

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: P233048

Luminaire Tested: **FCB-12-4-LD4-44-50-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233048
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35573)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-12-4-LD4-44-50-UNV-EDD1-WDA6
Description: FAILSAFE 1X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (84)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

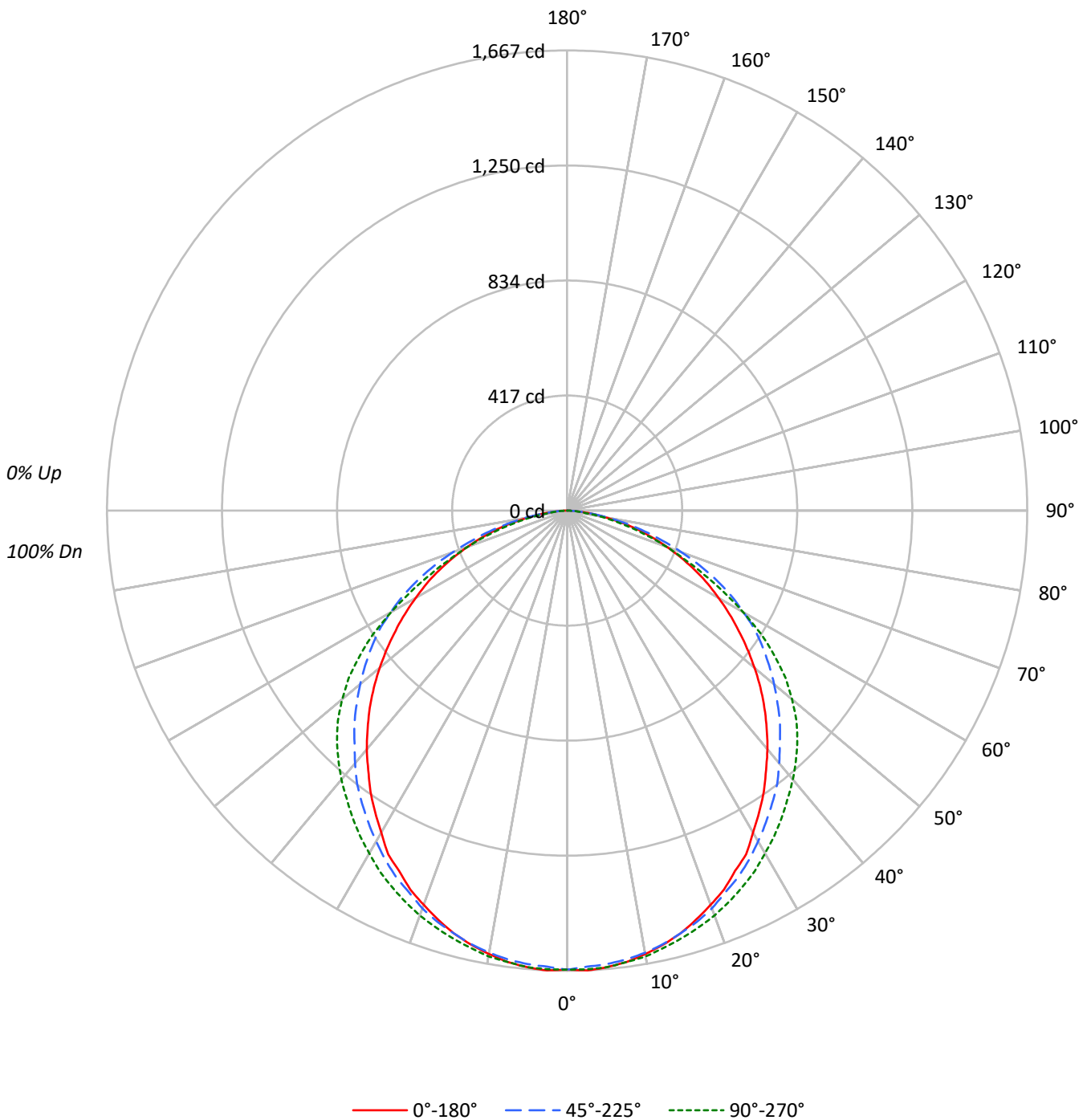
Lumens per Lamp: N/A
Luminaire Lumens: 4608.0 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
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: P233048

CATALOG NUMBER: FCB-12-4-LD4-44-50-UNV-EDD1-WDA6

Luminous Intensity Polar Plot





TEST NUMBER: P233048

CATALOG NUMBER: FCB-12-4-LD4-44-50-UNV-EDD1-WDA6

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	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	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	40	36	34
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	29	42	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4475	4475	4475
5°	4486	4455	4486
10°	4457	4444	4482
15°	4418	4418	4468
20°	4352	4391	4469
25°	4276	4351	4465
30°	4186	4299	4454
35°	4082	4254	4455
40°	3966	4197	4469
45°	3847	4150	4487
50°	3709	4099	4451
55°	3560	4061	4306
60°	3411	3973	3961
65°	3254	3805	3472
70°	3020	3467	3002
75°	2740	3023	2480
80°	2182	2394	1830
85°	1544	1334	1053



TEST NUMBER: P233048

CATALOG NUMBER: FCB-12-4-LD4-44-50-UNV-EDD1-WDA6

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.3	3.4
10°-20°	449.5	9.8
20°-30°	677.7	14.7
30°-40°	812.3	17.6
40°-50°	843.0	18.3
50°-60°	760.4	16.5
60°-70°	554.6	12.0
70°-80°	291.0	6.3
80°-90°	62.1	1.3
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°	1284.5	27.9
0°-40°	2096.9	45.5
0°-60°	3700.3	80.3
0°-90°	4608.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4608.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1663	1663	1663	1663	1663	
5°	1661	1656	1649	1661	1661	158
15°	1586	1586	1586	1604	1604	447
25°	1440	1447	1465	1497	1504	665
35°	1243	1256	1295	1343	1356	776
45°	1011	1031	1090	1156	1179	779
55°	759	786	866	922	918	679
65°	511	541	598	575	545	505
75°	264	300	291	252	238	276
85°	50	61	43	36	34	64
90°	0	0	0	0	0	



TEST NUMBER: P233048

CATALOG NUMBER: FCB-12-4-LD4-44-50-UNV-EDD1-WDA6

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1662.9	1662.9	1662.9	1662.9	1662.9
2.5°	1667.4	1662.9	1653.8	1662.9	1662.9
5°	1660.6	1656.1	1649.3	1660.6	1660.6
7.5°	1649.3	1644.7	1640.2	1651.5	1649.3
10°	1631.1	1628.8	1626.5	1640.2	1640.2
12.5°	1610.6	1610.6	1608.4	1624.3	1622.0
15°	1585.7	1585.7	1585.7	1603.8	1603.8
17.5°	1553.9	1558.4	1562.9	1583.4	1583.4
20°	1519.8	1524.3	1533.4	1558.4	1560.7
22.5°	1485.7	1488.0	1497.1	1526.6	1533.4
25°	1440.3	1447.1	1465.3	1497.1	1503.9
27.5°	1403.9	1406.2	1426.6	1463.0	1472.1
30°	1347.1	1363.0	1383.5	1424.4	1433.5
32.5°	1294.9	1308.5	1340.3	1383.5	1397.1
35°	1242.6	1256.3	1294.9	1342.6	1356.2
37.5°	1183.6	1204.0	1249.4	1297.2	1313.1
40°	1129.0	1147.2	1194.9	1254.0	1272.2
42.5°	1070.0	1088.2	1140.4	1206.3	1226.7
45°	1010.9	1031.4	1090.4	1156.3	1179.0
47.5°	949.6	972.3	1033.6	1106.3	1126.8
50°	886.0	911.0	979.1	1054.1	1063.2
52.5°	822.4	849.6	922.3	988.2	997.3
55°	758.8	786.0	865.5	922.3	917.8
57.5°	697.4	726.9	808.7	838.3	833.7
60°	633.8	665.6	738.3	751.9	736.0
62.5°	574.7	604.3	672.4	661.1	640.6
65°	511.1	540.7	597.5	574.7	545.2
67.5°	447.5	483.9	520.2	481.6	458.9
70°	383.9	424.8	440.7	402.1	381.6
72.5°	322.6	365.7	361.2	322.6	309.0
75°	263.5	299.9	290.8	252.2	238.5
77.5°	199.9	240.8	220.4	188.6	177.2
80°	140.8	177.2	154.5	127.2	118.1
82.5°	93.1	118.1	95.4	75.0	68.2
85°	50.0	61.3	43.2	36.3	34.1
87.5°	20.4	18.2	15.9	15.9	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)