

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: P233084

Luminaire Tested: **FCB-12-4-LD4-44-50-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233084
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-WDP12
Description: FAILSAFE 1X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

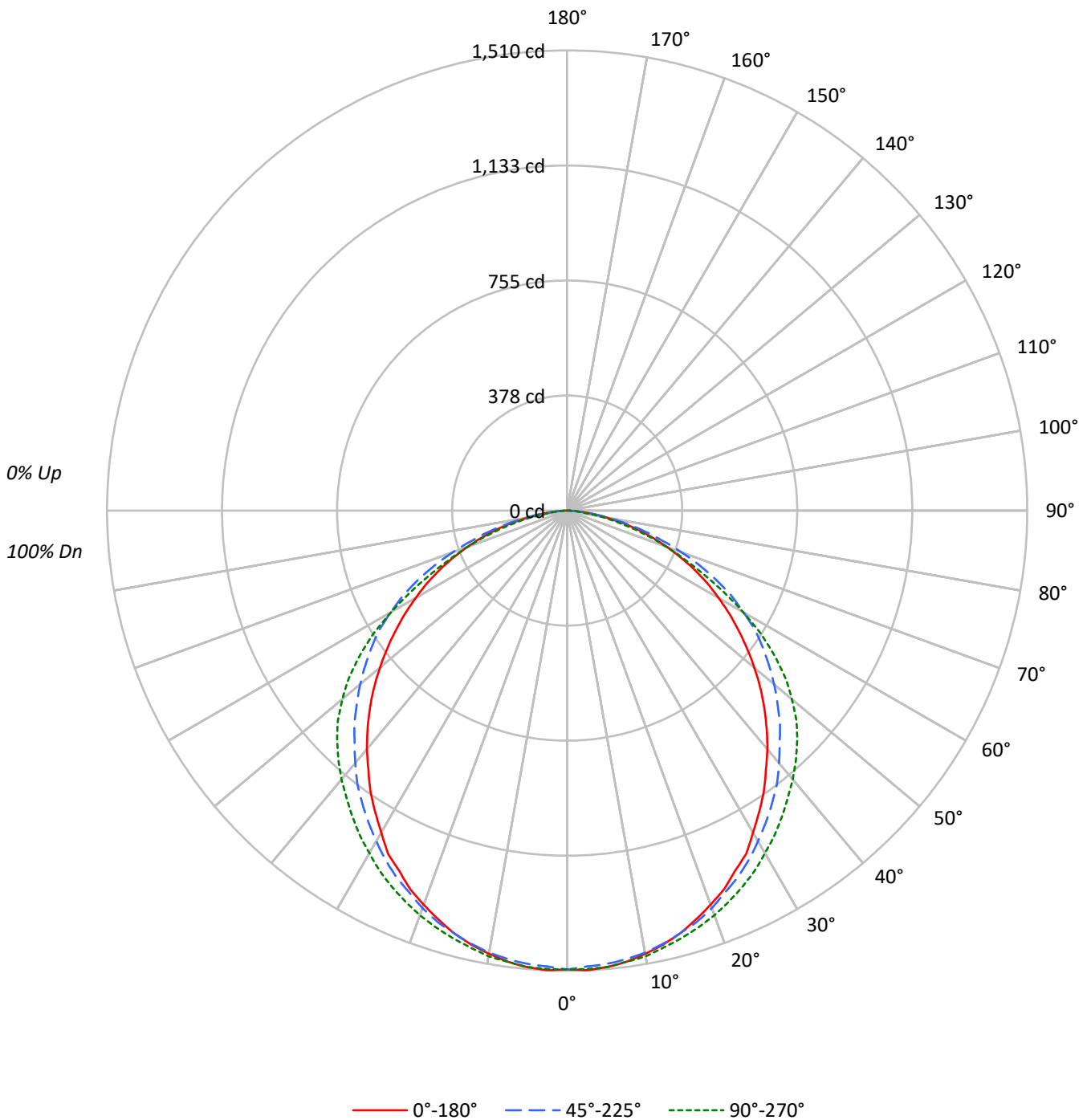
Lumens per Lamp: N/A
Luminaire Lumens: 4172.0 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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	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°	4052	4052	4052
5°	4061	4034	4061
10°	4035	4024	4058
15°	3999	3999	4045
20°	3940	3976	4046
25°	3872	3939	4043
30°	3790	3892	4033
35°	3696	3851	4034
40°	3591	3801	4046
45°	3483	3757	4062
50°	3358	3711	4030
55°	3223	3676	3898
60°	3088	3598	3587
65°	2947	3444	3143
70°	2735	3139	2718
75°	2481	2738	2246
80°	1976	2168	1658
85°	1396	1207	954



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.5	3.4
10°-20°	407.0	9.8
20°-30°	613.6	14.7
30°-40°	735.5	17.6
40°-50°	763.3	18.3
50°-60°	688.4	16.5
60°-70°	502.2	12.0
70°-80°	263.5	6.3
80°-90°	56.2	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°	1163.0	27.9
0°-40°	1898.5	45.5
0°-60°	3350.1	80.3
0°-90°	4172.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4172.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1506	1506	1506	1506	1506	
5°	1504	1499	1493	1504	1504	143
15°	1436	1436	1436	1452	1452	404
25°	1304	1310	1327	1355	1362	602
35°	1125	1137	1172	1216	1228	703
45°	915	934	987	1047	1068	705
55°	687	712	784	835	831	615
65°	463	490	541	520	494	457
75°	239	272	263	228	216	250
85°	45	56	39	33	31	58
90°	0	0	0	0	0	



TEST NUMBER: P233084

CATALOG NUMBER: FCB-12-4-LD4-44-50-UNV-EDD1-WDP12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1505.6	1505.6	1505.6	1505.6	1505.6
2.5°	1509.7	1505.6	1497.3	1505.6	1505.6
5°	1503.5	1499.4	1493.2	1503.5	1503.5
7.5°	1493.2	1489.1	1485.0	1495.3	1493.2
10°	1476.8	1474.7	1472.6	1485.0	1485.0
12.5°	1458.3	1458.3	1456.2	1470.6	1468.5
15°	1435.6	1435.6	1435.6	1452.1	1452.1
17.5°	1406.8	1410.9	1415.1	1433.6	1433.6
20°	1376.0	1380.1	1388.3	1410.9	1413.0
22.5°	1345.1	1347.2	1355.4	1382.2	1388.3
25°	1304.0	1310.2	1326.6	1355.4	1361.6
27.5°	1271.1	1273.1	1291.7	1324.6	1332.8
30°	1219.7	1234.1	1252.6	1289.6	1297.8
32.5°	1172.4	1184.7	1213.5	1252.6	1264.9
35°	1125.1	1137.4	1172.4	1215.6	1227.9
37.5°	1071.6	1090.1	1131.2	1174.4	1188.8
40°	1022.2	1038.7	1081.9	1135.3	1151.8
42.5°	968.7	985.2	1032.5	1092.1	1110.7
45°	915.3	933.8	987.3	1046.9	1067.5
47.5°	859.7	880.3	935.8	1001.6	1020.2
50°	802.1	824.8	886.5	954.3	962.6
52.5°	744.6	769.2	835.0	894.7	902.9
55°	687.0	711.6	783.6	835.0	830.9
57.5°	631.4	658.2	732.2	758.9	754.8
60°	573.8	602.6	668.5	680.8	666.4
62.5°	520.4	547.1	608.8	598.5	580.0
65°	462.8	489.5	540.9	520.4	493.6
67.5°	405.2	438.1	471.0	436.0	415.5
70°	347.6	384.6	399.0	364.0	345.5
72.5°	292.1	331.1	327.0	292.1	279.7
75°	238.6	271.5	263.3	228.3	216.0
77.5°	181.0	218.0	199.5	170.7	160.4
80°	127.5	160.4	139.9	115.2	107.0
82.5°	84.3	107.0	86.4	67.9	61.7
85°	45.2	55.5	39.1	32.9	30.9
87.5°	18.5	16.5	14.4	14.4	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)