

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: P308777

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CP250-W2A-U-5500K**

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: P308777
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-CP250-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB 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: 2987.0 lumens
Efficiency: N/A
Efficacy: 105.2 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

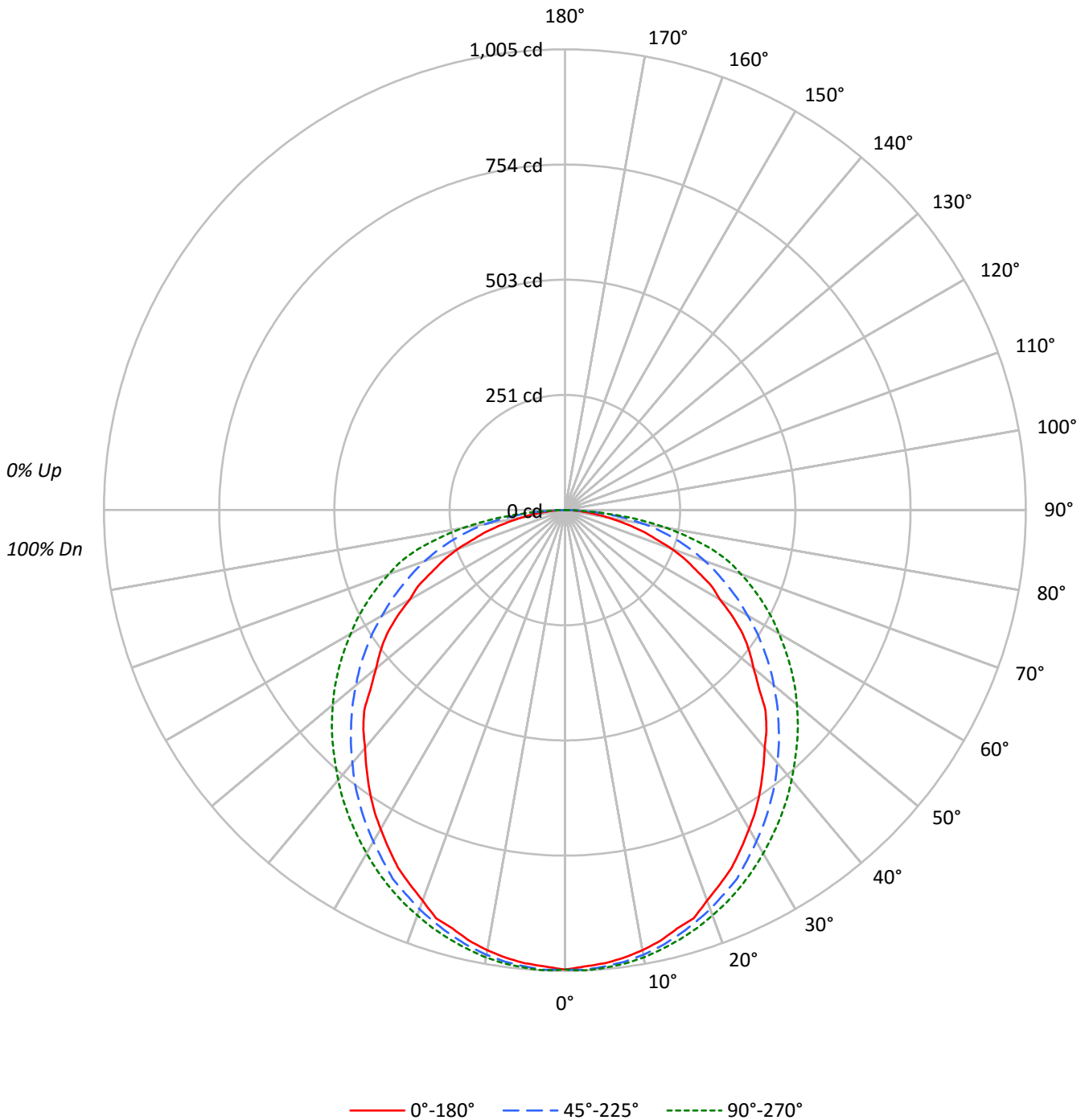
Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2697	2697	2697
5°	2680	2699	2707
10°	2664	2692	2707
15°	2633	2673	2700
20°	2596	2653	2694
25°	2555	2636	2691
30°	2496	2594	2687
35°	2442	2564	2691
40°	2380	2531	2702
45°	2356	2508	2726
50°	2250	2490	2765
55°	2227	2482	2824
60°	2101	2477	2901
65°	2039	2494	3032
70°	1958	2553	3217
75°	1784	2630	3463
80°	1528	2724	3501
85°	1235	2603	3001



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.8	3.2
10°-20°	270.5	9.1
20°-30°	407.1	13.6
30°-40°	488.7	16.4
40°-50°	510.7	17.1
50°-60°	476.0	15.9
60°-70°	390.4	13.1
70°-80°	263.1	8.8
80°-90°	85.7	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°	772.5	25.9
0°-40°	1261.2	42.2
0°-60°	2247.9	75.3
0°-90°	2987.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2987.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1002	1002	1002	1002	1002	
5°	992	995	999	1001	1002	94
15°	945	951	959	968	969	267
25°	861	866	888	901	906	396
35°	743	753	781	808	819	465
45°	619	623	659	699	716	473
55°	475	483	529	579	602	421
65°	320	334	392	449	476	319
75°	172	190	253	310	333	180
85°	40	57	84	99	97	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1002.2	1002.2	1002.2	1002.2	1002.2
2.5°	996.4	999.3	1003.6	1005.0	1005.0
5°	992.2	995.0	999.3	1000.7	1002.2
7.5°	985.0	987.9	993.6	996.4	997.9
10°	975.0	977.9	985.0	989.3	990.7
12.5°	962.1	965.0	973.6	979.3	980.7
15°	945.0	950.7	959.3	967.9	969.3
17.5°	933.5	932.1	943.5	953.6	956.4
20°	906.4	913.5	926.4	937.8	940.7
22.5°	883.5	889.2	906.4	919.2	925.0
25°	860.6	866.3	887.8	900.7	906.4
27.5°	832.0	840.6	860.6	879.2	886.4
30°	803.4	812.0	834.9	856.3	864.9
32.5°	774.9	784.9	809.2	832.0	842.0
35°	743.4	753.4	780.6	807.7	819.2
37.5°	710.5	723.4	752.0	782.0	794.9
40°	677.6	690.5	720.5	754.8	769.1
42.5°	650.5	656.2	690.5	727.7	742.0
45°	619.0	623.3	659.1	699.1	716.2
47.5°	573.3	589.0	627.6	671.9	689.1
50°	537.5	554.7	594.7	641.9	660.5
52.5°	507.5	519.0	563.3	610.4	631.9
55°	474.6	483.2	529.0	579.0	601.9
57.5°	434.6	450.3	496.1	547.5	570.4
60°	390.3	410.3	460.3	516.1	539.0
62.5°	361.7	373.1	427.5	483.2	508.9
65°	320.2	334.5	391.7	448.9	476.1
67.5°	285.9	300.2	358.8	416.0	443.2
70°	248.8	263.1	324.5	381.7	408.9
72.5°	205.9	225.9	290.2	347.4	376.0
75°	171.6	190.1	253.0	310.2	333.1
77.5°	133.0	157.3	215.9	263.1	280.2
80°	98.6	122.9	175.8	210.2	225.9
82.5°	67.2	91.5	131.5	157.3	165.8
85°	40.0	57.2	84.3	98.6	97.2
87.5°	18.6	24.3	34.3	34.3	32.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)