

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: P312597

Luminaire Tested: **22FCZ2-20HE-UNV-L83050-RDP-CA125-W2A-U-4000K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P312597  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-20HE-UNV-L83050-RDP-CA125-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET  
Light Source: (168) 4000K TUNABLE CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: 

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

**Summary**

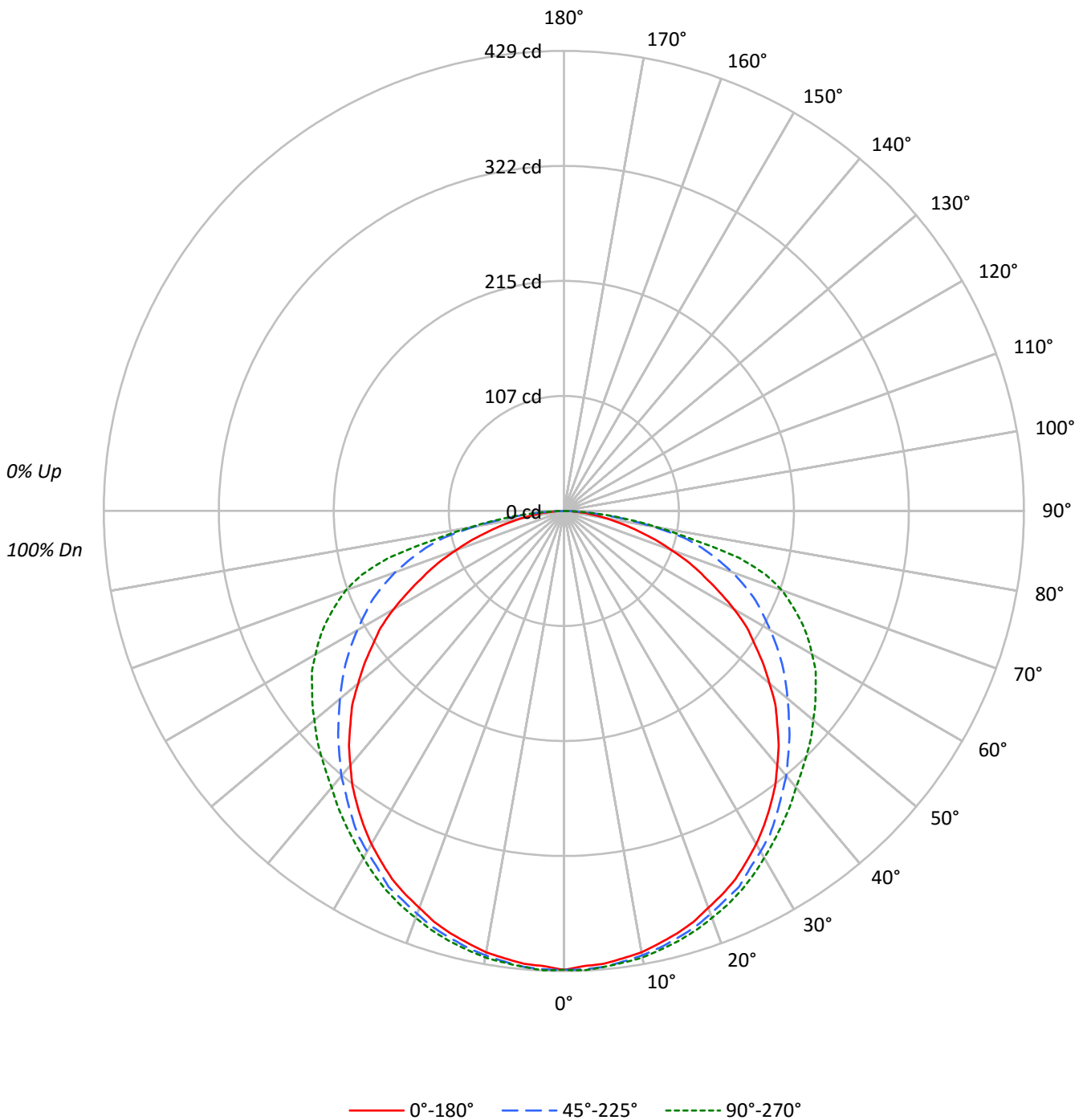
Lumens per Lamp: N/A  
Luminaire Lumens: 1362.0 lumens  
Efficiency: N/A  
Efficacy: 79.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



TEST NUMBER: P312597

CATALOG NUMBER: 22FCZ2-20HE-UNV-L83050-RDP-CA125-W2A-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P312597

CATALOG NUMBER: 22FCZ2-20HE-UNV-L83050-RDP-CA125-W2A-U-4000K

**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	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1151	1151	1151
5°	1145	1153	1153
10°	1142	1150	1155
15°	1136	1147	1156
20°	1128	1145	1156
25°	1124	1148	1160
30°	1115	1139	1161
35°	1102	1136	1169
40°	1088	1133	1183
45°	1071	1133	1220
50°	1049	1141	1271
55°	1020	1166	1345
60°	987	1197	1440
65°	919	1257	1557
70°	843	1316	1703
75°	739	1386	1760
80°	637	1320	1382
85°	556	960	1053



TEST NUMBER: P312597

CATALOG NUMBER: 22FCZ2-20HE-UNV-L83050-RDP-CA125-W2A-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.5	3.0
10°-20°	116.2	8.5
20°-30°	177.3	13.0
30°-40°	216.5	15.9
40°-50°	231.4	17.0
50°-60°	223.4	16.4
60°-70°	192.3	14.1
70°-80°	130.1	9.6
80°-90°	34.3	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°	333.9	24.5
0°-40°	550.4	40.4
0°-60°	1005.3	73.8
0°-90°	1362.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1362.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	428	428	428	428	428	
5°	424	425	427	427	427	40
15°	408	409	412	414	415	115
25°	379	381	387	389	391	174
35°	336	339	346	353	356	210
45°	282	287	298	313	321	217
55°	217	224	248	274	287	195
65°	144	158	197	228	244	143
75°	71	94	133	160	169	76
85°	18	25	31	32	34	20
90°	0	0	0	0	0	



TEST NUMBER: P312597

CATALOG NUMBER: 22FCZ2-20HE-UNV-L83050-RDP-CA125-W2A-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	427.8	427.8	427.8	427.8	427.8
2.5°	424.8	425.8	427.8	427.8	428.8
5°	423.8	424.8	426.8	426.8	426.8
7.5°	420.8	421.8	423.8	424.8	424.8
10°	417.8	418.8	420.8	421.8	422.8
12.5°	412.8	413.8	416.8	418.8	418.8
15°	407.8	408.8	411.8	413.8	414.8
17.5°	401.8	403.8	406.8	408.8	409.8
20°	393.8	395.8	399.8	402.8	403.8
22.5°	386.7	388.8	392.8	395.8	397.8
25°	378.7	380.7	386.7	388.8	390.8
27.5°	368.7	370.7	375.7	379.7	382.7
30°	358.7	360.7	366.7	371.7	373.7
32.5°	347.7	350.7	357.7	361.7	364.7
35°	335.6	338.7	345.7	352.7	355.7
37.5°	323.6	326.6	333.6	342.7	346.7
40°	309.6	313.6	322.6	334.6	336.7
42.5°	296.6	301.6	309.6	323.6	328.6
45°	281.5	286.6	297.6	312.6	320.6
47.5°	267.5	272.5	284.6	302.6	312.6
50°	250.5	257.5	272.5	293.6	303.6
52.5°	234.5	240.5	260.5	283.5	295.6
55°	217.4	224.4	248.5	273.5	286.6
57.5°	202.4	208.4	235.5	263.5	278.5
60°	183.4	191.4	222.4	252.5	267.5
62.5°	163.3	175.3	209.4	240.5	256.5
65°	144.3	158.3	197.4	228.4	244.5
67.5°	127.2	142.3	182.4	215.4	230.4
70°	107.2	126.2	167.3	199.4	216.4
72.5°	89.2	110.2	150.3	182.4	197.4
75°	71.1	94.2	133.3	160.3	169.3
77.5°	55.1	77.1	114.2	122.2	123.2
80°	41.1	61.1	85.2	86.2	89.2
82.5°	28.1	43.1	55.1	60.1	61.1
85°	18.0	25.0	31.1	32.1	34.1
87.5°	8.0	9.0	11.0	10.0	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)