

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: P233192

Luminaire Tested: **FCB-24-4-LD4-40-50-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233192
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-LD4-40-50-UNV-EDD1-WDP6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (168)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

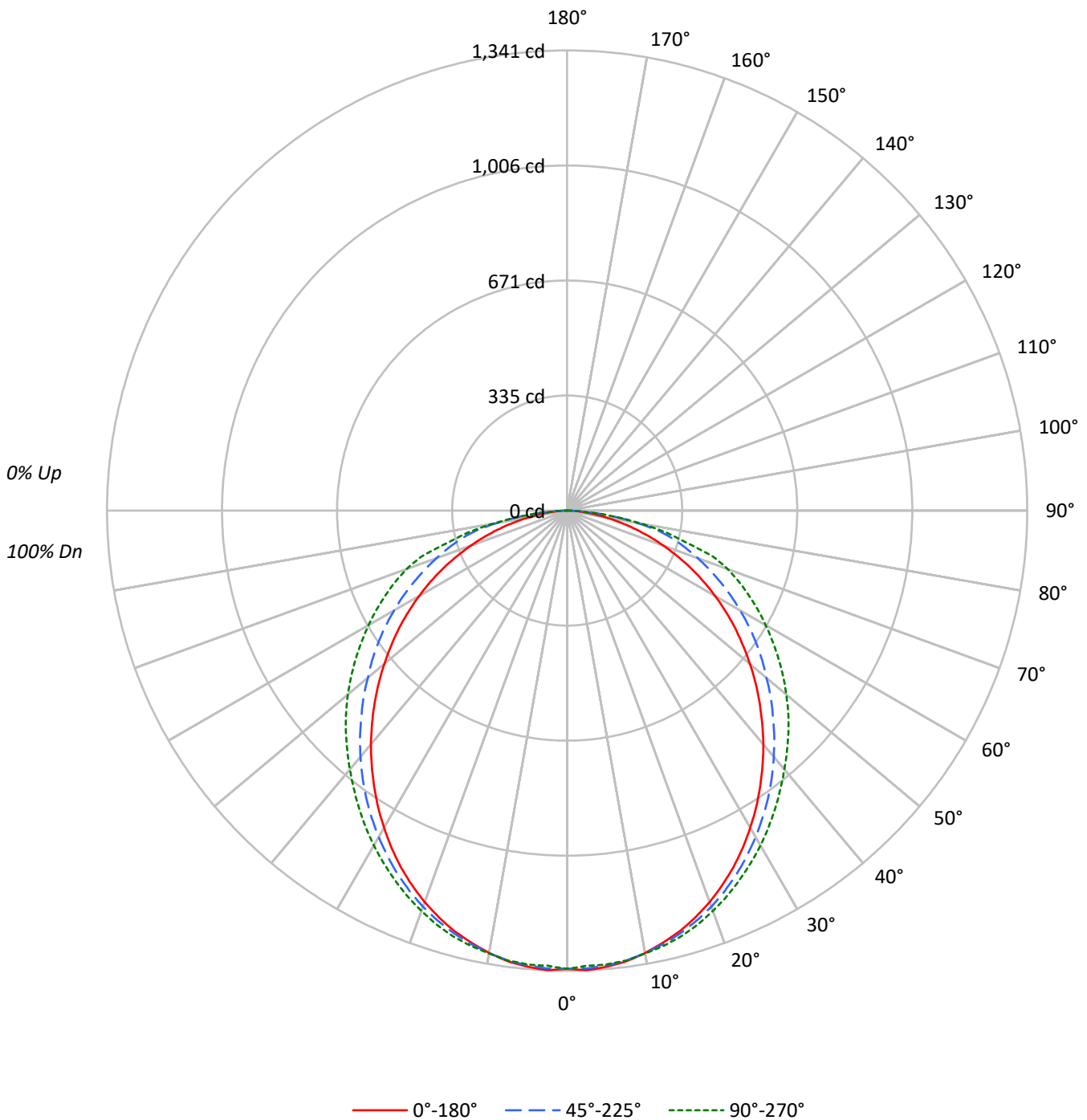
Lumens per Lamp: N/A
Luminaire Lumens: 3805.0 lumens
Efficiency: N/A
Efficacy: 131.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1797	1797	1797
5°	1802	1796	1793
10°	1789	1789	1791
15°	1768	1777	1789
20°	1739	1759	1778
25°	1702	1735	1764
30°	1658	1706	1751
35°	1611	1678	1738
40°	1563	1645	1730
45°	1510	1614	1735
50°	1456	1587	1745
55°	1403	1577	1763
60°	1339	1567	1798
65°	1269	1568	1858
70°	1173	1594	1958
75°	1050	1666	1863
80°	878	1595	1706
85°	664	1227	1167



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.2	3.3
10°-20°	359.1	9.4
20°-30°	536.9	14.1
30°-40°	636.9	16.7
40°-50°	655.6	17.2
50°-60°	601.4	15.8
60°-70°	486.3	12.8
70°-80°	315.6	8.3
80°-90°	87.0	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°	1022.2	26.9
0°-40°	1659.2	43.6
0°-60°	2916.1	76.6
0°-90°	3805.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3805.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1335	1335	1335	1335	1335	
5°	1334	1325	1330	1329	1328	127
15°	1269	1264	1275	1281	1284	357
25°	1146	1148	1169	1179	1188	528
35°	981	989	1021	1044	1058	613
45°	793	806	848	888	912	612
55°	598	616	672	727	752	534
65°	399	422	492	558	584	394
75°	202	240	320	358	358	215
85°	43	73	80	77	76	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1335.4	1335.4	1335.4	1335.4	1335.4
2.5°	1340.6	1330.1	1335.4	1334.1	1327.5
5°	1334.1	1324.9	1330.1	1328.8	1327.5
7.5°	1324.9	1315.8	1322.3	1321.0	1322.3
10°	1309.3	1301.5	1309.3	1310.6	1310.6
12.5°	1289.8	1283.2	1293.7	1296.3	1298.9
15°	1268.9	1263.7	1275.4	1280.6	1284.5
17.5°	1242.9	1239.0	1253.3	1259.8	1265.0
20°	1214.2	1212.9	1228.5	1235.0	1241.6
22.5°	1181.6	1181.6	1199.9	1207.7	1216.8
25°	1146.5	1147.8	1168.6	1179.0	1188.1
27.5°	1108.7	1110.0	1134.7	1147.8	1158.2
30°	1067.0	1072.2	1098.2	1115.2	1126.9
32.5°	1025.3	1031.8	1060.5	1080.0	1093.0
35°	981.0	988.8	1021.4	1043.5	1057.9
37.5°	935.4	944.5	979.7	1004.4	1021.4
40°	889.8	900.2	936.7	965.4	984.9
42.5°	841.6	853.3	893.7	927.6	948.4
45°	793.4	806.4	848.1	888.5	912.0
47.5°	745.2	760.8	805.1	849.4	874.2
50°	695.7	711.3	758.2	809.0	833.8
52.5°	646.2	664.4	716.5	768.6	793.4
55°	598.0	616.2	672.2	727.0	751.7
57.5°	548.5	566.7	627.9	685.3	710.0
60°	497.7	518.5	582.3	641.0	668.3
62.5°	448.2	470.3	538.1	600.6	626.6
65°	398.7	422.1	492.5	557.6	583.6
67.5°	347.8	375.2	448.2	514.6	542.0
70°	298.3	328.3	405.2	471.6	497.7
72.5°	250.1	282.7	362.2	429.9	445.6
75°	201.9	239.7	320.5	358.3	358.3
77.5°	156.3	198.0	273.6	287.9	295.7
80°	113.3	158.9	205.8	222.8	220.2
82.5°	75.6	121.2	147.2	147.2	143.3
85°	43.0	73.0	79.5	76.9	75.6
87.5°	18.2	27.4	24.8	19.5	16.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)