

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: P309014

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-CA125-W2A-U-2700K**

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: P309014
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-2700K
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: 2985.1 lumens
Efficiency: N/A
Efficacy: 108.2 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

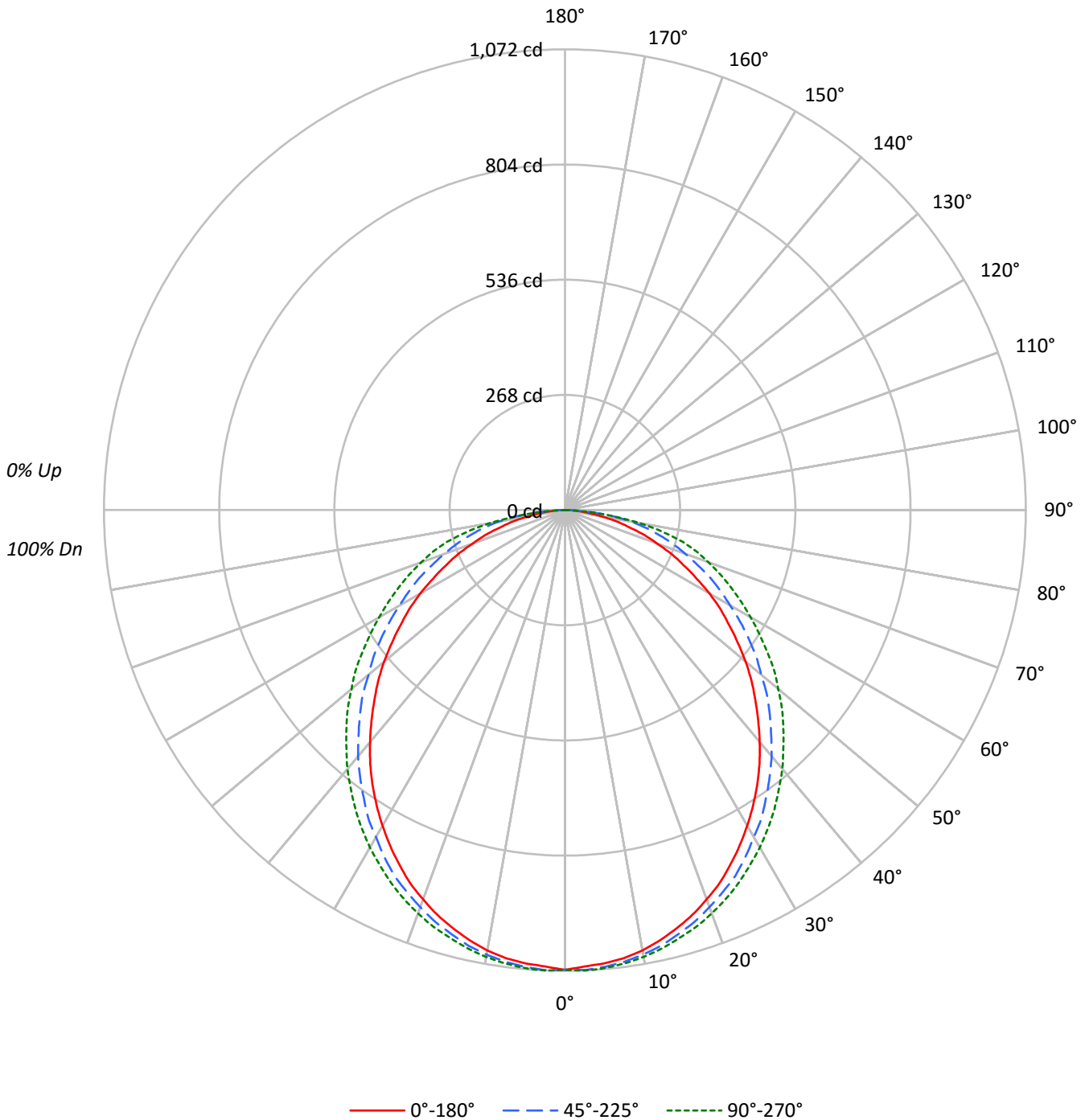
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2878	2878	2878
5°	2859	2882	2889
10°	2843	2869	2885
15°	2805	2844	2871
20°	2760	2816	2860
25°	2704	2787	2841
30°	2636	2731	2817
35°	2562	2681	2791
40°	2475	2627	2764
45°	2385	2565	2735
50°	2297	2496	2711
55°	2189	2450	2692
60°	2091	2391	2683
65°	1951	2377	2714
70°	1797	2356	2794
75°	1622	2389	2939
80°	1402	2461	2763
85°	1161	2066	2066



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	3.4
10°-20°	287.9	9.6
20°-30°	430.7	14.4
30°-40°	510.1	17.1
40°-50°	519.8	17.4
50°-60°	465.9	15.6
60°-70°	364.8	12.2
70°-80°	235.2	7.9
80°-90°	69.5	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°	819.7	27.5
0°-40°	1329.8	44.5
0°-60°	2315.6	77.6
0°-90°	2985.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2985.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1058	1061	1067	1068	1070	100
15°	1007	1012	1021	1029	1031	284
25°	911	919	939	951	957	419
35°	780	790	816	841	850	487
45°	627	641	674	709	719	484
55°	467	482	522	558	574	418
65°	306	324	373	410	426	304
75°	156	180	230	269	283	167
85°	38	52	67	67	67	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1069.6	1069.6	1069.6	1069.6	1069.6
2.5°	1062.7	1065.4	1071.0	1072.4	1072.4
5°	1058.5	1061.3	1066.8	1068.2	1069.6
7.5°	1051.5	1052.9	1059.9	1062.7	1064.0
10°	1040.4	1043.2	1050.1	1054.3	1055.7
12.5°	1025.1	1029.2	1037.6	1043.2	1044.5
15°	1006.9	1012.5	1020.9	1029.2	1030.6
17.5°	987.4	993.0	1004.2	1013.9	1016.7
20°	963.8	970.7	983.3	994.4	998.6
22.5°	940.1	945.7	961.0	974.9	979.1
25°	910.8	919.2	938.7	951.2	956.8
27.5°	880.2	890.0	909.5	926.2	931.7
30°	848.2	857.9	878.8	899.7	906.7
32.5°	814.7	825.9	851.0	871.9	878.8
35°	779.9	789.7	816.1	841.2	849.6
37.5°	743.7	752.1	782.7	809.2	817.5
40°	704.7	715.9	747.9	778.5	786.9
42.5°	665.7	678.3	710.3	743.7	752.1
45°	626.7	640.7	674.1	708.9	718.6
47.5°	589.1	600.3	637.9	671.3	685.2
50°	548.7	559.9	596.1	633.7	647.6
52.5°	507.0	522.3	561.3	597.5	614.2
55°	466.6	481.9	522.3	558.5	573.8
57.5°	429.0	441.5	483.3	520.9	536.2
60°	388.6	399.7	444.3	484.7	498.6
62.5°	345.4	362.1	408.1	445.7	462.4
65°	306.4	324.5	373.3	409.5	426.2
67.5°	270.2	286.9	334.3	373.3	391.4
70°	228.4	250.7	299.4	338.4	355.1
72.5°	195.0	214.5	264.6	303.6	321.7
75°	156.0	179.7	229.8	268.8	282.7
77.5°	124.0	147.6	195.0	225.6	232.6
80°	90.5	114.2	158.8	174.1	178.3
82.5°	61.3	83.6	114.2	118.4	119.8
85°	37.6	51.5	66.9	66.9	66.9
87.5°	18.1	20.9	23.7	22.3	22.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)