

# Record of Letter Ballot Review by TC Chapter for Procedural Review

Region/Locale: [China](#)  
 Global Technical Committee: [Photovoltaic](#)  
 TC Chapter Cochairs: [Guangchun Zhang/CSI](#)  
 Standards Staff: [Isadora Jin/SEMI China](#)

	Scheduled in Background Statement	Actual
Date	<a href="#">10/25/2019</a>	<a href="#">10/25/2019</a>
Location	<a href="#">Beijing</a>	<a href="#">Beijing</a>
Reason for Change of Date and/or Location (if changed)		

Note: See *Regulations* ¶ 9.5 Exceptions for allowable reason to change.

## I. Document Number and Title

Document Number	Document Title
<a href="#">6070E</a>	<a href="#">New Standard: Guide for Identifying Cell Defects in Crystalline Silicon PV Modules by Electroluminescence (EL) Imaging</a>

## II. Tally

Standards staff to fill in.

Voting Tally: **As-cast tally after close of voting period**

Note: A minimum of 60% of the Voting Interests that have TC Members within the global technical committee that issued the Letter Ballot must return Votes. (*Regulations* ¶ 9.6.2.1.1)

Voting Tally (with example values):

Voting Interest:	Returned Vote		Distributio		Return Rate	
Letter Ballot	<a href="#">93</a>	÷	<a href="#">153</a>	=	<a href="#">60.8%</a>	≥60%
Intercommittee Ballot	<a href="#">40</a>					
Voting Interest Reject(s)	<a href="#">0</a>		Total Voters with Rejects		<a href="#">0</a>	
Voting Interest Accept(s)	<a href="#">73</a>					

Note: See *Regulations* § 3.2.1 for definition of Voting Interest.

### III. Rejects

None

### IV. Other Technical Issues

None

### V. Comments

#### V- (i) Voters' Comments

Commenter 1 (Rafael Vargas-Bernal / Instituto Tecnológico Superior de Irapuato) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	In subsections 7.1.1 and 7.1.2 separate values of units.	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input type="checkbox"/>	Already addressed by Commenter #, Comment #
	<input type="checkbox"/>	No further action was taken by the TC Chapter.
	<input type="checkbox"/>	Refer to the TF for more consideration.
	<input type="checkbox"/>	New Business
	<input checked="" type="checkbox"/>	Editorial Change
Options for editorial change (check one)	<input type="checkbox"/>	<b>Case 1: No vote in this section:</b> To be included and voted on as a group in § VI. <i>Editorial Changes Other than Those Voted on in § V.</i>
	<input checked="" type="checkbox"/>	<b>Case 2: Voted in this section:</b> Original section number and at least one full sentence are required in "FROM" and "TO" fields.
	<b>FROM: Section/Paragraph 7.1.1</b> 7.1.1 <i>Imaging lens</i> —EL imaging lens must avoid absorption of the spectral band of electroluminescence by PV module. For high-quality images, light with wavelength less than 850nm shall be cut off by using filters or coating.	
	<b>TO: Section/Paragraph 7.1.1</b> 7.1.1 <i>Imaging lens</i> — EL imaging lens must avoid absorption of the spectral band of electroluminescence by PV module. For high-quality images, light with wavelength less than 850 nm shall be cut off by using filters or coating.	
Editorial Changes	1	<b>Justification (If necessary)</b> Separate value and unit.
	2	<b>FROM: Section/Paragraph 7.1.2</b> 7.1.2 <i>Imaging detectors</i> — Detectors must respond to light with wavelength more than 850nm which is the electroluminescent band of the PV module.

	<p><b>TO: Section/Paragraph 7.1.2</b>  7.1.2 <i>Imaging detectors</i> — Detectors must respond to light with wavelength more than 850 nm which is the electroluminescent band of the PV module.</p> <p><b>Justification (If necessary)</b>  Separate value and unit.</p>
<b>Motion</b>	To approve above editorial change(s)
<b>Motion by/2<sup>nd</sup> by</b>	Ping Yan (Trina Solar)/Zhixin Li (Linton)
<b>Discussion</b>	None
<b>Vote</b>	55 Y-0 N; Motion passed.

**Comment 2**

<b>Comment</b>	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	Improve quality of Figure 1.	
<b>Action</b>	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input type="checkbox"/>	Already addressed by Commenter #, Comment #
	<input type="checkbox"/>	No further action was taken by the TC Chapter.
	<input type="checkbox"/>	Refer to the TF for more consideration.
	<input type="checkbox"/>	New Business
	<input checked="" type="checkbox"/>	Editorial Change
	Options for editorial change (check one)	<input type="checkbox"/> <b>Case 1: No vote in this section:</b> To be included and voted on as a group in § VI. <i>Editorial Changes Other than Those Voted on in § V.</i>
		<input checked="" type="checkbox"/> <b>Case 2: Voted in this section:</b> Original section number and at least one full sentence are required in "FROM" and "TO" fields.
<b>Editorial Changes</b>	1	<p><b>FROM: Section/Paragraph Figure 1</b></p> <pre> graph TD     Start([Start]) --&gt; OpenSystem[Open the system]     OpenSystem --&gt; OpenSoftware[Open software]     OpenSoftware --&gt; Calibrator[Calibrator EL device]     Calibrator --&gt; CheckSystem[Check the system based on Import defect]     CheckSystem --&gt; Confirm{Confirm the system Setting-up Yes or No}     Confirm -- No --&gt; Adjust[Adjust the system including the camera]     Adjust --&gt; CheckSystem     Confirm -- Yes --&gt; Import[Import samples]     Import --&gt; Implement[Implement the test procedure]     Implement --&gt; Classify[Classify the imaging]     Classify --&gt; Close([Close]) </pre>

<p><b>TO: Section/Paragraph Figure 1</b></p> <pre> graph TD     Start([Start]) --&gt; OpenSystem[Open the system]     OpenSystem --&gt; OpenSoftware[Open software]     OpenSoftware --&gt; Calibrator[Calibrator EL device]     Calibrator --&gt; CheckSystem[Check the system based on Import defect]     CheckSystem --&gt; Confirm{Confirm the system Setting-up Yes or No}     Confirm -- No --&gt; Adjust[Adjust the system including the camera]     Adjust --&gt; CheckSystem     Confirm -- Yes --&gt; Import[Import samples]     Import --&gt; Implement[Implement the test procedure]     Implement --&gt; Classify[Classify the imaging]     Classify --&gt; Close([Close]) </pre>	
<p><b>Justification (If necessary)</b>          Improve quality of Figure 1. Modify font and size of rhombus frame in Figure 1 for better quality.</p>	
<b>Motion</b>	To approve above editorial change(s)
<b>Motion by/2<sup>nd</sup> by</b>	Ping Yan (Trina Solar)/Zhixin Li (Linton)
<b>Discussion</b>	None
<b>Vote</b>	55 Y-0 N; Motion passed.

## V-(ii) Comments Created by Handling Negative

None

## VI. Editorial Changes Other than Those Voted on in § V

None

## VII. Approval Conditions Check

### VII. - (i). Approval Rate

**APPROVAL CONDITION 1:** All Negatives have been discussed and were withdrawn, found not related, found not persuasive, or addressed by a technical change. (Regulations ¶ 9.6.2.1.2)

**APPROVAL CONDITION 2:** At least 90% of the sum of valid Voting Interest Accept and Voting Interest Reject Votes must be Accept. (Regulations ¶ 9.6.2.1.3)

Note: If both approval conditions are not satisfied, the Document fails.

		Accepts		(Accepts + Valid Rejects)					
Approval Rate	=	73	/	73	=	100.0%		≥90%	

## VII. – (ii) Approval Level (check one)

Note: See *Regulations* § 9.6.2 for further information.

### Globally Approved (No Ratification Ballot needed):

The Letter Ballot meets the Letter Ballot approval conditions for the global technical committee.

### Need a Ratification Ballot:

The Letter Ballot meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.

## VIII. Safety Check

Note: See *Regulations* § 15 for further information.

Motion	<input checked="" type="checkbox"/>	This is not a <b>Safety Document</b> , when all safety-related information is removed, the Document is still technically sound and complete. ( <i>Regulations</i> ¶ 8.7.1)
	<input type="checkbox"/>	This is a <b>Safety Document</b> , when all safety-related information is removed, the Document is not technically sound and complete. ( <i>Regulations</i> ¶ 8.7.2)
	<input type="checkbox"/>	Safety Checklist ( <i>Regulations</i> ¶ 15.3) is complete and has been included with the Document throughout the balloting process. ( <i>Regulations</i> ¶ 15.1.2)
<b>Motion by/2<sup>nd</sup> by</b>		Ping Yan (Trina Solar)/Zhixin Li (Linton)
<b>Discussion</b>		None
<b>Vote</b>		46 Y-9 N; Motion passed.

## IX. Intellectual Property (IP) Check

**Note: This Letter Ballot may cover all or part of a Standard or Safety Guideline. Regardless of the coverage, this IP check applies to the entire Standard or Safety Guideline\*. See Regulations § 16 for further information.**

X	The TC Chapter meeting chair asked those participating, if they were aware of any patented technology that might be relevant (see <i>Regulations</i> ¶ 16.3.1.1) to the Standard or Safety Guideline; or, any copyrighted items or trademarks that are used/reproduced (see <i>Regulations</i> ¶ 16.4.1.2) in the Standard or Safety Guideline. (Also see, <i>Regulations</i> § 8.8)			
X	The question is NOT answered in affirmative (No potentially material patented technology or use/reproduction of copyrighted items/trademarks is known.)	<b>GO TO SECTION X.</b>		
	The question is answered in affirmative	Is any of the known IPs a patented technology?	<b>Yes, at least one of them is a patented technology</b>	<b>GO TO IX (a) “Patented Technology” subsection</b>
			<b>No</b>	<b>GO TO IX (b) “Copyright items” subsection</b>

## X. Action for This Document

<b>Motion</b>		This Document passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.
	X	This Document passed TC Chapter review with editorial changes and will be forwarded to the ISC A&R SC for procedural review.
		This Document passed TC Chapter review with technical changes and with or without editorial changes and will be forwarded to the ISC A&R SC for procedural review. A Ratification Ballot will be issued to verify the technical changes.
		This Document failed TC Chapter review and will be returned to the TF for rework.
		This Document failed TC Chapter review and work will be discontinued.
<b>Motion by/ 2<sup>nd</sup> by</b>		Ping Yan (Trina Solar)/Zhixin Li (Linton)
<b>Discussion</b>		None
<b>Vote</b>		46 Y-9 N
<b>Final Action</b>		X Motion passed
		Motion failed

**Note: If the use of PMPT or copyrighted item is justified by the TC Chapter, LOA or release form must be received before publication can proceed.**