

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: P312547

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-HRP-CA125-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: P312547  
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-L83050-HRP-CA125-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET  
Light Source: (168) 4000K 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**

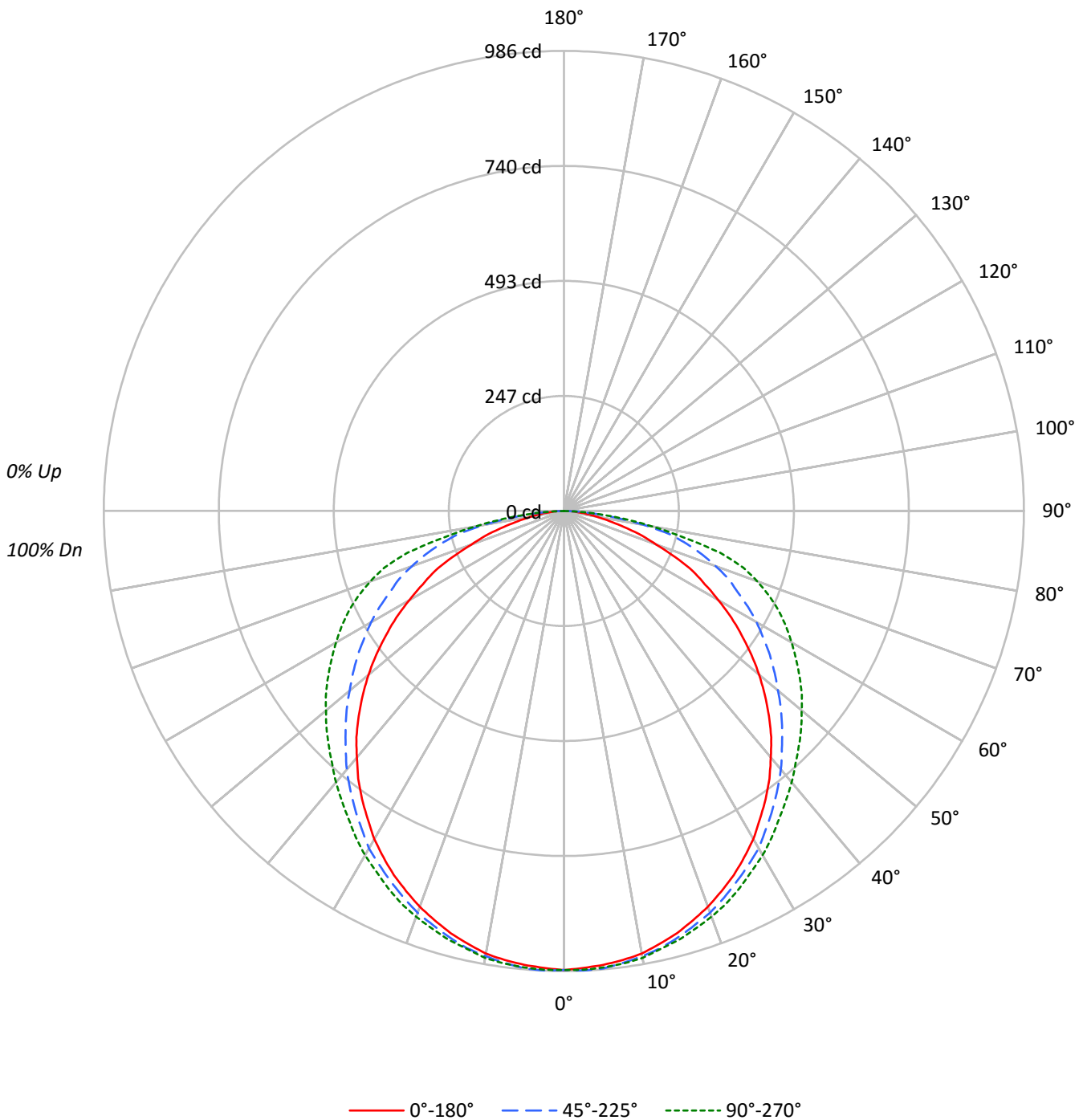
Lumens per Lamp: N/A  
Luminaire Lumens: 2988.0 lumens  
Efficiency: N/A  
Efficacy: 90.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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					100			
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82					82			
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68					68			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36					36			
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31					31			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25					25			
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23					23			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2648	2648	2648
5°	2638	2658	2653
10°	2632	2647	2658
15°	2610	2636	2652
20°	2586	2623	2650
25°	2558	2602	2647
30°	2524	2595	2647
35°	2477	2563	2644
40°	2423	2543	2668
45°	2367	2518	2712
50°	2288	2509	2786
55°	2184	2529	2892
60°	2059	2567	3033
65°	1945	2616	3240
70°	1661	2729	3471
75°	1391	2842	3606
80°	1139	2746	3008
85°	988	2038	2211



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.3	3.1
10°-20°	266.7	8.9
20°-30°	404.3	13.5
30°-40°	488.1	16.3
40°-50°	512.9	17.2
50°-60°	482.6	16.2
60°-70°	402.4	13.5
70°-80°	266.6	8.9
80°-90°	71.1	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°	764.3	25.6
0°-40°	1252.4	41.9
0°-60°	2247.9	75.2
0°-90°	2988.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2988.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	984	984	984	984	984	
5°	976	978	984	984	982	93
15°	937	941	946	950	952	264
25°	861	867	876	888	892	397
35°	754	762	780	797	805	471
45°	622	631	662	696	712	479
55°	466	486	539	594	616	416
65°	305	332	411	479	509	297
75°	134	187	273	330	347	145
85°	32	49	66	72	72	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	983.9	983.9	983.9	983.9	983.9
2.5°	980.1	982.0	985.8	985.8	983.9
5°	976.4	978.3	983.9	983.9	982.0
7.5°	970.7	972.6	976.4	980.1	978.3
10°	963.2	965.1	968.8	972.6	972.6
12.5°	950.0	951.9	959.4	961.3	961.3
15°	936.8	940.6	946.2	950.0	951.9
17.5°	919.8	923.6	931.1	938.7	938.7
20°	902.9	906.6	916.1	923.6	925.5
22.5°	882.1	887.8	897.2	906.6	910.4
25°	861.4	867.1	876.5	887.8	891.6
27.5°	836.9	842.5	855.7	868.9	870.8
30°	812.4	818.0	835.0	846.3	852.0
32.5°	782.2	789.8	806.7	823.7	829.4
35°	754.0	761.5	780.3	797.3	804.8
37.5°	723.8	731.3	752.1	772.8	782.2
40°	689.9	699.3	723.8	746.4	759.6
42.5°	657.8	667.3	691.8	721.9	735.1
45°	622.0	631.4	661.6	695.5	712.5
47.5°	584.3	595.6	631.4	672.9	689.9
50°	546.6	559.8	599.4	646.5	665.4
52.5°	507.0	524.0	569.2	620.1	642.7
55°	465.6	486.3	539.1	593.7	616.4
57.5°	426.0	444.8	507.0	565.5	590.0
60°	382.6	407.1	476.9	537.2	563.6
62.5°	341.2	367.6	444.8	508.9	537.2
65°	305.4	331.7	410.9	478.8	508.9
67.5°	258.2	294.0	382.6	446.7	476.9
70°	211.1	260.1	346.8	412.8	441.1
72.5°	175.3	222.4	311.0	377.0	403.4
75°	133.8	186.6	273.3	329.9	346.8
77.5°	99.9	154.6	233.7	262.0	263.9
80°	73.5	118.7	177.2	186.6	194.1
82.5°	50.9	82.9	115.0	126.3	130.1
85°	32.0	49.0	66.0	71.6	71.6
87.5°	17.0	18.8	22.6	22.6	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)