

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: P184181

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184181
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27148)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24FR-72-HP-UNV-L840-CD1-U
Description: METALUX 2X4 FR TROFFER LED HIGH EFFICIENCY FIXTURE

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

Summary

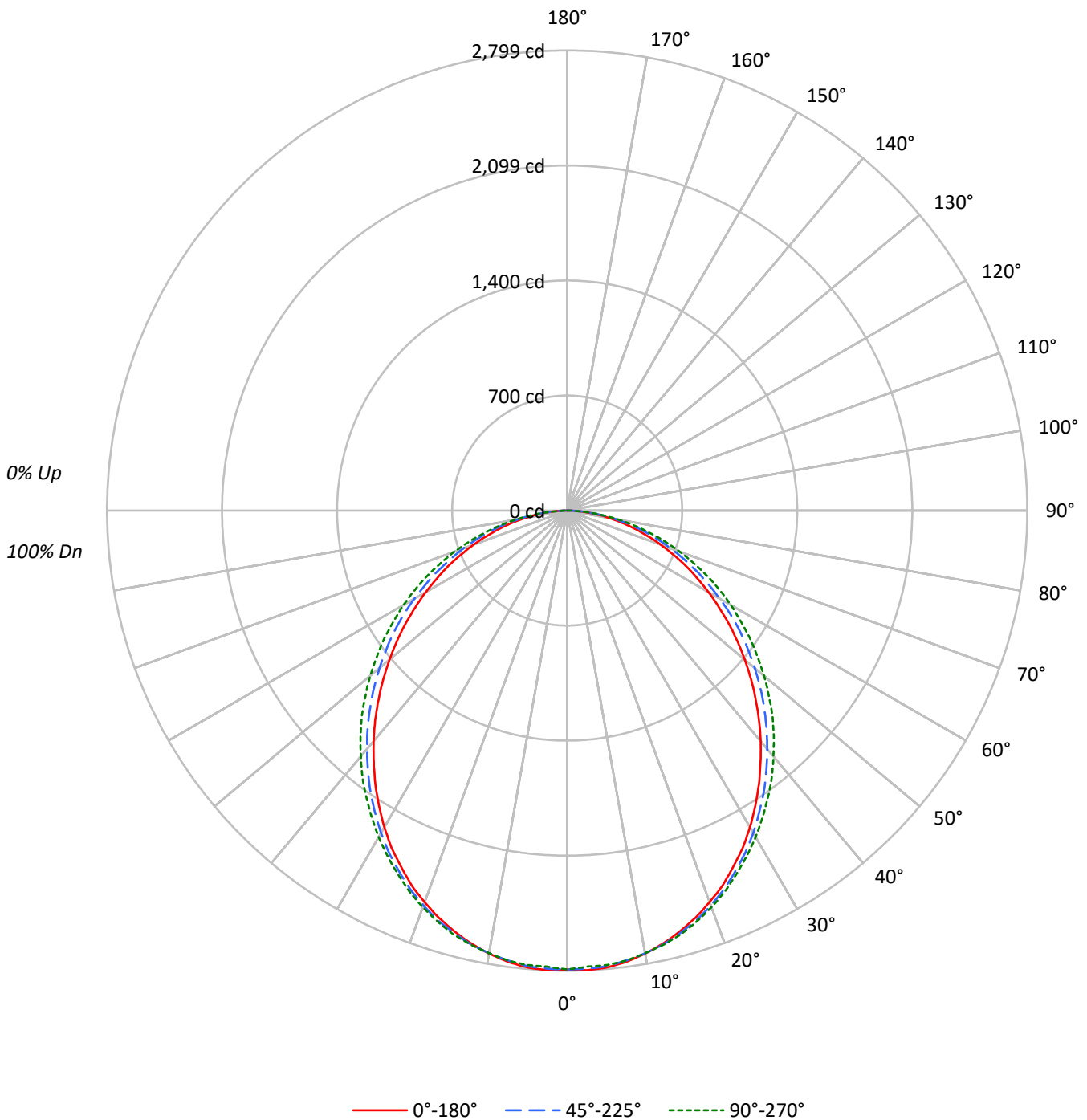
Lumens per Lamp: N/A
Luminaire Lumens: 7381.4 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.22 / 1.32
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 63.3
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	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
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°	3756	3756	3756
5°	3767	3758	3748
10°	3739	3735	3735
15°	3691	3704	3718
20°	3629	3660	3677
25°	3548	3594	3619
30°	3455	3519	3563
35°	3340	3427	3498
40°	3217	3327	3428
45°	3087	3224	3361
50°	2952	3118	3274
55°	2817	3015	3190
60°	2675	2888	3096
65°	2536	2758	2988
70°	2376	2632	2859
75°	2202	2490	2690
80°	2014	2312	2462
85°	1820	1970	1970



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.6	3.6
10°-20°	748.9	10.1
20°-30°	1111.7	15.1
30°-40°	1300.9	17.6
40°-50°	1305.8	17.7
50°-60°	1143.7	15.5
60°-70°	858.5	11.6
70°-80°	504.5	6.8
80°-90°	143.8	1.9
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°	2124.2	28.8
0°-40°	3425.1	46.4
0°-60°	5874.6	79.6
0°-90°	7381.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7381.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2792	2792	2792	2792	2792	
5°	2789	2770	2782	2777	2775	265
15°	2650	2640	2659	2667	2669	747
25°	2390	2390	2421	2428	2438	1101
35°	2034	2041	2087	2113	2130	1271
45°	1622	1641	1694	1740	1766	1252
55°	1201	1223	1285	1331	1360	1074
65°	797	818	866	912	939	788
75°	424	448	479	503	517	450
85°	118	125	128	128	128	132
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2791.7	2791.7	2791.7	2791.7	2791.7
2.5°	2798.9	2782.1	2789.3	2786.9	2777.3
5°	2789.3	2770.1	2782.1	2777.3	2774.9
7.5°	2767.7	2748.4	2760.4	2760.4	2760.4
10°	2736.4	2721.9	2734.0	2734.0	2734.0
12.5°	2697.9	2685.8	2702.7	2705.1	2705.1
15°	2649.7	2640.1	2659.4	2666.6	2669.0
17.5°	2596.8	2589.6	2613.6	2620.9	2620.9
20°	2534.2	2529.4	2555.9	2563.1	2567.9
22.5°	2469.2	2462.0	2493.3	2498.1	2507.7
25°	2389.8	2389.8	2421.1	2428.3	2437.9
27.5°	2312.8	2310.4	2346.5	2358.5	2368.2
30°	2223.8	2223.8	2264.7	2281.5	2293.5
32.5°	2129.9	2137.1	2175.6	2197.3	2211.7
35°	2033.6	2040.8	2086.6	2113.0	2129.9
37.5°	1932.5	1944.6	1990.3	2024.0	2045.7
40°	1831.5	1848.3	1894.0	1932.5	1951.8
42.5°	1728.0	1742.4	1795.4	1838.7	1860.3
45°	1622.1	1641.3	1694.3	1740.0	1766.5
47.5°	1516.2	1540.3	1593.2	1643.7	1663.0
50°	1410.3	1432.0	1489.7	1540.3	1564.3
52.5°	1304.4	1326.1	1386.2	1434.4	1458.4
55°	1200.9	1222.6	1285.2	1330.9	1359.8
57.5°	1095.0	1119.1	1179.3	1227.4	1249.1
60°	994.0	1015.6	1073.4	1121.5	1150.4
62.5°	892.9	916.9	967.5	1018.0	1044.5
65°	796.6	818.3	866.4	912.1	938.6
67.5°	697.9	724.4	765.3	811.0	830.3
70°	604.1	633.0	669.1	707.6	726.8
72.5°	512.6	539.1	572.8	604.1	620.9
75°	423.6	447.6	478.9	503.0	517.4
77.5°	339.3	365.8	387.5	409.1	416.4
80°	259.9	281.6	298.4	312.9	317.7
82.5°	187.7	202.2	209.4	221.4	223.8
85°	117.9	125.1	127.6	127.6	127.6
87.5°	50.5	52.9	48.1	38.5	36.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)