

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: P312552

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-HRP-CP125-W2A-U-4000K**

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: P312552
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-4000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4000K 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: 2930.0 lumens
Efficiency: N/A
Efficacy: 88.5 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

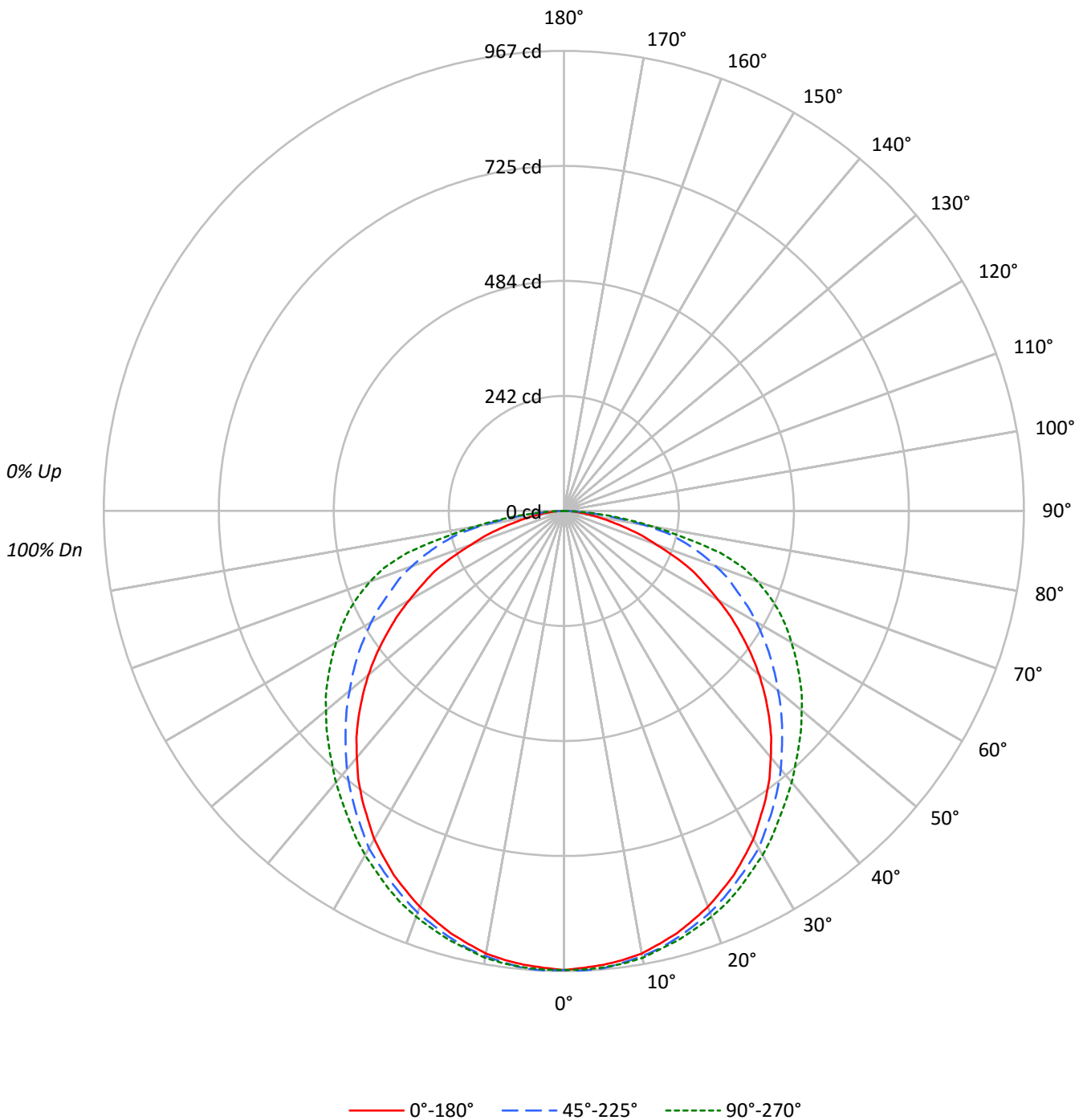
Input Watts (W): 33.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2596	2596	2596
5°	2586	2606	2601
10°	2581	2596	2606
15°	2559	2585	2600
20°	2535	2572	2599
25°	2508	2552	2596
30°	2475	2544	2596
35°	2429	2514	2593
40°	2376	2493	2617
45°	2321	2469	2659
50°	2244	2461	2732
55°	2142	2480	2836
60°	2019	2517	2974
65°	1906	2565	3177
70°	1629	2676	3403
75°	1364	2786	3536
80°	1117	2692	2951
85°	969	1998	2167



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.4	3.1
10°-20°	261.6	8.9
20°-30°	396.4	13.5
30°-40°	478.7	16.3
40°-50°	503.0	17.2
50°-60°	473.2	16.2
60°-70°	394.6	13.5
70°-80°	261.5	8.9
80°-90°	69.7	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°	749.4	25.6
0°-40°	1228.1	41.9
0°-60°	2204.3	75.2
0°-90°	2930.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2930.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	965	965	965	965	965	
5°	957	959	965	965	963	91
15°	919	922	928	932	933	259
25°	845	850	860	871	874	389
35°	739	747	765	782	789	462
45°	610	619	649	682	699	470
55°	456	477	529	582	604	408
65°	299	325	403	470	499	291
75°	131	183	268	324	340	142
85°	31	48	65	70	70	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	964.8	964.8	964.8	964.8	964.8
2.5°	961.1	963.0	966.7	966.7	964.8
5°	957.4	959.3	964.8	964.8	963.0
7.5°	951.9	953.7	957.4	961.1	959.3
10°	944.5	946.3	950.0	953.7	953.7
12.5°	931.5	933.4	940.8	942.6	942.6
15°	918.6	922.3	927.8	931.5	933.4
17.5°	902.0	905.7	913.1	920.5	920.5
20°	885.3	889.0	898.3	905.7	907.5
22.5°	865.0	870.6	879.8	889.0	892.7
25°	844.7	850.2	859.5	870.6	874.2
27.5°	820.6	826.2	839.1	852.1	853.9
30°	796.6	802.2	818.8	829.9	835.4
32.5°	767.0	774.4	791.1	807.7	813.3
35°	739.3	746.7	765.2	781.8	789.2
37.5°	709.7	717.1	737.5	757.8	767.0
40°	676.5	685.7	709.7	731.9	744.9
42.5°	645.1	654.3	678.3	707.9	720.8
45°	609.9	619.2	648.8	682.0	698.7
47.5°	573.0	584.1	619.2	659.8	676.5
50°	536.0	548.9	587.8	634.0	652.5
52.5°	497.2	513.8	558.2	608.1	630.3
55°	456.5	476.9	528.6	582.2	604.4
57.5°	417.7	436.2	497.2	554.5	578.5
60°	375.2	399.2	467.6	526.8	552.6
62.5°	334.5	360.4	436.2	499.0	526.8
65°	299.4	325.3	402.9	469.5	499.0
67.5°	253.2	288.3	375.2	438.0	467.6
70°	207.0	255.1	340.1	404.8	432.5
72.5°	171.9	218.1	305.0	369.7	395.5
75°	131.2	183.0	268.0	323.5	340.1
77.5°	98.0	151.6	229.2	256.9	258.8
80°	72.1	116.4	173.7	183.0	190.4
82.5°	49.9	81.3	112.7	123.8	127.5
85°	31.4	48.1	64.7	70.2	70.2
87.5°	16.6	18.5	22.2	22.2	22.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)