

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: P308240

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-HRP-CA08-W2A-U-2700K**

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: P308240  
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: 22FCZ2-39HE-UNV-L82765-HRP-CA08-W2A-U-2700K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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**

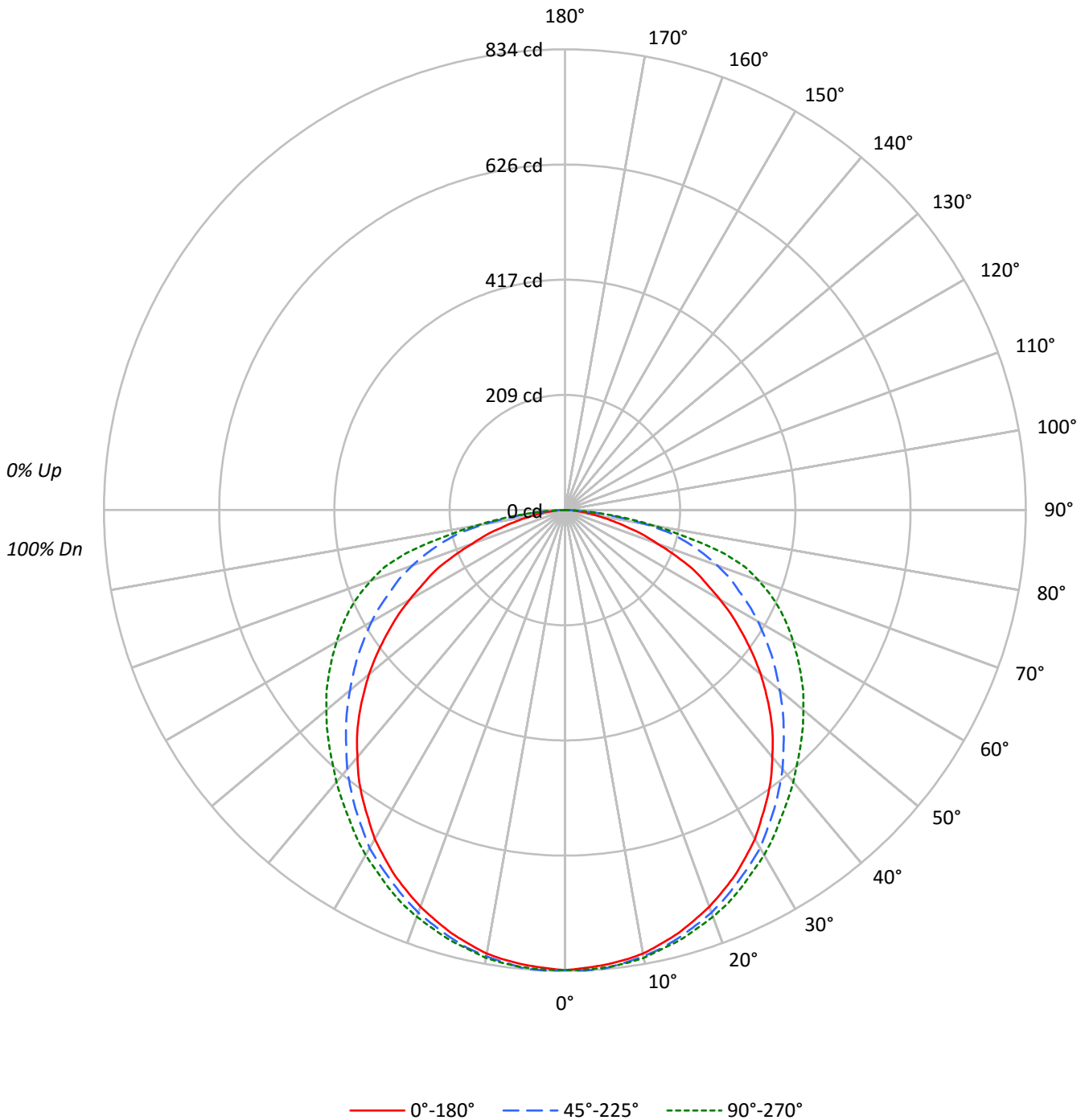
Lumens per Lamp: N/A  
Luminaire Lumens: 2529.0 lumens  
Efficiency: N/A  
Efficacy: 78.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



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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	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°	2241	2241	2241
5°	2232	2250	2245
10°	2228	2241	2249
15°	2209	2231	2245
20°	2188	2220	2243
25°	2165	2203	2241
30°	2137	2196	2241
35°	2096	2170	2238
40°	2051	2152	2258
45°	2004	2131	2295
50°	1937	2124	2358
55°	1849	2141	2448
60°	1743	2172	2567
65°	1645	2215	2742
70°	1406	2309	2937
75°	1178	2405	3052
80°	964	2325	2546
85°	837	1723	1871



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.9	3.1
10°-20°	225.8	8.9
20°-30°	342.2	13.5
30°-40°	413.2	16.3
40°-50°	434.1	17.2
50°-60°	408.5	16.2
60°-70°	340.6	13.5
70°-80°	225.7	8.9
80°-90°	60.1	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°	646.9	25.6
0°-40°	1060.0	41.9
0°-60°	1902.6	75.2
0°-90°	2529.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2529.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	833	833	833	833	833	
5°	826	828	833	833	831	79
15°	793	796	801	804	806	224
25°	729	734	742	751	755	336
35°	638	644	660	675	681	399
45°	526	534	560	589	603	406
55°	394	412	456	502	522	353
65°	258	281	348	405	431	251
75°	113	158	231	279	294	123
85°	27	42	56	61	61	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	832.8	832.8	832.8	832.8	832.8
2.5°	829.6	831.2	834.4	834.4	832.8
5°	826.4	828.0	832.8	832.8	831.2
7.5°	821.6	823.2	826.4	829.6	828.0
10°	815.2	816.8	820.0	823.2	823.2
12.5°	804.1	805.7	812.0	813.6	813.6
15°	792.9	796.1	800.9	804.1	805.7
17.5°	778.5	781.7	788.1	794.5	794.5
20°	764.2	767.4	775.3	781.7	783.3
22.5°	746.6	751.4	759.4	767.4	770.6
25°	729.1	733.9	741.8	751.4	754.6
27.5°	708.3	713.1	724.3	735.5	737.1
30°	687.6	692.4	706.7	716.3	721.1
32.5°	662.1	668.5	682.8	697.2	702.0
35°	638.1	644.5	660.5	674.8	681.2
37.5°	612.6	619.0	636.5	654.1	662.1
40°	583.9	591.9	612.6	631.8	642.9
42.5°	556.8	564.8	585.5	611.0	622.2
45°	526.5	534.4	560.0	588.7	603.0
47.5°	494.6	504.1	534.4	569.5	583.9
50°	462.7	473.8	507.3	547.2	563.2
52.5°	429.1	443.5	481.8	524.9	544.0
55°	394.1	411.6	456.3	502.5	521.7
57.5°	360.5	376.5	429.1	478.6	499.3
60°	323.9	344.6	403.6	454.7	477.0
62.5°	288.8	311.1	376.5	430.7	454.7
65°	258.4	280.8	347.8	405.2	430.7
67.5°	218.6	248.9	323.9	378.1	403.6
70°	178.7	220.2	293.5	349.4	373.3
72.5°	148.4	188.3	263.2	319.1	341.4
75°	113.3	157.9	231.3	279.2	293.5
77.5°	84.6	130.8	197.8	221.8	223.3
80°	62.2	100.5	150.0	157.9	164.3
82.5°	43.1	70.2	97.3	106.9	110.1
85°	27.1	41.5	55.8	60.6	60.6
87.5°	14.4	16.0	19.1	19.1	19.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)