

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: P233055

Luminaire Tested: **FCB-12-4-LD4-35-40-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233055
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-WDP6
Description: FAILSAFE 1X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

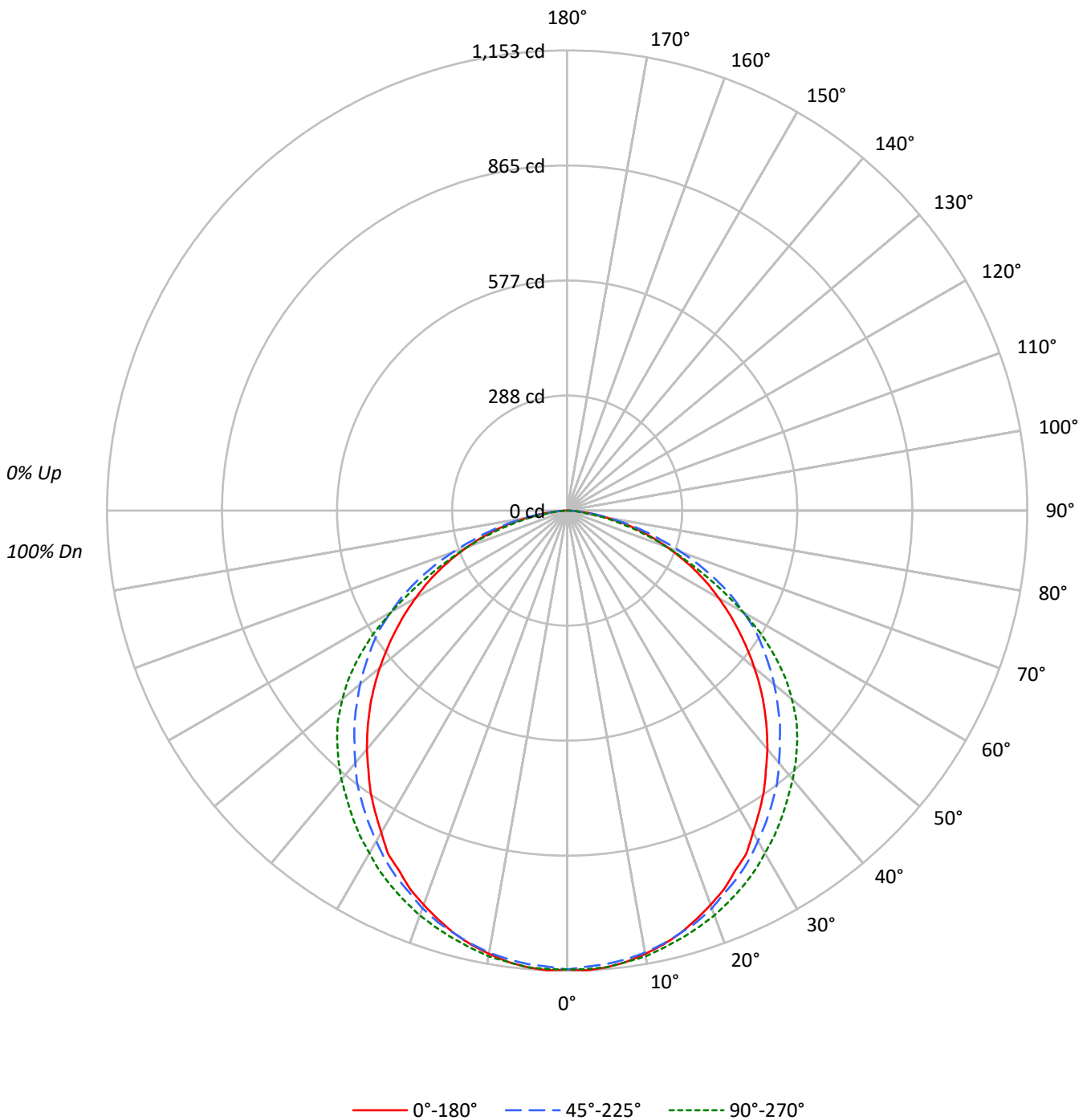
Lumens per Lamp: N/A
Luminaire Lumens: 3186.0 lumens
Efficiency: N/A
Efficacy: 101.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P233055

CATALOG NUMBER: FCB-12-4-LD4-35-40-UNV-EDD1-WDP6

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°	3094	3094	3094
5°	3102	3080	3102
10°	3081	3073	3099
15°	3054	3054	3089
20°	3009	3036	3090
25°	2957	3008	3087
30°	2894	2972	3080
35°	2823	2941	3080
40°	2742	2902	3090
45°	2660	2869	3102
50°	2565	2834	3077
55°	2461	2807	2977
60°	2358	2747	2739
65°	2250	2630	2401
70°	2088	2397	2076
75°	1894	2090	1714
80°	1509	1655	1266
85°	1068	920	729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.8	3.4
10°-20°	310.8	9.8
20°-30°	468.6	14.7
30°-40°	561.7	17.6
40°-50°	582.9	18.3
50°-60°	525.7	16.5
60°-70°	383.5	12.0
70°-80°	201.2	6.3
80°-90°	42.9	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°	888.1	27.9
0°-40°	1449.8	45.5
0°-60°	2558.4	80.3
0°-90°	3186.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3186.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1150	1150	1150	1150	1150	
5°	1148	1145	1140	1148	1148	109
15°	1096	1096	1096	1109	1109	309
25°	996	1000	1013	1035	1040	460
35°	859	869	895	928	938	537
45°	699	713	754	800	815	539
55°	525	544	598	638	635	470
65°	353	374	413	397	377	349
75°	182	207	201	174	165	191
85°	35	42	30	25	24	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1149.7	1149.7	1149.7	1149.7	1149.7
2.5°	1152.9	1149.7	1143.5	1149.7	1149.7
5°	1148.2	1145.0	1140.3	1148.2	1148.2
7.5°	1140.3	1137.2	1134.0	1141.9	1140.3
10°	1127.7	1126.2	1124.6	1134.0	1134.0
12.5°	1113.6	1113.6	1112.0	1123.0	1121.5
15°	1096.3	1096.3	1096.3	1108.9	1108.9
17.5°	1074.3	1077.5	1080.6	1094.8	1094.8
20°	1050.8	1053.9	1060.2	1077.5	1079.1
22.5°	1027.2	1028.8	1035.1	1055.5	1060.2
25°	995.8	1000.5	1013.1	1035.1	1039.8
27.5°	970.7	972.3	986.4	1011.5	1017.8
30°	931.4	942.4	956.5	984.8	991.1
32.5°	895.3	904.7	926.7	956.5	966.0
35°	859.2	868.6	895.3	928.3	937.7
37.5°	818.3	832.5	863.9	896.9	907.9
40°	780.6	793.2	826.2	867.0	879.6
42.5°	739.8	752.4	788.5	834.0	848.2
45°	699.0	713.1	753.9	799.5	815.2
47.5°	656.5	672.3	714.7	764.9	779.1
50°	612.6	629.8	677.0	728.8	735.1
52.5°	568.6	587.4	637.7	683.2	689.5
55°	524.6	543.5	598.4	637.7	634.6
57.5°	482.2	502.6	559.2	579.6	576.4
60°	438.2	460.2	510.5	519.9	508.9
62.5°	397.4	417.8	464.9	457.1	442.9
65°	353.4	373.8	413.1	397.4	377.0
67.5°	309.4	334.6	359.7	333.0	317.3
70°	265.4	293.7	304.7	278.0	263.9
72.5°	223.0	252.9	249.7	223.0	213.6
75°	182.2	207.3	201.0	174.3	164.9
77.5°	138.2	166.5	152.4	130.4	122.5
80°	97.4	122.5	106.8	88.0	81.7
82.5°	64.4	81.7	66.0	51.8	47.1
85°	34.6	42.4	29.8	25.1	23.6
87.5°	14.1	12.6	11.0	11.0	9.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)