

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: P233183

Luminaire Tested: **FCB-24-4-LD4-75-40-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233183
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-WDA6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (168)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

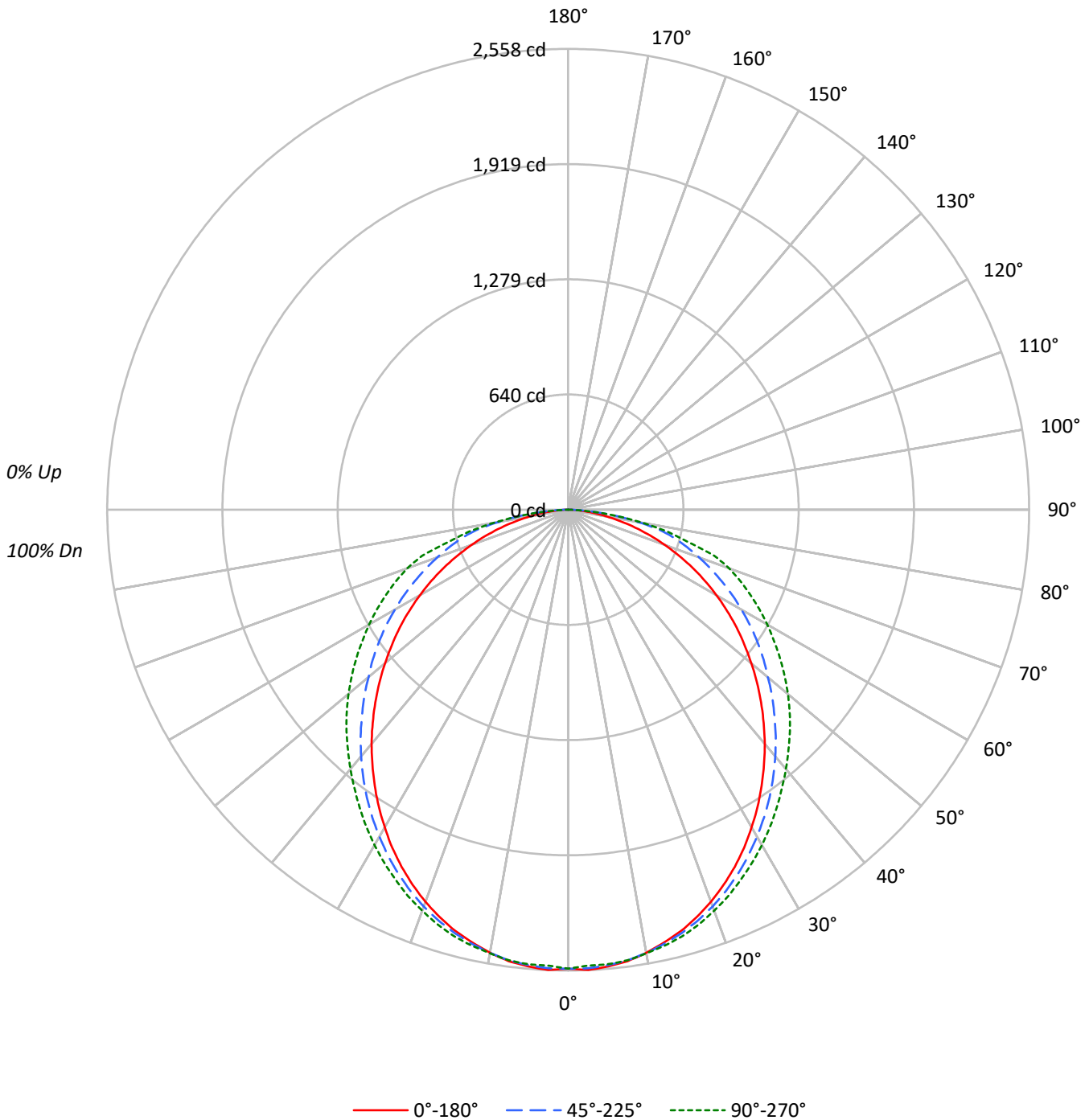
Lumens per Lamp: N/A
Luminaire Lumens: 7259.0 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	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°	3428	3428	3428
5°	3437	3427	3421
10°	3413	3413	3416
15°	3372	3389	3414
20°	3317	3356	3391
25°	3247	3310	3365
30°	3162	3255	3340
35°	3074	3201	3315
40°	2982	3139	3300
45°	2880	3079	3311
50°	2778	3028	3330
55°	2676	3008	3364
60°	2555	2990	3431
65°	2421	2991	3545
70°	2239	3041	3735
75°	2002	3178	3553
80°	1675	3043	3254
85°	1266	2340	2226



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.7	3.3
10°-20°	685.2	9.4
20°-30°	1024.3	14.1
30°-40°	1215.1	16.7
40°-50°	1250.7	17.2
50°-60°	1147.3	15.8
60°-70°	927.7	12.8
70°-80°	602.0	8.3
80°-90°	166.0	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°	1950.2	26.9
0°-40°	3165.3	43.6
0°-60°	5563.3	76.6
0°-90°	7259.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7259.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2548	2548	2548	2548	2548	
5°	2545	2528	2538	2535	2533	241
15°	2421	2411	2433	2443	2451	682
25°	2187	2190	2229	2249	2267	1007
35°	1872	1886	1949	1991	2018	1170
45°	1514	1538	1618	1695	1740	1168
55°	1141	1176	1282	1387	1434	1019
65°	760	805	940	1064	1114	752
75°	385	457	611	684	684	409
85°	82	139	152	147	144	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2547.5	2547.5	2547.5	2547.5	2547.5
2.5°	2557.5	2537.6	2547.5	2545.0	2532.6
5°	2545.0	2527.6	2537.6	2535.1	2532.6
7.5°	2527.6	2510.3	2522.7	2520.2	2522.7
10°	2497.8	2482.9	2497.8	2500.3	2500.3
12.5°	2460.5	2448.1	2468.0	2473.0	2477.9
15°	2420.8	2410.8	2433.2	2443.1	2450.6
17.5°	2371.1	2363.6	2391.0	2403.4	2413.3
20°	2316.4	2313.9	2343.7	2356.2	2368.6
22.5°	2254.3	2254.3	2289.1	2304.0	2321.4
25°	2187.1	2189.6	2229.4	2249.3	2266.7
27.5°	2115.1	2117.6	2164.8	2189.6	2209.5
30°	2035.5	2045.5	2095.2	2127.5	2149.9
32.5°	1956.0	1968.4	2023.1	2060.4	2085.2
35°	1871.5	1886.4	1948.6	1990.8	2018.1
37.5°	1784.5	1801.9	1869.0	1916.2	1948.6
40°	1697.5	1717.4	1787.0	1841.7	1879.0
42.5°	1605.6	1627.9	1705.0	1769.6	1809.4
45°	1513.6	1538.5	1618.0	1695.0	1739.8
47.5°	1421.6	1451.5	1536.0	1620.5	1667.7
50°	1327.2	1357.0	1446.5	1543.4	1590.7
52.5°	1232.8	1267.6	1367.0	1466.4	1513.6
55°	1140.8	1175.6	1282.5	1386.9	1434.1
57.5°	1046.4	1081.1	1198.0	1307.3	1354.5
60°	949.4	989.2	1111.0	1222.8	1275.0
62.5°	855.0	897.2	1026.5	1145.8	1195.5
65°	760.5	805.3	939.5	1063.7	1113.5
67.5°	663.6	715.8	855.0	981.7	1033.9
70°	569.2	626.3	773.0	899.7	949.4
72.5°	477.2	539.3	690.9	820.2	850.0
75°	385.2	457.3	611.4	683.5	683.5
77.5°	298.2	377.8	521.9	549.3	564.2
80°	216.2	303.2	392.7	425.0	420.0
82.5°	144.2	231.1	280.8	280.8	273.4
85°	82.0	139.2	151.6	146.6	144.2
87.5°	34.8	52.2	47.2	37.3	32.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)