

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: P182396

Luminaire Tested: **24FR-69-UNV-L835-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P182396  
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-69-UNV-L835-CD1-U  
Description: METALUX 2X4 FR TROFFER LED FIXTURE  
  
Light Source: EATON LED 3500K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

**Summary**

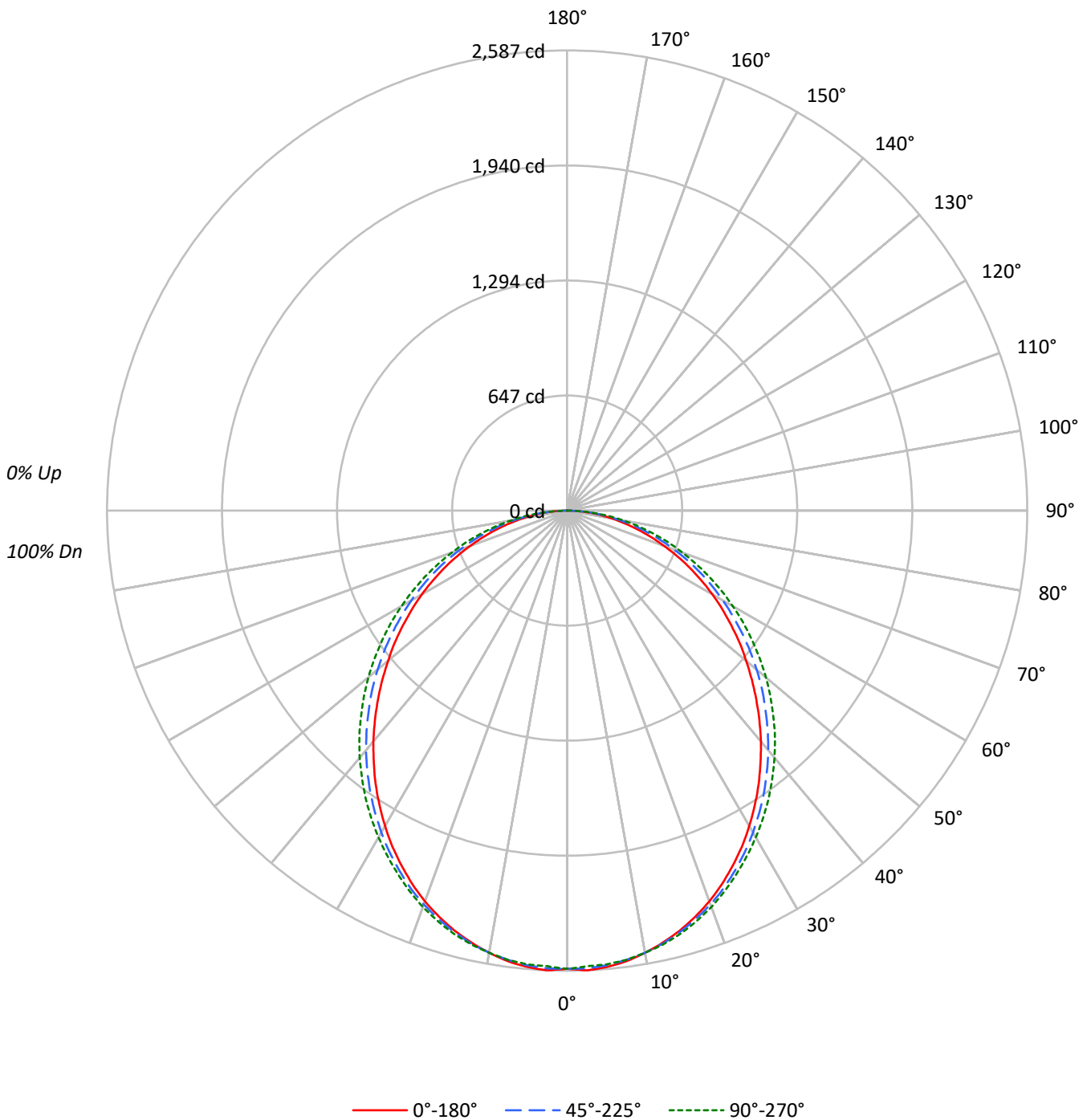
Lumens per Lamp: N/A  
Luminaire Lumens: 6900.0 lumens  
Efficiency: N/A  
Efficacy: 101.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.32  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 68.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3466	3466	3466
5°	3479	3465	3459
10°	3449	3449	3449
15°	3405	3417	3431
20°	3348	3374	3396
25°	3269	3314	3346
30°	3182	3246	3295
35°	3083	3170	3244
40°	2976	3090	3186
45°	2861	3000	3120
50°	2748	2911	3054
55°	2643	2815	2974
60°	2537	2720	2894
65°	2420	2626	2811
70°	2279	2520	2709
75°	2140	2407	2614
80°	1980	2263	2495
85°	1768	2101	2280



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	243.3	3.5
10°-20°	690.5	10.0
20°-30°	1025.3	14.9
30°-40°	1203.1	17.4
40°-50°	1213.8	17.6
50°-60°	1072.3	15.5
60°-70°	814.7	11.8
70°-80°	487.5	7.1
80°-90°	149.4	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°	1959.1	28.4
0°-40°	3162.3	45.8
0°-60°	5448.4	79.0
0°-90°	6900.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6900.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2576	2576	2576	2576	2576	
5°	2576	2556	2566	2562	2561	244
15°	2445	2433	2453	2460	2463	689
25°	2202	2199	2232	2244	2254	1014
35°	1877	1884	1930	1957	1975	1173
45°	1504	1520	1577	1623	1640	1161
55°	1127	1145	1200	1251	1268	1009
65°	760	778	825	866	883	753
75°	412	432	463	490	503	437
85°	114	124	136	144	148	129
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2575.8	2575.8	2575.8	2575.8	2575.8
2.5°	2587.4	2567.5	2575.8	2572.4	2564.1
5°	2575.8	2555.8	2565.8	2562.5	2560.8
7.5°	2555.8	2537.6	2547.5	2547.5	2547.5
10°	2524.3	2509.4	2524.3	2524.3	2524.3
12.5°	2487.8	2474.5	2492.8	2494.4	2497.8
15°	2444.6	2433.0	2452.9	2459.6	2462.9
17.5°	2394.9	2384.9	2406.5	2416.4	2419.8
20°	2338.4	2328.5	2356.7	2363.3	2371.6
22.5°	2273.7	2268.7	2298.6	2305.2	2315.2
25°	2202.3	2199.0	2232.2	2243.8	2253.8
27.5°	2129.3	2127.7	2164.2	2179.1	2189.1
30°	2048.0	2049.7	2089.5	2107.7	2121.0
32.5°	1963.4	1968.3	2011.5	2033.1	2049.7
35°	1877.0	1883.7	1930.2	1956.7	1975.0
37.5°	1785.8	1795.7	1845.5	1877.0	1895.3
40°	1694.5	1706.1	1759.2	1792.4	1814.0
42.5°	1599.9	1614.8	1667.9	1711.1	1729.3
45°	1503.6	1520.2	1576.7	1623.1	1639.7
47.5°	1409.0	1430.6	1485.4	1531.8	1550.1
50°	1312.8	1332.7	1390.8	1438.9	1458.8
52.5°	1223.2	1241.4	1296.2	1346.0	1364.2
55°	1126.9	1145.1	1199.9	1251.4	1268.0
57.5°	1035.6	1052.2	1105.3	1156.8	1173.4
60°	942.7	959.3	1010.7	1057.2	1075.4
62.5°	851.4	868.0	919.4	962.6	979.2
65°	760.1	778.4	824.8	866.3	882.9
67.5°	670.5	688.7	731.9	771.7	785.0
70°	579.2	599.1	640.6	677.1	688.7
72.5°	494.6	514.5	551.0	582.5	597.5
75°	411.6	431.5	463.0	489.6	502.9
77.5°	331.9	351.8	376.7	398.3	409.9
80°	255.6	273.8	292.1	313.7	322.0
82.5°	182.6	197.5	212.4	229.0	235.7
85°	114.5	124.5	136.1	144.4	147.7
87.5°	49.8	56.4	58.1	59.7	58.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)