

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: P233083

Luminaire Tested: **FCB-12-4-LD4-44-40-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233083
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-WDP12
Description: FAILSAFE 1X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

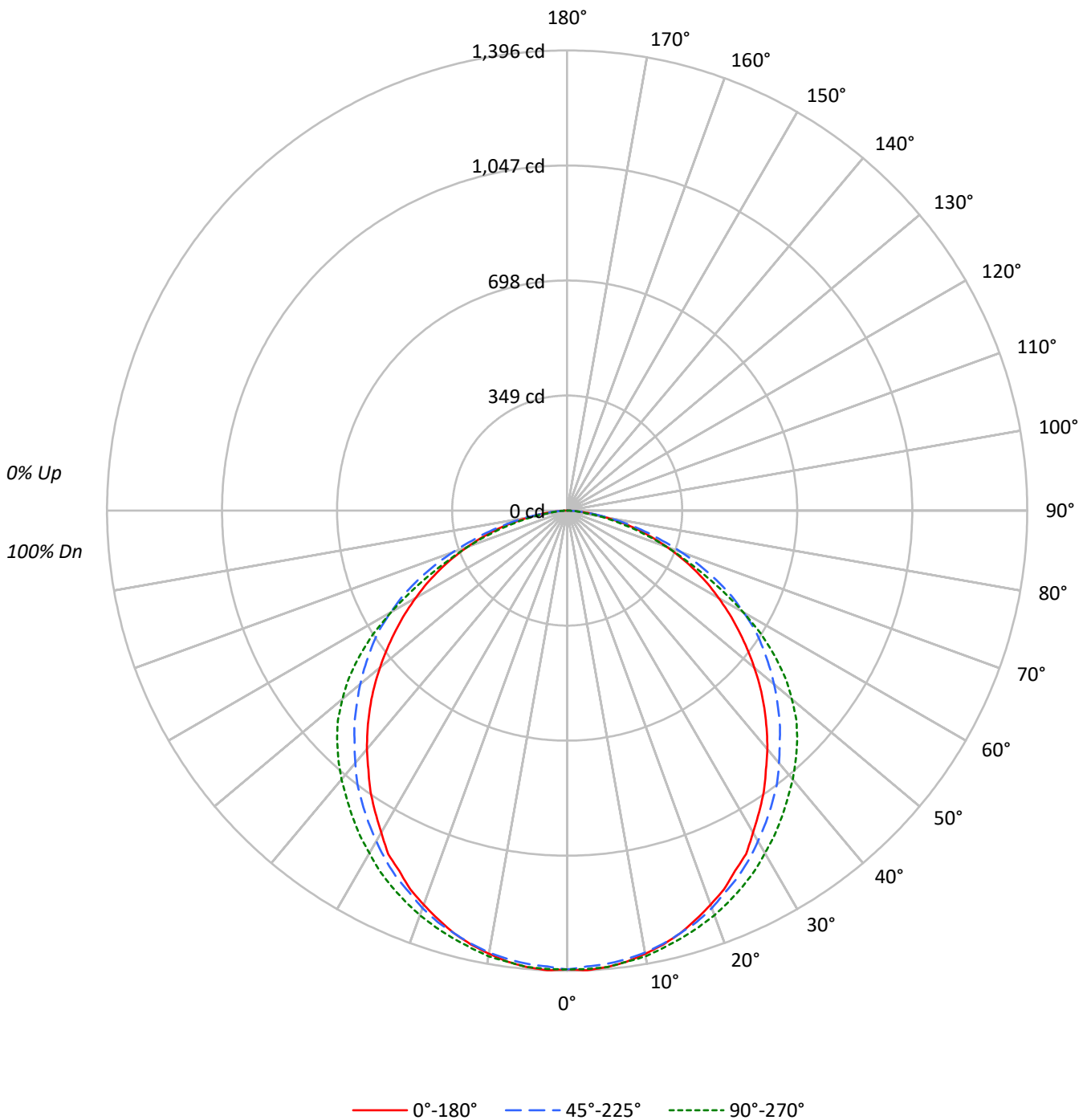
Lumens per Lamp: N/A
Luminaire Lumens: 3857.0 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3746	3746	3746
5°	3755	3729	3755
10°	3731	3720	3751
15°	3697	3697	3740
20°	3643	3676	3741
25°	3579	3642	3738
30°	3504	3598	3728
35°	3417	3560	3729
40°	3320	3514	3740
45°	3220	3473	3756
50°	3105	3431	3725
55°	2980	3399	3604
60°	2855	3326	3316
65°	2724	3184	2906
70°	2528	2902	2513
75°	2294	2531	2076
80°	1827	2004	1533
85°	1291	1115	880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.7	3.4
10°-20°	376.2	9.8
20°-30°	567.3	14.7
30°-40°	679.9	17.6
40°-50°	705.6	18.3
50°-60°	636.4	16.5
60°-70°	464.3	12.0
70°-80°	243.6	6.3
80°-90°	51.9	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°	1075.2	27.9
0°-40°	1755.1	45.5
0°-60°	3097.2	80.3
0°-90°	3857.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3857.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1392	1392	1392	1392	1392	
5°	1390	1386	1380	1390	1390	132
15°	1327	1327	1327	1342	1342	374
25°	1206	1211	1226	1253	1259	556
35°	1040	1052	1084	1124	1135	650
45°	846	863	913	968	987	652
55°	635	658	724	772	768	569
65°	428	453	500	481	456	423
75°	221	251	243	211	200	231
85°	42	51	36	30	28	53
90°	0	0	0	0	0	



TEST NUMBER: P233083

CATALOG NUMBER: FCB-12-4-LD4-44-40-UNV-EDD1-WDP12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1391.9	1391.9	1391.9	1391.9	1391.9
2.5°	1395.7	1391.9	1384.3	1391.9	1391.9
5°	1390.0	1386.2	1380.5	1390.0	1390.0
7.5°	1380.5	1376.7	1372.9	1382.4	1380.5
10°	1365.3	1363.4	1361.5	1372.9	1372.9
12.5°	1348.1	1348.1	1346.2	1359.6	1357.7
15°	1327.2	1327.2	1327.2	1342.4	1342.4
17.5°	1300.6	1304.4	1308.2	1325.3	1325.3
20°	1272.1	1275.9	1283.5	1304.4	1306.3
22.5°	1243.6	1245.5	1253.1	1277.8	1283.5
25°	1205.5	1211.2	1226.5	1253.1	1258.8
27.5°	1175.1	1177.0	1194.1	1224.6	1232.2
30°	1127.6	1140.9	1158.0	1192.2	1199.8
32.5°	1083.8	1095.3	1121.9	1158.0	1169.4
35°	1040.1	1051.5	1083.8	1123.8	1135.2
37.5°	990.7	1007.8	1045.8	1085.7	1099.1
40°	945.0	960.2	1000.2	1049.6	1064.8
42.5°	895.6	910.8	954.5	1009.7	1026.8
45°	846.2	863.3	912.7	967.9	986.9
47.5°	794.8	813.8	865.2	926.0	943.1
50°	741.6	762.5	819.5	882.3	889.9
52.5°	688.3	711.2	772.0	827.1	834.7
55°	635.1	657.9	724.5	772.0	768.2
57.5°	583.8	608.5	676.9	701.6	697.8
60°	530.5	557.1	618.0	629.4	616.1
62.5°	481.1	505.8	562.8	553.3	536.2
65°	427.8	452.6	500.1	481.1	456.4
67.5°	374.6	405.0	435.4	403.1	384.1
70°	321.3	355.6	368.9	336.6	319.4
72.5°	270.0	306.1	302.3	270.0	258.6
75°	220.6	251.0	243.4	211.1	199.7
77.5°	167.3	201.6	184.4	157.8	148.3
80°	117.9	148.3	129.3	106.5	98.9
82.5°	78.0	98.9	79.9	62.7	57.0
85°	41.8	51.3	36.1	30.4	28.5
87.5°	17.1	15.2	13.3	13.3	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)