

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: P312565

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-HRP-CA08-W2A-U-3000K**

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: P312565  
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: 22FCZ2-44HE-UNV-L83050-HRP-CA08-W2A-U-3000K  
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**

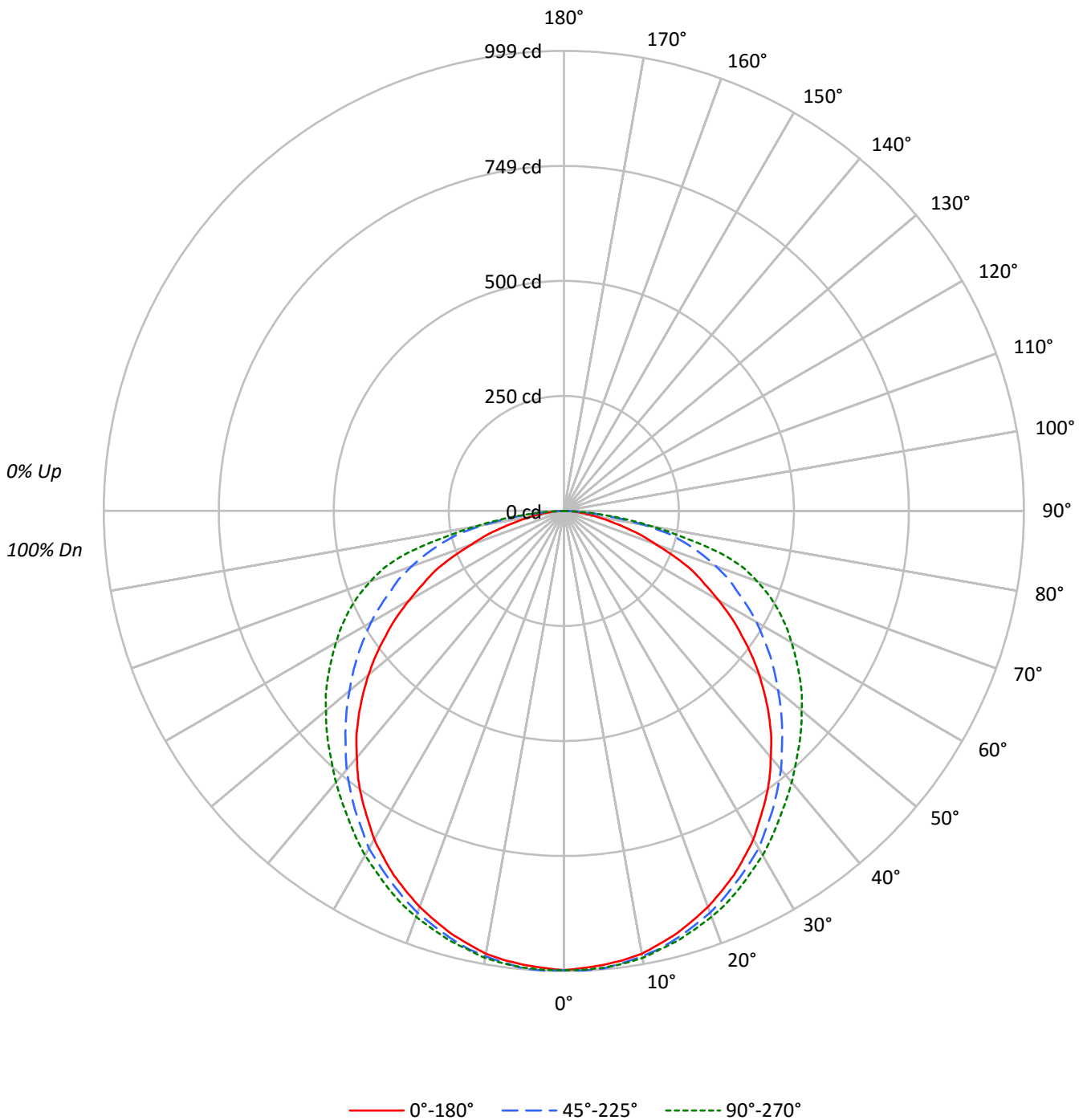
Lumens per Lamp: N/A  
Luminaire Lumens: 3028.0 lumens  
Efficiency: N/A  
Efficacy: 81.6 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	2683	2683	2683
5°	2673	2693	2688
10°	2667	2683	2693
15°	2645	2671	2687
20°	2620	2658	2686
25°	2592	2637	2683
30°	2558	2629	2683
35°	2510	2598	2679
40°	2456	2577	2704
45°	2399	2552	2748
50°	2319	2543	2823
55°	2213	2563	2930
60°	2087	2601	3074
65°	1970	2651	3284
70°	1683	2766	3517
75°	1410	2880	3655
80°	1155	2783	3048
85°	1003	2066	2242



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.5	3.1
10°-20°	270.3	8.9
20°-30°	409.7	13.5
30°-40°	494.7	16.3
40°-50°	519.8	17.2
50°-60°	489.1	16.2
60°-70°	407.8	13.5
70°-80°	270.2	8.9
80°-90°	72.0	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°	774.5	25.6
0°-40°	1269.2	41.9
0°-60°	2278.0	75.2
0°-90°	3028.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3028.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	997	997	997	997	997	
5°	989	991	997	997	995	94
15°	949	953	959	963	965	268
25°	873	879	888	900	904	402
35°	764	772	791	808	816	478
45°	630	640	670	705	722	485
55°	472	493	546	602	625	422
65°	309	336	416	485	516	301
75°	136	189	277	334	352	147
85°	32	50	67	73	73	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	997.1	997.1	997.1	997.1	997.1
2.5°	993.3	995.2	999.0	999.0	997.1
5°	989.4	991.4	997.1	997.1	995.2
7.5°	983.7	985.6	989.4	993.3	991.4
10°	976.1	978.0	981.8	985.6	985.6
12.5°	962.7	964.6	972.3	974.2	974.2
15°	949.3	953.2	958.9	962.7	964.6
17.5°	932.1	936.0	943.6	951.2	951.2
20°	915.0	918.8	928.3	936.0	937.9
22.5°	893.9	899.7	909.2	918.8	922.6
25°	872.9	878.7	888.2	899.7	903.5
27.5°	848.1	853.8	867.2	880.6	882.5
30°	823.3	829.0	846.2	857.6	863.4
32.5°	792.7	800.3	817.5	834.7	840.5
35°	764.1	771.7	790.8	808.0	815.6
37.5°	733.5	741.1	762.1	783.2	792.7
40°	699.1	708.7	733.5	756.4	769.8
42.5°	666.6	676.2	701.0	731.6	744.9
45°	630.3	639.9	670.5	704.8	722.0
47.5°	592.1	603.6	639.9	681.9	699.1
50°	553.9	567.3	607.4	655.2	674.3
52.5°	513.8	531.0	576.9	628.4	651.4
55°	471.8	492.8	546.3	601.7	624.6
57.5°	431.7	450.8	513.8	573.0	597.9
60°	387.8	412.6	483.3	544.4	571.1
62.5°	345.7	372.5	450.8	515.7	544.4
65°	309.4	336.2	416.4	485.2	515.7
67.5°	261.7	298.0	387.8	452.7	483.3
70°	213.9	263.6	351.5	418.3	447.0
72.5°	177.6	225.4	315.2	382.0	408.8
75°	135.6	189.1	277.0	334.3	351.5
77.5°	101.2	156.6	236.9	265.5	267.4
80°	74.5	120.3	179.6	189.1	196.7
82.5°	51.6	84.0	116.5	128.0	131.8
85°	32.5	49.7	66.9	72.6	72.6
87.5°	17.2	19.1	22.9	22.9	22.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)