

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: P233059

Luminaire Tested: **FCB-12-4-LD4-44-40-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233059
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-LD4-44-40-UNV-EDD1-WDP6
Description: FAILSAFE 1X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

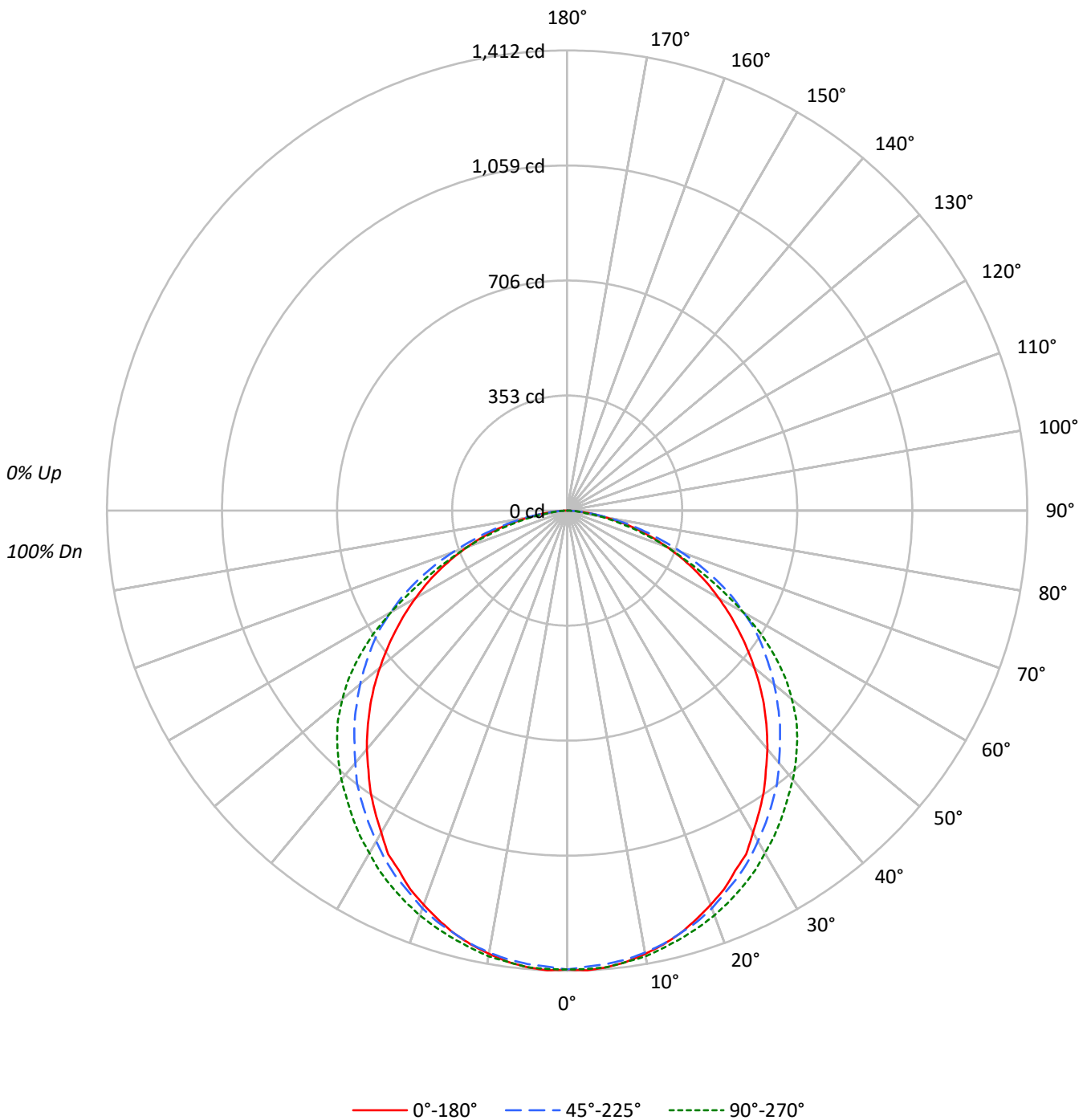
Lumens per Lamp: N/A
Luminaire Lumens: 3902.0 lumens
Efficiency: N/A
Efficacy: 94.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): 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: P233059

CATALOG NUMBER: FCB-12-4-LD4-44-40-UNV-EDD1-WDP6

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°	3789	3789	3789
5°	3799	3773	3799
10°	3774	3763	3795
15°	3741	3741	3784
20°	3685	3718	3785
25°	3621	3684	3781
30°	3544	3640	3772
35°	3457	3602	3773
40°	3359	3554	3784
45°	3258	3514	3800
50°	3141	3471	3769
55°	3014	3438	3646
60°	2888	3365	3355
65°	2756	3221	2940
70°	2558	2936	2543
75°	2320	2560	2100
80°	1849	2027	1550
85°	1306	1127	892



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.2	3.4
10°-20°	380.6	9.8
20°-30°	573.9	14.7
30°-40°	687.9	17.6
40°-50°	713.9	18.3
50°-60°	643.9	16.5
60°-70°	469.7	12.0
70°-80°	246.4	6.3
80°-90°	52.6	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°	1087.7	27.9
0°-40°	1775.6	45.5
0°-60°	3133.3	80.3
0°-90°	3902.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3902.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1408	1408	1408	1408	1408	
5°	1406	1402	1397	1406	1406	133
15°	1343	1343	1343	1358	1358	378
25°	1220	1225	1241	1268	1274	563
35°	1052	1064	1096	1137	1148	657
45°	856	873	923	979	998	660
55°	642	666	733	781	777	575
65°	433	458	506	487	462	428
75°	223	254	246	214	202	234
85°	42	52	36	31	29	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1408.1	1408.1	1408.1	1408.1	1408.1
2.5°	1412.0	1408.1	1400.4	1408.1	1408.1
5°	1406.2	1402.4	1396.6	1406.2	1406.2
7.5°	1396.6	1392.7	1388.9	1398.5	1396.6
10°	1381.2	1379.3	1377.3	1388.9	1388.9
12.5°	1363.9	1363.9	1362.0	1375.4	1373.5
15°	1342.7	1342.7	1342.7	1358.1	1358.1
17.5°	1315.8	1319.6	1323.5	1340.8	1340.8
20°	1286.9	1290.8	1298.5	1319.6	1321.6
22.5°	1258.1	1260.0	1267.7	1292.7	1298.5
25°	1219.6	1225.4	1240.8	1267.7	1273.5
27.5°	1188.8	1190.7	1208.1	1238.8	1246.5
30°	1140.7	1154.2	1171.5	1206.1	1213.8
32.5°	1096.5	1108.0	1135.0	1171.5	1183.1
35°	1052.2	1063.8	1096.5	1136.9	1148.4
37.5°	1002.2	1019.5	1058.0	1098.4	1111.9
40°	956.1	971.4	1011.8	1061.9	1077.3
42.5°	906.0	921.4	965.7	1021.5	1038.8
45°	856.0	873.3	923.4	979.1	998.4
47.5°	804.1	823.3	875.3	936.8	954.1
50°	750.2	771.4	829.1	892.6	900.3
52.5°	696.4	719.5	781.0	836.8	844.5
55°	642.5	665.6	732.9	781.0	777.2
57.5°	590.6	615.6	684.8	709.8	706.0
60°	536.7	563.6	625.2	636.7	623.3
62.5°	486.7	511.7	569.4	559.8	542.5
65°	432.8	457.8	505.9	486.7	461.7
67.5°	379.0	409.7	440.5	407.8	388.6
70°	325.1	359.7	373.2	340.5	323.2
72.5°	273.2	309.7	305.9	273.2	261.6
75°	223.1	253.9	246.2	213.5	202.0
77.5°	169.3	203.9	186.6	159.7	150.0
80°	119.3	150.0	130.8	107.7	100.0
82.5°	78.9	100.0	80.8	63.5	57.7
85°	42.3	51.9	36.5	30.8	28.9
87.5°	17.3	15.4	13.5	13.5	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)