

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: P233109

Luminaire Tested: **FCB-24-2-LD4-24-30-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233109
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-24-2-LD4-24-30-UNV-EDD1-WDP6
Description: FAILSAFE 2X2 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (84)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

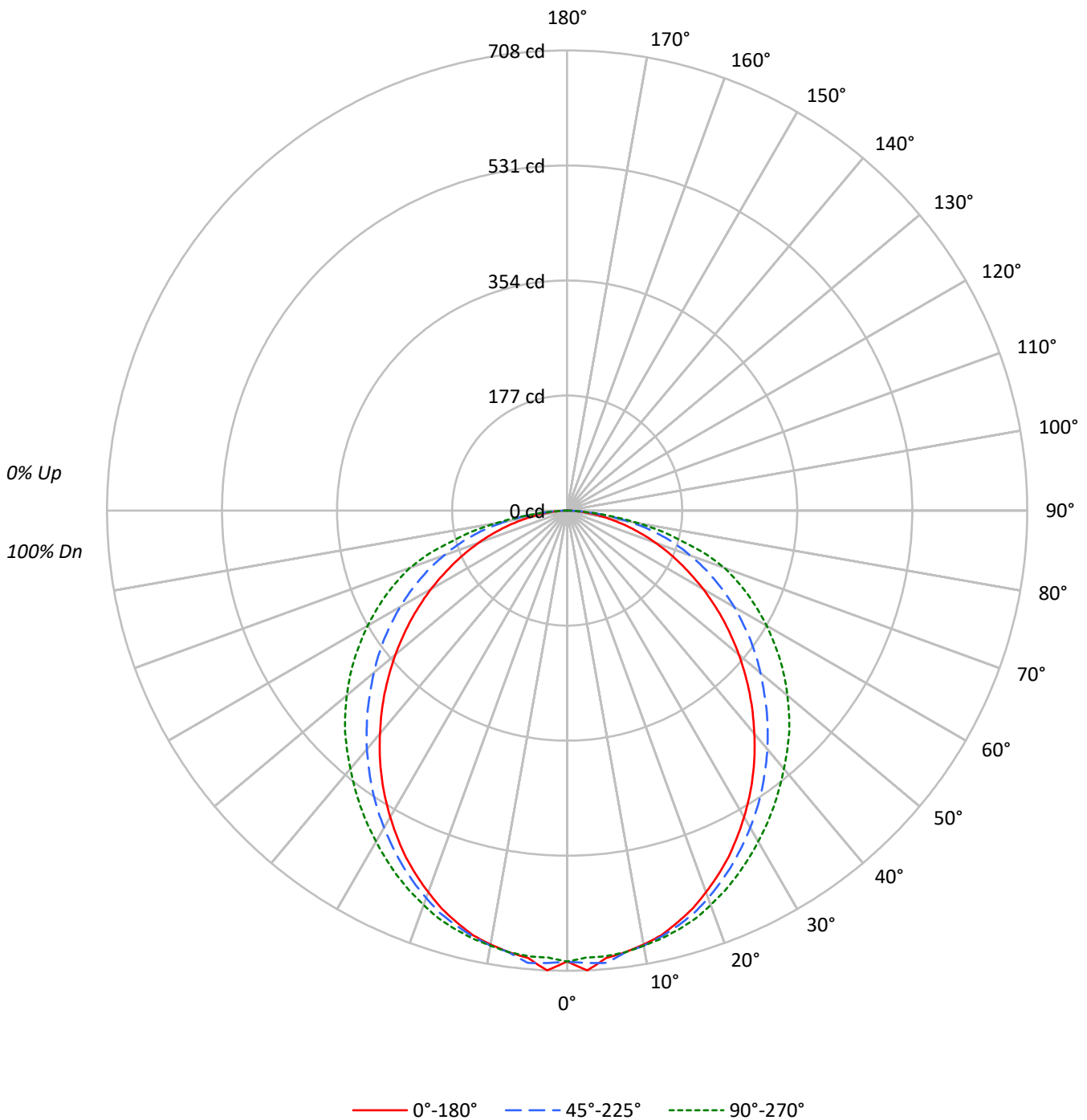
Lumens per Lamp: N/A
Luminaire Lumens: 1944.0 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1867	1867	1867
5°	1867	1887	1859
10°	1852	1857	1857
15°	1828	1841	1857
20°	1790	1816	1849
25°	1746	1785	1839
30°	1692	1751	1827
35°	1637	1717	1823
40°	1574	1684	1823
45°	1511	1651	1838
50°	1444	1626	1852
55°	1375	1610	1876
60°	1302	1597	1908
65°	1222	1589	1956
70°	1138	1585	2023
75°	1032	1582	1916
80°	894	1464	1700
85°	760	1108	1081



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.8	3.4
10°-20°	186.4	9.6
20°-30°	277.3	14.3
30°-40°	328.0	16.9
40°-50°	337.1	17.3
50°-60°	308.0	15.8
60°-70°	246.4	12.7
70°-80°	154.6	8.0
80°-90°	40.3	2.1
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°	529.5	27.2
0°-40°	857.5	44.1
0°-60°	1502.7	77.3
0°-90°	1944.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1944.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	694	694	694	694	694	
5°	691	691	699	694	688	66
15°	656	657	661	665	666	185
25°	588	592	601	612	619	270
35°	498	505	523	543	555	311
45°	397	407	434	466	483	306
55°	293	307	343	381	400	262
65°	192	209	250	287	307	190
75°	99	118	152	175	184	105
85°	25	31	36	35	35	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	693.9	693.9	693.9	693.9	693.9
2.5°	708.1	705.2	696.7	691.0	688.2
5°	691.0	691.0	698.6	693.9	688.2
7.5°	685.4	685.4	685.4	699.6	685.4
10°	677.8	678.8	679.7	685.4	679.7
12.5°	669.3	669.3	671.2	673.1	674.0
15°	656.1	657.0	660.8	664.6	666.5
17.5°	641.9	644.7	649.4	654.2	658.0
20°	624.9	628.7	634.3	641.9	645.7
22.5°	606.9	610.7	618.3	626.8	633.4
25°	588.0	591.8	601.2	611.6	619.2
27.5°	566.3	571.0	582.3	596.5	604.1
30°	544.5	550.2	563.4	579.5	588.0
32.5°	521.8	528.4	543.6	561.5	571.9
35°	498.2	504.8	522.8	542.6	554.9
37.5°	473.6	481.2	501.0	523.7	537.0
40°	448.1	456.6	479.3	503.9	519.0
42.5°	422.6	432.0	456.6	485.9	501.0
45°	397.0	407.4	433.9	466.1	483.1
47.5°	370.6	382.9	410.3	446.2	463.2
50°	345.0	357.3	388.5	425.4	442.4
52.5°	318.6	332.8	365.8	403.7	421.6
55°	293.1	307.2	343.2	381.0	399.9
57.5°	267.5	281.7	319.5	358.3	377.2
60°	242.0	257.1	296.8	334.7	354.5
62.5°	216.5	232.6	273.2	312.0	330.9
65°	191.9	208.9	249.6	287.4	307.2
67.5°	168.3	186.2	225.9	262.8	282.7
70°	144.6	162.6	201.4	237.3	257.1
72.5°	121.9	139.9	177.7	209.9	225.0
75°	99.3	118.2	152.2	174.9	184.3
77.5°	77.5	96.4	125.7	140.9	151.3
80°	57.7	73.7	94.5	105.9	109.7
82.5°	39.7	52.9	66.2	69.0	70.9
85°	24.6	31.2	35.9	35.0	35.0
87.5°	11.3	12.3	10.4	7.6	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)