

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: P308247

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-HRP-CA08-W2A-U-5700K**

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: P308247  
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-5700K  
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**

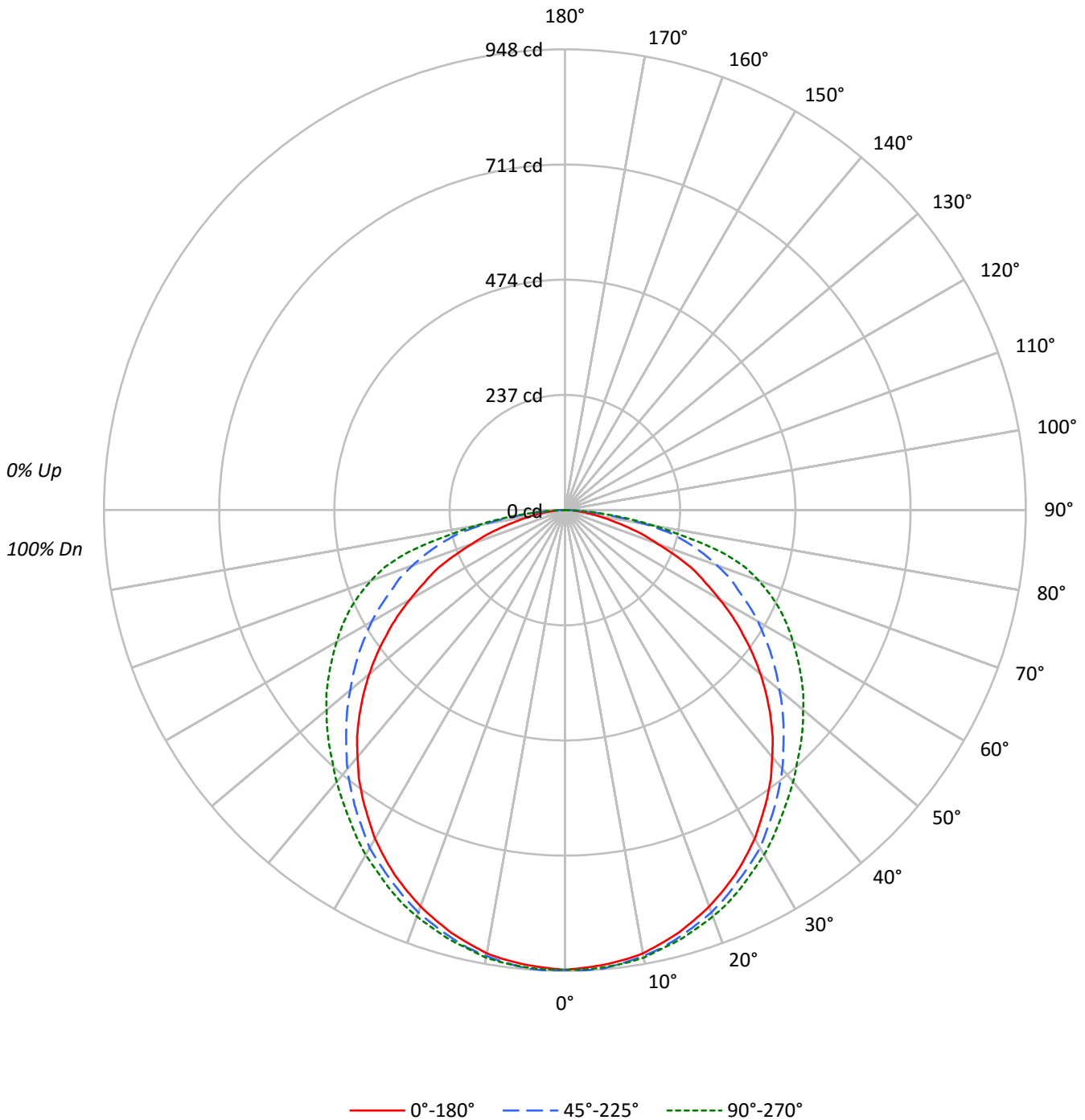
Lumens per Lamp: N/A  
Luminaire Lumens: 2873.0 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	2546	2546	2546
5°	2536	2555	2551
10°	2531	2545	2555
15°	2509	2535	2550
20°	2486	2522	2548
25°	2459	2502	2545
30°	2427	2495	2545
35°	2381	2465	2542
40°	2330	2445	2566
45°	2276	2421	2607
50°	2200	2413	2678
55°	2100	2432	2780
60°	1980	2468	2916
65°	1869	2516	3116
70°	1597	2624	3337
75°	1338	2732	3467
80°	1096	2641	2893
85°	951	1958	2127



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.7	3.1
10°-20°	256.5	8.9
20°-30°	388.7	13.5
30°-40°	469.4	16.3
40°-50°	493.2	17.2
50°-60°	464.0	16.2
60°-70°	386.9	13.5
70°-80°	256.4	8.9
80°-90°	68.3	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°	734.8	25.6
0°-40°	1204.2	41.9
0°-60°	2161.4	75.2
0°-90°	2873.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2873.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	946	946	946	946	946	
5°	939	941	946	946	944	89
15°	901	904	910	913	915	254
25°	828	834	843	854	857	381
35°	725	732	750	767	774	453
45°	598	607	636	669	685	461
55°	448	468	518	571	593	400
65°	294	319	395	460	489	286
75°	129	179	263	317	334	140
85°	31	47	63	69	69	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	946.0	946.0	946.0	946.0	946.0
2.5°	942.4	944.2	947.9	947.9	946.0
5°	938.8	940.6	946.0	946.0	944.2
7.5°	933.4	935.2	938.8	942.4	940.6
10°	926.1	927.9	931.5	935.2	935.2
12.5°	913.4	915.2	922.5	924.3	924.3
15°	900.7	904.4	909.8	913.4	915.2
17.5°	884.4	888.1	895.3	902.6	902.6
20°	868.1	871.7	880.8	888.1	889.9
22.5°	848.2	853.6	862.7	871.7	875.4
25°	828.2	833.7	842.7	853.6	857.2
27.5°	804.7	810.1	822.8	835.5	837.3
30°	781.1	786.6	802.9	813.7	819.2
32.5°	752.1	759.4	775.7	792.0	797.4
35°	724.9	732.2	750.3	766.6	773.9
37.5°	695.9	703.2	723.1	743.1	752.1
40°	663.3	672.4	695.9	717.7	730.4
42.5°	632.5	641.6	665.1	694.1	706.8
45°	598.1	607.1	636.1	668.8	685.1
47.5°	561.8	572.7	607.1	647.0	663.3
50°	525.6	538.3	576.3	621.6	639.8
52.5°	487.5	503.8	547.3	596.3	618.0
55°	447.7	467.6	518.3	570.9	592.6
57.5°	409.6	427.7	487.5	543.7	567.3
60°	367.9	391.5	458.5	516.5	541.9
62.5°	328.0	353.4	427.7	489.3	516.5
65°	293.6	319.0	395.1	460.3	489.3
67.5°	248.3	282.7	367.9	429.5	458.5
70°	203.0	250.1	333.5	396.9	424.1
72.5°	168.5	213.9	299.0	362.5	387.8
75°	128.7	179.4	262.8	317.2	333.5
77.5°	96.1	148.6	224.7	251.9	253.7
80°	70.7	114.2	170.4	179.4	186.7
82.5°	48.9	79.7	110.6	121.4	125.1
85°	30.8	47.1	63.4	68.9	68.9
87.5°	16.3	18.1	21.7	21.7	21.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)