

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: P233179

Luminaire Tested: **FCB-24-4-LD4-60-40-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233179
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-WDA6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (168)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

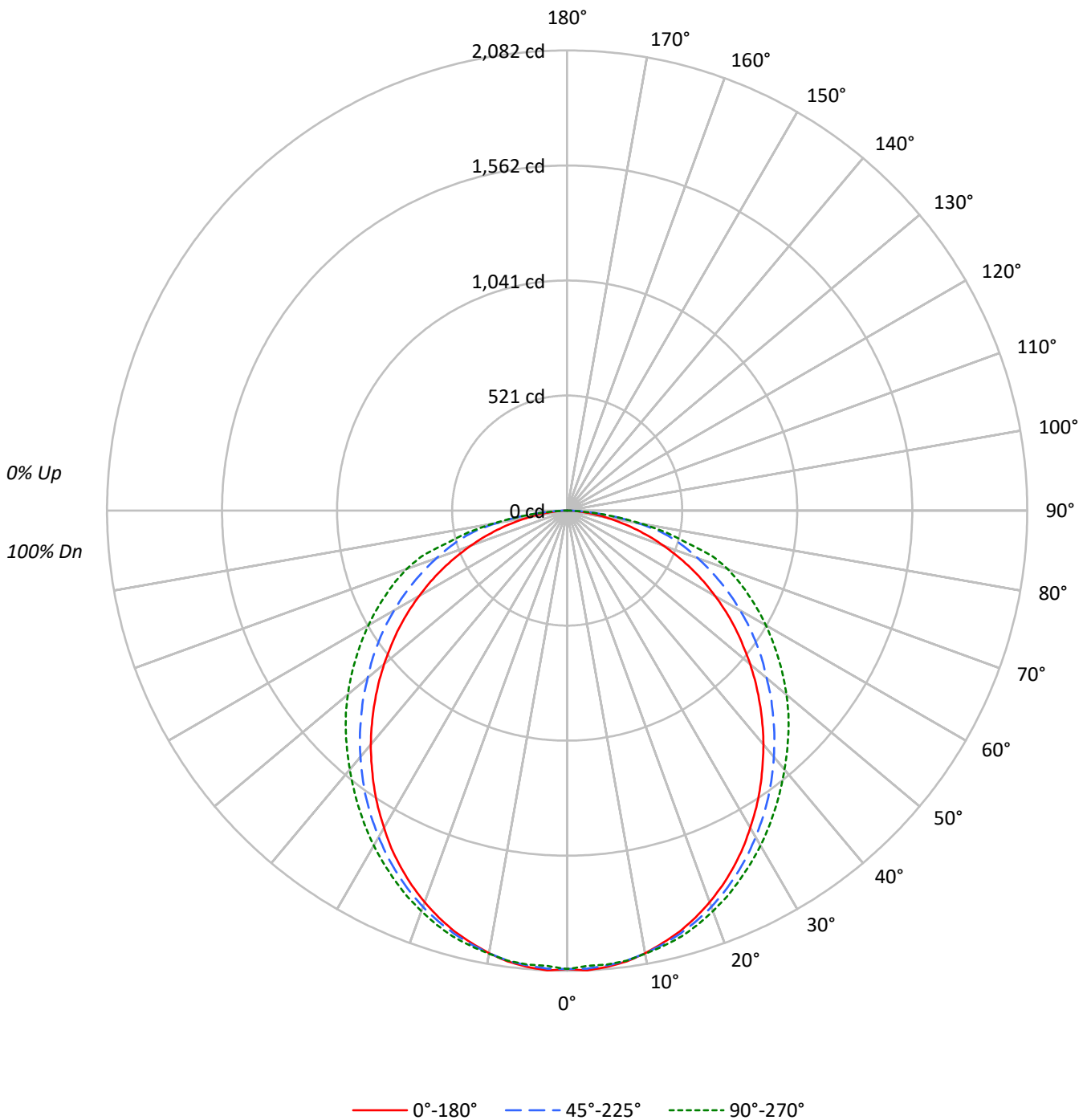
Lumens per Lamp: N/A
Luminaire Lumens: 5910.0 lumens
Efficiency: N/A
Efficacy: 113.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	2791	2791	2791
5°	2799	2790	2785
10°	2778	2778	2781
15°	2745	2759	2779
20°	2700	2732	2761
25°	2644	2695	2740
30°	2575	2650	2719
35°	2503	2606	2699
40°	2428	2555	2687
45°	2345	2507	2695
50°	2262	2465	2711
55°	2179	2449	2739
60°	2080	2434	2794
65°	1971	2435	2886
70°	1823	2476	3041
75°	1630	2588	2893
80°	1364	2477	2650
85°	1031	1905	1812



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.0	3.3
10°-20°	557.8	9.4
20°-30°	833.9	14.1
30°-40°	989.3	16.7
40°-50°	1018.2	17.2
50°-60°	934.1	15.8
60°-70°	755.3	12.8
70°-80°	490.2	8.3
80°-90°	135.2	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°	1587.7	26.9
0°-40°	2577.0	43.6
0°-60°	4529.4	76.6
0°-90°	5910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5910.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2074	2074	2074	2074	2074	
5°	2072	2058	2066	2064	2062	197
15°	1971	1963	1981	1989	1995	555
25°	1781	1783	1815	1831	1845	820
35°	1524	1536	1586	1621	1643	953
45°	1232	1253	1317	1380	1416	951
55°	929	957	1044	1129	1168	830
65°	619	656	765	866	906	612
75°	314	372	498	556	556	333
85°	67	113	123	119	117	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2074.1	2074.1	2074.1	2074.1	2074.1
2.5°	2082.2	2066.0	2074.1	2072.1	2062.0
5°	2072.1	2057.9	2066.0	2064.0	2062.0
7.5°	2057.9	2043.7	2053.9	2051.8	2053.9
10°	2033.6	2021.5	2033.6	2035.7	2035.7
12.5°	2003.3	1993.2	2009.4	2013.4	2017.4
15°	1970.9	1962.8	1981.0	1989.1	1995.2
17.5°	1930.4	1924.4	1946.6	1956.7	1964.8
20°	1885.9	1883.9	1908.2	1918.3	1928.4
22.5°	1835.3	1835.3	1863.7	1875.8	1890.0
25°	1780.7	1782.7	1815.1	1831.3	1845.4
27.5°	1722.0	1724.0	1762.5	1782.7	1798.9
30°	1657.3	1665.4	1705.8	1732.1	1750.3
32.5°	1592.5	1602.6	1647.1	1677.5	1697.7
35°	1523.7	1535.8	1586.4	1620.8	1643.1
37.5°	1452.9	1467.0	1521.7	1560.1	1586.4
40°	1382.1	1398.2	1454.9	1499.4	1529.8
42.5°	1307.2	1325.4	1388.1	1440.7	1473.1
45°	1232.3	1252.6	1317.3	1380.0	1416.5
47.5°	1157.5	1181.7	1250.5	1319.3	1357.8
50°	1080.6	1104.8	1177.7	1256.6	1295.0
52.5°	1003.7	1032.0	1112.9	1193.9	1232.3
55°	928.8	957.1	1044.1	1129.1	1167.6
57.5°	851.9	880.2	975.3	1064.4	1102.8
60°	773.0	805.4	904.5	995.6	1038.1
62.5°	696.1	730.5	835.7	932.8	973.3
65°	619.2	655.6	764.9	866.1	906.5
67.5°	540.3	582.8	696.1	799.3	841.8
70°	463.4	509.9	629.3	732.5	773.0
72.5°	388.5	439.1	562.5	667.8	692.0
75°	313.6	372.3	497.8	556.5	556.5
77.5°	242.8	307.6	424.9	447.2	459.3
80°	176.0	246.9	319.7	346.0	342.0
82.5°	117.4	188.2	228.7	228.7	222.6
85°	66.8	113.3	123.4	119.4	117.4
87.5°	28.3	42.5	38.4	30.4	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)