

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: P233088

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233088
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
Description: FAILSAFE 2X2 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (84)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

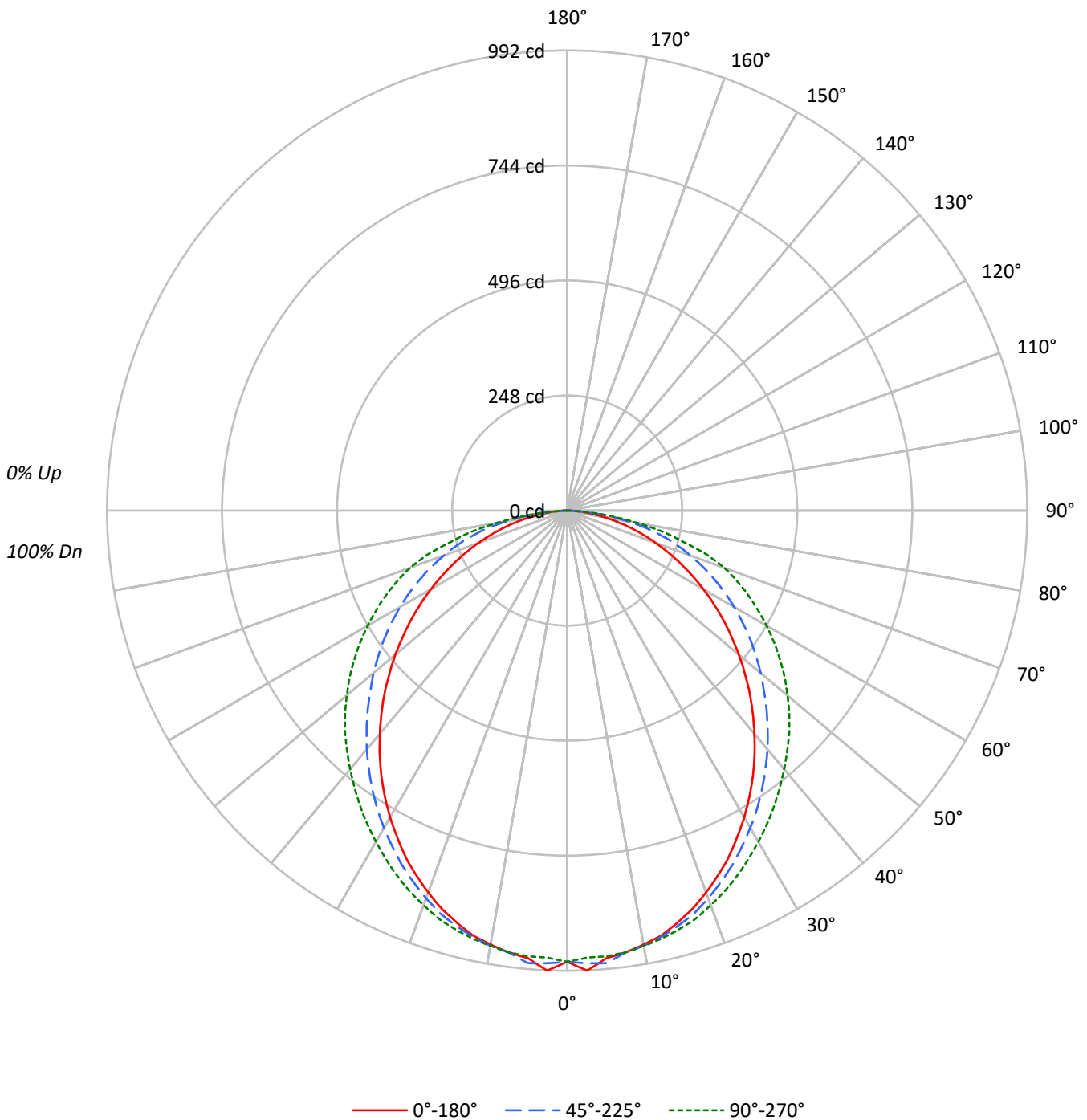
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2725.0 lumens
Efficiency: N/A
Efficacy: 139.0 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 (A_{in}): 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°	2617	2617	2617
5°	2617	2645	2606
10°	2596	2604	2604
15°	2562	2581	2603
20°	2508	2546	2592
25°	2447	2502	2577
30°	2372	2454	2561
35°	2294	2407	2555
40°	2206	2360	2556
45°	2118	2315	2577
50°	2025	2280	2596
55°	1927	2257	2630
60°	1826	2239	2674
65°	1713	2227	2742
70°	1595	2221	2836
75°	1446	2218	2687
80°	1252	2053	2382
85°	1065	1556	1513



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.3	3.4
10°-20°	261.3	9.6
20°-30°	388.7	14.3
30°-40°	459.7	16.9
40°-50°	472.5	17.3
50°-60°	431.8	15.8
60°-70°	345.4	12.7
70°-80°	216.8	8.0
80°-90°	56.5	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°	742.3	27.2
0°-40°	1202.0	44.1
0°-60°	2106.3	77.3
0°-90°	2725.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2725.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	973	973	973	973	973	
5°	969	969	979	973	965	92
15°	920	921	926	932	934	259
25°	824	830	843	857	868	379
35°	698	708	733	761	778	436
45°	557	571	608	653	677	429
55°	411	431	481	534	560	367
65°	269	293	350	403	431	267
75°	139	166	213	245	258	148
85°	34	44	50	49	49	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	972.6	972.6	972.6	972.6	972.6
2.5°	992.5	988.5	976.6	968.7	964.7
5°	968.7	968.7	979.3	972.6	964.7
7.5°	960.7	960.7	960.7	980.6	960.7
10°	950.1	951.4	952.8	960.7	952.8
12.5°	938.2	938.2	940.8	943.5	944.8
15°	919.6	921.0	926.3	931.6	934.2
17.5°	899.8	903.7	910.4	917.0	922.3
20°	875.9	881.2	889.2	899.8	905.1
22.5°	850.7	856.0	866.6	878.6	887.8
25°	824.2	829.5	842.8	857.4	868.0
27.5°	793.8	800.4	816.3	836.2	846.8
30°	763.3	771.2	789.8	812.3	824.2
32.5°	731.5	740.7	761.9	787.1	801.7
35°	698.3	707.6	732.8	760.6	777.9
37.5°	663.9	674.5	702.3	734.1	752.7
40°	628.1	640.0	671.8	706.3	727.5
42.5°	592.3	605.6	640.0	681.1	702.3
45°	556.6	571.1	608.2	653.3	677.1
47.5°	519.5	536.7	575.1	625.5	649.3
50°	483.7	500.9	544.6	596.3	620.2
52.5°	446.6	466.4	512.8	565.8	591.0
55°	410.8	430.7	481.0	534.0	560.5
57.5°	375.0	394.9	447.9	502.2	528.7
60°	339.2	360.4	416.1	469.1	496.9
62.5°	303.5	326.0	383.0	437.3	463.8
65°	269.0	292.9	349.8	402.8	430.7
67.5°	235.9	261.1	316.7	368.4	396.2
70°	202.7	227.9	282.3	332.6	360.4
72.5°	170.9	196.1	249.1	294.2	315.4
75°	139.1	165.6	213.3	245.1	258.4
77.5°	108.7	135.2	176.2	197.4	212.0
80°	80.8	103.4	132.5	148.4	153.7
82.5°	55.7	74.2	92.8	96.7	99.4
85°	34.5	43.7	50.4	49.0	49.0
87.5°	15.9	17.2	14.6	10.6	6.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)