

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: P233198

Luminaire Tested: **FCB-24-4-LD4-60-35-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233198
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-LD4-60-35-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

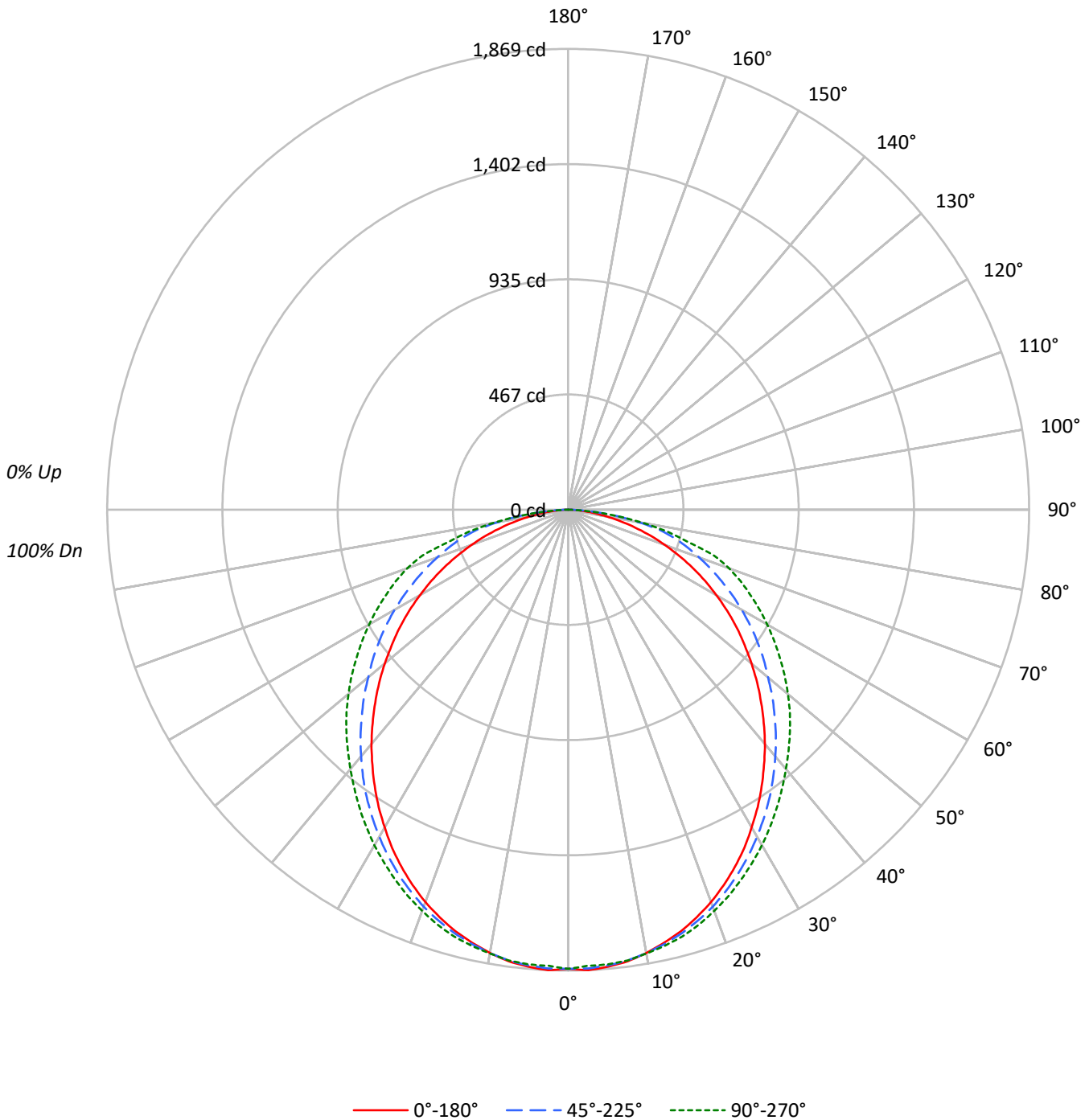
Lumens per Lamp: N/A
Luminaire Lumens: 5306.0 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 52.2
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: P233198

CATALOG NUMBER: FCB-24-4-LD4-60-35-UNV-EDD1-WDP6

Luminous Intensity Polar Plot





TEST NUMBER: P233198

CATALOG NUMBER: FCB-24-4-LD4-60-35-UNV-EDD1-WDP6

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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32					32			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2505	2505	2505
5°	2513	2505	2500
10°	2494	2494	2497
15°	2465	2478	2495
20°	2424	2453	2479
25°	2373	2419	2460
30°	2312	2379	2442
35°	2247	2339	2423
40°	2179	2294	2412
45°	2105	2250	2420
50°	2031	2213	2434
55°	1956	2199	2459
60°	1868	2185	2508
65°	1770	2186	2591
70°	1637	2223	2730
75°	1464	2323	2597
80°	1225	2224	2379
85°	926	1711	1627



TEST NUMBER: P233198

CATALOG NUMBER: FCB-24-4-LD4-60-35-UNV-EDD1-WDP6

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.0	3.3
10°-20°	500.8	9.4
20°-30°	748.7	14.1
30°-40°	888.2	16.7
40°-50°	914.2	17.2
50°-60°	838.6	15.8
60°-70°	678.1	12.8
70°-80°	440.1	8.3
80°-90°	121.4	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°	1425.5	26.9
0°-40°	2313.7	43.6
0°-60°	4066.5	76.6
0°-90°	5306.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5306.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1862	1862	1862	1862	1862	
5°	1860	1848	1855	1853	1851	177
15°	1770	1762	1779	1786	1791	498
25°	1599	1600	1630	1644	1657	736
35°	1368	1379	1424	1455	1475	855
45°	1106	1124	1183	1239	1272	854
55°	834	859	937	1014	1048	745
65°	556	589	687	778	814	549
75°	282	334	447	500	500	299
85°	60	102	111	107	105	73
90°	0	0	0	0	0	



TEST NUMBER: P233198

CATALOG NUMBER: FCB-24-4-LD4-60-35-UNV-EDD1-WDP6

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1862.1	1862.1	1862.1	1862.1	1862.1
2.5°	1869.4	1854.9	1862.1	1860.3	1851.2
5°	1860.3	1847.6	1854.9	1853.0	1851.2
7.5°	1847.6	1834.9	1844.0	1842.1	1844.0
10°	1825.8	1814.9	1825.8	1827.6	1827.6
12.5°	1798.5	1789.5	1804.0	1807.6	1811.3
15°	1769.5	1762.2	1778.6	1785.8	1791.3
17.5°	1733.1	1727.7	1747.7	1756.8	1764.0
20°	1693.2	1691.4	1713.2	1722.2	1731.3
22.5°	1647.8	1647.8	1673.2	1684.1	1696.8
25°	1598.7	1600.5	1629.6	1644.1	1656.8
27.5°	1546.0	1547.8	1582.4	1600.5	1615.1
30°	1487.9	1495.2	1531.5	1555.1	1571.5
32.5°	1429.8	1438.8	1478.8	1506.1	1524.2
35°	1368.0	1378.9	1424.3	1455.2	1475.2
37.5°	1304.4	1317.1	1366.2	1400.7	1424.3
40°	1240.8	1255.3	1306.2	1346.2	1373.4
42.5°	1173.6	1189.9	1246.3	1293.5	1322.6
45°	1106.4	1124.5	1182.7	1239.0	1271.7
47.5°	1039.2	1061.0	1122.7	1184.5	1219.0
50°	970.1	991.9	1057.3	1128.2	1162.7
52.5°	901.1	926.5	999.2	1071.9	1106.4
55°	833.9	859.3	937.4	1013.7	1048.2
57.5°	764.8	790.3	875.7	955.6	990.1
60°	694.0	723.1	812.1	893.8	932.0
62.5°	624.9	655.8	750.3	837.5	873.8
65°	555.9	588.6	686.7	777.6	813.9
67.5°	485.1	523.2	624.9	717.6	755.8
70°	416.0	457.8	565.0	657.6	694.0
72.5°	348.8	394.2	505.0	599.5	621.3
75°	281.6	334.3	446.9	499.6	499.6
77.5°	218.0	276.1	381.5	401.5	412.4
80°	158.1	221.6	287.0	310.7	307.0
82.5°	105.4	169.0	205.3	205.3	199.8
85°	60.0	101.7	110.8	107.2	105.4
87.5°	25.4	38.2	34.5	27.3	23.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)