

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: P233195

Luminaire Tested: **FCB-24-4-LD4-50-40-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233195
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-LD4-50-40-UNV-EDD1-WDP6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (168)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

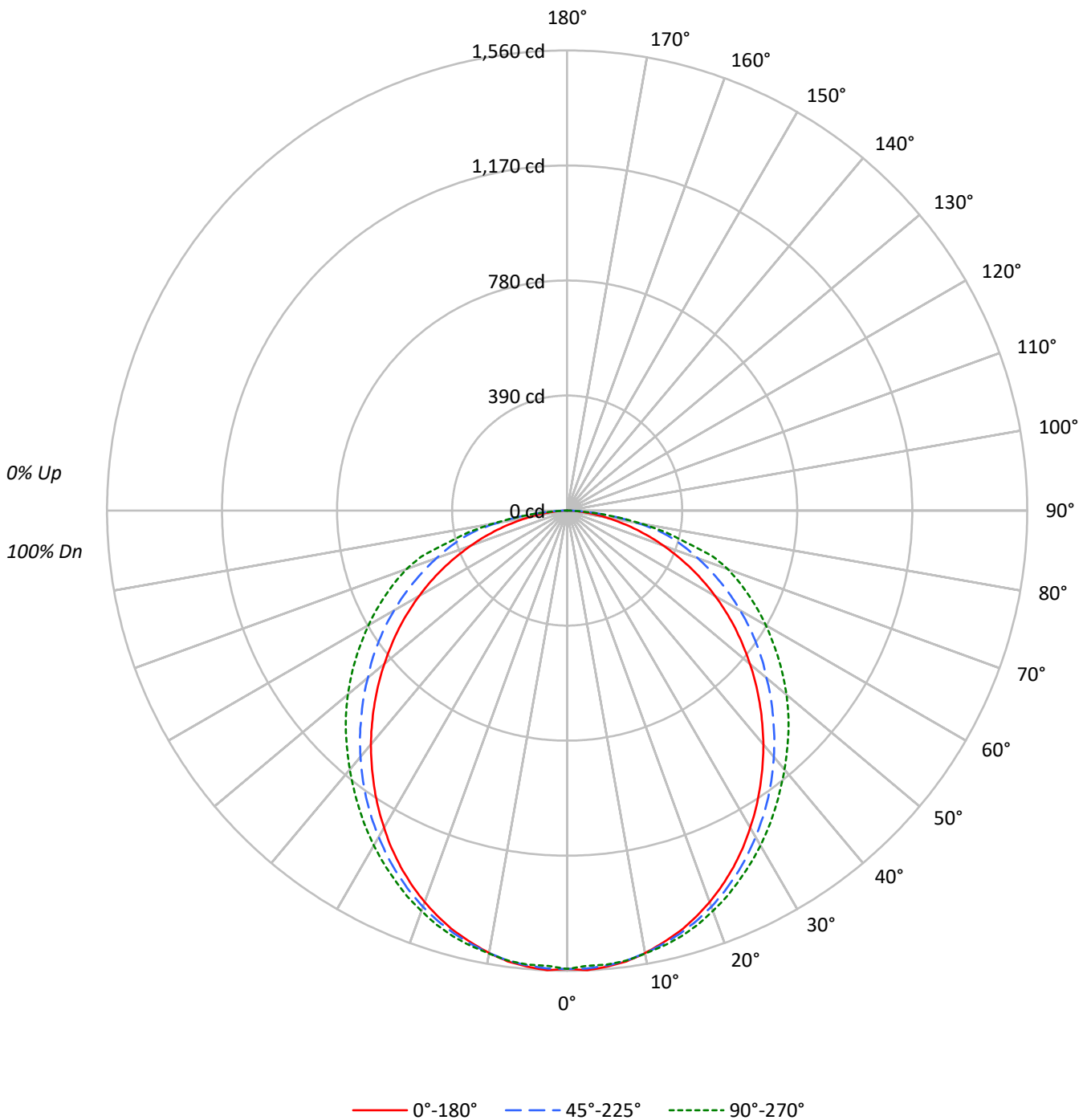
Lumens per Lamp: N/A
Luminaire Lumens: 4427.0 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	2090	2090	2090
5°	2096	2090	2086
10°	2081	2081	2083
15°	2056	2067	2082
20°	2023	2047	2068
25°	1980	2018	2052
30°	1929	1985	2037
35°	1875	1952	2022
40°	1818	1914	2013
45°	1756	1878	2019
50°	1694	1847	2031
55°	1632	1835	2052
60°	1558	1823	2093
65°	1477	1824	2162
70°	1365	1854	2278
75°	1221	1939	2167
80°	1022	1856	1985
85°	772	1428	1357



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.8	3.3
10°-20°	417.9	9.4
20°-30°	624.7	14.1
30°-40°	741.1	16.7
40°-50°	762.7	17.2
50°-60°	699.7	15.8
60°-70°	565.8	12.8
70°-80°	367.2	8.3
80°-90°	101.2	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°	1189.3	26.9
0°-40°	1930.4	43.6
0°-60°	3392.9	76.6
0°-90°	4427.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4427.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1554	1554	1554	1554	1554	
5°	1552	1542	1548	1546	1545	147
15°	1476	1470	1484	1490	1494	416
25°	1334	1335	1360	1372	1382	614
35°	1141	1150	1188	1214	1231	714
45°	923	938	987	1034	1061	712
55°	696	717	782	846	875	622
65°	464	491	573	649	679	458
75°	235	279	373	417	417	250
85°	50	85	92	89	88	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1553.6	1553.6	1553.6	1553.6	1553.6
2.5°	1559.7	1547.6	1553.6	1552.1	1544.6
5°	1552.1	1541.5	1547.6	1546.1	1544.6
7.5°	1541.5	1530.9	1538.5	1537.0	1538.5
10°	1523.3	1514.2	1523.3	1524.8	1524.8
12.5°	1500.6	1493.0	1505.1	1508.2	1511.2
15°	1476.3	1470.3	1483.9	1490.0	1494.5
17.5°	1446.0	1441.5	1458.2	1465.7	1471.8
20°	1412.7	1411.2	1429.4	1436.9	1444.5
22.5°	1374.8	1374.8	1396.0	1405.1	1415.7
25°	1333.9	1335.4	1359.6	1371.8	1382.4
27.5°	1289.9	1291.4	1320.2	1335.4	1347.5
30°	1241.4	1247.5	1277.8	1297.5	1311.1
32.5°	1192.9	1200.5	1233.8	1256.6	1271.7
35°	1141.4	1150.5	1188.4	1214.1	1230.8
37.5°	1088.3	1098.9	1139.8	1168.6	1188.4
40°	1035.3	1047.4	1089.8	1123.2	1145.9
42.5°	979.2	992.8	1039.8	1079.2	1103.5
45°	923.1	938.3	986.8	1033.7	1061.0
47.5°	867.0	885.2	936.7	988.3	1017.1
50°	809.4	827.6	882.2	941.3	970.1
52.5°	751.8	773.0	833.7	894.3	923.1
55°	695.7	717.0	782.1	845.8	874.6
57.5°	638.1	659.4	730.6	797.3	826.1
60°	579.0	603.3	677.5	745.8	777.6
62.5°	521.4	547.2	626.0	698.8	729.1
65°	463.8	491.1	573.0	648.7	679.1
67.5°	404.7	436.5	521.4	598.7	630.6
70°	347.1	382.0	471.4	548.7	579.0
72.5°	291.0	328.9	421.4	500.2	518.4
75°	234.9	278.9	372.9	416.8	416.8
77.5°	181.9	230.4	318.3	335.0	344.1
80°	131.9	184.9	239.5	259.2	256.2
82.5°	87.9	141.0	171.3	171.3	166.7
85°	50.0	84.9	92.5	89.4	87.9
87.5°	21.2	31.8	28.8	22.7	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)