.3	1216.1	1243.4	1254.0
35°	1146.3	1150.9	1175.1	1200.9	1211.5
37.5°	1103.9	1103.9	1128.1	1158.5	1169.1
40°	1052.3	1053.8	1079.6	1108.4	1114.5
42.5°	1003.8	1003.8	1026.5	1053.8	1064.4
45°	949.2	950.7	973.5	997.7	1003.8
47.5°	893.1	893.1	912.8	935.6	941.6
50°	834.0	830.9	853.7	871.9	876.4
52.5°	773.3	768.8	787.0	802.1	808.2
55°	708.1	703.6	717.2	732.4	738.4
57.5°	639.9	633.8	649.0	662.6	665.7
60°	576.2	567.1	579.2	586.8	594.4
62.5°	512.5	501.9	511.0	515.5	521.6
65°	447.3	436.7	444.3	447.3	454.9
67.5°	385.1	377.6	379.1	383.6	386.7
70°	329.0	319.9	319.9	319.9	321.5
72.5°	277.5	263.8	262.3	263.8	263.8
75°	221.4	212.3	209.3	209.3	207.7
77.5°	177.4	165.3	163.8	160.7	157.7
80°	128.9	118.3	115.2	113.7	112.2
82.5°	89.5	80.4	77.3	74.3	69.8
85°	53.1	47.0	40.9	36.4	31.8
87.5°	19.7	18.2	15.2	13.6	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)