

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: P182382

Luminaire Tested: **24FR-40-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P182382
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-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: 4278.0 lumens
Efficiency: N/A
Efficacy: 127.3 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

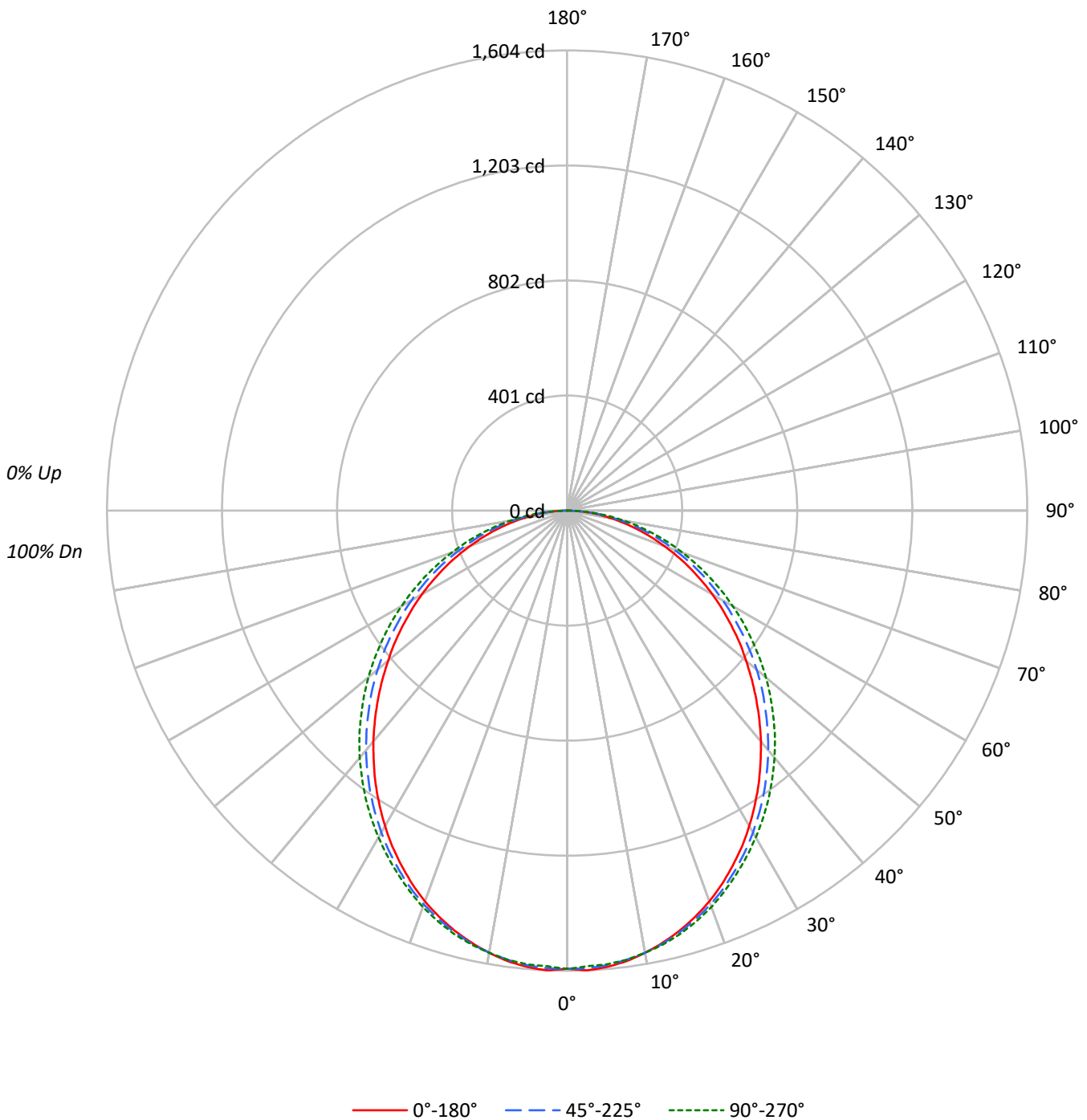
Input Watts (W): 33.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2149	2149	2149
5°	2157	2149	2144
10°	2138	2138	2138
15°	2111	2118	2127
20°	2076	2092	2105
25°	2027	2055	2074
30°	1973	2013	2043
35°	1912	1966	2011
40°	1845	1916	1975
45°	1774	1860	1934
50°	1704	1805	1893
55°	1639	1745	1844
60°	1573	1686	1794
65°	1500	1628	1743
70°	1413	1563	1680
75°	1327	1493	1621
80°	1228	1403	1547
85°	1096	1303	1414



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.9	3.5
10°-20°	428.1	10.0
20°-30°	635.7	14.9
30°-40°	746.0	17.4
40°-50°	752.6	17.6
50°-60°	664.9	15.5
60°-70°	505.1	11.8
70°-80°	302.2	7.1
80°-90°	92.6	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°	1214.6	28.4
0°-40°	1960.6	45.8
0°-60°	3378.0	79.0
0°-90°	4278.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4278.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1597	1597	1597	1597	1597	
5°	1597	1585	1591	1589	1588	151
15°	1516	1508	1521	1525	1527	427
25°	1365	1363	1384	1391	1397	629
35°	1164	1168	1197	1213	1224	727
45°	932	942	978	1006	1017	720
55°	699	710	744	776	786	626
65°	471	483	511	537	547	467
75°	255	268	287	304	312	271
85°	71	77	84	90	92	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1597.0	1597.0	1597.0	1597.0	1597.0
2.5°	1604.2	1591.8	1597.0	1594.9	1589.8
5°	1597.0	1584.6	1590.8	1588.7	1587.7
7.5°	1584.6	1573.3	1579.5	1579.5	1579.5
10°	1565.1	1555.8	1565.1	1565.1	1565.1
12.5°	1542.4	1534.2	1545.5	1546.5	1548.6
15°	1515.7	1508.5	1520.8	1524.9	1527.0
17.5°	1484.8	1478.6	1492.0	1498.2	1500.2
20°	1449.8	1443.7	1461.1	1465.3	1470.4
22.5°	1409.7	1406.6	1425.1	1429.2	1435.4
25°	1365.4	1363.4	1384.0	1391.2	1397.3
27.5°	1320.2	1319.1	1341.8	1351.0	1357.2
30°	1269.8	1270.8	1295.5	1306.8	1315.0
32.5°	1217.3	1220.4	1247.1	1260.5	1270.8
35°	1163.8	1167.9	1196.7	1213.2	1224.5
37.5°	1107.2	1113.4	1144.2	1163.8	1175.1
40°	1050.6	1057.8	1090.7	1111.3	1124.7
42.5°	991.9	1001.2	1034.1	1060.9	1072.2
45°	932.3	942.5	977.5	1006.3	1016.6
47.5°	873.6	887.0	920.9	949.7	961.1
50°	813.9	826.3	862.3	892.1	904.5
52.5°	758.4	769.7	803.6	834.5	845.8
55°	698.7	710.0	743.9	775.8	786.1
57.5°	642.1	652.4	685.3	717.2	727.5
60°	584.5	594.7	626.6	655.5	666.8
62.5°	527.9	538.2	570.1	596.8	607.1
65°	471.3	482.6	511.4	537.1	547.4
67.5°	415.7	427.0	453.8	478.5	486.7
70°	359.1	371.5	397.2	419.8	427.0
72.5°	306.6	319.0	341.6	361.2	370.4
75°	255.2	267.5	287.1	303.5	311.8
77.5°	205.8	218.1	233.6	247.0	254.2
80°	158.5	169.8	181.1	194.5	199.6
82.5°	113.2	122.4	131.7	142.0	146.1
85°	71.0	77.2	84.4	89.5	91.6
87.5°	30.9	35.0	36.0	37.0	36.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)