

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: P733999

Luminaire Tested: **24FCZ2-30-S-B2750-W2D-CP187-4000K**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P733999  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P272125)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-30-S-B2750-W2D-CP187-4000K  
Description: 2X4 3000 LUMEN SEALED CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT  
AND SMOOTH LENS, WITH, CP187 BOTTOM LENS  
  
Light Source: -  
Ballast/Driver: -

**Summary**

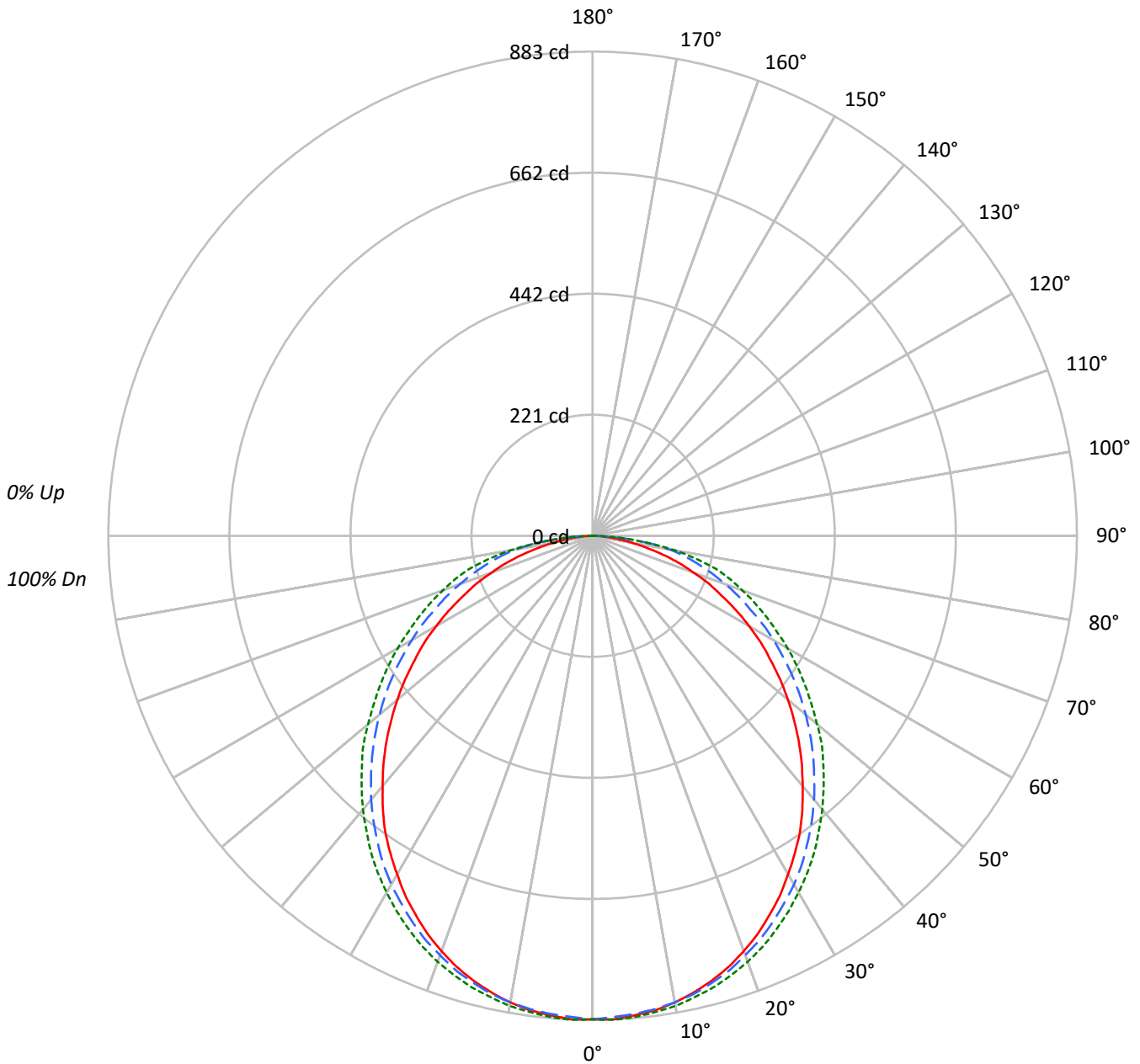
Lumens per Lamp: N/A  
Luminaire Lumens: 2510.0 lumens  
Efficiency: N/A  
Efficacy: 109.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 23  
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									
RC	80									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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83																			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	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	80	68	60	54	66	59	53	63	57	52	61	56	51	49																			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42																			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37																			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33																			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29																			
9	56	43	34	29	55	42	34	29	41	34	28	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°	1245	1245	1245
5°	1244	1240	1248
10°	1238	1238	1248
15°	1227	1232	1245
20°	1211	1223	1242
25°	1188	1210	1234
30°	1162	1197	1224
35°	1136	1177	1214
40°	1097	1157	1200
45°	1061	1135	1187
50°	1021	1113	1173
55°	975	1093	1161
60°	930	1076	1159
65°	871	1057	1166
70°	806	1063	1198
75°	722	1083	1265
80°	584	1147	1238
85°	439	1007	981



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.5	3.3
10°-20°	238.5	9.5
20°-30°	358.6	14.3
30°-40°	427.1	17.0
40°-50°	437.1	17.4
50°-60°	393.5	15.7
60°-70°	309.1	12.3
70°-80°	200.6	8.0
80°-90°	62.0	2.5
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°	680.6	27.1
0°-40°	1107.7	44.1
0°-60°	1938.3	77.2
0°-90°	2510.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2510.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	882	882	882	882	882	
5°	878	879	875	880	881	83
15°	840	842	844	851	852	237
25°	763	769	777	790	792	351
35°	659	667	683	700	705	411
45°	532	545	568	590	595	410
55°	396	414	444	467	472	355
65°	261	281	316	343	349	260
75°	132	158	199	226	232	140
85°	27	50	62	61	61	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	881.8	881.8	881.8	881.8	<i>881.8</i>
2.5°	<i>882.6</i>	<i>882.6</i>	<i>878.6</i>	<i>882.6</i>	<i>883.4</i>
5°	877.8	879.4	875.4	880.2	<i>881.0</i>
7.5°	873.0	873.0	870.6	875.4	<i>876.2</i>
10°	864.2	865.0	864.2	869.8	<i>870.6</i>
12.5°	853.1	854.6	855.5	861.1	<i>861.8</i>
15°	839.6	842.0	843.5	850.7	<i>852.3</i>
17.5°	824.4	826.8	830.7	838.7	<i>840.3</i>
20°	806.0	809.2	814.0	824.4	<i>826.8</i>
22.5°	786.1	789.3	797.3	806.8	<i>810.8</i>
25°	763.0	769.3	777.3	790.1	<i>792.5</i>
27.5°	739.8	745.4	755.8	769.3	<i>772.6</i>
30°	712.8	721.5	734.3	747.8	<i>751.0</i>
32.5°	686.4	695.2	710.4	724.8	<i>728.7</i>
35°	659.3	667.3	683.3	700.0	<i>704.8</i>
37.5°	628.2	638.6	656.2	672.9	<i>677.7</i>
40°	595.6	608.3	628.2	645.8	<i>651.4</i>
42.5°	564.4	578.0	598.0	617.1	<i>623.4</i>
45°	531.8	544.6	568.5	590.0	<i>594.8</i>
47.5°	498.3	512.7	538.1	559.6	<i>567.6</i>
50°	464.8	480.0	507.1	529.4	<i>534.2</i>
52.5°	431.3	447.3	476.0	499.9	<i>502.3</i>
55°	396.2	413.8	444.1	467.2	<i>472.0</i>
57.5°	364.4	379.5	412.2	436.1	<i>441.7</i>
60°	329.3	346.0	381.1	403.4	<i>410.6</i>
62.5°	295.8	313.3	350.0	372.3	<i>378.7</i>
65°	260.7	280.7	316.5	342.8	<i>349.2</i>
67.5°	230.4	249.6	287.8	313.3	<i>319.7</i>
70°	195.3	216.9	257.5	283.9	<i>290.2</i>
72.5°	165.0	187.3	228.0	253.5	<i>263.1</i>
75°	132.4	157.8	198.6	225.6	<i>232.0</i>
77.5°	100.5	130.0	171.4	192.1	<i>192.1</i>
80°	71.8	102.9	141.1	150.7	<i>152.3</i>
82.5°	47.1	77.3	104.4	103.6	<i>103.6</i>
85°	27.1	50.2	62.2	60.6	<i>60.6</i>
87.5°	10.4	20.7	22.3	22.3	<i>21.5</i>
90°	0.0	0.0	0.0	0.0	<i>0.0</i>



Report Generated By 670246072 / DESKTOP-50001EG







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







(END OF REPORT)