

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: P233221

Luminaire Tested: **FCB-24-4-LD4-75-30-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233221
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-LD4-75-30-UNV-EDD1-WDA12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (168)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

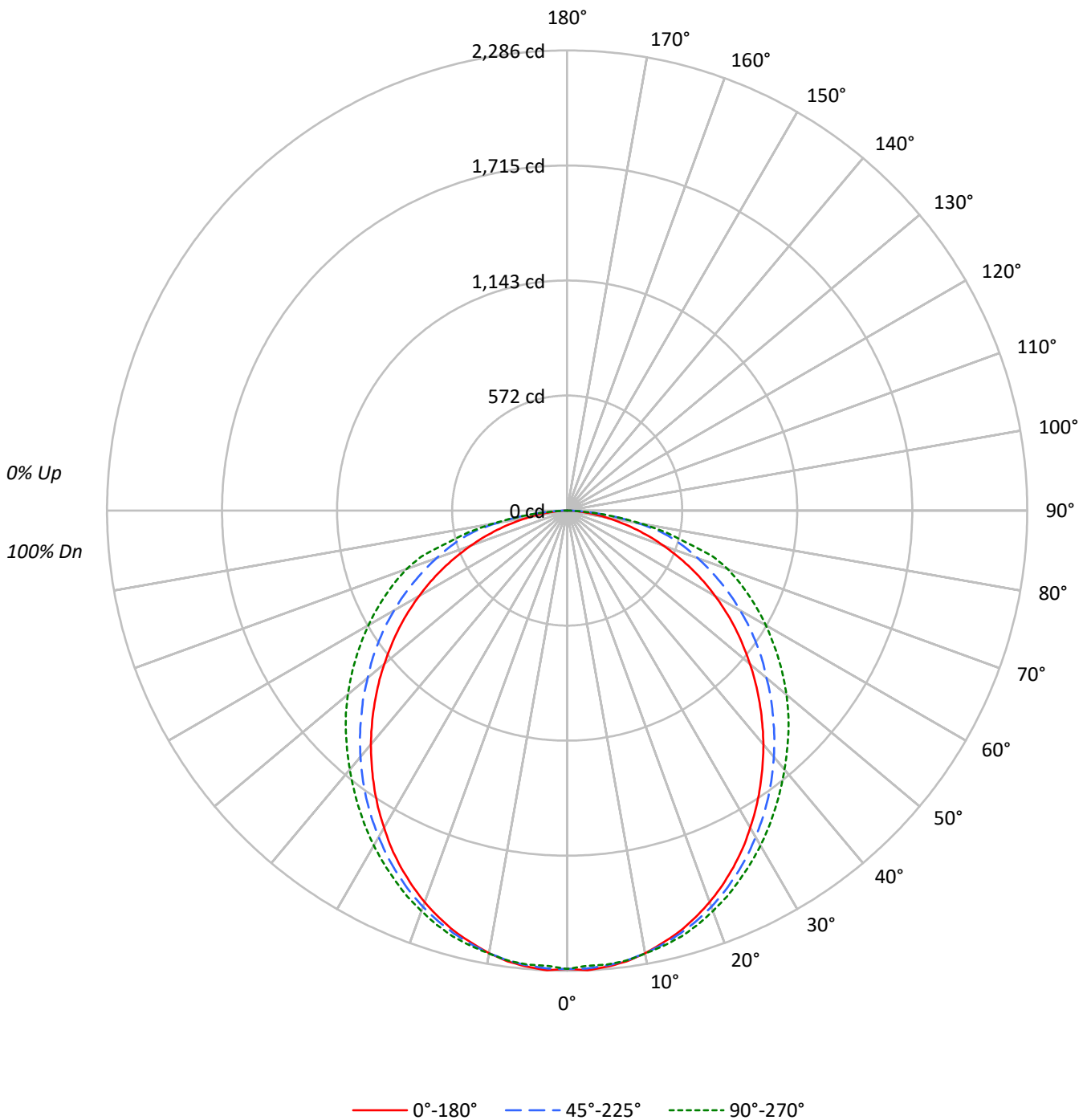
Lumens per Lamp: N/A
Luminaire Lumens: 6488.0 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P233221

CATALOG NUMBER: FCB-24-4-LD4-75-30-UNV-EDD1-WDA12

Luminous Intensity Polar Plot





TEST NUMBER: P233221

CATALOG NUMBER: FCB-24-4-LD4-75-30-UNV-EDD1-WDA12

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°	3064	3064	3064
5°	3072	3063	3057
10°	3050	3050	3053
15°	3014	3029	3051
20°	2964	2999	3031
25°	2902	2958	3008
30°	2827	2909	2985
35°	2747	2861	2963
40°	2665	2805	2950
45°	2574	2752	2959
50°	2483	2706	2976
55°	2392	2689	3007
60°	2284	2672	3067
65°	2164	2673	3168
70°	2001	2718	3338
75°	1790	2841	3176
80°	1498	2720	2909
85°	1132	2092	1988



TEST NUMBER: P233221

CATALOG NUMBER: FCB-24-4-LD4-75-30-UNV-EDD1-WDA12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.2	3.3
10°-20°	612.4	9.4
20°-30°	915.5	14.1
30°-40°	1086.1	16.7
40°-50°	1117.8	17.2
50°-60°	1025.5	15.8
60°-70°	829.1	12.8
70°-80°	538.1	8.3
80°-90°	148.4	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°	1743.0	26.9
0°-40°	2829.1	43.6
0°-60°	4972.4	76.6
0°-90°	6488.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6488.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2277	2277	2277	2277	2277	
5°	2275	2259	2268	2266	2264	216
15°	2164	2155	2175	2184	2190	610
25°	1955	1957	1993	2010	2026	900
35°	1673	1686	1742	1779	1804	1046
45°	1353	1375	1446	1515	1555	1044
55°	1020	1051	1146	1240	1282	911
65°	680	720	840	951	995	672
75°	344	409	546	611	611	366
85°	73	124	136	131	129	90
90°	0	0	0	0	0	



TEST NUMBER: P233221

CATALOG NUMBER: FCB-24-4-LD4-75-30-UNV-EDD1-WDA12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2277.0	2277.0	2277.0	2277.0	2277.0
2.5°	2285.8	2268.1	2277.0	2274.7	2263.6
5°	2274.7	2259.2	2268.1	2265.8	2263.6
7.5°	2259.2	2243.6	2254.7	2252.5	2254.7
10°	2232.5	2219.2	2232.5	2234.7	2234.7
12.5°	2199.2	2188.1	2205.9	2210.3	2214.8
15°	2163.7	2154.8	2174.8	2183.7	2190.3
17.5°	2119.2	2112.6	2137.0	2148.1	2157.0
20°	2070.4	2068.1	2094.8	2105.9	2117.0
22.5°	2014.8	2014.8	2045.9	2059.3	2074.8
25°	1954.8	1957.1	1992.6	2010.4	2025.9
27.5°	1890.4	1892.6	1934.9	1957.1	1974.8
30°	1819.3	1828.2	1872.7	1901.5	1921.5
32.5°	1748.3	1759.4	1808.2	1841.6	1863.8
35°	1672.7	1686.1	1741.6	1779.4	1803.8
37.5°	1595.0	1610.5	1670.5	1712.7	1741.6
40°	1517.2	1535.0	1597.2	1646.1	1679.4
42.5°	1435.0	1455.0	1523.9	1581.6	1617.2
45°	1352.8	1375.1	1446.1	1515.0	1555.0
47.5°	1270.6	1297.3	1372.8	1448.4	1490.6
50°	1186.2	1212.9	1292.9	1379.5	1421.7
52.5°	1101.8	1132.9	1221.8	1310.6	1352.8
55°	1019.6	1050.7	1146.3	1239.5	1281.8
57.5°	935.2	966.3	1070.7	1168.5	1210.7
60°	848.6	884.1	993.0	1092.9	1139.6
62.5°	764.2	801.9	917.4	1024.1	1068.5
65°	679.8	719.7	839.7	950.8	995.2
67.5°	593.1	639.8	764.2	877.5	924.1
70°	508.7	559.8	690.9	804.2	848.6
72.5°	426.5	482.0	617.6	733.1	759.7
75°	344.3	408.7	546.5	610.9	610.9
77.5°	266.6	337.7	466.5	490.9	504.3
80°	193.3	271.0	351.0	379.9	375.4
82.5°	128.8	206.6	251.0	251.0	244.4
85°	73.3	124.4	135.5	131.1	128.8
87.5°	31.1	46.6	42.2	33.3	28.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)