

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: P233173

Luminaire Tested: **FCB-24-4-LD4-50-30-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P233173  
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-LD4-50-30-UNV-EDD1-WDA6  
Description: FAILSAFE 2X4 FCB LED TROFFER  
.060 ACRYLIC LENS  
Light Source: (168)3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

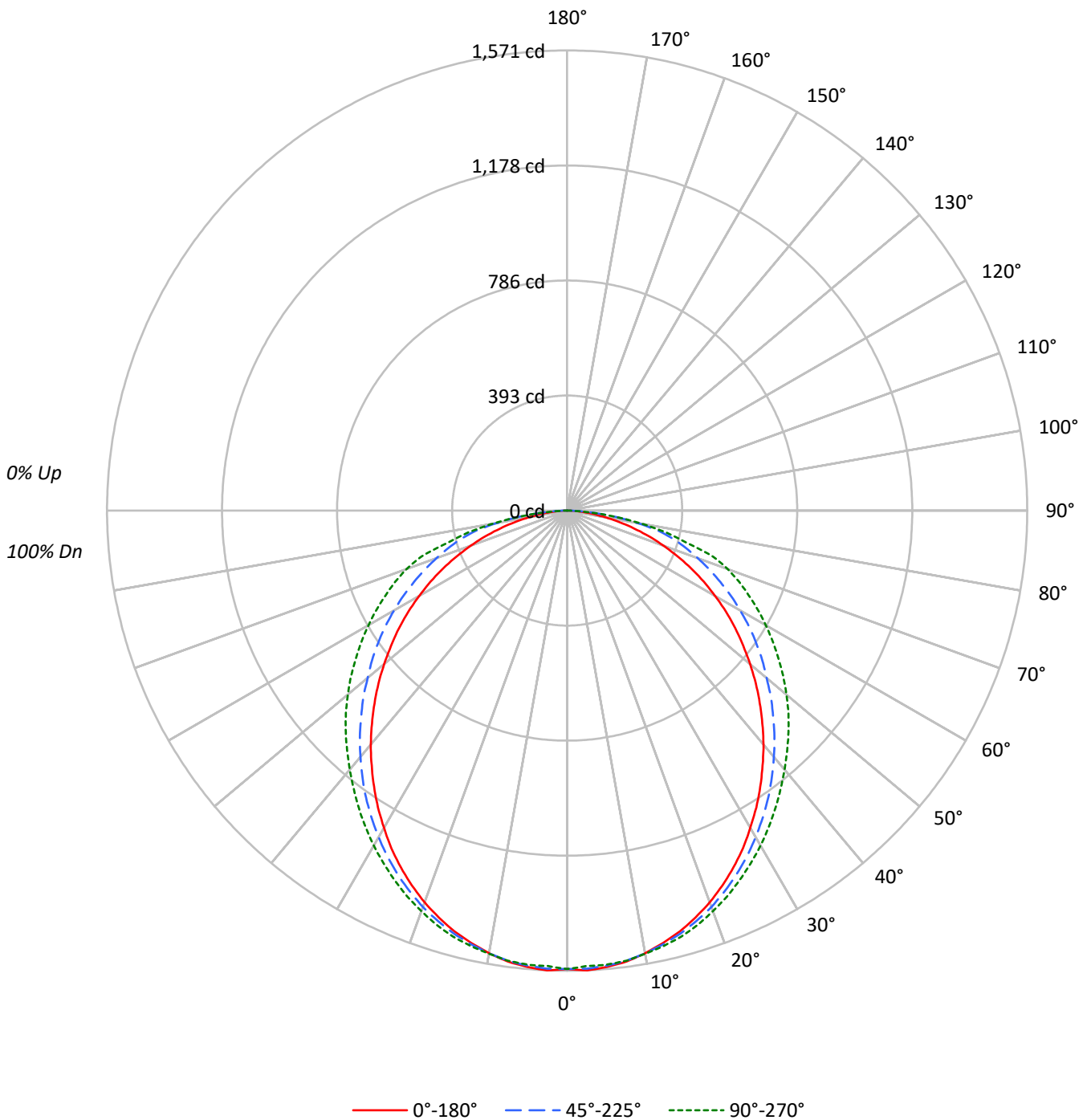
Lumens per Lamp: N/A  
Luminaire Lumens: 4460.0 lumens  
Efficiency: N/A  
Efficacy: 109.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

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°	2106	2106	2106
5°	2112	2106	2102
10°	2097	2097	2099
15°	2072	2082	2097
20°	2038	2062	2084
25°	1995	2034	2068
30°	1943	2000	2052
35°	1889	1966	2037
40°	1832	1929	2028
45°	1770	1892	2034
50°	1707	1860	2046
55°	1644	1848	2067
60°	1570	1837	2108
65°	1488	1838	2178
70°	1376	1868	2295
75°	1231	1953	2183
80°	1030	1870	2000
85°	778	1439	1368



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.9	3.3
10°-20°	421.0	9.4
20°-30°	629.3	14.1
30°-40°	746.6	16.7
40°-50°	768.4	17.2
50°-60°	704.9	15.8
60°-70°	570.0	12.8
70°-80°	369.9	8.3
80°-90°	102.0	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°	1198.2	26.9
0°-40°	1944.8	43.6
0°-60°	3418.1	76.6
0°-90°	4460.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4460.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1565	1565	1565	1565	1565	
5°	1564	1553	1559	1558	1556	148
15°	1487	1481	1495	1501	1506	419
25°	1344	1345	1370	1382	1393	619
35°	1150	1159	1197	1223	1240	719
45°	930	945	994	1041	1069	718
55°	701	722	788	852	881	626
65°	467	495	577	654	684	462
75°	237	281	376	420	420	252
85°	50	86	93	90	89	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1565.2	1565.2	1565.2	1565.2	1565.2
2.5°	1571.3	1559.1	1565.2	1563.7	1556.1
5°	1563.7	1553.0	1559.1	1557.6	1556.1
7.5°	1553.0	1542.3	1550.0	1548.4	1550.0
10°	1534.7	1525.5	1534.7	1536.2	1536.2
12.5°	1511.8	1504.1	1516.4	1519.4	1522.5
15°	1487.3	1481.2	1495.0	1501.1	1505.7
17.5°	1456.8	1452.2	1469.0	1476.7	1482.8
20°	1423.2	1421.7	1440.0	1447.6	1455.3
22.5°	1385.0	1385.0	1406.4	1415.6	1426.3
25°	1343.8	1345.3	1369.8	1382.0	1392.7
27.5°	1299.5	1301.0	1330.1	1345.3	1357.5
30°	1250.7	1256.8	1287.3	1307.2	1320.9
32.5°	1201.8	1209.4	1243.0	1265.9	1281.2
35°	1149.9	1159.0	1197.2	1223.2	1240.0
37.5°	1096.4	1107.1	1148.3	1177.4	1197.2
40°	1043.0	1055.2	1098.0	1131.5	1154.5
42.5°	986.5	1000.2	1047.6	1087.3	1111.7
45°	930.0	945.2	994.1	1041.4	1068.9
47.5°	873.5	891.8	943.7	995.6	1024.7
50°	815.4	833.8	888.7	948.3	977.3
52.5°	757.4	778.8	839.9	901.0	930.0
55°	700.9	722.3	788.0	852.1	881.1
57.5°	642.9	664.3	736.0	803.2	832.2
60°	583.3	607.8	682.6	751.3	783.4
62.5°	525.3	551.3	630.7	704.0	734.5
65°	467.3	494.8	577.2	653.6	684.1
67.5°	407.7	439.8	525.3	603.2	635.3
70°	349.7	384.8	474.9	552.8	583.3
72.5°	293.2	331.4	424.5	503.9	522.3
75°	236.7	281.0	375.7	419.9	419.9
77.5°	183.2	232.1	320.7	337.5	346.6
80°	132.9	186.3	241.3	261.1	258.1
82.5°	88.6	142.0	172.6	172.6	168.0
85°	50.4	85.5	93.2	90.1	88.6
87.5°	21.4	32.1	29.0	22.9	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)