

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: P312718

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-RDP-CA08-W2A-U-4500K**

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: P312718
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
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-RDP-CA08-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET
Light Source: (168) 4500K 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: 2823.0 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

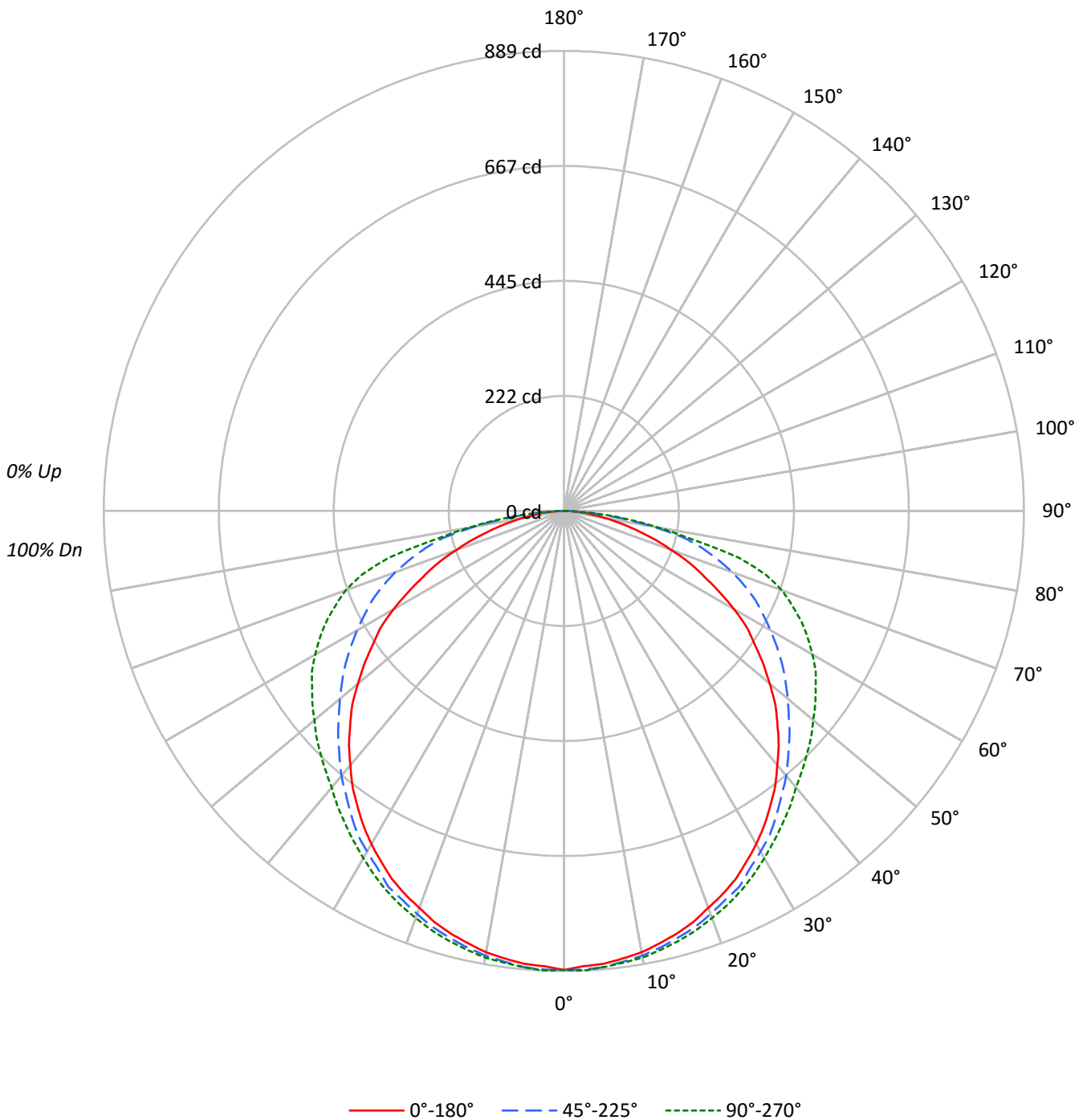
Input Watts (W): 39
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2386	2386	2386
5°	2373	2390	2390
10°	2366	2383	2395
15°	2355	2378	2395
20°	2337	2373	2397
25°	2331	2380	2405
30°	2310	2362	2407
35°	2285	2354	2422
40°	2254	2349	2451
45°	2221	2347	2529
50°	2174	2365	2634
55°	2114	2416	2786
60°	2045	2481	2984
65°	1904	2605	3226
70°	1748	2729	3530
75°	1533	2872	3649
80°	1319	2735	2864
85°	1155	1988	2180



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.9	3.0
10°-20°	240.8	8.5
20°-30°	367.4	13.0
30°-40°	448.7	15.9
40°-50°	479.7	17.0
50°-60°	463.0	16.4
60°-70°	398.6	14.1
70°-80°	269.7	9.6
80°-90°	71.2	2.5
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°	692.2	24.5
0°-40°	1140.8	40.4
0°-60°	2083.6	73.8
0°-90°	2823.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2823.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	887	887	887	887	887	
5°	878	880	885	885	885	83
15°	845	847	854	858	860	238
25°	785	789	802	806	810	361
35°	696	702	716	731	737	435
45°	584	594	617	648	664	450
55°	451	465	515	567	594	404
65°	299	328	409	474	507	297
75°	147	195	276	332	351	158
85°	37	52	64	66	71	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	886.8	886.8	886.8	886.8	886.8
2.5°	880.5	882.6	886.8	886.8	888.8
5°	878.4	880.5	884.7	884.7	884.7
7.5°	872.2	874.3	878.4	880.5	880.5
10°	866.0	868.1	872.2	874.3	876.4
12.5°	855.6	857.7	863.9	868.1	868.1
15°	845.2	847.3	853.5	857.7	859.8
17.5°	832.8	836.9	843.1	847.3	849.4
20°	816.1	820.3	828.6	834.8	836.9
22.5°	801.6	805.8	814.1	820.3	824.5
25°	785.0	789.1	801.6	805.8	809.9
27.5°	764.2	768.4	778.8	787.1	793.3
30°	743.5	747.6	760.1	770.5	774.6
32.5°	720.6	726.8	741.4	749.7	755.9
35°	695.7	701.9	716.5	731.0	737.2
37.5°	670.8	677.0	691.5	710.2	718.5
40°	641.7	650.0	668.7	693.6	697.8
42.5°	614.7	625.1	641.7	670.8	681.2
45°	583.6	593.9	616.8	647.9	664.5
47.5°	554.5	564.9	589.8	627.2	647.9
50°	519.2	533.7	564.9	608.5	629.2
52.5°	485.9	498.4	539.9	587.7	612.6
55°	450.6	465.2	515.0	566.9	593.9
57.5°	419.5	432.0	488.0	546.2	577.3
60°	380.0	396.7	461.0	523.3	554.5
62.5°	338.5	363.4	434.0	498.4	531.6
65°	299.0	328.1	409.1	473.5	506.7
67.5°	263.7	294.9	378.0	446.5	477.6
70°	222.2	261.7	346.8	413.3	448.6
72.5°	184.8	228.4	311.5	378.0	409.1
75°	147.4	195.2	276.2	332.3	351.0
77.5°	114.2	159.9	236.7	253.4	255.4
80°	85.1	126.7	176.5	178.6	184.8
82.5°	58.1	89.3	114.2	124.6	126.7
85°	37.4	51.9	64.4	66.5	70.6
87.5°	16.6	18.7	22.8	20.8	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)