

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: P233108

Luminaire Tested: **FCB-24-2-LD4-44-50-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233108
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-24-2-LD4-44-50-UNV-EDD1-WDA6
Description: FAILSAFE 2X2 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (84)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

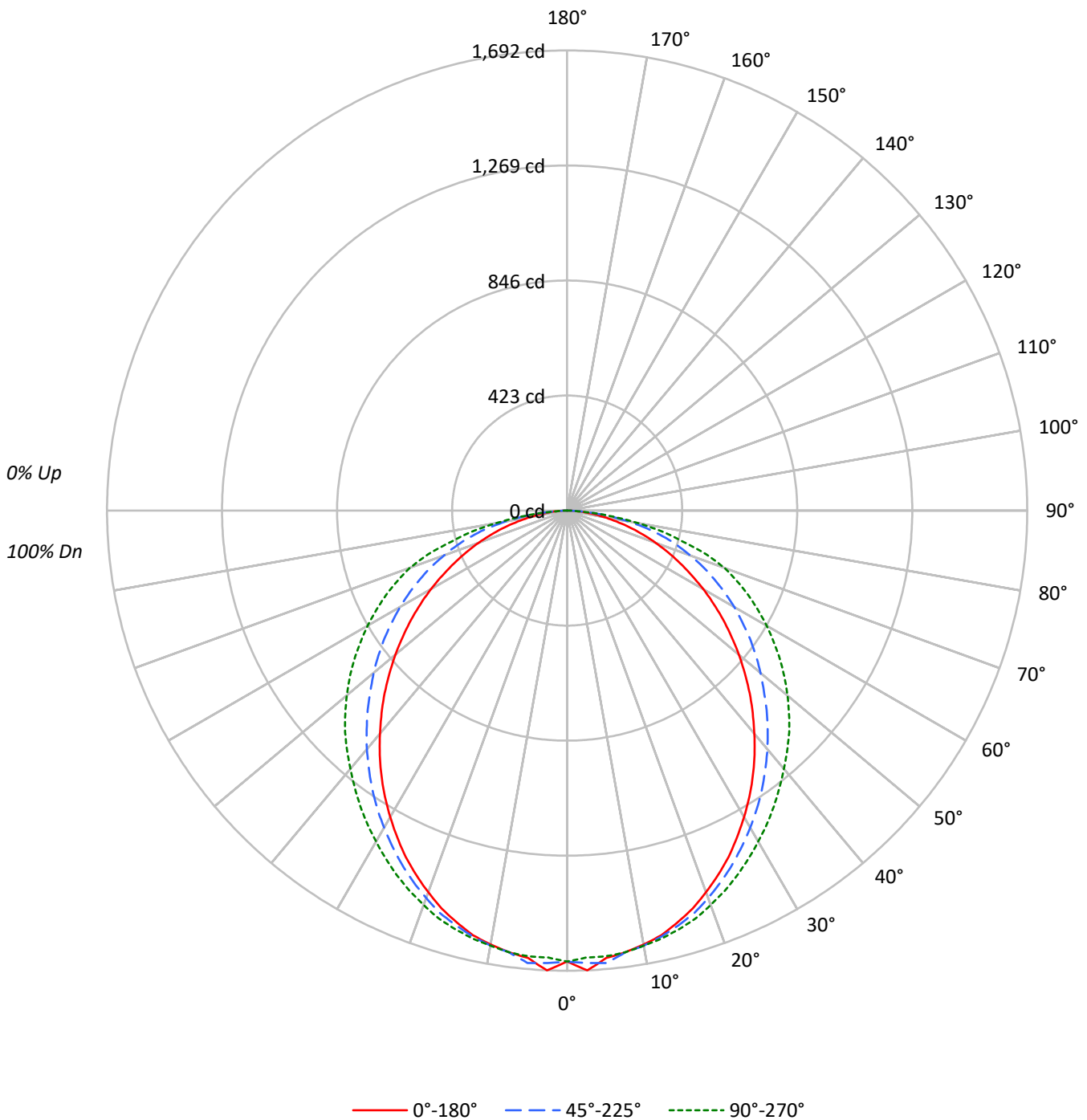
Lumens per Lamp: N/A
Luminaire Lumens: 4646.0 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4462	4462	4462
5°	4461	4510	4443
10°	4426	4439	4439
15°	4368	4400	4437
20°	4277	4341	4419
25°	4173	4266	4394
30°	4043	4184	4367
35°	3911	4104	4357
40°	3762	4024	4357
45°	3611	3946	4394
50°	3452	3888	4426
55°	3286	3848	4484
60°	3113	3818	4560
65°	2920	3798	4676
70°	2720	3786	4835
75°	2466	3781	4581
80°	2135	3501	4062
85°	1812	2652	2581



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.3	3.4
10°-20°	445.5	9.6
20°-30°	662.8	14.3
30°-40°	783.8	16.9
40°-50°	805.7	17.3
50°-60°	736.2	15.8
60°-70°	588.9	12.7
70°-80°	369.6	8.0
80°-90°	96.3	2.1
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°	1265.6	27.2
0°-40°	2049.4	44.1
0°-60°	3591.2	77.3
0°-90°	4646.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4646.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1658	1658	1658	1658	1658	
5°	1652	1652	1670	1658	1645	157
15°	1568	1570	1579	1588	1593	442
25°	1405	1414	1437	1462	1480	646
35°	1191	1206	1249	1297	1326	744
45°	949	974	1037	1114	1154	732
55°	700	734	820	910	956	627
65°	459	499	596	687	734	455
75°	237	282	364	418	441	252
85°	59	75	86	84	84	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1658.3	1658.3	1658.3	1658.3	1658.3
2.5°	1692.2	1685.4	1665.1	1651.5	1644.8
5°	1651.5	1651.5	1669.6	1658.3	1644.8
7.5°	1638.0	1638.0	1638.0	1671.9	1638.0
10°	1619.9	1622.2	1624.4	1638.0	1624.4
12.5°	1599.6	1599.6	1604.1	1608.6	1610.9
15°	1567.9	1570.2	1579.2	1588.3	1592.8
17.5°	1534.1	1540.8	1552.1	1563.4	1572.5
20°	1493.4	1502.4	1516.0	1534.1	1543.1
22.5°	1450.5	1459.5	1477.6	1497.9	1513.7
25°	1405.3	1414.3	1436.9	1461.8	1479.8
27.5°	1353.3	1364.6	1391.7	1425.6	1443.7
30°	1301.3	1314.9	1346.5	1384.9	1405.3
32.5°	1247.1	1262.9	1299.1	1342.0	1366.9
35°	1190.6	1206.5	1249.4	1296.8	1326.2
37.5°	1131.9	1150.0	1197.4	1251.6	1283.3
40°	1070.9	1091.2	1145.5	1204.2	1240.3
42.5°	1009.9	1032.5	1091.2	1161.3	1197.4
45°	948.9	973.8	1037.0	1113.8	1154.5
47.5°	885.6	915.0	980.5	1066.4	1107.0
50°	824.6	854.0	928.6	1016.7	1057.3
52.5°	761.4	795.3	874.3	964.7	1007.6
55°	700.4	734.3	820.1	910.5	955.7
57.5°	639.4	673.3	763.6	856.3	901.5
60°	578.4	614.5	709.4	799.8	847.2
62.5°	517.4	555.8	652.9	745.6	790.7
65°	458.6	499.3	596.5	686.8	734.3
67.5°	402.2	445.1	540.0	628.1	675.5
70°	345.7	388.6	481.2	567.1	614.5
72.5°	291.4	334.4	424.7	501.6	537.7
75°	237.2	282.4	363.7	418.0	440.6
77.5°	185.3	230.4	300.5	336.6	361.5
80°	137.8	176.2	225.9	253.0	262.1
82.5°	94.9	126.5	158.1	164.9	169.4
85°	58.7	74.6	85.9	83.6	83.6
87.5°	27.1	29.4	24.9	18.1	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)