

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: P312845

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-CA125-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: P312845
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
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-CA125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 3340.0 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

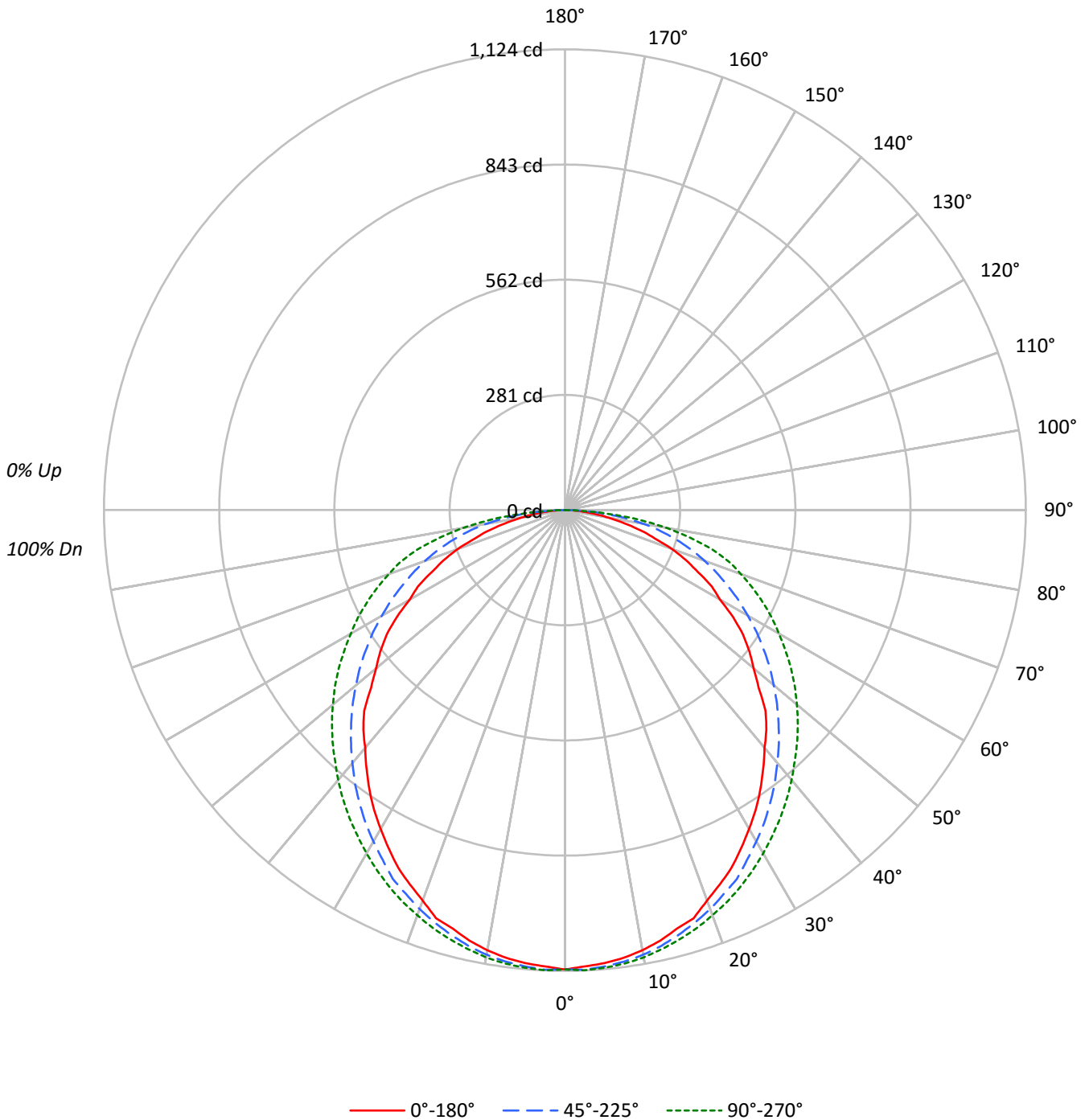
Input Watts (W): 32.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	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	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3016	3016	3016
5°	2997	3018	3027
10°	2979	3010	3027
15°	2944	2988	3019
20°	2902	2966	3012
25°	2857	2947	3009
30°	2792	2901	3005
35°	2731	2867	3009
40°	2662	2830	3021
45°	2634	2804	3048
50°	2516	2784	3092
55°	2490	2775	3157
60°	2349	2770	3244
65°	2280	2789	3389
70°	2189	2855	3597
75°	1994	2941	3873
80°	1709	3047	3914
85°	1383	2912	3356



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.0	3.2
10°-20°	302.5	9.1
20°-30°	455.3	13.6
30°-40°	546.4	16.4
40°-50°	571.1	17.1
50°-60°	532.2	15.9
60°-70°	436.5	13.1
70°-80°	294.1	8.8
80°-90°	95.8	2.9
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°	863.8	25.9
0°-40°	1410.2	42.2
0°-60°	2513.5	75.3
0°-90°	3340.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3340.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1109	1113	1117	1119	1121	105
15°	1057	1063	1073	1082	1084	299
25°	962	969	993	1007	1014	442
35°	831	842	873	903	916	520
45°	692	697	737	782	801	529
55°	531	540	592	647	673	470
65°	358	374	438	502	532	356
75°	192	213	283	347	372	202
85°	45	64	94	110	109	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1120.6	1120.6	1120.6	1120.6	1120.6
2.5°	1114.2	1117.4	1122.2	1123.8	1123.8
5°	1109.4	1112.6	1117.4	1119.0	1120.6
7.5°	1101.4	1104.6	1111.0	1114.2	1115.8
10°	1090.2	1093.4	1101.4	1106.2	1107.8
12.5°	1075.8	1079.0	1088.6	1095.0	1096.6
15°	1056.7	1063.0	1072.6	1082.2	1083.8
17.5°	1043.9	1042.3	1055.1	1066.2	1069.4
20°	1013.5	1021.5	1035.9	1048.7	1051.9
22.5°	987.9	994.3	1013.5	1027.9	1034.3
25°	962.3	968.7	992.7	1007.1	1013.5
27.5°	930.4	940.0	962.3	983.1	991.1
30°	898.4	908.0	933.6	957.5	967.1
32.5°	866.4	877.6	904.8	930.4	941.6
35°	831.3	842.4	872.8	903.2	916.0
37.5°	794.5	808.9	840.8	874.4	888.8
40°	757.7	772.1	805.7	844.0	860.0
42.5°	727.3	733.7	772.1	813.7	829.7
45°	692.2	697.0	736.9	781.7	800.9
47.5°	641.0	658.6	701.8	751.3	770.5
50°	601.1	620.2	665.0	717.8	738.5
52.5°	567.5	580.3	629.8	682.6	706.6
55°	530.7	540.3	591.5	647.4	673.0
57.5°	486.0	503.5	554.7	612.3	637.8
60°	436.4	458.8	514.7	577.1	602.7
62.5°	404.4	417.2	478.0	540.3	569.1
65°	358.1	374.1	438.0	502.0	532.3
67.5°	319.7	335.7	401.2	465.2	495.6
70°	278.2	294.1	362.9	426.8	457.2
72.5°	230.2	252.6	324.5	388.5	420.4
75°	191.8	212.6	282.9	346.9	372.5
77.5°	148.7	175.8	241.4	294.1	313.3
80°	110.3	137.5	196.6	235.0	252.6
82.5°	75.1	102.3	147.1	175.8	185.4
85°	44.8	63.9	94.3	110.3	108.7
87.5°	20.8	27.2	38.4	38.4	36.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)