

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: P233194

Luminaire Tested: **FCB-24-4-LD4-50-35-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233194
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-LD4-50-35-UNV-EDD1-WDP6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

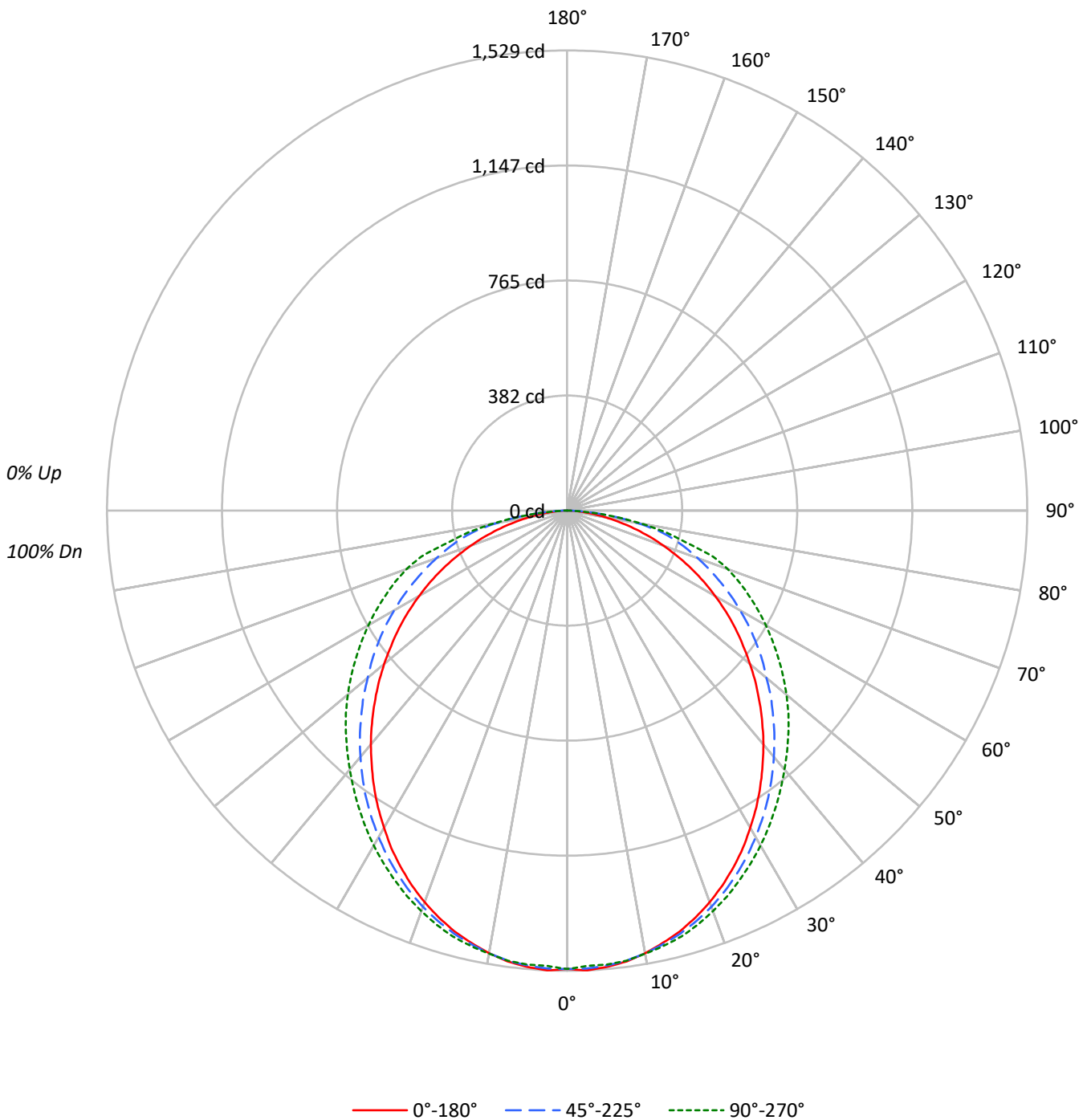
Lumens per Lamp: N/A
Luminaire Lumens: 4340.0 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 40.7
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°	2049	2049	2049
5°	2055	2049	2045
10°	2040	2040	2042
15°	2016	2026	2041
20°	1983	2006	2028
25°	1941	1979	2012
30°	1891	1946	1997
35°	1838	1914	1982
40°	1783	1877	1973
45°	1722	1841	1979
50°	1661	1810	1991
55°	1600	1799	2011
60°	1527	1787	2051
65°	1448	1788	2119
70°	1339	1818	2233
75°	1197	1900	2124
80°	1002	1819	1946
85°	756	1399	1331



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.9	3.3
10°-20°	409.6	9.4
20°-30°	612.4	14.1
30°-40°	726.5	16.7
40°-50°	747.7	17.2
50°-60°	686.0	15.8
60°-70°	554.6	12.8
70°-80°	360.0	8.3
80°-90°	99.2	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°	1166.0	26.9
0°-40°	1892.5	43.6
0°-60°	3326.2	76.6
0°-90°	4340.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4340.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1523	1523	1523	1523	1523	
5°	1522	1511	1517	1516	1514	144
15°	1447	1441	1455	1461	1465	408
25°	1308	1309	1333	1345	1355	602
35°	1119	1128	1165	1190	1207	700
45°	905	920	967	1013	1040	698
55°	682	703	767	829	857	609
65°	455	482	562	636	666	449
75°	230	273	366	409	409	245
85°	49	83	91	88	86	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1523.1	1523.1	1523.1	1523.1	1523.1
2.5°	1529.1	1517.2	1523.1	1521.6	1514.2
5°	1521.6	1511.2	1517.2	1515.7	1514.2
7.5°	1511.2	1500.8	1508.3	1506.8	1508.3
10°	1493.4	1484.5	1493.4	1494.9	1494.9
12.5°	1471.1	1463.7	1475.6	1478.5	1481.5
15°	1447.3	1441.4	1454.8	1460.7	1465.2
17.5°	1417.6	1413.2	1429.5	1436.9	1442.9
20°	1384.9	1383.4	1401.3	1408.7	1416.1
22.5°	1347.8	1347.8	1368.6	1377.5	1387.9
25°	1307.6	1309.1	1332.9	1344.8	1355.2
27.5°	1264.6	1266.0	1294.3	1309.1	1321.0
30°	1217.0	1222.9	1252.7	1272.0	1285.4
32.5°	1169.5	1176.9	1209.6	1231.9	1246.7
35°	1118.9	1127.8	1165.0	1190.3	1206.6
37.5°	1066.9	1077.3	1117.4	1145.7	1165.0
40°	1014.9	1026.8	1068.4	1101.1	1123.4
42.5°	959.9	973.3	1019.4	1058.0	1081.8
45°	905.0	919.8	967.4	1013.4	1040.2
47.5°	850.0	867.8	918.3	968.8	997.1
50°	793.5	811.3	864.8	922.8	951.0
52.5°	737.0	757.8	817.3	876.7	905.0
55°	682.1	702.9	766.8	829.2	857.4
57.5°	625.6	646.4	716.2	781.6	809.9
60°	567.6	591.4	664.2	731.1	762.3
62.5°	511.2	536.4	613.7	685.0	714.7
65°	454.7	481.5	561.7	636.0	665.7
67.5°	396.8	428.0	511.2	587.0	618.2
70°	340.3	374.5	462.1	537.9	567.6
72.5°	285.3	322.5	413.1	490.4	508.2
75°	230.3	273.4	365.5	408.6	408.6
77.5°	178.3	225.9	312.1	328.4	337.3
80°	129.3	181.3	234.8	254.1	251.1
82.5°	86.2	138.2	167.9	167.9	163.5
85°	49.0	83.2	90.6	87.7	86.2
87.5°	20.8	31.2	28.2	22.3	19.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)