

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: P182386

Luminaire Tested: **24FR-50-UNV-L835-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P182386
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-50-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: 5228.0 lumens
Efficiency: N/A
Efficacy: 115.9 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

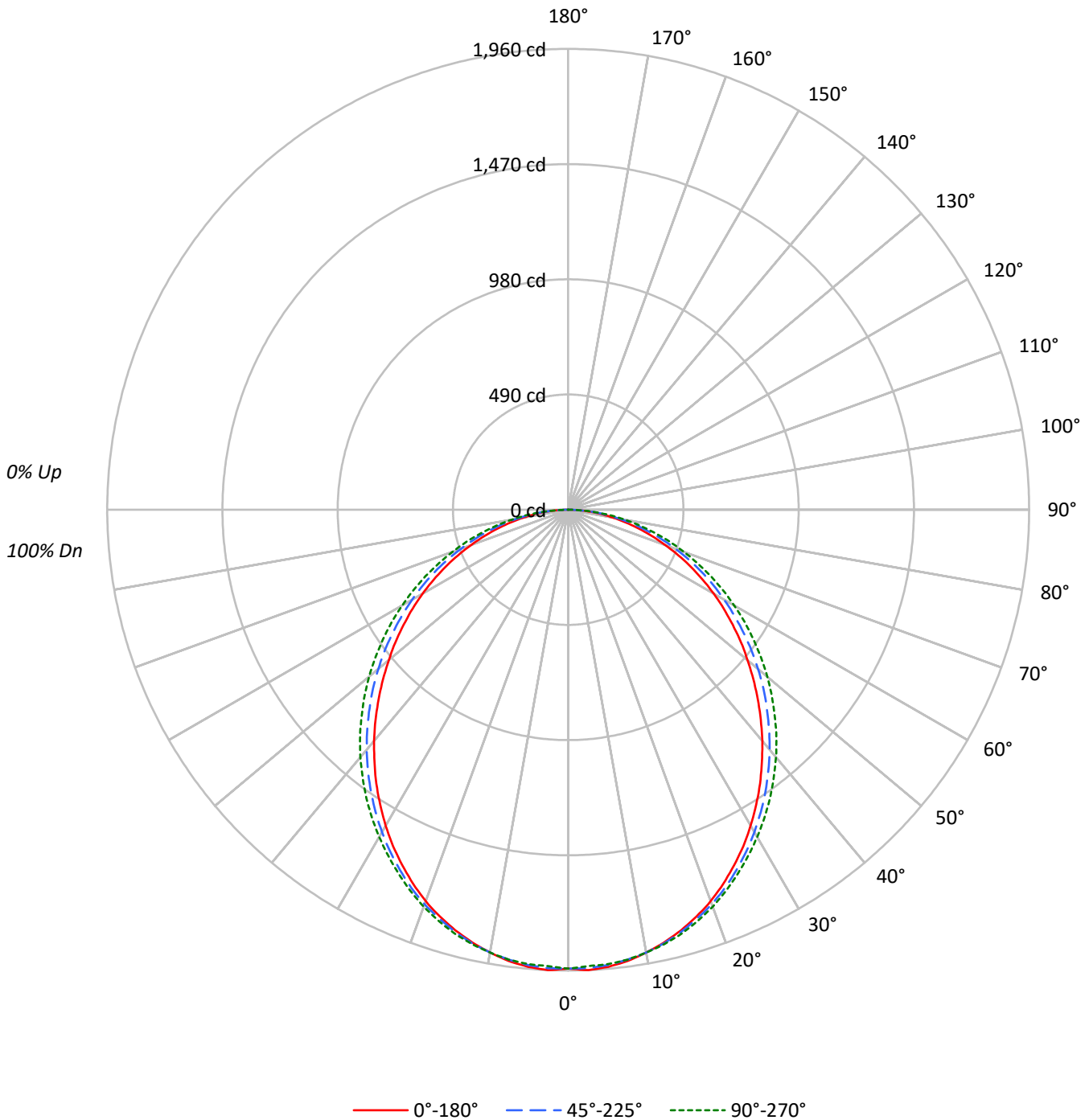
Input Watts (W): 45.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2626	2626	2626
5°	2636	2626	2621
10°	2613	2613	2613
15°	2580	2589	2599
20°	2537	2557	2573
25°	2477	2511	2535
30°	2411	2460	2497
35°	2336	2402	2458
40°	2255	2341	2414
45°	2168	2273	2364
50°	2082	2206	2314
55°	2003	2133	2254
60°	1922	2061	2193
65°	1833	1990	2130
70°	1727	1910	2053
75°	1621	1824	1981
80°	1501	1715	1891
85°	1340	1592	1727



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.4	3.5
10°-20°	523.2	10.0
20°-30°	776.9	14.9
30°-40°	911.6	17.4
40°-50°	919.7	17.6
50°-60°	812.5	15.5
60°-70°	617.3	11.8
70°-80°	369.4	7.1
80°-90°	113.2	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°	1484.4	28.4
0°-40°	2396.0	45.8
0°-60°	4128.2	79.0
0°-90°	5228.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5228.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1952	1952	1952	1952	1952	
5°	1952	1936	1944	1942	1940	185
15°	1852	1844	1858	1864	1866	522
25°	1669	1666	1691	1700	1708	768
35°	1422	1427	1462	1483	1496	889
45°	1139	1152	1195	1230	1242	880
55°	854	868	909	948	961	765
65°	576	590	625	656	669	570
75°	312	327	351	371	381	331
85°	87	94	103	109	112	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1951.6	1951.6	1951.6	1951.6	1951.6
2.5°	1960.4	1945.3	1951.6	1949.1	1942.8
5°	1951.6	1936.5	1944.1	1941.5	1940.3
7.5°	1936.5	1922.7	1930.2	1930.2	1930.2
10°	1912.6	1901.3	1912.6	1912.6	1912.6
12.5°	1885.0	1874.9	1888.7	1890.0	1892.5
15°	1852.3	1843.5	1858.5	1863.6	1866.1
17.5°	1814.5	1807.0	1823.3	1830.9	1833.4
20°	1771.8	1764.2	1785.6	1790.6	1796.9
22.5°	1722.7	1719.0	1741.6	1746.6	1754.2
25°	1668.7	1666.2	1691.3	1700.1	1707.7
27.5°	1613.3	1612.1	1639.7	1651.1	1658.6
30°	1551.7	1553.0	1583.2	1597.0	1607.1
32.5°	1487.6	1491.4	1524.1	1540.4	1553.0
35°	1422.2	1427.2	1462.4	1482.6	1496.4
37.5°	1353.0	1360.6	1398.3	1422.2	1436.0
40°	1283.9	1292.7	1332.9	1358.1	1374.4
42.5°	1212.2	1223.5	1263.8	1296.5	1310.3
45°	1139.3	1151.8	1194.6	1229.8	1242.4
47.5°	1067.6	1083.9	1125.4	1160.7	1174.5
50°	994.7	1009.8	1053.8	1090.2	1105.3
52.5°	926.8	940.6	982.1	1019.8	1033.6
55°	853.8	867.7	909.2	948.1	960.7
57.5°	784.7	797.2	837.5	876.5	889.0
60°	714.2	726.8	765.8	801.0	814.8
62.5°	645.1	657.7	696.6	729.3	741.9
65°	575.9	589.8	625.0	656.4	669.0
67.5°	508.0	521.9	554.5	584.7	594.8
70°	438.9	453.9	485.4	513.1	521.9
72.5°	374.7	389.8	417.5	441.4	452.7
75°	311.9	326.9	350.8	371.0	381.0
77.5°	251.5	266.6	285.4	301.8	310.6
80°	193.7	207.5	221.3	237.7	244.0
82.5°	138.3	149.6	161.0	173.5	178.6
85°	86.8	94.3	103.1	109.4	111.9
87.5°	37.7	42.8	44.0	45.3	44.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)