

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: P233202

Luminaire Tested: **FCB-24-4-LD4-75-35-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P233202  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FCB-24-4-LD4-75-35-UNV-EDD1-WDP6  
Description: FAILSAFE 2X4 FCB LED TROFFER  
.060 POLYCARBONATE LENS  
Light Source: (168)3500K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

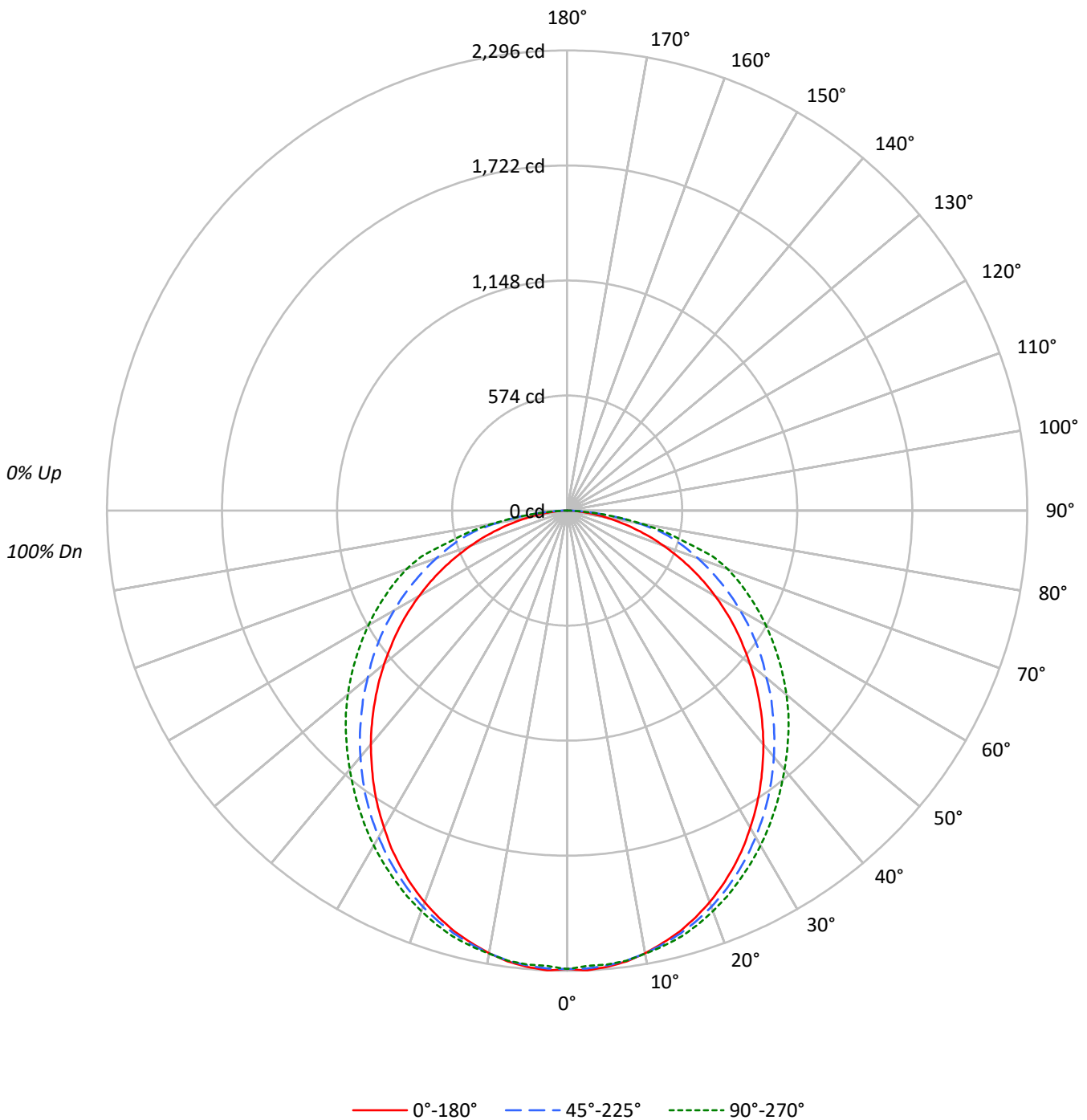
Lumens per Lamp: N/A  
Luminaire Lumens: 6517.0 lumens  
Efficiency: N/A  
Efficacy: 94.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 69.1  
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	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3077	3077	3077
5°	3086	3077	3071
10°	3064	3064	3067
15°	3027	3043	3065
20°	2978	3013	3045
25°	2915	2971	3021
30°	2839	2922	2999
35°	2760	2873	2976
40°	2677	2818	2963
45°	2586	2764	2972
50°	2494	2718	2989
55°	2403	2701	3020
60°	2294	2684	3080
65°	2174	2685	3182
70°	2010	2730	3353
75°	1798	2853	3190
80°	1504	2732	2922
85°	1136	2101	1998



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	216.1	3.3
10°-20°	615.1	9.4
20°-30°	919.6	14.1
30°-40°	1090.9	16.7
40°-50°	1122.8	17.2
50°-60°	1030.0	15.8
60°-70°	832.8	12.8
70°-80°	540.5	8.3
80°-90°	149.0	2.3
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°	1750.8	26.9
0°-40°	2841.7	43.6
0°-60°	4994.6	76.6
0°-90°	6517.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6517.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2287	2287	2287	2287	2287	
5°	2285	2269	2278	2276	2274	217
15°	2173	2164	2184	2193	2200	612
25°	1964	1966	2002	2019	2035	904
35°	1680	1694	1749	1787	1812	1051
45°	1359	1381	1453	1522	1562	1049
55°	1024	1055	1151	1245	1288	915
65°	683	723	843	955	1000	675
75°	346	411	549	614	614	368
85°	74	125	136	132	129	90
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2287.1	2287.1	2287.1	2287.1	2287.1
2.5°	2296.1	2278.2	2287.1	2284.9	2273.7
5°	2284.9	2269.3	2278.2	2276.0	2273.7
7.5°	2269.3	2253.7	2264.8	2262.6	2264.8
10°	2242.5	2229.1	2242.5	2244.7	2244.7
12.5°	2209.0	2197.9	2215.7	2220.2	2224.7
15°	2173.3	2164.4	2184.5	2193.4	2200.1
17.5°	2128.7	2122.0	2146.6	2157.7	2166.6
20°	2079.6	2077.4	2104.2	2115.3	2126.5
22.5°	2023.8	2023.8	2055.1	2068.5	2084.1
25°	1963.6	1965.8	2001.5	2019.4	2035.0
27.5°	1898.9	1901.1	1943.5	1965.8	1983.7
30°	1827.5	1836.4	1881.0	1910.0	1930.1
32.5°	1756.1	1767.2	1816.3	1849.8	1872.1
35°	1680.2	1693.6	1749.4	1787.3	1811.9
37.5°	1602.1	1617.7	1678.0	1720.4	1749.4
40°	1524.0	1541.9	1604.3	1653.4	1686.9
42.5°	1441.4	1461.5	1530.7	1588.7	1624.4
45°	1358.9	1381.2	1452.6	1521.8	1561.9
47.5°	1276.3	1303.1	1379.0	1454.8	1497.2
50°	1191.5	1218.3	1298.6	1385.7	1428.1
52.5°	1106.7	1138.0	1227.2	1316.5	1358.9
55°	1024.2	1055.4	1151.4	1245.1	1287.5
57.5°	939.4	970.6	1075.5	1173.7	1216.1
60°	852.4	888.1	997.4	1097.8	1144.7
62.5°	767.6	805.5	921.5	1028.6	1073.3
65°	682.8	723.0	843.4	955.0	999.6
67.5°	595.8	642.6	767.6	881.4	928.2
70°	511.0	562.3	693.9	807.7	852.4
72.5°	428.4	484.2	620.3	736.3	763.1
75°	345.9	410.6	548.9	613.6	613.6
77.5°	267.8	339.2	468.6	493.1	506.5
80°	194.1	272.2	352.6	381.6	377.1
82.5°	129.4	207.5	252.1	252.1	245.4
85°	73.6	125.0	136.1	131.6	129.4
87.5°	31.2	46.9	42.4	33.5	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)