

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: P312540

Luminaire Tested: **22FCZ2-39HE-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: P312540
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-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: 2699.0 lumens
Efficiency: N/A
Efficacy: 83.6 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

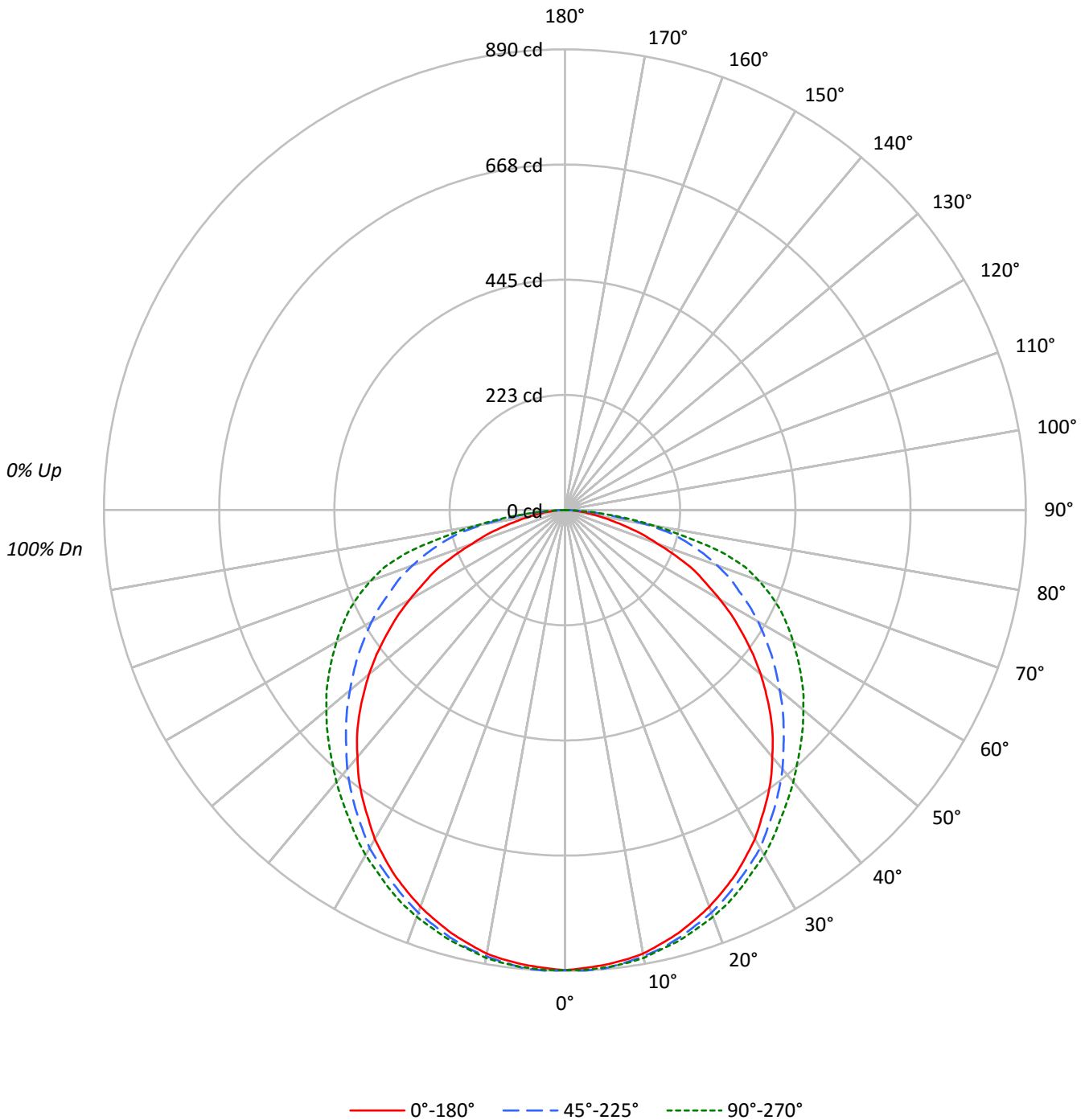
Input Watts (W): 32.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2392	2392	2392
5°	2382	2401	2396
10°	2377	2391	2400
15°	2357	2381	2395
20°	2335	2370	2394
25°	2310	2351	2391
30°	2280	2344	2391
35°	2237	2316	2388
40°	2189	2297	2410
45°	2138	2274	2449
50°	2067	2267	2516
55°	1973	2284	2612
60°	1860	2319	2740
65°	1756	2364	2927
70°	1500	2465	3135
75°	1257	2567	3257
80°	1029	2479	2718
85°	892	1840	1998



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.2	3.1
10°-20°	240.9	8.9
20°-30°	365.2	13.5
30°-40°	440.9	16.3
40°-50°	463.3	17.2
50°-60°	435.9	16.2
60°-70°	363.5	13.5
70°-80°	240.8	8.9
80°-90°	64.2	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°	690.3	25.6
0°-40°	1131.3	41.9
0°-60°	2030.5	75.2
0°-90°	2699.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2699.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	889	889	889	889	889	
5°	882	884	889	889	887	84
15°	846	850	855	858	860	239
25°	778	783	792	802	805	358
35°	681	688	705	720	727	426
45°	562	570	598	628	644	433
55°	420	439	487	536	557	376
65°	276	300	371	432	460	268
75°	121	169	247	298	313	131
85°	29	44	60	65	65	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	888.8	888.8	888.8	888.8	888.8
2.5°	885.3	887.0	890.5	890.5	888.8
5°	881.9	883.6	888.8	888.8	887.0
7.5°	876.8	878.5	881.9	885.3	883.6
10°	870.0	871.7	875.1	878.5	878.5
12.5°	858.1	859.8	866.6	868.3	868.3
15°	846.2	849.6	854.7	858.1	859.8
17.5°	830.9	834.3	841.1	847.9	847.9
20°	815.5	818.9	827.5	834.3	836.0
22.5°	796.8	801.9	810.4	818.9	822.3
25°	778.1	783.2	791.7	801.9	805.3
27.5°	755.9	761.1	773.0	784.9	786.6
30°	733.8	738.9	754.2	764.5	769.6
32.5°	706.6	713.4	728.7	744.0	749.1
35°	681.0	687.8	704.9	720.2	727.0
37.5°	653.8	660.6	679.3	698.1	706.6
40°	623.1	631.7	653.8	674.2	686.1
42.5°	594.2	602.7	624.8	652.1	664.0
45°	561.9	570.4	597.6	628.3	643.6
47.5°	527.8	538.0	570.4	607.8	623.1
50°	493.8	505.7	541.4	584.0	601.0
52.5°	458.0	473.3	514.2	560.2	580.6
55°	420.5	439.3	486.9	536.3	556.7
57.5°	384.8	401.8	458.0	510.8	532.9
60°	345.6	367.8	430.8	485.2	509.1
62.5°	308.2	332.0	401.8	459.7	485.2
65°	275.8	299.7	371.2	432.5	459.7
67.5°	233.3	265.6	345.6	403.5	430.8
70°	190.7	235.0	313.3	372.9	398.4
72.5°	158.3	200.9	280.9	340.5	364.4
75°	120.9	168.6	246.9	298.0	313.3
77.5°	90.2	139.6	211.1	236.7	238.4
80°	66.4	107.3	160.0	168.6	175.4
82.5°	46.0	74.9	103.9	114.1	117.5
85°	28.9	44.3	59.6	64.7	64.7
87.5°	15.3	17.0	20.4	20.4	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)