

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: P233045

Luminaire Tested: **FCB-12-4-LD4-44-30-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233045
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-LD4-44-30-UNV-EDD1-WDA6
Description: FAILSAFE 1X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (84)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

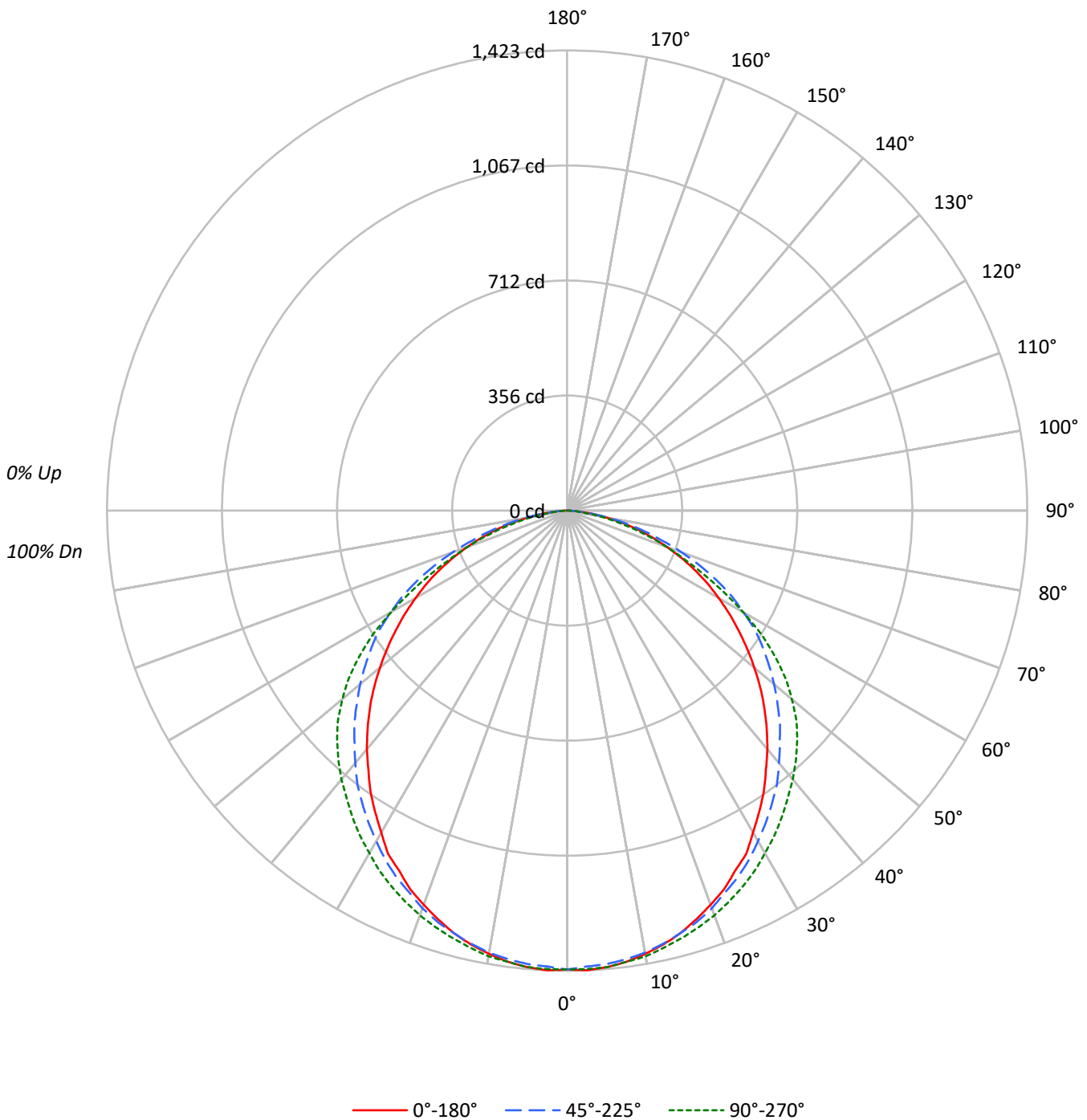
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3932.0 lumens
Efficiency: N/A
Efficacy: 95.7 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): 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

TEST NUMBER: P233045
CATALOG NUMBER: FCB-12-4-LD4-44-30-UNV-EDD1-WDA6

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	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					100			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70					70			
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59					59			
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51					51			
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	44					44			
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38					38			
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34					34			
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	43	37	32	30					30			
9	57	43	35	30	55	43	35	29	42	34	29	40	34	29	39	33	29	27					27			
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3818	3818	3818
5°	3828	3801	3828
10°	3803	3792	3824
15°	3769	3769	3813
20°	3714	3747	3814
25°	3649	3712	3810
30°	3572	3668	3801
35°	3483	3630	3802
40°	3384	3582	3813
45°	3283	3541	3829
50°	3165	3498	3798
55°	3037	3465	3674
60°	2911	3391	3380
65°	2777	3246	2962
70°	2578	2959	2563
75°	2338	2580	2116
80°	1863	2042	1562
85°	1315	1136	898



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.3	3.4
10°-20°	383.5	9.8
20°-30°	578.3	14.7
30°-40°	693.2	17.6
40°-50°	719.4	18.3
50°-60°	648.8	16.5
60°-70°	473.3	12.0
70°-80°	248.3	6.3
80°-90°	53.0	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°	1096.1	27.9
0°-40°	1789.3	45.5
0°-60°	3157.4	80.3
0°-90°	3932.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3932.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1419	1419	1419	1419	1419	
5°	1417	1413	1407	1417	1417	134
15°	1353	1353	1353	1368	1368	381
25°	1229	1235	1250	1277	1283	567
35°	1060	1072	1105	1146	1157	662
45°	863	880	930	987	1006	665
55°	647	671	739	787	783	580
65°	436	461	510	490	465	431
75°	225	256	248	215	204	236
85°	43	52	37	31	29	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1418.9	1418.9	1418.9	1418.9	1418.9
2.5°	1422.8	1418.9	1411.2	1418.9	1418.9
5°	1417.0	1413.1	1407.3	1417.0	1417.0
7.5°	1407.3	1403.4	1399.6	1409.3	1407.3
10°	1391.8	1389.9	1387.9	1399.6	1399.6
12.5°	1374.4	1374.4	1372.4	1386.0	1384.1
15°	1353.0	1353.0	1353.0	1368.5	1368.5
17.5°	1325.9	1329.8	1333.7	1351.1	1351.1
20°	1296.8	1300.7	1308.5	1329.8	1331.7
22.5°	1267.7	1269.7	1277.4	1302.6	1308.5
25°	1229.0	1234.8	1250.3	1277.4	1283.3
27.5°	1198.0	1199.9	1217.3	1248.4	1256.1
30°	1149.5	1163.1	1180.5	1215.4	1223.2
32.5°	1104.9	1116.5	1143.7	1180.5	1192.1
35°	1060.3	1072.0	1104.9	1145.6	1157.3
37.5°	1009.9	1027.4	1066.1	1106.9	1120.4
40°	963.4	978.9	1019.6	1070.0	1085.5
42.5°	913.0	928.5	973.1	1029.3	1046.8
45°	862.6	880.1	930.5	986.7	1006.1
47.5°	810.3	829.7	882.0	944.0	961.5
50°	756.0	777.3	835.5	899.4	907.2
52.5°	701.7	725.0	787.0	843.2	851.0
55°	647.4	670.7	738.6	787.0	783.1
57.5°	595.1	620.3	690.1	715.3	711.4
60°	540.8	568.0	630.0	641.6	628.1
62.5°	490.4	515.6	573.8	564.1	546.6
65°	436.2	461.4	509.8	490.4	465.2
67.5°	381.9	412.9	443.9	411.0	391.6
70°	327.6	362.5	376.1	343.1	325.7
72.5°	275.3	312.1	308.2	275.3	263.6
75°	224.9	255.9	248.1	215.2	203.5
77.5°	170.6	205.5	188.0	160.9	151.2
80°	120.2	151.2	131.8	108.6	100.8
82.5°	79.5	100.8	81.4	64.0	58.2
85°	42.6	52.3	36.8	31.0	29.1
87.5°	17.4	15.5	13.6	13.6	11.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)