

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: P233132

Luminaire Tested: **FCB-24-2-LD4-44-50-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233132
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-LD4-44-50-UNV-EDD1-WDA12
Description: FAILSAFE 2X2 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (84)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

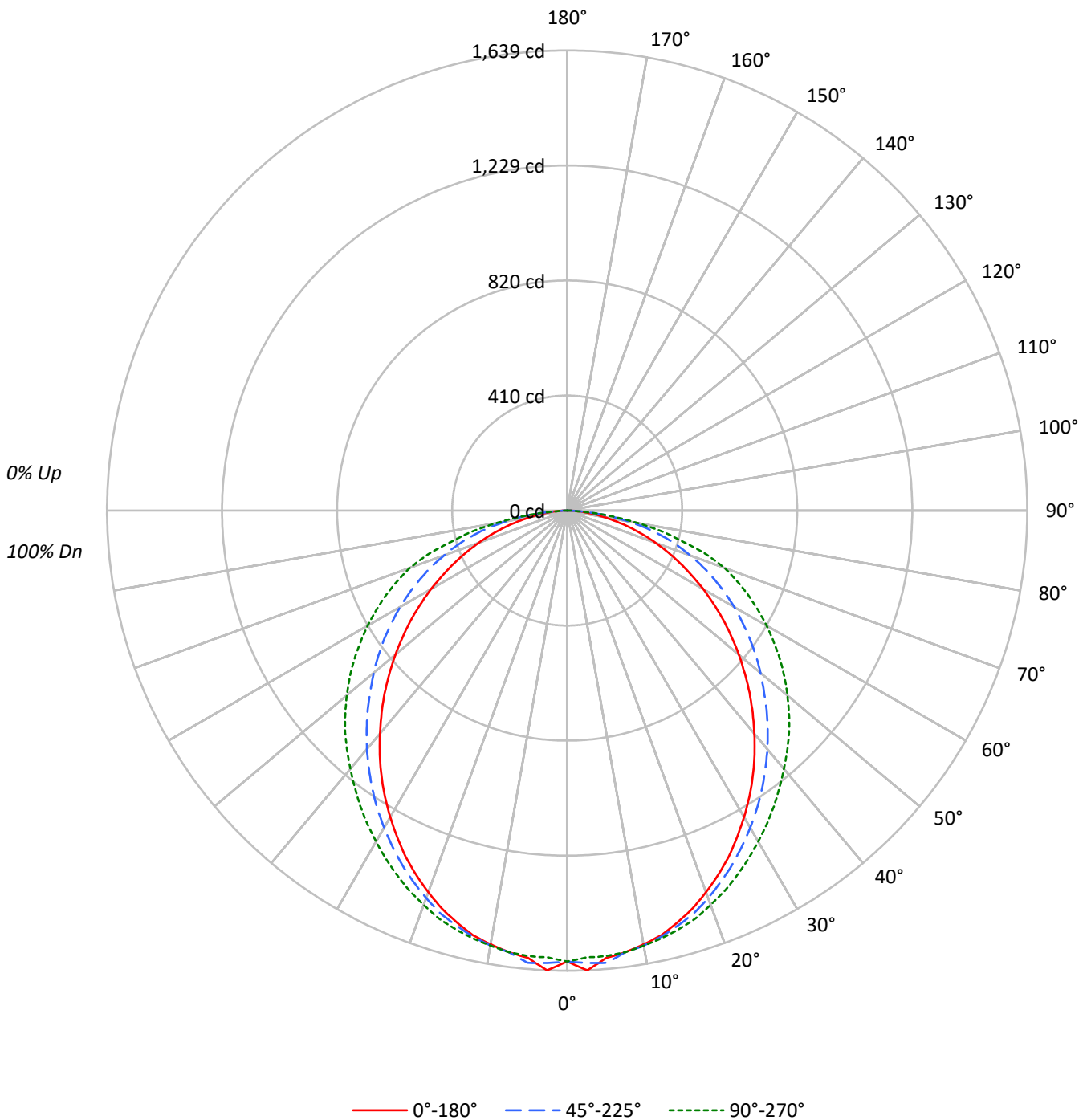
Lumens per Lamp: N/A
Luminaire Lumens: 4500.0 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	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					100			
1	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33					33			
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4322	4322	4322
5°	4321	4368	4303
10°	4287	4299	4299
15°	4231	4261	4298
20°	4142	4205	4280
25°	4041	4132	4256
30°	3917	4053	4229
35°	3788	3975	4220
40°	3644	3897	4220
45°	3498	3822	4255
50°	3344	3765	4287
55°	3183	3727	4343
60°	3015	3698	4416
65°	2828	3678	4528
70°	2634	3667	4683
75°	2389	3663	4436
80°	2069	3391	3933
85°	1757	2569	2501



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.3	3.4
10°-20°	431.5	9.6
20°-30°	641.9	14.3
30°-40°	759.2	16.9
40°-50°	780.3	17.3
50°-60°	713.0	15.8
60°-70°	570.4	12.7
70°-80°	358.0	8.0
80°-90°	93.2	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°	1225.8	27.2
0°-40°	1985.0	44.1
0°-60°	3478.4	77.3
0°-90°	4500.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4500.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1606	1606	1606	1606	1606	
5°	1600	1600	1617	1606	1593	152
15°	1519	1521	1530	1538	1543	428
25°	1361	1370	1392	1416	1433	626
35°	1153	1168	1210	1256	1284	721
45°	919	943	1004	1079	1118	709
55°	678	711	794	882	926	607
65°	444	484	578	665	711	441
75°	230	274	352	405	427	244
85°	57	72	83	81	81	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1606.2	1606.2	1606.2	1606.2	1606.2
2.5°	1639.0	1632.5	1612.8	1599.6	1593.1
5°	1599.6	1599.6	1617.1	1606.2	1593.1
7.5°	1586.5	1586.5	1586.5	1619.3	1586.5
10°	1569.0	1571.2	1573.4	1586.5	1573.4
12.5°	1549.3	1549.3	1553.7	1558.1	1560.2
15°	1518.7	1520.9	1529.6	1538.4	1542.7
17.5°	1485.8	1492.4	1503.4	1514.3	1523.0
20°	1446.5	1455.2	1468.3	1485.8	1494.6
22.5°	1404.9	1413.6	1431.1	1450.8	1466.2
25°	1361.1	1369.9	1391.7	1415.8	1433.3
27.5°	1310.8	1321.7	1348.0	1380.8	1398.3
30°	1260.5	1273.6	1304.2	1341.4	1361.1
32.5°	1207.9	1223.3	1258.3	1299.8	1323.9
35°	1153.2	1168.5	1210.1	1256.1	1284.5
37.5°	1096.3	1113.8	1159.8	1212.3	1242.9
40°	1037.2	1056.9	1109.5	1166.4	1201.4
42.5°	978.2	1000.0	1056.9	1124.8	1159.8
45°	919.1	943.2	1004.4	1078.8	1118.2
47.5°	857.8	886.3	949.7	1032.9	1072.3
50°	798.7	827.2	899.4	984.7	1024.1
52.5°	737.5	770.3	846.9	934.4	976.0
55°	678.4	711.2	794.3	881.9	925.6
57.5°	619.3	652.1	739.6	829.4	873.1
60°	560.2	595.2	687.1	774.7	820.6
62.5°	501.1	538.3	632.4	722.1	765.9
65°	444.2	483.6	577.7	665.2	711.2
67.5°	389.5	431.1	523.0	608.3	654.3
70°	334.8	376.4	466.1	549.3	595.2
72.5°	282.3	323.9	411.4	485.8	520.8
75°	229.8	273.5	352.3	404.8	426.7
77.5°	179.4	223.2	291.0	326.1	350.1
80°	133.5	170.7	218.8	245.1	253.8
82.5°	91.9	122.5	153.2	159.7	164.1
85°	56.9	72.2	83.2	81.0	81.0
87.5°	26.3	28.4	24.1	17.5	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)