

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: P312004

Luminaire Tested: **14FCZ2-20-UNV-L83050-RDP-CP125-W2A-U-5000K**

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: P312004
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
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-RDP-CP125-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" POLYCARB SHEET
Light Source: (168) 5000K 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: 1335.0 lumens
Efficiency: N/A
Efficacy: 77.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

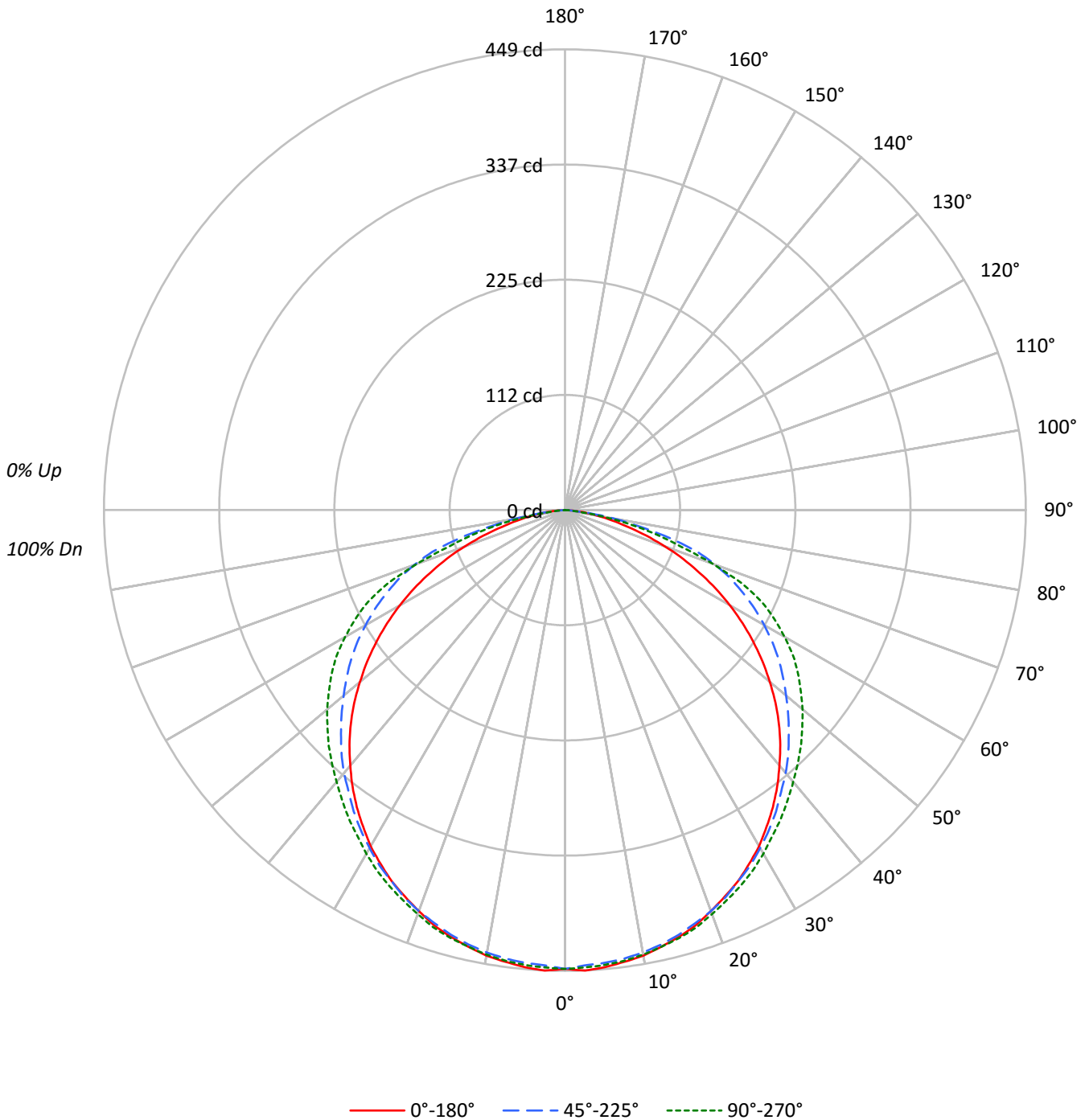
Input Watts (W): 17.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312004

CATALOG NUMBER: 14FCZ2-20-UNV-L83050-RDP-CP125-W2A-U-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P312004

CATALOG NUMBER: 14FC22-20-UNV-L83050-RDP-CP125-W2A-U-5000K

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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1203	1203	1203
5°	1208	1197	1202
10°	1205	1196	1202
15°	1199	1193	1202
20°	1191	1191	1200
25°	1185	1185	1201
30°	1175	1182	1202
35°	1161	1178	1205
40°	1142	1175	1215
45°	1123	1174	1238
50°	1091	1178	1266
55°	1051	1193	1301
60°	998	1206	1329
65°	923	1221	1347
70°	820	1230	1205
75°	661	1105	965
80°	518	775	629
85°	355	225	161



TEST NUMBER: P312004

CATALOG NUMBER: 14FCZ2-20-UNV-L83050-RDP-CP125-W2A-U-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.3	3.2
10°-20°	121.4	9.1
20°-30°	184.9	13.8
30°-40°	225.2	16.9
40°-50°	238.9	17.9
50°-60°	225.5	16.9
60°-70°	182.1	13.6
70°-80°	98.8	7.4
80°-90°	16.0	1.2
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°	348.6	26.1
0°-40°	573.8	43.0
0°-60°	1038.2	77.8
0°-90°	1335.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1335.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	447	447	447	447	447	
5°	447	446	443	446	445	42
15°	430	429	428	432	432	121
25°	399	398	399	403	404	184
35°	353	355	358	366	367	221
45°	295	299	308	320	325	227
55°	224	234	254	271	277	200
65°	145	163	192	207	212	144
75°	64	93	106	96	93	69
85°	12	12	7	6	5	15
90°	0	0	0	0	0	



TEST NUMBER: P312004

CATALOG NUMBER: 14FC22-20-UNV-L83050-RDP-CP125-W2A-U-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	447.1	447.1	447.1	447.1	447.1
2.5°	449.2	447.1	444.0	447.1	446.1
5°	447.1	446.1	443.0	446.1	445.0
7.5°	444.0	444.0	440.9	443.0	443.0
10°	440.9	439.8	437.7	440.9	439.8
12.5°	435.7	434.6	433.6	436.7	435.7
15°	430.4	429.4	428.4	431.5	431.5
17.5°	424.2	423.2	422.1	426.3	426.3
20°	415.9	415.9	415.9	420.0	419.0
22.5°	407.5	407.5	408.6	412.7	411.7
25°	399.2	398.1	399.2	403.4	404.4
27.5°	388.8	389.8	390.8	395.0	396.1
30°	378.3	379.4	380.4	385.6	386.7
32.5°	365.8	367.9	370.0	376.3	376.3
35°	353.3	355.4	358.5	365.8	366.9
37.5°	339.8	341.9	346.0	354.4	356.4
40°	325.2	328.3	334.6	342.9	346.0
42.5°	310.6	314.8	322.1	331.4	335.6
45°	295.0	299.1	308.5	320.0	325.2
47.5°	278.3	283.5	295.0	309.5	313.7
50°	260.6	267.9	281.4	297.0	302.3
52.5°	242.8	251.2	267.9	284.5	289.7
55°	224.1	233.5	254.3	271.0	277.2
57.5°	205.3	215.7	239.7	257.4	263.7
60°	185.5	198.0	224.1	241.8	247.0
62.5°	165.7	180.3	208.5	226.2	230.3
65°	144.9	162.6	191.8	207.4	211.6
67.5°	125.1	145.9	175.1	186.6	186.6
70°	104.2	127.2	156.3	159.5	153.2
72.5°	83.4	109.4	135.5	124.0	118.8
75°	63.6	92.8	106.3	95.9	92.8
77.5°	47.9	75.0	75.0	68.8	66.7
80°	33.4	57.3	50.0	43.8	40.6
82.5°	21.9	32.3	26.1	20.8	17.7
85°	11.5	12.5	7.3	6.3	5.2
87.5°	4.2	2.1	1.0	2.1	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)