

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: P312737

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-RDP-CP250-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: P312737
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-L83050-RDP-CP250-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (168) 4000K 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: 2595.0 lumens
Efficiency: N/A
Efficacy: 68.1 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

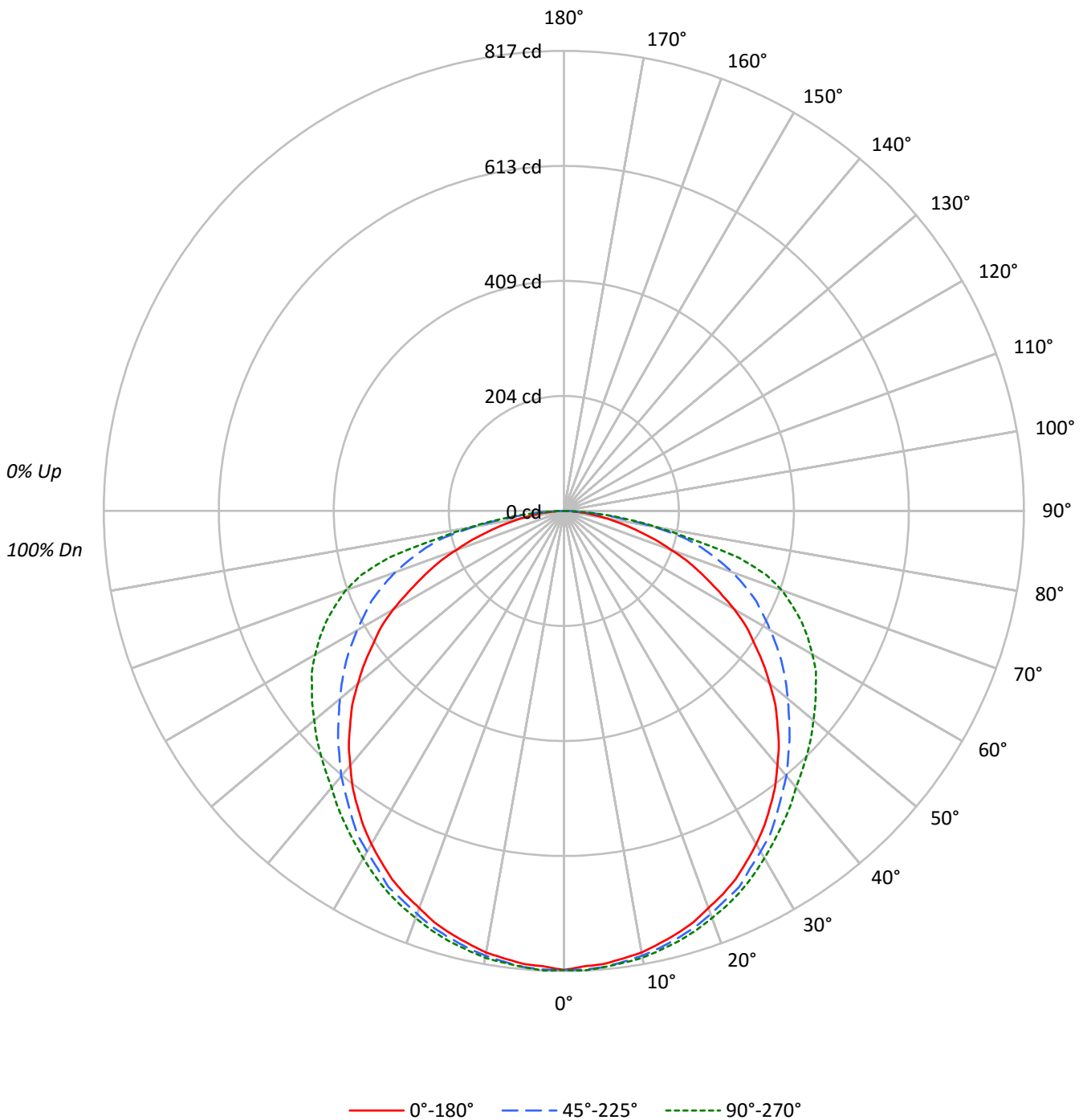
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312737

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-RDP-CP250-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P312737

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-RDP-CP250-W2A-U-4000K

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°	2193	2193	2193
5°	2181	2197	2197
10°	2175	2191	2201
15°	2165	2186	2202
20°	2148	2181	2203
25°	2143	2188	2211
30°	2124	2171	2212
35°	2101	2164	2226
40°	2072	2159	2253
45°	2041	2158	2325
50°	1998	2174	2421
55°	1943	2221	2562
60°	1880	2281	2743
65°	1750	2395	2966
70°	1607	2508	3244
75°	1409	2640	3354
80°	1213	2515	2633
85°	1062	1828	2004



TEST NUMBER: P312737

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-RDP-CP250-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.1	3.0
10°-20°	221.4	8.5
20°-30°	337.8	13.0
30°-40°	412.4	15.9
40°-50°	441.0	17.0
50°-60°	425.6	16.4
60°-70°	366.4	14.1
70°-80°	247.9	9.6
80°-90°	65.4	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°	636.3	24.5
0°-40°	1048.7	40.4
0°-60°	1915.3	73.8
0°-90°	2595.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2595.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	815	815	815	815	815	
5°	808	809	813	813	813	77
15°	777	779	785	788	790	219
25°	722	725	737	741	744	332
35°	640	645	659	672	678	400
45°	536	546	567	596	611	414
55°	414	428	473	521	546	371
65°	275	302	376	435	466	273
75°	136	179	254	305	323	145
85°	34	48	59	61	65	39
90°	0	0	0	0	0	



TEST NUMBER: P312737

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-RDP-CP250-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	815.1	815.1	815.1	815.1	815.1
2.5°	809.4	811.3	815.1	815.1	817.0
5°	807.5	809.4	813.2	813.2	813.2
7.5°	801.8	803.7	807.5	809.4	809.4
10°	796.0	798.0	801.8	803.7	805.6
12.5°	786.5	788.4	794.1	798.0	798.0
15°	777.0	778.9	784.6	788.4	790.3
17.5°	765.5	769.3	775.0	778.9	780.8
20°	750.2	754.0	761.7	767.4	769.3
22.5°	736.9	740.7	748.3	754.0	757.9
25°	721.6	725.4	736.9	740.7	744.5
27.5°	702.5	706.3	715.9	723.5	729.2
30°	683.4	687.2	698.7	708.2	712.0
32.5°	662.4	668.1	681.5	689.1	694.9
35°	639.5	645.2	658.6	672.0	677.7
37.5°	616.6	622.3	635.7	652.9	660.5
40°	589.9	597.5	614.7	637.6	641.4
42.5°	565.1	574.6	589.9	616.6	626.1
45°	536.4	546.0	567.0	595.6	610.9
47.5°	509.7	519.2	542.2	576.5	595.6
50°	477.2	490.6	519.2	559.3	578.4
52.5°	446.7	458.2	496.3	540.2	563.1
55°	414.2	427.6	473.4	521.2	546.0
57.5°	385.6	397.1	448.6	502.1	530.7
60°	349.3	364.6	423.8	481.1	509.7
62.5°	311.2	334.1	399.0	458.2	488.7
65°	274.9	301.6	376.1	435.2	465.8
67.5°	242.4	271.1	347.4	410.4	439.1
70°	204.3	240.5	318.8	379.9	412.3
72.5°	169.9	210.0	286.3	347.4	376.1
75°	135.5	179.4	253.9	305.4	322.6
77.5°	105.0	147.0	217.6	232.9	234.8
80°	78.3	116.4	162.3	164.2	169.9
82.5°	53.5	82.1	105.0	114.5	116.4
85°	34.4	47.7	59.2	61.1	64.9
87.5°	15.3	17.2	21.0	19.1	19.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)