

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: P182403

Luminaire Tested: **24FR-72-UNV-L850-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P182403  
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-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: 8026.0 lumens  
Efficiency: N/A  
Efficacy: 109.8 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

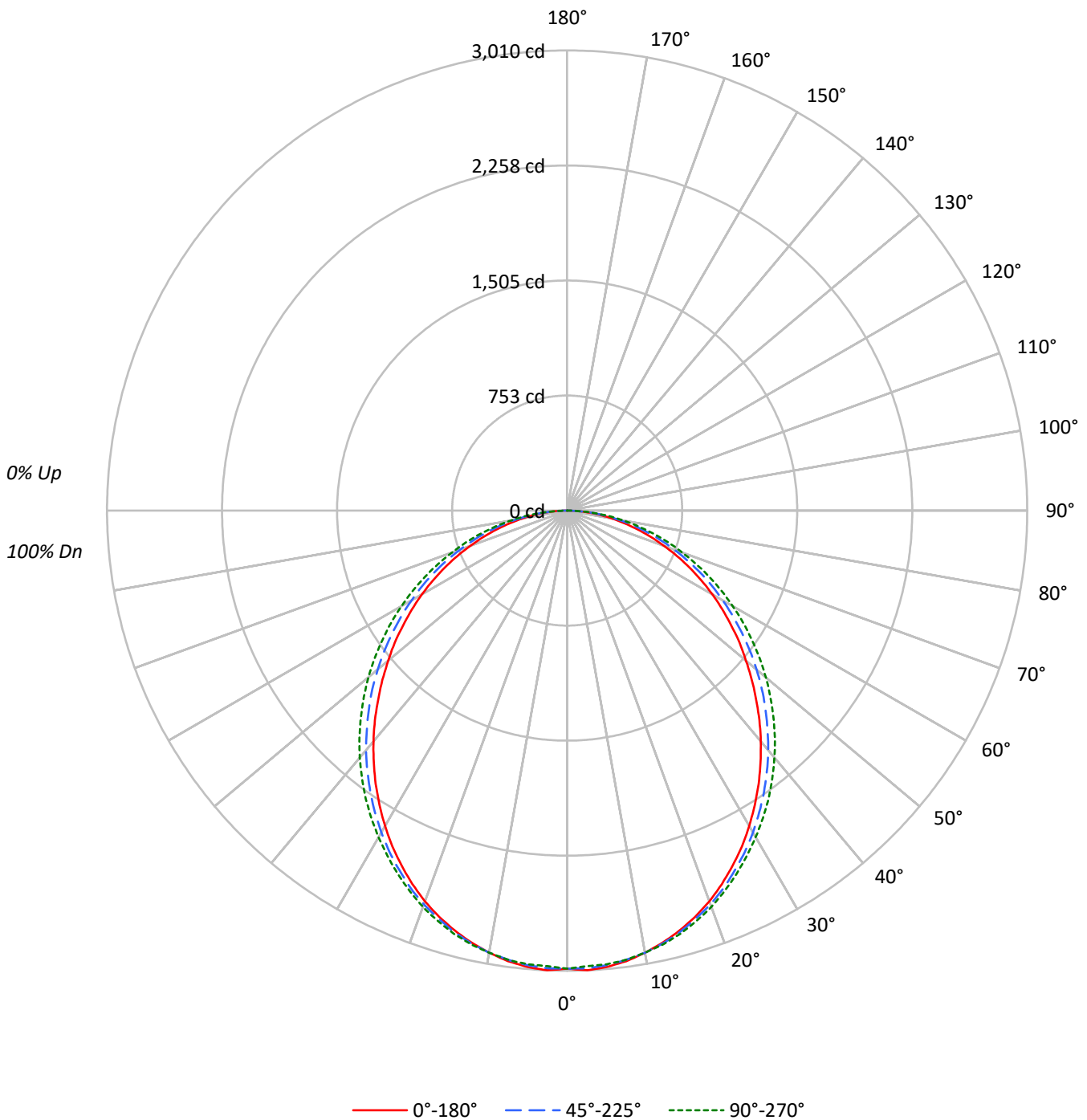
Input Watts (W): 73.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4031	4031	4031
5°	4047	4031	4023
10°	4012	4012	4012
15°	3961	3974	3991
20°	3895	3925	3950
25°	3803	3855	3892
30°	3701	3776	3833
35°	3586	3688	3773
40°	3462	3594	3706
45°	3328	3490	3629
50°	3196	3386	3552
55°	3075	3274	3460
60°	2951	3164	3366
65°	2815	3054	3270
70°	2650	2932	3151
75°	2489	2800	3041
80°	2304	2633	2902
85°	2056	2444	2652



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	283.0	3.5
10°-20°	803.2	10.0
20°-30°	1192.6	14.9
30°-40°	1399.5	17.4
40°-50°	1411.9	17.6
50°-60°	1247.3	15.5
60°-70°	947.6	11.8
70°-80°	567.0	7.1
80°-90°	173.8	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°	2278.8	28.4
0°-40°	3678.3	45.8
0°-60°	6337.5	79.0
0°-90°	8026.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8026.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2996	2996	2996	2996	2996	
5°	2996	2973	2984	2981	2979	284
15°	2844	2830	2853	2861	2865	801
25°	2562	2558	2596	2610	2622	1180
35°	2183	2191	2245	2276	2297	1365
45°	1749	1768	1834	1888	1907	1350
55°	1311	1332	1396	1456	1475	1174
65°	884	905	959	1008	1027	876
75°	479	502	539	570	585	508
85°	133	145	158	168	172	150
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2996.1	2996.1	2996.1	2996.1	2996.1
2.5°	3009.6	2986.4	2996.1	2992.2	2982.6
5°	2996.1	2972.9	2984.5	2980.6	2978.7
7.5°	2972.9	2951.7	2963.3	2963.3	2963.3
10°	2936.2	2918.9	2936.2	2936.2	2936.2
12.5°	2893.8	2878.3	2899.6	2901.5	2905.4
15°	2843.6	2830.1	2853.2	2861.0	2864.8
17.5°	2785.7	2774.1	2799.2	2810.8	2814.6
20°	2720.0	2708.5	2741.3	2749.0	2758.6
22.5°	2644.7	2639.0	2673.7	2681.4	2693.0
25°	2561.7	2557.9	2596.5	2610.0	2621.6
27.5°	2476.8	2474.9	2517.3	2534.7	2546.3
30°	2382.2	2384.1	2430.5	2451.7	2467.1
32.5°	2283.7	2289.5	2339.7	2364.8	2384.1
35°	2183.4	2191.1	2245.1	2276.0	2297.3
37.5°	2077.2	2088.8	2146.7	2183.4	2204.6
40°	1971.0	1984.5	2046.3	2084.9	2110.0
42.5°	1861.0	1878.3	1940.1	1990.3	2011.6
45°	1749.0	1768.3	1833.9	1888.0	1907.3
47.5°	1639.0	1664.1	1727.8	1781.8	1803.1
50°	1527.0	1550.2	1617.7	1673.7	1696.9
52.5°	1422.8	1444.0	1507.7	1565.6	1586.8
55°	1310.8	1332.0	1395.7	1455.6	1474.9
57.5°	1204.6	1223.9	1285.7	1345.5	1364.8
60°	1096.5	1115.8	1175.7	1229.7	1250.9
62.5°	990.3	1009.6	1069.5	1119.7	1139.0
65°	884.2	905.4	959.4	1007.7	1027.0
67.5°	779.9	801.1	851.3	897.7	913.1
70°	673.7	696.9	745.2	787.6	801.1
72.5°	575.3	598.4	640.9	677.6	695.0
75°	478.8	501.9	538.6	569.5	584.9
77.5°	386.1	409.3	438.2	463.3	476.8
80°	297.3	318.5	339.8	364.9	374.5
82.5°	212.4	229.7	247.1	266.4	274.1
85°	133.2	144.8	158.3	168.0	171.8
87.5°	57.9	65.6	67.6	69.5	67.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)