

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: P233214

Luminaire Tested: **FCB-24-4-LD4-50-35-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233214
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-WDA12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

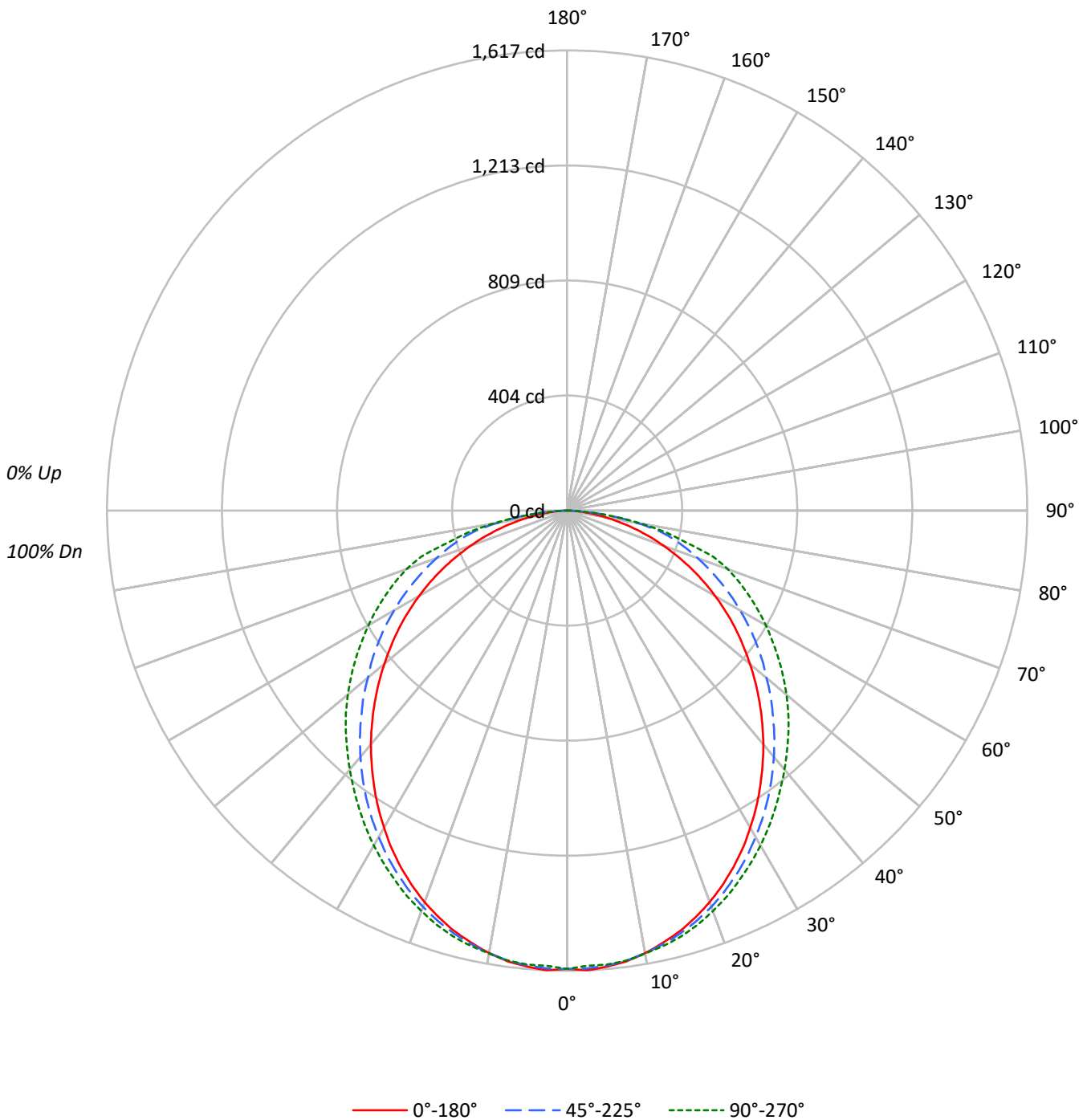
Lumens per Lamp: N/A
Luminaire Lumens: 4589.0 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	2167	2167	2167
5°	2173	2167	2162
10°	2157	2157	2159
15°	2132	2143	2158
20°	2097	2122	2144
25°	2053	2092	2127
30°	1999	2058	2112
35°	1943	2023	2096
40°	1885	1984	2086
45°	1821	1946	2093
50°	1756	1914	2105
55°	1692	1902	2127
60°	1615	1890	2169
65°	1531	1891	2241
70°	1415	1922	2361
75°	1266	2009	2246
80°	1059	1924	2057
85°	801	1479	1406



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.2	3.3
10°-20°	433.1	9.4
20°-30°	647.5	14.1
30°-40°	768.2	16.7
40°-50°	790.6	17.2
50°-60°	725.3	15.8
60°-70°	586.4	12.8
70°-80°	380.6	8.3
80°-90°	104.9	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°	1232.9	26.9
0°-40°	2001.0	43.6
0°-60°	3517.0	76.6
0°-90°	4589.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4589.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1610	1610	1610	1610	1610	
5°	1609	1598	1604	1603	1601	153
15°	1530	1524	1538	1544	1549	431
25°	1383	1384	1409	1422	1433	636
35°	1183	1193	1232	1258	1276	740
45°	957	973	1023	1072	1100	738
55°	721	743	811	877	907	644
65°	481	509	594	672	704	475
75°	244	289	386	432	432	259
85°	52	88	96	93	91	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1610.5	1610.5	1610.5	1610.5	1610.5
2.5°	1616.8	1604.2	1610.5	1608.9	1601.1
5°	1608.9	1597.9	1604.2	1602.6	1601.1
7.5°	1597.9	1586.9	1594.8	1593.2	1594.8
10°	1579.1	1569.6	1579.1	1580.6	1580.6
12.5°	1555.5	1547.7	1560.2	1563.4	1566.5
15°	1530.4	1524.1	1538.2	1544.5	1549.2
17.5°	1498.9	1494.2	1511.5	1519.4	1525.7
20°	1464.4	1462.8	1481.7	1489.5	1497.4
22.5°	1425.1	1425.1	1447.1	1456.5	1467.5
25°	1382.7	1384.2	1409.4	1422.0	1433.0
27.5°	1337.1	1338.7	1368.5	1384.2	1396.8
30°	1286.8	1293.1	1324.5	1345.0	1359.1
32.5°	1236.6	1244.4	1279.0	1302.5	1318.3
35°	1183.1	1192.6	1231.8	1258.5	1275.8
37.5°	1128.1	1139.1	1181.6	1211.4	1231.8
40°	1073.1	1085.7	1129.7	1164.3	1187.8
42.5°	1015.0	1029.1	1077.9	1118.7	1143.8
45°	956.9	972.6	1022.9	1071.6	1099.9
47.5°	898.7	917.6	971.0	1024.4	1054.3
50°	839.0	857.9	914.4	975.7	1005.6
52.5°	779.3	801.3	864.2	927.0	956.9
55°	721.2	743.2	810.7	876.7	906.6
57.5°	661.5	683.5	757.3	826.5	856.3
60°	600.2	625.3	702.3	773.0	806.0
62.5°	540.5	567.2	648.9	724.3	755.8
65°	480.8	509.1	593.9	672.5	703.9
67.5°	419.5	452.5	540.5	620.6	653.6
70°	359.8	395.9	488.6	568.8	600.2
72.5°	301.7	341.0	436.8	518.5	537.4
75°	243.5	289.1	386.5	432.1	432.1
77.5°	188.5	238.8	330.0	347.2	356.7
80°	136.7	191.7	248.3	268.7	265.5
82.5°	91.1	146.1	177.5	177.5	172.8
85°	51.9	88.0	95.8	92.7	91.1
87.5°	22.0	33.0	29.9	23.6	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)