

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: P182384

Luminaire Tested: **24FR-50-UNV-L827-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P182384  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26767)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24FR-50-UNV-L827-CD1-U  
Description: METALUX 2X4 FR TROFFER LED FIXTURE  
  
Light Source: EATON LED 2700K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4876.0 lumens  
Efficiency: N/A  
Efficacy: 108.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.32  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

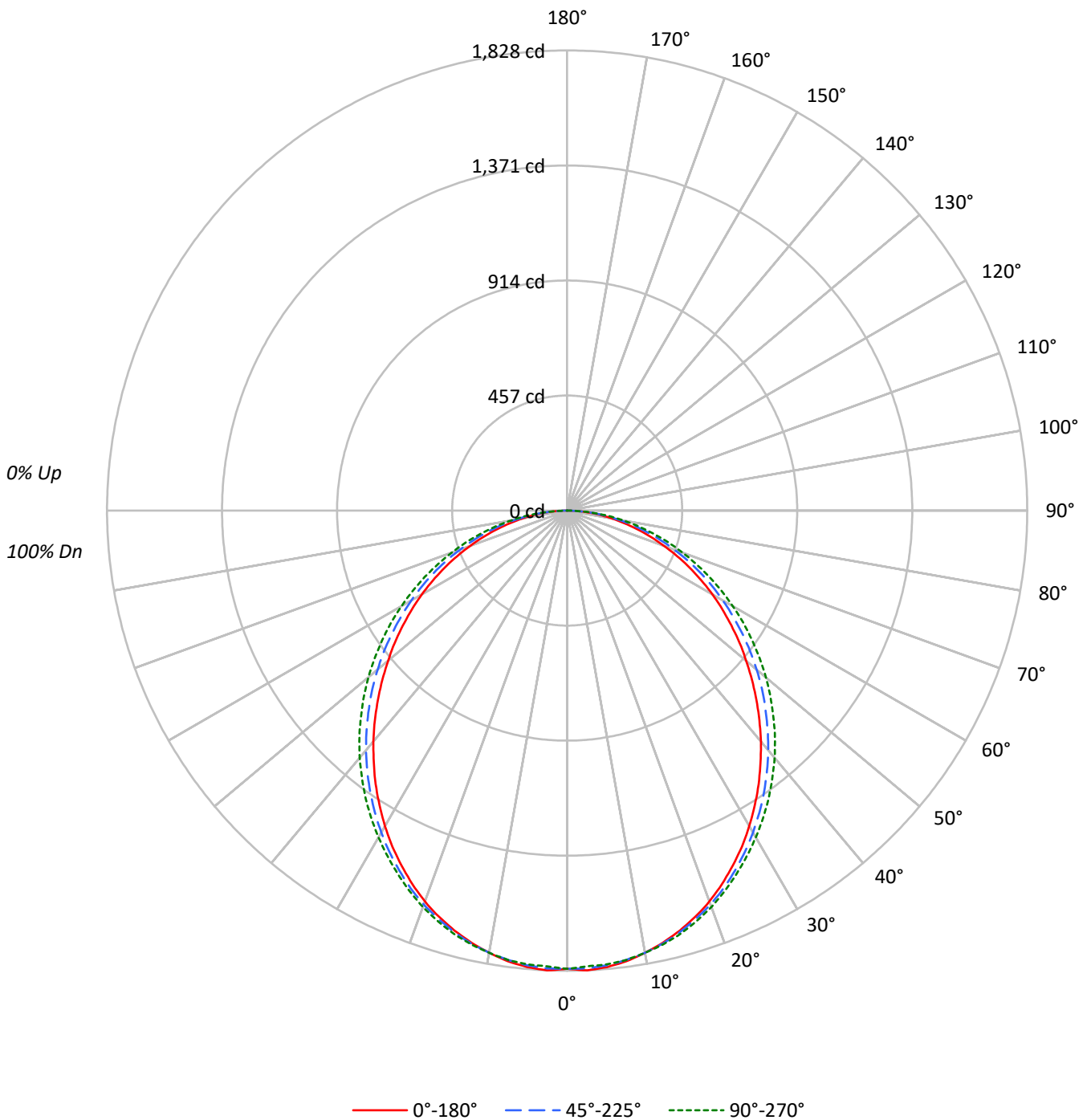
Input Watts (W): 45.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70
3	90	80	71	65	88	78	70	64	75	69	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50
5	76	63	54	48	74	62	54	47	60	52	47	58	51	46	56	50	46	44
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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

	0°	45°	90°
0°	2449	2449	2449
5°	2458	2449	2444
10°	2437	2437	2437
15°	2406	2415	2424
20°	2366	2385	2400
25°	2310	2342	2364
30°	2248	2294	2329
35°	2179	2240	2292
40°	2103	2184	2252
45°	2022	2120	2205
50°	1942	2057	2158
55°	1868	1989	2102
60°	1793	1922	2045
65°	1710	1856	1986
70°	1610	1781	1915
75°	1512	1701	1848
80°	1399	1599	1763
85°	1249	1485	1612



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	171.9	3.5
10°-20°	487.9	10.0
20°-30°	724.5	14.9
30°-40°	850.2	17.4
40°-50°	857.8	17.6
50°-60°	757.8	15.5
60°-70°	575.7	11.8
70°-80°	344.5	7.1
80°-90°	105.6	2.2
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°	1384.4	28.4
0°-40°	2234.6	45.8
0°-60°	3850.2	79.0
0°-90°	4876.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4876.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1820	1820	1820	1820	1820	
5°	1820	1806	1813	1811	1810	173
15°	1728	1719	1733	1738	1740	487
25°	1556	1554	1577	1586	1593	717
35°	1326	1331	1364	1383	1396	829
45°	1063	1074	1114	1147	1159	820
55°	796	809	848	884	896	713
65°	537	550	583	612	624	532
75°	291	305	327	346	355	309
85°	81	88	96	102	104	91
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1820.2	1820.2	1820.2	1820.2	1820.2
2.5°	1828.4	1814.3	1820.2	1817.9	1812.0
5°	1820.2	1806.1	1813.2	1810.8	1809.6
7.5°	1806.1	1793.2	1800.3	1800.3	1800.3
10°	1783.8	1773.3	1783.8	1783.8	1783.8
12.5°	1758.0	1748.7	1761.6	1762.7	1765.1
15°	1727.5	1719.3	1733.4	1738.1	1740.5
17.5°	1692.4	1685.3	1700.6	1707.6	1710.0
20°	1652.5	1645.5	1665.4	1670.1	1675.9
22.5°	1606.7	1603.2	1624.3	1629.0	1636.1
25°	1556.3	1554.0	1577.4	1585.6	1592.7
27.5°	1504.7	1503.5	1529.3	1539.9	1546.9
30°	1447.2	1448.4	1476.6	1489.5	1498.9
32.5°	1387.4	1391.0	1421.4	1436.7	1448.4
35°	1326.4	1331.1	1364.0	1382.7	1395.6
37.5°	1261.9	1269.0	1304.2	1326.4	1339.3
40°	1197.4	1205.6	1243.2	1266.6	1281.9
42.5°	1130.6	1141.1	1178.7	1209.2	1222.1
45°	1062.6	1074.3	1114.2	1147.0	1158.7
47.5°	995.7	1011.0	1049.7	1082.5	1095.4
50°	927.7	941.8	982.8	1016.8	1030.9
52.5°	864.4	877.3	916.0	951.1	964.0
55°	796.3	809.2	847.9	884.3	896.0
57.5°	731.8	743.6	781.1	817.4	829.2
60°	666.2	677.9	714.2	747.1	760.0
62.5°	601.7	613.4	649.7	680.2	692.0
65°	537.1	550.0	582.9	612.2	623.9
67.5°	473.8	486.7	517.2	545.4	554.7
70°	409.3	423.4	452.7	478.5	486.7
72.5°	349.5	363.6	389.4	411.7	422.2
75°	290.9	304.9	327.2	346.0	355.4
77.5°	234.6	248.6	266.2	281.5	289.7
80°	180.6	193.5	206.4	221.7	227.5
82.5°	129.0	139.6	150.1	161.8	166.5
85°	80.9	88.0	96.2	102.0	104.4
87.5°	35.2	39.9	41.0	42.2	41.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)