

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: P182381

Luminaire Tested: **24FR-40-UNV-L835-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P182381
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-L835-CD1-U
Description: METALUX 2X4 FR TROFFER LED FIXTURE

Light Source: EATON LED 3500K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4158.0 lumens
Efficiency: N/A
Efficacy: 123.7 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

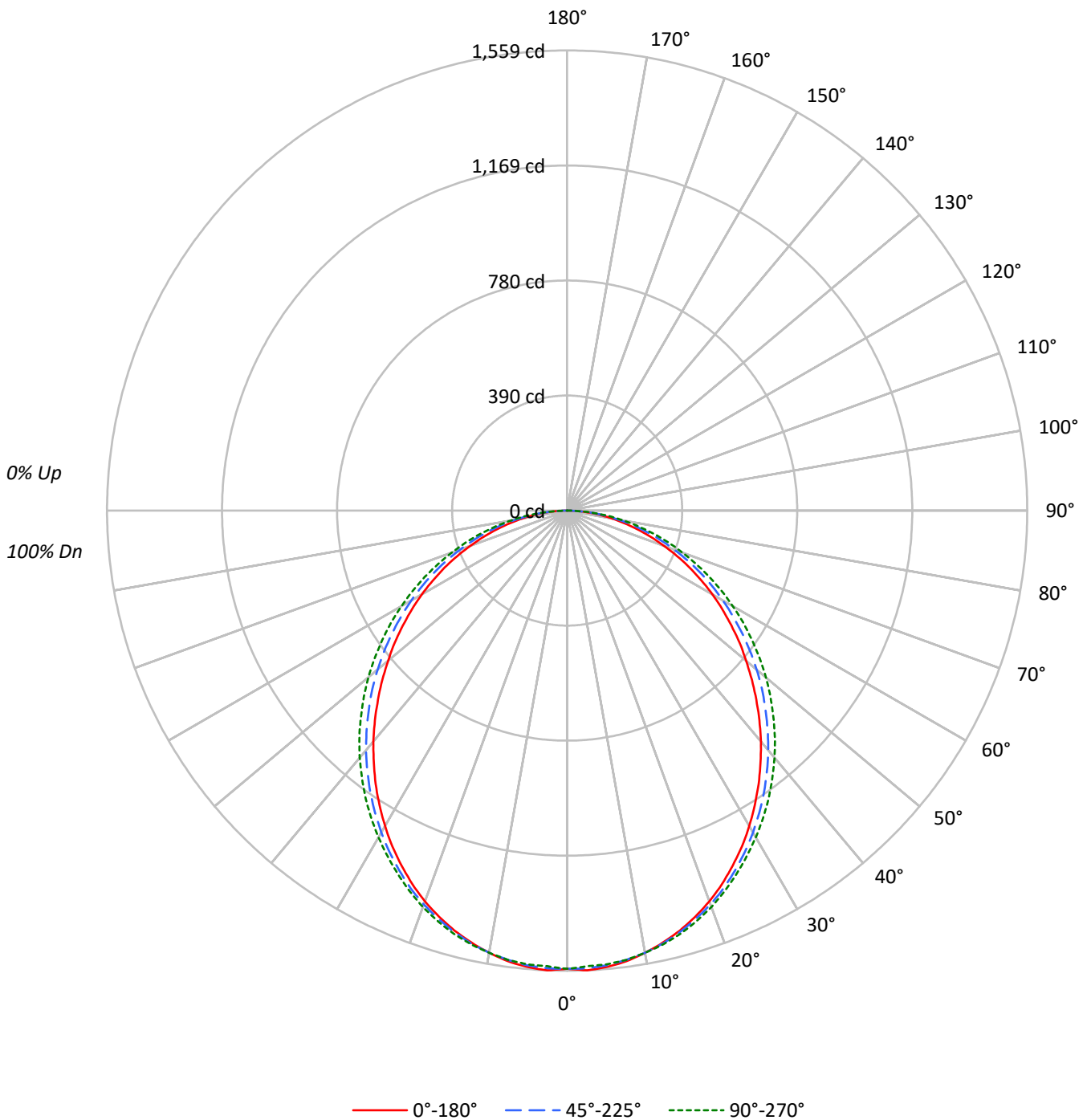
Input Watts (W): 33.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2088	2088	2088
5°	2096	2088	2084
10°	2078	2078	2078
15°	2052	2059	2067
20°	2018	2033	2046
25°	1970	1997	2016
30°	1917	1956	1986
35°	1858	1910	1955
40°	1793	1862	1920
45°	1724	1808	1880
50°	1656	1754	1840
55°	1593	1696	1792
60°	1529	1639	1744
65°	1458	1583	1694
70°	1373	1519	1633
75°	1289	1450	1575
80°	1193	1364	1503
85°	1065	1266	1374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.6	3.5
10°-20°	416.1	10.0
20°-30°	617.9	14.9
30°-40°	725.0	17.4
40°-50°	731.5	17.6
50°-60°	646.2	15.5
60°-70°	491.0	11.8
70°-80°	293.7	7.1
80°-90°	90.0	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°	1180.6	28.4
0°-40°	1905.6	45.8
0°-60°	3283.3	79.0
0°-90°	4158.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4158.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1552	1552	1552	1552	1552	
5°	1552	1540	1546	1544	1543	147
15°	1473	1466	1478	1482	1484	415
25°	1327	1325	1345	1352	1358	611
35°	1131	1135	1163	1179	1190	707
45°	906	916	950	978	988	699
55°	679	690	723	754	764	608
65°	458	469	497	522	532	454
75°	248	260	279	295	303	263
85°	69	75	82	87	89	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1552.2	1552.2	1552.2	1552.2	1552.2
2.5°	1559.2	1547.2	1552.2	1550.2	1545.2
5°	1552.2	1540.2	1546.2	1544.2	1543.2
7.5°	1540.2	1529.2	1535.2	1535.2	1535.2
10°	1521.2	1512.2	1521.2	1521.2	1521.2
12.5°	1499.2	1491.2	1502.2	1503.2	1505.2
15°	1473.2	1466.2	1478.2	1482.2	1484.2
17.5°	1443.2	1437.2	1450.2	1456.2	1458.2
20°	1409.2	1403.2	1420.2	1424.2	1429.2
22.5°	1370.2	1367.2	1385.2	1389.2	1395.2
25°	1327.1	1325.1	1345.2	1352.2	1358.2
27.5°	1283.1	1282.1	1304.1	1313.1	1319.1
30°	1234.1	1235.1	1259.1	1270.1	1278.1
32.5°	1183.1	1186.1	1212.1	1225.1	1235.1
35°	1131.1	1135.1	1163.1	1179.1	1190.1
37.5°	1076.1	1082.1	1112.1	1131.1	1142.1
40°	1021.1	1028.1	1060.1	1080.1	1093.1
42.5°	964.1	973.1	1005.1	1031.1	1042.1
45°	906.1	916.1	950.1	978.1	988.1
47.5°	849.1	862.1	895.1	923.1	934.1
50°	791.1	803.1	838.1	867.1	879.1
52.5°	737.1	748.1	781.1	811.1	822.1
55°	679.1	690.1	723.1	754.1	764.1
57.5°	624.1	634.1	666.1	697.1	707.1
60°	568.1	578.1	609.1	637.1	648.1
62.5°	513.1	523.1	554.1	580.1	590.1
65°	458.1	469.1	497.1	522.1	532.1
67.5°	404.0	415.0	441.0	465.1	473.1
70°	349.0	361.0	386.0	408.0	415.0
72.5°	298.0	310.0	332.0	351.0	360.0
75°	248.0	260.0	279.0	295.0	303.0
77.5°	200.0	212.0	227.0	240.0	247.0
80°	154.0	165.0	176.0	189.0	194.0
82.5°	110.0	119.0	128.0	138.0	142.0
85°	69.0	75.0	82.0	87.0	89.0
87.5°	30.0	34.0	35.0	36.0	35.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)