

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: P182397

Luminaire Tested: **24FR-69-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P182397
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-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: 7099.0 lumens
Efficiency: N/A
Efficacy: 104.2 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

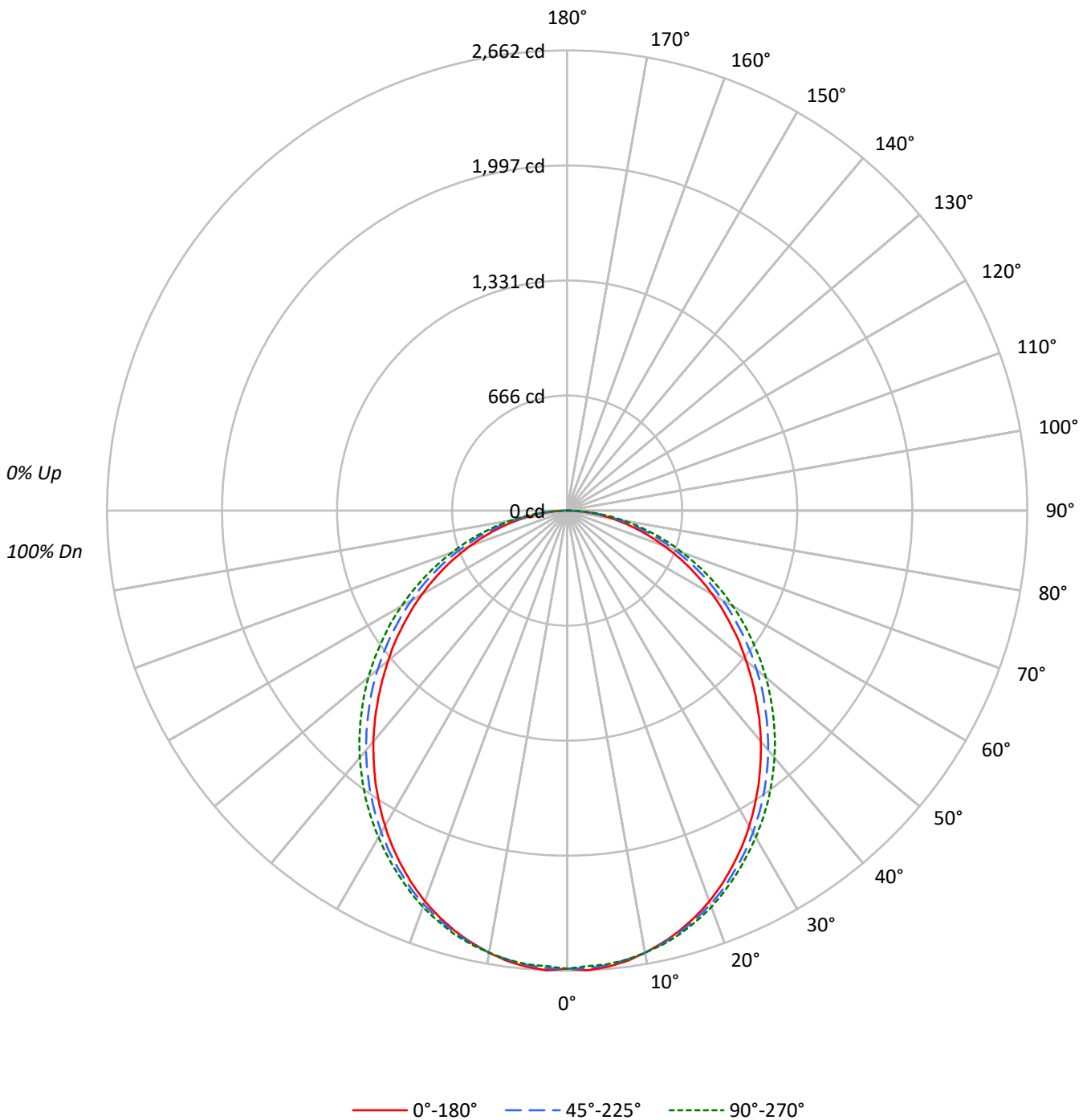
Input Watts (W): 68.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3566	3566	3566
5°	3579	3565	3559
10°	3548	3548	3548
15°	3504	3515	3530
20°	3445	3472	3494
25°	3364	3409	3442
30°	3274	3340	3390
35°	3172	3262	3337
40°	3062	3179	3278
45°	2944	3087	3210
50°	2827	2995	3142
55°	2720	2896	3060
60°	2610	2798	2978
65°	2490	2702	2892
70°	2344	2593	2788
75°	2202	2477	2690
80°	2038	2328	2567
85°	1819	2161	2347



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.3	3.5
10°-20°	710.4	10.0
20°-30°	1054.9	14.9
30°-40°	1237.8	17.4
40°-50°	1248.8	17.6
50°-60°	1103.3	15.5
60°-70°	838.2	11.8
70°-80°	501.5	7.1
80°-90°	153.7	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°	2015.6	28.4
0°-40°	3253.5	45.8
0°-60°	5605.6	79.0
0°-90°	7099.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7099.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2650	2650	2650	2650	2650	
5°	2650	2630	2640	2636	2635	251
15°	2515	2503	2524	2530	2534	709
25°	2266	2262	2297	2308	2319	1043
35°	1931	1938	1986	2013	2032	1207
45°	1547	1564	1622	1670	1687	1194
55°	1159	1178	1234	1288	1304	1038
65°	782	801	849	891	908	775
75°	424	444	476	504	517	449
85°	118	128	140	149	152	133
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2650.0	2650.0	2650.0	2650.0	2650.0
2.5°	2662.0	2641.5	2650.0	2646.6	2638.1
5°	2650.0	2629.6	2639.8	2636.4	2634.7
7.5°	2629.6	2610.8	2621.0	2621.0	2621.0
10°	2597.1	2581.7	2597.1	2597.1	2597.1
12.5°	2559.5	2545.9	2564.7	2566.4	2569.8
15°	2515.2	2503.2	2523.7	2530.5	2533.9
17.5°	2463.9	2453.7	2475.9	2486.1	2489.5
20°	2405.9	2395.6	2424.7	2431.5	2440.0
22.5°	2339.3	2334.2	2364.9	2371.7	2382.0
25°	2265.9	2262.4	2296.6	2308.5	2318.8
27.5°	2190.7	2189.0	2226.6	2242.0	2252.2
30°	2107.1	2108.8	2149.7	2168.5	2182.2
32.5°	2020.0	2025.1	2069.5	2091.7	2108.8
35°	1931.2	1938.0	1985.8	2013.1	2031.9
37.5°	1837.3	1847.5	1898.7	1931.2	1950.0
40°	1743.4	1755.3	1810.0	1844.1	1866.3
42.5°	1646.0	1661.4	1716.0	1760.4	1779.2
45°	1547.0	1564.1	1622.1	1669.9	1687.0
47.5°	1449.7	1471.9	1528.2	1576.0	1594.8
50°	1350.6	1371.1	1430.9	1480.4	1500.9
52.5°	1258.4	1277.2	1333.6	1384.8	1403.6
55°	1159.4	1178.2	1234.5	1287.5	1304.5
57.5°	1065.5	1082.6	1137.2	1190.1	1207.2
60°	969.9	986.9	1039.9	1087.7	1106.5
62.5°	875.9	893.0	946.0	990.4	1007.4
65°	782.0	800.8	848.6	891.3	908.4
67.5°	689.8	708.6	753.0	794.0	807.6
70°	595.9	616.4	659.1	696.7	708.6
72.5°	508.8	529.3	566.9	599.3	614.7
75°	423.5	444.0	476.4	503.7	517.4
77.5°	341.5	362.0	387.6	409.8	421.8
80°	263.0	281.7	300.5	322.7	331.3
82.5°	187.8	203.2	218.6	235.6	242.5
85°	117.8	128.1	140.0	148.6	152.0
87.5°	51.2	58.1	59.8	61.5	59.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)