

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: P233168

Luminaire Tested: **FCB-24-4-LD4-30-50-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233168
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-WDA6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (168)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

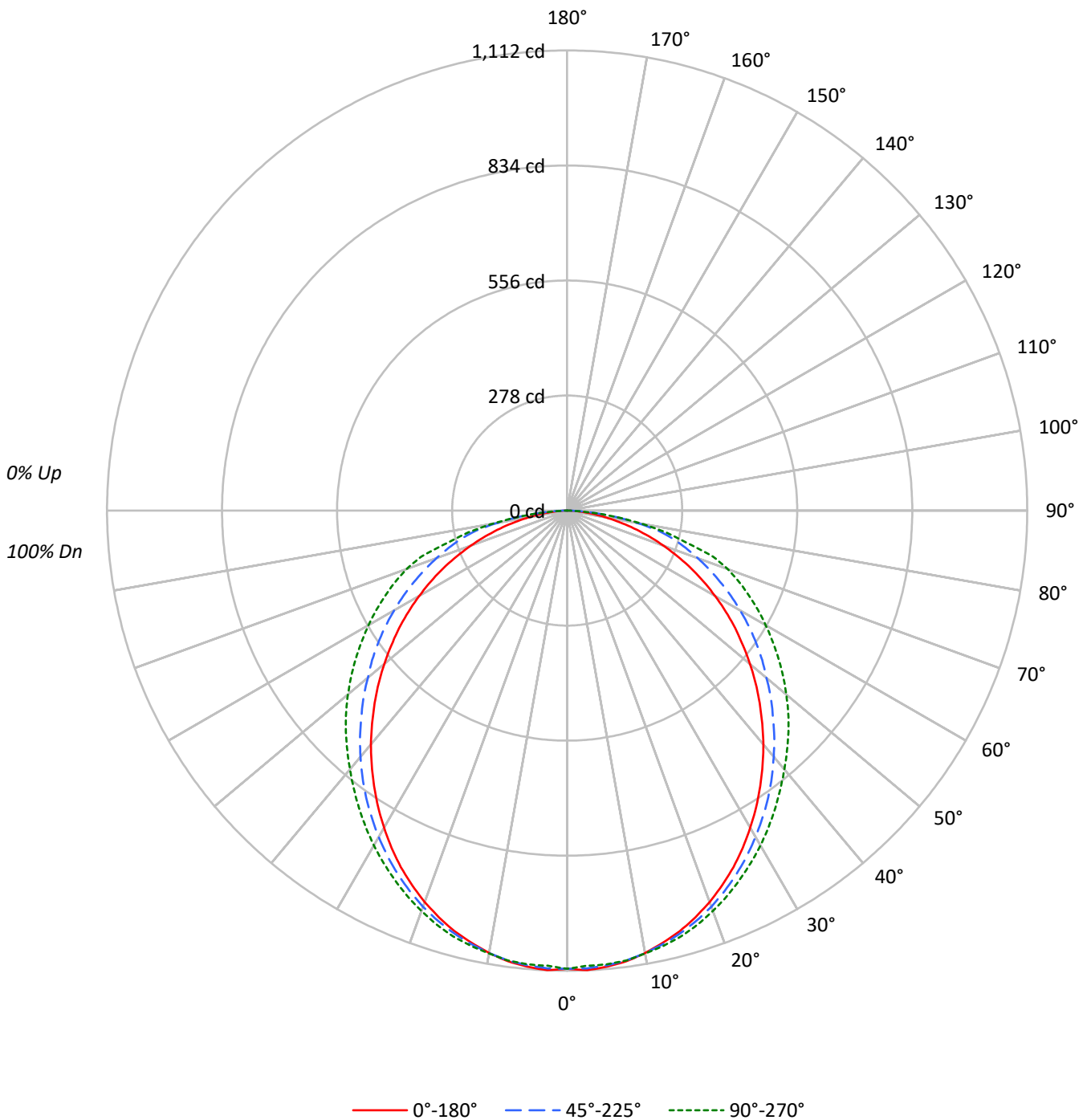
Lumens per Lamp: N/A
Luminaire Lumens: 3155.0 lumens
Efficiency: N/A
Efficacy: 146.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
Input Voltage (V): 120
Input Current (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°	1490	1490	1490
5°	1494	1490	1487
10°	1483	1483	1485
15°	1466	1473	1484
20°	1442	1459	1474
25°	1411	1439	1463
30°	1375	1415	1452
35°	1336	1391	1441
40°	1296	1364	1434
45°	1252	1338	1439
50°	1207	1316	1447
55°	1163	1308	1462
60°	1110	1299	1491
65°	1053	1300	1541
70°	973	1322	1623
75°	870	1381	1544
80°	728	1323	1415
85°	550	1017	968



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.6	3.3
10°-20°	297.8	9.4
20°-30°	445.2	14.1
30°-40°	528.1	16.7
40°-50°	543.6	17.2
50°-60°	498.7	15.8
60°-70°	403.2	12.8
70°-80°	261.7	8.3
80°-90°	72.2	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°	847.6	26.9
0°-40°	1375.7	43.6
0°-60°	2418.0	76.6
0°-90°	3155.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3155.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1107	1107	1107	1107	1107	
5°	1106	1099	1103	1102	1101	105
15°	1052	1048	1058	1062	1065	296
25°	951	952	969	978	985	438
35°	813	820	847	865	877	509
45°	658	669	703	737	756	508
55°	496	511	557	603	623	443
65°	331	350	408	462	484	327
75°	167	199	266	297	297	178
85°	36	60	66	64	63	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1107.2	1107.2	1107.2	1107.2	1107.2
2.5°	1111.6	1102.9	1107.2	1106.2	1100.8
5°	1106.2	1098.6	1102.9	1101.8	1100.8
7.5°	1098.6	1091.0	1096.4	1095.4	1096.4
10°	1085.6	1079.2	1085.6	1086.7	1086.7
12.5°	1069.4	1064.0	1072.7	1074.8	1077.0
15°	1052.1	1047.8	1057.6	1061.9	1065.1
17.5°	1030.5	1027.3	1039.2	1044.6	1048.9
20°	1006.8	1005.7	1018.7	1024.1	1029.5
22.5°	979.8	979.8	994.9	1001.4	1008.9
25°	950.6	951.7	969.0	977.6	985.2
27.5°	919.3	920.4	940.9	951.7	960.3
30°	884.7	889.0	910.6	924.7	934.4
32.5°	850.1	855.5	879.3	895.5	906.3
35°	813.4	819.9	846.9	865.3	877.2
37.5°	775.6	783.2	812.3	832.9	846.9
40°	737.8	746.4	776.7	800.5	816.7
42.5°	697.8	707.6	741.0	769.1	786.4
45°	657.9	668.7	703.2	736.7	756.2
47.5°	617.9	630.9	667.6	704.3	724.8
50°	576.8	589.8	628.7	670.8	691.4
52.5°	535.8	550.9	594.1	637.3	657.9
55°	495.8	511.0	557.4	602.8	623.3
57.5°	454.8	469.9	520.7	568.2	588.7
60°	412.6	429.9	482.9	531.5	554.2
62.5°	371.6	390.0	446.1	498.0	519.6
65°	330.6	350.0	408.3	462.3	483.9
67.5°	288.4	311.1	371.6	426.7	449.4
70°	247.4	272.2	336.0	391.0	412.6
72.5°	207.4	234.4	300.3	356.5	369.4
75°	167.4	198.8	265.7	297.1	297.1
77.5°	129.6	164.2	226.8	238.7	245.2
80°	94.0	131.8	170.7	184.7	182.6
82.5°	62.7	100.5	122.1	122.1	118.8
85°	35.6	60.5	65.9	63.7	62.7
87.5°	15.1	22.7	20.5	16.2	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)