

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: P182398

Luminaire Tested: **24FR-69-UNV-L850-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P182398
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-69-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: 7652.0 lumens
Efficiency: N/A
Efficacy: 112.4 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

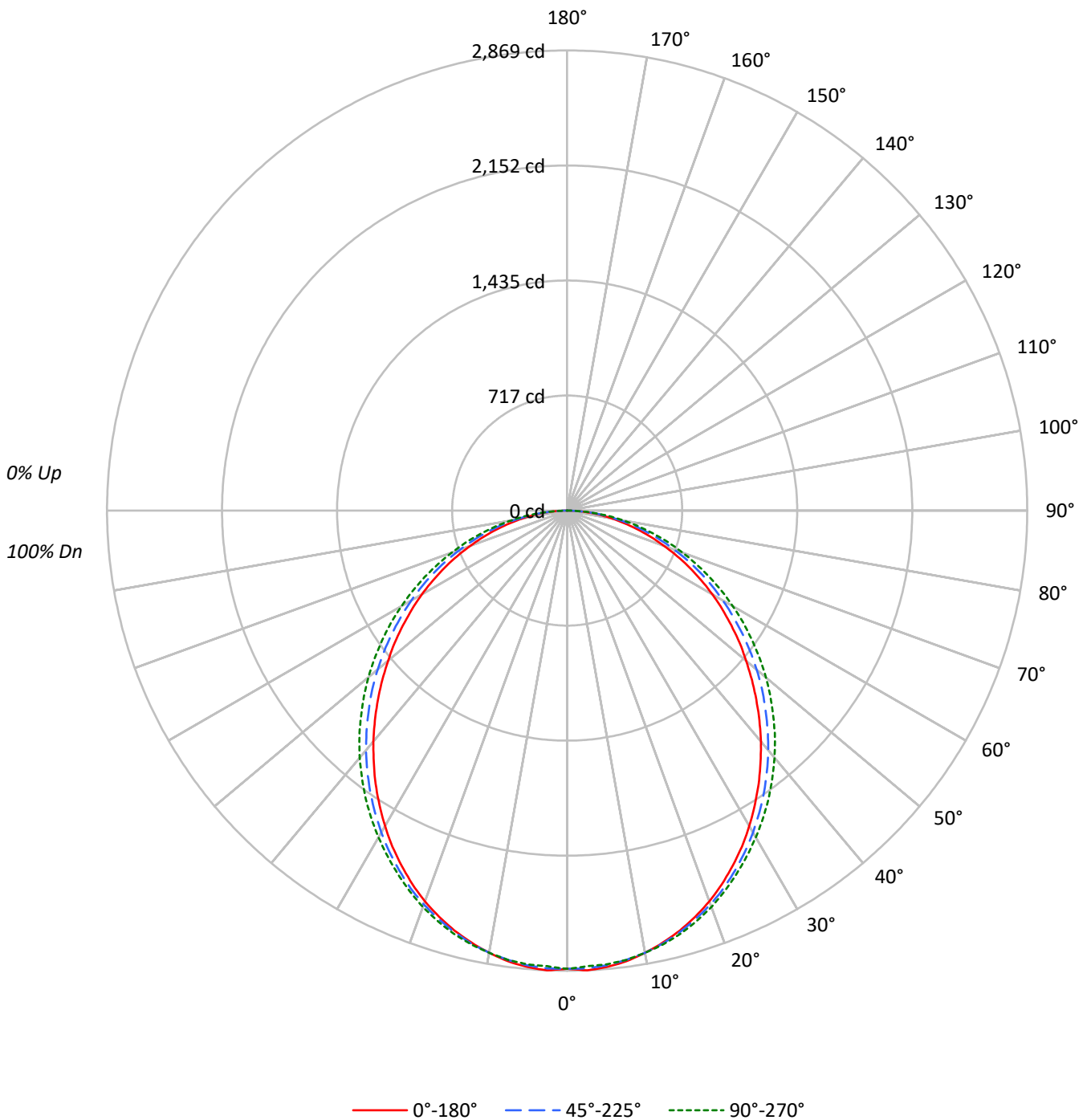
Input Watts (W): 68.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3843	3843	3843
5°	3858	3843	3836
10°	3825	3825	3825
15°	3776	3789	3805
20°	3713	3742	3766
25°	3626	3675	3711
30°	3529	3600	3654
35°	3419	3516	3597
40°	3301	3427	3533
45°	3173	3327	3460
50°	3047	3229	3386
55°	2932	3122	3299
60°	2813	3016	3210
65°	2684	2912	3117
70°	2527	2795	3005
75°	2373	2669	2899
80°	2196	2510	2767
85°	1961	2330	2529



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.8	3.5
10°-20°	765.7	10.0
20°-30°	1137.1	14.9
30°-40°	1334.3	17.4
40°-50°	1346.1	17.6
50°-60°	1189.2	15.5
60°-70°	903.5	11.8
70°-80°	540.6	7.1
80°-90°	165.7	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°	2172.6	28.4
0°-40°	3506.9	45.8
0°-60°	6042.2	79.0
0°-90°	7652.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7652.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2856	2856	2856	2856	2856	
5°	2856	2834	2845	2842	2840	271
15°	2711	2698	2720	2728	2731	764
25°	2442	2439	2476	2488	2499	1125
35°	2082	2089	2140	2170	2190	1301
45°	1668	1686	1748	1800	1818	1287
55°	1250	1270	1331	1388	1406	1119
65°	843	863	915	961	979	835
75°	456	478	514	543	558	484
85°	127	138	151	160	164	143
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2856.5	2856.5	2856.5	2856.5	2856.5
2.5°	2869.4	2847.3	2856.5	2852.8	2843.6
5°	2856.5	2834.4	2845.4	2841.8	2839.9
7.5°	2834.4	2814.1	2825.2	2825.2	2825.2
10°	2799.4	2782.9	2799.4	2799.4	2799.4
12.5°	2758.9	2744.2	2764.5	2766.3	2770.0
15°	2711.1	2698.2	2720.3	2727.6	2731.3
17.5°	2655.9	2644.8	2668.7	2679.8	2683.5
20°	2593.3	2582.2	2613.5	2620.9	2630.1
22.5°	2521.5	2516.0	2549.1	2556.5	2567.5
25°	2442.4	2438.7	2475.5	2488.4	2499.4
27.5°	2361.4	2359.5	2400.0	2416.6	2427.6
30°	2271.2	2273.0	2317.2	2337.5	2352.2
32.5°	2177.3	2182.8	2230.7	2254.6	2273.0
35°	2081.6	2089.0	2140.5	2170.0	2190.2
37.5°	1980.4	1991.4	2046.7	2081.6	2101.9
40°	1879.2	1892.0	1950.9	1987.8	2011.7
42.5°	1774.3	1790.8	1849.7	1897.6	1917.8
45°	1667.5	1685.9	1748.5	1800.0	1818.4
47.5°	1562.6	1586.5	1647.3	1698.8	1719.0
50°	1455.8	1477.9	1542.4	1595.7	1617.8
52.5°	1356.5	1376.7	1437.4	1492.7	1512.9
55°	1249.7	1270.0	1330.7	1387.7	1406.2
57.5°	1148.5	1166.9	1225.8	1282.8	1301.2
60°	1045.4	1063.8	1120.9	1172.4	1192.7
62.5°	944.2	962.6	1019.6	1067.5	1085.9
65°	843.0	863.2	914.7	960.7	979.2
67.5°	743.6	763.8	811.7	855.8	870.6
70°	642.3	664.4	710.4	750.9	763.8
72.5°	548.5	570.6	611.1	646.0	662.6
75°	456.4	478.5	513.5	543.0	557.7
77.5°	368.1	390.2	417.8	441.7	454.6
80°	283.4	303.7	323.9	347.9	357.1
82.5°	202.5	219.0	235.6	254.0	261.4
85°	127.0	138.0	150.9	160.1	163.8
87.5°	55.2	62.6	64.4	66.3	64.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)