

FOR ACTION

Letter Ballot: OEOSC/OP
Ballot No.: 2009-3
Issued: October 14, 2009
Date Due: November 13, 2009

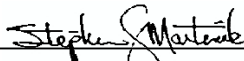
OEOSC ASC OP, Committee for Optics and Electro-Optical Instruments
Title: American National Standard – for Optics and Electro-Optical Instruments –
Preparation of drawings for optical elements and systems – Part 1: General

Question: Shall OP approve this TF 4 draft standard so that it can be submitted to ANSI for approval as an American National Standard?

- Yes Yes, with comment
- No (State reason in comments area)
- Abstain (State reason in comments area)

Enter comments in the space below. Include another sheet if your comments exceed this space. All negative votes and abstentions must be accompanied by an explanation.

Mail or FAX your response to
Gene Kohlenberg
OEOSC Executive Director
P.O. Box 25705
Rochester, NY 14625-0705
FAX: 585-377-2540



Signature

11/13/09
Date

Stephen J. Martinek
Printed Name

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Organization Represented

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Mail or FAX your response to
 Gene Kohlenberg
 OEOSC Executive Director
 P.O. Box 25705
 Rochester, NY 14625-0705
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Walt Czajkowski
 Signature

11/9/09
 Date

WALT CZAJKOWSKI
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1.) References are made in the ANS Notes to other ANSI/OEOSC OP documents. These documents should be listed with their full titles somewhere in this document, possibly in the Bibliography.
 2.) In ANS Note 3, the symbol for the "lambda" character shows up as a blank box in my Adobe Reader document. There must be something non-standard about the font used for this symbol. I am using a Mac with OS 10.5 with Adobe Reader 9.0.0.

Mail or FAX your response to
Gene Kohlenberg
OEOSC Executive Director
P.O. Box 25705
Rochester, NY 14625-0705
FAX: 585-377-2540

Peter Z Takacs
Signature

11/9/09
Date

Peter Z. Takacs
Printed Name

Brookhaven National Lab
Organization Represented

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	E-Mail	<input type="text"/>

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Gene Kohlenberg
OEOSC Executive Director
P.O. Box 25705
Rochester, NY 14625-0705
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Signature

11/9/9

Date

Charles Gaugh

Printed Name

Davidson Optronics, Inc.

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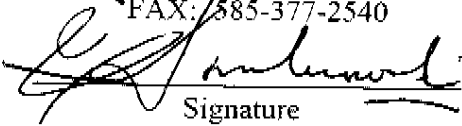
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Gene Kohlenberg
OEOSC Executive Director
P.O. Box 25705
Rochester, NY 14625-0705
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Signature

10-20-09
Date

Frank Dombrowski
Printed Name

Gage-line Technology, Inc.
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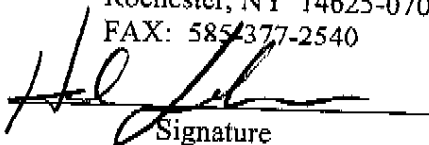
OEOSC ASC OP, Committee for Optics and Electro-Optical Instruments
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Question: Shall OP approve this TR 4 draft standard as submitted for approval as an American National Standard?

- Yes Yes, with comment
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- Abstain (State reason in comments area)

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Mail or FAX your response to
Gene Kohlenberg
OEOSC Executive Director
P.O. Box 25705
Rochester, NY 14625-0705
FAX: 585-377-2540


Signature

11/5/09
Date

Hel JOHNSON
Printed Name

HJOL
Organization Represented

Include any contact info that has changed.	Address 1	<input type="text"/>
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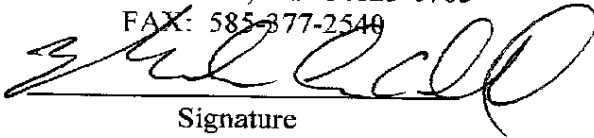
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[Empty rectangular box for comments]

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 Gene Kohlenberg
 OEOSC Executive Director
 P.O. Box 25705
 Rochester, NY 14625-0705
 FAX: 585-377-2540


 Signature

11/11/09
 Date

Marla Dowell
 Printed Name

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Gene Kohlenberg
OEOSC Executive Director
P.O. Box 25705
Rochester, NY 14625-0705
FAX: 585-377-2540

William E Royall
Signature

11-11-09
Date

William E. Royall
Printed Name

Individual
Organization Represented

Include any contact info that has changed.	Address 1	<input type="text"/>
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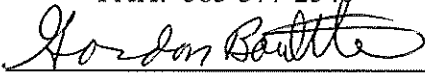
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11/9/09

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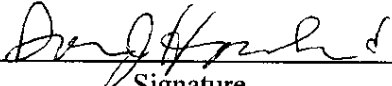
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Gene Kohlenberg
OEOSC Executive Director
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11-11-09
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Donna J. Howland
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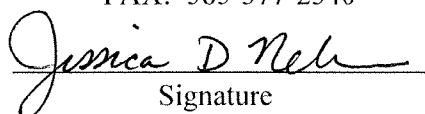
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Gene Kohlenberg
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Jessica D. Nelson
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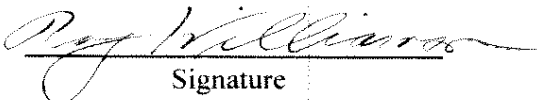
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Attached on second page.

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Gene Kohlenberg
OEOSC Executive Director
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Signature

11/09/09
Date

Ray Williamson
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Comments for ballot BSR/OEOSC OP1.110-1

Page 7, line 2: Space needed between “Figure” and “9”

Page 14, 4.6.7, paragraph 2 gives an example of a penta prism and states that the perpendicularity of the penta’s respective sides to its base are “pyramidal angles.” Paragraph 4 states that an error in *ray deviation perpendicular to the plane of the drawing* is known as a “pyramidal deviation error;” and then refers to Figure 28 b.

Issues:

Neither of these paragraphs defines “pyramidal error” the way I understand it – as the deviation of one surface normal to a plane formed by two other surface normals (typically the two legs of a right-angle prism vs. its hypotenuse.)

(added 10/15/2009) – Malacara, Optical Shop Testing edition 1, p. 470-471 (italics mine):

Pyramid error is usually specified on prisms that have three or more polished surfaces perpendicular to a common plane. *In a three-surface prism pyramid error is defined as the angle between one face and the line of intersection of the other two faces.* It can be measured with an autocollimator and a turntable with leveling screws. When the autocollimator is adjusted to be perpendicular to both the front and the back of a single-mirror surface rotated 180°, it is perpendicular also to the axis of rotation. The prism replaces the mirror on the turntable, and *with the aid of the leveling screws two faces of the prism are brought to be parallel to the axis of rotation* and thus perpendicular to the autocollimator. Then the line of intersection of these two faces is also perpendicular to the autocollimator. The angle of the normal of the third face from the axis of the autocollimator is the pyramid error, which is usually expressed in arc-minutes.

For a multifaced polygon the pyramid error *might be* specified as follows: “All polished surfaces $90^\circ \pm 1^\circ$ to a plane normal to axis of rotation. Pyramid error $0^\circ 5'$ max.” This means that all surfaces must be within a total range of 5 arc-min, but this range can be located any place within 1° of 90° .

So Malacara flatly states the definition in the case of 3-sided prisms, and suggests the definition for polygonal prisms, both specified separately from the angle to the base.

Figure 28 b shows parallelism to the base surface, datum A, which is not necessarily perpendicular to the “plane of the drawing.” In fact, in 28 b it’s *parallel* to the plane of that drawing – it is nominally perpendicular to the plane of 28 a.

I think we need to help ISO in this regard with a better explanation.

3rd angle projection not per ANSI style fig 28 (at least)

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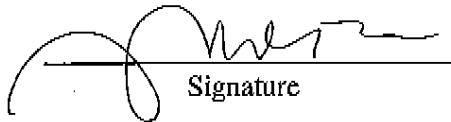
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Gene Kohlenberg
OEOSC Executive Director
P.O. Box 25705
Rochester, NY 14625-0705
FAX: 585-377-2540


Signature

10/26/09
Date

Nelson Turner
Printed Name

Research Electro-Optics, Inc.
Organization Represented

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Include any contact	City	<input type="text"/>
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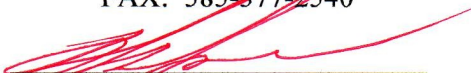
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Page 2 ANS Note 3: The λ symbol appears as a \square
Page 2 Footnote 1: Typo 22^o; C, Delete;

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Gene Kohlenberg
OEOSC Executive Director
P.O. Box 25705
Rochester, NY 14625-0705
FAX: 585-377-2540


Signature

11/10/09
Date

Dave Aikens
Printed Name

Savvy Optics Corp
Organization Represented

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	Phone	
	E-Mail	daikens@savvyoptics.com

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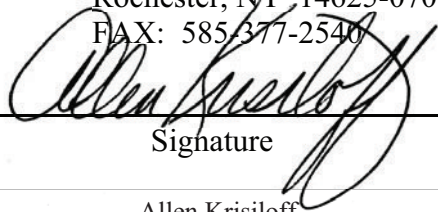
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P.O. Box 25705
Rochester, NY 14625-0705
FAX: 585.377-2540



Signature

11 Nov 09

Date

Printed Name

Organization Represented

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