

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: P308257

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-HRP-CA125-W2A-U-6500K**

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: P308257
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-CA125-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 2870.0 lumens
Efficiency: N/A
Efficacy: 84.9 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

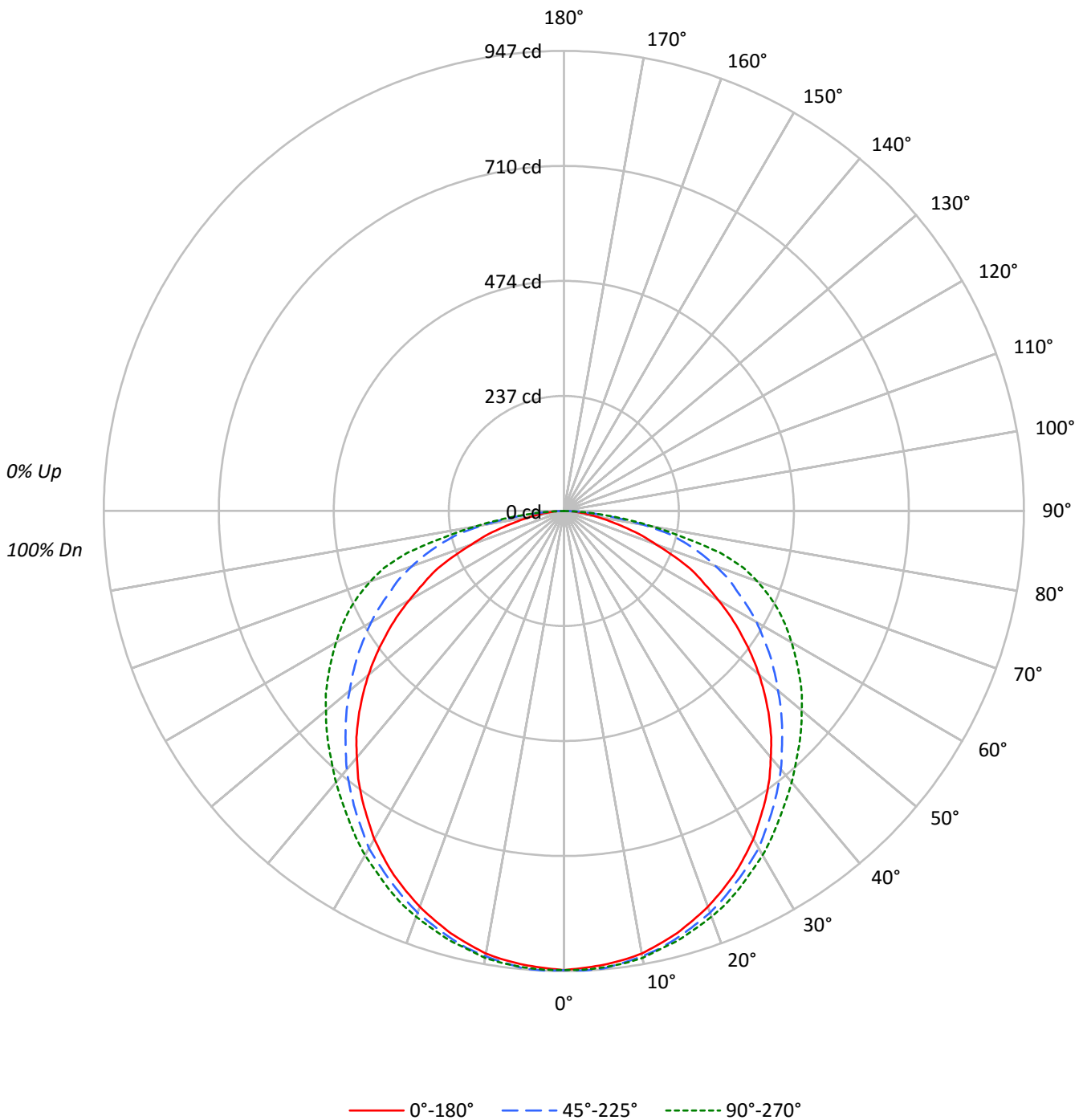
Input Watts (W): 33.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2543	2543	2543
5°	2533	2553	2548
10°	2528	2543	2553
15°	2507	2532	2547
20°	2483	2520	2546
25°	2457	2500	2542
30°	2425	2492	2543
35°	2379	2462	2540
40°	2328	2442	2563
45°	2274	2418	2605
50°	2198	2410	2676
55°	2098	2429	2777
60°	1978	2465	2913
65°	1868	2513	3112
70°	1596	2621	3333
75°	1336	2729	3463
80°	1094	2638	2890
85°	951	1958	2124



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.6	3.1
10°-20°	256.2	8.9
20°-30°	388.3	13.5
30°-40°	468.9	16.3
40°-50°	492.7	17.2
50°-60°	463.5	16.2
60°-70°	386.5	13.5
70°-80°	256.1	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°	734.1	25.6
0°-40°	1202.9	41.9
0°-60°	2159.1	75.2
0°-90°	2870.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2870.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	945	945	945	945	945	
5°	938	940	945	945	943	89
15°	900	903	909	912	914	254
25°	827	833	842	853	856	381
35°	724	731	750	766	773	453
45°	598	606	636	668	684	460
55°	447	467	518	570	592	400
65°	293	319	395	460	489	285
75°	128	179	262	317	333	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°	945.1	945.1	945.1	945.1	945.1
2.5°	941.4	943.2	946.9	946.9	945.1
5°	937.8	939.6	945.1	945.1	943.2
7.5°	932.4	934.2	937.8	941.4	939.6
10°	925.1	927.0	930.6	934.2	934.2
12.5°	912.5	914.3	921.5	923.3	923.3
15°	899.8	903.4	908.8	912.5	914.3
17.5°	883.5	887.1	894.4	901.6	901.6
20°	867.2	870.8	879.9	887.1	888.9
22.5°	847.3	852.7	861.8	870.8	874.5
25°	827.4	832.8	841.9	852.7	856.3
27.5°	803.8	809.3	821.9	834.6	836.4
30°	780.3	785.7	802.0	812.9	818.3
32.5°	751.3	758.6	774.9	791.2	796.6
35°	724.2	731.4	749.5	765.8	773.1
37.5°	695.2	702.5	722.4	742.3	751.3
40°	662.6	671.7	695.2	716.9	729.6
42.5°	631.8	640.9	664.4	693.4	706.1
45°	597.5	606.5	635.5	668.1	684.4
47.5°	561.2	572.1	606.5	646.3	662.6
50°	525.0	537.7	575.7	621.0	639.1
52.5°	487.0	503.3	546.8	595.6	617.4
55°	447.2	467.1	517.8	570.3	592.0
57.5°	409.2	427.3	487.0	543.1	566.7
60°	367.5	391.1	458.0	516.0	541.3
62.5°	327.7	353.0	427.3	488.8	516.0
65°	293.3	318.6	394.7	459.9	488.8
67.5°	248.0	282.4	367.5	429.1	458.0
70°	202.8	249.8	333.1	396.5	423.6
72.5°	168.4	213.6	298.7	362.1	387.4
75°	128.5	179.2	262.5	316.8	333.1
77.5°	96.0	148.5	224.5	251.7	253.5
80°	70.6	114.1	170.2	179.2	186.5
82.5°	48.9	79.7	110.4	121.3	124.9
85°	30.8	47.1	63.4	68.8	68.8
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)