

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: P313422

Luminaire Tested: **24FCZ2-30HE-UNV-L83050-RDP-CA125-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: P313422
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30HE-UNV-L83050-RDP-CA125-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 1975.0 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

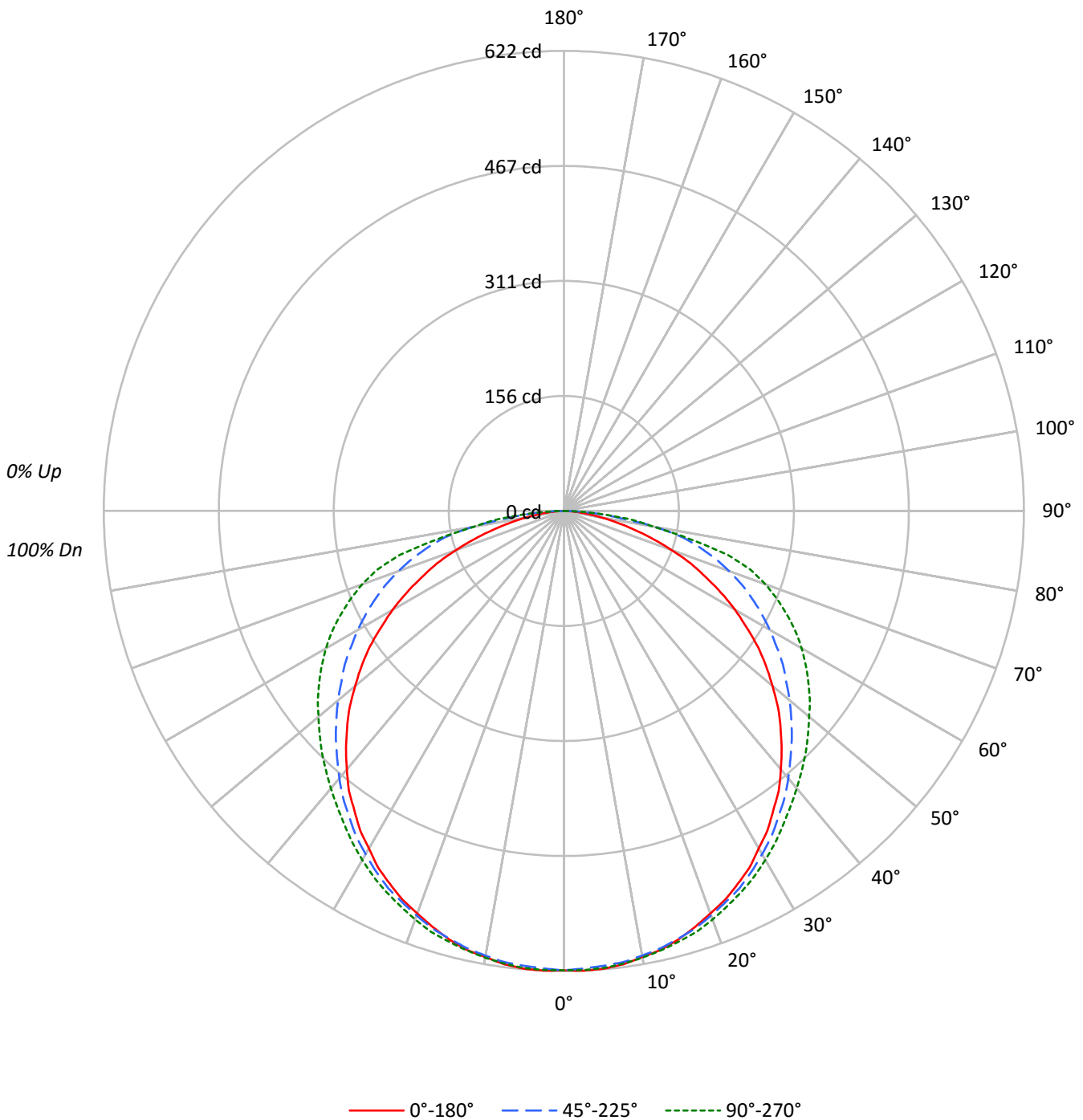
Input Watts (W): 21.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P313422

CATALOG NUMBER: 24FCZ2-30HE-UNV-L83050-RDP-CA125-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P313422

CATALOG NUMBER: 24FCZ2-30HE-UNV-L83050-RDP-CA125-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	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	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°	836	836	836
5°	839	834	838
10°	837	834	838
15°	835	834	839
20°	829	833	842
25°	826	835	844
30°	819	833	846
35°	811	830	850
40°	802	829	860
45°	789	829	880
50°	771	835	906
55°	751	848	947
60°	720	865	999
65°	674	895	1060
70°	613	936	1141
75°	519	988	1192
80°	410	994	964
85°	303	756	848



TEST NUMBER: P313422

CATALOG NUMBER: 24FCZ2-30HE-UNV-L83050-RDP-CA125-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.9	3.0
10°-20°	169.6	8.6
20°-30°	259.3	13.1
30°-40°	317.0	16.0
40°-50°	337.8	17.1
50°-60°	323.0	16.4
60°-70°	273.6	13.9
70°-80°	183.9	9.3
80°-90°	51.9	2.6
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°	487.8	24.7
0°-40°	804.7	40.7
0°-60°	1465.6	74.2
0°-90°	1975.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1975.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	621	621	621	621	621	
5°	621	620	617	620	620	59
15°	600	600	598	603	602	169
25°	556	558	562	567	568	256
35°	494	498	506	515	517	309
45°	414	421	436	454	462	320
55°	320	332	362	390	404	285
65°	212	233	281	318	333	210
75°	100	136	190	222	229	107
85°	20	40	49	53	55	24
90°	0	0	0	0	0	



TEST NUMBER: P313422

CATALOG NUMBER: 24FCZ2-30HE-UNV-L83050-RDP-CA125-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	621.1	621.1	621.1	621.1	621.1
2.5°	622.1	622.1	619.1	621.1	621.1
5°	621.1	620.1	617.2	620.1	620.1
7.5°	618.1	617.2	615.2	618.1	617.2
10°	612.3	612.3	610.3	613.2	613.2
12.5°	607.4	606.4	605.4	609.3	608.3
15°	599.5	599.5	598.5	603.4	602.5
17.5°	589.7	590.7	591.7	595.6	596.6
20°	579.0	580.9	581.9	587.8	587.8
22.5°	569.2	570.1	572.1	578.0	578.0
25°	556.4	558.4	562.3	567.2	568.2
27.5°	543.7	544.7	549.6	556.4	557.4
30°	527.0	530.0	535.9	543.7	544.7
32.5°	512.3	515.3	522.1	530.0	531.9
35°	493.7	497.6	505.5	515.3	517.2
37.5°	477.1	480.0	489.8	500.6	503.5
40°	456.5	462.4	472.2	484.9	489.8
42.5°	435.9	441.8	453.6	470.2	476.1
45°	414.4	421.2	435.9	454.5	462.4
47.5°	392.8	400.7	417.3	438.9	447.7
50°	368.3	378.1	398.7	423.2	433.0
52.5°	344.8	356.6	379.1	406.5	419.3
55°	320.3	332.1	361.5	389.9	403.6
57.5°	292.9	308.6	340.9	373.2	387.9
60°	267.4	282.1	321.3	356.6	371.3
62.5°	240.0	259.6	301.7	338.9	353.6
65°	211.6	233.2	281.2	318.4	333.1
67.5°	186.1	209.6	260.6	297.8	312.5
70°	155.8	185.1	238.0	275.3	290.0
72.5°	127.4	159.7	214.5	250.8	264.5
75°	99.9	136.2	190.0	222.4	229.2
77.5°	74.5	112.7	164.6	178.3	173.4
80°	52.9	90.1	128.3	121.5	124.4
82.5°	34.3	68.6	79.3	90.1	93.1
85°	19.6	40.2	49.0	52.9	54.9
87.5°	8.8	14.7	19.6	19.6	18.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)