

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: P233154

Luminaire Tested: **FCB-24-4-LD4-50-35-UNV-EDD1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233154
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-LD4-50-35-UNV-EDD1
Description: FAILSAFE 2X4 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

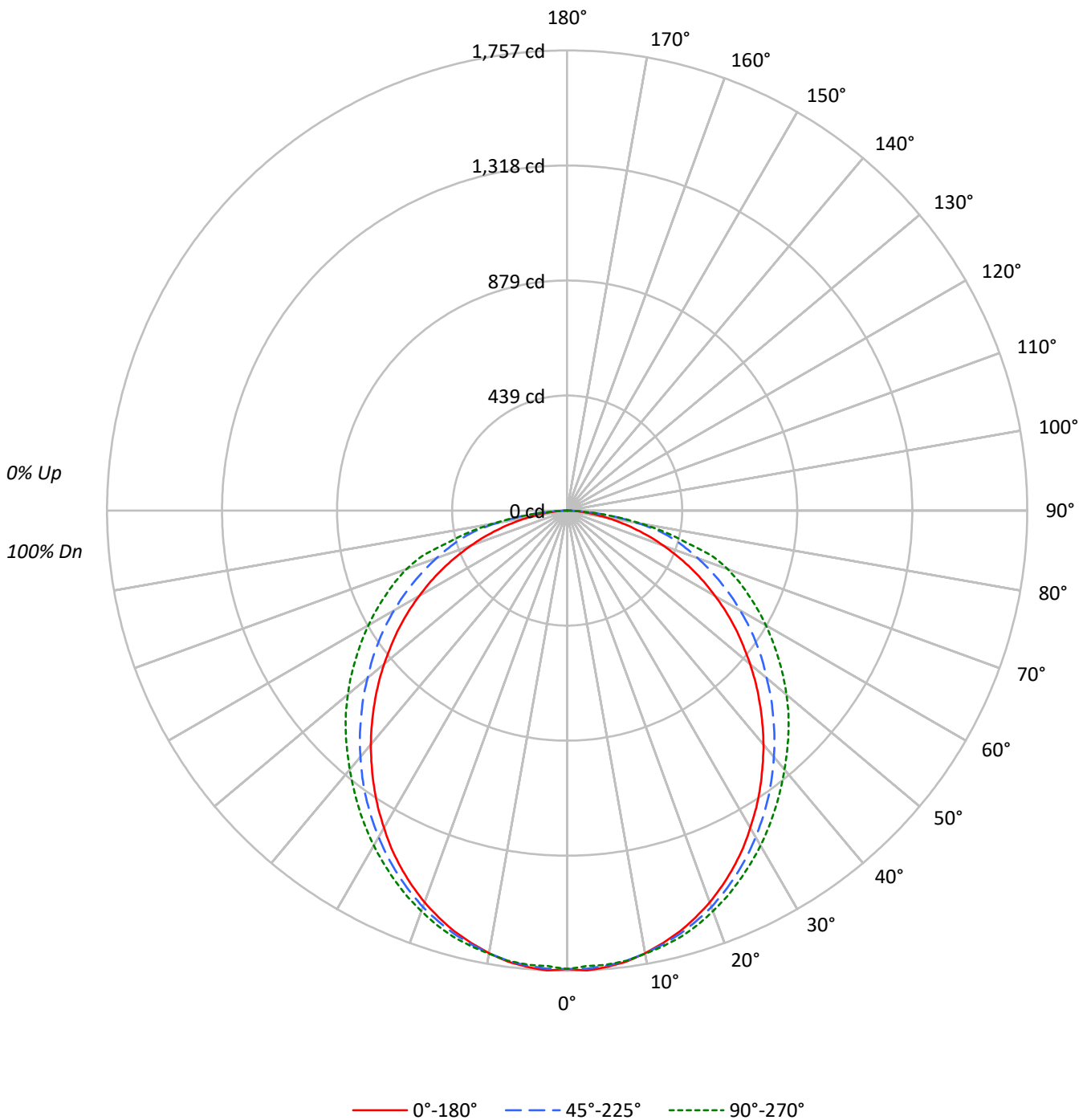
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4988.0 lumens
Efficiency: N/A
Efficacy: 122.6 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): 40.7
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°	2355	2355	2355
5°	2362	2355	2350
10°	2345	2345	2347
15°	2317	2329	2346
20°	2279	2306	2330
25°	2231	2274	2312
30°	2173	2237	2295
35°	2112	2199	2278
40°	2049	2157	2268
45°	1979	2116	2275
50°	1909	2081	2288
55°	1839	2067	2312
60°	1756	2054	2358
65°	1664	2055	2436
70°	1539	2089	2567
75°	1376	2184	2442
80°	1151	2091	2236
85°	871	1609	1530



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.4	3.3
10°-20°	470.8	9.4
20°-30°	703.8	14.1
30°-40°	835.0	16.7
40°-50°	859.4	17.2
50°-60°	788.4	15.8
60°-70°	637.4	12.8
70°-80°	413.7	8.3
80°-90°	114.1	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°	1340.1	26.9
0°-40°	2175.0	43.6
0°-60°	3822.8	76.6
0°-90°	4988.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4988.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1750	1750	1750	1750	1750	
5°	1749	1737	1744	1742	1740	166
15°	1663	1657	1672	1679	1684	469
25°	1503	1505	1532	1546	1558	692
35°	1286	1296	1339	1368	1387	804
45°	1040	1057	1112	1165	1196	803
55°	784	808	881	953	985	700
65°	523	553	646	731	765	516
75°	265	314	420	470	470	281
85°	56	96	104	101	99	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1750.5	1750.5	1750.5	1750.5	1750.5
2.5°	1757.4	1743.7	1750.5	1748.8	1740.3
5°	1748.8	1736.9	1743.7	1742.0	1740.3
7.5°	1736.9	1724.9	1733.5	1731.7	1733.5
10°	1716.4	1706.1	1716.4	1718.1	1718.1
12.5°	1690.8	1682.2	1695.9	1699.3	1702.7
15°	1663.4	1656.6	1672.0	1678.8	1683.9
17.5°	1629.3	1624.1	1642.9	1651.5	1658.3
20°	1591.7	1590.0	1610.5	1619.0	1627.6
22.5°	1549.0	1549.0	1572.9	1583.2	1595.1
25°	1502.9	1504.6	1531.9	1545.6	1557.5
27.5°	1453.4	1455.1	1487.5	1504.6	1518.3
30°	1398.7	1405.5	1439.7	1461.9	1477.3
32.5°	1344.1	1352.6	1390.2	1415.8	1432.9
35°	1286.0	1296.2	1338.9	1368.0	1386.8
37.5°	1226.2	1238.2	1284.3	1316.7	1338.9
40°	1166.4	1180.1	1227.9	1265.5	1291.1
42.5°	1103.3	1118.6	1171.6	1216.0	1243.3
45°	1040.1	1057.1	1111.8	1164.7	1195.5
47.5°	976.9	997.4	1055.4	1113.5	1146.0
50°	912.0	932.5	994.0	1060.6	1093.0
52.5°	847.1	871.0	939.3	1007.6	1040.1
55°	783.9	807.8	881.2	953.0	985.4
57.5°	719.0	742.9	823.2	898.3	930.8
60°	652.4	679.7	763.4	840.3	876.1
62.5°	587.5	616.5	705.3	787.3	821.5
65°	522.6	553.3	645.6	731.0	765.1
67.5°	456.0	491.9	587.5	674.6	710.5
70°	391.1	430.4	531.1	618.2	652.4
72.5°	327.9	370.6	474.8	563.6	584.1
75°	264.7	314.2	420.1	469.7	469.7
77.5°	204.9	259.6	358.6	377.4	387.7
80°	148.6	208.4	269.8	292.0	288.6
82.5°	99.1	158.8	193.0	193.0	187.9
85°	56.4	95.6	104.2	100.8	99.1
87.5°	23.9	35.9	32.4	25.6	22.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)