

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: P233182

Luminaire Tested: **FCB-24-4-LD4-75-35-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233182
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-LD4-75-35-UNV-EDD1-WDA6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

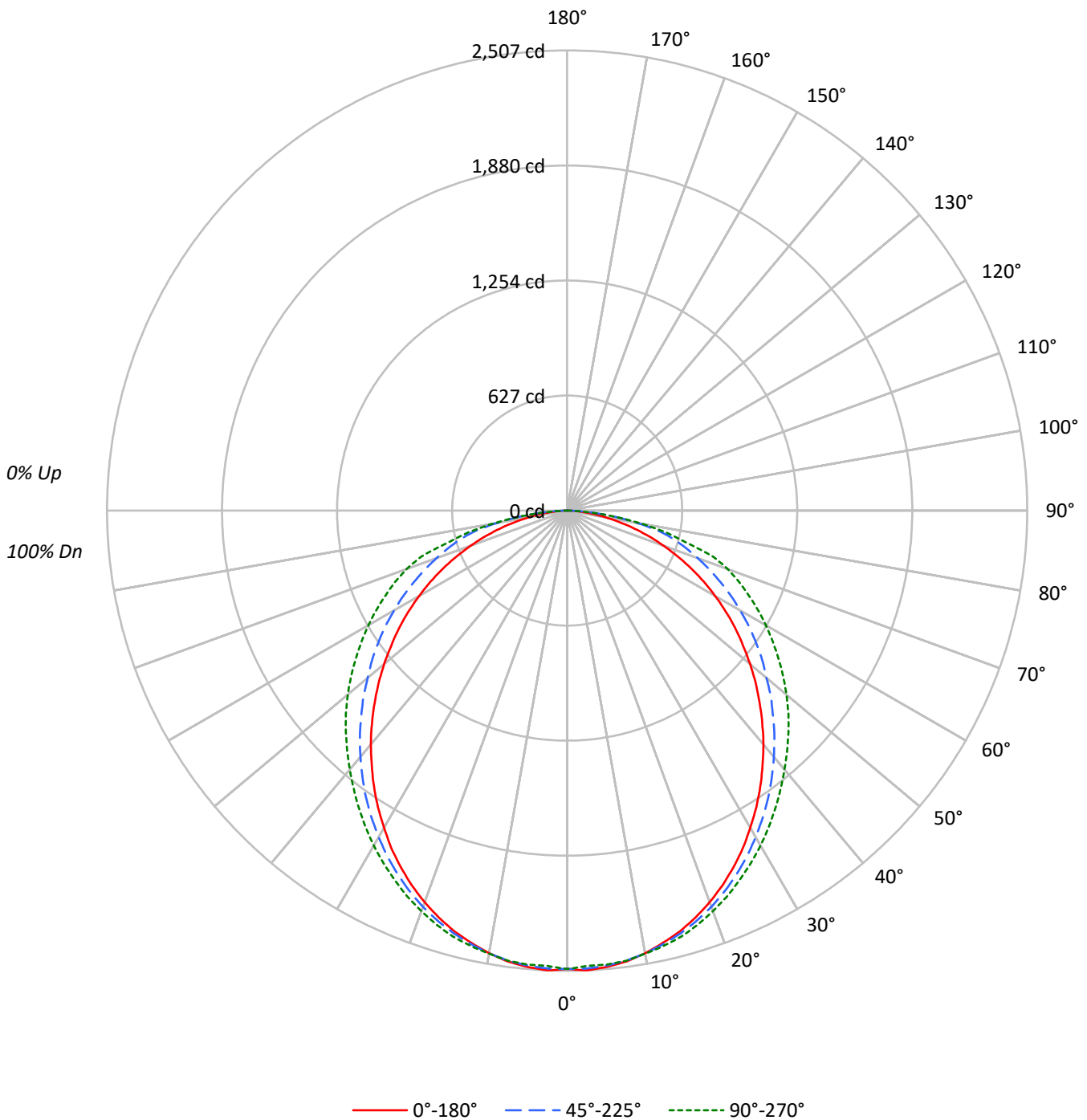
Lumens per Lamp: N/A
Luminaire Lumens: 7116.0 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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: P233182

CATALOG NUMBER: FCB-24-4-LD4-75-35-UNV-EDD1-WDA6

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	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°	3360	3360	3360
5°	3370	3360	3353
10°	3345	3345	3349
15°	3306	3323	3346
20°	3251	3290	3325
25°	3183	3245	3299
30°	3100	3191	3274
35°	3013	3138	3250
40°	2923	3077	3235
45°	2823	3018	3245
50°	2723	2968	3264
55°	2623	2949	3298
60°	2504	2931	3363
65°	2373	2932	3475
70°	2195	2981	3661
75°	1963	3116	3483
80°	1643	2983	3191
85°	1241	2294	2181



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.0	3.3
10°-20°	671.7	9.4
20°-30°	1004.1	14.1
30°-40°	1191.2	16.7
40°-50°	1226.0	17.2
50°-60°	1124.7	15.8
60°-70°	909.4	12.8
70°-80°	590.2	8.3
80°-90°	162.7	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°	1911.7	26.9
0°-40°	3102.9	43.6
0°-60°	5453.7	76.6
0°-90°	7116.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7116.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2497	2497	2497	2497	2497	
5°	2495	2478	2488	2485	2483	237
15°	2373	2363	2385	2395	2402	669
25°	2144	2146	2186	2205	2222	987
35°	1835	1849	1910	1952	1978	1147
45°	1484	1508	1586	1662	1706	1145
55°	1118	1152	1257	1360	1406	999
65°	746	789	921	1043	1092	737
75°	378	448	599	670	670	401
85°	80	136	149	144	141	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2497.3	2497.3	2497.3	2497.3	2497.3
2.5°	2507.1	2487.6	2497.3	2494.9	2482.7
5°	2494.9	2477.9	2487.6	2485.2	2482.7
7.5°	2477.9	2460.8	2473.0	2470.5	2473.0
10°	2448.6	2434.0	2448.6	2451.1	2451.1
12.5°	2412.1	2399.9	2419.4	2424.3	2429.1
15°	2373.1	2363.3	2385.3	2395.0	2402.3
17.5°	2324.4	2317.0	2343.9	2356.0	2365.8
20°	2270.8	2268.3	2297.6	2309.7	2321.9
22.5°	2209.8	2209.8	2244.0	2258.6	2275.6
25°	2144.1	2146.5	2185.5	2205.0	2222.0
27.5°	2073.4	2075.8	2122.1	2146.5	2166.0
30°	1995.4	2005.2	2053.9	2085.6	2107.5
32.5°	1917.5	1929.7	1983.3	2019.8	2044.2
35°	1834.6	1849.3	1910.2	1951.6	1978.4
37.5°	1749.4	1766.4	1832.2	1878.5	1910.2
40°	1664.1	1683.6	1751.8	1805.4	1841.9
42.5°	1573.9	1595.9	1671.4	1734.7	1773.7
45°	1483.8	1508.2	1586.1	1661.6	1705.5
47.5°	1393.6	1422.9	1505.7	1588.6	1634.8
50°	1301.1	1330.3	1418.0	1513.0	1559.3
52.5°	1208.5	1242.6	1340.0	1437.5	1483.8
55°	1118.3	1152.4	1257.2	1359.5	1405.8
57.5°	1025.7	1059.8	1174.4	1281.6	1327.9
60°	930.7	969.7	1089.1	1198.7	1249.9
62.5°	838.1	879.6	1006.2	1123.2	1171.9
65°	745.5	789.4	921.0	1042.8	1091.5
67.5°	650.5	701.7	838.1	962.4	1013.6
70°	557.9	614.0	757.7	882.0	930.7
72.5°	467.8	528.7	677.3	804.0	833.3
75°	377.6	448.3	599.4	670.0	670.0
77.5°	292.4	370.3	511.7	538.5	553.1
80°	212.0	297.2	385.0	416.6	411.8
82.5°	141.3	226.6	275.3	275.3	268.0
85°	80.4	136.4	148.6	143.7	141.3
87.5°	34.1	51.2	46.3	36.5	31.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)