

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: P233148

Luminaire Tested: **FCB-24-4-LD4-30-50-UNV-EDD1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233148
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-LD4-30-50-UNV-EDD1
Description: FAILSAFE 2X4 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (168)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

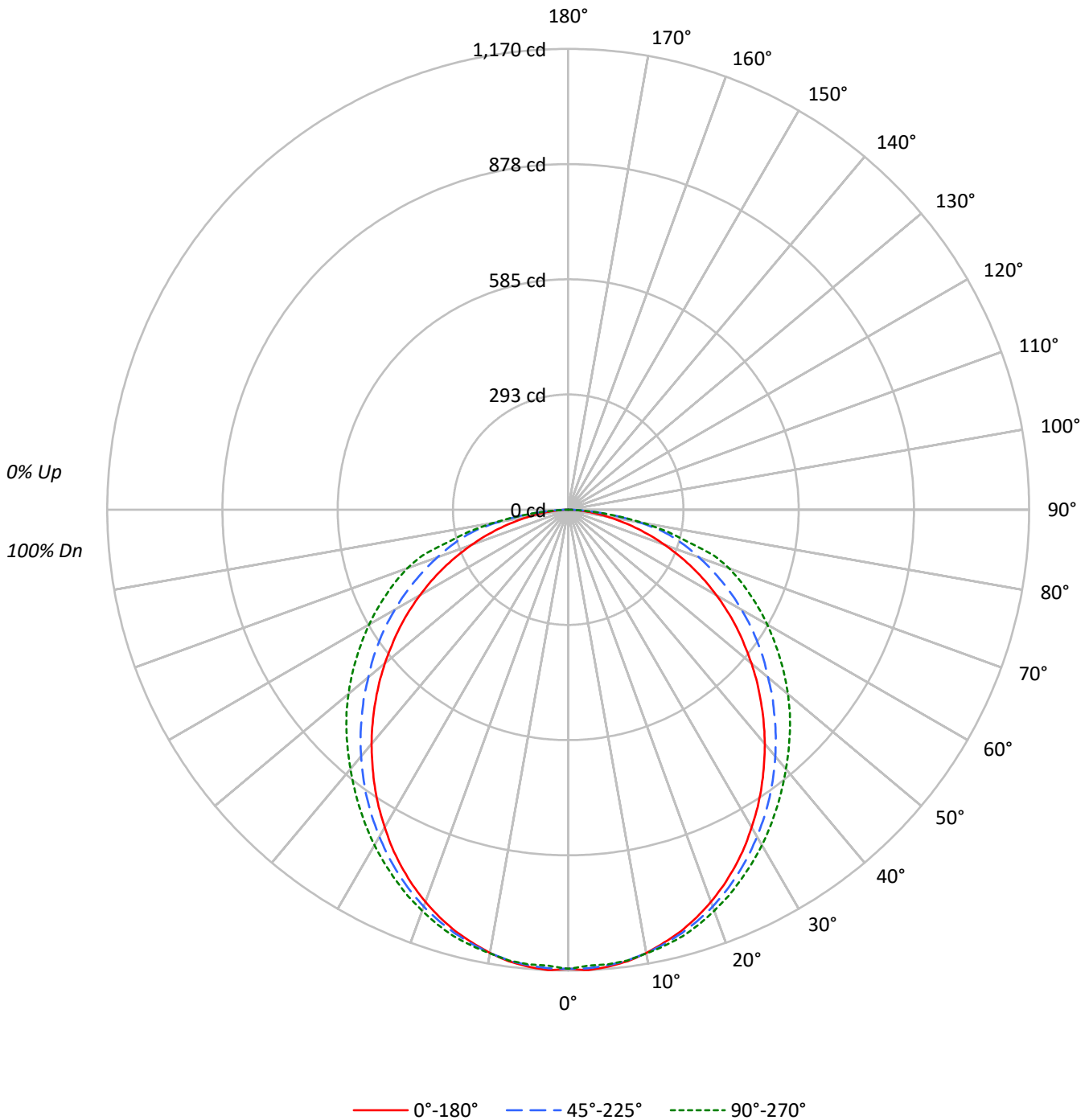
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3321.0 lumens
Efficiency: N/A
Efficacy: 153.8 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): 21.6
Input Voltage (V): 120
Input Current (A_{in}): 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°	1568	1568	1568
5°	1573	1568	1565
10°	1561	1561	1563
15°	1543	1551	1562
20°	1517	1535	1552
25°	1485	1514	1540
30°	1447	1489	1528
35°	1406	1464	1517
40°	1364	1436	1510
45°	1318	1408	1515
50°	1271	1385	1523
55°	1224	1376	1539
60°	1169	1368	1570
65°	1108	1368	1622
70°	1024	1391	1709
75°	916	1454	1626
80°	766	1392	1489
85°	579	1071	1019



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.1	3.3
10°-20°	313.5	9.4
20°-30°	468.6	14.1
30°-40°	555.9	16.7
40°-50°	572.2	17.2
50°-60°	524.9	15.8
60°-70°	424.4	12.8
70°-80°	275.4	8.3
80°-90°	76.0	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°	892.2	26.9
0°-40°	1448.1	43.6
0°-60°	2545.2	76.6
0°-90°	3321.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3321.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1166	1166	1166	1166	1166	
5°	1164	1156	1161	1160	1159	110
15°	1108	1103	1113	1118	1121	312
25°	1001	1002	1020	1029	1037	461
35°	856	863	892	911	923	535
45°	692	704	740	776	796	534
55°	522	538	587	634	656	466
65°	348	368	430	487	509	344
75°	176	209	280	313	313	187
85°	38	64	69	67	66	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1165.5	1165.5	1165.5	1165.5	1165.5
2.5°	1170.0	1161.0	1165.5	1164.4	1158.7
5°	1164.4	1156.4	1161.0	1159.8	1158.7
7.5°	1156.4	1148.4	1154.1	1153.0	1154.1
10°	1142.8	1135.9	1142.8	1143.9	1143.9
12.5°	1125.7	1120.0	1129.1	1131.4	1133.7
15°	1107.5	1103.0	1113.2	1117.7	1121.2
17.5°	1084.8	1081.4	1093.9	1099.5	1104.1
20°	1059.8	1058.6	1072.3	1077.9	1083.6
22.5°	1031.3	1031.3	1047.2	1054.1	1062.0
25°	1000.6	1001.8	1020.0	1029.0	1037.0
27.5°	967.6	968.8	990.4	1001.8	1010.9
30°	931.3	935.8	958.6	973.3	983.6
32.5°	894.9	900.6	925.6	942.6	954.0
35°	856.2	863.0	891.5	910.8	923.3
37.5°	816.4	824.4	855.1	876.7	891.5
40°	776.6	785.7	817.6	842.6	859.6
42.5°	734.5	744.8	780.0	809.6	827.8
45°	692.5	703.8	740.2	775.5	796.0
47.5°	650.4	664.0	702.7	741.4	763.0
50°	607.2	620.8	661.8	706.1	727.7
52.5°	564.0	579.9	625.4	670.9	692.5
55°	521.9	537.8	586.7	634.5	656.1
57.5°	478.7	494.6	548.1	598.1	619.7
60°	434.4	452.6	508.3	559.4	583.3
62.5°	391.2	410.5	469.6	524.2	546.9
65°	347.9	368.4	429.8	486.7	509.4
67.5°	303.6	327.5	391.2	449.1	473.0
70°	260.4	286.5	353.6	411.6	434.4
72.5°	218.3	246.7	316.1	375.2	388.9
75°	176.2	209.2	279.7	312.7	312.7
77.5°	136.4	172.8	238.8	251.3	258.1
80°	98.9	138.7	179.7	194.4	192.2
82.5°	66.0	105.7	128.5	128.5	125.1
85°	37.5	63.7	69.4	67.1	66.0
87.5°	15.9	23.9	21.6	17.1	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)