

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: P308817

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CP250-W2A-U-3000K**

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: P308817  
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-3000K  
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**

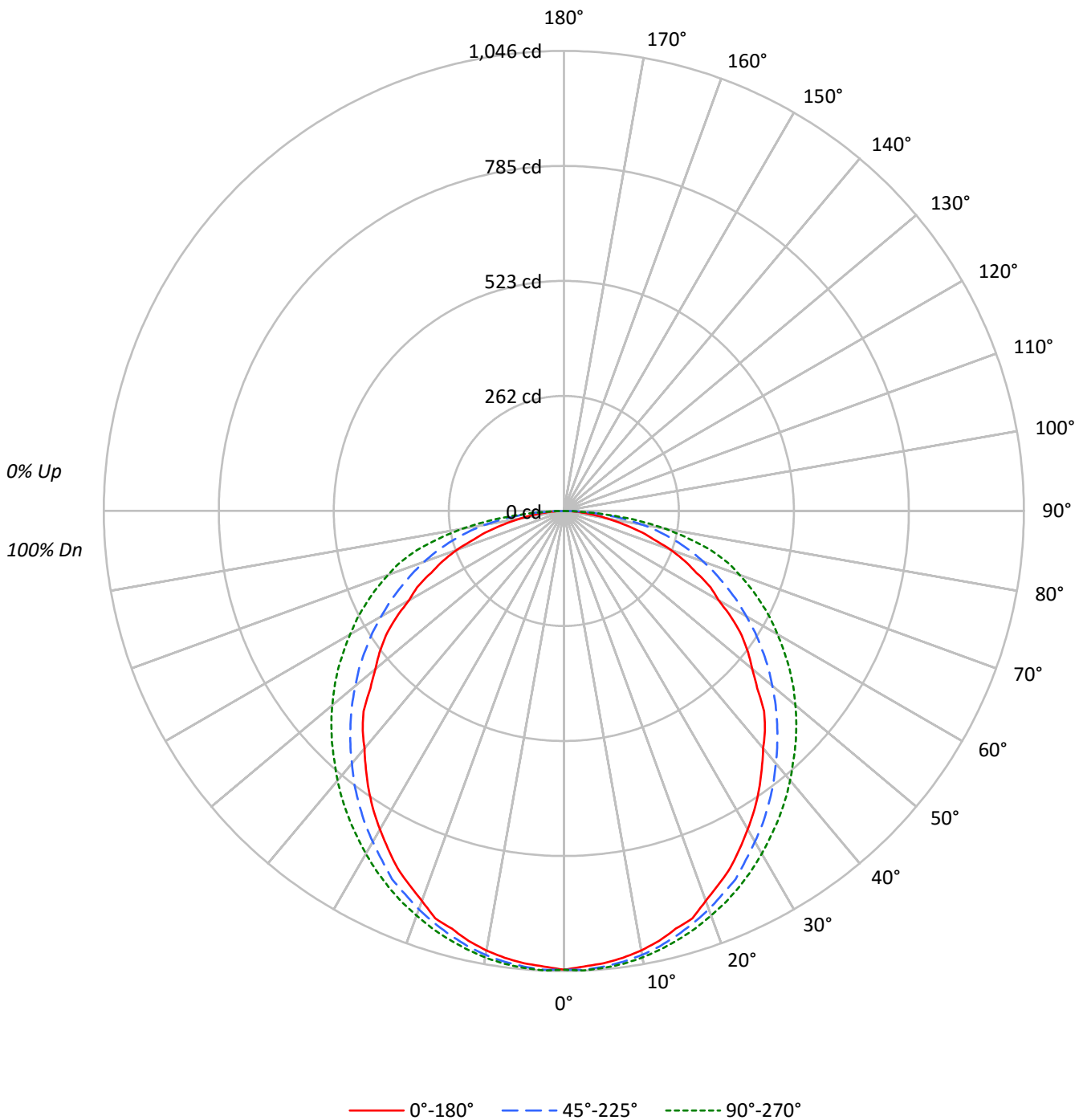
Lumens per Lamp: N/A  
Luminaire Lumens: 3108.0 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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				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°	2806	2806	2806
5°	2789	2809	2817
10°	2772	2801	2817
15°	2739	2781	2810
20°	2701	2760	2803
25°	2659	2743	2800
30°	2598	2699	2797
35°	2541	2668	2800
40°	2477	2634	2811
45°	2451	2610	2836
50°	2341	2591	2877
55°	2317	2582	2938
60°	2186	2578	3018
65°	2122	2595	3154
70°	2036	2657	3347
75°	1856	2738	3604
80°	1590	2836	3642
85°	1288	2711	3125



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.7	3.2
10°-20°	281.5	9.1
20°-30°	423.6	13.6
30°-40°	508.5	16.4
40°-50°	531.4	17.1
50°-60°	495.3	15.9
60°-70°	406.2	13.1
70°-80°	273.7	8.8
80°-90°	89.2	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°	803.8	25.9
0°-40°	1312.2	42.2
0°-60°	2339.0	75.3
0°-90°	3108.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3108.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1043	1043	1043	1043	1043	
5°	1032	1035	1040	1041	1043	98
15°	983	989	998	1007	1008	278
25°	896	901	924	937	943	412
35°	774	784	812	840	852	484
45°	644	649	686	727	745	492
55°	494	503	550	602	626	438
65°	333	348	408	467	495	331
75°	178	198	263	323	347	188
85°	42	60	88	103	101	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1042.8	1042.8	1042.8	1042.8	1042.8
2.5°	1036.8	1039.8	1044.2	1045.7	1045.7
5°	1032.3	1035.3	1039.8	1041.3	1042.8
7.5°	1024.9	1027.9	1033.8	1036.8	1038.3
10°	1014.5	1017.5	1024.9	1029.4	1030.9
12.5°	1001.1	1004.1	1013.0	1019.0	1020.4
15°	983.3	989.2	998.1	1007.1	1008.5
17.5°	971.4	969.9	981.8	992.2	995.2
20°	943.1	950.5	963.9	975.8	978.8
22.5°	919.3	925.2	943.1	956.5	962.4
25°	895.5	901.4	923.8	937.1	943.1
27.5°	865.7	874.7	895.5	914.8	922.3
30°	836.0	844.9	868.7	891.0	900.0
32.5°	806.2	816.7	841.9	865.7	876.2
35°	773.5	783.9	812.2	840.5	852.4
37.5°	739.3	752.7	782.4	813.7	827.1
40°	705.1	718.5	749.7	785.4	800.3
42.5°	676.8	682.8	718.5	757.2	772.0
45°	644.1	648.6	685.8	727.4	745.3
47.5°	596.5	612.9	653.0	699.1	717.0
50°	559.3	577.2	618.8	667.9	687.2
52.5°	528.1	540.0	586.1	635.2	657.5
55°	493.9	502.8	550.4	602.5	626.3
57.5°	452.2	468.6	516.2	569.7	593.5
60°	406.1	426.9	479.0	537.0	560.8
62.5°	376.3	388.2	444.8	502.8	529.6
65°	333.2	348.1	407.6	467.1	495.3
67.5°	297.5	312.4	373.4	432.9	461.1
70°	258.8	273.7	337.7	397.2	425.4
72.5°	214.2	235.0	302.0	361.5	391.2
75°	178.5	197.8	263.3	322.8	346.6
77.5°	138.3	163.6	224.6	273.7	291.6
80°	102.6	127.9	183.0	218.7	235.0
82.5°	69.9	95.2	136.9	163.6	172.6
85°	41.7	59.5	87.8	102.6	101.2
87.5°	19.3	25.3	35.7	35.7	34.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)