

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: P182402

Luminaire Tested: **24FR-72-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P182402
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-L840-CD1-U
Description: METALUX 2X4 FR TROFFER LED FIXTURE

Light Source: EATON LED 4000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7446.0 lumens
Efficiency: N/A
Efficacy: 101.9 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

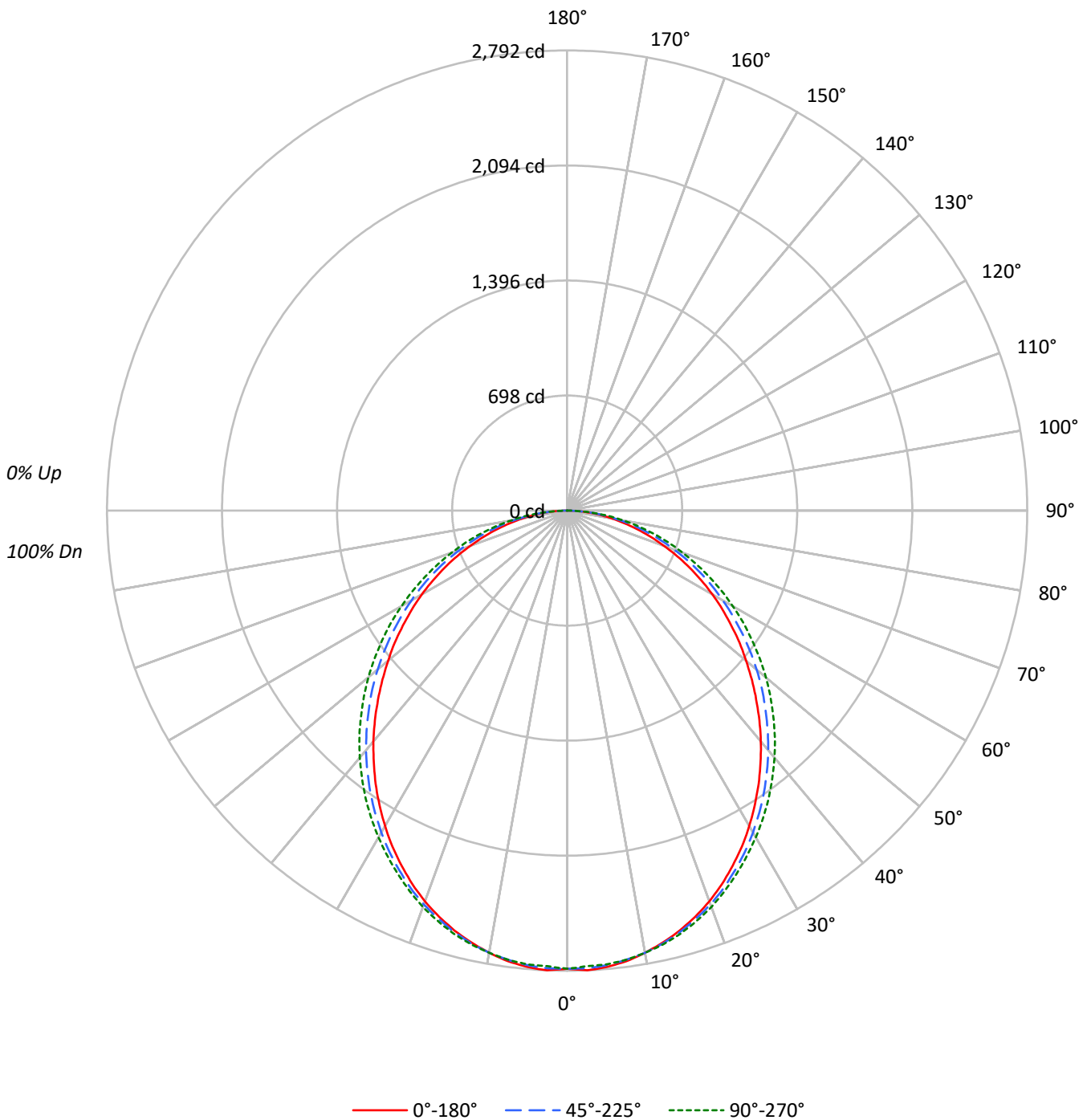
Input Watts (W): 73.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3740	3740	3740
5°	3754	3740	3732
10°	3722	3722	3722
15°	3675	3687	3702
20°	3613	3641	3665
25°	3528	3576	3611
30°	3434	3503	3556
35°	3327	3421	3501
40°	3212	3334	3438
45°	3087	3237	3367
50°	2965	3141	3295
55°	2853	3038	3210
60°	2738	2935	3123
65°	2612	2834	3033
70°	2459	2720	2924
75°	2309	2598	2821
80°	2137	2442	2692
85°	1908	2268	2461



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.6	3.5
10°-20°	745.1	10.0
20°-30°	1106.4	14.9
30°-40°	1298.3	17.4
40°-50°	1309.9	17.6
50°-60°	1157.2	15.5
60°-70°	879.2	11.8
70°-80°	526.0	7.1
80°-90°	161.2	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°	2114.1	28.4
0°-40°	3412.5	45.8
0°-60°	5879.6	79.0
0°-90°	7446.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7446.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2780	2780	2780	2780	2780	
5°	2780	2758	2769	2765	2764	264
15°	2638	2626	2647	2654	2658	743
25°	2377	2373	2409	2421	2432	1094
35°	2026	2033	2083	2112	2131	1266
45°	1623	1640	1701	1752	1770	1253
55°	1216	1236	1295	1350	1368	1089
65°	820	840	890	935	953	812
75°	444	466	500	528	543	471
85°	124	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°	2779.6	2779.6	2779.6	2779.6	2779.6
2.5°	2792.1	2770.6	2779.6	2776.0	2767.0
5°	2779.6	2758.1	2768.8	2765.2	2763.5
7.5°	2758.1	2738.4	2749.1	2749.1	2749.1
10°	2724.1	2707.9	2724.1	2724.1	2724.1
12.5°	2684.7	2670.3	2690.0	2691.8	2695.4
15°	2638.1	2625.6	2647.0	2654.2	2657.8
17.5°	2584.4	2573.6	2596.9	2607.6	2611.2
20°	2523.5	2512.7	2543.2	2550.3	2559.3
22.5°	2453.6	2448.2	2480.5	2487.7	2498.4
25°	2376.6	2373.0	2408.8	2421.4	2432.1
27.5°	2297.8	2296.0	2335.4	2351.5	2362.3
30°	2210.1	2211.8	2254.8	2274.5	2288.9
32.5°	2118.7	2124.1	2170.6	2193.9	2211.8
35°	2025.6	2032.7	2082.9	2111.5	2131.2
37.5°	1927.1	1937.8	1991.6	2025.6	2045.3
40°	1828.6	1841.1	1898.4	1934.2	1957.5
42.5°	1726.5	1742.6	1799.9	1846.5	1866.2
45°	1622.6	1640.5	1701.4	1751.6	1769.5
47.5°	1520.5	1543.8	1602.9	1653.1	1672.8
50°	1416.7	1438.1	1500.8	1552.8	1574.3
52.5°	1319.9	1339.6	1398.7	1452.5	1472.2
55°	1216.1	1235.8	1294.9	1350.4	1368.3
57.5°	1117.6	1135.5	1192.8	1248.3	1266.2
60°	1017.3	1035.2	1090.7	1140.8	1160.5
62.5°	918.8	936.7	992.2	1038.8	1056.7
65°	820.3	840.0	890.1	934.9	952.8
67.5°	723.5	743.3	789.8	832.8	847.1
70°	625.0	646.5	691.3	730.7	743.3
72.5°	533.7	555.2	594.6	628.6	644.7
75°	444.2	465.7	499.7	528.3	542.7
77.5°	358.2	379.7	406.5	429.8	442.4
80°	275.8	295.5	315.2	338.5	347.4
82.5°	197.0	213.1	229.2	247.2	254.3
85°	123.6	134.3	146.9	155.8	159.4
87.5°	53.7	60.9	62.7	64.5	62.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)