

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: P308515

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CA08-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: P308515  
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-5000K  
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**

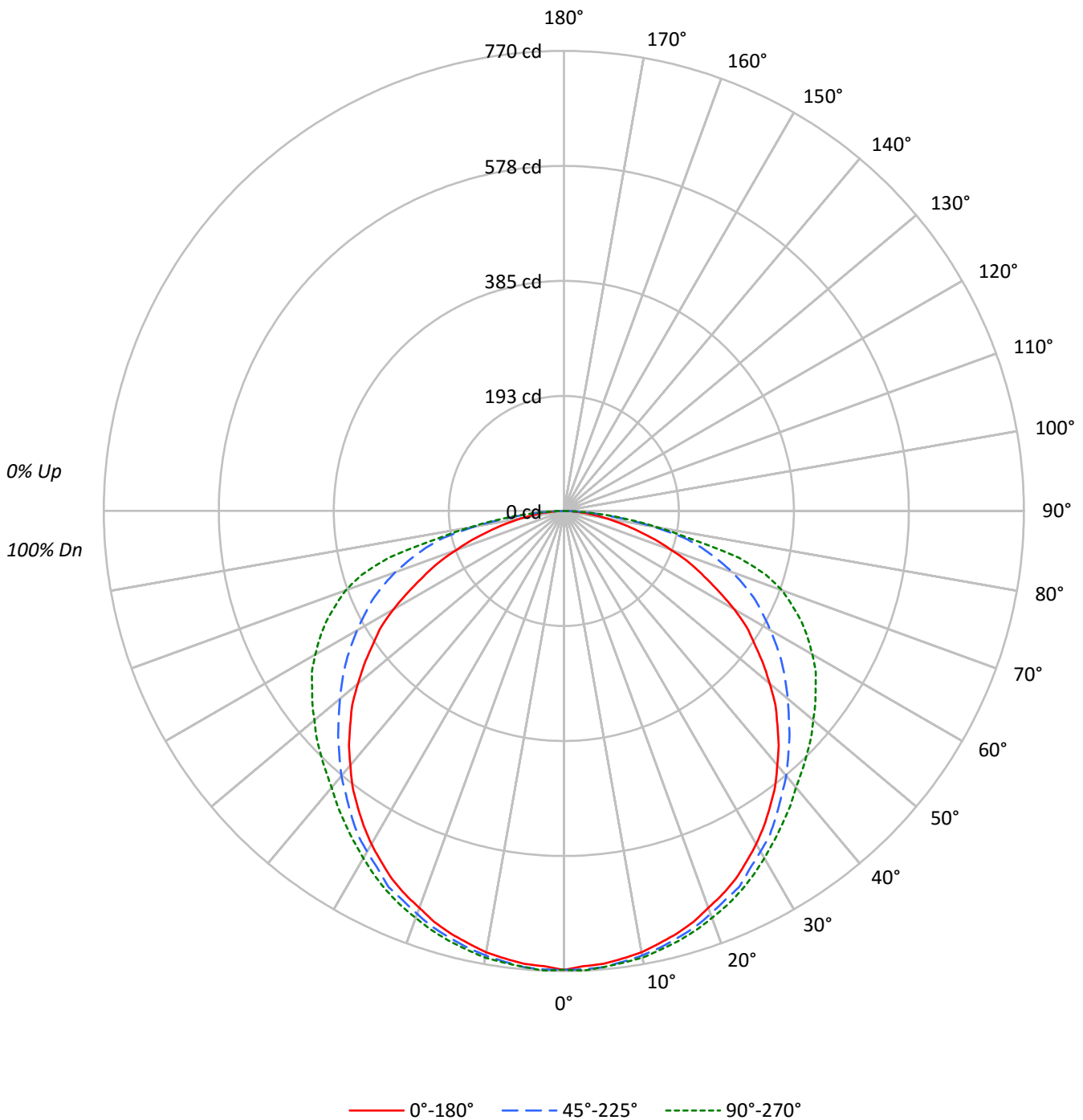
Lumens per Lamp: N/A  
Luminaire Lumens: 2445.0 lumens  
Efficiency: N/A  
Efficacy: 73.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	2067	2067	2067
5°	2055	2070	2070
10°	2049	2064	2074
15°	2039	2059	2074
20°	2024	2055	2076
25°	2019	2061	2083
30°	2001	2046	2085
35°	1979	2038	2098
40°	1952	2035	2123
45°	1923	2033	2191
50°	1883	2048	2282
55°	1831	2093	2413
60°	1772	2149	2584
65°	1649	2256	2795
70°	1515	2364	3057
75°	1328	2487	3161
80°	1142	2369	2481
85°	1000	1723	1890



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.6	3.0
10°-20°	208.6	8.5
20°-30°	318.3	13.0
30°-40°	388.6	15.9
40°-50°	415.5	17.0
50°-60°	401.0	16.4
60°-70°	345.2	14.1
70°-80°	233.6	9.6
80°-90°	61.6	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°	599.5	24.5
0°-40°	988.1	40.4
0°-60°	1804.6	73.8
0°-90°	2445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2445.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	761	763	766	766	766	72
15°	732	734	739	743	745	207
25°	680	684	694	698	702	313
35°	602	608	620	633	638	377
45°	505	514	534	561	576	390
55°	390	403	446	491	514	350
65°	259	284	354	410	439	258
75°	128	169	239	288	304	137
85°	32	45	56	58	61	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	768.0	768.0	768.0	768.0	768.0
2.5°	762.6	764.4	768.0	768.0	769.8
5°	760.8	762.6	766.2	766.2	766.2
7.5°	755.4	757.2	760.8	762.6	762.6
10°	750.0	751.8	755.4	757.2	759.0
12.5°	741.0	742.8	748.2	751.8	751.8
15°	732.0	733.8	739.2	742.8	744.6
17.5°	721.3	724.8	730.2	733.8	735.6
20°	706.9	710.5	717.7	723.1	724.8
22.5°	694.3	697.9	705.1	710.5	714.1
25°	679.9	683.5	694.3	697.9	701.5
27.5°	661.9	665.5	674.5	681.7	687.1
30°	643.9	647.5	658.3	667.3	670.9
32.5°	624.1	629.5	642.1	649.3	654.7
35°	602.5	607.9	620.5	633.1	638.5
37.5°	581.0	586.4	598.9	615.1	622.3
40°	555.8	563.0	579.2	600.7	604.3
42.5°	532.4	541.4	555.8	581.0	590.0
45°	505.4	514.4	534.2	561.2	575.6
47.5°	480.2	489.2	510.8	543.2	561.2
50°	449.7	462.2	489.2	527.0	545.0
52.5°	420.9	431.7	467.6	509.0	530.6
55°	390.3	402.9	446.1	491.0	514.4
57.5°	363.3	374.1	422.7	473.0	500.0
60°	329.2	343.5	399.3	453.3	480.2
62.5°	293.2	314.8	375.9	431.7	460.5
65°	259.0	284.2	354.3	410.1	438.9
67.5°	228.4	255.4	327.4	386.7	413.7
70°	192.5	226.6	300.4	357.9	388.5
72.5°	160.1	197.8	269.8	327.4	354.3
75°	127.7	169.1	239.2	287.8	304.0
77.5°	98.9	138.5	205.0	219.4	221.2
80°	73.7	109.7	152.9	154.7	160.1
82.5°	50.4	77.3	98.9	107.9	109.7
85°	32.4	45.0	55.8	57.6	61.2
87.5°	14.4	16.2	19.8	18.0	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)