

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: P233112

Luminaire Tested: **FCB-24-2-LD4-24-50-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233112
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-LD4-24-50-UNV-EDD1-WDP6
Description: FAILSAFE 2X2 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (84)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

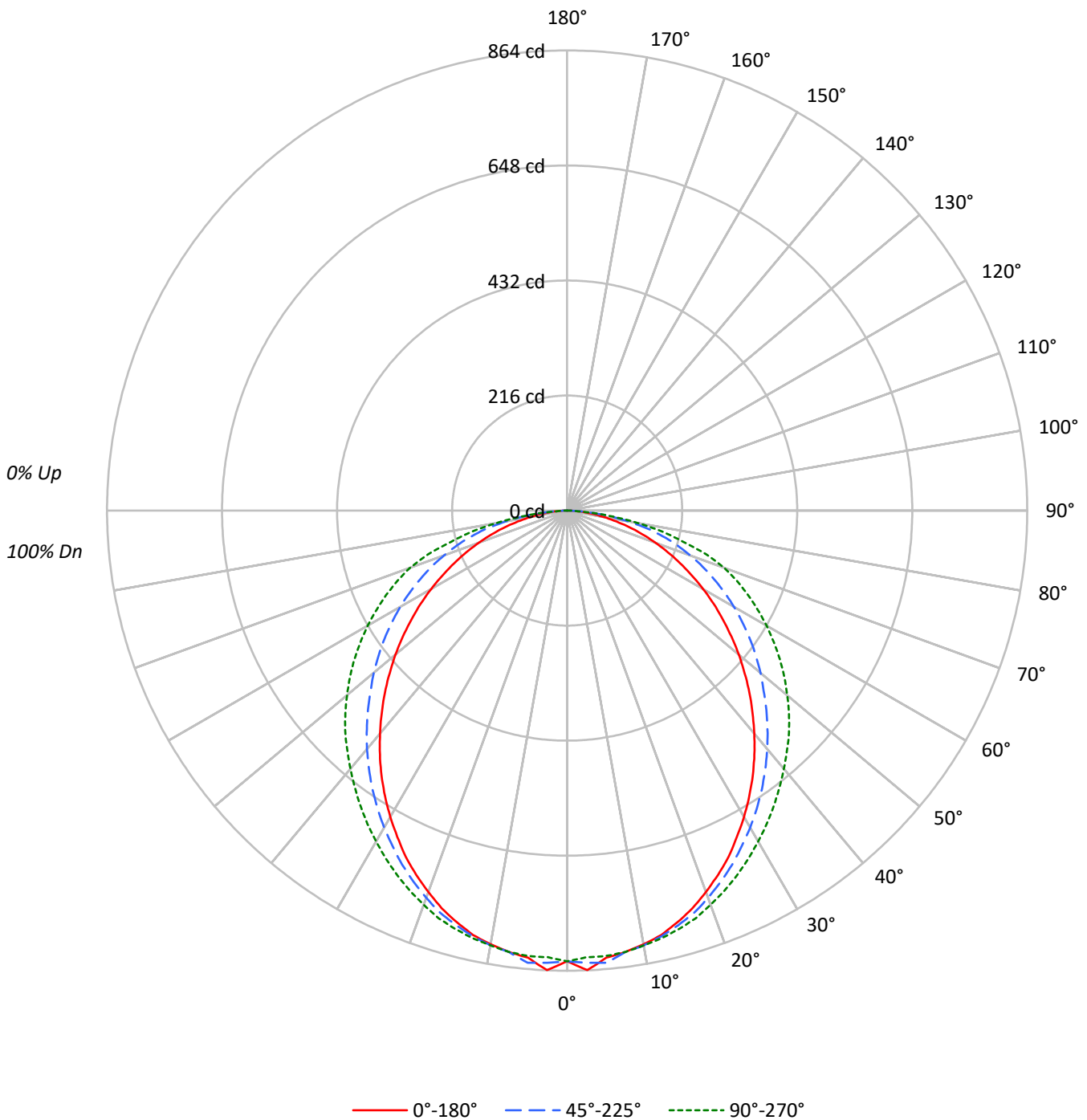
Lumens per Lamp: N/A
Luminaire Lumens: 2371.0 lumens
Efficiency: N/A
Efficacy: 121.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2277	2277	2277
5°	2277	2302	2267
10°	2259	2265	2265
15°	2229	2245	2265
20°	2182	2216	2255
25°	2129	2177	2242
30°	2064	2135	2229
35°	1996	2095	2223
40°	1920	2054	2224
45°	1843	2014	2242
50°	1762	1984	2259
55°	1677	1963	2288
60°	1589	1948	2327
65°	1491	1938	2386
70°	1388	1932	2467
75°	1259	1930	2337
80°	1089	1787	2072
85°	926	1352	1318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.3	3.4
10°-20°	227.4	9.6
20°-30°	338.2	14.3
30°-40°	400.0	16.9
40°-50°	411.1	17.3
50°-60°	375.7	15.8
60°-70°	300.5	12.7
70°-80°	188.6	8.0
80°-90°	49.1	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°	645.9	27.2
0°-40°	1045.9	44.1
0°-60°	1832.7	77.3
0°-90°	2371.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2371.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	846	846	846	846	846	
5°	843	843	852	846	839	80
15°	800	801	806	810	813	225
25°	717	722	733	746	755	330
35°	608	616	638	662	677	380
45°	484	497	529	568	589	373
55°	357	375	418	465	488	320
65°	234	255	304	350	375	232
75°	121	144	186	213	225	129
85°	30	38	44	43	43	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	846.3	846.3	846.3	846.3	846.3
2.5°	863.6	860.1	849.7	842.8	839.4
5°	842.8	842.8	852.1	846.3	839.4
7.5°	835.9	835.9	835.9	853.2	835.9
10°	826.7	827.8	829.0	835.9	829.0
12.5°	816.3	816.3	818.6	820.9	822.1
15°	800.2	801.3	805.9	810.5	812.9
17.5°	782.9	786.3	792.1	797.9	802.5
20°	762.1	766.7	773.7	782.9	787.5
22.5°	740.2	744.8	754.1	764.4	772.5
25°	717.2	721.8	733.3	746.0	755.2
27.5°	690.6	696.4	710.2	727.5	736.8
30°	664.1	671.0	687.2	706.8	717.2
32.5°	636.4	644.5	663.0	684.9	697.6
35°	607.6	615.7	637.6	661.8	676.8
37.5°	577.6	586.9	611.1	638.8	654.9
40°	546.5	556.9	584.6	614.5	633.0
42.5°	515.4	526.9	556.9	592.6	611.1
45°	484.3	496.9	529.2	568.4	589.2
47.5°	452.0	467.0	500.4	544.2	565.0
50°	420.8	435.8	473.9	518.8	539.6
52.5°	388.6	405.9	446.2	492.3	514.2
55°	357.4	374.7	418.5	464.7	487.7
57.5°	326.3	343.6	389.7	437.0	460.0
60°	295.2	313.6	362.0	408.2	432.4
62.5°	264.0	283.6	333.2	380.5	403.5
65°	234.1	254.8	304.4	350.5	374.7
67.5°	205.2	227.1	275.6	320.5	344.7
70°	176.4	198.3	245.6	289.4	313.6
72.5°	148.7	170.6	216.8	256.0	274.4
75°	121.1	144.1	185.6	213.3	224.8
77.5°	94.5	117.6	153.3	171.8	184.5
80°	70.3	89.9	115.3	129.1	133.7
82.5°	48.4	64.6	80.7	84.2	86.5
85°	30.0	38.0	43.8	42.7	42.7
87.5°	13.8	15.0	12.7	9.2	5.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)