

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: P306981

Luminaire Tested: **14FCZ2-20-UNV-L82765-HRP-CA08-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: P306981
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-L82765-HRP-CA08-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" 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: 1439.0 lumens
Efficiency: N/A
Efficacy: 87.7 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

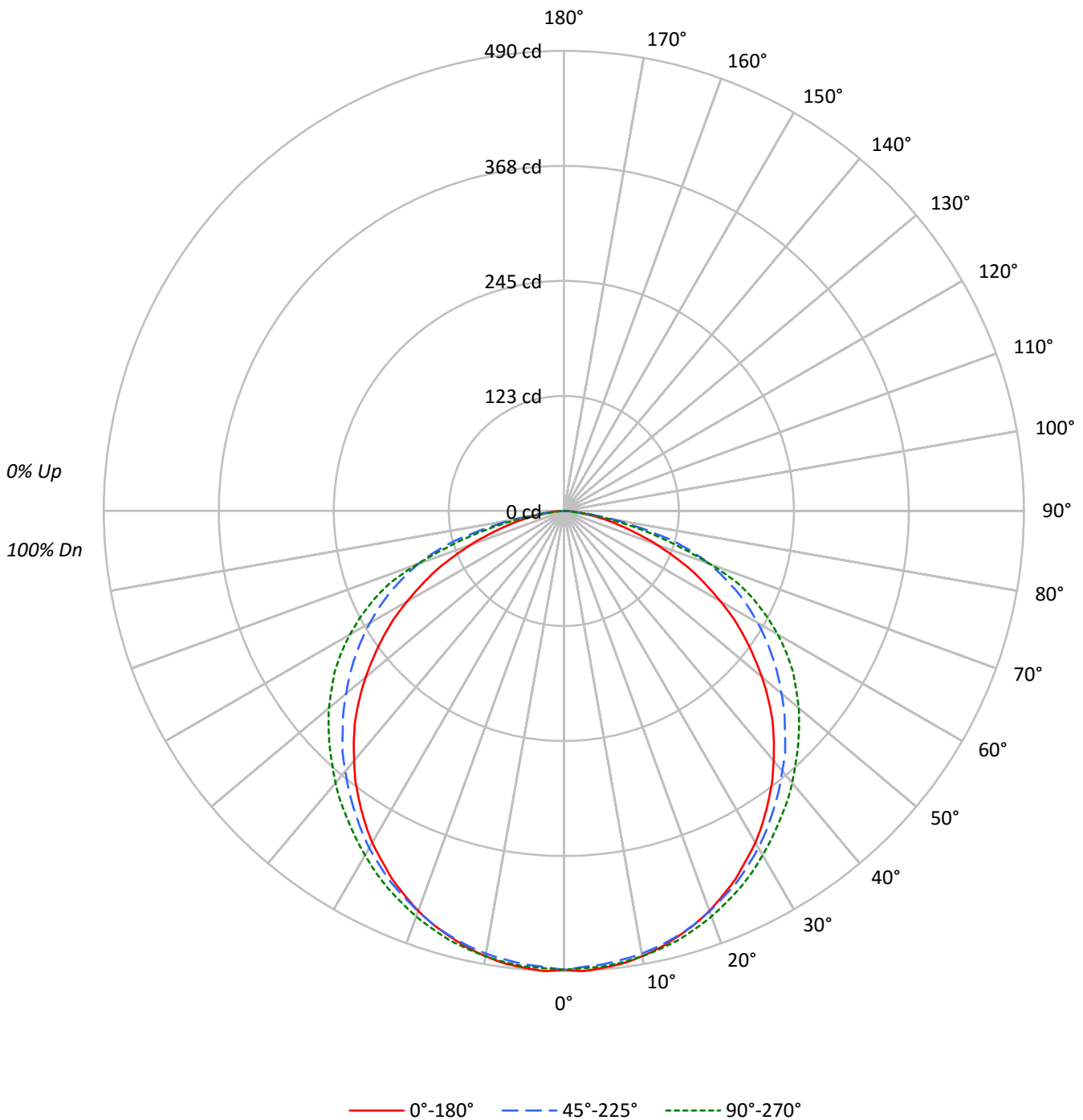
Input Watts (W): 16.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P306981

CATALOG NUMBER: 14FCZ2-20-UNV-L82765-HRP-CA08-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P306981

CATALOG NUMBER: 14FC22-20-UNV-L82765-HRP-CA08-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°	1315	1315	1315
5°	1319	1309	1315
10°	1316	1308	1316
15°	1307	1305	1317
20°	1298	1300	1316
25°	1284	1295	1317
30°	1268	1288	1316
35°	1246	1278	1319
40°	1221	1272	1329
45°	1195	1267	1343
50°	1154	1267	1368
55°	1104	1274	1397
60°	1038	1284	1415
65°	956	1296	1423
70°	833	1300	1310
75°	687	1209	1058
80°	539	869	708
85°	420	337	167



TEST NUMBER: P306981

CATALOG NUMBER: 14FCZ2-20-UNV-L82765-HRP-CA08-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.3	3.2
10°-20°	132.8	9.2
20°-30°	201.6	14.0
30°-40°	244.3	17.0
40°-50°	257.4	17.9
50°-60°	240.3	16.7
60°-70°	192.0	13.3
70°-80°	105.7	7.3
80°-90°	18.7	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°	380.6	26.4
0°-40°	624.9	43.4
0°-60°	1122.6	78.0
0°-90°	1439.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1439.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	489	489	489	489	489	
5°	488	487	485	488	487	46
15°	469	469	468	473	473	132
25°	433	434	436	442	443	199
35°	379	383	389	399	401	237
45°	314	320	333	348	353	242
55°	235	247	272	290	298	210
65°	150	169	204	220	224	148
75°	66	95	116	104	102	71
85°	14	17	11	7	5	17
90°	0	0	0	0	0	



TEST NUMBER: P306981

CATALOG NUMBER: 14FCZ2-20-UNV-L82765-HRP-CA08-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	488.7	488.7	488.7	488.7	488.7
2.5°	490.5	489.1	486.0	488.7	487.3
5°	488.2	486.9	484.6	487.8	486.9
7.5°	486.0	484.2	481.9	485.5	484.6
10°	481.5	480.1	478.7	481.9	481.5
12.5°	476.0	475.6	474.2	477.8	477.4
15°	469.2	469.2	468.3	472.9	472.9
17.5°	462.0	461.5	462.0	467.0	466.5
20°	453.4	453.4	453.8	459.7	459.7
22.5°	443.0	443.4	444.8	452.0	451.6
25°	432.6	433.5	436.2	442.5	443.4
27.5°	419.9	422.2	425.3	433.0	433.9
30°	408.1	409.5	414.5	421.7	423.5
32.5°	394.1	396.8	402.3	410.4	412.7
35°	379.2	382.8	389.1	399.1	401.4
37.5°	364.3	367.4	376.0	386.4	390.5
40°	347.5	352.9	362.0	373.8	378.3
42.5°	331.2	336.7	348.9	361.1	365.2
45°	314.0	319.9	333.0	348.0	352.9
47.5°	295.0	301.8	318.6	334.4	339.8
50°	275.6	284.2	302.7	320.4	326.7
52.5°	255.2	266.1	287.3	305.9	311.8
55°	235.3	247.1	271.5	290.5	297.7
57.5°	214.9	227.6	255.2	276.9	281.0
60°	192.8	208.1	238.5	257.5	262.9
62.5°	171.0	188.7	221.3	239.4	243.9
65°	150.2	169.2	203.6	220.4	223.5
67.5°	127.6	150.2	184.2	199.5	200.5
70°	105.9	132.1	165.2	172.4	166.5
72.5°	84.6	112.7	143.0	137.1	132.1
75°	66.1	94.6	116.3	104.5	101.8
77.5°	48.9	77.4	83.3	76.9	71.9
80°	34.8	61.1	56.1	48.0	45.7
82.5°	24.0	38.5	30.8	24.0	20.8
85°	13.6	17.2	10.9	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)