

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: P233178

Luminaire Tested: **FCB-24-4-LD4-60-35-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233178
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-WDA6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

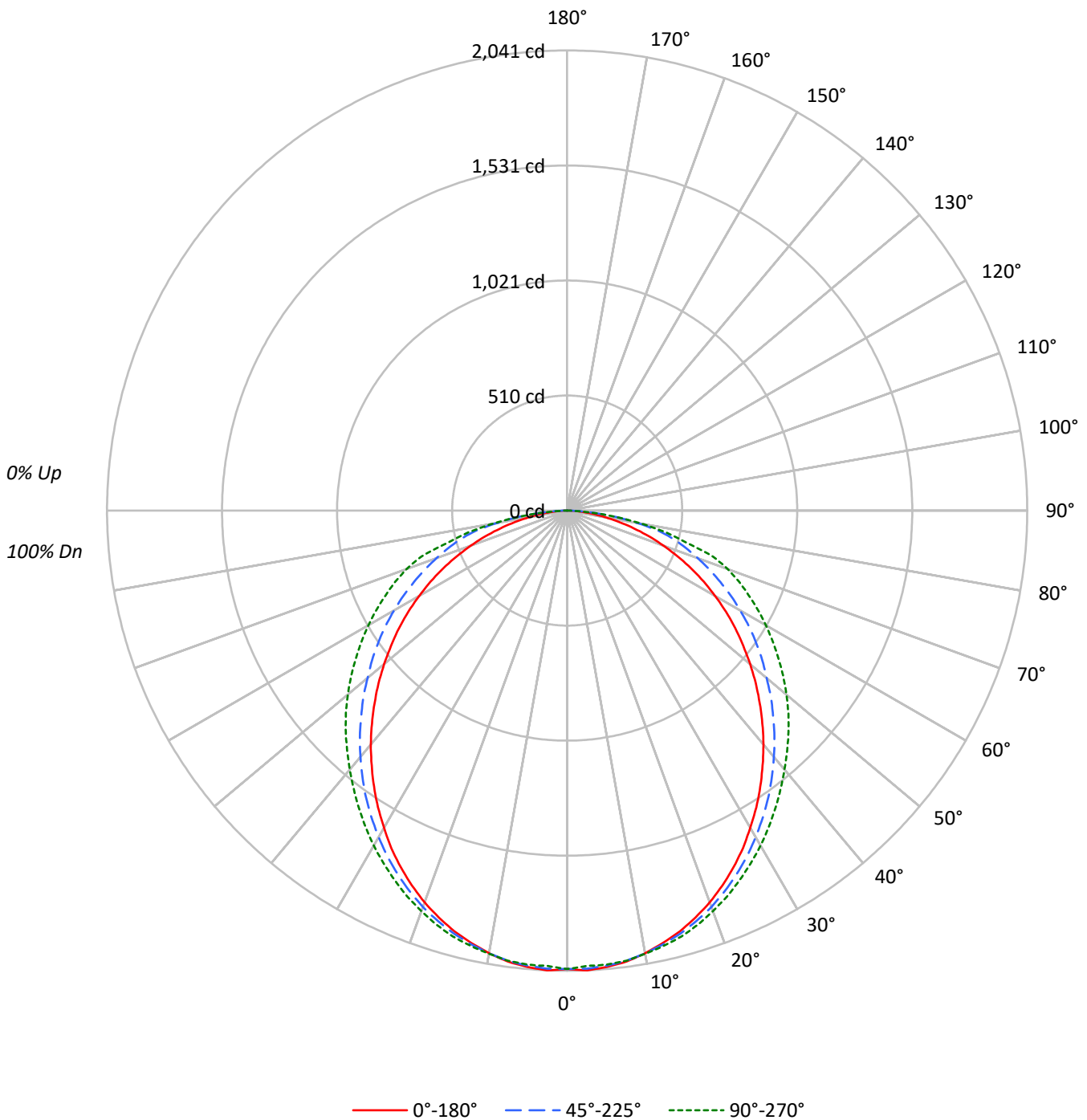
Lumens per Lamp: N/A
Luminaire Lumens: 5794.0 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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	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°	2736	2736	2736
5°	2744	2736	2730
10°	2724	2724	2727
15°	2691	2705	2725
20°	2647	2679	2707
25°	2592	2642	2686
30°	2524	2598	2666
35°	2454	2555	2646
40°	2380	2505	2634
45°	2299	2457	2642
50°	2217	2417	2658
55°	2136	2401	2685
60°	2039	2386	2739
65°	1933	2387	2829
70°	1787	2427	2981
75°	1599	2537	2836
80°	1337	2428	2598
85°	1011	1868	1777



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.1	3.3
10°-20°	546.9	9.4
20°-30°	817.6	14.1
30°-40°	969.9	16.7
40°-50°	998.3	17.2
50°-60°	915.8	15.8
60°-70°	740.4	12.8
70°-80°	480.5	8.3
80°-90°	132.5	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°	1556.6	26.9
0°-40°	2526.5	43.6
0°-60°	4440.5	76.6
0°-90°	5794.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5794.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2033	2033	2033	2033	2033	
5°	2031	2018	2026	2024	2022	193
15°	1932	1924	1942	1950	1956	544
25°	1746	1748	1780	1795	1809	804
35°	1494	1506	1555	1589	1611	934
45°	1208	1228	1292	1353	1389	932
55°	911	938	1024	1107	1145	813
65°	607	643	750	849	889	600
75°	308	365	488	546	546	327
85°	66	111	121	117	115	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2033.4	2033.4	2033.4	2033.4	2033.4
2.5°	2041.3	2025.5	2033.4	2031.4	2021.5
5°	2031.4	2017.5	2025.5	2023.5	2021.5
7.5°	2017.5	2003.6	2013.6	2011.6	2013.6
10°	1993.7	1981.8	1993.7	1995.7	1995.7
12.5°	1964.0	1954.0	1969.9	1973.9	1977.8
15°	1932.2	1924.3	1942.1	1950.1	1956.0
17.5°	1892.5	1886.6	1908.4	1918.3	1926.3
20°	1848.9	1846.9	1870.7	1880.6	1890.6
22.5°	1799.3	1799.3	1827.1	1839.0	1852.9
25°	1745.7	1747.7	1779.5	1795.3	1809.2
27.5°	1688.2	1690.2	1727.9	1747.7	1763.6
30°	1624.7	1632.7	1672.3	1698.1	1716.0
32.5°	1561.2	1571.2	1614.8	1644.6	1664.4
35°	1493.8	1505.7	1555.3	1589.0	1610.8
37.5°	1424.4	1438.3	1491.8	1529.5	1555.3
40°	1354.9	1370.8	1426.4	1470.0	1499.8
42.5°	1281.5	1299.4	1360.9	1412.5	1444.2
45°	1208.1	1228.0	1291.5	1353.0	1388.7
47.5°	1134.7	1158.5	1226.0	1293.4	1331.1
50°	1059.3	1083.2	1154.6	1231.9	1269.6
52.5°	984.0	1011.7	1091.1	1170.4	1208.1
55°	910.6	938.3	1023.6	1107.0	1144.7
57.5°	835.2	863.0	956.2	1043.5	1081.2
60°	757.8	789.6	886.8	976.0	1017.7
62.5°	682.4	716.2	819.3	914.5	954.2
65°	607.0	642.8	749.9	849.1	888.7
67.5°	529.7	571.3	682.4	783.6	825.3
70°	454.3	499.9	617.0	718.1	757.8
72.5°	380.9	430.5	551.5	654.7	678.5
75°	307.5	365.0	488.0	545.5	545.5
77.5°	238.1	301.5	416.6	438.4	450.3
80°	172.6	242.0	313.4	339.2	335.3
82.5°	115.1	184.5	224.2	224.2	218.2
85°	65.5	111.1	121.0	117.0	115.1
87.5°	27.8	41.7	37.7	29.8	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)