

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: P312589

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-HRP-CP250-W2A-U-5000K**

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: P312589
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
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-HRP-CP250-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 5000K 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: 3152.0 lumens
Efficiency: N/A
Efficacy: 80.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

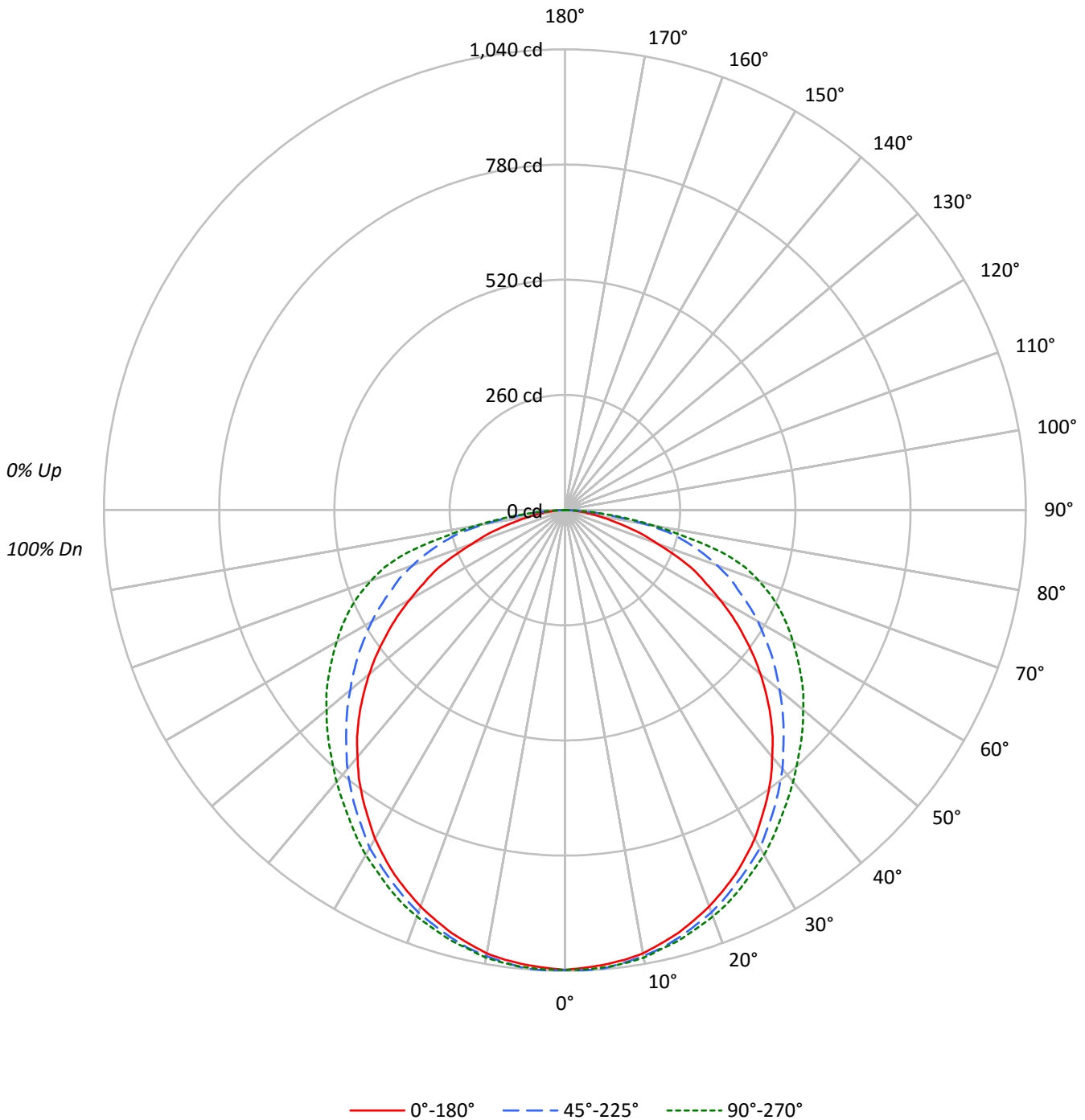
Input Watts (W): 39
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312589

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-HRP-CP250-W2A-U-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P312589

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-HRP-CP250-W2A-U-5000K

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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2793	2793	2793
5°	2782	2804	2798
10°	2776	2793	2804
15°	2753	2781	2797
20°	2727	2767	2796
25°	2698	2745	2793
30°	2663	2737	2793
35°	2613	2704	2789
40°	2556	2682	2815
45°	2497	2656	2860
50°	2414	2647	2938
55°	2304	2668	3050
60°	2172	2708	3200
65°	2051	2760	3419
70°	1752	2879	3661
75°	1468	2997	3804
80°	1201	2896	3174
85°	1044	2149	2334



TEST NUMBER: P312589

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-HRP-CP250-W2A-U-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.4	3.1
10°-20°	281.4	8.9
20°-30°	426.4	13.5
30°-40°	514.9	16.3
40°-50°	541.1	17.2
50°-60°	509.1	16.2
60°-70°	424.5	13.5
70°-80°	281.3	8.9
80°-90°	75.0	2.4
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°	806.2	25.6
0°-40°	1321.1	41.9
0°-60°	2371.3	75.2
0°-90°	3152.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3152.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1038	1038	1038	1038	1038	
5°	1030	1032	1038	1038	1036	98
15°	988	992	998	1002	1004	279
25°	909	915	925	936	940	418
35°	795	803	823	841	849	497
45°	656	666	698	734	752	505
55°	491	513	569	626	650	439
65°	322	350	434	505	537	313
75°	141	197	288	348	366	153
85°	34	52	70	76	76	39
90°	0	0	0	0	0	



TEST NUMBER: P312589

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-HRP-CP250-W2A-U-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1037.9	1037.9	1037.9	1037.9	1037.9
2.5°	1033.9	1035.9	1039.9	1039.9	1037.9
5°	1030.0	1032.0	1037.9	1037.9	1035.9
7.5°	1024.0	1026.0	1030.0	1033.9	1032.0
10°	1016.0	1018.0	1022.0	1026.0	1026.0
12.5°	1002.1	1004.1	1012.1	1014.1	1014.1
15°	988.2	992.2	998.2	1002.1	1004.1
17.5°	970.3	974.3	982.2	990.2	990.2
20°	952.4	956.4	966.3	974.3	976.3
22.5°	930.5	936.5	946.5	956.4	960.4
25°	908.7	914.6	924.6	936.5	940.5
27.5°	882.8	888.8	902.7	916.6	918.6
30°	857.0	862.9	880.8	892.8	898.7
32.5°	825.2	833.1	851.0	868.9	874.9
35°	795.3	803.3	823.2	841.1	849.0
37.5°	763.5	771.5	793.4	815.2	825.2
40°	727.7	737.7	763.5	787.4	801.3
42.5°	693.9	703.9	729.7	761.5	775.5
45°	656.2	666.1	697.9	733.7	751.6
47.5°	616.4	628.3	666.1	709.8	727.7
50°	576.6	590.5	632.3	682.0	701.9
52.5°	534.9	552.8	600.5	654.2	678.0
55°	491.1	513.0	568.7	626.3	650.2
57.5°	449.4	469.3	534.9	596.5	622.4
60°	403.6	429.5	503.1	566.7	594.5
62.5°	359.9	387.7	469.3	536.9	566.7
65°	322.1	349.9	433.5	505.0	536.9
67.5°	272.4	310.2	403.6	471.2	503.1
70°	222.7	274.4	365.9	435.4	465.3
72.5°	184.9	234.6	328.1	397.7	425.5
75°	141.2	196.8	288.3	348.0	365.9
77.5°	105.4	163.0	246.6	276.4	278.4
80°	77.5	125.3	186.9	196.8	204.8
82.5°	53.7	87.5	121.3	133.2	137.2
85°	33.8	51.7	69.6	75.6	75.6
87.5°	17.9	19.9	23.9	23.9	23.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)