

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: P233142

Luminaire Tested: **FCB-24-2-LD4-44-35-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233142
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-24-2-LD4-44-35-UNV-EDD1-WDP12
Description: FAILSAFE 2X2 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (84)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

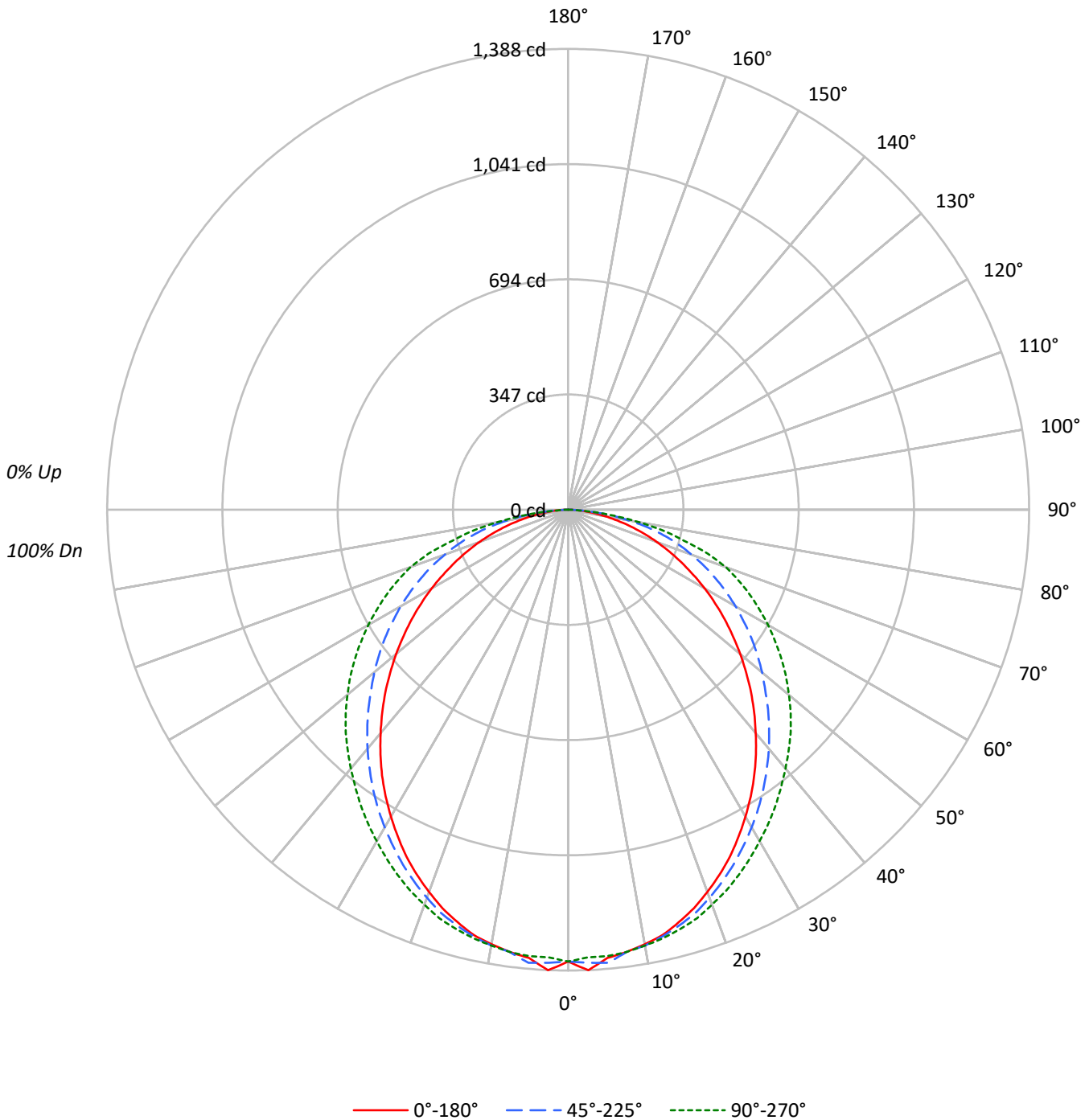
Lumens per Lamp: N/A
Luminaire Lumens: 3812.0 lumens
Efficiency: N/A
Efficacy: 91.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3661	3661	3661
5°	3660	3700	3645
10°	3632	3642	3642
15°	3584	3610	3641
20°	3509	3562	3626
25°	3423	3501	3605
30°	3318	3433	3583
35°	3209	3368	3574
40°	3087	3301	3575
45°	2963	3238	3605
50°	2833	3190	3632
55°	2696	3157	3679
60°	2554	3133	3741
65°	2396	3116	3836
70°	2231	3106	3967
75°	2023	3103	3759
80°	1753	2873	3332
85°	1488	2174	2118



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.1	3.4
10°-20°	365.5	9.6
20°-30°	543.8	14.3
30°-40°	643.1	16.9
40°-50°	661.0	17.3
50°-60°	604.0	15.8
60°-70°	483.2	12.7
70°-80°	303.2	8.0
80°-90°	79.0	2.1
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°	1038.4	27.2
0°-40°	1681.5	44.1
0°-60°	2946.6	77.3
0°-90°	3812.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3812.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1361	1361	1361	1361	1361	
5°	1355	1355	1370	1361	1350	129
15°	1286	1288	1296	1303	1307	362
25°	1153	1160	1179	1199	1214	530
35°	977	990	1025	1064	1088	611
45°	779	799	851	914	947	600
55°	575	602	673	747	784	514
65°	376	410	489	564	602	373
75°	195	232	298	343	362	207
85°	48	61	70	69	69	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1360.6	1360.6	1360.6	1360.6	1360.6
2.5°	1388.4	1382.9	1366.2	1355.1	1349.5
5°	1355.1	1355.1	1369.9	1360.6	1349.5
7.5°	1343.9	1343.9	1343.9	1371.8	1343.9
10°	1329.1	1331.0	1332.8	1343.9	1332.8
12.5°	1312.4	1312.4	1316.1	1319.8	1321.7
15°	1286.5	1288.3	1295.8	1303.2	1306.9
17.5°	1258.7	1264.2	1273.5	1282.8	1290.2
20°	1225.3	1232.7	1243.8	1258.7	1266.1
22.5°	1190.1	1197.5	1212.3	1229.0	1242.0
25°	1153.0	1160.4	1179.0	1199.4	1214.2
27.5°	1110.4	1119.6	1141.9	1169.7	1184.5
30°	1067.7	1078.9	1104.8	1136.3	1153.0
32.5°	1023.3	1036.2	1065.9	1101.1	1121.5
35°	976.9	989.9	1025.1	1064.0	1088.1
37.5°	928.7	943.5	982.5	1027.0	1052.9
40°	878.7	895.3	939.8	988.0	1017.7
42.5°	828.6	847.2	895.3	952.8	982.5
45°	778.6	799.0	850.9	913.9	947.3
47.5°	726.7	750.8	804.5	875.0	908.3
50°	676.6	700.7	761.9	834.2	867.5
52.5°	624.7	652.5	717.4	791.5	826.8
55°	574.7	602.5	672.9	747.0	784.1
57.5°	524.6	552.4	626.6	702.6	739.6
60°	474.6	504.2	582.1	656.2	695.1
62.5°	424.5	456.0	535.7	611.7	648.8
65°	376.3	409.7	489.4	563.5	602.5
67.5°	330.0	365.2	443.0	515.3	554.3
70°	283.6	318.8	394.8	465.3	504.2
72.5°	239.1	274.4	348.5	411.5	441.2
75°	194.6	231.7	298.4	342.9	361.5
77.5°	152.0	189.1	246.5	276.2	296.6
80°	113.1	144.6	185.4	207.6	215.0
82.5°	77.9	103.8	129.8	135.3	139.0
85°	48.2	61.2	70.4	68.6	68.6
87.5°	22.2	24.1	20.4	14.8	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)