

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: P732421

Luminaire Tested: **14FCZ2-20-B2750-W2D-CP187-2700K**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P732421  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P275502)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-20-B2750-W2D-CP187-2700K  
Description: 1X4 2000 LUMEN SEALED CRUZE TROFFER WITH BIO UP LEDS AT 2700K CCT  
AND RIBBED LENS, WITH, CP187 BOTTOM LENS  
  
Light Source: -  
Ballast/Driver: -

**Summary**

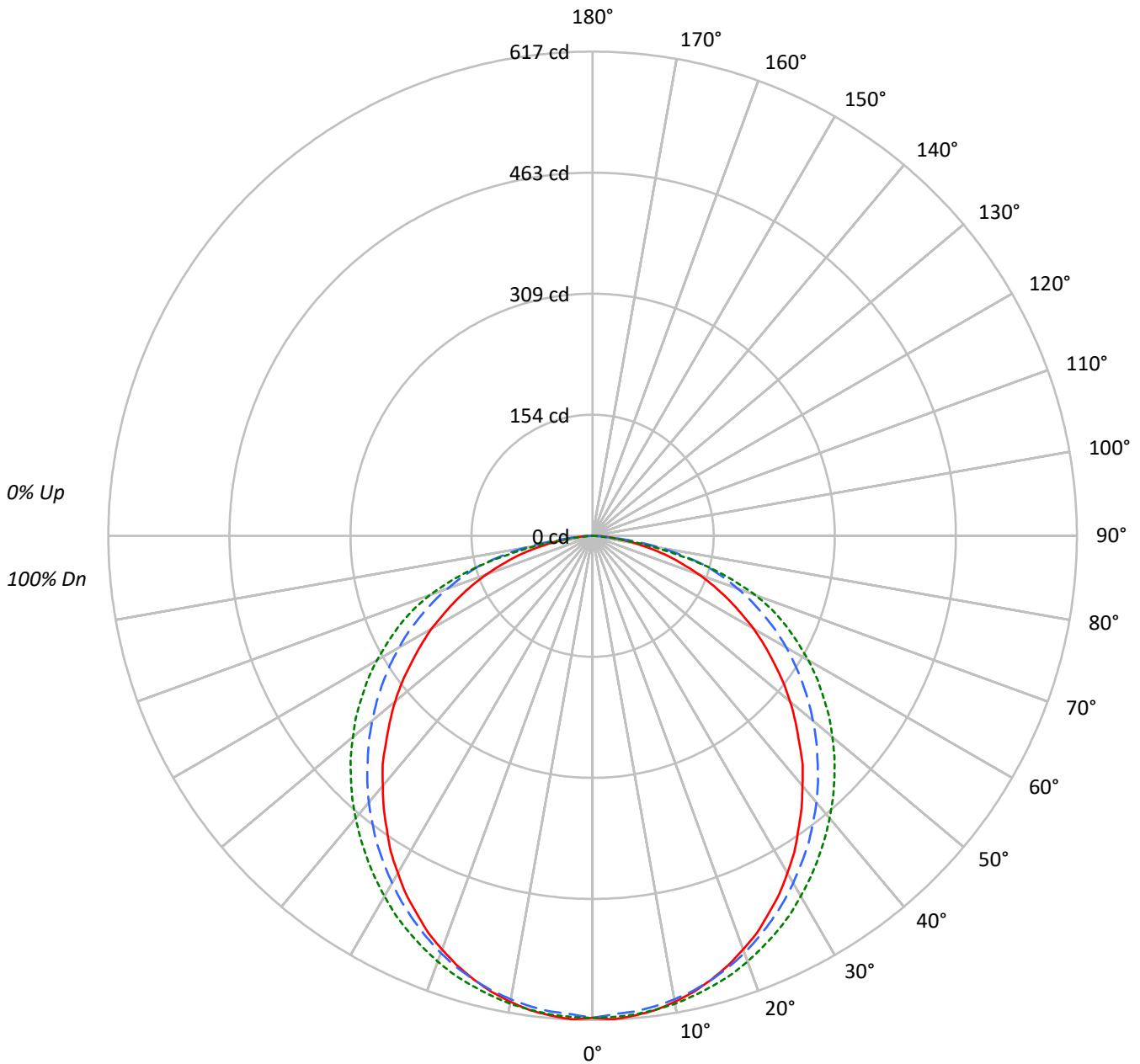
Lumens per Lamp: N/A  
Luminaire Lumens: 1783.0 lumens  
Efficiency: N/A  
Efficacy: 111.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 0.96' x L: 3.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 16  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83								
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69								
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58								
4	82	70	61	54	79	68	60	53	66	58	53	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	34	32								
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29								
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26								
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1734	1734	1734
5°	1739	1725	1735
10°	1729	1719	1735
15°	1710	1711	1735
20°	1685	1700	1734
25°	1653	1683	1732
30°	1617	1665	1729
35°	1574	1651	1727
40°	1532	1635	1730
45°	1485	1617	1739
50°	1442	1610	1751
55°	1387	1605	1767
60°	1338	1607	1791
65°	1269	1612	1819
70°	1192	1624	1817
75°	1079	1639	1644
80°	886	1414	1169
85°	654	670	269



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.1	3.3
10°-20°	166.0	9.3
20°-30°	250.1	14.0
30°-40°	300.2	16.8
40°-50°	312.8	17.5
50°-60°	289.6	16.2
60°-70°	234.0	13.1
70°-80°	142.7	8.0
80°-90°	29.4	1.7
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°	474.3	26.6
0°-40°	774.4	43.4
0°-60°	1376.9	77.2
0°-90°	1783.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1783.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	614	612	609	613	612	58
15°	585	586	586	594	594	165
25°	531	534	540	554	556	245
35°	457	464	479	497	501	286
45°	372	383	405	428	436	288
55°	282	297	326	352	359	253
65°	190	209	241	266	272	188
75°	99	121	150	153	151	104
85°	20	30	21	12	8	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	<i>614.3</i>	614.3	614.3	614.3	614.3
2.5°	<i>616.7</i>	<i>614.7</i>	<i>610.3</i>	<i>614.7</i>	<i>613.8</i>
5°	<i>613.8</i>	612.3	608.7	613.1	612.3
7.5°	<i>609.9</i>	608.2	605.1	610.3	609.4
10°	<i>603.1</i>	602.3	599.9	605.9	605.5
12.5°	<i>595.2</i>	594.8	593.6	600.4	599.9
15°	<i>585.3</i>	585.6	585.6	593.6	593.6
17.5°	<i>574.1</i>	574.9	576.5	585.3	586.5
20°	<i>561.0</i>	562.6	565.8	575.7	577.3
22.5°	<i>547.5</i>	548.7	553.4	565.3	567.0
25°	<i>530.7</i>	533.9	540.3	553.8	556.2
27.5°	<i>514.9</i>	517.6	526.4	540.3	544.3
30°	<i>496.2</i>	500.5	510.9	526.0	530.4
32.5°	<i>478.3</i>	483.0	495.0	512.5	516.4
35°	<i>456.9</i>	464.0	479.1	496.6	501.3
37.5°	<i>437.4</i>	444.1	461.2	480.3	485.9
40°	<i>415.8</i>	424.2	443.7	464.0	469.6
42.5°	<i>396.0</i>	403.9	425.0	445.7	453.3
45°	<i>372.1</i>	383.3	405.1	427.7	435.7
47.5°	<i>350.3</i>	361.4	386.5	410.7	417.9
50°	<i>328.4</i>	340.3	366.6	391.6	398.7
52.5°	<i>305.7</i>	318.5	346.6	371.7	380.1
55°	<i>281.8</i>	296.6	326.1	351.5	359.0
57.5°	<i>259.2</i>	274.3	305.7	331.5	339.1
60°	<i>237.0</i>	252.5	284.7	309.3	317.3
62.5°	<i>212.3</i>	230.6	264.0	288.2	294.2
65°	<i>190.0</i>	208.7	241.3	265.5	272.3
67.5°	<i>166.6</i>	186.8	219.5	241.7	248.1
70°	<i>144.4</i>	165.4	196.8	217.5	220.2
72.5°	<i>120.5</i>	142.0	173.7	186.8	186.8
75°	<i>98.9</i>	120.8	150.3	152.7	150.7
77.5°	<i>75.5</i>	99.8	118.9	114.1	109.3
80°	<i>54.5</i>	78.4	87.0	78.4	71.9
82.5°	<i>36.6</i>	56.8	52.4	41.7	37.0
85°	<i>20.2</i>	30.2	20.7	11.5	8.3
87.5°	<i>7.6</i>	6.8	2.0	2.0	2.0
90°	<i>0.0</i>	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)