

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: P312551

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-HRP-CP125-W2A-U-3500K**

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: P312551
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-CP125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB SHEET
Light Source: (168) 3500K 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: 2790.0 lumens
Efficiency: N/A
Efficacy: 86.1 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

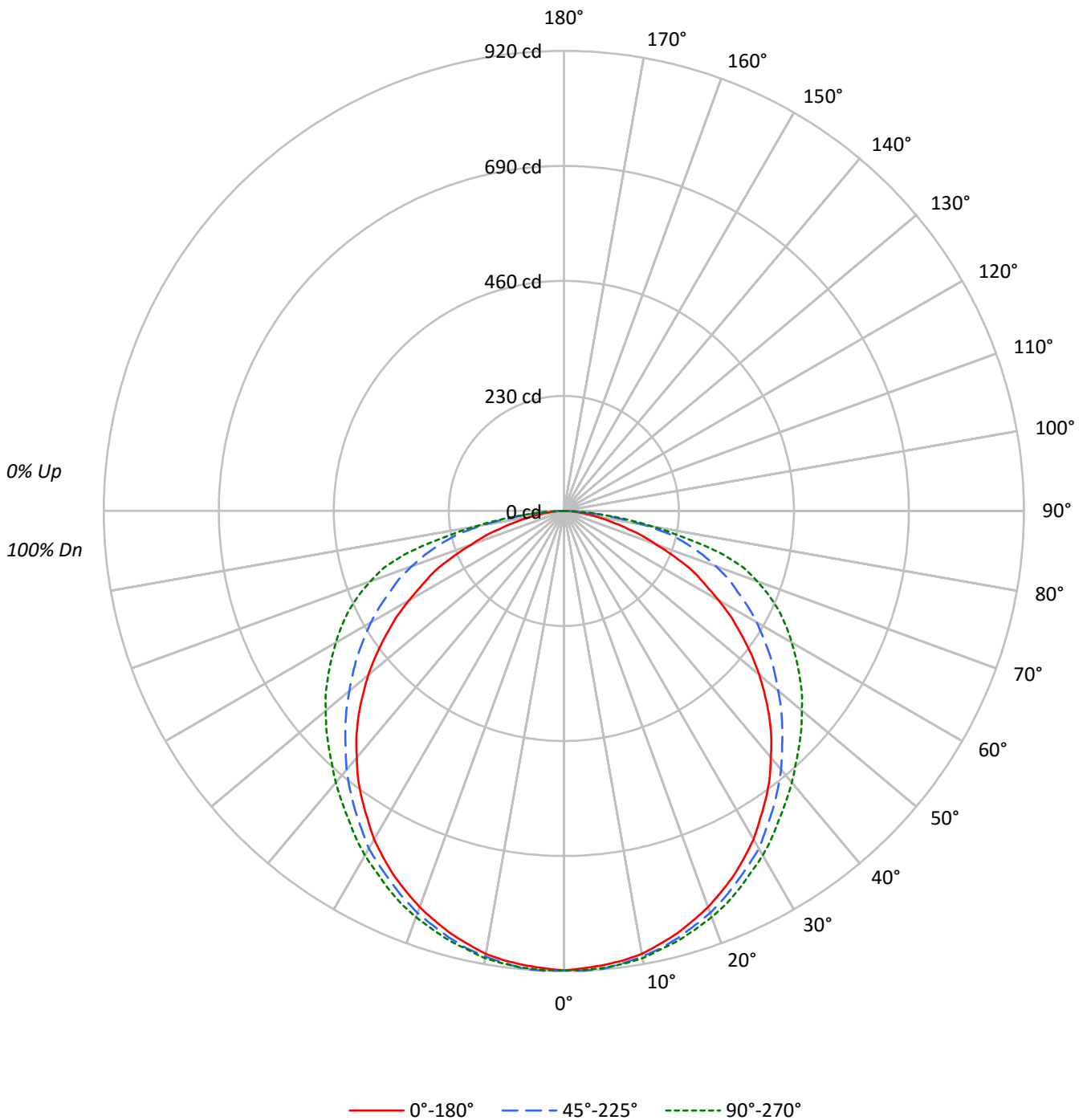
Input Watts (W): 32.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2472	2472	2472
5°	2463	2482	2477
10°	2458	2472	2482
15°	2437	2461	2476
20°	2414	2450	2475
25°	2388	2430	2472
30°	2357	2423	2472
35°	2313	2394	2469
40°	2263	2374	2492
45°	2210	2351	2532
50°	2137	2343	2601
55°	2039	2362	2700
60°	1923	2397	2832
65°	1815	2443	3026
70°	1551	2548	3240
75°	1300	2653	3367
80°	1063	2563	2810
85°	923	1902	2066



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.1	3.1
10°-20°	249.1	8.9
20°-30°	377.5	13.5
30°-40°	455.8	16.3
40°-50°	478.9	17.2
50°-60°	450.6	16.2
60°-70°	375.7	13.5
70°-80°	248.9	8.9
80°-90°	66.3	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°	713.6	25.6
0°-40°	1169.4	41.9
0°-60°	2099.0	75.2
0°-90°	2790.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2790.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	919	919	919	919	919	
5°	912	913	919	919	917	87
15°	875	878	884	887	889	247
25°	804	810	818	829	832	370
35°	704	711	729	744	752	440
45°	581	590	618	649	665	447
55°	435	454	503	554	576	389
65°	285	310	384	447	475	277
75°	125	174	255	308	324	136
85°	30	46	62	67	67	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	918.7	918.7	918.7	918.7	918.7
2.5°	915.2	917.0	920.5	920.5	918.7
5°	911.7	913.4	918.7	918.7	917.0
7.5°	906.4	908.2	911.7	915.2	913.4
10°	899.4	901.1	904.6	908.2	908.2
12.5°	887.0	888.8	895.8	897.6	897.6
15°	874.7	878.2	883.5	887.0	888.8
17.5°	858.9	862.4	869.4	876.5	876.5
20°	843.0	846.6	855.4	862.4	864.2
22.5°	823.7	829.0	837.8	846.6	850.1
25°	804.3	809.6	818.4	829.0	832.5
27.5°	781.4	786.7	799.0	811.4	813.1
30°	758.6	763.8	779.7	790.2	795.5
32.5°	730.4	737.4	753.3	769.1	774.4
35°	704.0	711.0	728.6	744.5	751.5
37.5°	675.8	682.9	702.2	721.6	730.4
40°	644.2	653.0	675.8	697.0	709.3
42.5°	614.2	623.0	645.9	674.1	686.4
45°	580.8	589.6	617.8	649.4	665.3
47.5°	545.6	556.2	589.6	628.3	644.2
50°	510.4	522.7	559.7	603.7	621.3
52.5°	473.4	489.3	531.5	579.0	600.2
55°	434.7	454.1	503.4	554.4	575.5
57.5°	397.8	415.4	473.4	528.0	550.9
60°	357.3	380.2	445.3	501.6	526.2
62.5°	318.6	343.2	415.4	475.2	501.6
65°	285.1	309.8	383.7	447.0	475.2
67.5°	241.1	274.6	357.3	417.1	445.3
70°	197.1	242.9	323.8	385.4	411.8
72.5°	163.7	207.7	290.4	352.0	376.6
75°	125.0	174.2	255.2	308.0	323.8
77.5°	93.3	144.3	218.2	244.6	246.4
80°	68.6	110.9	165.4	174.2	181.3
82.5°	47.5	77.4	107.4	117.9	121.4
85°	29.9	45.8	61.6	66.9	66.9
87.5°	15.8	17.6	21.1	21.1	21.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)