

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: P233036

Luminaire Tested: **FCB-12-4-LD4-44-50-UNV-EDD1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233036
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35573)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-12-4-LD4-44-50-UNV-EDD1
Description: FAILSAFE 1X4 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (84)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

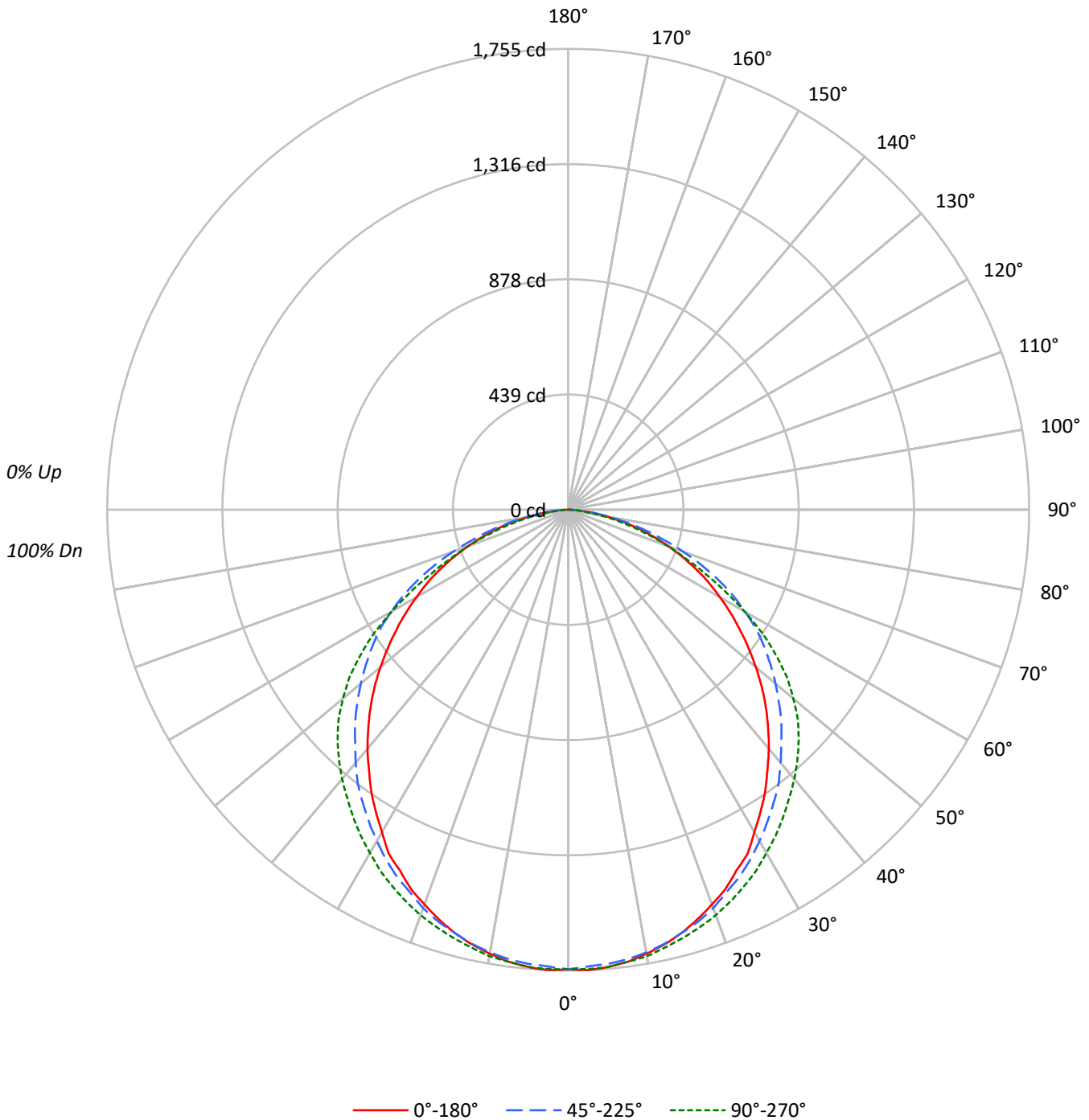
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4851.0 lumens
Efficiency: N/A
Efficacy: 118.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	29	42	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4711	4711	4711
5°	4722	4690	4722
10°	4692	4679	4718
15°	4651	4651	4704
20°	4582	4623	4705
25°	4502	4580	4701
30°	4407	4525	4689
35°	4298	4478	4690
40°	4175	4419	4704
45°	4050	4368	4724
50°	3905	4315	4685
55°	3748	4275	4533
60°	3591	4183	4170
65°	3426	4005	3655
70°	3180	3651	3161
75°	2884	3183	2611
80°	2298	2520	1928
85°	1624	1402	1108



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.6	3.4
10°-20°	473.2	9.8
20°-30°	713.4	14.7
30°-40°	855.2	17.6
40°-50°	887.5	18.3
50°-60°	800.5	16.5
60°-70°	583.9	12.0
70°-80°	306.4	6.3
80°-90°	65.3	1.3
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°	1352.3	27.9
0°-40°	2207.4	45.5
0°-60°	3895.4	80.3
0°-90°	4851.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4851.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1751	1751	1751	1751	1751	
5°	1748	1743	1736	1748	1748	166
15°	1669	1669	1669	1688	1688	470
25°	1516	1523	1542	1576	1583	700
35°	1308	1322	1363	1413	1428	817
45°	1064	1086	1148	1217	1241	820
55°	799	828	911	971	966	715
65°	538	569	629	605	574	532
75°	277	316	306	266	251	291
85°	53	65	45	38	36	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1750.6	1750.6	1750.6	1750.6	1750.6
2.5°	1755.4	1750.6	1741.0	1750.6	1750.6
5°	1748.2	1743.4	1736.2	1748.2	1748.2
7.5°	1736.2	1731.5	1726.7	1738.6	1736.2
10°	1717.1	1714.7	1712.3	1726.7	1726.7
12.5°	1695.6	1695.6	1693.2	1709.9	1707.5
15°	1669.3	1669.3	1669.3	1688.4	1688.4
17.5°	1635.8	1640.6	1645.4	1666.9	1666.9
20°	1599.9	1604.7	1614.3	1640.6	1643.0
22.5°	1564.1	1566.4	1576.0	1607.1	1614.3
25°	1516.2	1523.4	1542.5	1576.0	1583.2
27.5°	1478.0	1480.3	1501.9	1540.1	1549.7
30°	1418.2	1434.9	1456.4	1499.5	1509.0
32.5°	1363.2	1377.5	1411.0	1456.4	1470.8
35°	1308.2	1322.5	1363.2	1413.4	1427.7
37.5°	1246.0	1267.5	1315.3	1365.6	1382.3
40°	1188.6	1207.7	1257.9	1320.1	1339.2
42.5°	1126.4	1145.5	1200.5	1269.9	1291.4
45°	1064.2	1085.7	1147.9	1217.3	1241.2
47.5°	999.7	1023.6	1088.1	1164.7	1186.2
50°	932.7	959.0	1030.7	1109.7	1119.2
52.5°	865.7	894.4	971.0	1040.3	1049.9
55°	798.8	827.5	911.2	971.0	966.2
57.5°	734.2	765.3	851.4	882.5	877.7
60°	667.2	700.7	777.2	791.6	774.9
62.5°	605.1	636.1	707.9	695.9	674.4
65°	538.1	569.2	629.0	605.1	574.0
67.5°	471.1	509.4	547.7	507.0	483.1
70°	404.2	447.2	464.0	423.3	401.8
72.5°	339.6	385.0	380.3	339.6	325.2
75°	277.4	315.7	306.1	265.5	251.1
77.5°	210.5	253.5	232.0	198.5	186.5
80°	148.3	186.5	162.6	133.9	124.4
82.5°	98.1	124.4	100.4	78.9	71.7
85°	52.6	64.6	45.4	38.3	35.9
87.5°	21.5	19.1	16.7	16.7	14.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)