

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: P309015

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-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: P309015
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
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-S-CA125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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: 3071.0 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

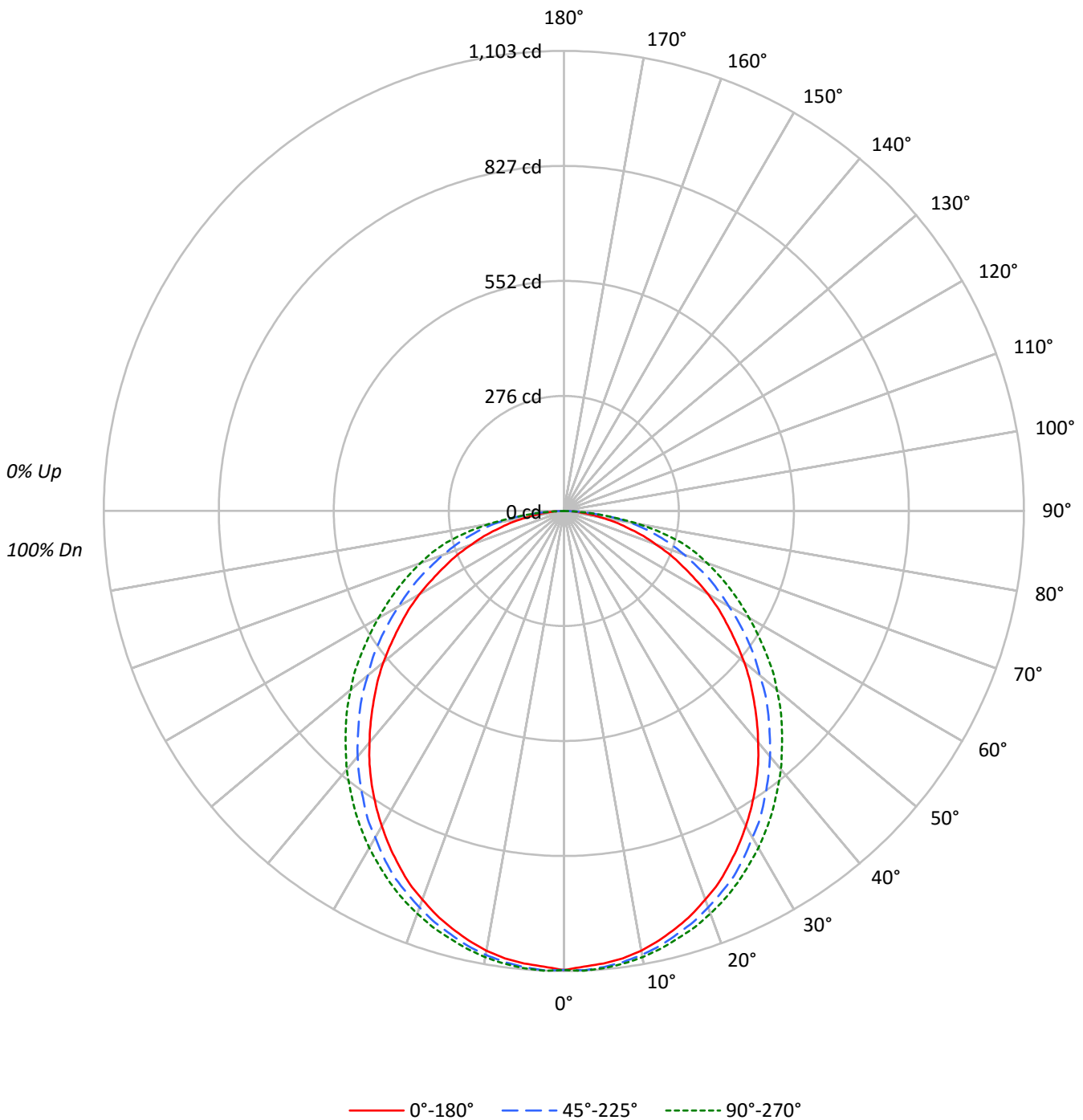
Input Watts (W): 27.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2961	2961	2961
5°	2942	2965	2972
10°	2925	2952	2968
15°	2886	2926	2954
20°	2839	2897	2942
25°	2782	2867	2923
30°	2711	2809	2898
35°	2636	2758	2871
40°	2547	2703	2844
45°	2454	2639	2814
50°	2363	2568	2789
55°	2252	2521	2769
60°	2152	2460	2761
65°	2007	2445	2792
70°	1849	2424	2875
75°	1669	2458	3025
80°	1443	2531	2842
85°	1195	2124	2124



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.1	3.4
10°-20°	296.2	9.6
20°-30°	443.1	14.4
30°-40°	524.8	17.1
40°-50°	534.8	17.4
50°-60°	479.3	15.6
60°-70°	375.3	12.2
70°-80°	242.0	7.9
80°-90°	71.5	2.3
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°	843.3	27.5
0°-40°	1368.1	44.5
0°-60°	2382.2	77.6
0°-90°	3071.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3071.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1089	1092	1098	1099	1100	103
15°	1036	1042	1050	1059	1060	292
25°	937	946	966	979	984	431
35°	802	812	840	865	874	501
45°	645	659	694	729	739	498
55°	480	496	537	575	590	430
65°	315	334	384	421	438	313
75°	160	185	236	276	291	172
85°	39	53	69	69	69	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1100.4	1100.4	1100.4	1100.4	1100.4
2.5°	1093.3	1096.1	1101.9	1103.3	1103.3
5°	1089.0	1091.8	1097.6	1099.0	1100.4
7.5°	1081.8	1083.2	1090.4	1093.3	1094.7
10°	1070.3	1073.2	1080.4	1084.7	1086.1
12.5°	1054.6	1058.9	1067.5	1073.2	1074.6
15°	1036.0	1041.7	1050.3	1058.9	1060.3
17.5°	1015.9	1021.6	1033.1	1043.1	1046.0
20°	991.5	998.7	1011.6	1023.1	1027.4
22.5°	967.2	972.9	988.7	1003.0	1007.3
25°	937.1	945.7	965.7	978.6	984.4
27.5°	905.6	915.6	935.7	952.9	958.6
30°	872.6	882.6	904.1	925.6	932.8
32.5°	838.2	849.7	875.5	897.0	904.1
35°	802.4	812.4	839.7	865.4	874.0
37.5°	765.1	773.7	805.3	832.5	841.1
40°	725.0	736.5	769.4	801.0	809.6
42.5°	684.9	697.8	730.8	765.1	773.7
45°	644.8	659.1	693.5	729.3	739.4
47.5°	606.1	617.6	656.2	690.6	705.0
50°	564.5	576.0	613.3	652.0	666.3
52.5°	521.6	537.3	577.4	614.7	631.9
55°	480.0	495.8	537.3	574.6	590.3
57.5°	441.3	454.2	497.2	535.9	551.7
60°	399.8	411.2	457.1	498.6	513.0
62.5°	355.3	372.5	419.8	458.5	475.7
65°	315.2	333.9	384.0	421.3	438.5
67.5°	278.0	295.2	343.9	384.0	402.6
70°	235.0	257.9	308.1	348.2	365.4
72.5°	200.6	220.7	272.2	312.4	331.0
75°	160.5	184.8	236.4	276.5	290.9
77.5°	127.5	151.9	200.6	232.1	239.3
80°	93.1	117.5	163.3	179.1	183.4
82.5°	63.0	86.0	117.5	121.8	123.2
85°	38.7	53.0	68.8	68.8	68.8
87.5°	18.6	21.5	24.4	22.9	22.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)