

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: P312717

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-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: P312717
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-CA08-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC 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: 2797.0 lumens
Efficiency: N/A
Efficacy: 73.4 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

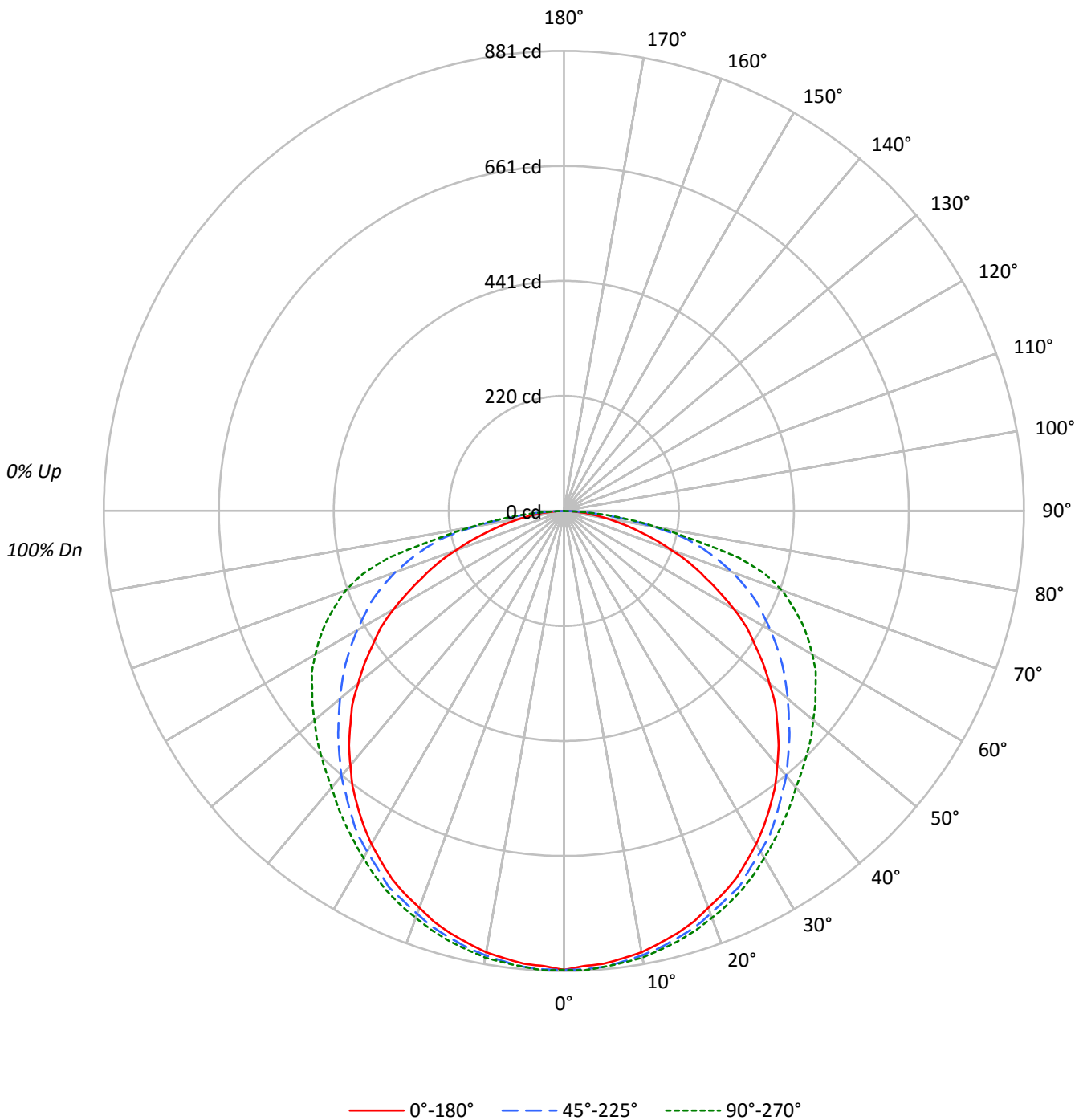
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2364	2364	2364
5°	2351	2368	2368
10°	2344	2361	2373
15°	2333	2356	2373
20°	2316	2351	2375
25°	2309	2358	2383
30°	2289	2340	2385
35°	2264	2332	2399
40°	2233	2327	2428
45°	2200	2326	2506
50°	2153	2343	2610
55°	2095	2394	2761
60°	2026	2458	2957
65°	1887	2581	3196
70°	1733	2703	3496
75°	1519	2846	3615
80°	1308	2710	2837
85°	1142	1970	2161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.1	3.0
10°-20°	238.6	8.5
20°-30°	364.1	13.0
30°-40°	444.5	15.9
40°-50°	475.3	17.0
50°-60°	458.8	16.4
60°-70°	394.9	14.1
70°-80°	267.2	9.6
80°-90°	70.5	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°	685.8	24.5
0°-40°	1130.3	40.4
0°-60°	2064.4	73.8
0°-90°	2797.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2797.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	879	879	879	879	879	
5°	870	872	876	876	876	83
15°	837	840	846	850	852	236
25°	778	782	794	798	802	358
35°	689	696	710	724	730	431
45°	578	588	611	642	658	446
55°	446	461	510	562	588	400
65°	296	325	405	469	502	295
75°	146	193	274	329	348	157
85°	37	51	64	66	70	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	878.6	878.6	878.6	878.6	878.6
2.5°	872.4	874.5	878.6	878.6	880.6
5°	870.4	872.4	876.5	876.5	876.5
7.5°	864.2	866.2	870.4	872.4	872.4
10°	858.0	860.1	864.2	866.2	868.3
12.5°	847.7	849.8	856.0	860.1	860.1
15°	837.4	839.5	845.7	849.8	851.8
17.5°	825.1	829.2	835.4	839.5	841.5
20°	808.6	812.7	821.0	827.1	829.2
22.5°	794.2	798.3	806.6	812.7	816.9
25°	777.8	781.9	794.2	798.3	802.5
27.5°	757.2	761.3	771.6	779.8	786.0
30°	736.6	740.7	753.1	763.4	767.5
32.5°	714.0	720.2	734.6	742.8	749.0
35°	689.3	695.5	709.9	724.3	730.4
37.5°	664.6	670.8	685.2	703.7	711.9
40°	635.8	644.0	662.5	687.2	691.3
42.5°	609.0	619.3	635.8	664.6	674.9
45°	578.2	588.5	611.1	642.0	658.4
47.5°	549.4	559.7	584.4	621.4	642.0
50°	514.4	528.8	559.7	602.9	623.4
52.5°	481.5	493.8	535.0	582.3	607.0
55°	446.5	460.9	510.3	561.7	588.5
57.5°	415.6	428.0	483.5	541.1	572.0
60°	376.5	393.0	456.8	518.5	549.4
62.5°	335.4	360.1	430.0	493.8	526.7
65°	296.3	325.1	405.3	469.1	502.0
67.5°	261.3	292.2	374.5	442.4	473.2
70°	220.2	259.3	343.6	409.5	444.4
72.5°	183.1	226.3	308.6	374.5	405.3
75°	146.1	193.4	273.7	329.2	347.7
77.5°	113.2	158.4	234.6	251.0	253.1
80°	84.4	125.5	174.9	177.0	183.1
82.5°	57.6	88.5	113.2	123.5	125.5
85°	37.0	51.4	63.8	65.8	70.0
87.5°	16.5	18.5	22.6	20.6	20.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)