

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: P308751

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CA125-W2A-U-5700K**

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: P308751
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: 22FCZ2-34HE-UNV-L82765-CA125-W2A-U-5700K
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: 3215.0 lumens
Efficiency: N/A
Efficacy: 113.2 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

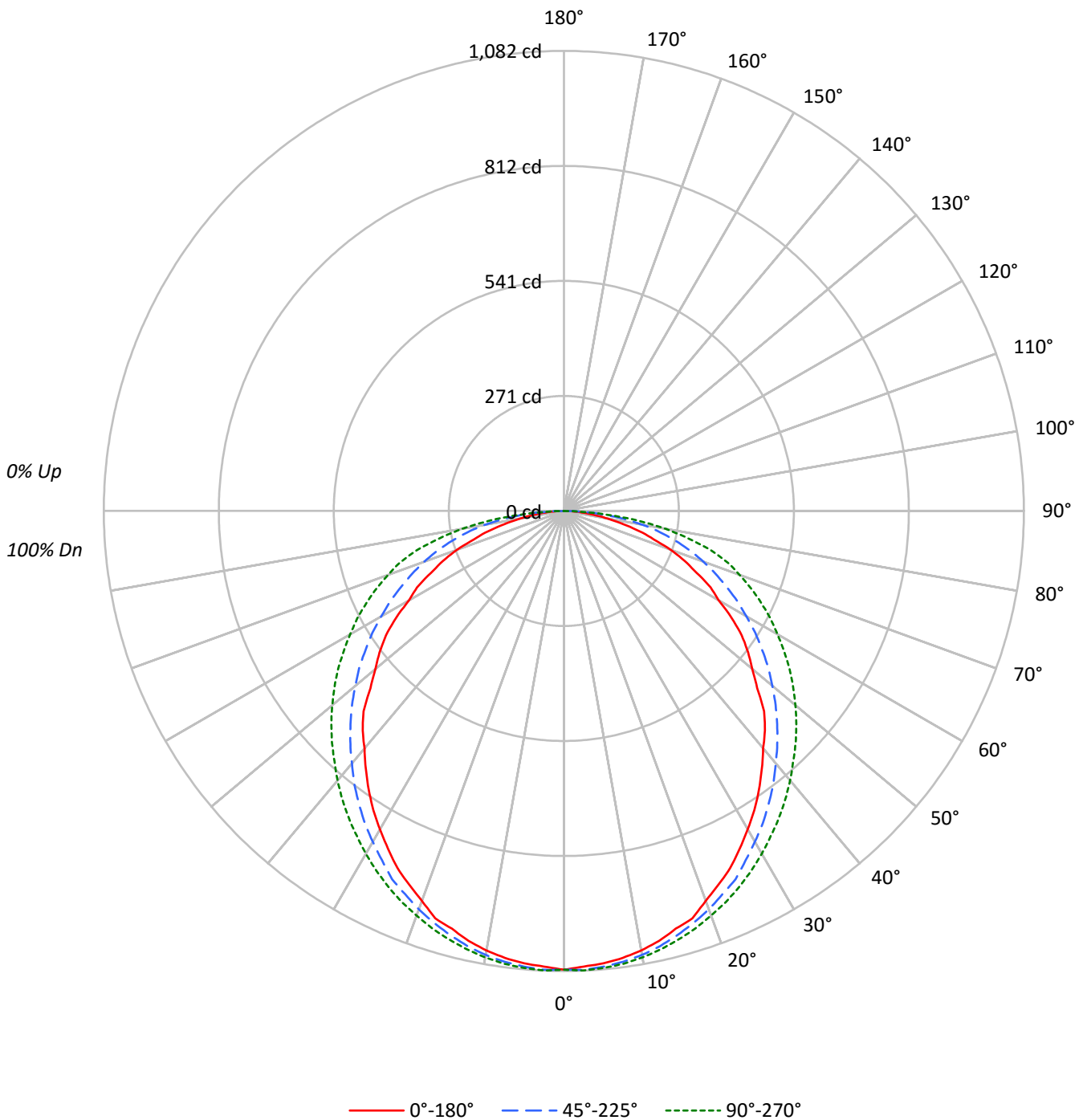
Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2903	2903	2903
5°	2885	2905	2914
10°	2867	2897	2914
15°	2834	2876	2907
20°	2794	2855	2899
25°	2750	2837	2897
30°	2687	2792	2893
35°	2628	2760	2896
40°	2562	2724	2908
45°	2536	2700	2934
50°	2422	2680	2976
55°	2397	2671	3039
60°	2261	2667	3122
65°	2195	2684	3263
70°	2106	2748	3463
75°	1919	2832	3727
80°	1646	2934	3767
85°	1331	2803	3230



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.1	3.2
10°-20°	291.2	9.1
20°-30°	438.2	13.6
30°-40°	526.0	16.4
40°-50°	549.7	17.1
50°-60°	512.3	15.9
60°-70°	420.2	13.1
70°-80°	283.1	8.8
80°-90°	92.2	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°	831.5	25.9
0°-40°	1357.4	42.2
0°-60°	2419.5	75.3
0°-90°	3215.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3215.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1079	1079	1079	1079	1079	
5°	1068	1071	1076	1077	1079	101
15°	1017	1023	1032	1042	1043	287
25°	926	932	956	969	976	426
35°	800	811	840	869	882	500
45°	666	671	709	752	771	509
55°	511	520	569	623	648	453
65°	345	360	422	483	512	343
75°	185	205	272	334	358	194
85°	43	62	91	106	105	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1078.7	1078.7	1078.7	1078.7	1078.7
2.5°	1072.5	1075.6	1080.2	1081.7	1081.7
5°	1067.9	1071.0	1075.6	1077.1	1078.7
7.5°	1060.2	1063.3	1069.4	1072.5	1074.0
10°	1049.4	1052.5	1060.2	1064.8	1066.3
12.5°	1035.6	1038.7	1047.9	1054.0	1055.6
15°	1017.1	1023.3	1032.5	1041.7	1043.3
17.5°	1004.8	1003.3	1015.6	1026.3	1029.4
20°	975.6	983.3	997.1	1009.4	1012.5
22.5°	950.9	957.1	975.6	989.4	995.6
25°	926.3	932.5	955.6	969.4	975.6
27.5°	895.5	904.8	926.3	946.3	954.0
30°	864.8	874.0	898.6	921.7	930.9
32.5°	834.0	844.8	870.9	895.5	906.3
35°	800.1	810.9	840.2	869.4	881.7
37.5°	764.8	778.6	809.4	841.7	855.5
40°	729.4	743.2	775.5	812.5	827.8
42.5°	700.1	706.3	743.2	783.2	798.6
45°	666.3	670.9	709.4	752.4	770.9
47.5°	617.0	634.0	675.5	723.2	741.7
50°	578.6	597.0	640.1	690.9	710.9
52.5°	546.3	558.6	606.3	657.0	680.1
55°	510.9	520.1	569.3	623.2	647.8
57.5°	467.8	484.7	533.9	589.3	614.0
60°	420.1	441.6	495.5	555.5	580.1
62.5°	389.3	401.6	460.1	520.1	547.8
65°	344.7	360.1	421.6	483.2	512.4
67.5°	307.7	323.1	386.2	447.8	477.0
70°	267.7	283.1	349.3	410.8	440.1
72.5°	221.6	243.1	312.4	373.9	404.7
75°	184.6	204.7	272.4	333.9	358.5
77.5°	143.1	169.3	232.4	283.1	301.6
80°	106.2	132.3	189.3	226.2	243.1
82.5°	72.3	98.5	141.6	169.3	178.5
85°	43.1	61.5	90.8	106.2	104.6
87.5°	20.0	26.2	36.9	36.9	35.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)