

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: P308561

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-RDP-CA08-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: P308561
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-5500K
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: 2770.0 lumens
Efficiency: N/A
Efficacy: 72.5 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

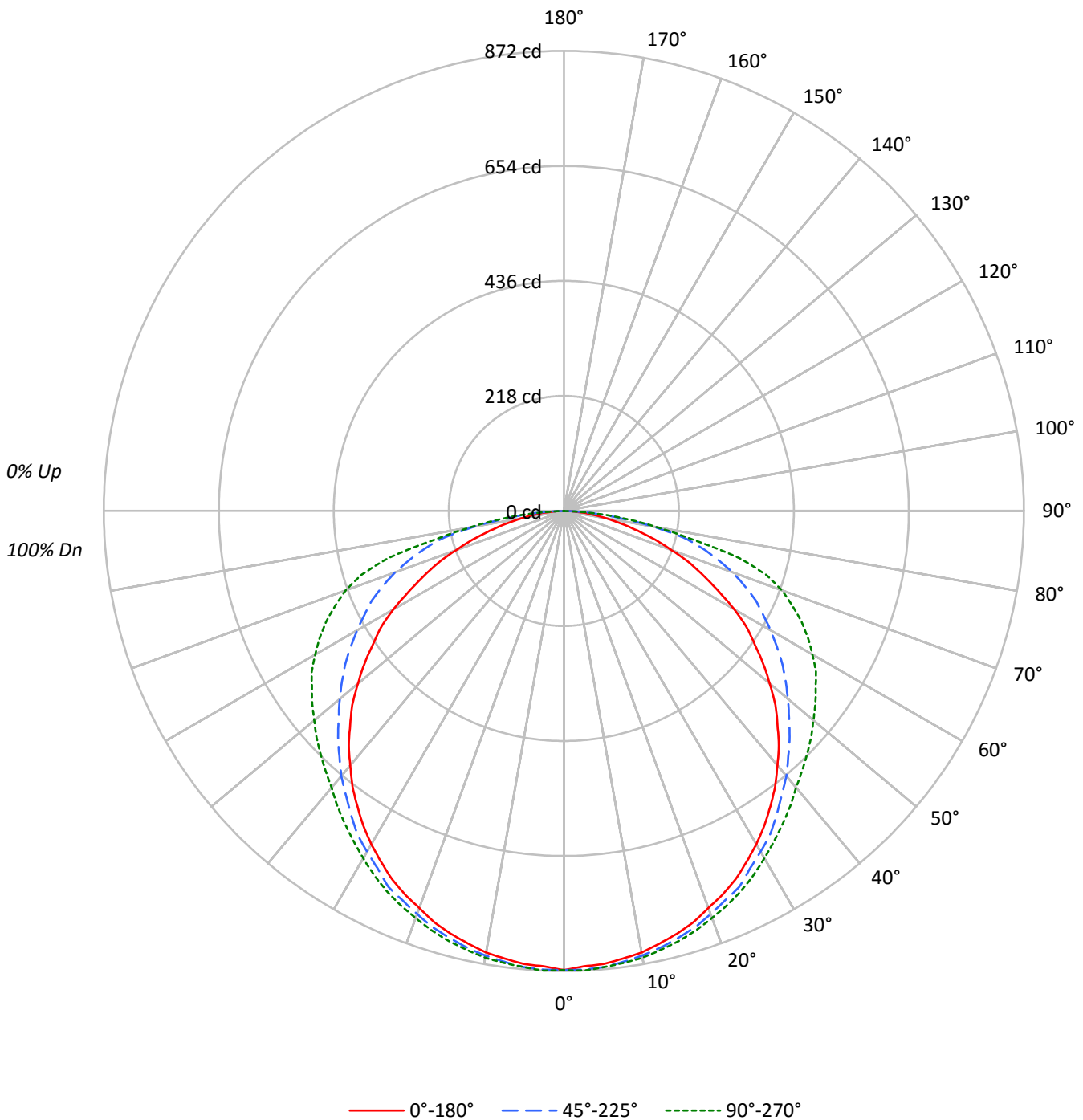
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2341	2341	2341
5°	2328	2345	2345
10°	2322	2338	2350
15°	2311	2333	2350
20°	2293	2328	2352
25°	2287	2336	2360
30°	2267	2317	2362
35°	2242	2309	2376
40°	2212	2305	2405
45°	2179	2303	2482
50°	2133	2321	2585
55°	2075	2371	2734
60°	2007	2435	2928
65°	1868	2556	3166
70°	1715	2677	3463
75°	1504	2818	3581
80°	1294	2684	2811
85°	1133	1951	2140



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.3	3.0
10°-20°	236.3	8.5
20°-30°	360.5	13.0
30°-40°	440.2	15.9
40°-50°	470.7	17.0
50°-60°	454.3	16.4
60°-70°	391.1	14.1
70°-80°	264.6	9.6
80°-90°	69.8	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°	679.2	24.5
0°-40°	1119.4	40.4
0°-60°	2044.5	73.8
0°-90°	2770.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2770.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	870	870	870	870	870	
5°	862	864	868	868	868	82
15°	829	831	838	842	844	234
25°	770	774	787	791	795	354
35°	683	689	703	717	723	427
45°	573	583	605	636	652	442
55°	442	456	505	556	583	396
65°	293	322	401	465	497	292
75°	145	192	271	326	344	155
85°	37	51	63	65	69	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	870.1	870.1	870.1	870.1	870.1
2.5°	864.0	866.0	870.1	870.1	872.1
5°	862.0	864.0	868.1	868.1	868.1
7.5°	855.8	857.9	862.0	864.0	864.0
10°	849.7	851.8	855.8	857.9	859.9
12.5°	839.5	841.6	847.7	851.8	851.8
15°	829.4	831.4	837.5	841.6	843.6
17.5°	817.1	821.2	827.3	831.4	833.4
20°	800.8	804.9	813.0	819.2	821.2
22.5°	786.6	790.6	798.8	804.9	809.0
25°	770.3	774.3	786.6	790.6	794.7
27.5°	749.9	754.0	764.1	772.3	778.4
30°	729.5	733.6	745.8	756.0	760.1
32.5°	707.1	713.2	727.5	735.6	741.7
35°	682.6	688.7	703.0	717.3	723.4
37.5°	658.2	664.3	678.6	696.9	705.1
40°	629.7	637.8	656.1	680.6	684.7
42.5°	603.2	613.4	629.7	658.2	668.4
45°	572.6	582.8	605.2	635.8	652.1
47.5°	544.1	554.3	578.7	615.4	635.8
50°	509.4	523.7	554.3	597.1	617.4
52.5°	476.8	489.1	529.8	576.7	601.1
55°	442.2	456.4	505.4	556.3	582.8
57.5°	411.6	423.8	478.9	535.9	566.5
60°	372.9	389.2	452.4	513.5	544.1
62.5°	332.1	356.6	425.9	489.1	521.7
65°	293.4	322.0	401.4	464.6	497.2
67.5°	258.8	289.4	370.9	438.1	468.7
70°	218.0	256.8	340.3	405.5	440.1
72.5°	181.4	224.1	305.7	370.9	401.4
75°	144.7	191.5	271.0	326.0	344.4
77.5°	112.1	156.9	232.3	248.6	250.6
80°	83.5	124.3	173.2	175.2	181.4
82.5°	57.1	87.6	112.1	122.3	124.3
85°	36.7	50.9	63.2	65.2	69.3
87.5°	16.3	18.3	22.4	20.4	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)