

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: P308749

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CA125-W2A-U-5000K**

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: P308749
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-5000K
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: 3175.0 lumens
Efficiency: N/A
Efficacy: 112.6 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

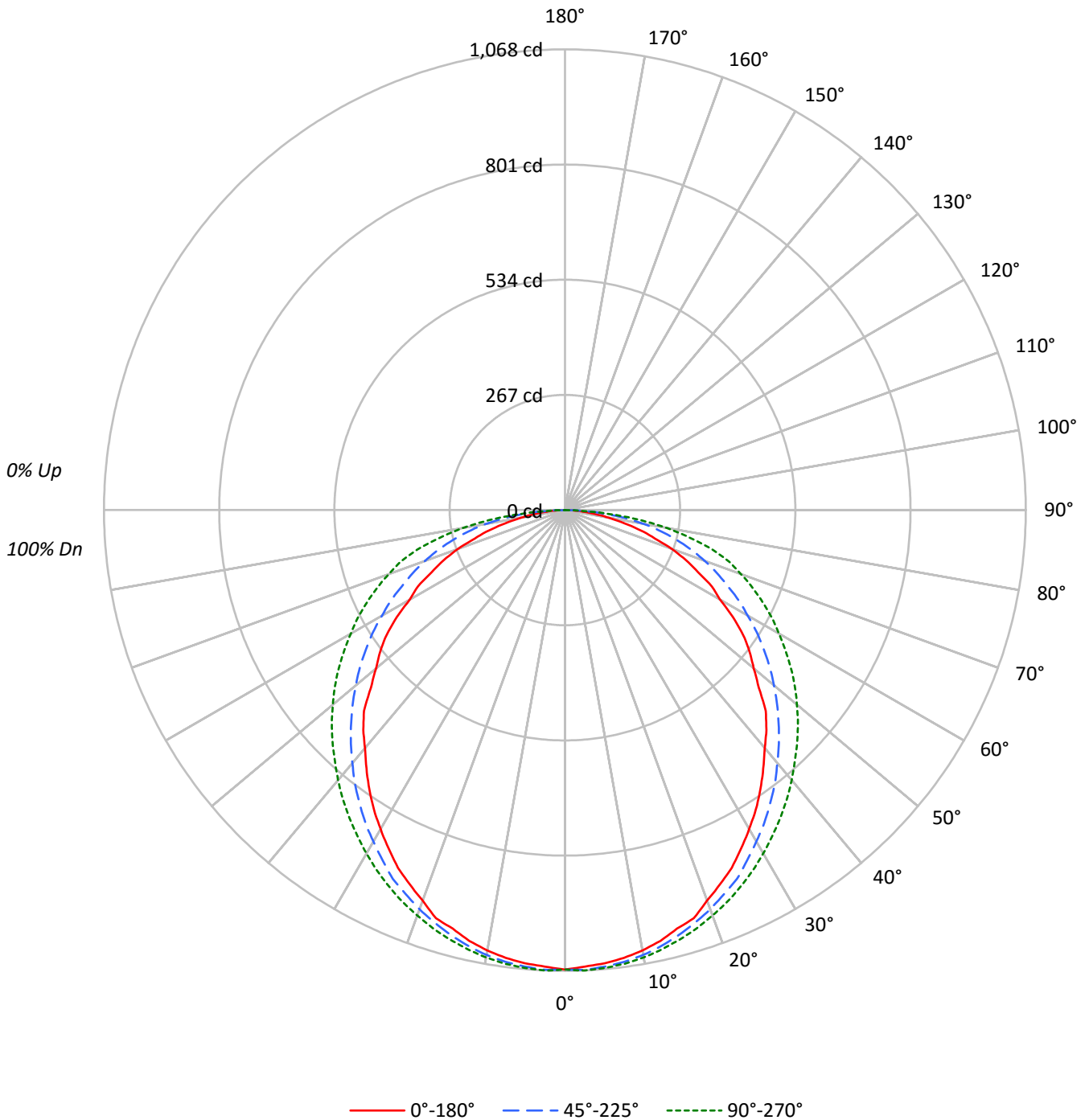
Input Watts (W): 28.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2866	2866	2866
5°	2849	2869	2877
10°	2832	2861	2878
15°	2798	2841	2870
20°	2759	2820	2863
25°	2716	2802	2860
30°	2654	2757	2857
35°	2596	2726	2860
40°	2530	2690	2872
45°	2504	2666	2897
50°	2392	2647	2939
55°	2367	2638	3002
60°	2233	2633	3083
65°	2167	2651	3222
70°	2080	2714	3419
75°	1896	2797	3682
80°	1626	2896	3721
85°	1312	2770	3189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.8	3.2
10°-20°	287.5	9.1
20°-30°	432.8	13.6
30°-40°	519.4	16.4
40°-50°	542.9	17.1
50°-60°	505.9	15.9
60°-70°	415.0	13.1
70°-80°	279.6	8.8
80°-90°	91.1	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°	821.1	25.9
0°-40°	1340.5	42.2
0°-60°	2389.4	75.3
0°-90°	3175.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3175.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1065	1065	1065	1065	1065	
5°	1055	1058	1062	1064	1065	100
15°	1004	1010	1020	1029	1030	284
25°	915	921	944	957	963	421
35°	790	801	830	859	871	494
45°	658	662	700	743	761	503
55°	504	514	562	615	640	447
65°	340	356	416	477	506	339
75°	182	202	269	330	354	192
85°	42	61	90	105	103	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1065.2	1065.2	1065.2	1065.2	1065.2
2.5°	1059.2	1062.2	1066.8	1068.3	1068.3
5°	1054.6	1057.6	1062.2	1063.7	1065.2
7.5°	1047.0	1050.0	1056.1	1059.2	1060.7
10°	1036.4	1039.4	1047.0	1051.6	1053.1
12.5°	1022.7	1025.7	1034.8	1040.9	1042.4
15°	1004.5	1010.5	1019.7	1028.8	1030.3
17.5°	992.3	990.8	1002.9	1013.6	1016.6
20°	963.4	971.0	984.7	996.9	999.9
22.5°	939.1	945.2	963.4	977.1	983.2
25°	914.8	920.9	943.7	957.3	963.4
27.5°	884.4	893.5	914.8	934.6	942.2
30°	854.0	863.1	887.4	910.2	919.4
32.5°	823.6	834.3	860.1	884.4	895.0
35°	790.2	800.8	829.7	858.6	870.7
37.5°	755.2	768.9	799.3	831.2	844.9
40°	720.3	734.0	765.9	802.3	817.5
42.5°	691.4	697.5	734.0	773.5	788.7
45°	658.0	662.5	700.5	743.1	761.3
47.5°	609.4	626.1	667.1	714.2	732.4
50°	571.4	589.6	632.2	682.3	702.1
52.5°	539.5	551.6	598.7	648.9	671.7
55°	504.5	513.6	562.3	615.4	639.8
57.5°	462.0	478.7	527.3	582.0	606.3
60°	414.9	436.1	489.3	548.6	572.9
62.5°	384.5	396.6	454.4	513.6	541.0
65°	340.4	355.6	416.4	477.2	506.0
67.5°	303.9	319.1	381.4	442.2	471.1
70°	264.4	279.6	344.9	405.7	434.6
72.5°	218.8	240.1	308.5	369.3	399.7
75°	182.4	202.1	269.0	329.8	354.1
77.5°	141.3	167.2	229.5	279.6	297.8
80°	104.9	130.7	186.9	223.4	240.1
82.5°	71.4	97.3	139.8	167.2	176.3
85°	42.5	60.8	89.7	104.9	103.3
87.5°	19.8	25.8	36.5	36.5	35.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)