

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: P312733

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-RDP-CP187-W2A-U-4500K**

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: P312733  
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: 22FCZ2-44HE-UNV-L83050-RDP-CP187-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET  
Light Source: (168) 4500K 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: 2642.0 lumens  
Efficiency: N/A  
Efficacy: 67.7 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

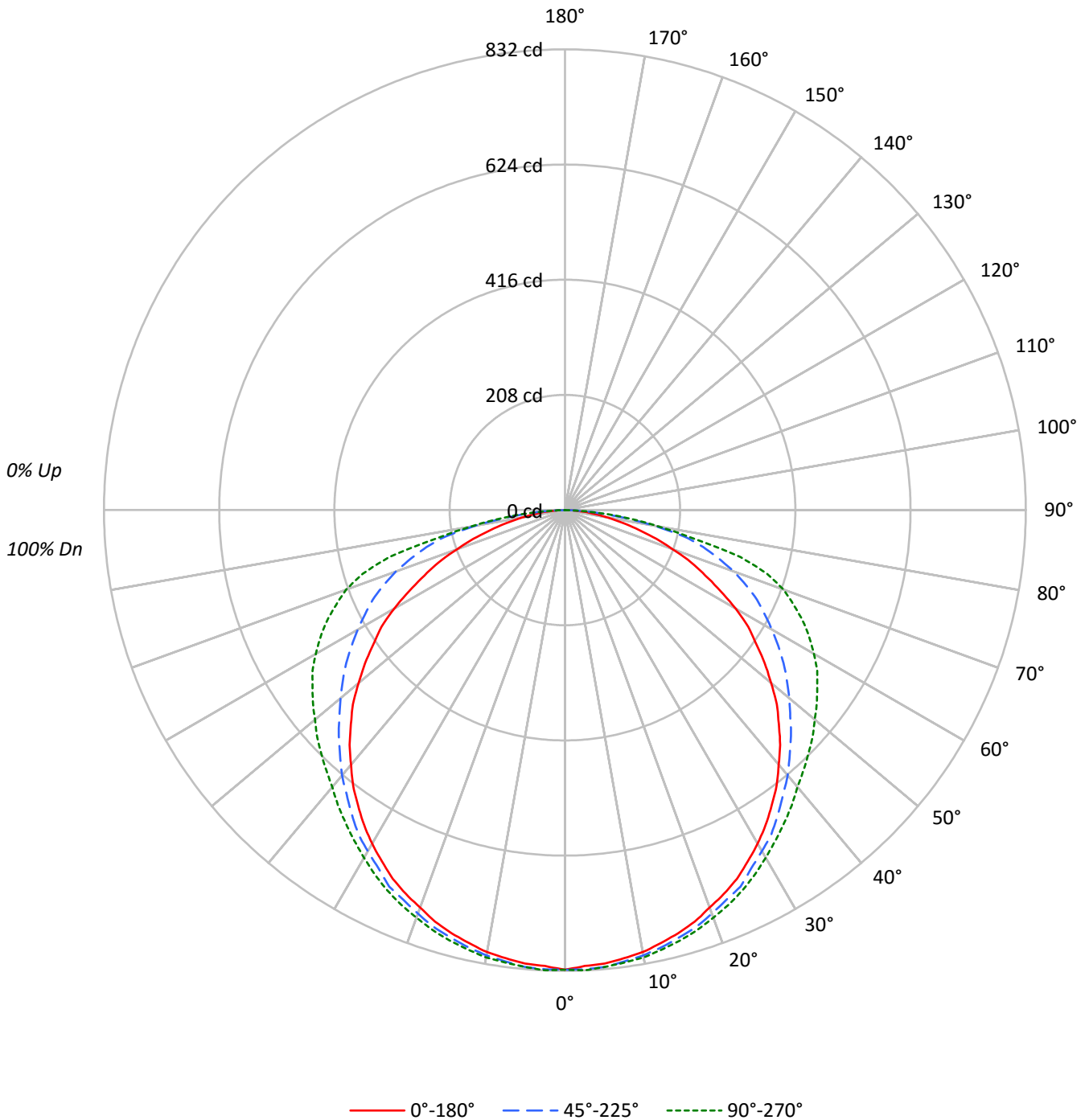
Input Watts (W): 39  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P312733

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-RDP-CP187-W2A-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P312733

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-RDP-CP187-W2A-U-4500K

**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	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°	2233	2233	2233
5°	2221	2237	2237
10°	2215	2231	2241
15°	2204	2225	2242
20°	2187	2221	2243
25°	2181	2227	2251
30°	2162	2210	2252
35°	2139	2203	2267
40°	2110	2198	2294
45°	2078	2197	2367
50°	2034	2213	2465
55°	1979	2261	2608
60°	1914	2322	2793
65°	1782	2438	3019
70°	1637	2554	3303
75°	1435	2688	3415
80°	1235	2560	2681
85°	1081	1862	2041



TEST NUMBER: P312733

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-RDP-CP187-W2A-U-4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.5	3.0
10°-20°	225.4	8.5
20°-30°	343.9	13.0
30°-40°	419.9	15.9
40°-50°	449.0	17.0
50°-60°	433.4	16.4
60°-70°	373.0	14.1
70°-80°	252.4	9.6
80°-90°	66.6	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°	647.8	24.5
0°-40°	1067.7	40.4
0°-60°	1950.0	73.8
0°-90°	2642.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2642.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	822	824	828	828	828	78
15°	791	793	799	803	805	223
25°	735	739	750	754	758	338
35°	651	657	670	684	690	407
45°	546	556	577	606	622	422
55°	422	435	482	531	556	378
65°	280	307	383	443	474	278
75°	138	183	258	311	328	148
85°	35	49	60	62	66	39
90°	0	0	0	0	0	



TEST NUMBER: P312733

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-RDP-CP187-W2A-U-4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	829.9	829.9	829.9	829.9	829.9
2.5°	824.1	826.0	829.9	829.9	831.8
5°	822.1	824.1	828.0	828.0	828.0
7.5°	816.3	818.2	822.1	824.1	824.1
10°	810.5	812.4	816.3	818.2	820.2
12.5°	800.7	802.7	808.5	812.4	812.4
15°	791.0	793.0	798.8	802.7	804.6
17.5°	779.4	783.3	789.1	793.0	794.9
20°	763.8	767.7	775.5	781.3	783.3
22.5°	750.2	754.1	761.9	767.7	771.6
25°	734.7	738.6	750.2	754.1	758.0
27.5°	715.2	719.1	728.8	736.6	742.4
30°	695.8	699.7	711.3	721.1	724.9
32.5°	674.4	680.2	693.8	701.6	707.5
35°	651.1	656.9	670.5	684.1	690.0
37.5°	627.8	633.6	647.2	664.7	672.5
40°	600.6	608.3	625.8	649.1	653.0
42.5°	575.3	585.0	600.6	627.8	637.5
45°	546.1	555.9	577.2	606.4	621.9
47.5°	518.9	528.6	552.0	587.0	606.4
50°	485.9	499.5	528.6	569.5	588.9
52.5°	454.8	466.5	505.3	550.0	573.3
55°	421.8	435.4	482.0	530.6	555.9
57.5°	392.6	404.3	456.7	511.2	540.3
60°	355.7	371.2	431.5	489.8	518.9
62.5°	316.8	340.1	406.2	466.5	497.6
65°	279.9	307.1	382.9	443.1	474.2
67.5°	246.8	276.0	353.7	417.9	447.0
70°	208.0	244.9	324.6	386.8	419.8
72.5°	173.0	213.8	291.5	353.7	382.9
75°	138.0	182.7	258.5	311.0	328.5
77.5°	106.9	149.7	221.6	237.1	239.1
80°	79.7	118.6	165.2	167.1	173.0
82.5°	54.4	83.6	106.9	116.6	118.6
85°	35.0	48.6	60.3	62.2	66.1
87.5°	15.5	17.5	21.4	19.4	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)