

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: P182393

Luminaire Tested: **24FR-65-UNV-L850-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P182393  
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-65-UNV-L850-CD1-U  
Description: METALUX 2X4 FR TROFFER LED FIXTURE  
  
Light Source: EATON LED 5000K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

**Summary**

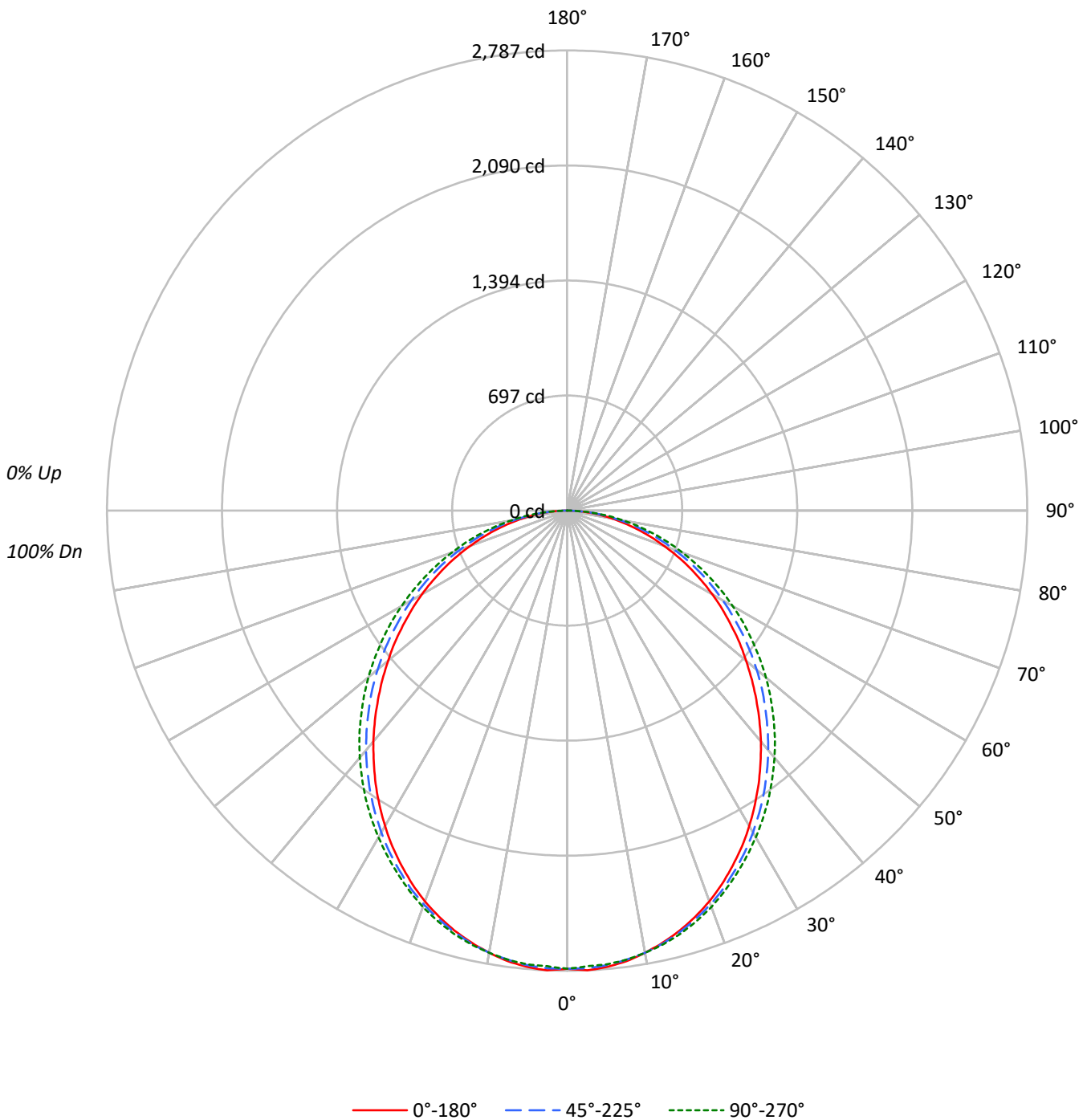
Lumens per Lamp: N/A  
Luminaire Lumens: 7433.0 lumens  
Efficiency: N/A  
Efficacy: 114.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.32  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 65.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	3733	3733	3733
5°	3748	3733	3726
10°	3715	3715	3715
15°	3668	3681	3696
20°	3607	3635	3658
25°	3522	3570	3604
30°	3428	3497	3550
35°	3321	3415	3495
40°	3206	3329	3432
45°	3082	3232	3361
50°	2960	3136	3289
55°	2848	3032	3204
60°	2733	2930	3117
65°	2607	2829	3028
70°	2455	2715	2919
75°	2305	2593	2816
80°	2133	2438	2687
85°	1905	2263	2456



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	262.1	3.5
10°-20°	743.8	10.0
20°-30°	1104.5	14.9
30°-40°	1296.1	17.4
40°-50°	1307.6	17.6
50°-60°	1155.2	15.5
60°-70°	877.6	11.8
70°-80°	525.1	7.1
80°-90°	160.9	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°	2110.4	28.4
0°-40°	3406.5	45.8
0°-60°	5869.3	79.0
0°-90°	7433.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7433.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2775	2775	2775	2775	2775	
5°	2775	2753	2764	2760	2759	263
15°	2634	2621	2642	2650	2653	742
25°	2372	2369	2405	2417	2428	1093
35°	2022	2029	2079	2108	2128	1264
45°	1620	1638	1698	1748	1766	1250
55°	1214	1234	1293	1348	1366	1087
65°	819	838	889	933	951	811
75°	443	465	499	527	542	470
85°	123	134	147	156	159	139
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2774.7	2774.7	2774.7	2774.7	2774.7
2.5°	2787.2	2765.8	2774.7	2771.1	2762.2
5°	2774.7	2753.3	2764.0	2760.4	2758.6
7.5°	2753.3	2733.6	2744.3	2744.3	2744.3
10°	2719.3	2703.2	2719.3	2719.3	2719.3
12.5°	2680.0	2665.7	2685.3	2687.1	2690.7
15°	2633.5	2621.0	2642.4	2649.6	2653.2
17.5°	2579.9	2569.1	2592.4	2603.1	2606.7
20°	2519.1	2508.3	2538.7	2545.9	2554.8
22.5°	2449.3	2444.0	2476.2	2483.3	2494.0
25°	2372.5	2368.9	2404.6	2417.2	2427.9
27.5°	2293.8	2292.0	2331.3	2347.4	2358.2
30°	2206.2	2208.0	2250.9	2270.6	2284.9
32.5°	2115.0	2120.4	2166.9	2190.1	2208.0
35°	2022.0	2029.2	2079.3	2107.9	2127.5
37.5°	1923.7	1934.4	1988.1	2022.0	2041.7
40°	1825.4	1837.9	1895.1	1930.9	1954.1
42.5°	1723.5	1739.6	1796.8	1843.3	1862.9
45°	1619.8	1637.7	1698.4	1748.5	1766.4
47.5°	1517.9	1541.1	1600.1	1650.2	1669.8
50°	1414.2	1435.6	1498.2	1550.1	1571.5
52.5°	1317.6	1337.3	1396.3	1449.9	1469.6
55°	1213.9	1233.6	1292.6	1348.0	1365.9
57.5°	1115.6	1133.5	1190.7	1246.1	1264.0
60°	1015.5	1033.4	1088.8	1138.9	1158.5
62.5°	917.2	935.0	990.5	1036.9	1054.8
65°	818.8	838.5	888.6	933.3	951.1
67.5°	722.3	742.0	788.4	831.3	845.6
70°	624.0	645.4	690.1	729.4	742.0
72.5°	532.8	554.2	593.6	627.5	643.6
75°	443.4	464.8	498.8	527.4	541.7
77.5°	357.6	379.0	405.8	429.1	441.6
80°	275.3	295.0	314.7	337.9	346.8
82.5°	196.7	212.8	228.8	246.7	253.9
85°	123.4	134.1	146.6	155.5	159.1
87.5°	53.6	60.8	62.6	64.4	62.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)