

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: P233239

Luminaire Tested: **FCB-24-4-LD4-60-40-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233239
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-LD4-60-40-UNV-EDD1-WDP12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (168)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

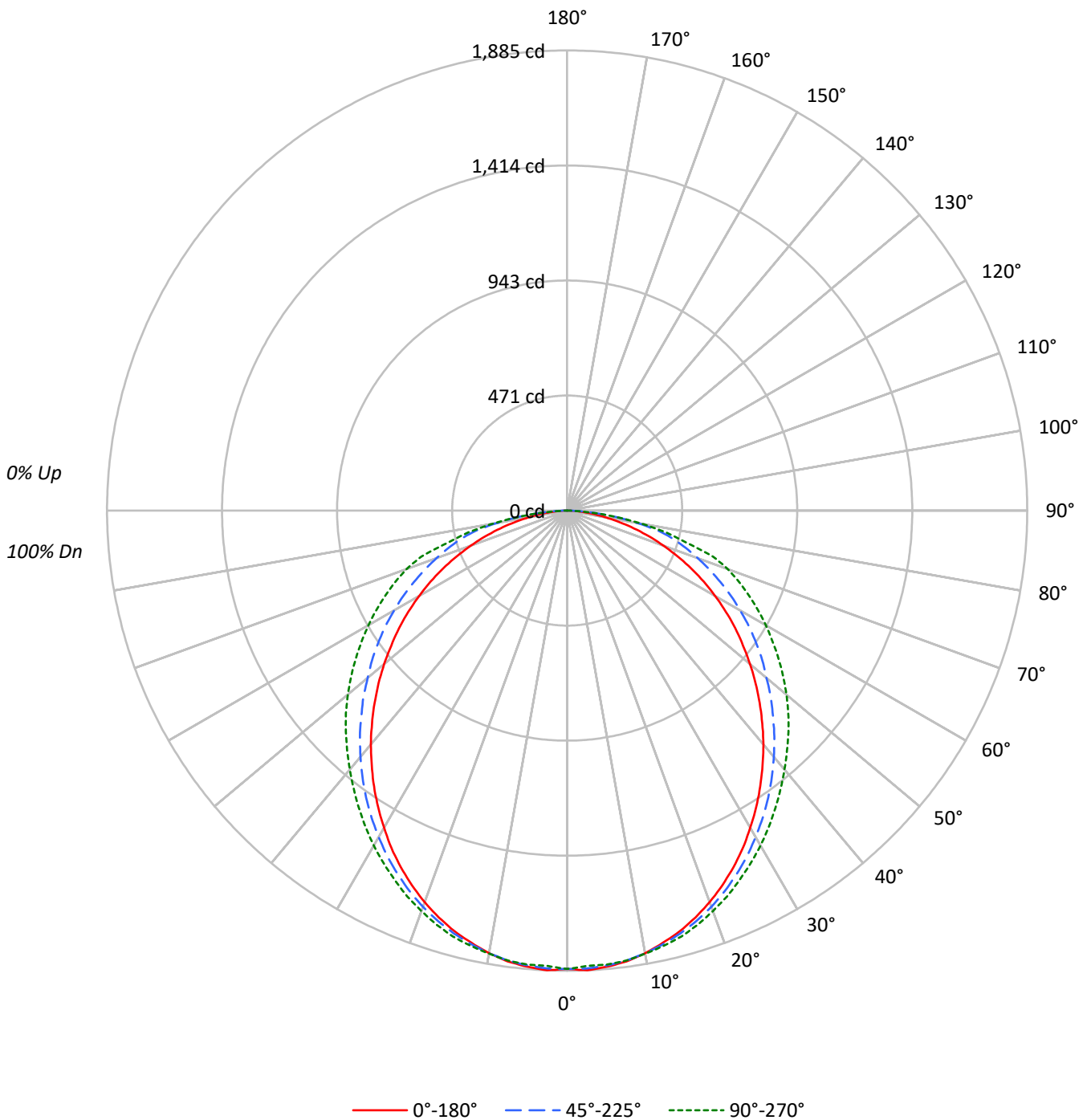
Lumens per Lamp: N/A
Luminaire Lumens: 5350.0 lumens
Efficiency: N/A
Efficacy: 102.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 52.2
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°	2526	2526	2526
5°	2533	2526	2521
10°	2515	2515	2518
15°	2485	2498	2516
20°	2444	2473	2500
25°	2393	2439	2480
30°	2331	2399	2462
35°	2266	2359	2443
40°	2197	2313	2432
45°	2123	2269	2440
50°	2048	2232	2454
55°	1972	2217	2479
60°	1883	2203	2529
65°	1784	2204	2613
70°	1650	2241	2753
75°	1476	2342	2619
80°	1235	2242	2399
85°	932	1724	1639



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.4	3.3
10°-20°	505.0	9.4
20°-30°	754.9	14.1
30°-40°	895.6	16.7
40°-50°	921.8	17.2
50°-60°	845.6	15.8
60°-70°	683.7	12.8
70°-80°	443.7	8.3
80°-90°	122.4	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°	1437.3	26.9
0°-40°	2332.9	43.6
0°-60°	4100.2	76.6
0°-90°	5350.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5350.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1878	1878	1878	1878	1878	
5°	1876	1863	1870	1868	1867	178
15°	1784	1777	1793	1801	1806	503
25°	1612	1614	1643	1658	1671	742
35°	1379	1390	1436	1467	1487	863
45°	1116	1134	1192	1249	1282	861
55°	841	866	945	1022	1057	751
65°	560	594	692	784	821	554
75°	284	337	451	504	504	302
85°	60	103	112	108	106	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1877.6	1877.6	1877.6	1877.6	1877.6
2.5°	1884.9	1870.2	1877.6	1875.7	1866.6
5°	1875.7	1862.9	1870.2	1868.4	1866.6
7.5°	1862.9	1850.1	1859.3	1857.4	1859.3
10°	1840.9	1829.9	1840.9	1842.8	1842.8
12.5°	1813.5	1804.3	1819.0	1822.6	1826.3
15°	1784.2	1776.8	1793.3	1800.6	1806.1
17.5°	1747.5	1742.0	1762.2	1771.3	1778.7
20°	1707.2	1705.4	1727.4	1736.5	1745.7
22.5°	1661.4	1661.4	1687.1	1698.1	1710.9
25°	1612.0	1613.8	1643.1	1657.8	1670.6
27.5°	1558.8	1560.7	1595.5	1613.8	1628.5
30°	1500.2	1507.6	1544.2	1568.0	1584.5
32.5°	1441.6	1450.8	1491.1	1518.5	1536.9
35°	1379.3	1390.3	1436.1	1467.3	1487.4
37.5°	1315.2	1328.0	1377.5	1412.3	1436.1
40°	1251.1	1265.8	1317.0	1357.3	1384.8
42.5°	1183.3	1199.8	1256.6	1304.2	1333.5
45°	1115.6	1133.9	1192.5	1249.3	1282.2
47.5°	1047.8	1069.8	1132.0	1194.3	1229.1
50°	978.2	1000.2	1066.1	1137.5	1172.3
52.5°	908.6	934.2	1007.5	1080.7	1115.6
55°	840.8	866.4	945.2	1022.1	1056.9
57.5°	771.2	796.8	882.9	963.5	998.3
60°	699.7	729.0	818.8	901.2	939.7
62.5°	630.1	661.3	756.5	844.4	881.1
65°	560.5	593.5	692.4	784.0	820.6
67.5°	489.1	527.6	630.1	723.6	762.0
70°	419.5	461.6	569.7	663.1	699.7
72.5°	351.7	397.5	509.2	604.5	626.5
75°	283.9	337.0	450.6	503.7	503.7
77.5°	219.8	278.4	384.7	404.8	415.8
80°	159.4	223.5	289.4	313.2	309.6
82.5°	106.2	170.4	207.0	207.0	201.5
85°	60.4	102.6	111.7	108.1	106.2
87.5°	25.6	38.5	34.8	27.5	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)