

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: P233170

Luminaire Tested: **FCB-24-4-LD4-40-35-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233170
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-LD4-40-35-UNV-EDD1-WDA6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

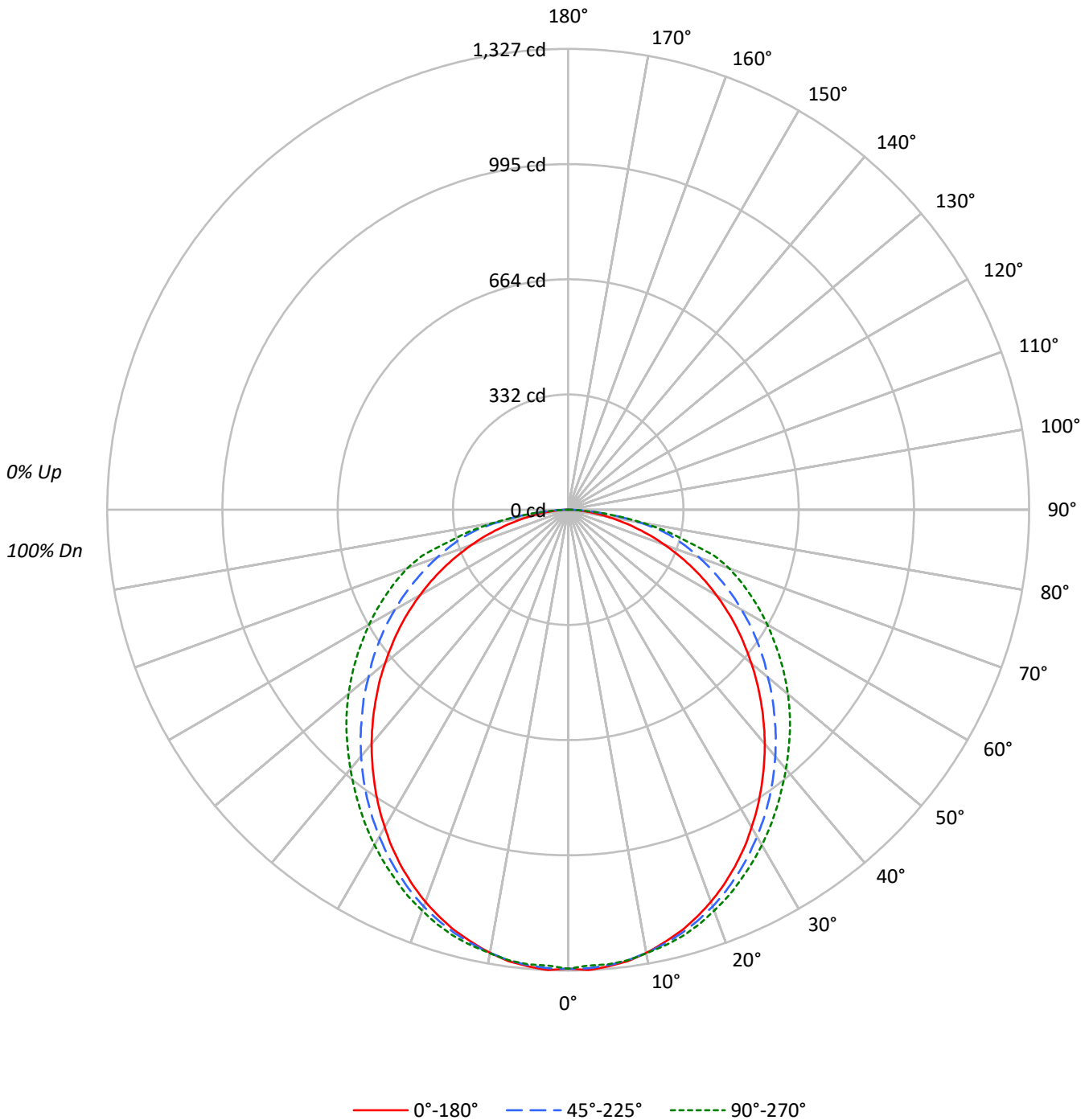
Lumens per Lamp: N/A
Luminaire Lumens: 3766.0 lumens
Efficiency: N/A
Efficacy: 129.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 29
Input Voltage (V): 120
Input Current (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°	1778	1778	1778
5°	1783	1778	1775
10°	1771	1771	1772
15°	1749	1758	1771
20°	1721	1741	1759
25°	1685	1717	1746
30°	1641	1689	1733
35°	1595	1660	1720
40°	1547	1628	1712
45°	1494	1597	1717
50°	1441	1571	1727
55°	1388	1561	1745
60°	1326	1551	1780
65°	1256	1552	1839
70°	1162	1578	1938
75°	1039	1649	1843
80°	869	1578	1688
85°	658	1215	1155



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.9	3.3
10°-20°	355.5	9.4
20°-30°	531.4	14.1
30°-40°	630.4	16.7
40°-50°	648.9	17.2
50°-60°	595.2	15.8
60°-70°	481.3	12.8
70°-80°	312.4	8.3
80°-90°	86.1	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°	1011.8	26.9
0°-40°	1642.2	43.6
0°-60°	2886.3	76.6
0°-90°	3766.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3766.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1322	1322	1322	1322	1322	
5°	1320	1311	1316	1315	1314	125
15°	1256	1251	1262	1268	1271	354
25°	1135	1136	1157	1167	1176	522
35°	971	979	1011	1033	1047	607
45°	785	798	839	879	903	606
55°	592	610	665	720	744	529
65°	395	418	487	552	578	390
75°	200	237	317	355	355	212
85°	43	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°	1321.7	1321.7	1321.7	1321.7	1321.7
2.5°	1326.8	1316.5	1321.7	1320.4	1313.9
5°	1320.4	1311.4	1316.5	1315.2	1313.9
7.5°	1311.4	1302.3	1308.8	1307.5	1308.8
10°	1295.9	1288.1	1295.9	1297.2	1297.2
12.5°	1276.5	1270.1	1280.4	1283.0	1285.6
15°	1255.9	1250.8	1262.4	1267.5	1271.4
17.5°	1230.1	1226.3	1240.4	1246.9	1252.0
20°	1201.8	1200.5	1215.9	1222.4	1228.8
22.5°	1169.5	1169.5	1187.6	1195.3	1204.3
25°	1134.7	1136.0	1156.6	1166.9	1176.0
27.5°	1097.3	1098.6	1123.1	1136.0	1146.3
30°	1056.0	1061.2	1087.0	1103.8	1115.4
32.5°	1014.8	1021.2	1049.6	1068.9	1081.8
35°	970.9	978.7	1010.9	1032.8	1047.0
37.5°	925.8	934.8	969.7	994.2	1010.9
40°	880.7	891.0	927.1	955.5	974.8
42.5°	833.0	844.6	884.6	918.1	938.7
45°	785.3	798.2	839.4	879.4	902.6
47.5°	737.6	753.0	796.9	840.7	865.2
50°	688.6	704.0	750.5	800.7	825.2
52.5°	639.6	657.6	709.2	760.8	785.3
55°	591.9	609.9	665.3	719.5	744.0
57.5°	542.9	560.9	621.5	678.2	702.7
60°	492.6	513.2	576.4	634.4	661.5
62.5°	443.6	465.5	532.5	594.4	620.2
65°	394.6	417.8	487.4	551.9	577.7
67.5°	344.3	371.4	443.6	509.3	536.4
70°	295.3	324.9	401.0	466.8	492.6
72.5°	247.6	279.8	358.5	425.5	441.0
75°	199.9	237.3	317.2	354.6	354.6
77.5°	154.7	196.0	270.8	285.0	292.7
80°	112.2	157.3	203.7	220.5	217.9
82.5°	74.8	119.9	145.7	145.7	141.8
85°	42.6	72.2	78.7	76.1	74.8
87.5°	18.1	27.1	24.5	19.3	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)