

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: P308820

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CP250-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: P308820  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-39HE-UNV-L82765-CP250-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET  
Light Source: (168) 3000K 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**

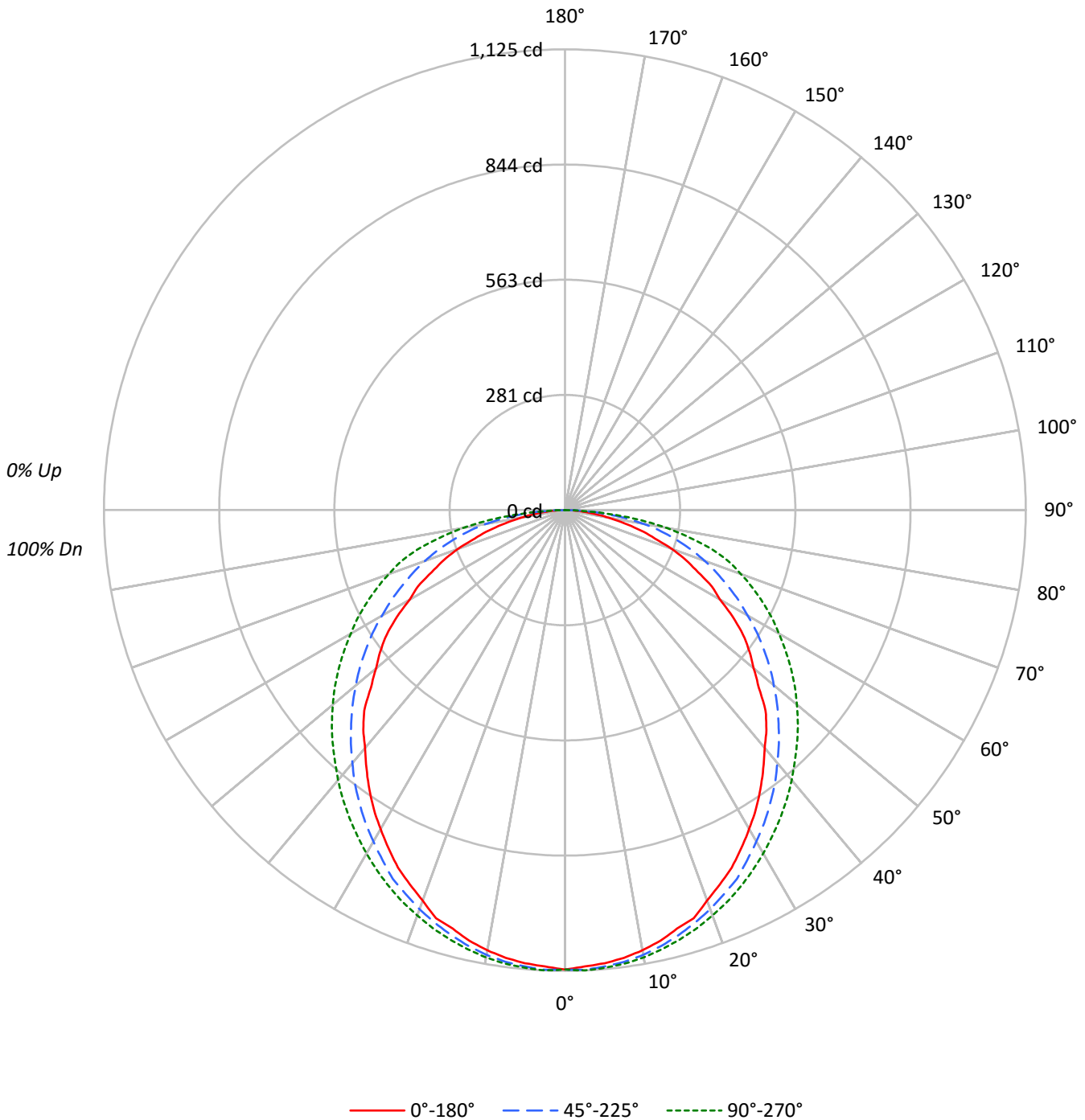
Lumens per Lamp: N/A  
Luminaire Lumens: 3344.0 lumens  
Efficiency: N/A  
Efficacy: 101.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33  
Input Voltage (V): NR  
Input Current (Ain): NR  
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: P308820

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-CP250-W2A-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P308820

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-CP250-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	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	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	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	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	3019	3019	3019
5°	3000	3022	3031
10°	2983	3013	3031
15°	2947	2992	3023
20°	2906	2970	3016
25°	2861	2951	3013
30°	2795	2904	3009
35°	2734	2871	3013
40°	2665	2833	3025
45°	2637	2808	3051
50°	2519	2787	3095
55°	2493	2778	3161
60°	2351	2774	3247
65°	2283	2792	3394
70°	2191	2858	3601
75°	1997	2946	3877
80°	1711	3051	3919
85°	1383	2915	3359



TEST NUMBER: P308820

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-CP250-W2A-U-4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.2	3.2
10°-20°	302.8	9.1
20°-30°	455.8	13.6
30°-40°	547.1	16.4
40°-50°	571.8	17.1
50°-60°	532.9	15.9
60°-70°	437.0	13.1
70°-80°	294.5	8.8
80°-90°	95.9	2.9
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°	864.8	25.9
0°-40°	1411.9	42.2
0°-60°	2516.5	75.3
0°-90°	3344.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3344.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1122	1122	1122	1122	1122	
5°	1111	1114	1119	1120	1122	105
15°	1058	1064	1074	1084	1085	299
25°	964	970	994	1008	1015	443
35°	832	844	874	904	917	520
45°	693	698	738	783	802	529
55°	531	541	592	648	674	471
65°	358	374	438	503	533	357
75°	192	213	283	347	373	202
85°	45	64	94	110	109	53
90°	0	0	0	0	0	



TEST NUMBER: P308820

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-CP250-W2A-U-4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1121.9	1121.9	1121.9	1121.9	1121.9
2.5°	1115.5	1118.7	1123.5	1125.1	1125.1
5°	1110.7	1113.9	1118.7	1120.3	1121.9
7.5°	1102.7	1105.9	1112.3	1115.5	1117.1
10°	1091.5	1094.7	1102.7	1107.5	1109.1
12.5°	1077.1	1080.3	1089.9	1096.3	1097.9
15°	1057.9	1064.3	1073.9	1083.5	1085.1
17.5°	1045.1	1043.5	1056.3	1067.5	1070.7
20°	1014.7	1022.7	1037.1	1049.9	1053.1
22.5°	989.1	995.5	1014.7	1029.1	1035.5
25°	963.5	969.9	993.9	1008.3	1014.7
27.5°	931.5	941.1	963.5	984.3	992.3
30°	899.5	909.1	934.7	958.7	968.3
32.5°	867.5	878.7	905.9	931.5	942.7
35°	832.3	843.5	873.9	904.3	917.1
37.5°	795.4	809.8	841.9	875.5	889.9
40°	758.6	773.0	806.6	845.1	861.1
42.5°	728.2	734.6	773.0	814.6	830.7
45°	693.0	697.8	737.8	782.6	801.8
47.5°	641.8	659.4	702.6	752.2	771.4
50°	601.8	621.0	665.8	718.6	739.4
52.5°	568.2	581.0	630.6	683.4	707.4
55°	531.4	541.0	592.2	648.2	673.8
57.5°	486.5	504.2	555.4	613.0	638.6
60°	436.9	459.3	515.4	577.8	603.4
62.5°	404.9	417.7	478.5	541.0	569.8
65°	358.5	374.5	438.5	502.6	533.0
67.5°	320.1	336.1	401.7	465.7	496.2
70°	278.5	294.5	363.3	427.3	457.7
72.5°	230.5	252.9	324.9	388.9	420.9
75°	192.1	212.9	283.3	347.3	372.9
77.5°	148.8	176.1	241.7	294.5	313.7
80°	110.4	137.6	196.9	235.3	252.9
82.5°	75.2	102.4	147.2	176.1	185.7
85°	44.8	64.0	94.4	110.4	108.8
87.5°	20.8	27.2	38.4	38.4	36.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)