

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: P308513

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CA08-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: P308513  
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: 22FCZ2-39HE-UNV-L82765-RDP-CA08-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC 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**

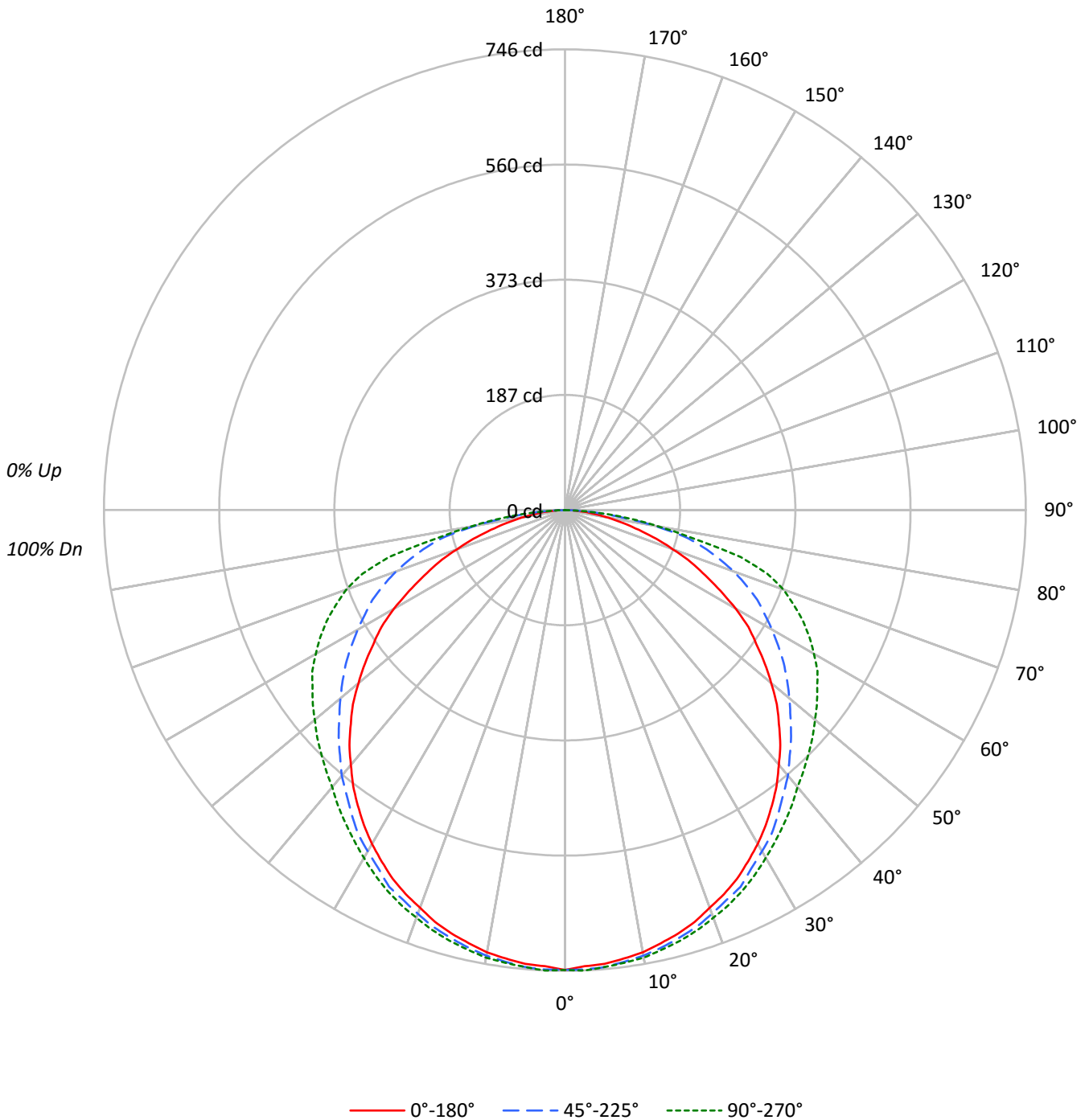
Lumens per Lamp: N/A  
Luminaire Lumens: 2370.0 lumens  
Efficiency: N/A  
Efficacy: 72.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.8  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	2003	2003	2003
5°	1992	2006	2006
10°	1987	2001	2010
15°	1977	1996	2011
20°	1962	1992	2012
25°	1957	1998	2019
30°	1940	1983	2021
35°	1919	1976	2033
40°	1892	1972	2058
45°	1864	1971	2123
50°	1825	1985	2212
55°	1775	2029	2339
60°	1717	2083	2505
65°	1599	2187	2709
70°	1468	2291	2963
75°	1287	2411	3063
80°	1108	2297	2405
85°	969	1667	1831



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.4	3.0
10°-20°	202.2	8.5
20°-30°	308.5	13.0
30°-40°	376.7	15.9
40°-50°	402.7	17.0
50°-60°	388.7	16.4
60°-70°	334.6	14.1
70°-80°	226.4	9.6
80°-90°	59.7	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°	581.1	24.5
0°-40°	957.8	40.4
0°-60°	1749.2	73.8
0°-90°	2370.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2370.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	738	739	743	743	743	70
15°	710	711	717	720	722	200
25°	659	662	673	676	680	303
35°	584	589	602	614	619	365
45°	490	499	518	544	558	378
55°	378	390	432	476	499	339
65°	251	276	344	398	425	250
75°	124	164	232	279	295	133
85°	31	44	54	56	59	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	744.5	744.5	744.5	744.5	744.5
2.5°	739.2	741.0	744.5	744.5	746.2
5°	737.5	739.2	742.7	742.7	742.7
7.5°	732.3	734.0	737.5	739.2	739.2
10°	727.0	728.8	732.3	734.0	735.7
12.5°	718.3	720.0	725.3	728.8	728.8
15°	709.6	711.3	716.6	720.0	721.8
17.5°	699.1	702.6	707.8	711.3	713.1
20°	685.2	688.7	695.6	700.9	702.6
22.5°	673.0	676.5	683.4	688.7	692.2
25°	659.0	662.5	673.0	676.5	680.0
27.5°	641.6	645.1	653.8	660.8	666.0
30°	624.2	627.6	638.1	646.8	650.3
32.5°	605.0	610.2	622.4	629.4	634.6
35°	584.1	589.3	601.5	613.7	618.9
37.5°	563.1	568.4	580.6	596.3	603.2
40°	538.7	545.7	561.4	582.3	585.8
42.5°	516.1	524.8	538.7	563.1	571.9
45°	489.9	498.6	517.8	544.0	557.9
47.5°	465.5	474.2	495.1	526.5	544.0
50°	435.9	448.1	474.2	510.8	528.3
52.5°	408.0	418.4	453.3	493.4	514.3
55°	378.3	390.5	432.4	476.0	498.6
57.5°	352.2	362.6	409.7	458.5	484.7
60°	319.1	333.0	387.0	439.4	465.5
62.5°	284.2	305.1	364.4	418.4	446.3
65°	251.1	275.5	343.5	397.5	425.4
67.5°	221.4	247.6	317.3	374.8	401.0
70°	186.6	219.7	291.2	346.9	376.6
72.5°	155.2	191.8	261.5	317.3	343.5
75°	123.8	163.9	231.9	279.0	294.6
77.5°	95.9	134.2	198.8	212.7	214.4
80°	71.5	106.4	148.2	149.9	155.2
82.5°	48.8	75.0	95.9	104.6	106.4
85°	31.4	43.6	54.0	55.8	59.3
87.5°	13.9	15.7	19.2	17.4	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)