

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: P182383

Luminaire Tested: **24FR-40-UNV-L850-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P182383  
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-40-UNV-L850-CD1-U  
Description: METALUX 2X4 FR TROFFER LED FIXTURE  
  
Light Source: EATON LED 5000K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

**Summary**

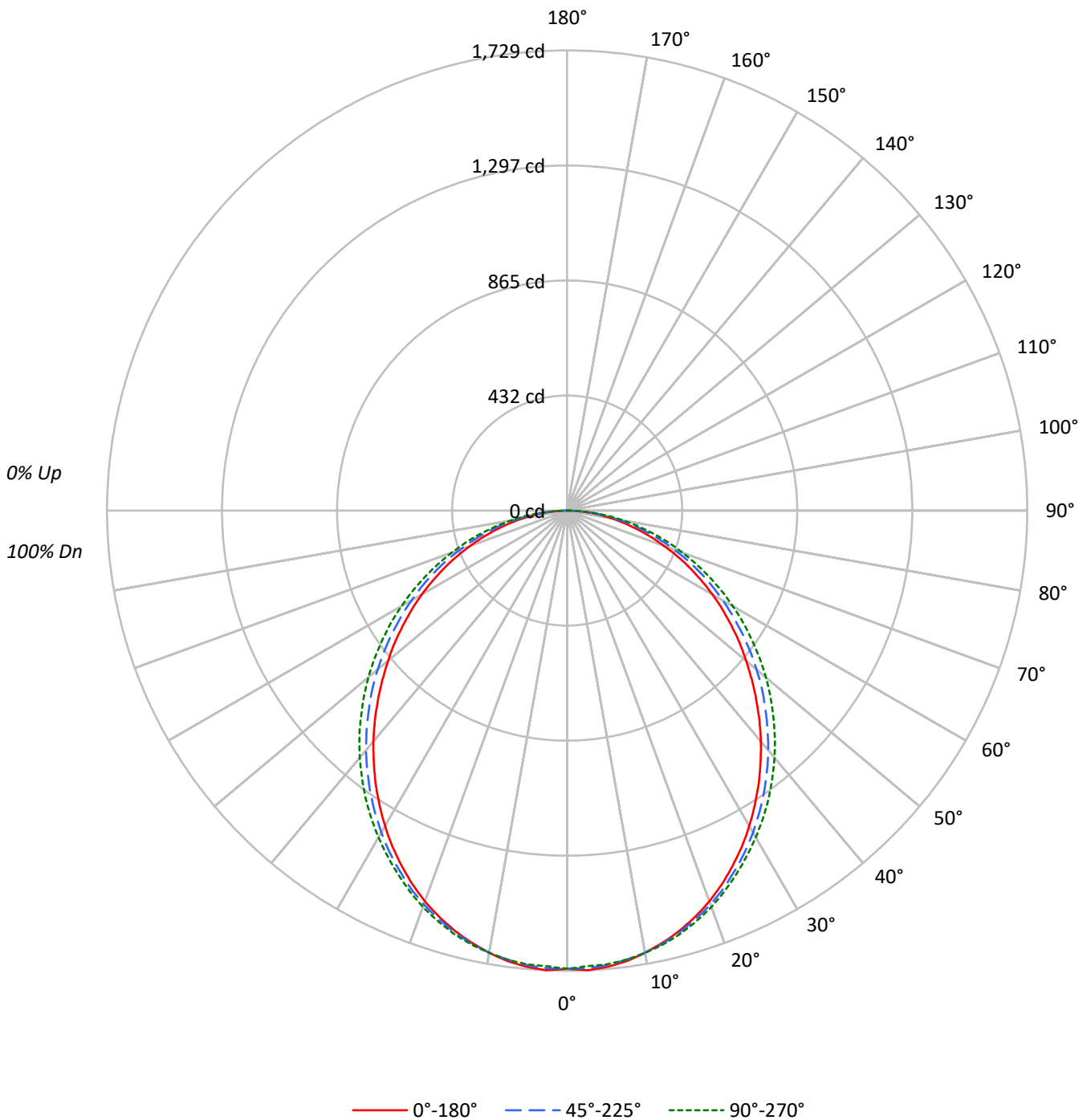
Lumens per Lamp: N/A  
Luminaire Lumens: 4611.0 lumens  
Efficiency: N/A  
Efficacy: 137.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.32  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2316	2316	2316
5°	2325	2316	2311
10°	2305	2305	2305
15°	2276	2283	2293
20°	2238	2255	2269
25°	2185	2215	2236
30°	2126	2169	2202
35°	2060	2119	2168
40°	1989	2065	2129
45°	1912	2005	2085
50°	1836	1945	2041
55°	1767	1881	1988
60°	1695	1817	1934
65°	1617	1755	1878
70°	1523	1684	1811
75°	1430	1608	1747
80°	1323	1512	1667
85°	1181	1403	1524



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.6	3.5
10°-20°	461.4	10.0
20°-30°	685.2	14.9
30°-40°	804.0	17.4
40°-50°	811.2	17.6
50°-60°	716.6	15.5
60°-70°	544.4	11.8
70°-80°	325.8	7.1
80°-90°	99.8	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°	1309.2	28.4
0°-40°	2113.2	45.8
0°-60°	3641.0	79.0
0°-90°	4611.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4611.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1721	1721	1721	1721	1721	
5°	1721	1708	1715	1712	1711	163
15°	1634	1626	1639	1644	1646	460
25°	1472	1470	1492	1500	1506	678
35°	1254	1259	1290	1308	1320	784
45°	1005	1016	1054	1085	1096	776
55°	753	765	802	836	847	674
65°	508	520	551	579	590	503
75°	275	288	309	327	336	292
85°	76	83	91	96	99	86
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1721.3	1721.3	1721.3	1721.3	1721.3
2.5°	1729.0	1715.7	1721.3	1719.1	1713.5
5°	1721.3	1708.0	1714.6	1712.4	1711.3
7.5°	1708.0	1695.8	1702.4	1702.4	1702.4
10°	1686.9	1676.9	1686.9	1686.9	1686.9
12.5°	1662.5	1653.6	1665.8	1666.9	1669.2
15°	1633.7	1625.9	1639.2	1643.6	1645.9
17.5°	1600.4	1593.7	1608.2	1614.8	1617.0
20°	1562.7	1556.0	1574.9	1579.3	1584.9
22.5°	1519.4	1516.1	1536.1	1540.5	1547.2
25°	1471.7	1469.5	1491.7	1499.5	1506.1
27.5°	1422.9	1421.8	1446.2	1456.2	1462.9
30°	1368.6	1369.7	1396.3	1408.5	1417.4
32.5°	1312.0	1315.4	1344.2	1358.6	1369.7
35°	1254.4	1258.8	1289.8	1307.6	1319.8
37.5°	1193.4	1200.0	1233.3	1254.4	1266.6
40°	1132.4	1140.1	1175.6	1197.8	1212.2
42.5°	1069.1	1079.1	1114.6	1143.5	1155.7
45°	1004.8	1015.9	1053.6	1084.7	1095.8
47.5°	941.6	956.0	992.6	1023.7	1035.9
50°	877.3	890.6	929.4	961.6	974.9
52.5°	817.4	829.6	866.2	899.5	911.7
55°	753.1	765.3	801.9	836.2	847.3
57.5°	692.1	703.2	738.6	773.0	784.1
60°	630.0	641.0	675.4	706.5	718.7
62.5°	569.0	580.0	614.4	643.3	654.4
65°	508.0	520.2	551.2	578.9	590.0
67.5°	448.1	460.3	489.1	515.7	524.6
70°	387.1	400.4	428.1	452.5	460.3
72.5°	330.5	343.8	368.2	389.3	399.3
75°	275.0	288.4	309.4	327.2	336.0
77.5°	221.8	235.1	251.8	266.2	273.9
80°	170.8	183.0	195.2	209.6	215.2
82.5°	122.0	132.0	142.0	153.1	157.5
85°	76.5	83.2	90.9	96.5	98.7
87.5°	33.3	37.7	38.8	39.9	38.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)