

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: P308292

Luminaire Tested: **22FCZ2-44HE-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: P308292
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-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: 3223.0 lumens
Efficiency: N/A
Efficacy: 84.4 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

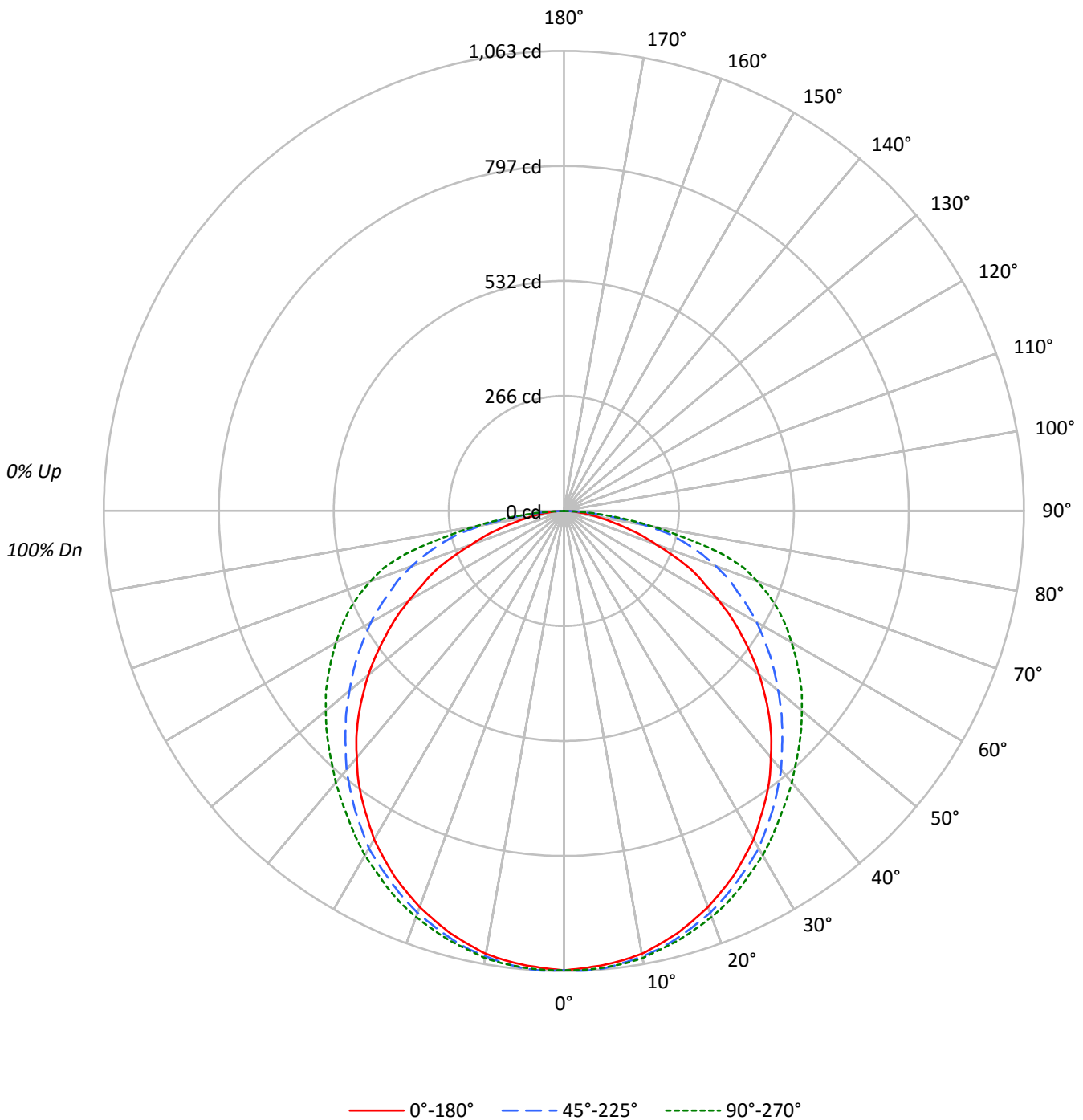
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2856	2856	2856
5°	2845	2867	2861
10°	2839	2855	2867
15°	2815	2843	2860
20°	2789	2830	2859
25°	2759	2807	2855
30°	2723	2799	2856
35°	2672	2765	2852
40°	2614	2742	2878
45°	2553	2716	2925
50°	2468	2707	3005
55°	2356	2728	3119
60°	2221	2768	3272
65°	2097	2822	3495
70°	1792	2943	3744
75°	1501	3065	3890
80°	1229	2961	3245
85°	1068	2198	2387



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.6	3.1
10°-20°	287.7	8.9
20°-30°	436.0	13.5
30°-40°	526.5	16.3
40°-50°	553.3	17.2
50°-60°	520.6	16.2
60°-70°	434.0	13.5
70°-80°	287.6	8.9
80°-90°	76.7	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°	824.4	25.6
0°-40°	1350.9	41.9
0°-60°	2424.7	75.2
0°-90°	3223.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3223.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1061	1061	1061	1061	1061	
5°	1053	1055	1061	1061	1059	100
15°	1010	1014	1021	1025	1027	285
25°	929	935	945	958	962	428
35°	813	821	842	860	868	509
45°	671	681	714	750	768	517
55°	502	524	582	640	665	449
65°	329	358	443	516	549	320
75°	144	201	295	356	374	157
85°	35	53	71	77	77	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1061.3	1061.3	1061.3	1061.3	1061.3
2.5°	1057.2	1059.3	1063.3	1063.3	1061.3
5°	1053.2	1055.2	1061.3	1061.3	1059.3
7.5°	1047.1	1049.1	1053.2	1057.2	1055.2
10°	1038.9	1041.0	1045.0	1049.1	1049.1
12.5°	1024.7	1026.7	1034.9	1036.9	1036.9
15°	1010.5	1014.5	1020.6	1024.7	1026.7
17.5°	992.2	996.2	1004.4	1012.5	1012.5
20°	973.9	977.9	988.1	996.2	998.3
22.5°	951.5	957.6	967.8	977.9	982.0
25°	929.1	935.2	945.4	957.6	961.7
27.5°	902.7	908.8	923.0	937.3	939.3
30°	876.3	882.4	900.7	912.9	919.0
32.5°	843.8	851.9	870.2	888.5	894.6
35°	813.3	821.4	841.7	860.0	868.1
37.5°	780.7	788.9	811.2	833.6	843.8
40°	744.1	754.3	780.7	805.1	819.4
42.5°	709.6	719.7	746.2	778.7	792.9
45°	670.9	681.1	713.6	750.2	768.5
47.5°	630.3	642.5	681.1	725.8	744.1
50°	589.6	603.8	646.5	697.4	717.7
52.5°	546.9	565.2	614.0	668.9	693.3
55°	502.2	524.5	581.5	640.4	664.8
57.5°	459.5	479.8	546.9	609.9	636.4
60°	412.7	439.2	514.4	579.4	607.9
62.5°	368.0	396.5	479.8	548.9	579.4
65°	329.4	357.8	443.2	516.4	548.9
67.5°	278.5	317.2	412.7	481.9	514.4
70°	227.7	280.6	374.1	445.3	475.8
72.5°	189.1	239.9	335.5	406.6	435.1
75°	144.4	201.3	294.8	355.8	374.1
77.5°	107.8	166.7	252.1	282.6	284.6
80°	79.3	128.1	191.1	201.3	209.4
82.5°	54.9	89.5	124.0	136.2	140.3
85°	34.6	52.9	71.2	77.3	77.3
87.5°	18.3	20.3	24.4	24.4	24.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)