

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: P233189

Luminaire Tested: **FCB-24-4-LD4-40-30-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233189
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-LD4-40-30-UNV-EDD1-WDP6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (168)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

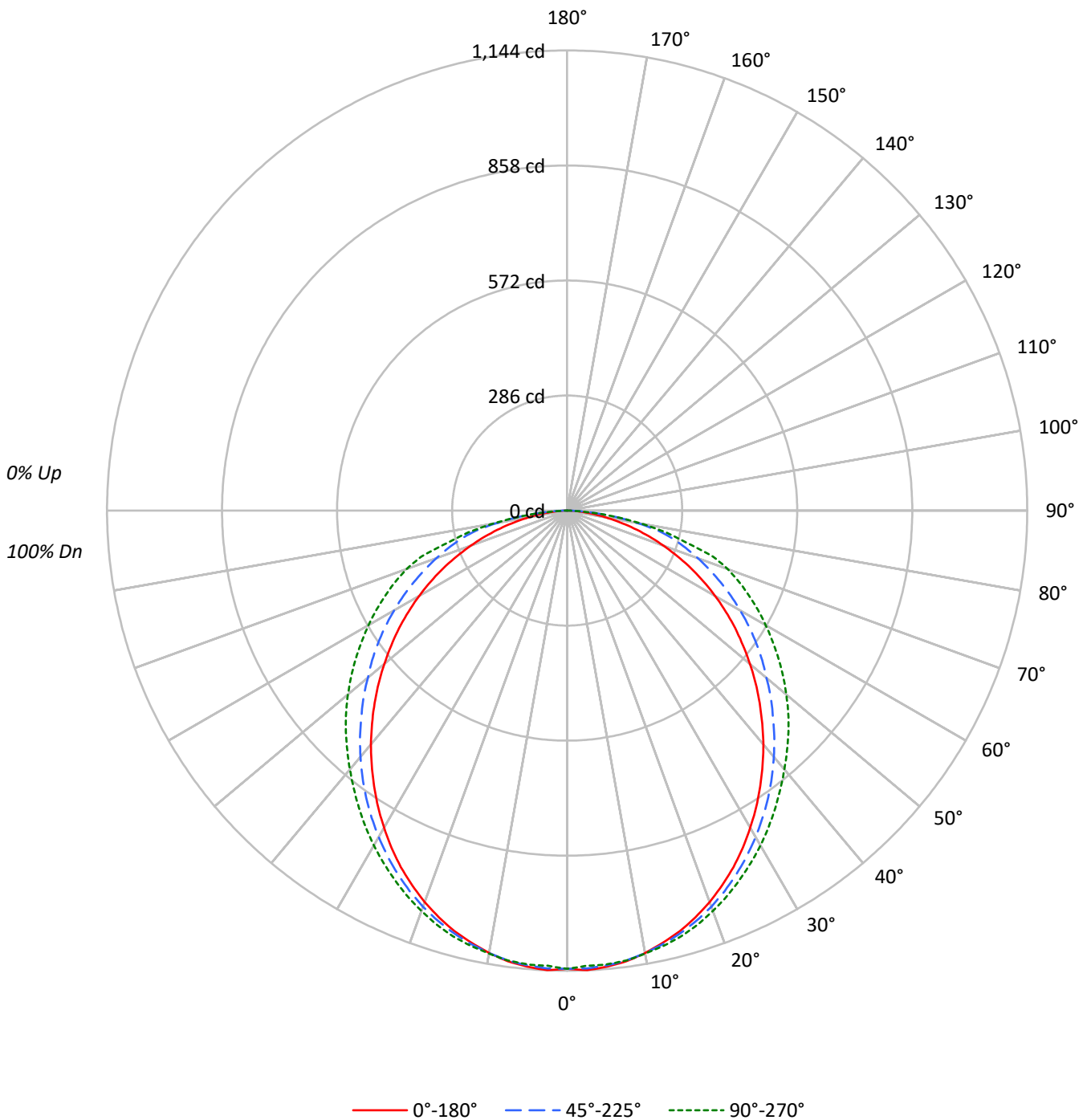
Lumens per Lamp: N/A
Luminaire Lumens: 3246.0 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1533	1533	1533
5°	1537	1533	1530
10°	1526	1526	1528
15°	1508	1516	1526
20°	1483	1501	1517
25°	1452	1480	1505
30°	1414	1456	1494
35°	1375	1431	1482
40°	1333	1404	1476
45°	1288	1377	1480
50°	1242	1354	1489
55°	1197	1345	1504
60°	1143	1337	1534
65°	1083	1337	1585
70°	1001	1360	1670
75°	896	1421	1589
80°	749	1361	1455
85°	567	1047	996



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.6	3.3
10°-20°	306.4	9.4
20°-30°	458.0	14.1
30°-40°	543.4	16.7
40°-50°	559.3	17.2
50°-60°	513.1	15.8
60°-70°	414.8	12.8
70°-80°	269.2	8.3
80°-90°	74.2	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°	872.1	26.9
0°-40°	1415.4	43.6
0°-60°	2487.7	76.6
0°-90°	3246.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3246.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1139	1139	1139	1139	1139	
5°	1138	1130	1135	1134	1132	108
15°	1082	1078	1088	1092	1096	305
25°	978	979	997	1006	1014	450
35°	837	844	871	890	902	523
45°	677	688	724	758	778	522
55°	510	526	574	620	641	456
65°	340	360	420	476	498	336
75°	172	204	273	306	306	183
85°	37	62	68	66	64	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1139.2	1139.2	1139.2	1139.2	1139.2
2.5°	1143.6	1134.7	1139.2	1138.1	1132.5
5°	1138.1	1130.3	1134.7	1133.6	1132.5
7.5°	1130.3	1122.5	1128.1	1127.0	1128.1
10°	1116.9	1110.3	1116.9	1118.1	1118.1
12.5°	1100.3	1094.7	1103.6	1105.8	1108.1
15°	1082.5	1078.1	1088.1	1092.5	1095.8
17.5°	1060.3	1056.9	1069.2	1074.7	1079.2
20°	1035.8	1034.7	1048.0	1053.6	1059.2
22.5°	1008.0	1008.0	1023.6	1030.3	1038.0
25°	978.0	979.1	996.9	1005.8	1013.6
27.5°	945.8	946.9	968.0	979.1	988.0
30°	910.2	914.7	936.9	951.4	961.4
32.5°	874.7	880.2	904.7	921.3	932.5
35°	836.9	843.5	871.3	890.2	902.5
37.5°	798.0	805.8	835.8	856.9	871.3
40°	759.1	768.0	799.1	823.5	840.2
42.5°	718.0	728.0	762.4	791.3	809.1
45°	676.8	688.0	723.5	758.0	778.0
47.5°	635.7	649.1	686.8	724.6	745.7
50°	593.5	606.8	646.8	690.2	711.3
52.5°	551.3	566.8	611.3	655.7	676.8
55°	510.1	525.7	573.5	620.2	641.3
57.5°	467.9	483.5	535.7	584.6	605.7
60°	424.6	442.3	496.8	546.8	570.1
62.5°	382.3	401.2	459.0	512.4	534.6
65°	340.1	360.1	420.1	475.7	497.9
67.5°	296.7	320.1	382.3	439.0	462.3
70°	254.5	280.1	345.6	402.3	424.6
72.5°	213.4	241.2	309.0	366.8	380.1
75°	172.3	204.5	273.4	305.6	305.6
77.5°	133.4	168.9	233.4	245.6	252.3
80°	96.7	135.6	175.6	190.0	187.8
82.5°	64.5	103.4	125.6	125.6	122.3
85°	36.7	62.2	67.8	65.6	64.5
87.5°	15.6	23.3	21.1	16.7	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)