

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: P182399

Luminaire Tested: **24FR-72-UNV-L827-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P182399  
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-72-UNV-L827-CD1-U  
Description: METALUX 2X4 FR TROFFER LED FIXTURE  
  
Light Source: EATON LED 2700K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

**Summary**

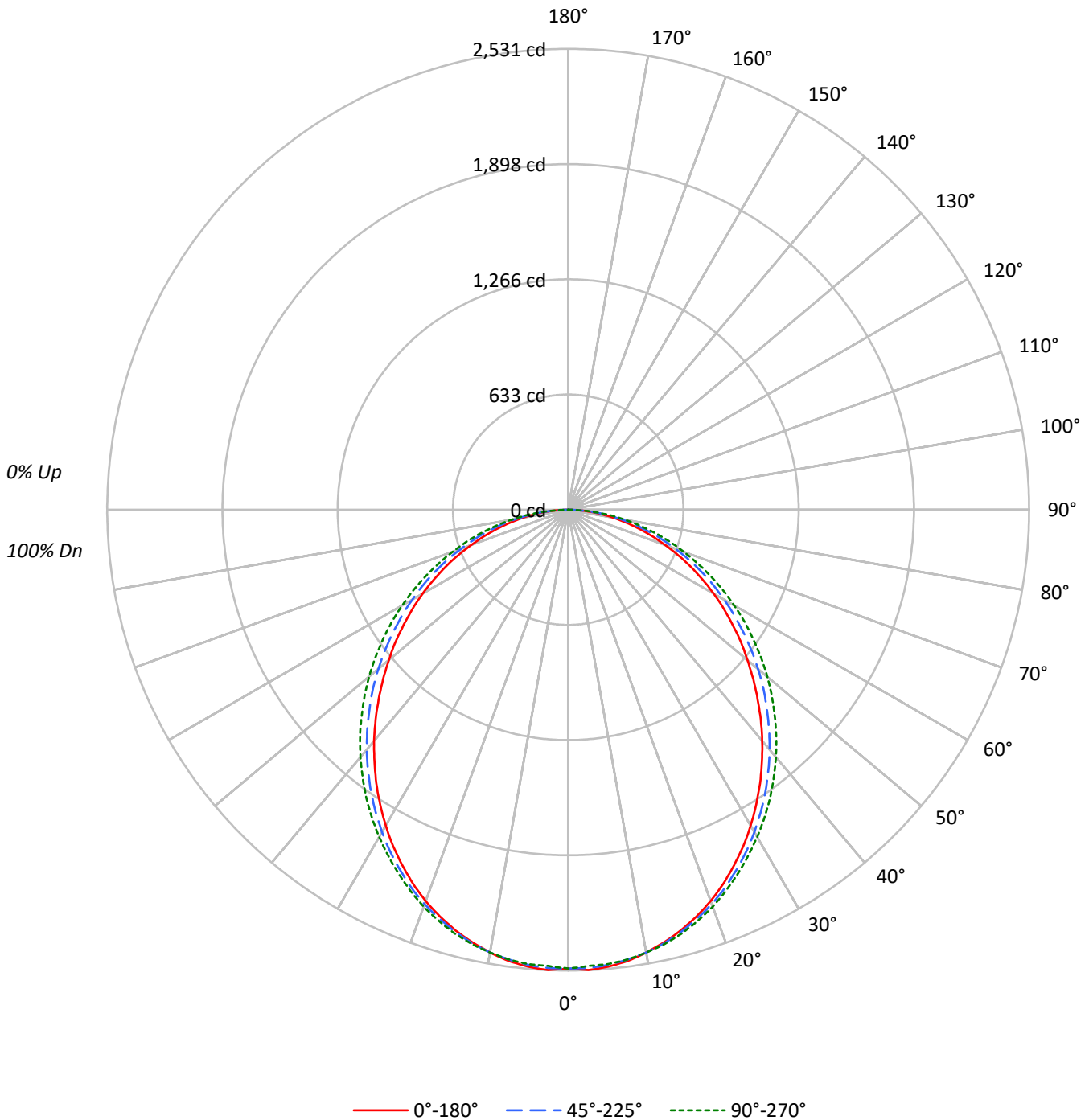
Lumens per Lamp: N/A  
Luminaire Lumens: 6750.0 lumens  
Efficiency: N/A  
Efficacy: 92.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.32  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 73.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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



TEST NUMBER: P182399

CATALOG NUMBER: 24FR-72-UNV-L827-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P182399

CATALOG NUMBER: 24FR-72-UNV-L827-CD1-U

**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°	3390	3390	3390
5°	3403	3390	3383
10°	3374	3374	3374
15°	3331	3343	3356
20°	3275	3301	3322
25°	3199	3242	3273
30°	3113	3176	3224
35°	3016	3101	3173
40°	2912	3023	3117
45°	2799	2935	3052
50°	2688	2848	2987
55°	2586	2753	2910
60°	2482	2661	2831
65°	2367	2569	2750
70°	2229	2465	2651
75°	2093	2355	2557
80°	1937	2214	2441
85°	1729	2055	2231



TEST NUMBER: P182399

CATALOG NUMBER: 24FR-72-UNV-L827-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	238.0	3.5
10°-20°	675.5	10.0
20°-30°	1003.0	14.9
30°-40°	1177.0	17.4
40°-50°	1187.4	17.6
50°-60°	1049.0	15.5
60°-70°	797.0	11.8
70°-80°	476.9	7.1
80°-90°	146.1	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°	1916.5	28.4
0°-40°	3093.5	45.8
0°-60°	5330.0	79.0
0°-90°	6750.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6750.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2520	2520	2520	2520	2520	
5°	2520	2500	2510	2507	2505	239
15°	2392	2380	2400	2406	2409	674
25°	2154	2151	2184	2195	2205	992
35°	1836	1843	1888	1914	1932	1148
45°	1471	1487	1542	1588	1604	1136
55°	1102	1120	1174	1224	1240	987
65°	744	761	807	848	864	736
75°	403	422	453	479	492	427
85°	112	122	133	141	144	126
90°	0	0	0	0	0	



TEST NUMBER: P182399

CATALOG NUMBER: 24FR-72-UNV-L827-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2519.8	2519.8	2519.8	2519.8	2519.8
2.5°	2531.1	2511.6	2519.8	2516.5	2508.4
5°	2519.8	2500.3	2510.0	2506.8	2505.1
7.5°	2500.3	2482.4	2492.2	2492.2	2492.2
10°	2469.4	2454.8	2469.4	2469.4	2469.4
12.5°	2433.7	2420.7	2438.6	2440.2	2443.5
15°	2391.5	2380.1	2399.6	2406.1	2409.4
17.5°	2342.8	2333.1	2354.2	2363.9	2367.1
20°	2287.6	2277.9	2305.5	2311.9	2320.1
22.5°	2224.3	2219.4	2248.6	2255.1	2264.9
25°	2154.5	2151.2	2183.7	2195.1	2204.8
27.5°	2083.0	2081.4	2117.1	2131.7	2141.5
30°	2003.5	2005.1	2044.1	2061.9	2074.9
32.5°	1920.7	1925.5	1967.8	1988.9	2005.1
35°	1836.2	1842.7	1888.2	1914.2	1932.0
37.5°	1746.9	1756.7	1805.4	1836.2	1854.1
40°	1657.7	1669.0	1721.0	1753.4	1774.5
42.5°	1565.1	1579.7	1631.7	1673.9	1691.7
45°	1470.9	1487.2	1542.4	1587.8	1604.1
47.5°	1378.4	1399.5	1453.1	1498.5	1516.4
50°	1284.2	1303.7	1360.5	1407.6	1427.1
52.5°	1196.6	1214.4	1268.0	1316.7	1334.6
55°	1102.4	1120.3	1173.8	1224.2	1240.4
57.5°	1013.1	1029.3	1081.3	1131.6	1147.9
60°	922.2	938.4	988.7	1034.2	1052.1
62.5°	832.9	849.1	899.5	941.7	957.9
65°	743.6	761.4	806.9	847.5	863.7
67.5°	655.9	673.8	716.0	755.0	767.9
70°	566.6	586.1	626.7	662.4	673.8
72.5°	483.8	503.3	539.0	569.9	584.5
75°	402.6	422.1	453.0	478.9	491.9
77.5°	324.7	344.2	368.5	389.7	401.0
80°	250.0	267.9	285.7	306.9	315.0
82.5°	178.6	193.2	207.8	224.1	230.5
85°	112.0	121.8	133.1	141.2	144.5
87.5°	48.7	55.2	56.8	58.4	56.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)