

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: P308562

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-RDP-CA08-W2A-U-5700K**

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: P308562
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-44HE-UNV-L82765-RDP-CA08-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 2777.0 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

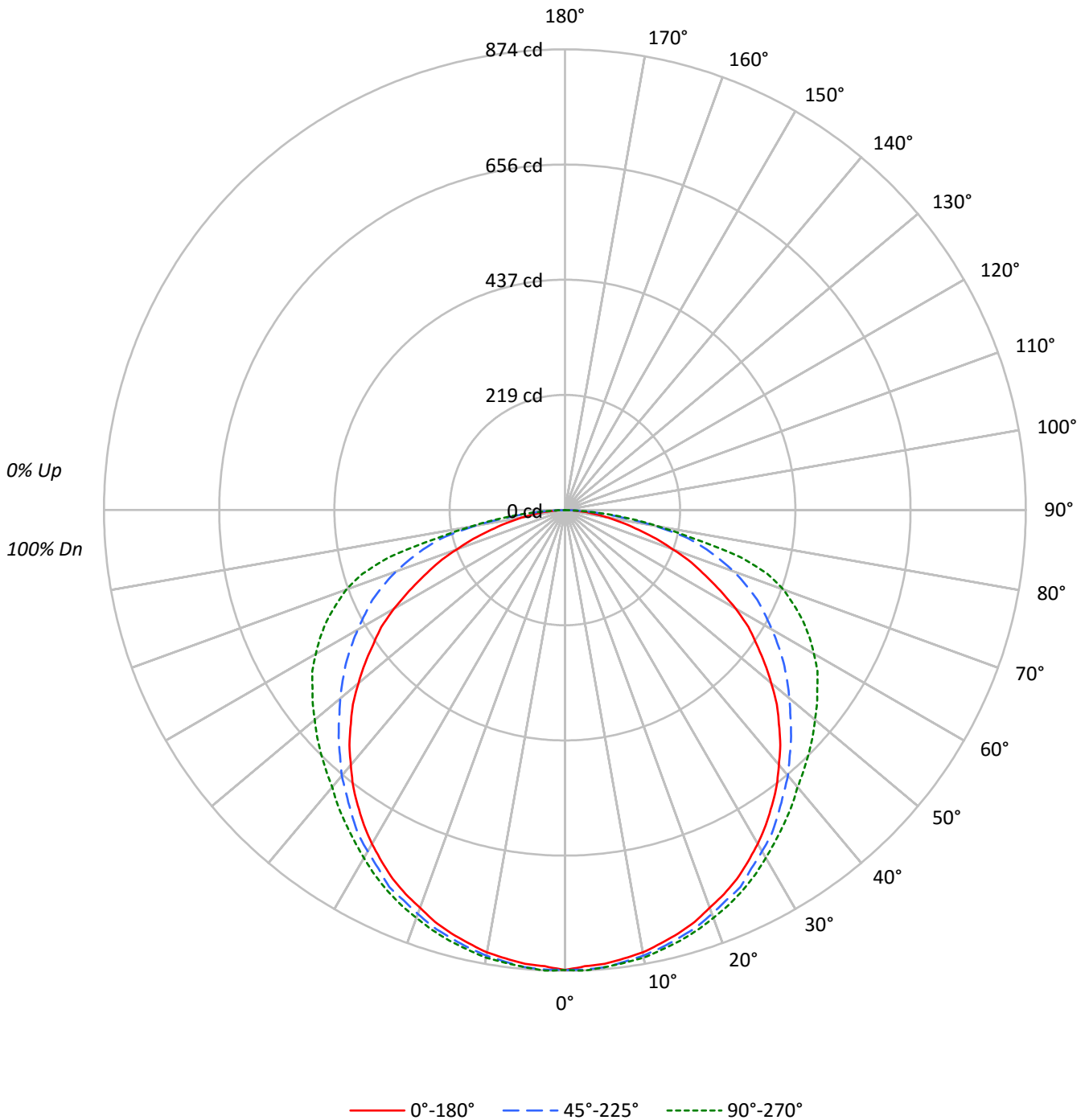
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2347	2347	2347
5°	2334	2351	2351
10°	2328	2344	2356
15°	2316	2339	2356
20°	2299	2334	2358
25°	2293	2341	2366
30°	2272	2323	2368
35°	2248	2315	2382
40°	2217	2311	2411
45°	2184	2309	2488
50°	2138	2326	2591
55°	2080	2377	2741
60°	2012	2441	2935
65°	1873	2562	3174
70°	1720	2685	3472
75°	1508	2825	3589
80°	1299	2690	2817
85°	1136	1954	2146



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.5	3.0
10°-20°	236.9	8.5
20°-30°	361.5	13.0
30°-40°	441.3	15.9
40°-50°	471.9	17.0
50°-60°	455.5	16.4
60°-70°	392.1	14.1
70°-80°	265.3	9.6
80°-90°	70.0	2.5
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°	680.9	24.5
0°-40°	1122.2	40.4
0°-60°	2049.6	73.8
0°-90°	2777.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2777.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	864	866	870	870	870	82
15°	831	834	840	844	846	235
25°	772	776	788	793	797	355
35°	684	690	705	719	725	428
45°	574	584	607	637	654	443
55°	443	458	507	558	584	397
65°	294	323	402	466	498	293
75°	145	192	272	327	345	156
85°	37	51	63	65	70	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	872.3	872.3	872.3	872.3	872.3
2.5°	866.2	868.2	872.3	872.3	874.3
5°	864.1	866.2	870.3	870.3	870.3
7.5°	858.0	860.0	864.1	866.2	866.2
10°	851.9	853.9	858.0	860.0	862.1
12.5°	841.7	843.7	849.8	853.9	853.9
15°	831.4	833.5	839.6	843.7	845.7
17.5°	819.2	823.3	829.4	833.5	835.5
20°	802.8	806.9	815.1	821.2	823.3
22.5°	788.5	792.6	800.8	806.9	811.0
25°	772.2	776.3	788.5	792.6	796.7
27.5°	751.8	755.9	766.1	774.2	780.4
30°	731.3	735.4	747.7	757.9	762.0
32.5°	708.9	715.0	729.3	737.5	743.6
35°	684.4	690.5	704.8	719.1	725.2
37.5°	659.8	666.0	680.3	698.7	706.8
40°	631.2	639.4	657.8	682.3	686.4
42.5°	604.7	614.9	631.2	659.8	670.1
45°	574.0	584.3	606.7	637.4	653.7
47.5°	545.4	555.7	580.2	616.9	637.4
50°	510.7	525.0	555.7	598.6	619.0
52.5°	478.0	490.3	531.1	578.1	602.6
55°	443.3	457.6	506.6	557.7	584.3
57.5°	412.7	424.9	480.1	537.3	567.9
60°	373.8	390.2	453.5	514.8	545.4
62.5°	333.0	357.5	427.0	490.3	523.0
65°	294.2	322.8	402.4	465.8	498.5
67.5°	259.4	290.1	371.8	439.2	469.9
70°	218.6	257.4	341.2	406.5	441.3
72.5°	181.8	224.7	306.4	371.8	402.4
75°	145.0	192.0	271.7	326.9	345.2
77.5°	112.4	157.3	232.9	249.2	251.3
80°	83.8	124.6	173.6	175.7	181.8
82.5°	57.2	87.8	112.4	122.6	124.6
85°	36.8	51.1	63.3	65.4	69.5
87.5°	16.3	18.4	22.5	20.4	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)