

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: FAIL-SAFE

Report Number: P233176

Luminaire Tested: **FCB-24-4-LD4-50-50-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233176
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-24-4-LD4-50-50-UNV-EDD1-WDA6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (168)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

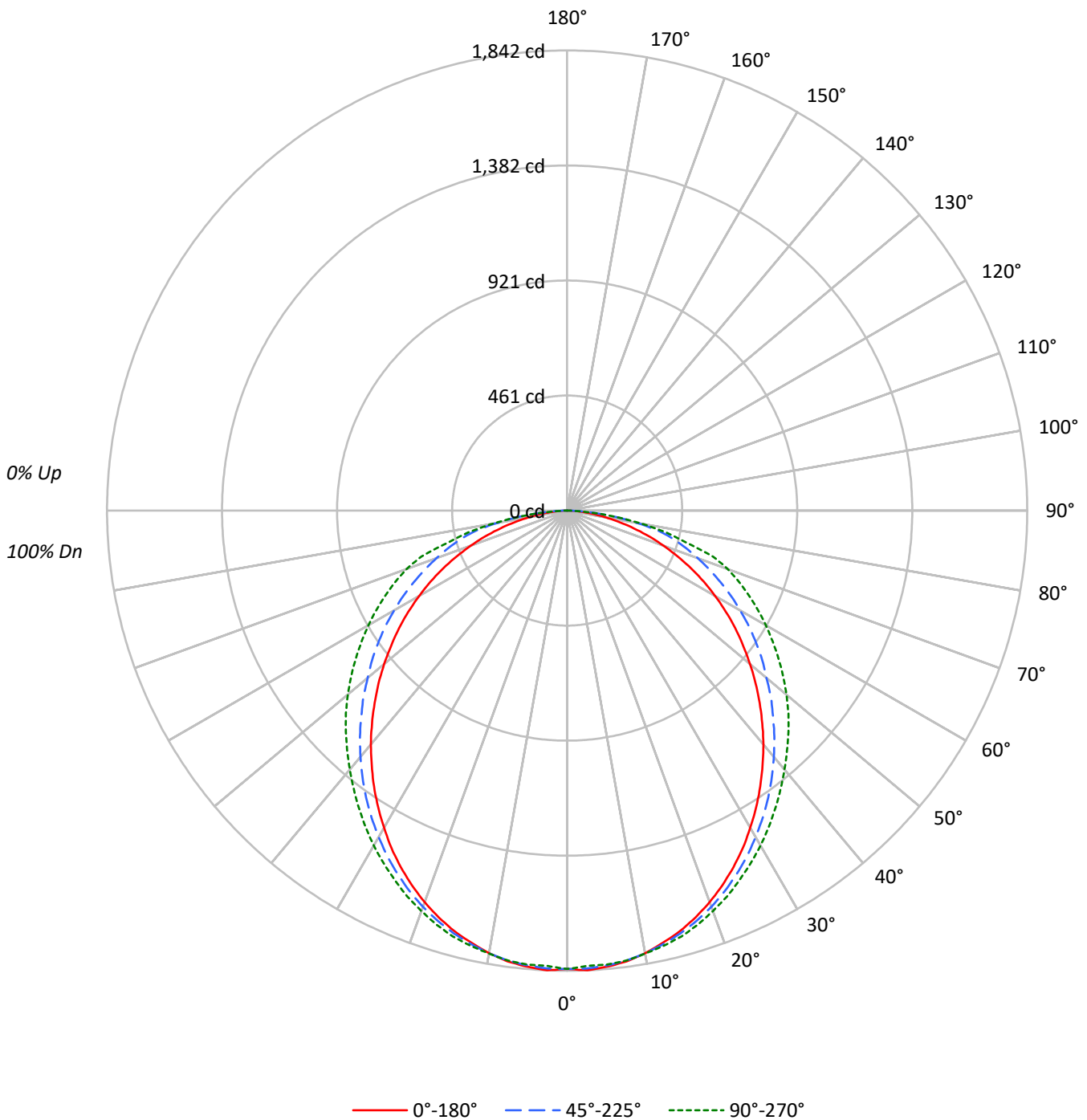
Lumens per Lamp: N/A
Luminaire Lumens: 5228.0 lumens
Efficiency: N/A
Efficacy: 128.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 40.7
Input Voltage (V): 120
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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2469	2469	2469
5°	2476	2468	2464
10°	2458	2458	2460
15°	2429	2441	2458
20°	2389	2417	2443
25°	2339	2384	2424
30°	2278	2344	2406
35°	2214	2305	2387
40°	2147	2261	2377
45°	2074	2217	2384
50°	2001	2181	2398
55°	1927	2167	2423
60°	1840	2153	2471
65°	1744	2154	2553
70°	1613	2190	2690
75°	1443	2289	2559
80°	1206	2191	2344
85°	912	1686	1602



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.4	3.3
10°-20°	493.5	9.4
20°-30°	737.7	14.1
30°-40°	875.1	16.7
40°-50°	900.7	17.2
50°-60°	826.3	15.8
60°-70°	668.1	12.8
70°-80°	433.6	8.3
80°-90°	119.6	2.3
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°	1404.5	26.9
0°-40°	2279.7	43.6
0°-60°	4006.7	76.6
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°	1835	1835	1835	1835	1835	
5°	1833	1820	1828	1826	1824	174
15°	1744	1736	1752	1760	1765	491
25°	1575	1577	1606	1620	1632	725
35°	1348	1359	1403	1434	1454	843
45°	1090	1108	1165	1221	1253	841
55°	822	847	924	999	1033	734
65°	548	580	677	766	802	541
75°	278	329	440	492	492	295
85°	59	100	109	106	104	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1834.8	1834.8	1834.8	1834.8	1834.8
2.5°	1841.9	1827.6	1834.8	1833.0	1824.0
5°	1833.0	1820.4	1827.6	1825.8	1824.0
7.5°	1820.4	1807.9	1816.9	1815.1	1816.9
10°	1799.0	1788.2	1799.0	1800.7	1800.7
12.5°	1772.1	1763.2	1777.5	1781.1	1784.6
15°	1743.5	1736.3	1752.4	1759.6	1764.9
17.5°	1707.7	1702.3	1722.0	1730.9	1738.1
20°	1668.3	1666.5	1688.0	1696.9	1705.9
22.5°	1623.5	1623.5	1648.6	1659.3	1671.9
25°	1575.2	1577.0	1605.6	1620.0	1632.5
27.5°	1523.3	1525.1	1559.1	1577.0	1591.3
30°	1466.0	1473.2	1509.0	1532.2	1548.4
32.5°	1408.7	1417.7	1457.1	1483.9	1501.8
35°	1347.9	1358.6	1403.4	1433.8	1453.5
37.5°	1285.2	1297.8	1346.1	1380.1	1403.4
40°	1222.6	1236.9	1287.0	1326.4	1353.2
42.5°	1156.3	1172.5	1227.9	1274.5	1303.1
45°	1090.1	1108.0	1165.3	1220.8	1253.0
47.5°	1023.9	1045.4	1106.2	1167.1	1201.1
50°	955.9	977.3	1041.8	1111.6	1145.6
52.5°	887.8	912.9	984.5	1056.1	1090.1
55°	821.6	846.7	923.6	998.8	1032.8
57.5°	753.6	778.7	862.8	941.5	975.6
60°	683.8	712.4	800.1	880.7	918.3
62.5°	615.8	646.2	739.3	825.2	861.0
65°	547.7	580.0	676.6	766.1	801.9
67.5°	477.9	515.5	615.8	707.1	744.6
70°	409.9	451.1	556.7	648.0	683.8
72.5°	343.7	388.4	497.6	590.7	612.2
75°	277.5	329.4	440.3	492.3	492.3
77.5°	214.8	272.1	375.9	395.6	406.3
80°	155.7	218.4	282.8	306.1	302.5
82.5°	103.8	166.5	202.3	202.3	196.9
85°	59.1	100.2	109.2	105.6	103.8
87.5°	25.1	37.6	34.0	26.9	23.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)