

FUZHOU ROPO BUILDING MATERIALS CO., LTD.

TEST REPORT

SCOPE OF WORK

Aluminum Awning Window

REPORT NUMBER

200330010SHF-002

TEST DATE(S)

2020-05-13 - 2020-05-13

ISSUE DATE

2020-06-01

PAGES

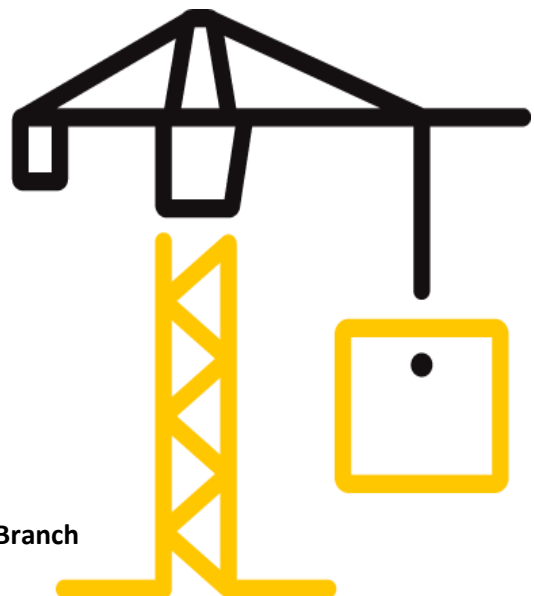
15

DOCUMENT CONTROL NUMBER

LFT-APAC-SHF-OP-10k(May 1, 2020)

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Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch



Test Report

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Test Report

Issue Date: 2020-06-01 Intertek Report No. 200330010SHF-002
 Applicant: FUZHOU ROPO BUILDING MATERIALS CO., LTD.
 Address: Tieling Industrial Zone, Minhou, Fuzhou, Fujian, China
 Attn: Benson Deng
 Manufacturer: FUZHOU ROPO BUILDING MATERIALS CO., LTD.
 Address: Tieling Industrial Zone, Minhou, Fuzhou, Fujian, China
 Test Type : Performance test, samples provided by the applicant.

Product Information

Product Name	Aluminum Awning Window	Brand	ROPO
Sample Description	Good Condition	Sample Amount	1 set
		Received Date	2020-03-30
Sample ID	Model	Specification	
S200330010HF.002	ROPO115 AW	1600mm(Width) x 1800mm(Height)	

Test Methods And Standards

Test Standard	AS/NZS 4420.1-2016 Windows, external glazed, timber and composite doors - Methods of test Part 1: Test sequence, sampling and test methods
Specification Standard	AS 2047-2014 Windows and external glazed doors in buildings (Amdt 2-2017)
Test Conclusion	The results are compliance with the applicable requirements of AS 2047-2014 (Amdt 2-2017), and the results are shown in the following page.

Note:

1.This report relates specifically to the sample(s) that were drawn and provided by the applicant or their nominated third party. The reported result(s) provide no warranty or verification on the sample(s) representing any specific goods and/or shipment and only relate to the sample(s) as received and tested.

Report Authorized






 Name: Zac Zhang Name: Amber Chen
 Title: Reviewer Title: Project Engineer

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Test Items, Method and Results:

1 Test Samples

A full scale of sample was provided by the manufacturer that was not weathered nor conditioned.

The description of the samples given below has been prepared from information provided by the sponsor of the test. All values quoted are nominal, unless tolerances are given.

Table 1 Product Information

1	Product Name	Aluminum Awning Window
2	Model	ROPO115 AW
3	Dimension of Window Frame	1600mm(Width) x 1800mm(Height) x 115mm(Thickness)
4	Dimension of Window Sash	Operable Sash: 754mm(Width) x 1734mm(Height) x 65mm(Thickness) Fixed Part: 800mm(Width) x 1800mm(Height) x 115mm(Thickness)
5	Profile	Model: ROPO115 AW Manufacturer: Guangdong Jianmei Aluminium Profiles Factory (GROUP) Co., Ltd.
6	Frame Corner Construction Details: Joinery Type	Mitre-Cut, Assembly with Corner Bracket
7	Reinforcement	None
8	Glazing	Dimension: Operable Sash: 636 mm (Width) x 1616 mm (Height) Fixed Sash: 732 mm (Width) x 1712 mm (Height) Structure: 26 mm Thick 5 mm + 16 mm Argon Gas + 5 mm Toughened Insulated Glass Supplier: Jiangsu Jiacheng Special Manufacturing Glass Co., Ltd
9	Hardware	Lock: TWIN CHAINWINDER Model: DN400 Supplier: Doric Products Pty Ltd Friction Hinge : 16" Model: 0501144000025 Supplier: Shenzhen VBH Construction Hardware Co.,Ltd
10	Weather-strip	Not Applicable
11	Thermal Break	16 mm / 18 mm Supplier: Guangdong Jianmei Aluminium Profiles Factory (GROUP) Co., Ltd.
12	Drainage	Not Applicable

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Table 1 Product Information(Continued)

13	Gasket (between sash and frame)	Model: 112258 Material: EPDM Supplier: SHENYANG RUIDE PLASTICS & RUBBER MANUFACTURER CO., LTD.
14	Sealant of Glass	Model: DOWSIL SJ168 Material: Silicone Weatherproofing Sealant Supplier: Dow China
15	Installation	The rough opening allowed for a 1/4" shim space. The exterior perimeter of the test specimen was sealed with silicon sealant.



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Test Items, Method and Results:

2 Test Result

Table 2 Test Results

Test Description	Test Result	
Serviceability Design Wind Pressure AS/NZS 4420.1-2016 section 3	±	1200 Pa
Deflection / Span Ratio Framing member 1	Stile	1/1200
Deflection / Span Ratio Framing member 2	Bottom Rail	1/3850
Deflection / Span Ratio Framing member 3	Mullion	1/1700
Operating Force AS/NZS 4420.1-2016 section 4	Initial Movement	Required ≤ 160 N
		Open 39 N
		Close 40 N
	Maintain Movement	Required ≤ 80 N
		Open 8 N
		Close 8 N
Air Infiltration at ±75 Pa AS/NZS 4420.1-2016 section 5 Overall area: 2.88 m ²	at +75Pa	0.20 L/s·m ²
	at -75Pa	0.29 L/s·m ²
Air Infiltration at ±75 Pa AS/NZS 4420.1-2016 section 5 Operable area: 1.44 m ²	at +75Pa	0.33 L/s·m ²
	at -75Pa	0.54 L/s·m ²
Water Penetration AS/NZS 4420.1-2016 section 6	No water penetration at	600 Pa or less
	Description: After water sprayed for 15 minutes at 600 Pa, there was no water penetration.	
Ultimate Strength Test Pressure AS/NZS 4420.1-2016 section 7	+	3000 Pa with no collapse
	-	3000 Pa with no collapse
	Description:	
	No significant breakage, permanent deformation or operational malfunction after ultimate strength was released.	

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Appendix A: Test Data and Sample Drawings:

A.1 Deflection Test – Test method AS/NZS 4420.1-2016

Test Pressure (Serviceability design wind pressure), P = 1200 Pa,

Note: No structural members in a completely assembled and glazed window shall deflect by an amount greater than the following, when tested at the serviceability design wind pressure:

- (a) Span/250 for windows and sliding doors.
- (b) Span/100 for doors other than sliding.

Table 3 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Deflection (mm)			Actual Deflection	Deflection /Span Ratio
Item	Span Length		1	2	3		
Stile	1680	+P/4 = 300	0.1	0.4	0.1	0.3	1:5600
		+2P/4 = 600	0.2	0.8	0.2	0.6	1:2800
		+3P/4 = 900	0.4	1.2	0.4	0.8	1:2100
		+4P/4 = 1200	0.6	1.6	0.6	1.0	1:1680
		0	0.1	0.1	0.1	<0.1	<1:16800
Stile	1680	-P/4 = -300	0.1	0.4	0.1	0.3	1:5600
		-2P/4 = -600	0.2	0.9	0.3	0.6	1:2800
		-3P/4 = -900	0.4	1.5	0.5	1.0	1:1680
		-4P/4 = -1200	0.6	2.1	0.8	1.4	1:1200
		0	0.2	0.2	0.1	<0.1	<1:16800

Table 4 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Deflection (mm)			Actual Deflection	Deflection /Span Ratio
Item	Span Length		3	4	5		
Bottom Rail	770	+P/4 = 300	0.1	0.1	0.0	<0.1	<1:7700
		+2P/4 = 600	0.2	0.2	0.1	<0.1	<1:7700
		+3P/4 = 900	0.4	0.3	0.1	0.2	1:3850
		+4P/4 = 1200	0.6	0.4	0.1	0.2	1:3850
		0	0.1	0.1	0.0	<0.1	<1:7700
Bottom Rail	770	-P/4 = -300	0.1	0.1	0.0	<0.1	<1:7700
		-2P/4 = -600	0.3	0.2	0.0	0.2	1:3850
		-3P/4 = -900	0.5	0.3	0.1	0.2	1:3850
		-4P/4 = -1200	0.8	0.6	0.3	0.2	1:3850
		0	0.1	0.1	0.1	<0.1	<1:7700

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Table 5 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Deflection (mm)			Actual Deflection	Deflection /Span Ratio
Item	Span Length		6	7	8		
Mullion	1700	+P/4 = 300	0.0	0.3	0.0	0.3	1:5667
		+2P/4 = 600	0.2	0.7	0.1	0.6	1:2833
		+3P/4 = 900	0.3	1.1	0.3	0.8	1:2125
		+4P/4 = 1200	0.5	1.5	0.4	1.0	1:1700
		0	0.0	0.1	0.0	0.1	1:17000
Mullion	1700	-P/4 = -300	0.0	0.3	0.0	0.3	1:5667
		-2P/4 = -600	0.1	0.6	0.1	0.5	1:3400
		-3P/4 = -900	0.4	1.0	0.3	0.6	1:2833
		-4P/4 = -1200	0.5	1.4	0.4	1.0	1:1700
		0	0.2	0.1	0.1	<0.1	<1:17000

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Appendix A: Test Data and Sample Drawings:

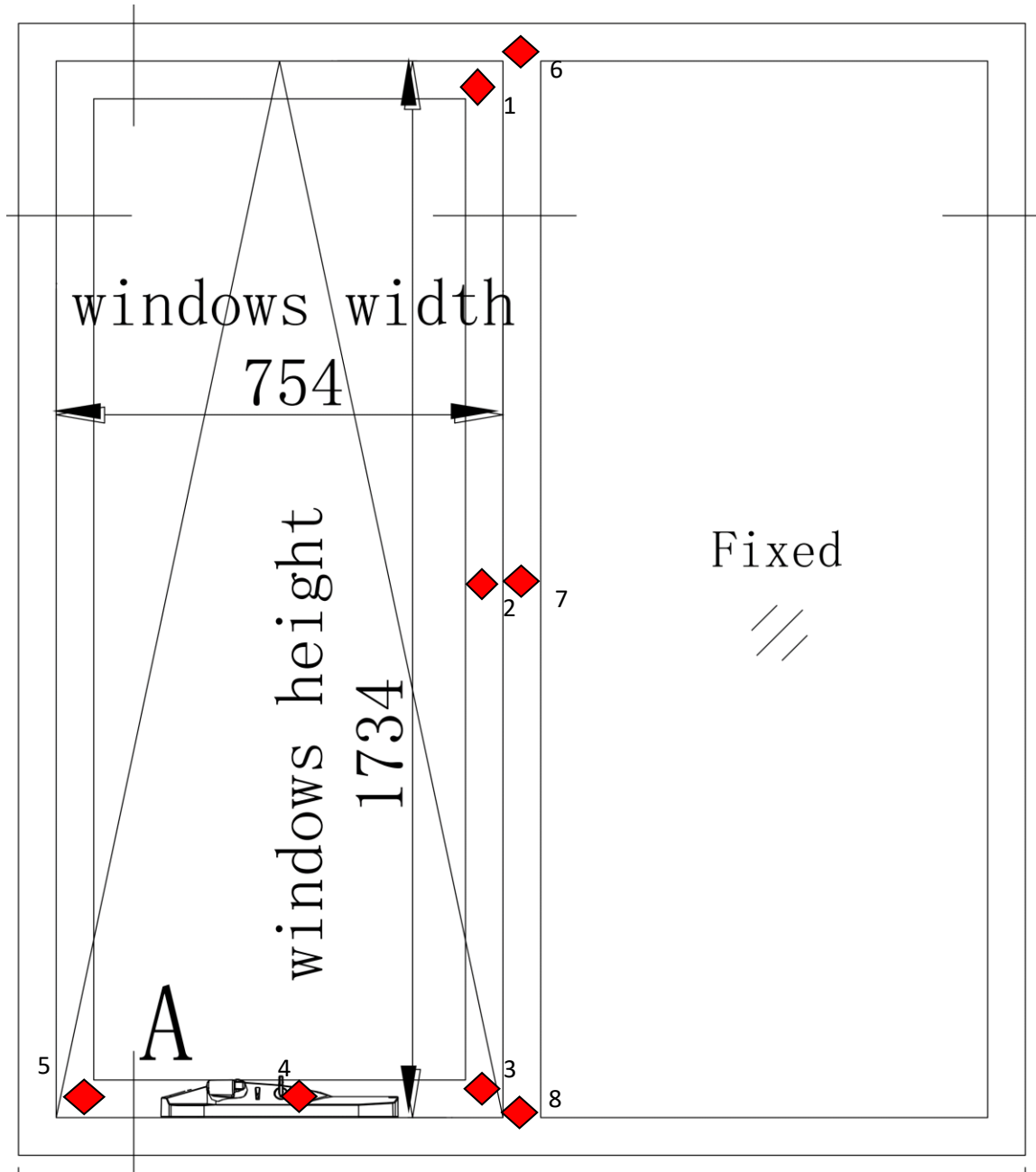


Fig.1 Locations of Displacement Measuring Devices

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Appendix A: Test Data and Sample Drawings:

A.2 Sample Drawings

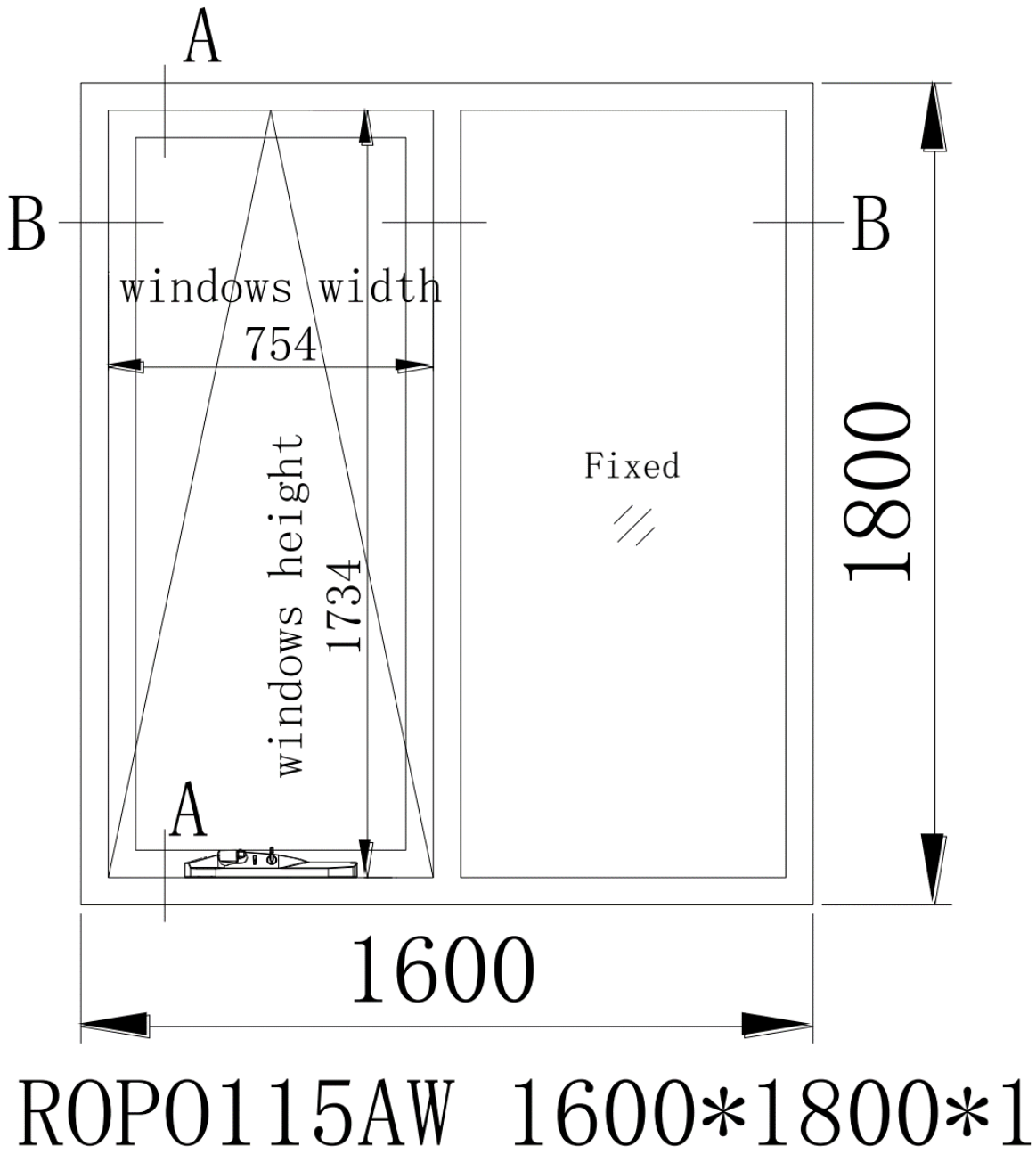


Fig.2 Drawing of Representative Sample

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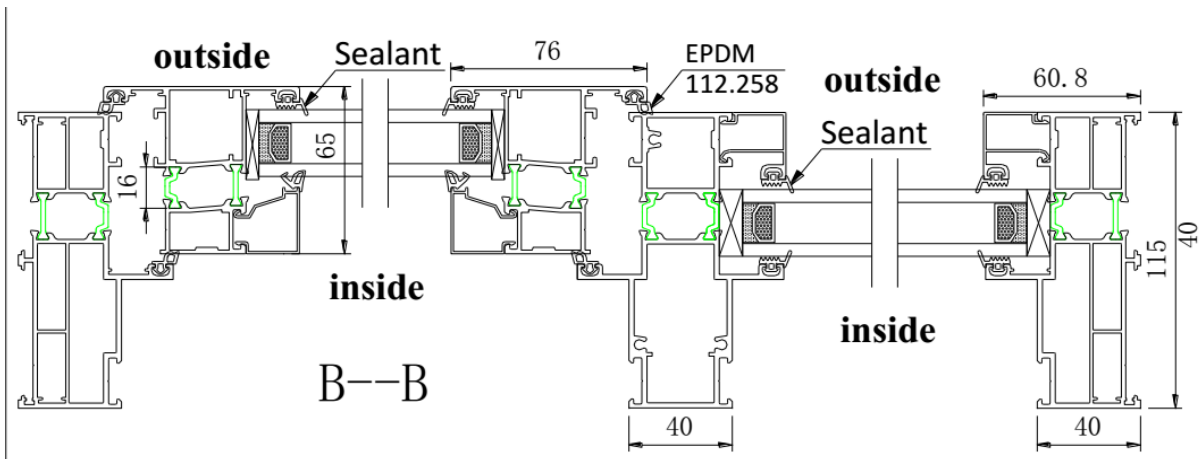


Fig.3 Drawing of Representative Sample

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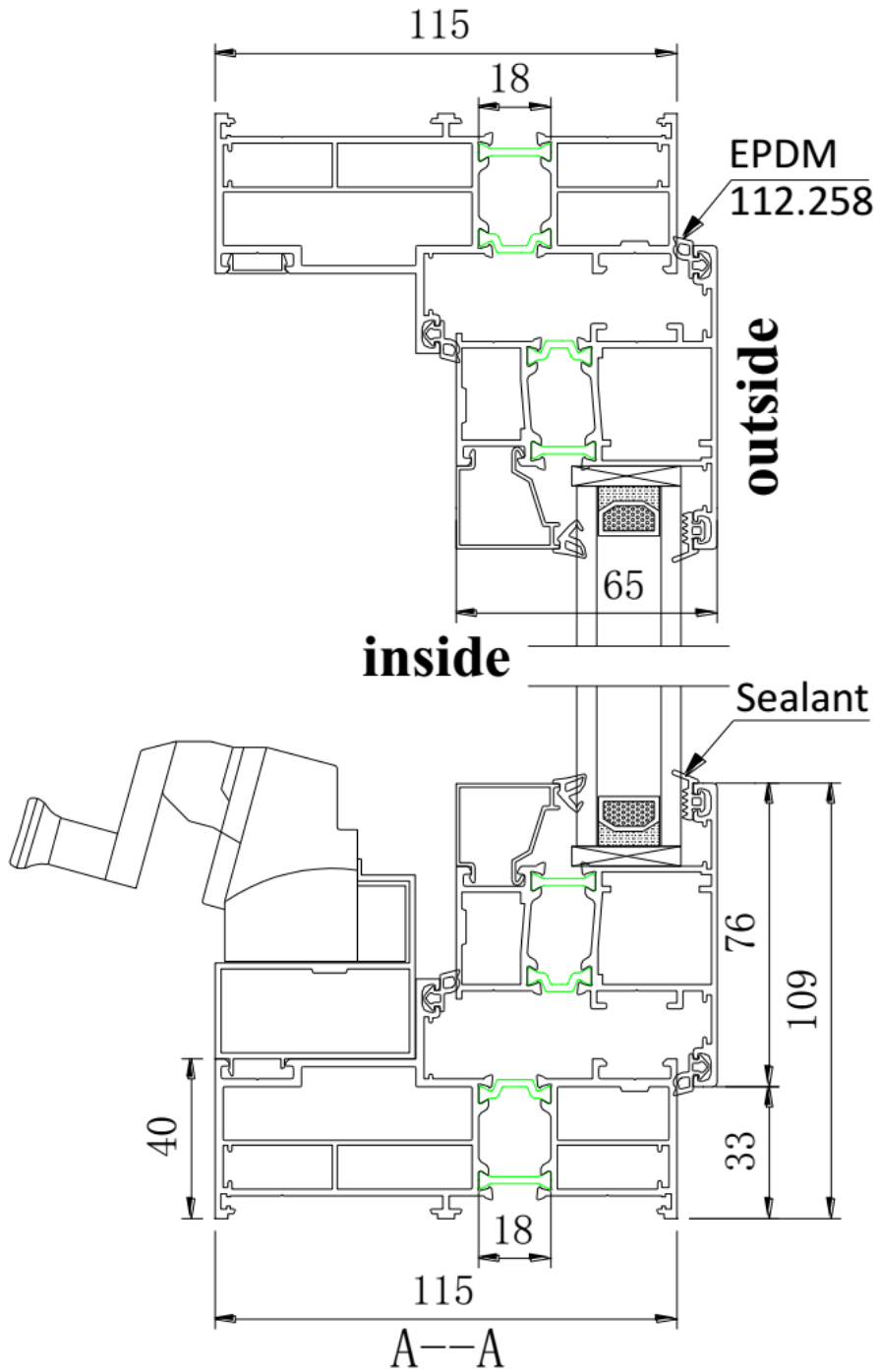


Fig.4 Drawing of Representative Sample

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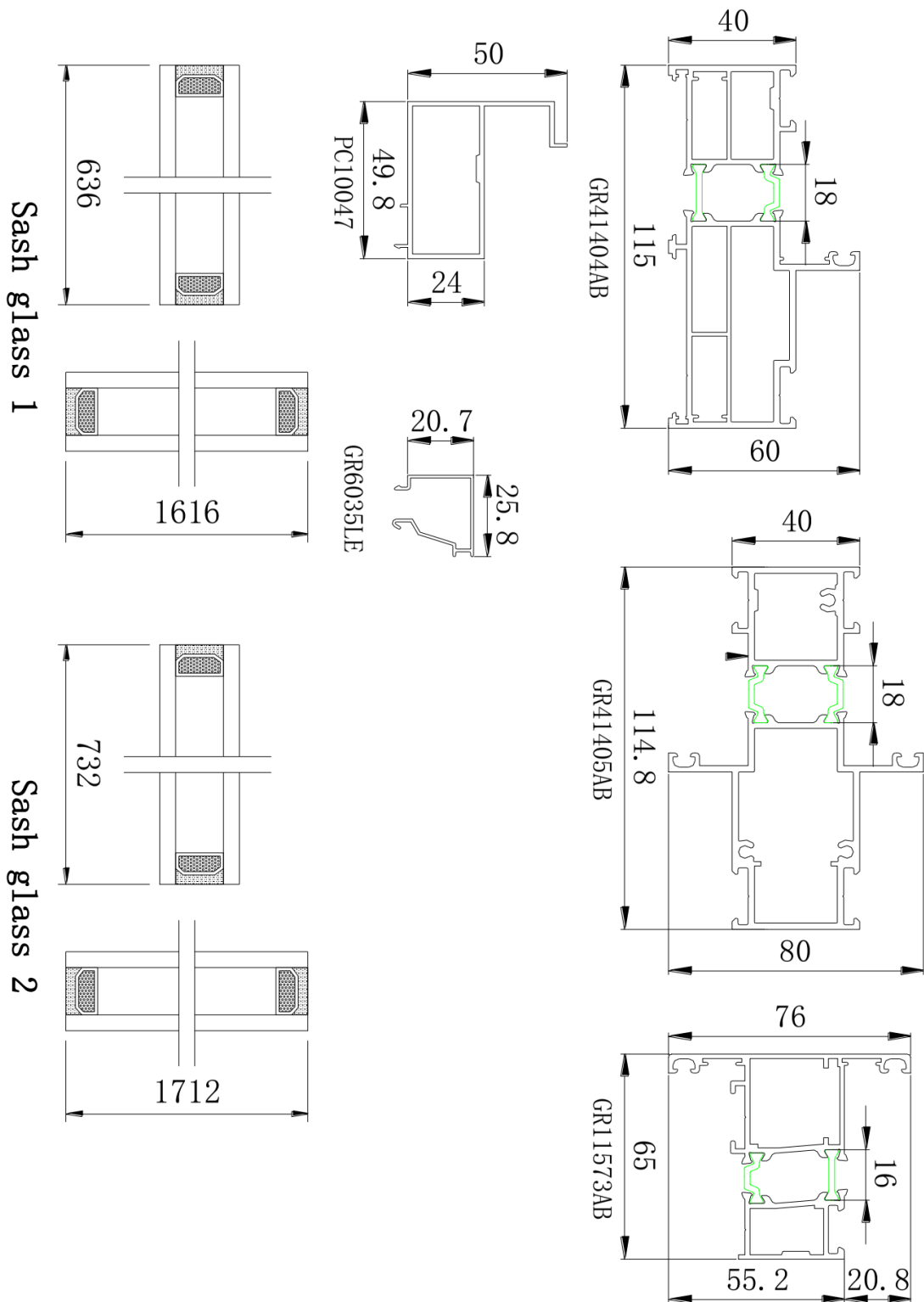


Fig.5 Drawing of Representative Sample

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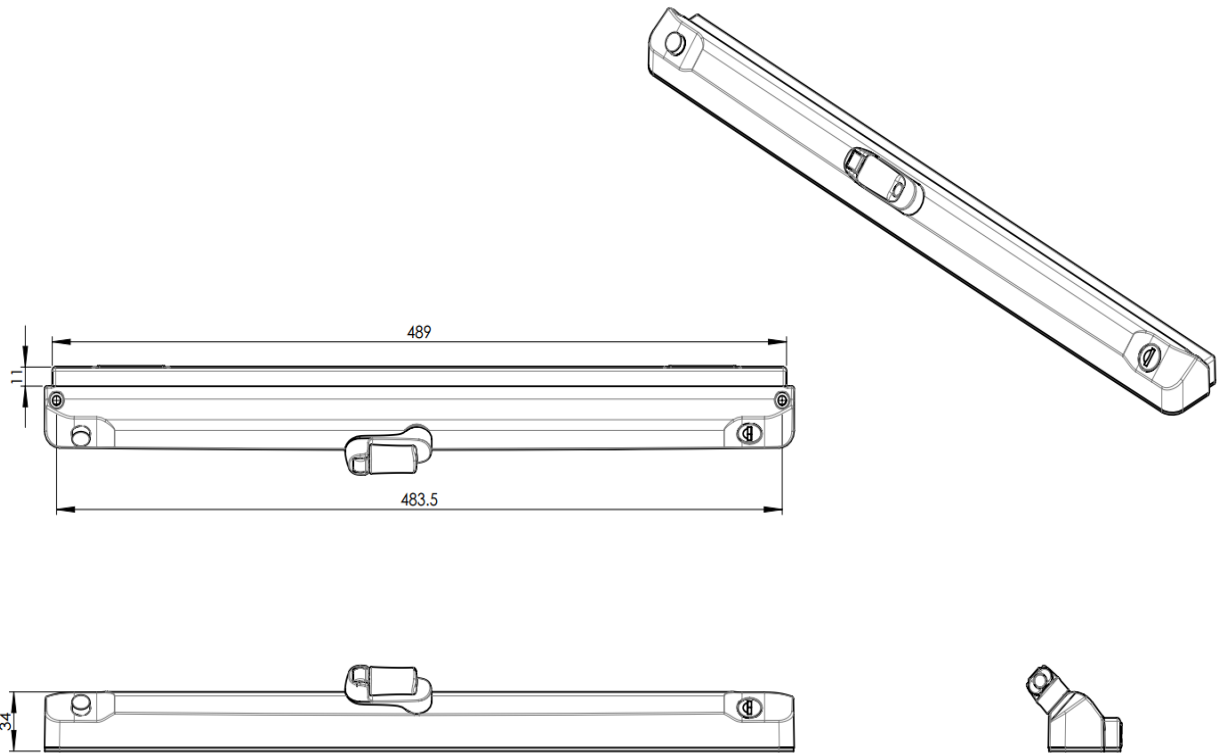


Fig.6 Drawing of Representative Sample

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Appendix B: Sample Received Photo



Revision:

NO.	Date	Changes	Author	Reviewer
200330010SHF-002	2020-06-01	First issue	Amber Chen	Zac Zhang