

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: P308592

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-RDP-CP250-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: P308592
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-CP250-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 2334.0 lumens
Efficiency: N/A
Efficacy: 63.3 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

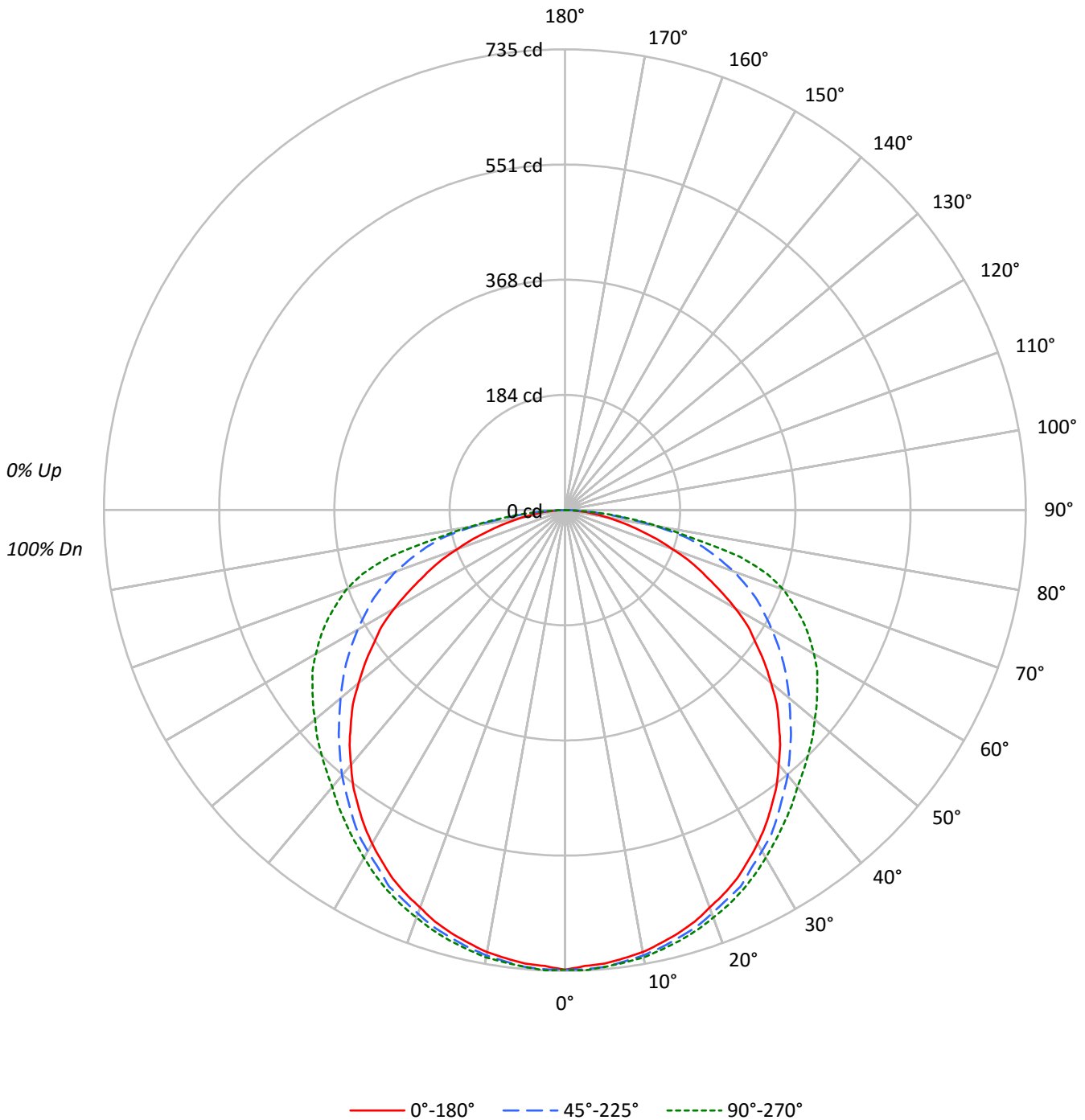
Input Watts (W): 36.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1973	1973	1973
5°	1962	1976	1976
10°	1956	1970	1980
15°	1947	1966	1980
20°	1932	1962	1981
25°	1927	1968	1988
30°	1910	1953	1990
35°	1890	1946	2002
40°	1864	1942	2027
45°	1836	1940	2091
50°	1797	1955	2178
55°	1748	1998	2304
60°	1691	2052	2467
65°	1574	2153	2667
70°	1445	2256	2918
75°	1267	2375	3017
80°	1091	2261	2368
85°	954	1643	1803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.3	3.0
10°-20°	199.1	8.5
20°-30°	303.8	13.0
30°-40°	370.9	15.9
40°-50°	396.6	17.0
50°-60°	382.8	16.4
60°-70°	329.5	14.1
70°-80°	223.0	9.6
80°-90°	58.8	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°	572.3	24.5
0°-40°	943.2	40.4
0°-60°	1722.6	73.8
0°-90°	2334.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2334.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	733	733	733	733	733	
5°	726	728	731	731	731	69
15°	699	700	706	709	711	197
25°	649	652	663	666	670	299
35°	575	580	592	604	610	360
45°	482	491	510	536	549	372
55°	373	385	426	469	491	334
65°	247	271	338	392	419	246
75°	122	161	228	275	290	131
85°	31	43	53	55	58	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	733.2	733.2	733.2	733.2	733.2
2.5°	728.0	729.7	733.2	733.2	734.9
5°	726.3	728.0	731.4	731.4	731.4
7.5°	721.1	722.8	726.3	728.0	728.0
10°	716.0	717.7	721.1	722.8	724.6
12.5°	707.4	709.1	714.3	717.7	717.7
15°	698.8	700.5	705.7	709.1	710.8
17.5°	688.5	691.9	697.1	700.5	702.2
20°	674.8	678.2	685.1	690.2	691.9
22.5°	662.8	666.2	673.1	678.2	681.6
25°	649.0	652.5	662.8	666.2	669.6
27.5°	631.8	635.3	643.9	650.7	655.9
30°	614.7	618.1	628.4	637.0	640.4
32.5°	595.8	600.9	613.0	619.8	625.0
35°	575.2	580.3	592.4	604.4	609.5
37.5°	554.6	559.7	571.8	587.2	594.1
40°	530.5	537.4	552.9	573.5	576.9
42.5°	508.2	516.8	530.5	554.6	563.2
45°	482.5	491.1	509.9	535.7	549.4
47.5°	458.4	467.0	487.6	518.5	535.7
50°	429.2	441.3	467.0	503.1	520.2
52.5°	401.8	412.1	446.4	485.9	506.5
55°	372.6	384.6	425.8	468.7	491.1
57.5°	346.8	357.1	403.5	451.6	477.3
60°	314.2	327.9	381.2	432.7	458.4
62.5°	279.9	300.5	358.8	412.1	439.5
65°	247.2	271.3	338.2	391.5	418.9
67.5°	218.1	243.8	312.5	369.2	394.9
70°	183.7	216.3	286.7	341.7	370.9
72.5°	152.8	188.9	257.5	312.5	338.2
75°	121.9	161.4	228.4	274.7	290.2
77.5°	94.4	132.2	195.7	209.5	211.2
80°	70.4	104.7	145.9	147.7	152.8
82.5°	48.1	73.8	94.4	103.0	104.7
85°	30.9	42.9	53.2	54.9	58.4
87.5°	13.7	15.5	18.9	17.2	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)