

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: P182379

Luminaire Tested: **24FR-40-UNV-L827-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P182379  
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-40-UNV-L827-CD1-U  
Description: METALUX 2X4 FR TROFFER LED FIXTURE  
  
Light Source: EATON LED 2700K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

**Summary**

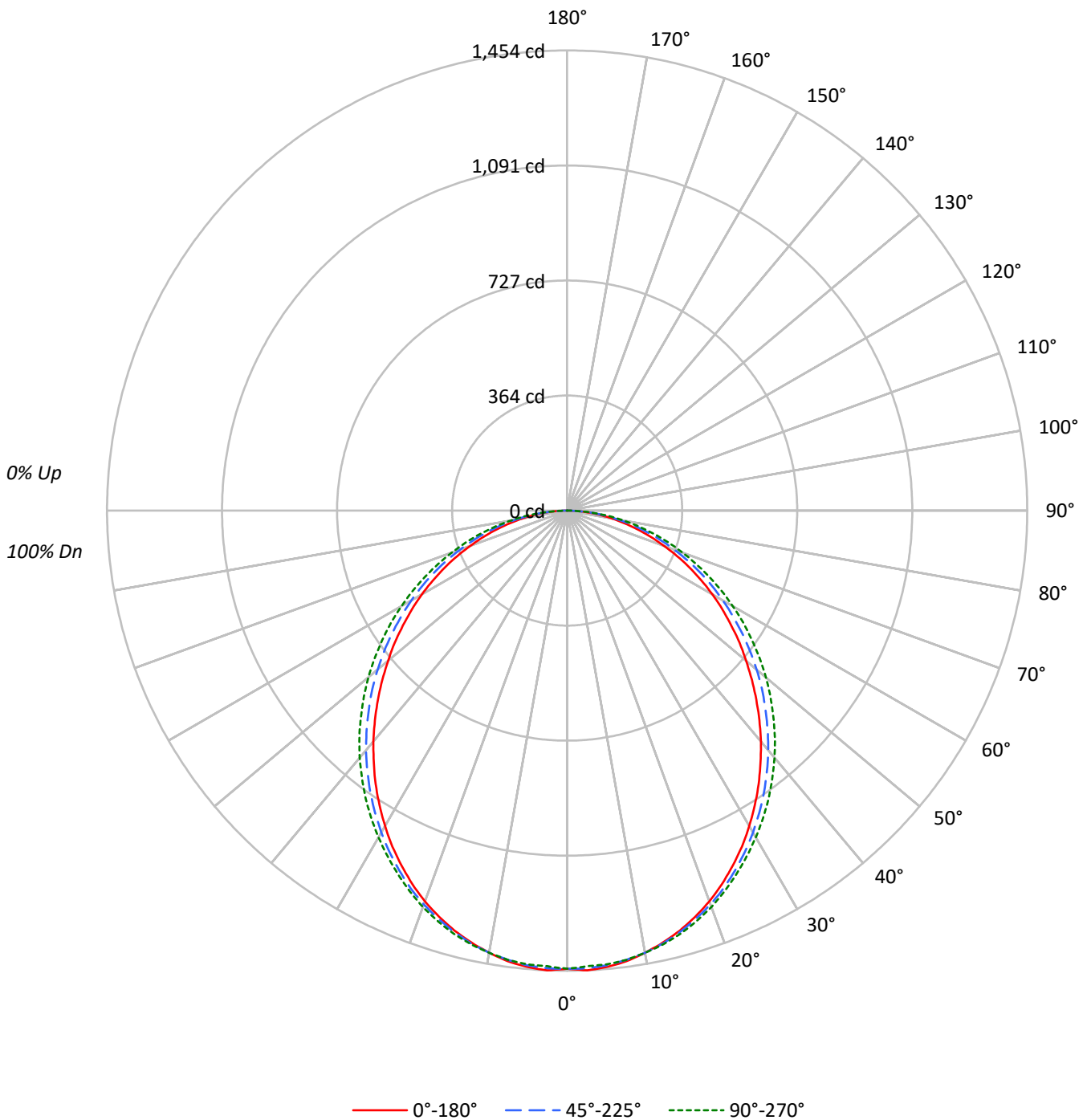
Lumens per Lamp: N/A  
Luminaire Lumens: 3878.0 lumens  
Efficiency: N/A  
Efficacy: 115.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.32  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	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°	1948	1948	1948
5°	1955	1948	1944
10°	1938	1938	1938
15°	1914	1920	1928
20°	1882	1896	1908
25°	1838	1863	1881
30°	1788	1825	1852
35°	1733	1782	1823
40°	1673	1737	1791
45°	1608	1686	1754
50°	1544	1636	1716
55°	1486	1582	1672
60°	1426	1529	1626
65°	1360	1476	1580
70°	1281	1416	1523
75°	1202	1353	1469
80°	1113	1272	1402
85°	994	1181	1281



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.8	3.5
10°-20°	388.1	10.0
20°-30°	576.3	14.9
30°-40°	676.2	17.4
40°-50°	682.2	17.6
50°-60°	602.7	15.5
60°-70°	457.9	11.8
70°-80°	274.0	7.1
80°-90°	84.0	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°	1101.1	28.4
0°-40°	1777.3	45.8
0°-60°	3062.2	79.0
0°-90°	3878.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3878.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1448	1448	1448	1448	1448	
5°	1448	1436	1442	1440	1439	137
15°	1374	1367	1379	1382	1384	387
25°	1238	1236	1255	1261	1267	570
35°	1055	1059	1085	1100	1110	659
45°	845	854	886	912	922	652
55°	633	644	674	703	713	567
65°	427	438	464	487	496	423
75°	231	242	260	275	283	245
85°	64	70	76	81	83	73
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1447.6	1447.6	1447.6	1447.6	1447.6
2.5°	1454.2	1443.0	1447.6	1445.8	1441.1
5°	1447.6	1436.5	1442.1	1440.2	1439.3
7.5°	1436.5	1426.2	1431.8	1431.8	1431.8
10°	1418.7	1410.3	1418.7	1418.7	1418.7
12.5°	1398.2	1390.8	1401.0	1401.9	1403.8
15°	1374.0	1367.4	1378.6	1382.4	1384.2
17.5°	1346.0	1340.4	1352.5	1358.1	1360.0
20°	1314.3	1308.7	1324.5	1328.3	1332.9
22.5°	1277.9	1275.1	1291.9	1295.6	1301.2
25°	1237.8	1235.9	1254.6	1261.1	1266.7
27.5°	1196.7	1195.8	1216.3	1224.7	1230.3
30°	1151.0	1152.0	1174.4	1184.6	1192.1
32.5°	1103.5	1106.3	1130.5	1142.6	1152.0
35°	1055.0	1058.7	1084.8	1099.7	1110.0
37.5°	1003.7	1009.3	1037.2	1055.0	1065.2
40°	952.4	958.9	988.7	1007.4	1019.5
42.5°	899.2	907.6	937.4	961.7	971.9
45°	845.1	854.4	886.1	912.2	921.6
47.5°	791.9	804.0	834.8	860.9	871.2
50°	737.8	749.0	781.7	808.7	819.9
52.5°	687.4	697.7	728.5	756.5	766.7
55°	633.3	643.6	674.4	703.3	712.6
57.5°	582.0	591.4	621.2	650.1	659.5
60°	529.8	539.1	568.1	594.2	604.4
62.5°	478.5	487.8	516.8	541.0	550.3
65°	427.2	437.5	463.6	486.9	496.2
67.5°	376.8	387.1	411.3	433.7	441.2
70°	325.5	336.7	360.0	380.6	387.1
72.5°	278.0	289.2	309.7	327.4	335.8
75°	231.3	242.5	260.2	275.2	282.6
77.5°	186.6	197.7	211.7	223.9	230.4
80°	143.6	153.9	164.2	176.3	181.0
82.5°	102.6	111.0	119.4	128.7	132.5
85°	64.4	70.0	76.5	81.2	83.0
87.5°	28.0	31.7	32.6	33.6	32.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)