

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: P233220

Luminaire Tested: **FCB-24-4-LD4-60-50-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233220
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-LD4-60-50-UNV-EDD1-WDA12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (168)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

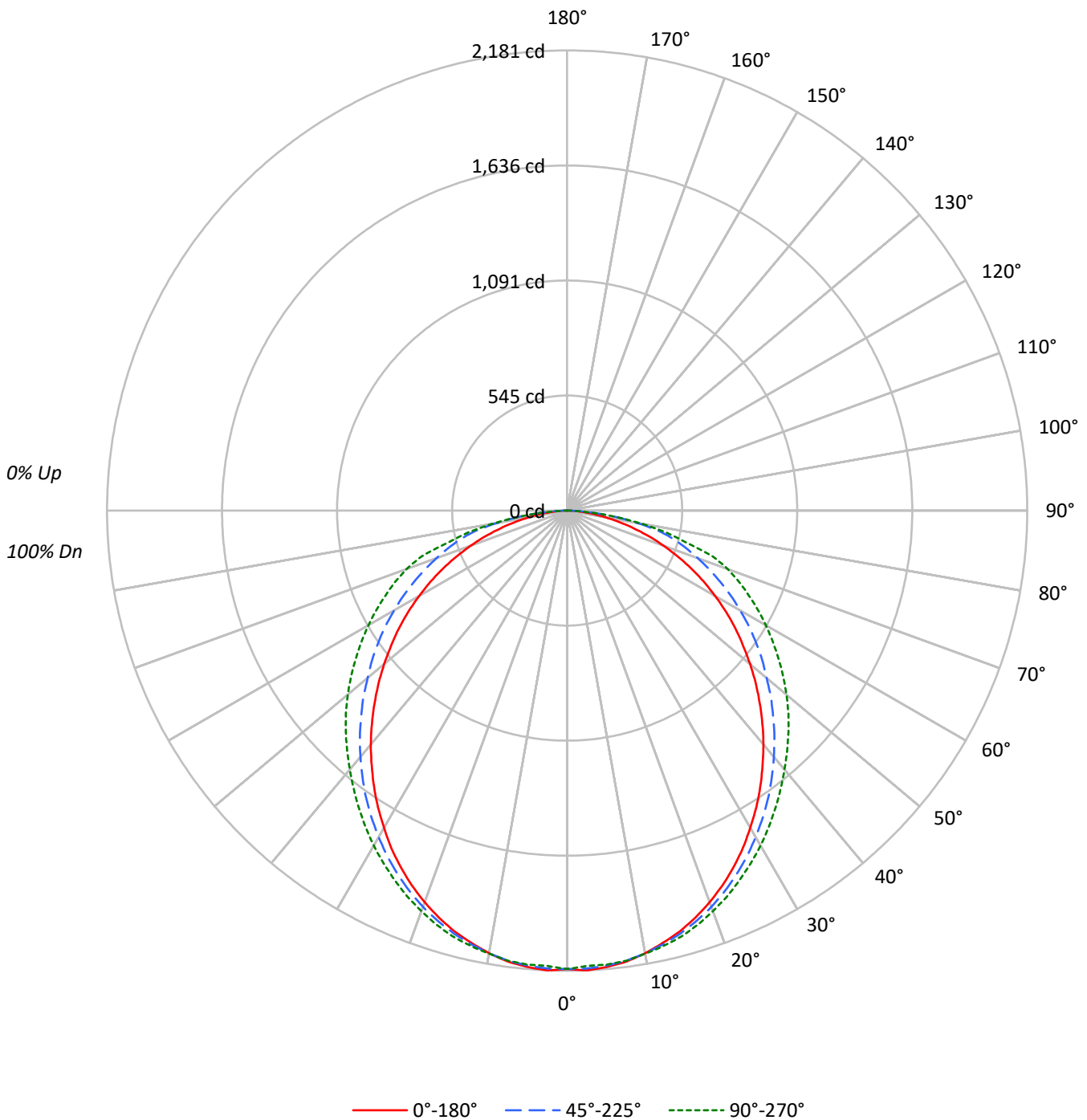
Lumens per Lamp: N/A
Luminaire Lumens: 6191.0 lumens
Efficiency: N/A
Efficacy: 118.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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: P233220

CATALOG NUMBER: FCB-24-4-LD4-60-50-UNV-EDD1-WDA12

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°	2923	2923	2923
5°	2932	2923	2917
10°	2911	2911	2913
15°	2876	2891	2911
20°	2829	2862	2892
25°	2769	2823	2870
30°	2697	2776	2849
35°	2622	2730	2827
40°	2543	2677	2815
45°	2456	2626	2823
50°	2369	2582	2840
55°	2282	2566	2869
60°	2179	2550	2926
65°	2065	2551	3023
70°	1910	2593	3185
75°	1708	2711	3030
80°	1429	2595	2775
85°	1081	1996	1897



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.3	3.3
10°-20°	584.4	9.4
20°-30°	873.6	14.1
30°-40°	1036.3	16.7
40°-50°	1066.7	17.2
50°-60°	978.5	15.8
60°-70°	791.2	12.8
70°-80°	513.5	8.3
80°-90°	141.6	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°	1663.2	26.9
0°-40°	2699.6	43.6
0°-60°	4744.8	76.6
0°-90°	6191.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6191.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2173	2173	2173	2173	2173	
5°	2171	2156	2164	2162	2160	206
15°	2065	2056	2075	2084	2090	582
25°	1865	1868	1901	1918	1933	859
35°	1596	1609	1662	1698	1721	998
45°	1291	1312	1380	1446	1484	996
55°	973	1003	1094	1183	1223	869
65°	649	687	801	907	950	641
75°	329	390	522	583	583	349
85°	70	119	129	125	123	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2172.7	2172.7	2172.7	2172.7	2172.7
2.5°	2181.2	2164.2	2172.7	2170.6	2160.0
5°	2170.6	2155.8	2164.2	2162.1	2160.0
7.5°	2155.8	2140.9	2151.5	2149.4	2151.5
10°	2130.3	2117.6	2130.3	2132.4	2132.4
12.5°	2098.5	2087.9	2104.9	2109.1	2113.4
15°	2064.6	2056.1	2075.2	2083.7	2090.0
17.5°	2022.2	2015.9	2039.2	2049.8	2058.3
20°	1975.6	1973.5	1998.9	2009.5	2020.1
22.5°	1922.6	1922.6	1952.3	1965.0	1979.8
25°	1865.4	1867.5	1901.4	1918.4	1933.2
27.5°	1803.9	1806.0	1846.3	1867.5	1884.4
30°	1736.1	1744.5	1786.9	1814.5	1833.6
32.5°	1668.2	1678.8	1725.5	1757.3	1778.5
35°	1596.2	1608.9	1661.9	1697.9	1721.2
37.5°	1522.0	1536.8	1594.0	1634.3	1661.9
40°	1447.8	1464.7	1524.1	1570.7	1602.5
42.5°	1369.3	1388.4	1454.1	1509.2	1543.2
45°	1290.9	1312.1	1379.9	1445.7	1483.8
47.5°	1212.5	1237.9	1310.0	1382.1	1422.3
50°	1131.9	1157.4	1233.7	1316.3	1356.6
52.5°	1051.4	1081.1	1165.8	1250.6	1290.9
55°	973.0	1002.6	1093.8	1182.8	1223.1
57.5°	892.4	922.1	1021.7	1115.0	1155.3
60°	809.7	843.7	947.5	1042.9	1087.4
62.5°	729.2	765.2	875.4	977.2	1019.6
65°	648.6	686.8	801.3	907.2	949.6
67.5°	566.0	610.5	729.2	837.3	881.8
70°	485.4	534.2	659.2	767.3	809.7
72.5°	407.0	460.0	589.3	699.5	724.9
75°	328.6	390.0	521.5	582.9	582.9
77.5°	254.4	322.2	445.1	468.5	481.2
80°	184.4	258.6	334.9	362.5	358.2
82.5°	122.9	197.1	239.5	239.5	233.2
85°	70.0	118.7	129.3	125.1	122.9
87.5°	29.7	44.5	40.3	31.8	27.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)