

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: P233243

Luminaire Tested: **FCB-24-4-LD4-75-40-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P233243  
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-LD4-75-40-UNV-EDD1-WDP12  
Description: FAILSAFE 2X4 FCB LED TROFFER  
.125 POLYCARBONATE LENS  
Light Source: (168)4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

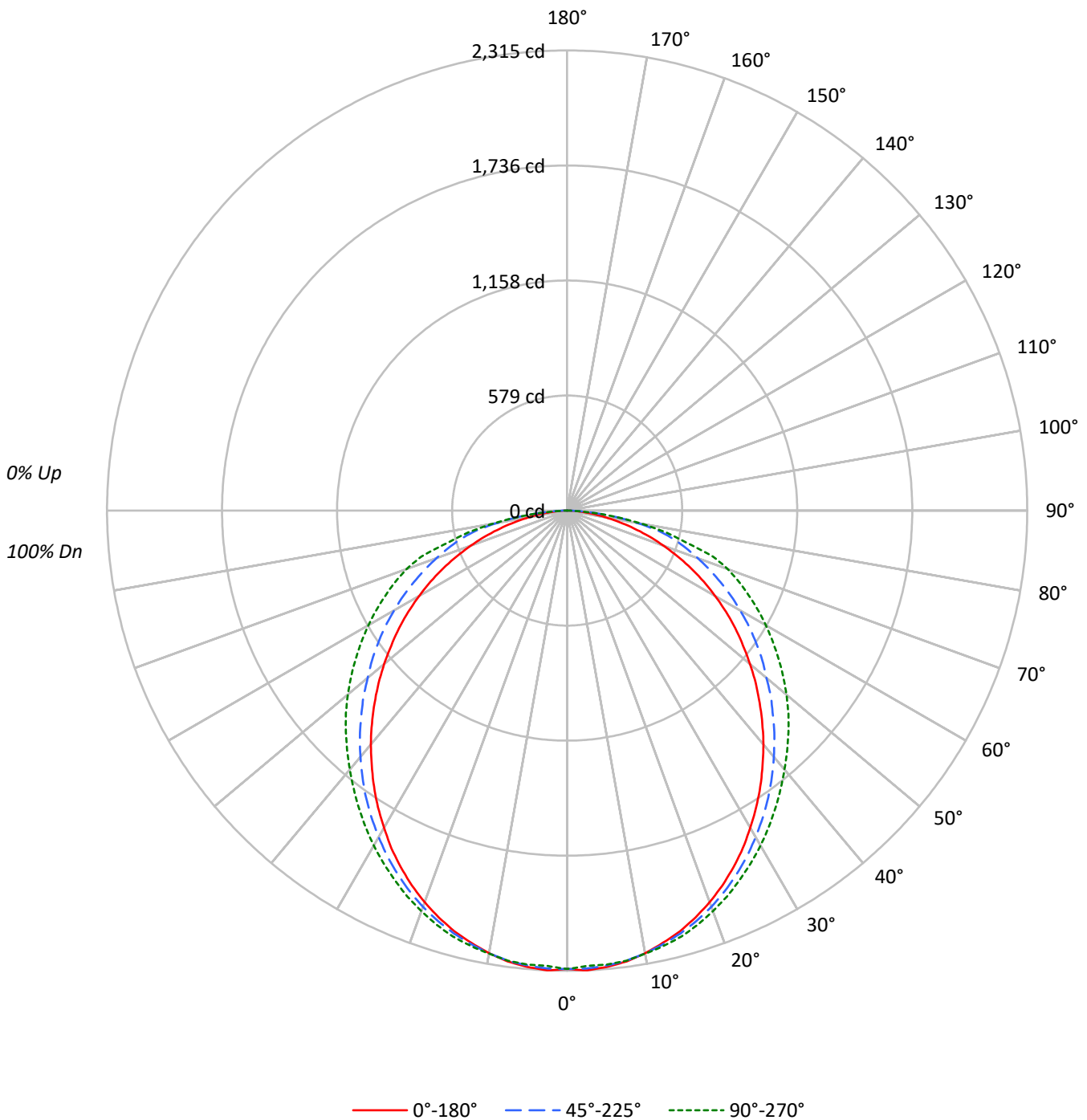
Lumens per Lamp: N/A  
Luminaire Lumens: 6571.0 lumens  
Efficiency: N/A  
Efficacy: 95.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 69.1  
Input Voltage (V): 120  
Input Current (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	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°	3103	3103	3103
5°	3112	3103	3096
10°	3089	3089	3092
15°	3052	3068	3090
20°	3002	3038	3070
25°	2939	2996	3046
30°	2863	2947	3024
35°	2783	2897	3001
40°	2699	2841	2987
45°	2607	2787	2997
50°	2515	2741	3014
55°	2422	2723	3045
60°	2313	2706	3106
65°	2192	2707	3209
70°	2027	2753	3381
75°	1813	2877	3216
80°	1516	2755	2946
85°	1145	2118	2015



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	217.9	3.3
10°-20°	620.2	9.4
20°-30°	927.2	14.1
30°-40°	1099.9	16.7
40°-50°	1132.1	17.2
50°-60°	1038.6	15.8
60°-70°	839.7	12.8
70°-80°	545.0	8.3
80°-90°	150.3	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°	1765.3	26.9
0°-40°	2865.3	43.6
0°-60°	5036.0	76.6
0°-90°	6571.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6571.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2306	2306	2306	2306	2306	
5°	2304	2288	2297	2295	2293	219
15°	2191	2182	2203	2212	2218	617
25°	1980	1982	2018	2036	2052	911
35°	1694	1708	1764	1802	1827	1059
45°	1370	1393	1465	1534	1575	1057
55°	1033	1064	1161	1255	1298	923
65°	688	729	850	963	1008	680
75°	349	414	554	619	619	371
85°	74	126	137	133	130	91
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2306.1	2306.1	2306.1	2306.1	2306.1
2.5°	2315.1	2297.1	2306.1	2303.8	2292.6
5°	2303.8	2288.1	2297.1	2294.8	2292.6
7.5°	2288.1	2272.3	2283.6	2281.3	2283.6
10°	2261.1	2247.6	2261.1	2263.3	2263.3
12.5°	2227.3	2216.1	2234.1	2238.6	2243.1
15°	2191.3	2182.3	2202.6	2211.6	2218.3
17.5°	2146.3	2139.6	2164.3	2175.6	2184.6
20°	2096.8	2094.6	2121.6	2132.8	2144.1
22.5°	2040.6	2040.6	2072.1	2085.6	2101.3
25°	1979.9	1982.1	2018.1	2036.1	2051.8
27.5°	1914.6	1916.9	1959.6	1982.1	2000.1
30°	1842.6	1851.6	1896.6	1925.9	1946.1
32.5°	1770.6	1781.9	1831.4	1865.1	1887.6
35°	1694.1	1707.6	1763.9	1802.1	1826.9
37.5°	1615.4	1631.1	1691.9	1734.6	1763.9
40°	1536.6	1554.6	1617.6	1667.1	1700.9
42.5°	1453.4	1473.6	1543.4	1601.9	1637.9
45°	1370.1	1392.6	1464.6	1534.4	1574.9
47.5°	1286.9	1313.9	1390.4	1466.9	1509.6
50°	1201.4	1228.4	1309.4	1397.1	1439.9
52.5°	1115.9	1147.4	1237.4	1327.4	1370.1
55°	1032.7	1064.2	1160.9	1255.4	1298.2
57.5°	947.2	978.7	1084.4	1183.4	1226.2
60°	859.4	895.4	1005.7	1106.9	1154.2
62.5°	773.9	812.2	929.2	1037.2	1082.2
65°	688.4	728.9	850.4	962.9	1007.9
67.5°	600.7	648.0	773.9	888.7	935.9
70°	515.2	567.0	699.7	814.4	859.4
72.5°	432.0	488.2	625.5	742.4	769.4
75°	348.7	414.0	553.5	618.7	618.7
77.5°	270.0	342.0	472.5	497.2	510.7
80°	195.7	274.5	355.5	384.7	380.2
82.5°	130.5	209.2	254.2	254.2	247.5
85°	74.2	126.0	137.2	132.7	130.5
87.5°	31.5	47.2	42.7	33.7	29.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)