

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: P233119

Luminaire Tested: **FCB-24-2-LD4-44-40-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233119
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-LD4-44-40-UNV-EDD1-WDP6
Description: FAILSAFE 2X2 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

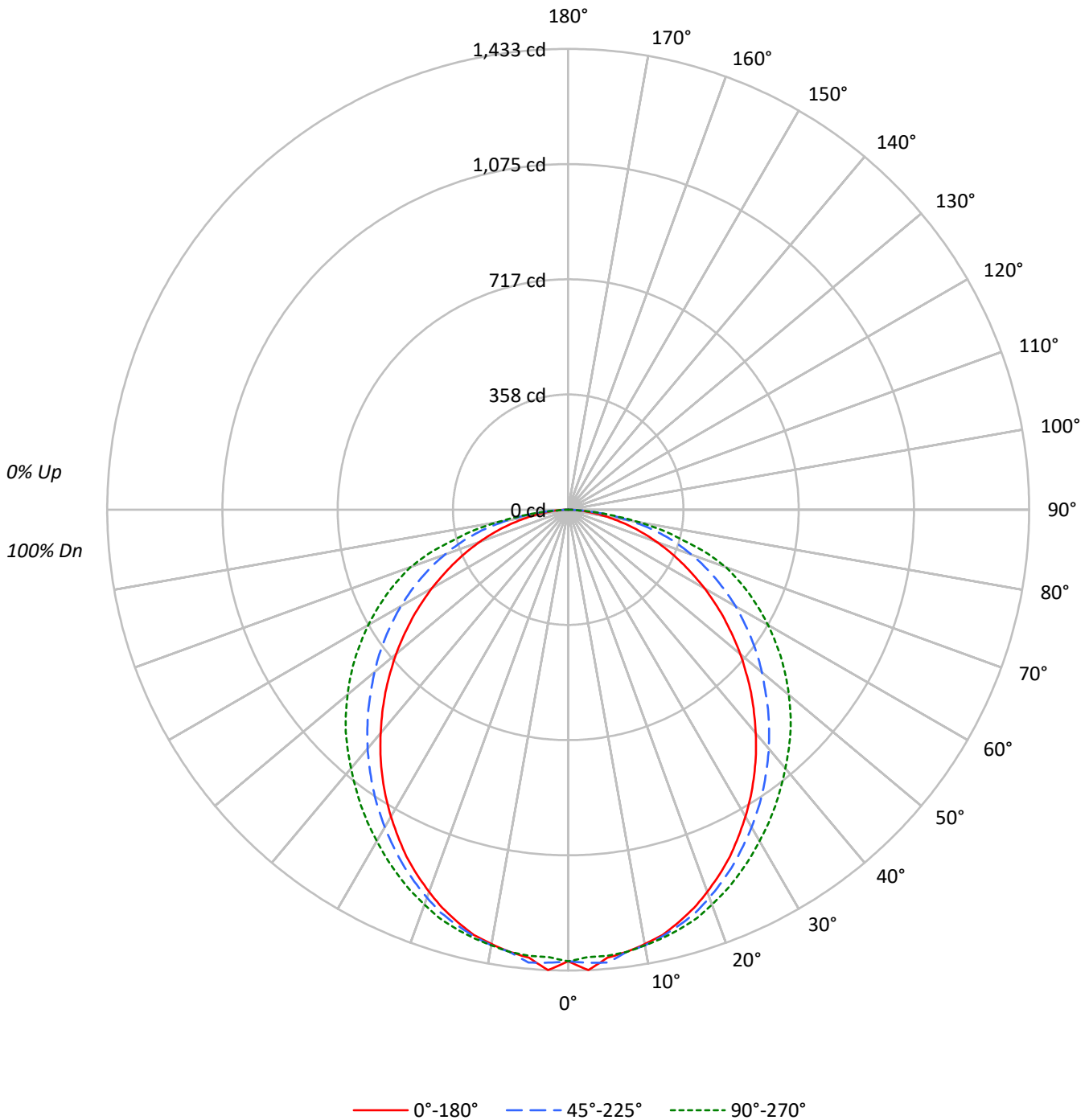
Lumens per Lamp: N/A
Luminaire Lumens: 3934.0 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	3779	3779	3779
5°	3777	3819	3762
10°	3748	3759	3759
15°	3699	3725	3757
20°	3621	3676	3742
25°	3533	3613	3720
30°	3424	3543	3697
35°	3312	3475	3689
40°	3185	3407	3690
45°	3058	3342	3720
50°	2923	3292	3748
55°	2782	3258	3796
60°	2636	3233	3861
65°	2472	3216	3959
70°	2303	3206	4094
75°	2089	3202	3878
80°	1808	2965	3439
85°	1535	2245	2186



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.2	3.4
10°-20°	377.2	9.6
20°-30°	561.2	14.3
30°-40°	663.7	16.9
40°-50°	682.2	17.3
50°-60°	623.4	15.8
60°-70°	498.7	12.7
70°-80°	312.9	8.0
80°-90°	81.5	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°	1071.6	27.2
0°-40°	1735.3	44.1
0°-60°	3040.9	77.3
0°-90°	3934.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3934.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1404	1404	1404	1404	1404	
5°	1398	1398	1414	1404	1393	133
15°	1328	1330	1337	1345	1349	374
25°	1190	1198	1217	1238	1253	547
35°	1008	1022	1058	1098	1123	630
45°	804	824	878	943	978	619
55°	593	622	694	771	809	530
65°	388	423	505	582	622	385
75°	201	239	308	354	373	213
85°	50	63	73	71	71	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1404.2	1404.2	1404.2	1404.2	1404.2
2.5°	1432.9	1427.1	1409.9	1398.4	1392.7
5°	1398.4	1398.4	1413.7	1404.2	1392.7
7.5°	1387.0	1387.0	1387.0	1415.7	1387.0
10°	1371.7	1373.6	1375.5	1387.0	1375.5
12.5°	1354.4	1354.4	1358.3	1362.1	1364.0
15°	1327.7	1329.6	1337.2	1344.9	1348.7
17.5°	1299.0	1304.7	1314.3	1323.8	1331.5
20°	1264.5	1272.2	1283.7	1299.0	1306.6
22.5°	1228.2	1235.8	1251.1	1268.4	1281.7
25°	1189.9	1197.6	1216.7	1237.7	1253.0
27.5°	1145.9	1155.5	1178.4	1207.1	1222.4
30°	1101.9	1113.4	1140.2	1172.7	1189.9
32.5°	1056.0	1069.4	1100.0	1136.4	1157.4
35°	1008.2	1021.6	1057.9	1098.1	1123.0
37.5°	958.4	973.7	1013.9	1059.8	1086.6
40°	906.8	924.0	969.9	1019.7	1050.3
42.5°	855.1	874.3	924.0	983.3	1013.9
45°	803.5	824.5	878.1	943.1	977.6
47.5°	749.9	774.8	830.3	903.0	937.4
50°	698.3	723.1	786.3	860.9	895.3
52.5°	644.7	673.4	740.3	816.9	853.2
55°	593.0	621.7	694.4	771.0	809.2
57.5°	541.4	570.1	646.6	725.0	763.3
60°	489.7	520.3	600.7	677.2	717.4
62.5°	438.1	470.6	552.9	631.3	669.6
65°	388.3	422.8	505.0	581.6	621.7
67.5°	340.5	376.9	457.2	531.8	572.0
70°	292.7	329.0	407.5	480.2	520.3
72.5°	246.8	283.1	359.7	424.7	455.3
75°	200.9	239.1	308.0	353.9	373.0
77.5°	156.9	195.1	254.4	285.0	306.1
80°	116.7	149.2	191.3	214.3	221.9
82.5°	80.3	107.1	133.9	139.7	143.5
85°	49.7	63.1	72.7	70.8	70.8
87.5°	23.0	24.9	21.0	15.3	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)