

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: P233067

Luminaire Tested: **FCB-12-4-LD4-35-40-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P233067  
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-LD4-35-40-UNV-EDD1-WDA12  
Description: FAILSAFE 1X4 FCB LED TROFFER  
.125 ACRYLIC LENS  
Light Source: (84)4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

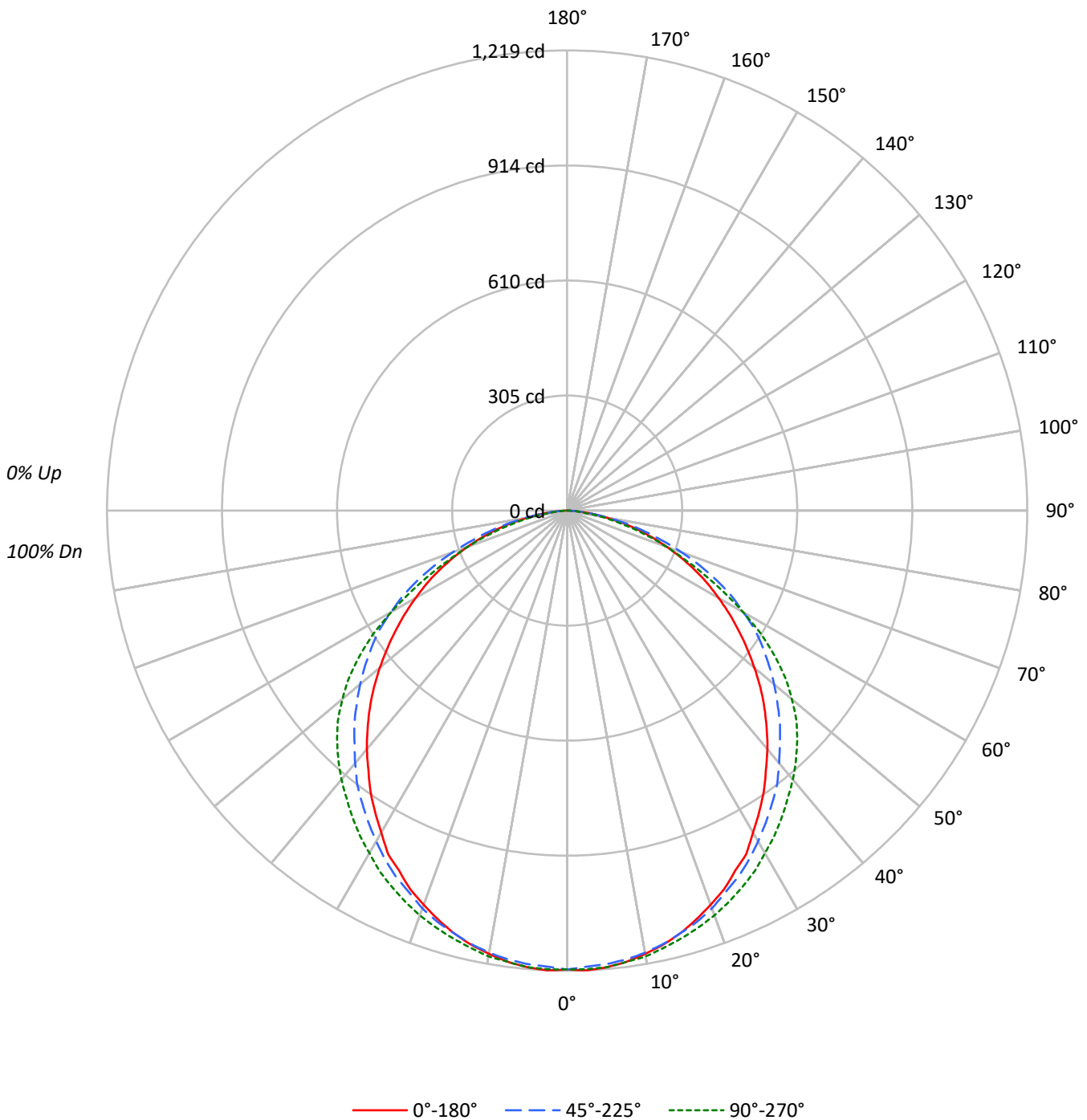
Lumens per Lamp: N/A  
Luminaire Lumens: 3369.0 lumens  
Efficiency: N/A  
Efficacy: 107.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	3272	3272	3272
5°	3280	3257	3280
10°	3258	3249	3277
15°	3230	3230	3267
20°	3182	3210	3267
25°	3127	3181	3265
30°	3060	3143	3256
35°	2984	3110	3257
40°	2900	3069	3267
45°	2813	3034	3280
50°	2712	2997	3254
55°	2602	2969	3148
60°	2494	2905	2896
65°	2379	2781	2538
70°	2209	2535	2195
75°	2004	2210	1813
80°	1596	1750	1339
85°	1127	976	769



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.0	3.4
10°-20°	328.6	9.8
20°-30°	495.5	14.7
30°-40°	593.9	17.6
40°-50°	616.4	18.3
50°-60°	555.9	16.5
60°-70°	405.5	12.0
70°-80°	212.8	6.3
80°-90°	45.4	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°	939.1	27.9
0°-40°	1533.1	45.5
0°-60°	2705.3	80.3
0°-90°	3369.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3369.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1216	1216	1216	1216	1216	
5°	1214	1211	1206	1214	1214	115
15°	1159	1159	1159	1173	1173	327
25°	1053	1058	1071	1094	1100	486
35°	908	918	947	982	992	567
45°	739	754	797	845	862	570
55°	555	575	633	674	671	497
65°	374	395	437	420	399	369
75°	193	219	213	184	174	202
85°	36	45	32	27	25	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1215.8	1215.8	1215.8	1215.8	1215.8
2.5°	1219.1	1215.8	1209.1	1215.8	1215.8
5°	1214.1	1210.8	1205.8	1214.1	1214.1
7.5°	1205.8	1202.5	1199.2	1207.5	1205.8
10°	1192.5	1190.9	1189.2	1199.2	1199.2
12.5°	1177.6	1177.6	1175.9	1187.5	1185.9
15°	1159.3	1159.3	1159.3	1172.6	1172.6
17.5°	1136.1	1139.4	1142.7	1157.6	1157.6
20°	1111.1	1114.5	1121.1	1139.4	1141.0
22.5°	1086.2	1087.9	1094.5	1116.1	1121.1
25°	1053.0	1058.0	1071.3	1094.5	1099.5
27.5°	1026.4	1028.1	1043.0	1069.6	1076.3
30°	984.9	996.5	1011.5	1041.4	1048.0
32.5°	946.7	956.7	979.9	1011.5	1021.5
35°	908.5	918.5	946.7	981.6	991.6
37.5°	865.3	880.3	913.5	948.4	960.0
40°	825.5	838.8	873.6	916.8	930.1
42.5°	782.3	795.6	833.8	881.9	896.9
45°	739.1	754.0	797.2	845.4	862.0
47.5°	694.3	710.9	755.7	808.9	823.8
50°	647.7	666.0	715.8	770.7	777.3
52.5°	601.2	621.2	674.3	722.5	729.1
55°	554.7	574.7	632.8	674.3	671.0
57.5°	509.9	531.5	591.3	612.9	609.5
60°	463.4	486.6	539.8	549.8	538.1
62.5°	420.2	441.8	491.6	483.3	468.4
65°	373.7	395.3	436.8	420.2	398.6
67.5°	327.2	353.8	380.3	352.1	335.5
70°	280.7	310.6	322.2	294.0	279.0
72.5°	235.8	267.4	264.1	235.8	225.9
75°	192.7	219.2	212.6	184.4	174.4
77.5°	146.2	176.1	161.1	137.9	129.5
80°	103.0	129.5	112.9	93.0	86.4
82.5°	68.1	86.4	69.8	54.8	49.8
85°	36.5	44.8	31.6	26.6	24.9
87.5°	14.9	13.3	11.6	11.6	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)