

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: P233174

Luminaire Tested: **FCB-24-4-LD4-50-35-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233174
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-WDA6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

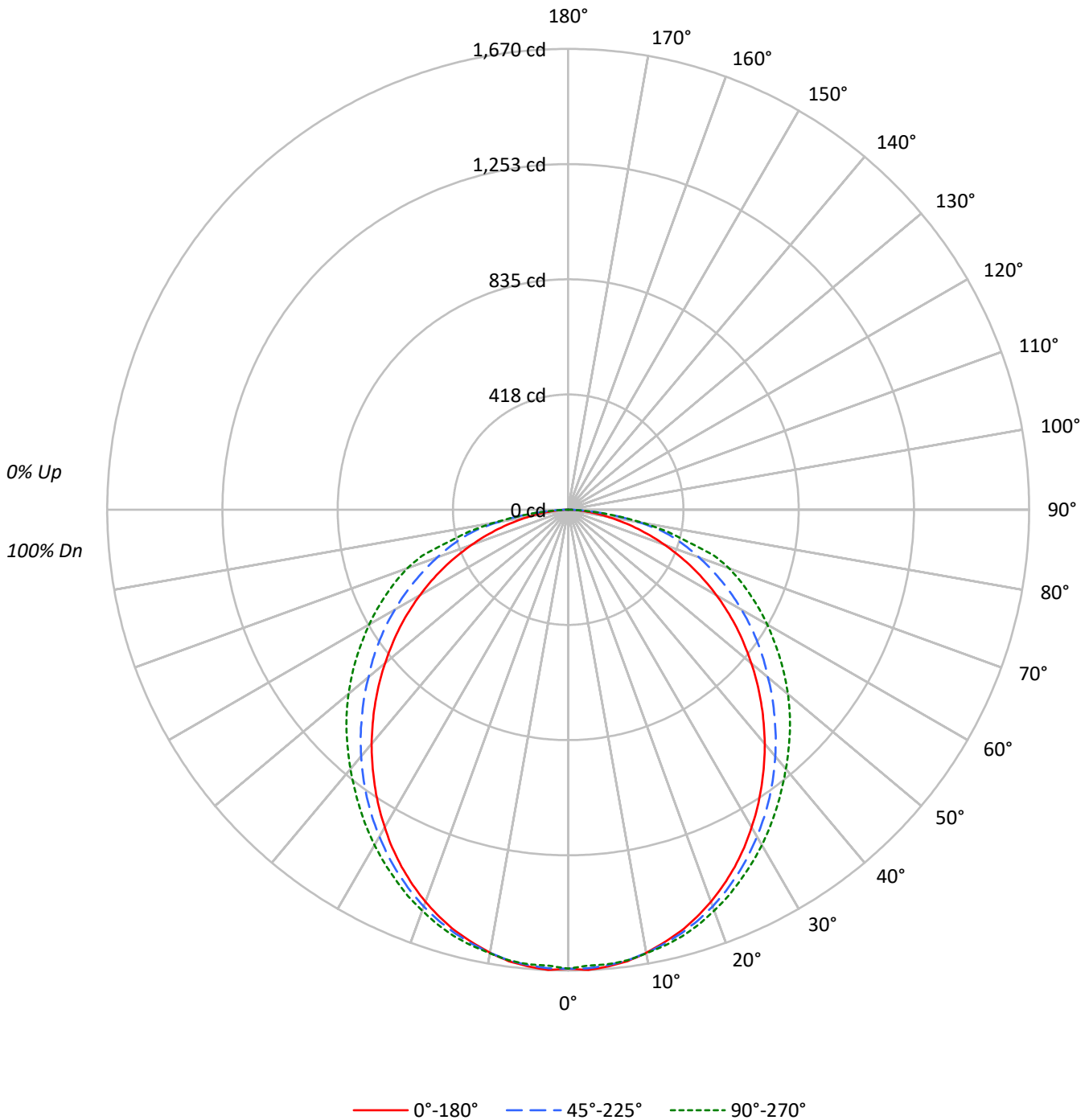
Lumens per Lamp: N/A
Luminaire Lumens: 4739.0 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P233174

CATALOG NUMBER: FCB-24-4-LD4-50-35-UNV-EDD1-WDA6

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°	2238	2238	2238
5°	2244	2238	2233
10°	2228	2228	2230
15°	2201	2213	2229
20°	2165	2191	2214
25°	2120	2161	2197
30°	2065	2125	2181
35°	2007	2089	2164
40°	1946	2049	2155
45°	1880	2010	2161
50°	1814	1977	2174
55°	1747	1964	2196
60°	1668	1952	2240
65°	1581	1953	2314
70°	1462	1985	2438
75°	1307	2075	2320
80°	1094	1987	2125
85°	826	1528	1453



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.2	3.3
10°-20°	447.3	9.4
20°-30°	668.7	14.1
30°-40°	793.3	16.7
40°-50°	816.5	17.2
50°-60°	749.0	15.8
60°-70°	605.6	12.8
70°-80°	393.1	8.3
80°-90°	108.4	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°	1273.2	26.9
0°-40°	2066.4	43.6
0°-60°	3632.0	76.6
0°-90°	4739.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4739.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1663	1663	1663	1663	1663	
5°	1662	1650	1657	1655	1653	158
15°	1580	1574	1588	1595	1600	445
25°	1428	1430	1456	1468	1480	657
35°	1222	1232	1272	1300	1318	764
45°	988	1004	1056	1107	1136	763
55°	745	768	837	905	936	665
65°	496	526	613	694	727	491
75°	252	299	399	446	446	267
85°	54	91	99	96	94	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1663.1	1663.1	1663.1	1663.1	1663.1
2.5°	1669.6	1656.7	1663.1	1661.5	1653.4
5°	1661.5	1650.2	1656.7	1655.0	1653.4
7.5°	1650.2	1638.8	1646.9	1645.3	1646.9
10°	1630.7	1621.0	1630.7	1632.3	1632.3
12.5°	1606.4	1598.2	1611.2	1614.5	1617.7
15°	1580.4	1573.9	1588.5	1595.0	1599.9
17.5°	1547.9	1543.1	1560.9	1569.0	1575.5
20°	1512.2	1510.6	1530.1	1538.2	1546.3
22.5°	1471.7	1471.7	1494.4	1504.1	1515.5
25°	1427.9	1429.5	1455.5	1468.4	1479.8
27.5°	1380.8	1382.4	1413.3	1429.5	1442.5
30°	1328.9	1335.4	1367.8	1388.9	1403.5
32.5°	1277.0	1285.1	1320.8	1345.1	1361.3
35°	1221.8	1231.5	1272.1	1299.7	1317.5
37.5°	1165.0	1176.4	1220.2	1251.0	1272.1
40°	1108.2	1121.2	1166.6	1202.3	1226.7
42.5°	1048.2	1062.8	1113.1	1155.3	1181.2
45°	988.2	1004.4	1056.3	1106.6	1135.8
47.5°	928.1	947.6	1002.8	1057.9	1088.7
50°	866.5	885.9	944.3	1007.6	1038.5
52.5°	804.8	827.5	892.4	957.3	988.2
55°	744.8	767.5	837.3	905.4	936.2
57.5°	683.1	705.8	782.1	853.5	884.3
60°	619.8	645.8	725.3	798.3	832.4
62.5°	558.2	585.8	670.1	748.0	780.5
65°	496.5	525.7	613.3	694.5	726.9
67.5°	433.2	467.3	558.2	640.9	675.0
70°	371.6	408.9	504.6	587.4	619.8
72.5°	311.5	352.1	451.1	535.5	554.9
75°	251.5	298.6	399.2	446.2	446.2
77.5°	194.7	246.6	340.7	358.6	368.3
80°	141.2	198.0	256.4	277.5	274.2
82.5°	94.1	150.9	183.4	183.4	178.5
85°	53.5	90.9	99.0	95.7	94.1
87.5°	22.7	34.1	30.8	24.3	21.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)