

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: P312347

Luminaire Tested: **14FCZ2-29-UNV-L83050-S-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: P312347
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L83050-S-CA125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS,0.125" 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: 2962.0 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

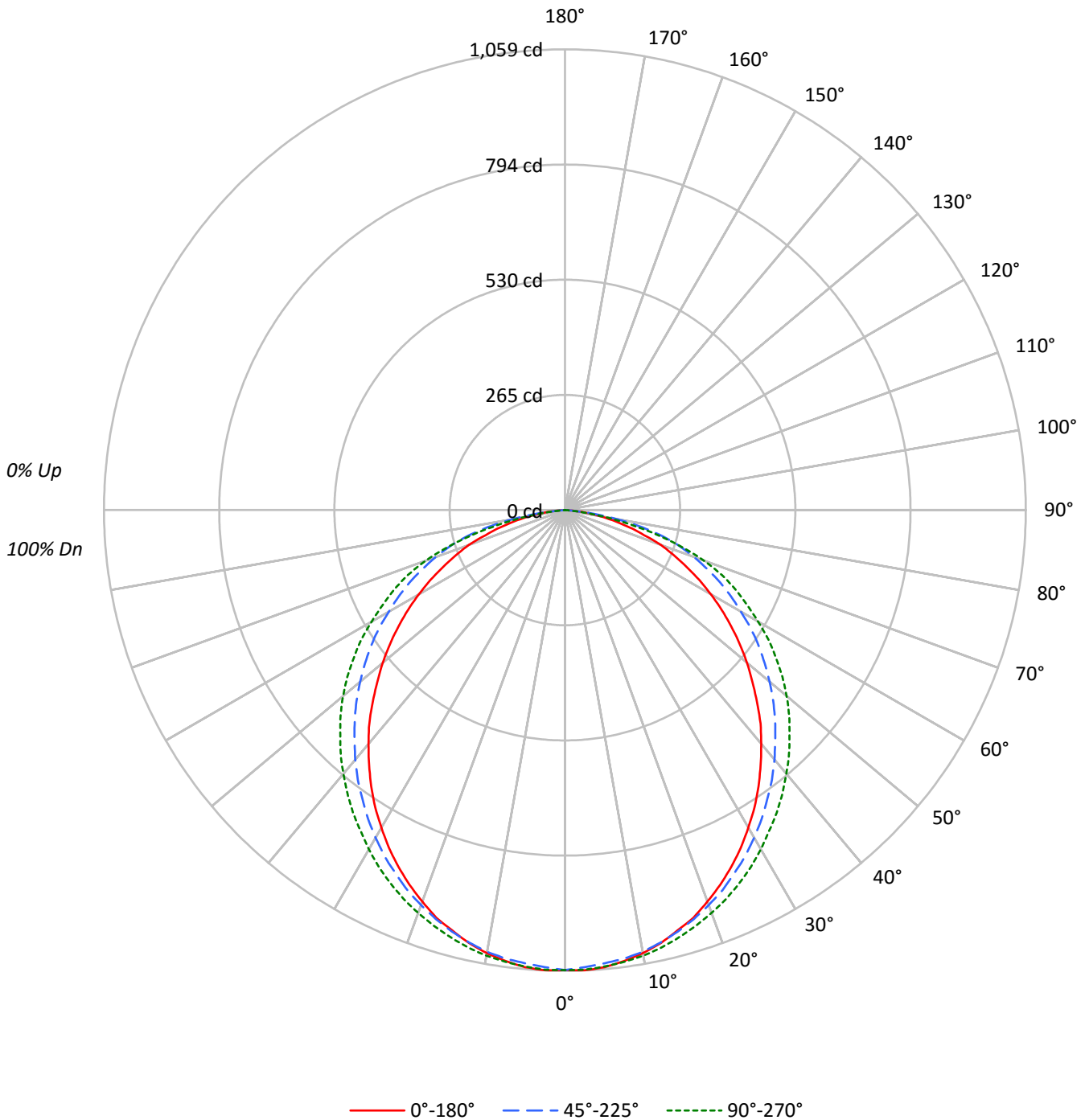
Input Watts (W): 24.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312347

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-S-CA125-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P312347

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-S-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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2845	2845	2845
5°	2848	2824	2844
10°	2825	2817	2841
15°	2786	2794	2831
20°	2742	2767	2822
25°	2686	2734	2812
30°	2619	2701	2797
35°	2547	2663	2788
40°	2466	2631	2781
45°	2375	2599	2778
50°	2287	2570	2785
55°	2191	2549	2776
60°	2087	2513	2758
65°	1964	2506	2758
70°	1849	2484	2681
75°	1603	2428	2290
80°	1297	1957	1525
85°	861	679	454



TEST NUMBER: P312347

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-S-CA125-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.8	3.4
10°-20°	284.1	9.6
20°-30°	426.2	14.4
30°-40°	508.4	17.2
40°-50°	525.6	17.7
50°-60°	479.9	16.2
60°-70°	377.6	12.7
70°-80°	219.8	7.4
80°-90°	40.5	1.4
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°	810.2	27.4
0°-40°	1318.6	44.5
0°-60°	2324.0	78.5
0°-90°	2962.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2962.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1057	1057	1057	1057	1057	
5°	1054	1052	1046	1054	1053	100
15°	1000	1002	1003	1016	1016	282
25°	905	909	921	943	947	417
35°	775	786	811	842	849	485
45°	624	645	683	721	730	482
55°	467	492	543	583	592	418
65°	308	341	394	424	433	306
75°	154	191	234	229	220	164
85°	28	40	22	18	15	36
90°	0	0	0	0	0	



TEST NUMBER: P312347

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-S-CA125-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1057.4	1057.4	1057.4	1057.4	1057.4
2.5°	1058.9	1055.9	1051.5	1058.9	1057.4
5°	1054.4	1051.5	1045.6	1054.4	1053.0
7.5°	1045.6	1042.7	1039.8	1048.6	1047.1
10°	1033.9	1032.4	1031.0	1041.2	1039.8
12.5°	1019.2	1019.2	1017.7	1029.5	1029.5
15°	1000.1	1001.6	1003.0	1016.3	1016.3
17.5°	982.5	981.0	985.4	1000.1	1001.6
20°	957.5	960.5	966.3	984.0	985.4
22.5°	932.6	935.5	945.8	963.4	967.8
25°	904.7	909.1	920.8	942.8	947.2
27.5°	875.3	881.2	897.3	920.8	925.2
30°	843.0	851.8	869.4	895.8	900.2
32.5°	810.7	819.5	841.5	867.9	873.8
35°	775.4	785.7	810.7	841.5	848.8
37.5°	738.7	751.9	781.3	812.1	820.9
40°	702.0	716.7	749.0	781.3	791.6
42.5°	665.3	680.0	715.2	751.9	762.2
45°	624.2	644.7	682.9	721.1	729.9
47.5°	584.5	606.5	649.1	687.3	699.0
50°	546.3	568.3	613.9	653.5	665.3
52.5°	506.7	530.2	578.6	619.7	630.0
55°	467.0	492.0	543.4	583.0	591.8
57.5°	427.4	453.8	506.7	544.8	555.1
60°	387.7	415.6	467.0	505.2	512.5
62.5°	348.1	377.4	430.3	464.1	471.4
65°	308.4	340.7	393.6	424.4	433.2
67.5°	270.2	302.5	353.9	383.3	390.6
70°	235.0	264.3	315.7	337.8	340.7
72.5°	190.9	227.6	277.6	289.3	282.0
75°	154.2	190.9	233.5	229.1	220.3
77.5°	117.5	154.2	182.1	167.4	155.7
80°	83.7	120.4	126.3	104.3	98.4
82.5°	54.3	83.7	70.5	54.3	44.1
85°	27.9	39.7	22.0	17.6	14.7
87.5°	8.8	5.9	2.9	2.9	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)