

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: P233213

Luminaire Tested: **FCB-24-4-LD4-50-30-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233213
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-LD4-50-30-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

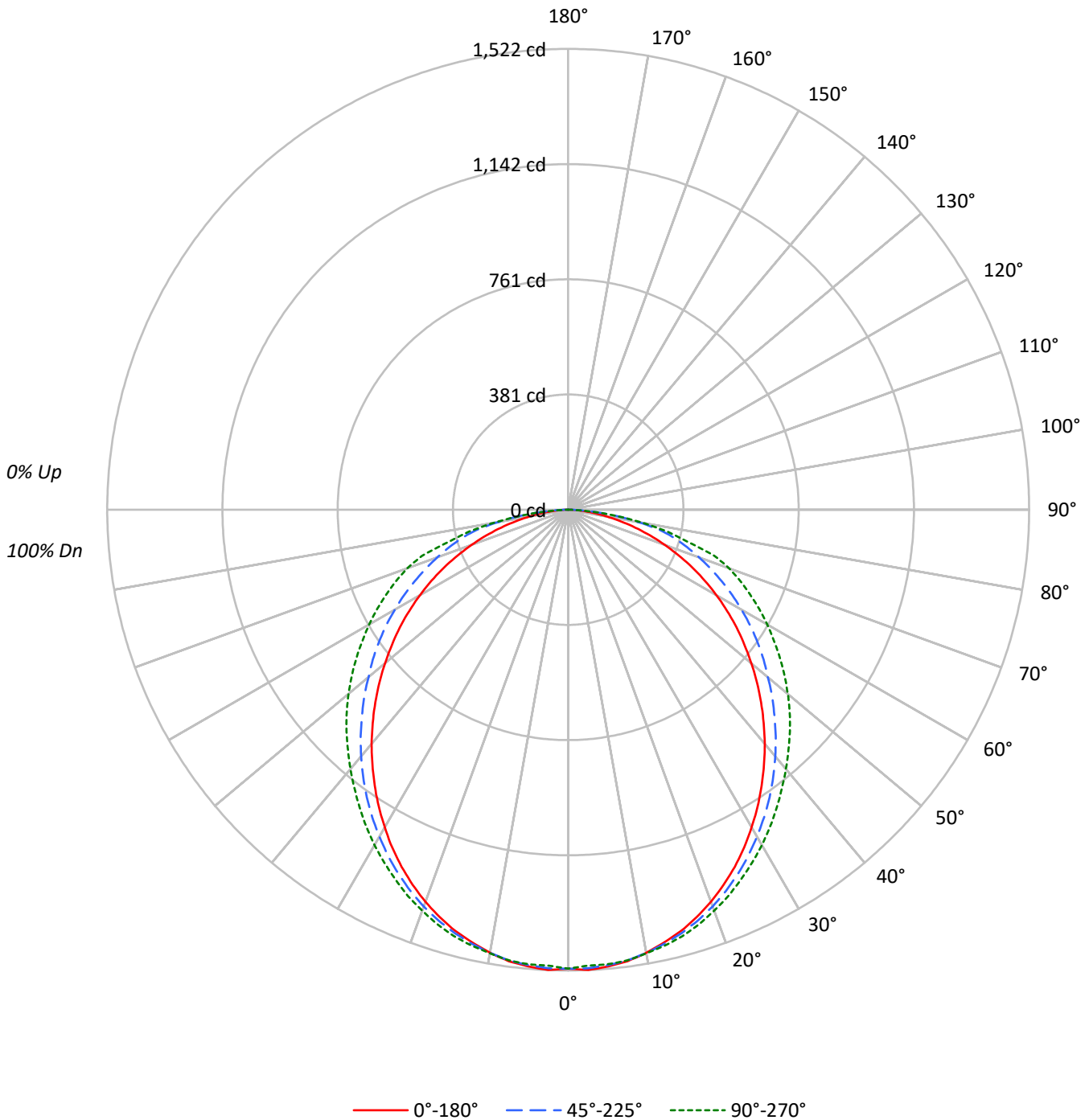
Lumens per Lamp: N/A
Luminaire Lumens: 4319.0 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P233213

CATALOG NUMBER: FCB-24-4-LD4-50-30-UNV-EDD1-WDA12

Luminous Intensity Polar Plot





TEST NUMBER: P233213

CATALOG NUMBER: FCB-24-4-LD4-50-30-UNV-EDD1-WDA12

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°	2039	2039	2039
5°	2045	2039	2035
10°	2031	2031	2032
15°	2006	2017	2031
20°	1973	1997	2018
25°	1932	1969	2002
30°	1882	1937	1987
35°	1829	1904	1972
40°	1774	1867	1964
45°	1714	1832	1970
50°	1653	1801	1981
55°	1592	1790	2002
60°	1520	1779	2041
65°	1441	1780	2109
70°	1332	1809	2222
75°	1192	1891	2114
80°	997	1810	1936
85°	753	1392	1325



TEST NUMBER: P233213

CATALOG NUMBER: FCB-24-4-LD4-50-30-UNV-EDD1-WDA12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.2	3.3
10°-20°	407.7	9.4
20°-30°	609.4	14.1
30°-40°	723.0	16.7
40°-50°	744.1	17.2
50°-60°	682.7	15.8
60°-70°	551.9	12.8
70°-80°	358.2	8.3
80°-90°	98.8	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°	1160.3	26.9
0°-40°	1883.3	43.6
0°-60°	3310.1	76.6
0°-90°	4319.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4319.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1516	1516	1516	1516	1516	
5°	1514	1504	1510	1508	1507	144
15°	1440	1434	1448	1454	1458	406
25°	1301	1303	1326	1338	1349	599
35°	1114	1122	1159	1184	1201	696
45°	901	915	963	1008	1035	695
55°	679	700	763	825	853	606
65°	452	479	559	633	662	447
75°	229	272	364	407	407	244
85°	49	83	90	87	86	60
90°	0	0	0	0	0	



TEST NUMBER: P233213

CATALOG NUMBER: FCB-24-4-LD4-50-30-UNV-EDD1-WDA12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1515.7	1515.7	1515.7	1515.7	1515.7
2.5°	1521.7	1509.8	1515.7	1514.3	1506.9
5°	1514.3	1503.9	1509.8	1508.4	1506.9
7.5°	1503.9	1493.6	1501.0	1499.5	1501.0
10°	1486.2	1477.3	1486.2	1487.6	1487.6
12.5°	1464.0	1456.6	1468.4	1471.4	1474.3
15°	1440.3	1434.4	1447.7	1453.6	1458.1
17.5°	1410.8	1406.3	1422.6	1430.0	1435.9
20°	1378.2	1376.7	1394.5	1401.9	1409.3
22.5°	1341.2	1341.2	1362.0	1370.8	1381.2
25°	1301.3	1302.8	1326.5	1338.3	1348.6
27.5°	1258.4	1259.9	1288.0	1302.8	1314.6
30°	1211.1	1217.0	1246.6	1265.8	1279.1
32.5°	1163.8	1171.2	1203.7	1225.9	1240.7
35°	1113.5	1122.4	1159.4	1184.5	1200.8
37.5°	1061.8	1072.1	1112.0	1140.1	1159.4
40°	1010.0	1021.8	1063.2	1095.8	1118.0
42.5°	955.3	968.6	1014.4	1052.9	1076.5
45°	900.6	915.4	962.7	1008.5	1035.1
47.5°	845.9	863.6	913.9	964.2	992.3
50°	789.7	807.4	860.6	918.3	946.4
52.5°	733.5	754.2	813.3	872.5	900.6
55°	678.8	699.5	763.0	825.2	853.3
57.5°	622.6	643.3	712.8	777.8	805.9
60°	564.9	588.6	661.0	727.6	758.6
62.5°	508.7	533.8	610.7	681.7	711.3
65°	452.5	479.1	559.0	632.9	662.5
67.5°	394.8	425.9	508.7	584.1	615.2
70°	338.6	372.7	459.9	535.3	564.9
72.5°	283.9	320.9	411.1	488.0	505.7
75°	229.2	272.1	363.8	406.7	406.7
77.5°	177.5	224.8	310.5	326.8	335.7
80°	128.7	180.4	233.6	252.9	249.9
82.5°	85.8	137.5	167.1	167.1	162.7
85°	48.8	82.8	90.2	87.2	85.8
87.5°	20.7	31.1	28.1	22.2	19.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)