

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: P233217

Luminaire Tested: **FCB-24-4-LD4-60-30-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233217
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-LD4-60-30-UNV-EDD1-WDA12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (168)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

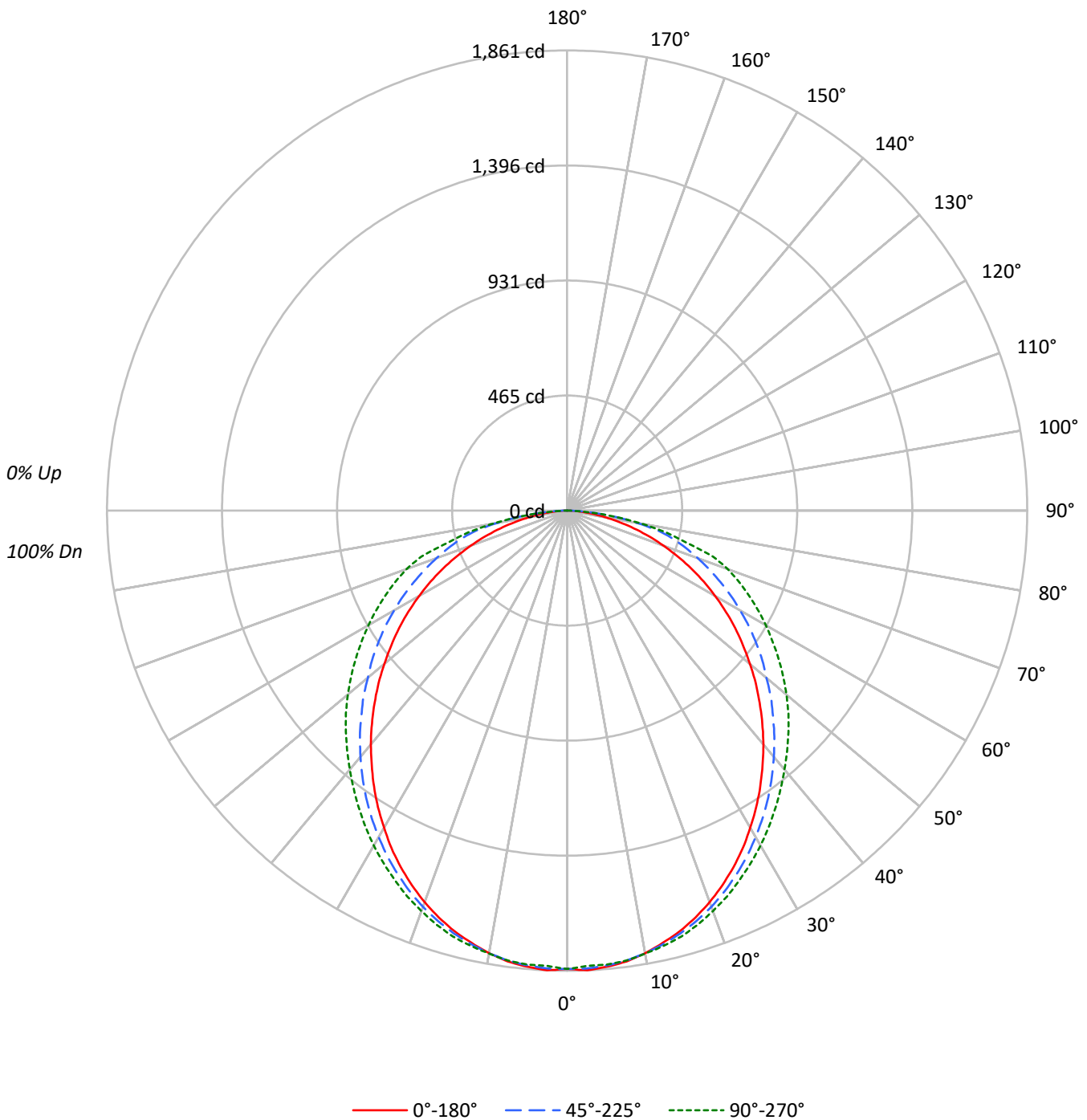
Lumens per Lamp: N/A
Luminaire Lumens: 5282.0 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 52.2
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°	2494	2494	2494
5°	2501	2494	2489
10°	2483	2483	2486
15°	2454	2466	2484
20°	2413	2442	2468
25°	2363	2408	2449
30°	2301	2369	2430
35°	2237	2329	2412
40°	2170	2284	2401
45°	2096	2240	2409
50°	2021	2203	2423
55°	1947	2189	2448
60°	1859	2175	2497
65°	1762	2176	2579
70°	1629	2212	2718
75°	1457	2313	2585
80°	1219	2214	2368
85°	922	1703	1619



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.2	3.3
10°-20°	498.6	9.4
20°-30°	745.3	14.1
30°-40°	884.2	16.7
40°-50°	910.0	17.2
50°-60°	834.8	15.8
60°-70°	675.0	12.8
70°-80°	438.1	8.3
80°-90°	120.8	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°	1419.0	26.9
0°-40°	2303.2	43.6
0°-60°	4048.1	76.6
0°-90°	5282.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5282.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1854	1854	1854	1854	1854	
5°	1852	1839	1846	1845	1843	176
15°	1762	1754	1770	1778	1783	496
25°	1592	1593	1622	1637	1649	733
35°	1362	1373	1418	1449	1468	852
45°	1101	1120	1177	1233	1266	850
55°	830	855	933	1009	1044	742
65°	553	586	684	774	810	547
75°	280	333	445	497	497	298
85°	60	101	110	107	105	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1853.7	1853.7	1853.7	1853.7	1853.7
2.5°	1860.9	1846.5	1853.7	1851.9	1842.9
5°	1851.9	1839.2	1846.5	1844.7	1842.9
7.5°	1839.2	1826.6	1835.6	1833.8	1835.6
10°	1817.5	1806.7	1817.5	1819.3	1819.3
12.5°	1790.4	1781.4	1795.8	1799.5	1803.1
15°	1761.5	1754.2	1770.5	1777.8	1783.2
17.5°	1725.3	1719.9	1739.8	1748.8	1756.0
20°	1685.5	1683.7	1705.4	1714.5	1723.5
22.5°	1640.3	1640.3	1665.6	1676.5	1689.1
25°	1591.5	1593.3	1622.2	1636.7	1649.3
27.5°	1539.0	1540.8	1575.2	1593.3	1607.8
30°	1481.2	1488.4	1524.6	1548.1	1564.3
32.5°	1423.3	1432.3	1472.1	1499.2	1517.3
35°	1361.8	1372.6	1417.9	1448.6	1468.5
37.5°	1298.5	1311.2	1360.0	1394.3	1417.9
40°	1235.2	1249.7	1300.3	1340.1	1367.2
42.5°	1168.3	1184.6	1240.6	1287.6	1316.6
45°	1101.4	1119.5	1177.3	1233.4	1265.9
47.5°	1034.5	1056.2	1117.6	1179.1	1213.5
50°	965.7	987.4	1052.5	1123.1	1157.4
52.5°	897.0	922.3	994.7	1067.0	1101.4
55°	830.1	855.4	933.2	1009.1	1043.5
57.5°	761.4	786.7	871.7	951.3	985.6
60°	690.8	719.8	808.4	889.8	927.8
62.5°	622.1	652.9	746.9	833.7	869.9
65°	553.4	586.0	683.6	774.0	810.2
67.5°	482.9	520.8	622.1	714.4	752.3
70°	414.1	455.7	562.4	654.7	690.8
72.5°	347.2	392.4	502.8	596.8	618.5
75°	280.3	332.8	444.9	497.3	497.3
77.5°	217.0	274.9	379.8	399.7	410.5
80°	157.3	220.6	285.7	309.3	305.6
82.5°	104.9	168.2	204.4	204.4	198.9
85°	59.7	101.3	110.3	106.7	104.9
87.5°	25.3	38.0	34.4	27.1	23.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)