

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: P182400

Luminaire Tested: **24FR-72-UNV-L830-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P182400  
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-L830-CD1-U  
Description: METALUX 2X4 FR TROFFER LED FIXTURE  
  
Light Source: EATON LED 3000K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

**Summary**

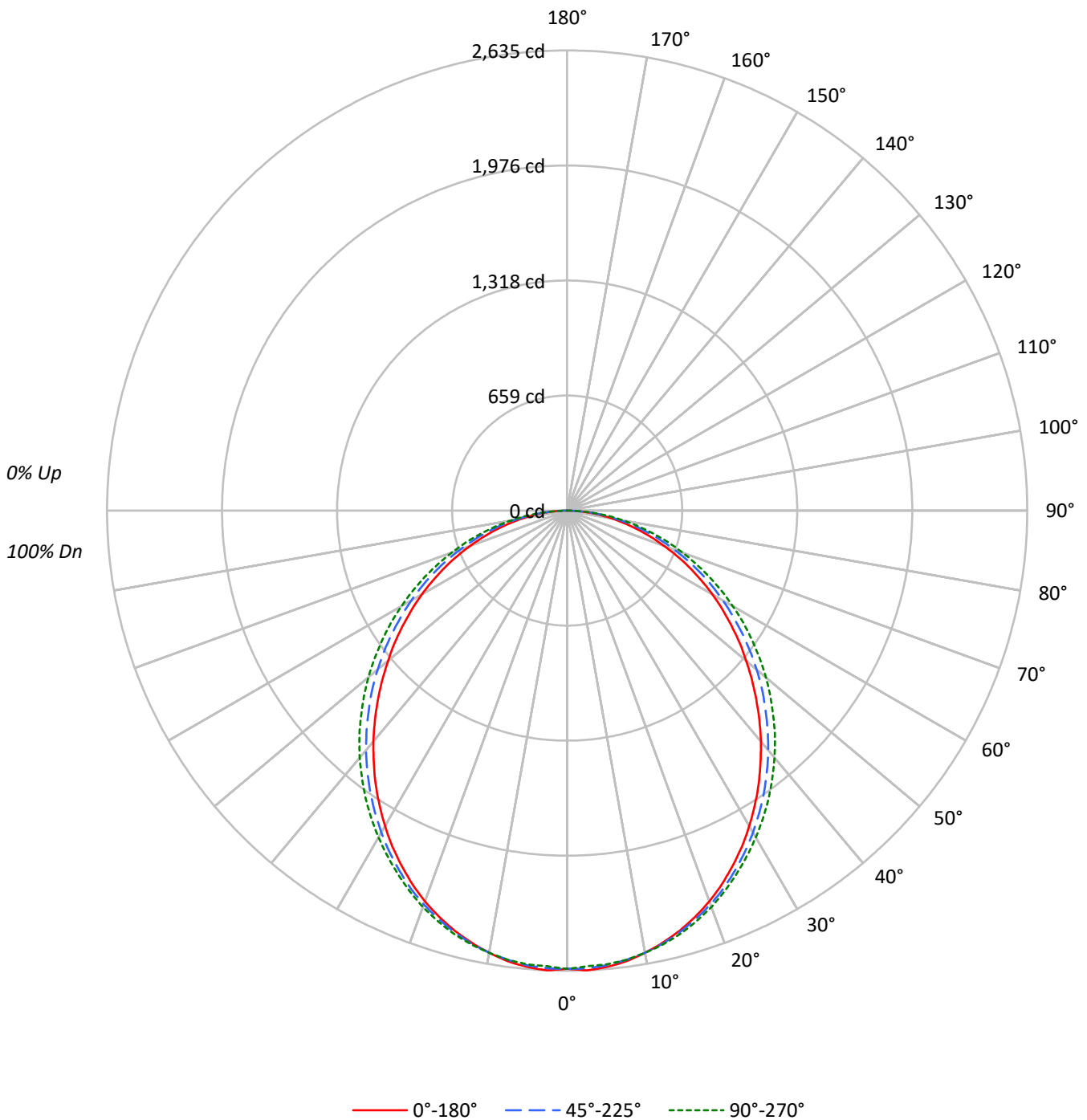
Lumens per Lamp: N/A  
Luminaire Lumens: 7028.0 lumens  
Efficiency: N/A  
Efficacy: 96.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.32  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 73.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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



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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°	3530	3530	3530
5°	3543	3530	3523
10°	3513	3513	3513
15°	3468	3480	3494
20°	3410	3437	3459
25°	3330	3375	3408
30°	3241	3306	3356
35°	3140	3229	3304
40°	3031	3147	3245
45°	2914	3056	3178
50°	2799	2965	3110
55°	2692	2867	3030
60°	2584	2770	2948
65°	2465	2675	2863
70°	2321	2567	2760
75°	2179	2452	2663
80°	2017	2305	2541
85°	1800	2140	2322



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	247.8	3.5
10°-20°	703.3	10.0
20°-30°	1044.3	14.9
30°-40°	1225.5	17.4
40°-50°	1236.3	17.6
50°-60°	1092.2	15.5
60°-70°	829.8	11.8
70°-80°	496.5	7.1
80°-90°	152.2	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°	1995.5	28.4
0°-40°	3220.9	45.8
0°-60°	5549.5	79.0
0°-90°	7028.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7028.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2624	2624	2624	2624	2624	
5°	2624	2603	2613	2610	2608	249
15°	2490	2478	2498	2505	2509	702
25°	2243	2240	2274	2286	2296	1033
35°	1912	1919	1966	1993	2012	1195
45°	1532	1548	1606	1653	1670	1182
55°	1148	1166	1222	1275	1292	1028
65°	774	793	840	882	899	767
75°	419	440	472	499	512	445
85°	117	127	139	147	150	131
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2623.5	2623.5	2623.5	2623.5	2623.5
2.5°	2635.4	2615.1	2623.5	2620.2	2611.7
5°	2623.5	2603.3	2613.4	2610.0	2608.3
7.5°	2603.3	2584.7	2594.8	2594.8	2594.8
10°	2571.1	2555.9	2571.1	2571.1	2571.1
12.5°	2533.9	2520.4	2539.0	2540.7	2544.1
15°	2490.0	2478.2	2498.4	2505.2	2508.6
17.5°	2439.3	2429.1	2451.1	2461.3	2464.6
20°	2381.8	2371.7	2400.4	2407.2	2415.6
22.5°	2315.9	2310.8	2341.2	2348.0	2358.1
25°	2243.2	2239.8	2273.6	2285.5	2295.6
27.5°	2168.8	2167.1	2204.3	2219.5	2229.7
30°	2086.0	2087.7	2128.2	2146.8	2160.4
32.5°	1999.8	2004.8	2048.8	2070.8	2087.7
35°	1911.9	1918.6	1966.0	1993.0	2011.6
37.5°	1818.9	1829.0	1879.8	1911.9	1930.5
40°	1725.9	1737.8	1791.8	1825.7	1847.6
42.5°	1629.6	1644.8	1698.9	1742.8	1761.4
45°	1531.5	1548.4	1605.9	1653.2	1670.1
47.5°	1435.2	1457.1	1512.9	1560.3	1578.9
50°	1337.1	1357.4	1416.6	1465.6	1485.9
52.5°	1245.8	1264.4	1320.2	1370.9	1389.5
55°	1147.8	1166.4	1222.2	1274.6	1291.5
57.5°	1054.8	1071.7	1125.8	1178.2	1195.1
60°	960.2	977.1	1029.5	1076.8	1095.4
62.5°	867.2	884.1	936.5	980.4	997.4
65°	774.2	792.8	840.1	882.4	899.3
67.5°	682.9	701.5	745.5	786.0	799.6
70°	590.0	610.2	652.5	689.7	701.5
72.5°	503.7	524.0	561.2	593.3	608.6
75°	419.2	439.5	471.6	498.7	512.2
77.5°	338.1	358.4	383.7	405.7	417.5
80°	260.3	278.9	297.5	319.5	327.9
82.5°	185.9	201.2	216.4	233.3	240.0
85°	116.6	126.8	138.6	147.1	150.4
87.5°	50.7	57.5	59.2	60.9	59.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)