

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: P233068

Luminaire Tested: **FCB-12-4-LD4-35-50-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233068
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-LD4-35-50-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

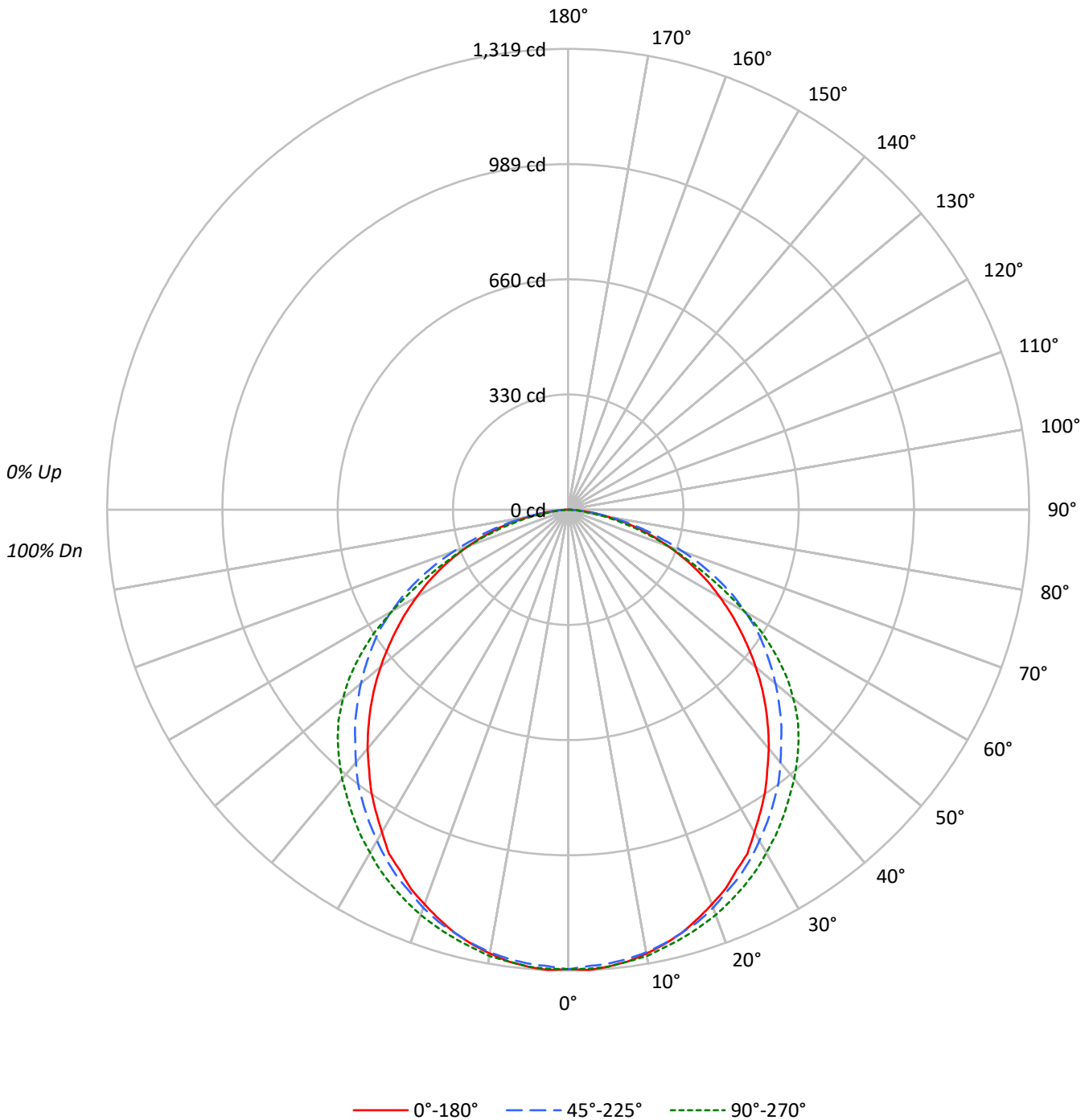
Lumens per Lamp: N/A
Luminaire Lumens: 3644.0 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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°	3539	3539	3539
5°	3547	3523	3547
10°	3525	3515	3544
15°	3493	3493	3533
20°	3442	3472	3534
25°	3382	3440	3531
30°	3310	3400	3522
35°	3228	3364	3523
40°	3136	3319	3534
45°	3042	3282	3548
50°	2933	3242	3520
55°	2815	3211	3405
60°	2697	3143	3133
65°	2574	3009	2746
70°	2389	2742	2375
75°	2167	2390	1961
80°	1726	1894	1447
85°	1220	1053	831



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.4	3.4
10°-20°	355.4	9.8
20°-30°	535.9	14.7
30°-40°	642.4	17.6
40°-50°	666.7	18.3
50°-60°	601.3	16.5
60°-70°	438.6	12.0
70°-80°	230.1	6.3
80°-90°	49.1	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°	1015.8	27.9
0°-40°	1658.2	45.5
0°-60°	2926.2	80.3
0°-90°	3644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3644.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1315	1315	1315	1315	1315	
5°	1313	1310	1304	1313	1313	125
15°	1254	1254	1254	1268	1268	353
25°	1139	1144	1159	1184	1189	526
35°	983	993	1024	1062	1072	614
45°	799	816	862	914	932	616
55°	600	622	684	729	726	537
65°	404	428	472	454	431	400
75°	208	237	230	199	189	219
85°	40	48	34	29	27	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1315.0	1315.0	1315.0	1315.0	1315.0
2.5°	1318.6	1315.0	1307.8	1315.0	1315.0
5°	1313.2	1309.6	1304.2	1313.2	1313.2
7.5°	1304.2	1300.6	1297.1	1306.0	1304.2
10°	1289.9	1288.1	1286.3	1297.1	1297.1
12.5°	1273.7	1273.7	1271.9	1284.5	1282.7
15°	1253.9	1253.9	1253.9	1268.3	1268.3
17.5°	1228.8	1232.4	1236.0	1252.1	1252.1
20°	1201.8	1205.4	1212.6	1232.4	1234.2
22.5°	1174.9	1176.7	1183.9	1207.2	1212.6
25°	1139.0	1144.4	1158.7	1183.9	1189.3
27.5°	1110.2	1112.0	1128.2	1156.9	1164.1
30°	1065.3	1077.9	1094.1	1126.4	1133.6
32.5°	1024.0	1034.8	1059.9	1094.1	1104.8
35°	982.7	993.4	1024.0	1061.7	1072.5
37.5°	936.0	952.1	988.1	1025.8	1038.4
40°	892.8	907.2	944.9	991.7	1006.0
42.5°	846.1	860.5	901.8	953.9	970.1
45°	799.4	815.6	862.3	914.4	932.4
47.5°	750.9	768.9	817.4	874.9	891.0
50°	700.6	720.4	774.3	833.6	840.7
52.5°	650.3	671.9	729.4	781.5	788.7
55°	600.0	621.6	684.5	729.4	725.8
57.5°	551.5	574.9	639.5	662.9	659.3
60°	501.2	526.4	583.9	594.6	582.1
62.5°	454.5	477.9	531.8	522.8	506.6
65°	404.2	427.6	472.5	454.5	431.2
67.5°	353.9	382.6	411.4	380.9	362.9
70°	303.6	335.9	348.5	318.0	301.8
72.5°	255.1	289.2	285.6	255.1	244.3
75°	208.4	237.1	229.9	199.4	188.6
77.5°	158.1	190.4	174.3	149.1	140.1
80°	111.4	140.1	122.2	100.6	93.4
82.5°	73.7	93.4	75.5	59.3	53.9
85°	39.5	48.5	34.1	28.7	26.9
87.5°	16.2	14.4	12.6	12.6	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)