

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: P233047

Luminaire Tested: **FCB-12-4-LD4-44-40-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233047
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-LD4-44-40-UNV-EDD1-WDA6
Description: FAILSAFE 1X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

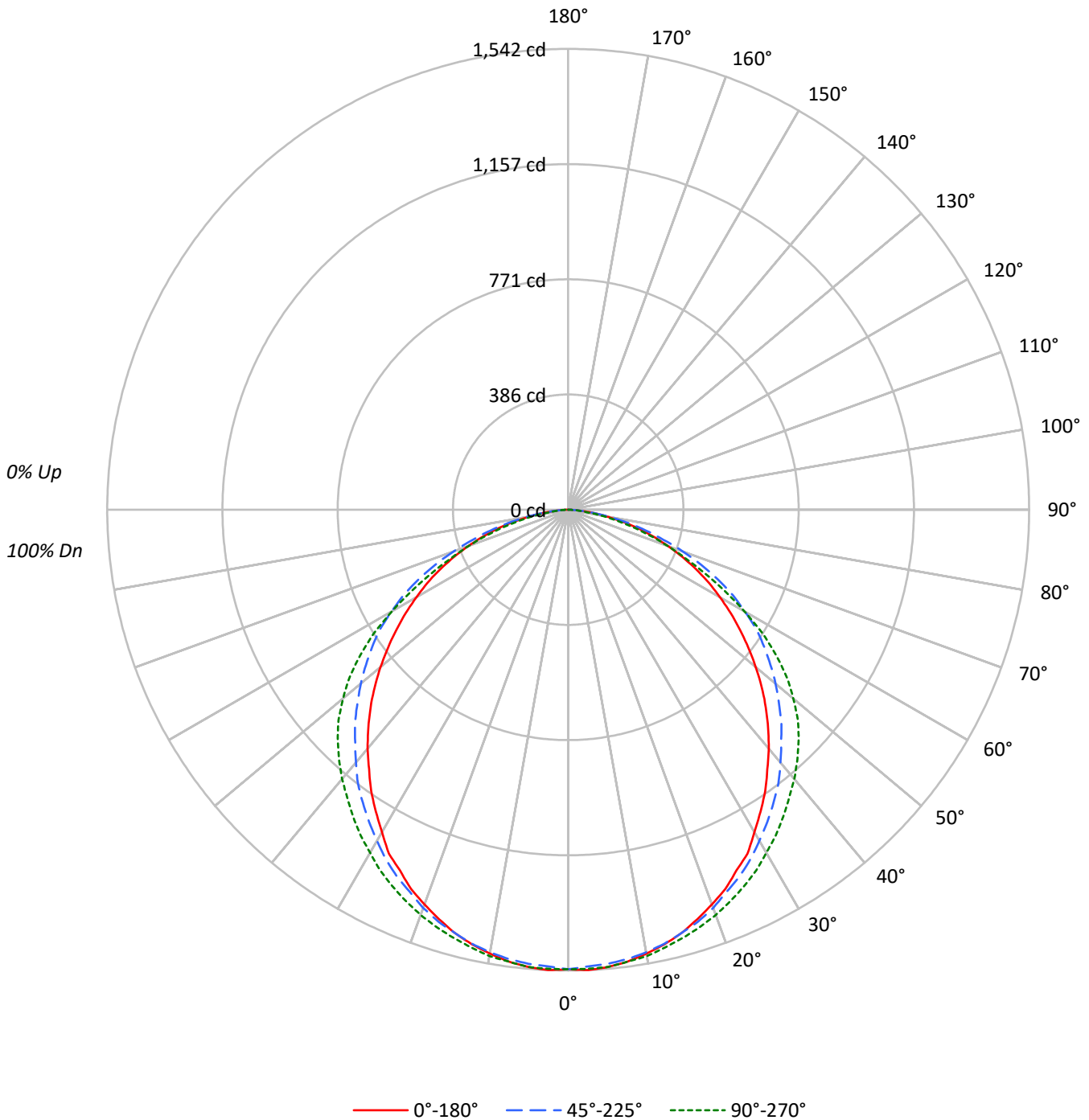
Lumens per Lamp: N/A
Luminaire Lumens: 4261.0 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4138	4138	4138
5°	4148	4120	4148
10°	4121	4110	4144
15°	4085	4085	4132
20°	4024	4060	4133
25°	3954	4023	4129
30°	3871	3975	4119
35°	3775	3934	4120
40°	3667	3881	4132
45°	3557	3837	4149
50°	3430	3790	4116
55°	3292	3755	3982
60°	3154	3674	3663
65°	3009	3518	3210
70°	2793	3206	2777
75°	2534	2796	2294
80°	2018	2213	1692
85°	1426	1232	973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.5	3.4
10°-20°	415.6	9.8
20°-30°	626.7	14.7
30°-40°	751.2	17.6
40°-50°	779.5	18.3
50°-60°	703.1	16.5
60°-70°	512.9	12.0
70°-80°	269.1	6.3
80°-90°	57.4	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°	1187.8	27.9
0°-40°	1939.0	45.5
0°-60°	3421.6	80.3
0°-90°	4261.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4261.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1538	1538	1538	1538	1538	
5°	1536	1531	1525	1536	1536	146
15°	1466	1466	1466	1483	1483	413
25°	1332	1338	1355	1384	1391	615
35°	1149	1162	1197	1242	1254	718
45°	935	954	1008	1069	1090	721
55°	702	727	800	853	849	628
65°	473	500	552	532	504	467
75°	244	277	269	233	221	256
85°	46	57	40	34	32	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1537.7	1537.7	1537.7	1537.7	1537.7
2.5°	1541.9	1537.7	1529.3	1537.7	1537.7
5°	1535.6	1531.4	1525.1	1535.6	1535.6
7.5°	1525.1	1520.9	1516.7	1527.2	1525.1
10°	1508.3	1506.2	1504.1	1516.7	1516.7
12.5°	1489.4	1489.4	1487.3	1502.0	1499.9
15°	1466.3	1466.3	1466.3	1483.1	1483.1
17.5°	1436.8	1441.0	1445.2	1464.2	1464.2
20°	1405.3	1409.5	1417.9	1441.0	1443.1
22.5°	1373.8	1375.9	1384.3	1411.6	1417.9
25°	1331.8	1338.1	1354.9	1384.3	1390.6
27.5°	1298.2	1300.3	1319.2	1352.8	1361.2
30°	1245.7	1260.4	1279.3	1317.1	1325.5
32.5°	1197.4	1210.0	1239.4	1279.3	1291.9
35°	1149.1	1161.7	1197.4	1241.5	1254.1
37.5°	1094.4	1113.3	1155.4	1199.5	1214.2
40°	1044.0	1060.8	1104.9	1159.6	1176.4
42.5°	989.4	1006.2	1054.5	1115.4	1134.3
45°	934.8	953.7	1008.3	1069.2	1090.2
47.5°	878.1	899.1	955.8	1023.0	1041.9
50°	819.3	842.4	905.4	974.7	983.1
52.5°	760.4	785.6	852.9	913.8	922.2
55°	701.6	726.8	800.3	852.9	848.7
57.5°	644.9	672.2	747.8	775.1	770.9
60°	586.1	615.5	682.7	695.3	680.6
62.5°	531.5	558.8	621.8	611.3	592.4
65°	472.6	500.0	552.5	531.5	504.2
67.5°	413.8	447.4	481.0	445.3	424.3
70°	355.0	392.8	407.5	371.8	352.9
72.5°	298.3	338.2	334.0	298.3	285.7
75°	243.7	277.3	268.9	233.2	220.6
77.5°	184.9	222.7	203.8	174.4	163.9
80°	130.2	163.9	142.8	117.6	109.2
82.5°	86.1	109.2	88.2	69.3	63.0
85°	46.2	56.7	39.9	33.6	31.5
87.5°	18.9	16.8	14.7	14.7	12.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)