

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: P233204

Luminaire Tested: **FCB-24-4-LD4-75-50-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233204
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-LD4-75-50-UNV-EDD1-WDP6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (168)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

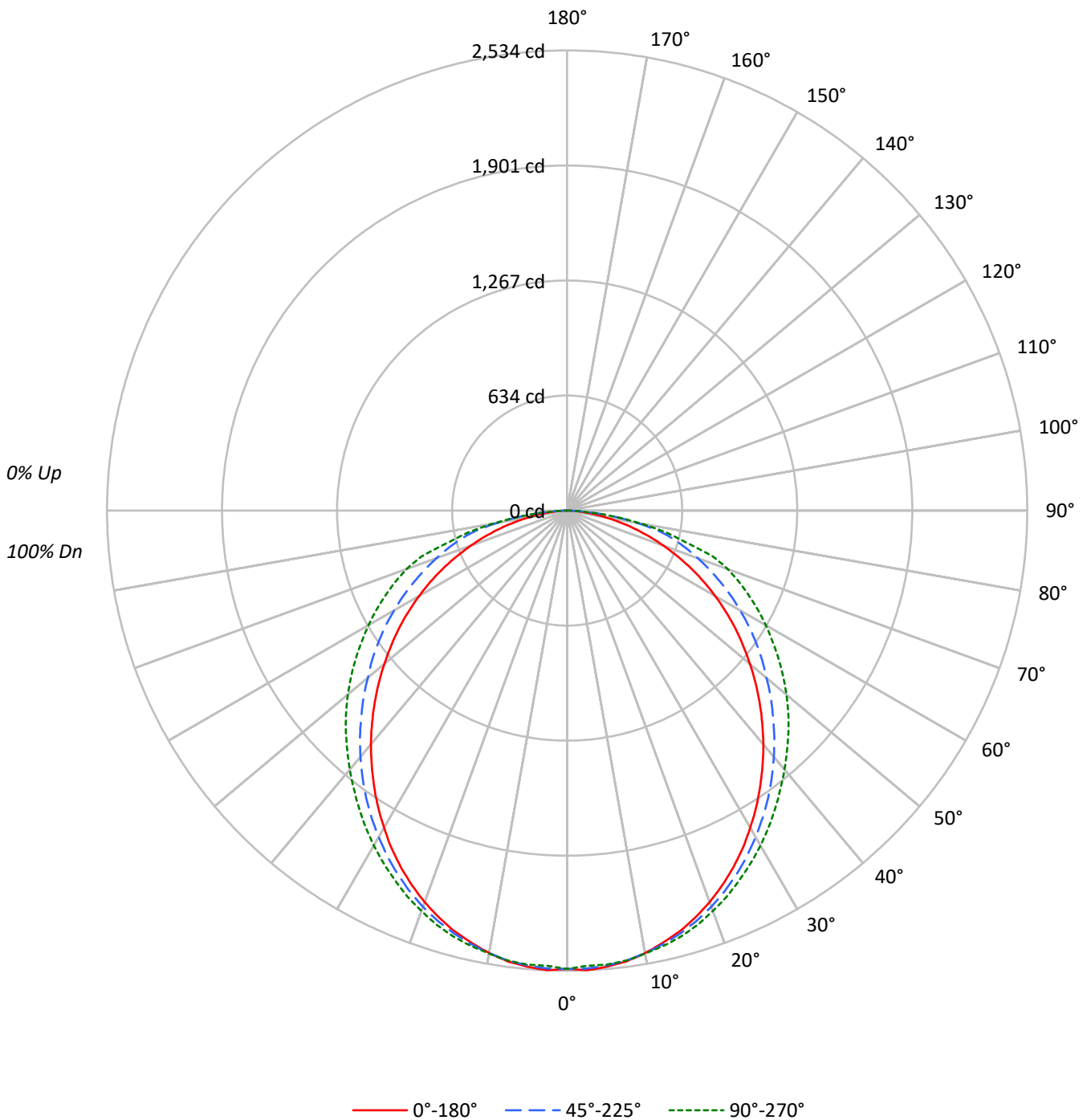
Lumens per Lamp: N/A
Luminaire Lumens: 7191.0 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 69.1
Input Voltage (V): 120
Input Current (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°	3396	3396	3396
5°	3405	3395	3389
10°	3381	3381	3384
15°	3340	3358	3382
20°	3286	3324	3360
25°	3217	3279	3333
30°	3133	3225	3309
35°	3045	3171	3284
40°	2954	3109	3269
45°	2853	3050	3279
50°	2752	3000	3298
55°	2651	2980	3332
60°	2531	2962	3399
65°	2399	2963	3512
70°	2218	3012	3700
75°	1984	3149	3520
80°	1660	3014	3224
85°	1254	2319	2205



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.5	3.3
10°-20°	678.7	9.4
20°-30°	1014.7	14.1
30°-40°	1203.7	16.7
40°-50°	1239.0	17.2
50°-60°	1136.6	15.8
60°-70°	919.0	12.8
70°-80°	596.4	8.3
80°-90°	164.5	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°	1931.9	26.9
0°-40°	3135.6	43.6
0°-60°	5511.2	76.6
0°-90°	7191.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7191.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2524	2524	2524	2524	2524	
5°	2521	2504	2514	2511	2509	239
15°	2398	2388	2410	2420	2428	676
25°	2167	2169	2208	2228	2245	997
35°	1854	1869	1930	1972	1999	1159
45°	1499	1524	1603	1679	1724	1157
55°	1130	1165	1270	1374	1421	1010
65°	753	798	931	1054	1103	745
75°	382	453	606	677	677	406
85°	81	138	150	145	143	99
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2523.7	2523.7	2523.7	2523.7	2523.7
2.5°	2533.5	2513.8	2523.7	2521.2	2508.9
5°	2521.2	2504.0	2513.8	2511.4	2508.9
7.5°	2504.0	2486.7	2499.0	2496.6	2499.0
10°	2474.4	2459.7	2474.4	2476.9	2476.9
12.5°	2437.5	2425.2	2444.9	2449.8	2454.7
15°	2398.1	2388.3	2410.4	2420.3	2427.6
17.5°	2348.9	2341.5	2368.6	2380.9	2390.7
20°	2294.7	2292.2	2321.8	2334.1	2346.4
22.5°	2233.1	2233.1	2267.6	2282.4	2299.6
25°	2166.7	2169.1	2208.5	2228.2	2245.4
27.5°	2095.3	2097.7	2144.5	2169.1	2188.8
30°	2016.5	2026.3	2075.6	2107.6	2129.7
32.5°	1937.7	1950.0	2004.2	2041.1	2065.7
35°	1854.0	1868.7	1930.3	1972.2	1999.2
37.5°	1767.8	1785.0	1851.5	1898.3	1930.3
40°	1681.6	1701.3	1770.3	1824.4	1861.4
42.5°	1590.5	1612.7	1689.0	1753.0	1792.4
45°	1499.4	1524.0	1602.8	1679.2	1723.5
47.5°	1408.3	1437.9	1521.6	1605.3	1652.1
50°	1314.8	1344.3	1433.0	1529.0	1575.8
52.5°	1221.2	1255.7	1354.2	1452.6	1499.4
55°	1130.1	1164.6	1270.5	1373.9	1420.6
57.5°	1036.6	1071.0	1186.7	1295.1	1341.9
60°	940.5	979.9	1100.6	1211.4	1263.1
62.5°	847.0	888.8	1016.9	1135.0	1184.3
65°	753.4	797.7	930.7	1053.8	1103.0
67.5°	657.4	709.1	847.0	972.5	1024.2
70°	563.8	620.5	765.7	891.3	940.5
72.5°	472.7	534.3	684.5	812.5	842.0
75°	381.6	453.0	605.7	777.1	777.1
77.5°	295.5	374.2	517.0	644.1	658.9
80°	214.2	300.4	389.0	421.0	416.1
82.5°	142.8	229.0	278.2	278.2	270.8
85°	81.2	137.9	150.2	145.3	142.8
87.5°	34.5	51.7	46.8	36.9	32.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)