

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: P233072

Luminaire Tested: **FCB-12-4-LD4-44-50-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233072
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-WDA12
Description: FAILSAFE 1X4 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (84)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

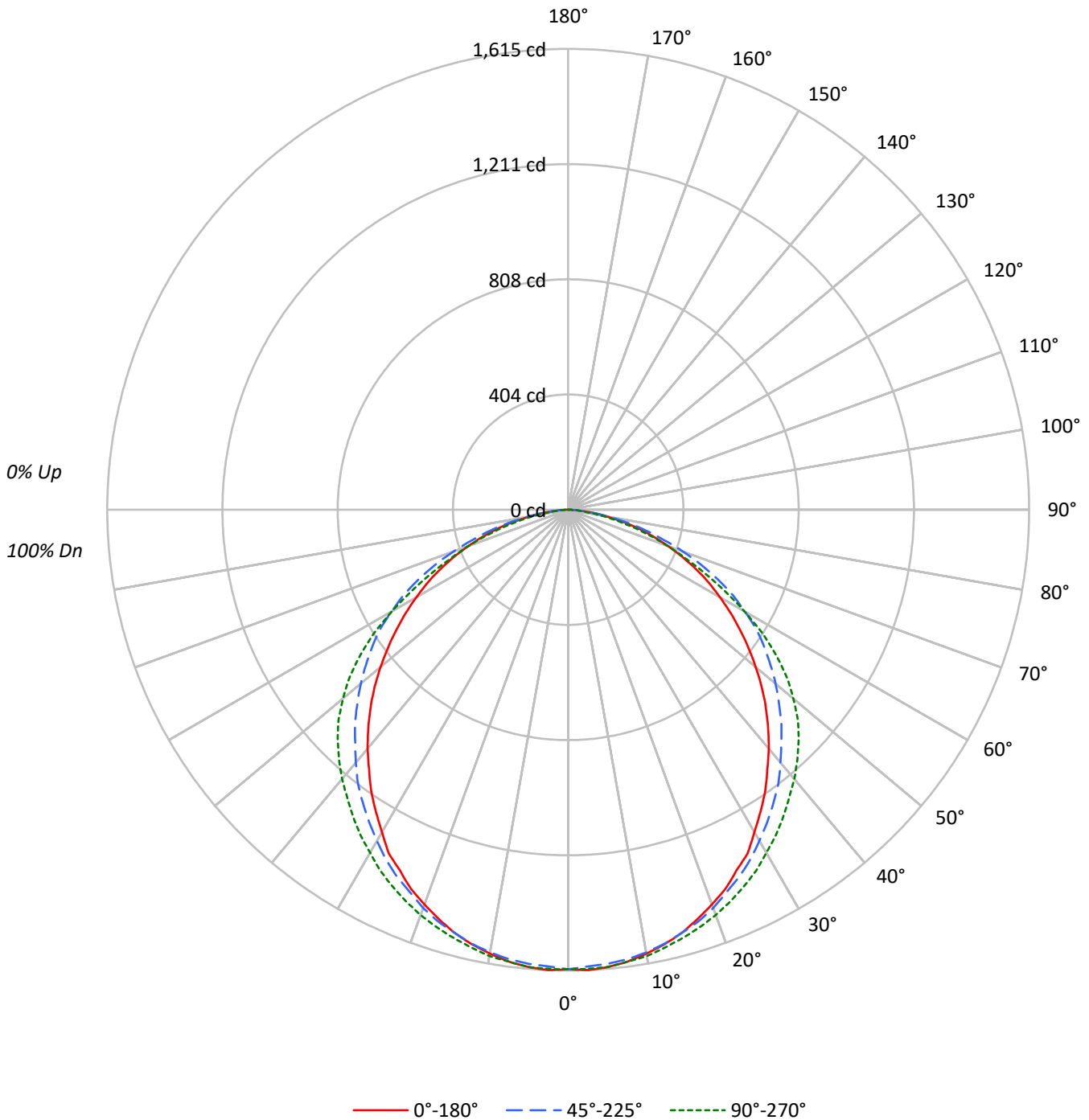
Lumens per Lamp: N/A
Luminaire Lumens: 4463.0 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	4334	4334	4334
5°	4345	4315	4345
10°	4317	4305	4341
15°	4279	4279	4328
20°	4215	4253	4329
25°	4142	4214	4325
30°	4054	4163	4314
35°	3954	4120	4315
40°	3841	4065	4328
45°	3726	4019	4346
50°	3592	3970	4311
55°	3448	3933	4170
60°	3304	3849	3837
65°	3152	3685	3363
70°	2925	3358	2908
75°	2653	2928	2402
80°	2114	2318	1773
85°	1494	1291	1019



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.4	3.4
10°-20°	435.3	9.8
20°-30°	656.4	14.7
30°-40°	786.8	17.6
40°-50°	816.5	18.3
50°-60°	736.5	16.5
60°-70°	537.2	12.0
70°-80°	281.8	6.3
80°-90°	60.1	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°	1244.1	27.9
0°-40°	2030.9	45.5
0°-60°	3583.8	80.3
0°-90°	4463.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4463.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1611	1611	1611	1611	1611	
5°	1608	1604	1597	1608	1608	153
15°	1536	1536	1536	1553	1553	433
25°	1395	1402	1419	1450	1457	644
35°	1204	1217	1254	1300	1314	752
45°	979	999	1056	1120	1142	755
55°	735	761	838	893	889	658
65°	495	524	579	557	528	489
75°	255	290	282	244	231	268
85°	48	59	42	35	33	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1610.6	1610.6	1610.6	1610.6	1610.6
2.5°	1615.0	1610.6	1601.8	1610.6	1610.6
5°	1608.4	1604.0	1597.4	1608.4	1608.4
7.5°	1597.4	1593.0	1588.6	1599.6	1597.4
10°	1579.8	1577.6	1575.4	1588.6	1588.6
12.5°	1560.0	1560.0	1557.8	1573.2	1571.0
15°	1535.8	1535.8	1535.8	1553.4	1553.4
17.5°	1505.0	1509.4	1513.8	1533.6	1533.6
20°	1472.0	1476.4	1485.2	1509.4	1511.6
22.5°	1439.0	1441.2	1450.0	1478.6	1485.2
25°	1394.9	1401.5	1419.2	1450.0	1456.6
27.5°	1359.7	1361.9	1381.7	1416.9	1425.8
30°	1304.7	1320.1	1339.9	1379.5	1388.3
32.5°	1254.1	1267.3	1298.1	1339.9	1353.1
35°	1203.5	1216.7	1254.1	1300.3	1313.5
37.5°	1146.3	1166.1	1210.1	1256.3	1271.7
40°	1093.5	1111.1	1157.3	1214.5	1232.1
42.5°	1036.3	1053.9	1104.5	1168.3	1188.1
45°	979.1	998.9	1056.1	1119.9	1141.9
47.5°	919.7	941.7	1001.1	1071.5	1091.3
50°	858.1	882.3	948.3	1020.9	1029.7
52.5°	796.5	822.9	893.3	957.1	965.9
55°	734.9	761.3	838.3	893.3	888.9
57.5°	675.5	704.1	783.3	811.9	807.5
60°	613.9	644.7	715.1	728.3	712.9
62.5°	556.7	585.3	651.3	640.3	620.5
65°	495.1	523.7	578.7	556.7	528.1
67.5°	433.4	468.6	503.9	466.4	444.4
70°	371.8	411.4	426.8	389.4	369.6
72.5°	312.4	354.2	349.8	312.4	299.2
75°	255.2	290.4	281.6	244.2	231.0
77.5°	193.6	233.2	213.4	182.6	171.6
80°	136.4	171.6	149.6	123.2	114.4
82.5°	90.2	114.4	92.4	72.6	66.0
85°	48.4	59.4	41.8	35.2	33.0
87.5°	19.8	17.6	15.4	15.4	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)