

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: P308558

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-RDP-CA08-W2A-U-4000K**

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: P308558
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-4000K
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: 2659.0 lumens
Efficiency: N/A
Efficacy: 70.7 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

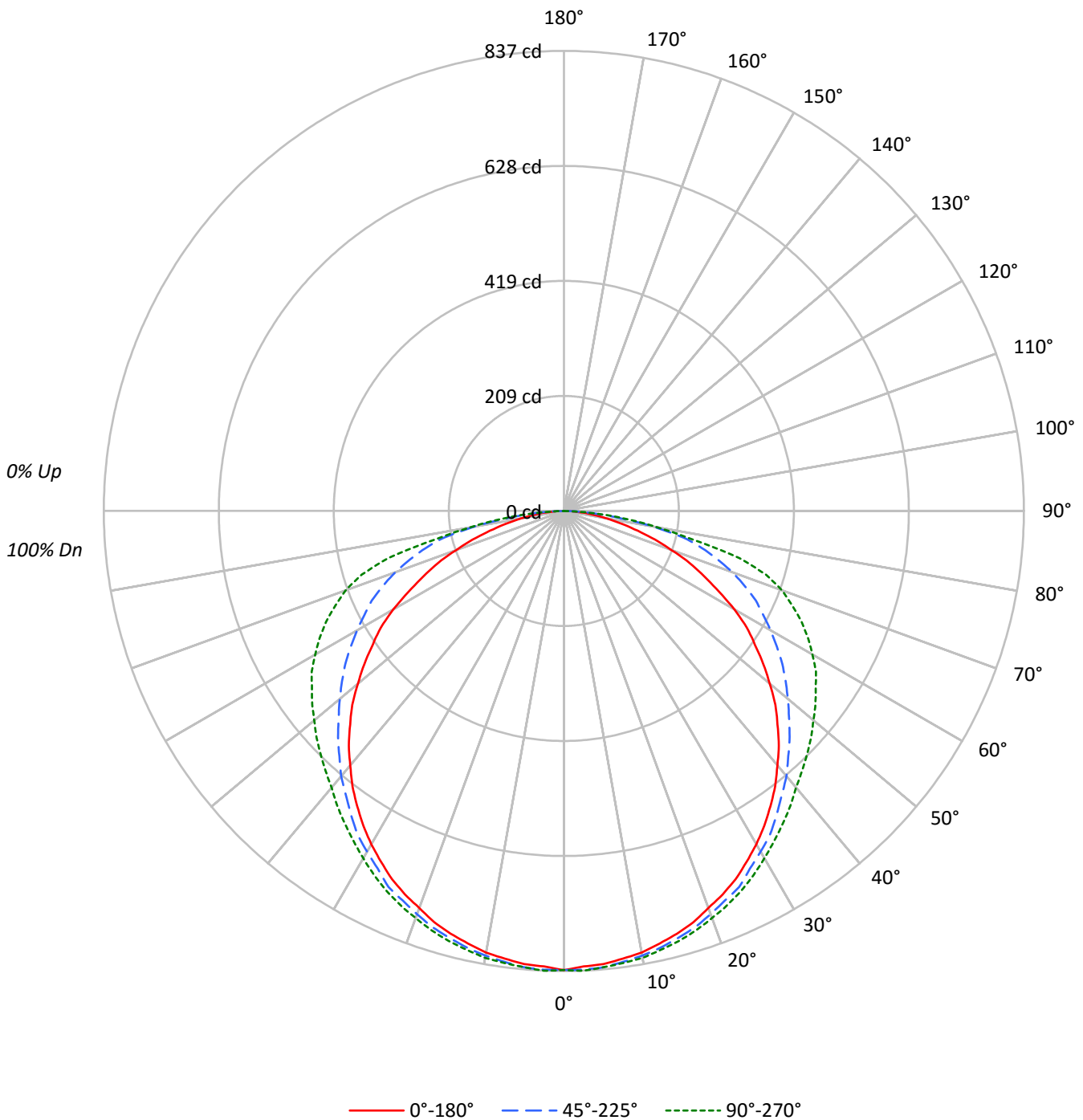
Input Watts (W): 37.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2248	2248	2248
5°	2235	2251	2251
10°	2229	2245	2256
15°	2218	2240	2256
20°	2201	2235	2257
25°	2195	2242	2265
30°	2176	2224	2267
35°	2153	2217	2281
40°	2123	2213	2309
45°	2092	2211	2382
50°	2047	2227	2481
55°	1992	2276	2624
60°	1927	2337	2811
65°	1794	2453	3039
70°	1647	2570	3324
75°	1444	2705	3437
80°	1243	2577	2698
85°	1087	1871	2053



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.0	3.0
10°-20°	226.8	8.5
20°-30°	346.1	13.0
30°-40°	422.6	15.9
40°-50°	451.8	17.0
50°-60°	436.1	16.4
60°-70°	375.4	14.1
70°-80°	254.0	9.6
80°-90°	67.0	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°	651.9	24.5
0°-40°	1074.5	40.4
0°-60°	1962.5	73.8
0°-90°	2659.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2659.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	835	835	835	835	835	
5°	827	829	833	833	833	79
15°	796	798	804	808	810	225
25°	739	743	755	759	763	340
35°	655	661	675	688	694	410
45°	550	559	581	610	626	424
55°	424	438	485	534	559	380
65°	282	309	385	446	477	280
75°	139	184	260	313	331	149
85°	35	49	61	63	66	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	835.2	835.2	835.2	835.2	835.2
2.5°	829.4	831.3	835.2	835.2	837.2
5°	827.4	829.4	833.3	833.3	833.3
7.5°	821.5	823.5	827.4	829.4	829.4
10°	815.7	817.6	821.5	823.5	825.5
12.5°	805.9	807.9	813.7	817.6	817.6
15°	796.1	798.1	803.9	807.9	809.8
17.5°	784.4	788.3	794.2	798.1	800.0
20°	768.7	772.6	780.5	786.3	788.3
22.5°	755.0	759.0	766.8	772.6	776.6
25°	739.4	743.3	755.0	759.0	762.9
27.5°	719.8	723.7	733.5	741.3	747.2
30°	700.3	704.2	715.9	725.7	729.6
32.5°	678.8	684.6	698.3	706.1	712.0
35°	655.3	661.1	674.8	688.5	694.4
37.5°	631.8	637.7	651.4	669.0	676.8
40°	604.4	612.2	629.9	653.3	657.2
42.5°	579.0	588.8	604.4	631.8	641.6
45°	549.7	559.4	581.0	610.3	625.9
47.5°	522.3	532.0	555.5	590.7	610.3
50°	489.0	502.7	532.0	573.1	592.7
52.5°	457.7	469.5	508.6	553.6	577.0
55°	424.5	438.2	485.1	534.0	559.4
57.5°	395.1	406.9	459.7	514.4	543.8
60°	358.0	373.6	434.2	492.9	522.3
62.5°	318.8	342.3	408.8	469.5	500.8
65°	281.7	309.1	385.3	446.0	477.3
67.5°	248.4	277.8	356.0	420.6	449.9
70°	209.3	246.5	326.7	389.3	422.5
72.5°	174.1	215.2	293.4	356.0	385.3
75°	138.9	183.9	260.2	313.0	330.6
77.5°	107.6	150.6	223.0	238.6	240.6
80°	80.2	119.3	166.3	168.2	174.1
82.5°	54.8	84.1	107.6	117.4	119.3
85°	35.2	48.9	60.6	62.6	66.5
87.5°	15.6	17.6	21.5	19.6	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)