

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: P311845

Luminaire Tested: **14FCZ2-20-UNV-L83050-HRP-CA125-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: P311845
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-20-UNV-L83050-HRP-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC 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: 1435.0 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

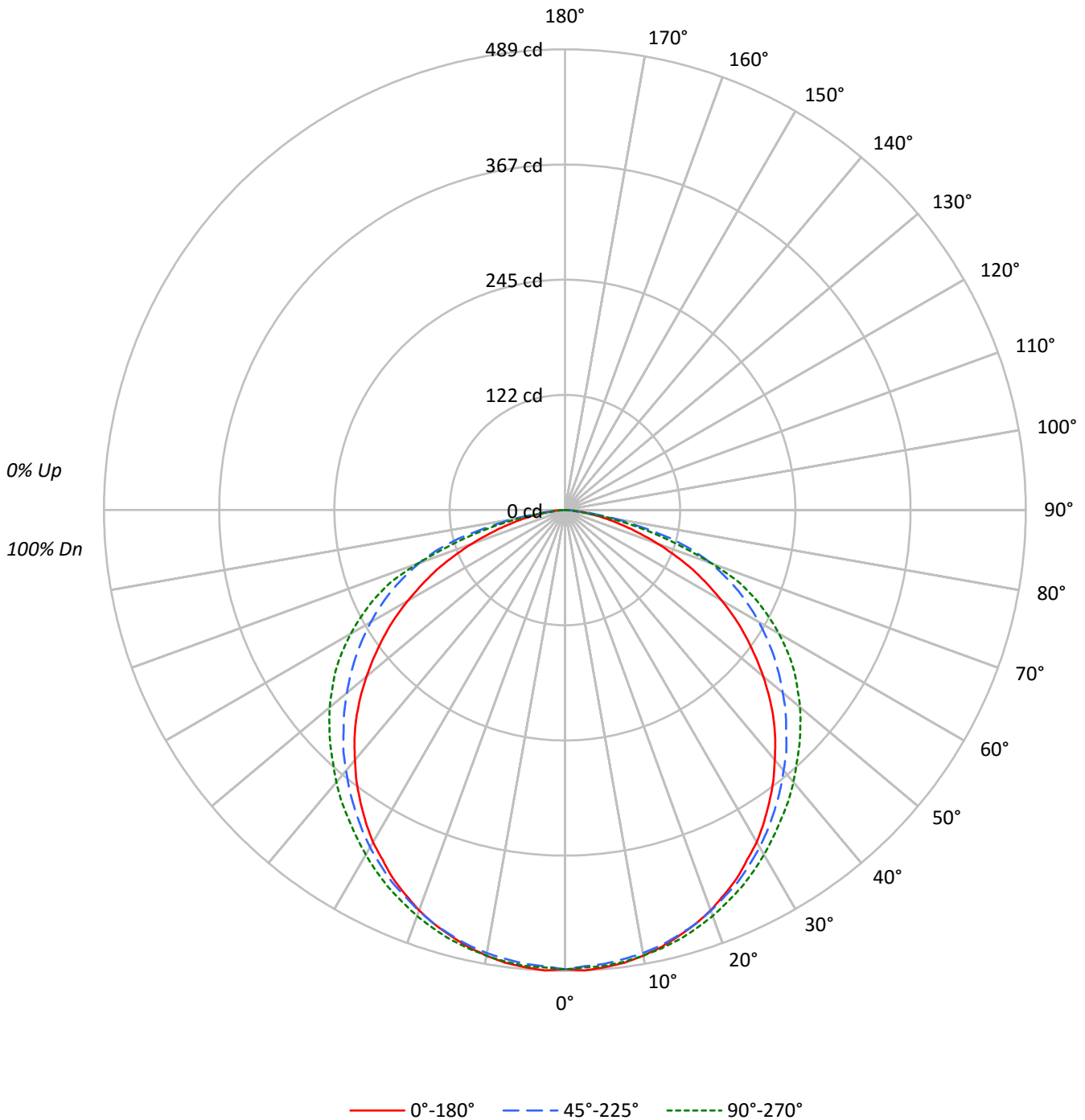
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P311845

CATALOG NUMBER: 14FCZ2-20-UNV-L83050-HRP-CA125-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P311845

CATALOG NUMBER: 14FCZ2-20-UNV-L83050-HRP-CA125-W2A-U-3000K

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	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1311	1311	1311
5°	1315	1306	1311
10°	1312	1304	1312
15°	1304	1301	1314
20°	1295	1296	1313
25°	1281	1292	1313
30°	1265	1284	1313
35°	1242	1275	1315
40°	1217	1268	1325
45°	1192	1264	1340
50°	1150	1264	1364
55°	1101	1270	1393
60°	1034	1280	1411
65°	954	1293	1419
70°	831	1296	1307
75°	685	1206	1055
80°	538	868	707
85°	417	333	167



TEST NUMBER: P311845

CATALOG NUMBER: 14FCZ2-20-UNV-L83050-HRP-CA125-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.1	3.2
10°-20°	132.4	9.2
20°-30°	201.0	14.0
30°-40°	243.6	17.0
40°-50°	256.7	17.9
50°-60°	239.6	16.7
60°-70°	191.5	13.3
70°-80°	105.4	7.3
80°-90°	18.6	1.3
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°	379.6	26.5
0°-40°	623.2	43.4
0°-60°	1119.5	78.0
0°-90°	1435.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1435.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	487	487	487	487	487	
5°	487	486	483	486	486	46
15°	468	468	467	472	472	132
25°	431	432	435	441	442	199
35°	378	382	388	398	400	237
45°	313	319	332	347	352	241
55°	235	246	271	290	297	209
65°	150	169	203	220	223	147
75°	66	94	116	104	102	71
85°	14	17	11	7	5	16
90°	0	0	0	0	0	



TEST NUMBER: P311845

CATALOG NUMBER: 14FCZ2-20-UNV-L83050-HRP-CA125-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	487.3	487.3	487.3	487.3	487.3
2.5°	489.1	487.8	484.6	487.3	486.0
5°	486.9	485.5	483.3	486.4	485.5
7.5°	484.6	482.8	480.6	484.2	483.3
10°	480.1	478.8	477.4	480.6	480.1
12.5°	474.7	474.2	472.9	476.5	476.1
15°	467.9	467.9	467.0	471.5	471.5
17.5°	460.7	460.3	460.7	465.7	465.2
20°	452.1	452.1	452.6	458.5	458.5
22.5°	441.8	442.2	443.6	450.8	450.3
25°	431.4	432.3	435.0	441.3	442.2
27.5°	418.7	421.0	424.2	431.8	432.7
30°	407.0	408.4	413.3	420.6	422.4
32.5°	393.0	395.7	401.1	409.3	411.5
35°	378.1	381.7	388.1	398.0	400.2
37.5°	363.2	366.4	375.0	385.4	389.4
40°	346.5	352.0	361.0	372.7	377.2
42.5°	330.3	335.7	347.9	360.1	364.1
45°	313.2	319.0	332.1	347.0	352.0
47.5°	294.2	301.0	317.7	333.5	338.9
50°	274.8	283.4	301.9	319.5	325.8
52.5°	254.5	265.3	286.5	305.0	310.9
55°	234.6	246.4	270.7	289.7	296.9
57.5°	214.3	227.0	254.5	276.2	280.2
60°	192.2	207.6	237.8	256.8	262.2
62.5°	170.6	188.2	220.7	238.7	243.2
65°	149.8	168.8	203.1	219.8	222.9
67.5°	127.2	149.8	183.7	199.0	199.9
70°	105.6	131.8	164.7	171.9	166.1
72.5°	84.4	112.4	142.6	136.7	131.8
75°	65.9	94.3	116.0	104.2	101.5
77.5°	48.7	77.2	83.0	76.7	71.7
80°	34.7	60.9	56.0	47.8	45.6
82.5°	23.9	38.4	30.7	23.9	20.8
85°	13.5	17.1	10.8	6.8	5.4
87.5°	5.9	4.1	2.3	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)