

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: P233074

Luminaire Tested: **FCB-12-4-LD4-25-35-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P233074  
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-LD4-25-35-UNV-EDD1-WDP12  
Description: FAILSAFE 1X4 FCB LED TROFFER  
.125 POLYCARBONATE LENS  
Light Source: (84)3500K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

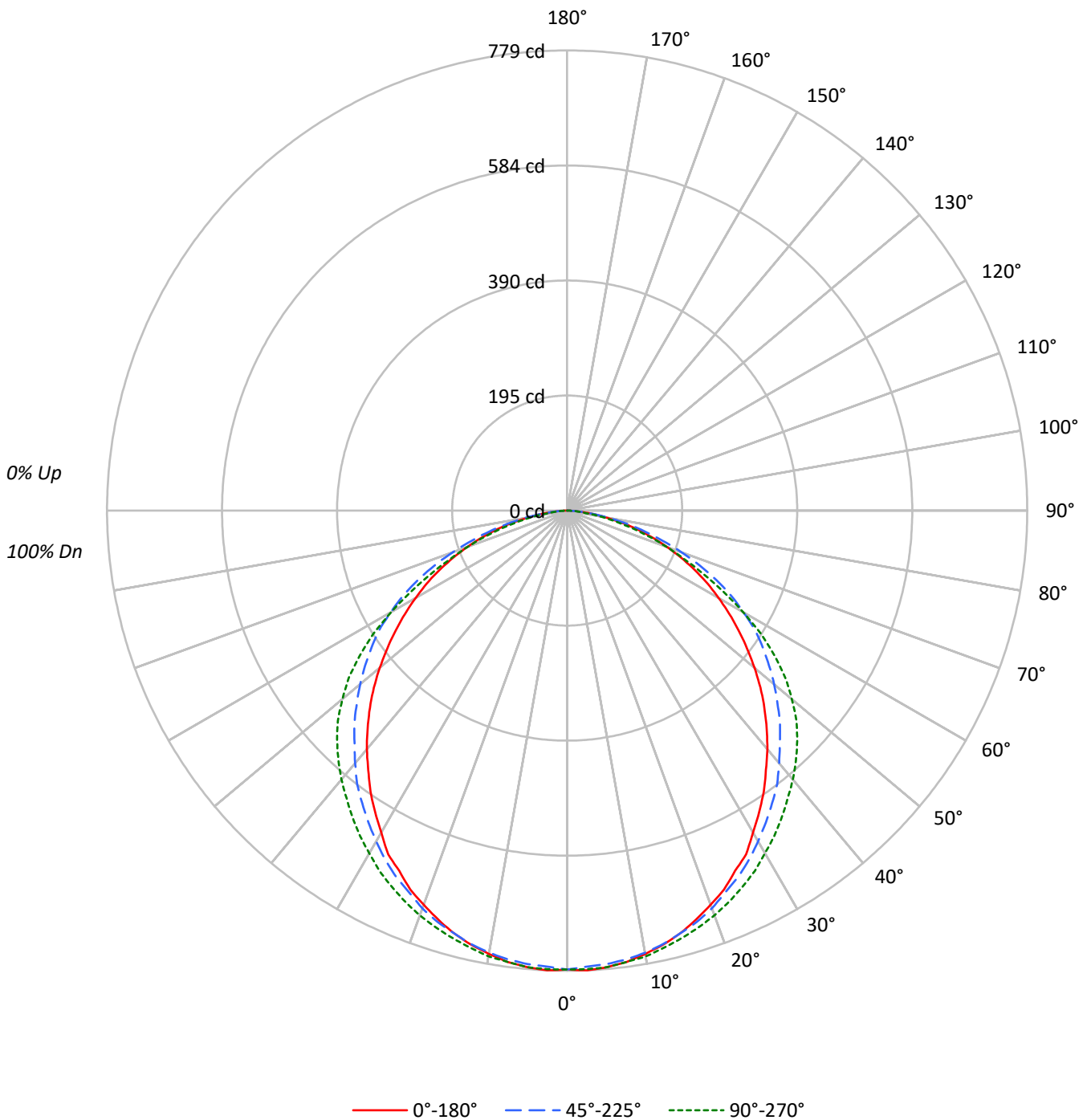
Lumens per Lamp: N/A  
Luminaire Lumens: 2153.0 lumens  
Efficiency: N/A  
Efficacy: 105.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 20.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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°	2091	2091	2091
5°	2096	2082	2096
10°	2082	2077	2094
15°	2064	2064	2088
20°	2033	2052	2088
25°	1998	2033	2086
30°	1956	2009	2081
35°	1907	1987	2082
40°	1853	1961	2088
45°	1797	1939	2097
50°	1733	1915	2079
55°	1663	1897	2012
60°	1594	1857	1851
65°	1521	1778	1622
70°	1412	1620	1403
75°	1280	1413	1158
80°	1020	1119	855
85°	722	624	491



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.5	3.4
10°-20°	210.0	9.8
20°-30°	316.6	14.7
30°-40°	379.6	17.6
40°-50°	393.9	18.3
50°-60°	355.3	16.5
60°-70°	259.2	12.0
70°-80°	136.0	6.3
80°-90°	29.0	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°	600.2	27.9
0°-40°	979.7	45.5
0°-60°	1728.9	80.3
0°-90°	2153.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2153.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	777	777	777	777	777	
5°	776	774	771	776	776	74
15°	741	741	741	749	749	209
25°	673	676	685	700	703	311
35°	581	587	605	627	634	363
45°	472	482	510	540	551	364
55°	354	367	404	431	429	317
65°	239	253	279	268	255	236
75°	123	140	136	118	111	129
85°	23	29	20	17	16	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	777.0	777.0	777.0	777.0	777.0
2.5°	779.1	777.0	772.7	777.0	777.0
5°	775.9	773.8	770.6	775.9	775.9
7.5°	770.6	768.5	766.3	771.6	770.6
10°	762.1	761.0	760.0	766.3	766.3
12.5°	752.5	752.5	751.5	758.9	757.9
15°	740.9	740.9	740.9	749.4	749.4
17.5°	726.0	728.1	730.3	739.8	739.8
20°	710.1	712.2	716.5	728.1	729.2
22.5°	694.2	695.2	699.5	713.3	716.5
25°	672.9	676.1	684.6	699.5	702.7
27.5°	656.0	657.0	666.6	683.6	687.8
30°	629.4	636.8	646.4	665.5	669.8
32.5°	605.0	611.4	626.2	646.4	652.8
35°	580.6	587.0	605.0	627.3	633.7
37.5°	553.0	562.6	583.8	606.1	613.5
40°	527.5	536.0	558.3	585.9	594.4
42.5°	499.9	508.4	532.8	563.6	573.2
45°	472.3	481.9	509.5	540.3	550.9
47.5°	443.7	454.3	482.9	516.9	526.5
50°	414.0	425.6	457.5	492.5	496.7
52.5°	384.2	397.0	430.9	461.7	466.0
55°	354.5	367.3	404.4	430.9	428.8
57.5°	325.9	339.7	377.9	391.7	389.5
60°	296.1	311.0	345.0	351.3	343.9
62.5°	268.5	282.3	314.2	308.9	299.3
65°	238.8	252.6	279.2	268.5	254.7
67.5°	209.1	226.1	243.1	225.0	214.4
70°	179.4	198.5	205.9	187.9	178.3
72.5°	150.7	170.9	168.8	150.7	144.4
75°	123.1	140.1	135.9	117.8	111.4
77.5°	93.4	112.5	103.0	88.1	82.8
80°	65.8	82.8	72.2	59.4	55.2
82.5°	43.5	55.2	44.6	35.0	31.8
85°	23.4	28.7	20.2	17.0	15.9
87.5°	9.6	8.5	7.4	7.4	6.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)