

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: P308253

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-HRP-CA125-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: P308253
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-4500K
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: 2789.0 lumens
Efficiency: N/A
Efficacy: 84.5 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

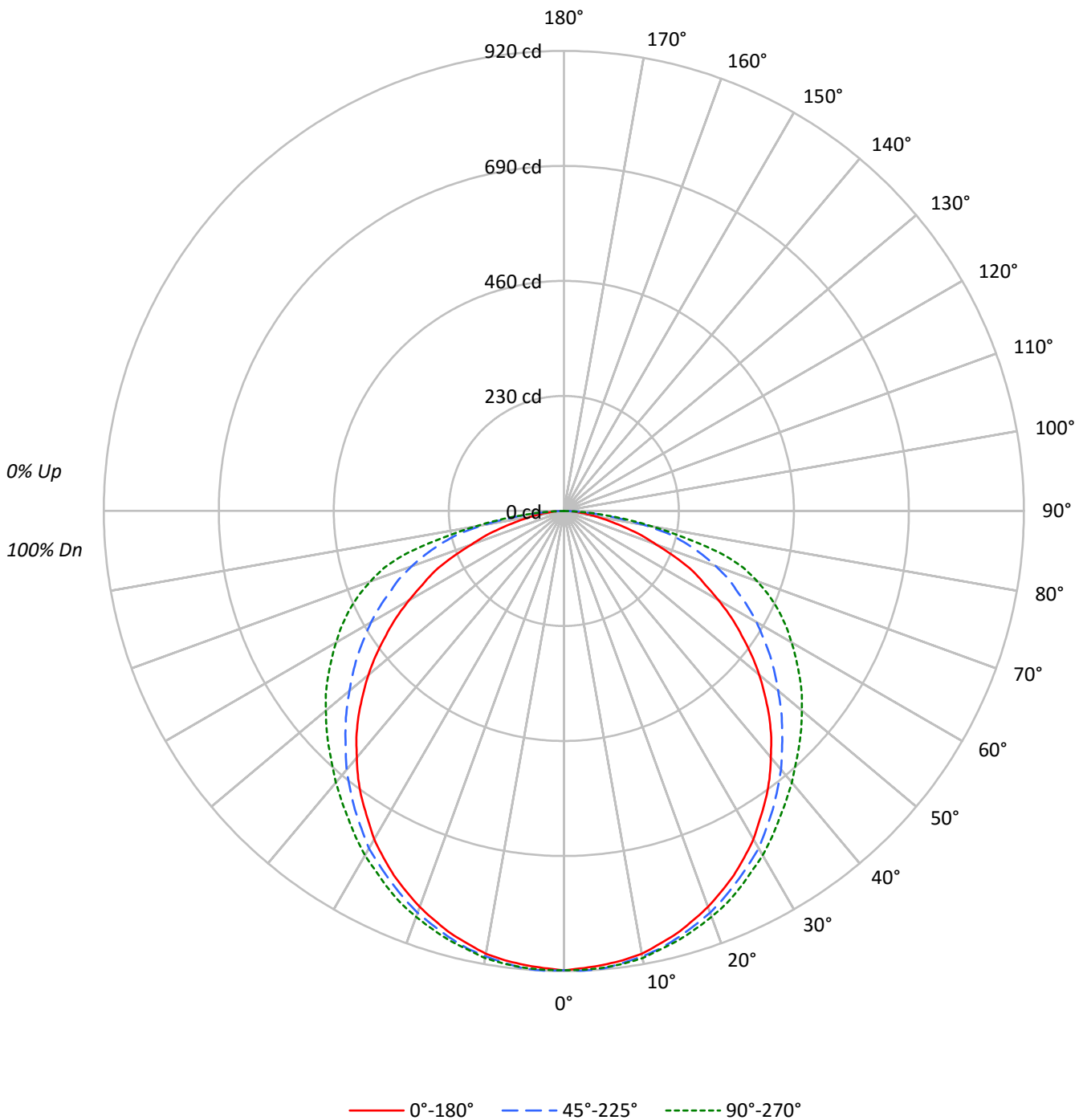
Input Watts (W): 33
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2471	2471	2471
5°	2462	2481	2476
10°	2457	2471	2481
15°	2436	2461	2475
20°	2413	2448	2474
25°	2387	2429	2471
30°	2356	2422	2471
35°	2312	2393	2468
40°	2262	2373	2491
45°	2210	2350	2531
50°	2136	2342	2600
55°	2039	2361	2699
60°	1922	2396	2831
65°	1815	2442	3025
70°	1550	2547	3239
75°	1299	2652	3366
80°	1063	2563	2808
85°	923	1902	2066



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.0	3.1
10°-20°	249.0	8.9
20°-30°	377.3	13.5
30°-40°	455.6	16.3
40°-50°	478.8	17.2
50°-60°	450.5	16.2
60°-70°	375.6	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°	713.4	25.6
0°-40°	1169.0	41.9
0°-60°	2098.2	75.2
0°-90°	2789.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2789.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	918	918	918	918	918	
5°	911	913	918	918	917	87
15°	874	878	883	887	888	247
25°	804	809	818	829	832	370
35°	704	711	728	744	751	440
45°	581	589	618	649	665	447
55°	435	454	503	554	575	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°	918.4	918.4	918.4	918.4	918.4
2.5°	914.9	916.6	920.1	920.1	918.4
5°	911.3	913.1	918.4	918.4	916.6
7.5°	906.1	907.8	911.3	914.9	913.1
10°	899.0	900.8	904.3	907.8	907.8
12.5°	886.7	888.5	895.5	897.3	897.3
15°	874.4	877.9	883.2	886.7	888.5
17.5°	858.6	862.1	869.1	876.2	876.2
20°	842.7	846.3	855.0	862.1	863.8
22.5°	823.4	828.7	837.5	846.3	849.8
25°	804.0	809.3	818.1	828.7	832.2
27.5°	781.2	786.4	798.7	811.1	812.8
30°	758.3	763.6	779.4	790.0	795.2
32.5°	730.1	737.2	753.0	768.8	774.1
35°	703.7	710.8	728.4	744.2	751.2
37.5°	675.6	682.6	702.0	721.3	730.1
40°	643.9	652.7	675.6	696.7	709.0
42.5°	614.0	622.8	645.7	673.8	686.2
45°	580.6	589.4	617.5	649.2	665.0
47.5°	545.4	556.0	589.4	628.1	643.9
50°	510.2	522.5	559.5	603.5	621.1
52.5°	473.3	489.1	531.3	578.8	599.9
55°	434.6	453.9	503.2	554.2	575.3
57.5°	397.6	415.2	473.3	527.8	550.7
60°	357.2	380.0	445.1	501.4	526.0
62.5°	318.4	343.1	415.2	475.0	501.4
65°	285.0	309.6	383.5	446.9	475.0
67.5°	241.0	274.5	357.2	417.0	445.1
70°	197.0	242.8	323.7	385.3	411.7
72.5°	163.6	207.6	290.3	351.9	376.5
75°	124.9	174.2	255.1	307.9	323.7
77.5°	93.2	144.3	218.2	244.6	246.3
80°	68.6	110.8	165.4	174.2	181.2
82.5°	47.5	77.4	107.3	117.9	121.4
85°	29.9	45.7	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)