

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: P233203

Luminaire Tested: **FCB-24-4-LD4-75-40-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233203
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-WDP6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (168)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

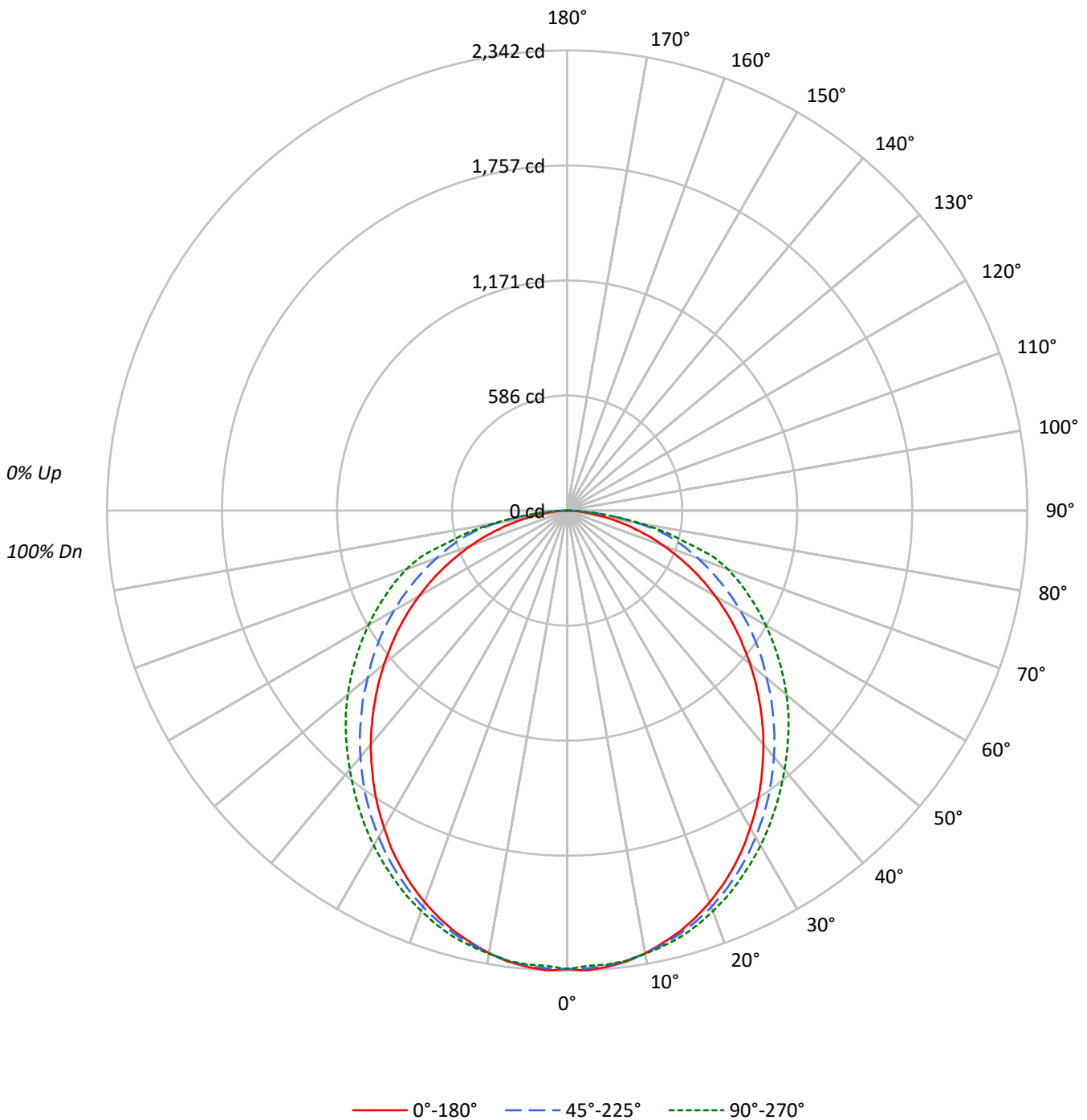
Lumens per Lamp: N/A
Luminaire Lumens: 6648.0 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3139	3139	3139
5°	3148	3139	3133
10°	3125	3125	3129
15°	3088	3104	3126
20°	3038	3073	3106
25°	2974	3031	3082
30°	2896	2981	3059
35°	2815	2931	3036
40°	2731	2875	3022
45°	2638	2820	3032
50°	2544	2773	3049
55°	2451	2755	3081
60°	2340	2738	3142
65°	2217	2739	3246
70°	2050	2785	3421
75°	1834	2911	3254
80°	1534	2786	2981
85°	1159	2143	2038



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.5	3.3
10°-20°	627.5	9.4
20°-30°	938.1	14.1
30°-40°	1112.8	16.7
40°-50°	1145.4	17.2
50°-60°	1050.8	15.8
60°-70°	849.6	12.8
70°-80°	551.4	8.3
80°-90°	152.0	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°	1786.0	26.9
0°-40°	2898.8	43.6
0°-60°	5095.0	76.6
0°-90°	6648.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6648.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2333	2333	2333	2333	2333	
5°	2331	2315	2324	2322	2319	221
15°	2217	2208	2228	2238	2244	625
25°	2003	2005	2042	2060	2076	922
35°	1714	1728	1784	1823	1848	1072
45°	1386	1409	1482	1552	1593	1070
55°	1045	1077	1174	1270	1313	933
65°	696	738	860	974	1020	688
75°	353	419	560	626	626	375
85°	75	128	139	134	132	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2333.1	2333.1	2333.1	2333.1	2333.1
2.5°	2342.2	2324.0	2333.1	2330.8	2319.4
5°	2330.8	2314.9	2324.0	2321.7	2319.4
7.5°	2314.9	2299.0	2310.3	2308.1	2310.3
10°	2287.6	2273.9	2287.6	2289.9	2289.9
12.5°	2253.4	2242.1	2260.3	2264.8	2269.4
15°	2217.0	2207.9	2228.4	2237.5	2244.3
17.5°	2171.5	2164.7	2189.7	2201.1	2210.2
20°	2121.4	2119.1	2146.5	2157.8	2169.2
22.5°	2064.5	2064.5	2096.4	2110.0	2126.0
25°	2003.1	2005.3	2041.7	2060.0	2075.9
27.5°	1937.0	1939.3	1982.6	2005.3	2023.5
30°	1864.2	1873.3	1918.8	1948.4	1968.9
32.5°	1791.4	1802.7	1852.8	1887.0	1909.7
35°	1714.0	1727.6	1784.5	1823.2	1848.3
37.5°	1634.3	1650.2	1711.7	1754.9	1784.5
40°	1554.6	1572.9	1636.6	1686.7	1720.8
42.5°	1470.4	1490.9	1561.5	1620.7	1657.1
45°	1386.2	1409.0	1481.8	1552.4	1593.3
47.5°	1302.0	1329.3	1406.7	1484.1	1527.3
50°	1215.5	1242.8	1324.7	1413.5	1456.8
52.5°	1129.0	1160.9	1251.9	1343.0	1386.2
55°	1044.8	1076.6	1174.5	1270.1	1313.4
57.5°	958.3	990.1	1097.1	1197.3	1240.5
60°	869.5	905.9	1017.5	1119.9	1167.7
62.5°	783.0	821.7	940.1	1049.3	1094.9
65°	696.5	737.5	860.4	974.2	1019.7
67.5°	607.7	655.5	783.0	899.1	946.9
70°	521.2	573.6	707.9	824.0	869.5
72.5°	437.0	493.9	632.8	751.1	778.5
75°	352.8	418.8	559.9	626.0	626.0
77.5°	273.1	346.0	478.0	503.0	516.7
80°	198.0	277.7	359.6	389.2	384.7
82.5°	132.0	211.7	257.2	257.2	250.4
85°	75.1	127.5	138.8	134.3	132.0
87.5°	31.9	47.8	43.2	34.1	29.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)