

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: P308736

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CA08-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: P308736
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-CA08-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.08" 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: 2922.0 lumens
Efficiency: N/A
Efficacy: 106.6 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

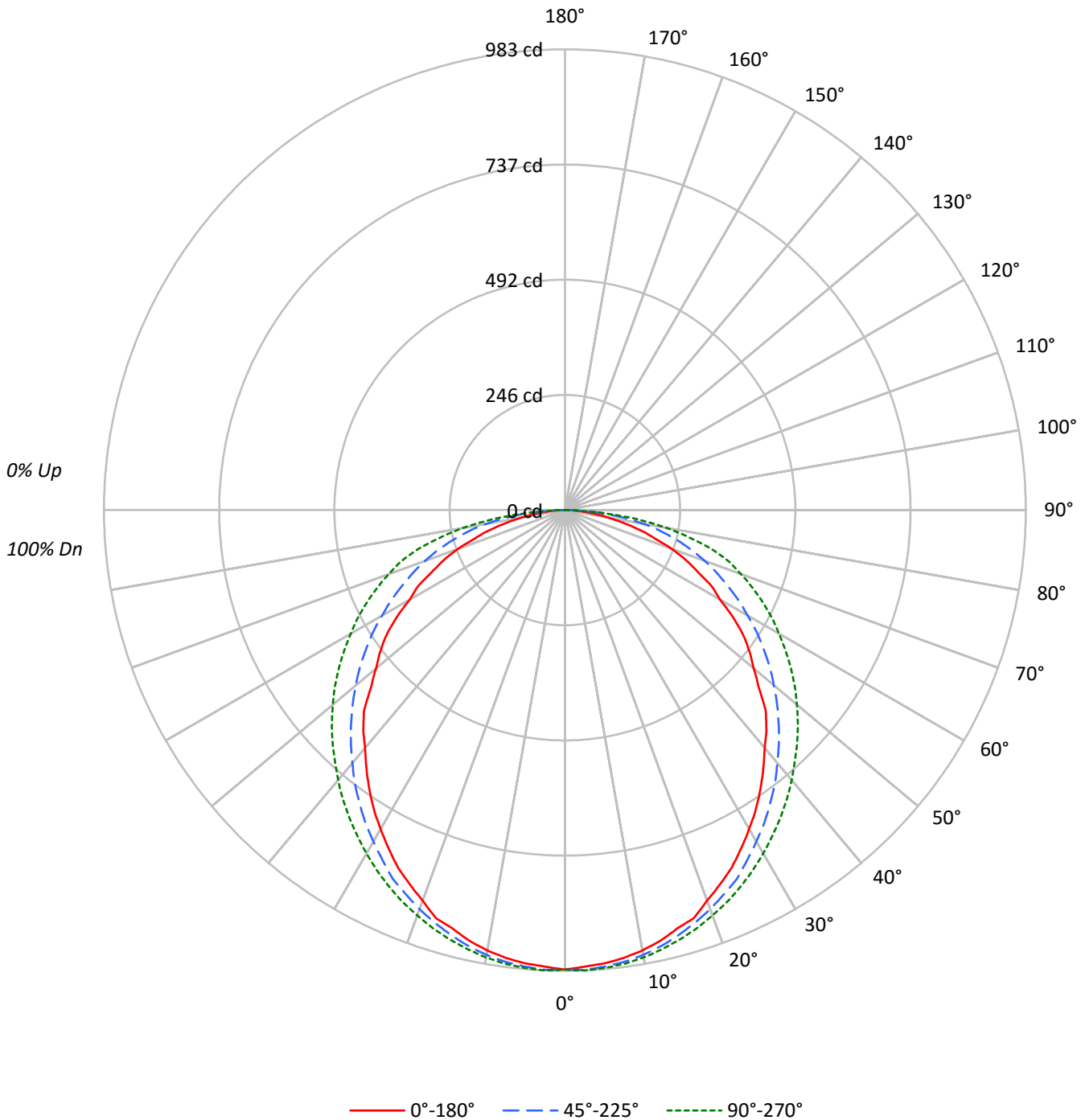
Input Watts (W): 27.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2638	2638	2638
5°	2622	2641	2648
10°	2606	2633	2648
15°	2575	2614	2642
20°	2539	2595	2635
25°	2500	2579	2633
30°	2442	2538	2629
35°	2389	2508	2632
40°	2329	2476	2643
45°	2305	2453	2667
50°	2201	2436	2705
55°	2178	2427	2762
60°	2055	2423	2837
65°	1995	2440	2965
70°	1914	2498	3147
75°	1745	2573	3388
80°	1495	2665	3425
85°	1210	2547	2936



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.8	3.2
10°-20°	264.6	9.1
20°-30°	398.3	13.6
30°-40°	478.0	16.4
40°-50°	499.6	17.1
50°-60°	465.6	15.9
60°-70°	381.9	13.1
70°-80°	257.3	8.8
80°-90°	83.8	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°	755.7	25.9
0°-40°	1233.7	42.2
0°-60°	2199.0	75.3
0°-90°	2922.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2922.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	980	980	980	980	980	
5°	971	973	978	979	980	92
15°	924	930	938	947	948	261
25°	842	848	868	881	887	387
35°	727	737	764	790	801	455
45°	606	610	645	684	701	463
55°	464	473	517	566	589	411
65°	313	327	383	439	466	312
75°	168	186	248	304	326	176
85°	39	56	82	96	95	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	980.4	980.4	980.4	980.4	980.4
2.5°	974.8	977.6	981.8	983.2	983.2
5°	970.6	973.4	977.6	979.0	980.4
7.5°	963.6	966.4	972.0	974.8	976.2
10°	953.8	956.6	963.6	967.8	969.2
12.5°	941.2	944.0	952.4	958.0	959.4
15°	924.4	930.0	938.4	946.8	948.2
17.5°	913.2	911.8	923.0	932.8	935.6
20°	886.7	893.6	906.2	917.4	920.2
22.5°	864.3	869.9	886.7	899.2	904.8
25°	841.9	847.5	868.5	881.1	886.7
27.5°	813.9	822.3	841.9	860.1	867.1
30°	786.0	794.4	816.7	837.7	846.1
32.5°	758.0	767.8	791.6	813.9	823.7
35°	727.2	737.0	763.6	790.2	801.3
37.5°	695.1	707.6	735.6	765.0	777.6
40°	662.9	675.5	704.8	738.4	752.4
42.5°	636.3	641.9	675.5	711.8	725.8
45°	605.6	609.8	644.7	683.9	700.7
47.5°	560.8	576.2	613.9	657.3	674.1
50°	525.8	542.6	581.8	627.9	646.1
52.5°	496.5	507.7	551.0	597.2	618.1
55°	464.3	472.7	517.4	566.4	588.8
57.5°	425.1	440.5	485.3	535.6	558.0
60°	381.8	401.4	450.3	504.9	527.2
62.5°	353.8	365.0	418.2	472.7	497.9
65°	313.3	327.3	383.2	439.1	465.7
67.5°	279.7	293.7	351.0	407.0	433.5
70°	243.3	257.3	317.5	373.4	400.0
72.5°	201.4	221.0	283.9	339.8	367.8
75°	167.8	186.0	247.5	303.5	325.9
77.5°	130.1	153.8	211.2	257.3	274.1
80°	96.5	120.3	172.0	205.6	221.0
82.5°	65.7	89.5	128.7	153.8	162.2
85°	39.2	55.9	82.5	96.5	95.1
87.5°	18.2	23.8	33.6	33.6	32.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)