

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: P233232

Luminaire Tested: **FCB-24-4-LD4-40-50-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233232
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-WDP12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (168)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

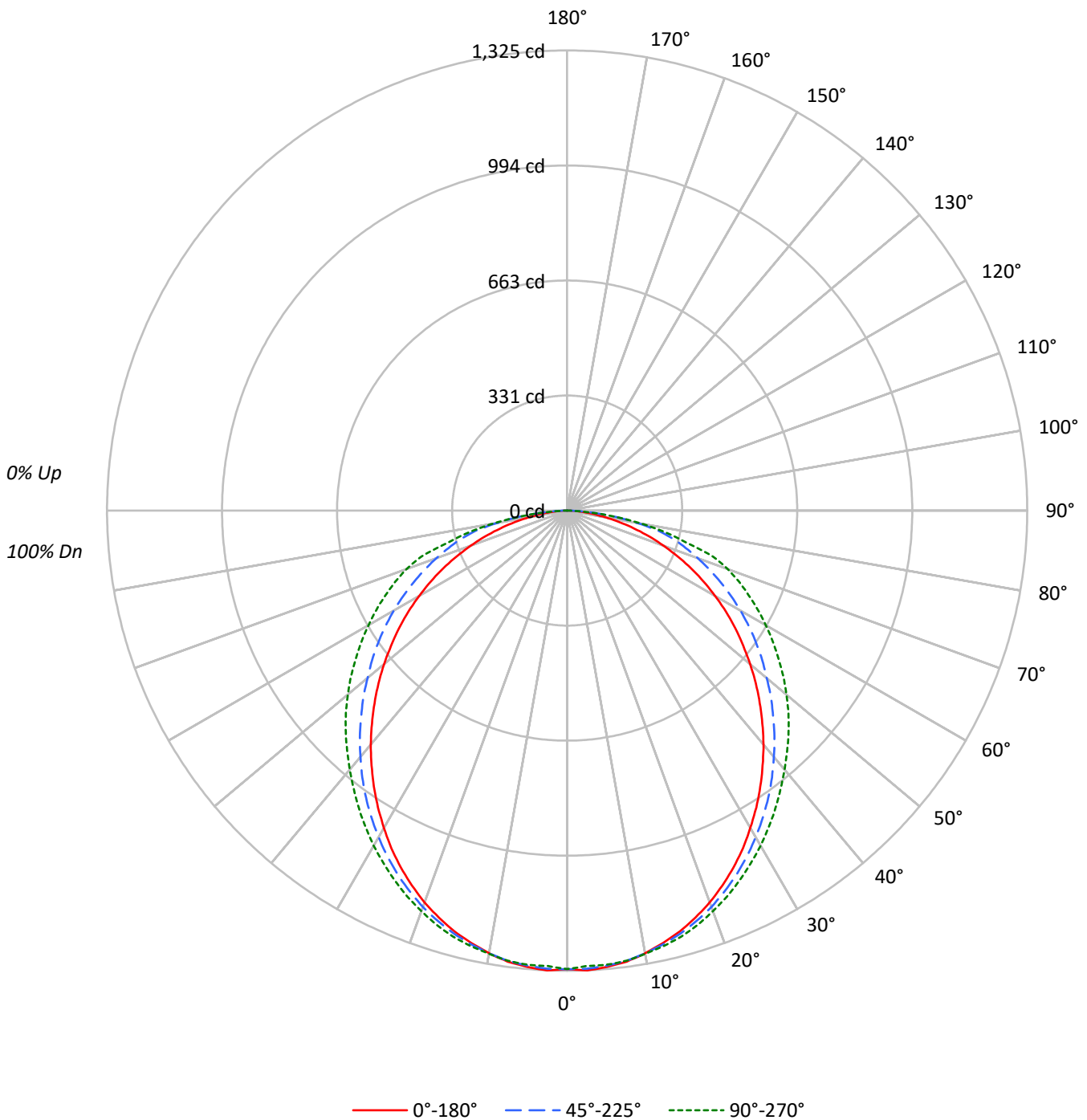
Lumens per Lamp: N/A
Luminaire Lumens: 3762.0 lumens
Efficiency: N/A
Efficacy: 129.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 29
Input Voltage (V): 120
Input Current (A_{in}): 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°	1776	1776	1776
5°	1781	1776	1773
10°	1769	1769	1770
15°	1748	1757	1769
20°	1719	1739	1758
25°	1683	1715	1744
30°	1639	1687	1731
35°	1593	1659	1718
40°	1545	1627	1710
45°	1493	1596	1716
50°	1440	1569	1726
55°	1387	1559	1743
60°	1324	1549	1778
65°	1255	1550	1837
70°	1161	1576	1936
75°	1038	1647	1841
80°	869	1577	1687
85°	656	1213	1153



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.8	3.3
10°-20°	355.1	9.4
20°-30°	530.8	14.1
30°-40°	629.7	16.7
40°-50°	648.2	17.2
50°-60°	594.6	15.8
60°-70°	480.8	12.8
70°-80°	312.0	8.3
80°-90°	86.0	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°	1010.7	26.9
0°-40°	1640.4	43.6
0°-60°	2883.2	76.6
0°-90°	3762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3762.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1320	1320	1320	1320	1320	
5°	1319	1310	1315	1314	1312	125
15°	1255	1249	1261	1266	1270	353
25°	1134	1135	1155	1166	1175	522
35°	970	978	1010	1032	1046	607
45°	784	797	838	878	902	605
55°	591	609	665	719	743	528
65°	394	417	487	551	577	389
75°	200	237	317	354	354	212
85°	42	72	79	76	75	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1320.3	1320.3	1320.3	1320.3	1320.3
2.5°	1325.4	1315.1	1320.3	1319.0	1312.5
5°	1319.0	1310.0	1315.1	1313.8	1312.5
7.5°	1310.0	1300.9	1307.4	1306.1	1307.4
10°	1294.5	1286.8	1294.5	1295.8	1295.8
12.5°	1275.2	1268.7	1279.0	1281.6	1284.2
15°	1254.6	1249.4	1261.0	1266.2	1270.0
17.5°	1228.8	1224.9	1239.1	1245.6	1250.7
20°	1200.5	1199.2	1214.6	1221.1	1227.5
22.5°	1168.3	1168.3	1186.3	1194.0	1203.1
25°	1133.5	1134.8	1155.4	1165.7	1174.7
27.5°	1096.1	1097.4	1121.9	1134.8	1145.1
30°	1054.9	1060.1	1085.8	1102.6	1114.2
32.5°	1013.7	1020.1	1048.5	1067.8	1080.7
35°	969.9	977.6	1009.8	1031.7	1045.9
37.5°	924.8	933.8	968.6	993.1	1009.8
40°	879.7	890.1	926.1	954.5	973.8
42.5°	832.1	843.7	883.6	917.1	937.7
45°	784.4	797.3	838.5	878.5	901.6
47.5°	736.8	752.2	796.0	839.8	864.3
50°	687.8	703.3	749.7	799.9	824.4
52.5°	638.9	656.9	708.4	760.0	784.4
55°	591.2	609.3	664.6	718.7	743.2
57.5°	542.3	560.3	620.8	677.5	702.0
60°	492.0	512.6	575.8	633.7	660.8
62.5°	443.1	465.0	532.0	593.8	619.6
65°	394.1	417.3	486.9	551.3	577.1
67.5°	343.9	371.0	443.1	508.8	535.8
70°	295.0	324.6	400.6	466.3	492.0
72.5°	247.3	279.5	358.1	425.1	440.5
75°	199.7	237.0	316.9	354.2	354.2
77.5°	154.6	195.8	270.5	284.7	292.4
80°	112.1	157.1	203.5	220.3	217.7
82.5°	74.7	119.8	145.6	145.6	141.7
85°	42.5	72.1	78.6	76.0	74.7
87.5°	18.0	27.0	24.5	19.3	16.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)