

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: P233149

Luminaire Tested: **FCB-24-4-LD4-40-30-UNV-EDD1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233149
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-LD4-40-30-UNV-EDD1
Description: FAILSAFE 2X4 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (168)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

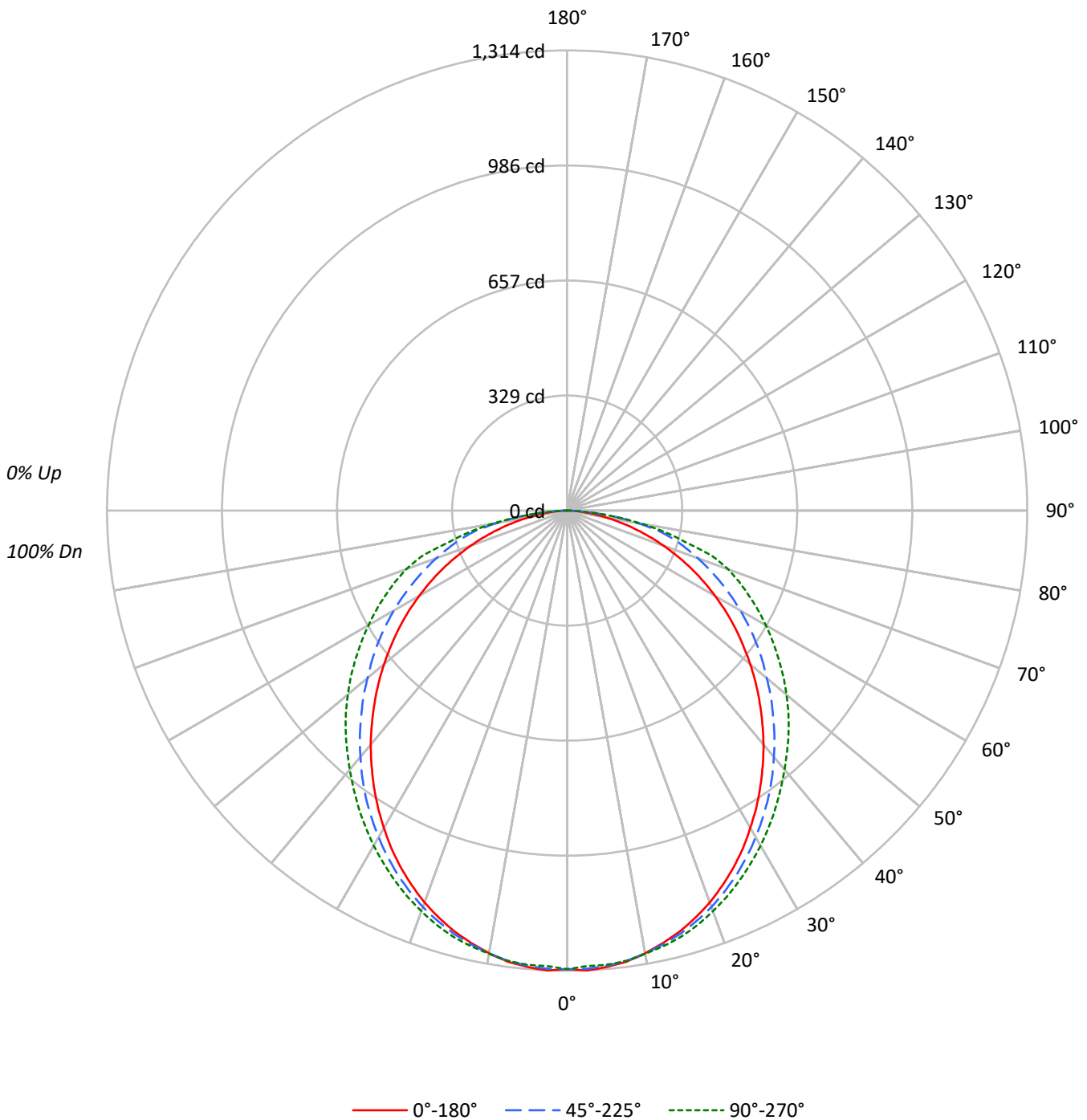
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3731.0 lumens
Efficiency: N/A
Efficacy: 128.7 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): 29
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°	1762	1762	1762
5°	1767	1762	1758
10°	1754	1754	1756
15°	1733	1742	1755
20°	1705	1725	1743
25°	1669	1701	1730
30°	1625	1673	1717
35°	1580	1645	1704
40°	1532	1613	1696
45°	1480	1582	1701
50°	1428	1556	1711
55°	1375	1546	1729
60°	1313	1537	1763
65°	1245	1537	1822
70°	1151	1563	1920
75°	1029	1634	1826
80°	861	1564	1673
85°	651	1203	1144



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.7	3.3
10°-20°	352.2	9.4
20°-30°	526.5	14.1
30°-40°	624.5	16.7
40°-50°	642.8	17.2
50°-60°	589.7	15.8
60°-70°	476.8	12.8
70°-80°	309.5	8.3
80°-90°	85.3	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°	1002.3	26.9
0°-40°	1626.9	43.6
0°-60°	2859.4	76.6
0°-90°	3731.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3731.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1309	1309	1309	1309	1309	
5°	1308	1299	1304	1303	1302	124
15°	1244	1239	1251	1256	1260	351
25°	1124	1125	1146	1156	1165	517
35°	962	970	1002	1023	1037	602
45°	778	791	832	871	894	600
55°	586	604	659	713	737	524
65°	391	414	483	547	572	386
75°	198	235	314	351	351	210
85°	42	72	78	75	74	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1309.4	1309.4	1309.4	1309.4	1309.4
2.5°	1314.5	1304.3	1309.4	1308.1	1301.7
5°	1308.1	1299.2	1304.3	1303.0	1301.7
7.5°	1299.2	1290.2	1296.6	1295.3	1296.6
10°	1283.8	1276.2	1283.8	1285.1	1285.1
12.5°	1264.7	1258.3	1268.5	1271.1	1273.6
15°	1244.2	1239.1	1250.6	1255.7	1259.6
17.5°	1218.7	1214.9	1228.9	1235.3	1240.4
20°	1190.6	1189.3	1204.6	1211.0	1217.4
22.5°	1158.6	1158.6	1176.5	1184.2	1193.1
25°	1124.2	1125.4	1145.9	1156.1	1165.0
27.5°	1087.1	1088.4	1112.7	1125.4	1135.7
30°	1046.2	1051.3	1076.9	1093.5	1105.0
32.5°	1005.4	1011.7	1039.8	1059.0	1071.8
35°	961.9	969.6	1001.5	1023.2	1037.3
37.5°	917.2	926.2	960.6	984.9	1001.5
40°	872.5	882.7	918.5	946.6	965.8
42.5°	825.2	836.7	876.3	909.5	930.0
45°	778.0	790.7	831.6	871.2	894.2
47.5°	730.7	746.0	789.5	832.9	857.2
50°	682.2	697.5	743.5	793.3	817.6
52.5°	633.6	651.5	702.6	753.7	778.0
55°	586.3	604.2	659.2	712.8	737.1
57.5°	537.8	555.7	615.7	671.9	696.2
60°	488.0	508.4	571.0	628.5	655.3
62.5°	439.4	461.2	527.6	588.9	614.5
65°	390.9	413.9	482.9	546.7	572.3
67.5°	341.1	367.9	439.4	504.6	531.4
70°	292.5	321.9	397.3	462.4	488.0
72.5°	245.3	277.2	355.1	421.6	436.9
75°	198.0	235.1	314.3	351.3	351.3
77.5°	153.3	194.2	268.3	282.3	290.0
80°	111.1	155.8	201.8	218.4	215.9
82.5°	74.1	118.8	144.4	144.4	140.5
85°	42.2	71.5	77.9	75.4	74.1
87.5°	17.9	26.8	24.3	19.2	16.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)