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PHOTOGRAPHIC SOCIETY OF AMERICA INCORPORATED

PSA UNIFORM PRACTICE – JUDGING PRACTICES
(Part B - 2007)

The following are recommendations for all Exhibitions requesting PSA Recognition, and other PSA Competitions, between Jan.1 and Dec.31, 2007.

The purpose of these standards is to provide recommendations and suggestions for uniform exhibition judging and in order that all PSA recognized exhibitions may judge and exhibit their photographic color and monochrome prints, digital prints, and photographic slides in a uniform and consistent manner. This document is a resource of information for all exhibitions, especially new exhibitions. It provides benchmark recommendations for the proper illumination of prints and the proper projection of slides for both judging and public exhibition in order that consistent viewing may be achieved from one PSA recognized exhibition to another, all over the world. The individual exhibitor can easily duplicate these conditions to properly evaluate his exhibition entry.

B1 - JUDGING AND DISPLAYING PHOTOGRAPHIC PRINTS

SPECIFICATIONS FOR JUDGING PRINTS

I. Lighting for Judging Prints:
- A. Light (Color) temperature indicates the "atmosphere" created by the light source. Light temperature is referred to in degrees Kelvin (K). A low color temperature produces warm light and a high color temperature produces cool light.
- B. The proper color temperature for judging and viewing prints should be between 3200^0 K (warm – i.e. toward red light) and 5500^0 K (cool – bright sunlight). When there is a choice, the higher value within these limits is preferred.
- C. Incandescent (household tungsten type) bulbs burn at a color temperature below 3000^0 K and are, therefore, not suitable to be used alone.
- D. As lighting temperature and wattage are marked on most bulbs and tubes it is not necessary to use a color temperature meter to check the K for judging or exhibition. (However, if it is deemed desirable to check the K of a mixed lighting situation such as tungsten and fluorescent a three-filter color temperature meter should be used.
- E. Color Rendering Index (CRI) rates a light source's ability to render colors in a natural and normal way, based on a scale from 1-100. The best quality fluorescent tubes (such as the GE "Chroma 50") have a CRI rating of 90. These tubes are available in both 24" size (highly recommended for use in the construction of new Print Judging Light Boxes) and 48" size for area lighting.
- F. Proper color temperature can be provided by any of the following means, but the preferred methods are in the order given.

II. Judging Print Box:
- A. The preferred light source for print judging boxers (and for other judging and print exhibition environments) is often referred to as "Full Spectrum" fluorescent lighting, which is balanced for app. 5500^0 K. (Uncorrected fluorescent illumination is lacking in magenta, and prints viewed under this illumination appear greenish. Therefore this type of lighting **is unacceptable** for PSA Recognized exhibitions.)
- B. Still very acceptable are those light boxes having a mixture of incandescent bulbs and deluxe cool white fluorescent bulbs. 25% of the total wattage should be the specified fluorescent bulbs e.g. 2 - 25-watt cool white fluorescent bulbs and 4 - 40 watt incandescent bulbs.
- C. Copies of "How to Construct a Print Judging Light Box" are available from PSA Headquarters. e-mail hq@psa-photo.org
- D. Light-stand and Easel Lighting Method:
  1. Photoflood lamps Type A (3400^0 K) or Type B (3200^0 K) with reflectors may be used.
  2. A hand held incident light meter reading, or a reflected light meter or camera meter reading used with an 18 percent reflectance Gray Card should be used to balance the illumination, one light at a time. Then measure the overall illumination.
  3. Quartz Halogen studio type lighting can be used in a similar manner as that outlined in item 2 above.
  4. There are other methods for judging prints that are too numerous to list above, the importance consideration for those using other methods than described herein is to test the system in order that the integrity of these PSA standards for proper judging and exhibition conditions are maintained.

E. Illumination Level

The illumination level provided by PSA international Exhibitions, and other Competitions, for judging photographic prints is higher than that used for general viewing. See item 3.a below. (Print exhibitors, therefore, make their prints slightly darker than for general viewing, which makes the highlights, color and detail in a color print and the highlights and tones of a monochrome print stand out!)

1. The traditional PSA illumination level at the print plane for judging is a light value (EV) of 9.5 with an upper limit of EV 10 and a lower limit of EV 9.
2. EV measurements can be made with a photographic light meter, or by using an in-camera light meter set at an ISO (ASA) value of 100, match the f-stop value reading with the illumination value in the table, see item 3.c below.
   A reflected light meter reading can be made with an 18% reflectance gray card placed at the center of the print area. If using an incident light meter it should be placed at the center of the print area facing the judges.
3. PSA Exhibition Illumination Guide
   Light value (EV) (or) Camera $1/15^{th}$ Sec. @ f-stop below:

10.0	f 8.0
9.5	f 6.5
9.0	f 5.6

4. A print judge may request verification of illumination levels.

F. Uniformity of Illumination

The illumination at the edges of the print should not be more than nor less than 0.5 EV (1/2 f-stop) from that of the center of the print.

G. Judging Angle, and Distance
   1. The center of the print viewing area should be at the eye level of the judges.
   2. Minimum distance for positioning the judges should be 6 times the long dimension of the print. e.g. 8 X 10 inch print = 6 X 10 = 60 inches (5 feet), 16 X 20 inch print = 120 inches (10 feet). In exhibitions accepting both Class A large prints and Class B small prints and using the same panel of judges for both classes, it is recommended that the Class B small prints be judged first and the judges' seating adjusted for the judging of the Class A large prints.
   3 .Judging distances for prints of mixed sizes: As the large print class of PSA International Exhibitions, and some other Competitions, contain a mixture of print sizes it is recommended that the judge's position should be approximately 6-7' from the print.
   4. Judging distances for small print classes should be viewed according to the information given in b. above.

H. Support Area Behind Print
   The print should be placed against a panel that has been painted a medium gray tone using "flat" (non-glossy) paint. The size of this panel should be such that it extends beyond the top and both sides of the print a distance equal to at least one quarter of the long dimension of the maximum size print to be judged. (e.g. 5 inches on each side of a 16 X 20 inch print. Dimensions of this backing area would = 30" X 30", or with Class B prints, 2.5 inches on each side of an 8 X 10 inch print - dimensions = 15" X 15")

J. Light-stand Placement
   When light-stands are used one light may be placed on each side of the print "easel", or other support, above the print and angled downward. The light stands should be angled at approximately 60 degrees from a central viewing position and if necessary they should be "feathered" inward to eliminate any unwanted reflections on the print.

III. ROOM CONDITIONS FOR JUDGING

A. Room arrangements should be designed to produce a minimum of influence on the judging procedure. All distractions should be removed from the judge's field of view. Room lights should remain on.
B. Eliminate any distracting light or reflection directly behind the judging easel, or Print Light Box. Bright light coming through windows, or any other source, should be eliminated.
C. All judging, including the final judging to select medal winners, etc. should take place under identical conditions.
D. Seating for any audience should minimize any annoyance to the judges e.g. public seating should start a minimum of two rows behind the judge's position.
E. Comfortable chairs may be provided for the judges. Rest and/or refreshment breaks can be arranged between the rounds, or more frequently if required.
F. There should be no audible comments or conversation from the audience or the workers that might influence or otherwise distract the judges.
G. If the scoring device is such that an individual judge's score can be recognized before all judges have voted, the scoring device should be out of view of the judges. The final total score may be announced.
H. Soft white cotton darkroom gloves, or medical vinyl gloves should be worn by print handlers at all times.
J. Absolutely no food or beverage should be allowed in the judging room while prints are out of their protective boxes.

IV. LIGHTING FOR PUBLIC PRINT EXHIBITION

A. The lighting for the print exhibition should duplicate as closely as possible the conditions under which the prints were judged. The minimum light value should be acceptable to an informed person.
B. Regular fluorescent room lighting (greenish in color) is not desirable. Supplementary tungsten lighting will help to correct this lighting, as it will bring out the natural color and tones of the prints.

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B2 - JUDGING AND EXHIBITING PHOTOGRAPHIC SLIDES

I. SPECIFICATIONS FOR JUDGING SLIDES

A. Projector Illumination Test

1. Before beginning the test, check the projector lamp for cracks, peeling and/or darkening of its reflectors coating (the (The lamp should be in new or near new condition to be acceptable for judging a PSA Exhibition or Competition. Put an empty "super-slide" mount (40mm square format) in the projector. Turn off all the room lights and eliminate any window, or other light entering the room, as the meter should measure only the projectors "white light" being reflected from the screen.

2. Tests of the projected light being reflected from the screen should be made by using a hand held reflected photographic light meter, or using an in-camera light meter.
   a. Hand Held Reflected Light Meter Test: The overall brightness measurement of the projected image at the screen plane for judging should be a light value (EV) of 8.5 with an upper limit of EV 9 and a lower limit of EV 8. (or)
   b. Camera Meter Projector Illumination Test: Set the ISO (ASA) value at 100 and match the f-stop value reading with the illumination value in the table below. A camera meter should be used with a lens having a focal length wide enough to cover the full "circle" of the white light screen "image".

B. PSA Slide Exhibition, or other Competition, Illumination Guide.

Light value (EV)	(or) f-stop value with shutter @ 1/15th sec.
9.0	f 5.6
8.5	f 4.6
8.0	f 4.0

C. Projection Screen Test for Even Illumination:
Hold a hand held reflected light meter approximately 12" from the screen. Angle the meter so it is not affected by its own shadow, or use a hand held reflected light spot meter, or an in-camera spot meter, to measure the center and the four corners of the projected image on the screen. The illumination at each of the four corners of the screen should not differ from the illumination at the center by more than 0.5 EV (1/2 f-stop). If they are lower check the projector bulb for deterioration, improper installation, and the projector condensers for improper alignment or foreign material.

D. Projection Equipment, and Setup Information
Projection Screen: A screen manufactured for the purpose of viewing projected images should be used. It should be clean and free from all blemishes or damage. It should be a minimum size of 70 inches X 70 inches. A matte white, beaded, lenticular, or other commercially manufactured screen surface may be used for all categories. A matte white screen is preferred.

E. Keystoning:

1. Keystoning is caused by tilting the projector upward to project its image on a perpendicular screen.
2. When using a portable stand projection screen, tip the top of the screen toward the projector until the effect is corrected, then secure-
3. When using a hanging projection screen, the bottom of the screen may be moved back until any keystoning has been corrected then secured.
4. Alternatively, the projector may be raised to the same level as the center of the screen and thus eliminate keystoning. Use two tables (one stacked on top of the other) and place the projector on the top table. Use a third table for the projectionist to stand on (with Carousel or tray-fed projectors, a chair may be placed on the third table for the projectionist to sit). By using this or a similar setup, the projection lens can be raised and any keystoning eliminated. (With this setup, the projection light is above the heads of the judges and the judges may sit closer together for a better angle to view the images.)
5. If none of the above is practical in the judging room (or in the public exhibition) and the projector is below the center of the screen (or above the center of the screen in the case of a sloping-floor auditorium), then the upward or downward angle of the projected light **should not** exceed 10 degrees from the perpendicular to the screen.

F. Correcting a Potential Focusing Problem:
Focusing problems are frustrating for the judges and may be greatly diminished with proper projector positioning relative to the horizontal axis of the screen. Once the projector/screen combination has been set up, place an empty 35mm slide-mount horizontally in the gate of the projector; focus the slide mount edges until they are sharp. Observe each side of the projected white light image on the screen and move the projector (or the screen) from side to side until both sides of the projected "white" image appear to be equal in height. For the best result measure the height of the projected "image" on each side and adjust the projector/screen until the sides are equal. Note: Horizontal correction has a greater effect on focusing than keystoning.

G. Projector Lenses

1. A flat field projection lens **should** be used.
2. Lenses with small apertures restrict the light reaching the screen. Any lens with a larger number than f3.5 **should** be checked using the screen reflectance test above.

H. Judging Distance and Judges

1. The minimum distance for positioning slide judges should be 10 feet from the screen.
2. Members of the judging panel shall be shown several well-exposed images (not part of the entry) of medium density to evaluate the projection illumination. They may request adjusting the screen, the projector, or their seating location to achieve an acceptable projected image and be comfortably seated.

II. ROOM CONDITIONS FOR JUDGING

A. All judging, including the final judging to select medal winners, etc. should take place under identical conditions.
B. Room arrangements should be designed to produce a minimum of influence on the judging procedure. The area surrounding the screen should be free from direct or reflecting light and any other distractions.
C. Seating for the audience should minimize any annoyance to the judges. Public seating should start a minimum of two rows behind the judge's position.
D. Comfortable chairs **may** be provided for the judges, and rest breaks arranged between the rounds, or more frequently if required.
E. There **should** be no audible comments or conversation from the audience or the workers that might influence, or distract the judges.
F. If the scoring device is such that an individual judge's score can be recognized before all judges have voted, the scoring device should be out of view of the judges. The final total score may be announced.
G. Absolutely no food or beverage should be allowed in the judging room while slides are out of their protective boxes.

III. PUBLIC SLIDE SHOW RECOMMENDATIONS

A. Projection Screen:
A matte white screen is preferred and recommended (especially if the area of seating for the audience exceeds a viewing angle of 25 degrees as measured from the screen to the end seats of the audience rows).

B. Projection Lens
When using front projection in medium to large sized auditoriums fast long lenses are required. Shorter focal length lenses may be used closer to the screen with the projector(s) placed on a table within the seating area.

C. When multiple long lenses are being used it is best to "stack" the projectors by placing one above the other, rather than placing them side-by-side:
1. In this way the images will cover the previous image better, and
2. As long and very fast projector lenses have a very shallow depth of field (that may only be a few inches at the screen distance) it may be impossible to properly focus them. See also 4b & 4c above.

D. Projected Image Brightness Increase:
Kodak Extra Bright Lamp Module: This replacement module can be used safely with an EXW projector lamp. This combination will increase the projected brightness on the screen by app. 2/3 of an f-stop. (Check other manufacturers if appropriate.)

E. Podium lights should be angled or shielded so they do not shine on the screen during the public presentation.

IV. PUBLIC HEALTH AND SAFETY:

Public health and safety should always be considered prior to the opening of the public exhibition. Check the following:

A. Exit and aisle lighting
B. Other electrical service/hook-ups (e.g. tape down loose electrical drop-cords that cross public aisles).
C. Public access and egress, steps and stairways.
D. Availability of handicap parking and the entrance to the exhibition area.
E. Public Washrooms
F. Have a public or cellular phone available in case of sickness, injury or other emergencies.
G. Designate someone to turn the lights on and off when required.
H. As public safety laws vary from country to country and from state, the above may or may not be regulated in your area.
J. Fire Extinguishers should be available as a public safety precaution in all judging locations and public exhibition areas in accordance with local public safety regulations.

B3 - JUDGING AND EXHIBITING ELECTRONIC STILL IMAGES

It is recommended that the jpg compressed image file size is to be a maximum of 350 KB. This will provide manageable file handling and adequate quality.

The maximum image pixel size recommended is 1024 pixels in the horizontal dimension and 768 pixels in the vertical dimension. Images may be submitted to the exhibition either by email or on a disk. The method(s) of submitting images is at the discretion of the exhibition and will be so stated on the entry form. Judging of electronic still images may be done by using an electronic projector or by displaying the images on properly calibrated monitors.

I. JUDGING ELECTRONIC STILL IMAGES BY USING A DIGITAL PROJECTOR.

A. Projectors:
If a projector is used in judging still electronic images, or in showing still electronic images at a public showing, it should have the following specifications

Resolution: XGA, 1024 X 768 pixels (minimum)
Brightness: 1000 lumens (minimum)
Contrast Ratio: 400:1 (minimum)
Keystone Correction: Automatic or Manually adjustable.

B. Projector Illumination Test:

1. Test an image that is 1024 X 768 pixels and is filled with white. Turn off all room lights and eliminate any window or other light entering the room. The meter should measure only the projector light reflected from the screen.
2. The test can be conducted by using a hand held reflected light meter, or by using an in-camera light meter.
   a. Hand held reflected light meter test: The overall brightness measurement of the projected image at the screen plane for judging should be a light value (EV) of 9.0 with an upper limit of 11.0 and a lower limit of 8.5.
   b. In-camera meter projector illumination test: Set the ISO value at 100 and match the f-stop value reading with the illumination value in the table below. A camera with a spot meter can be used. If necessary, adjust the projector brightness to meet the illumination criteria.

C. Table: PSA Electronic Imaging Illumination Guide

Light Value (EV)	f-stop value @ 1/30th sec.
11.0	f8
10.0	f5.6
9.5	f4.6
9.0	f4

D. Projection Screen:
A matte white screen, manufactured for the purpose of viewing Projected images, should be used. It should be clean and free from all blemishes or damage. It should be a minimum size of 70 inches X 70 inches.

E. Screen test for even illumination:
Hold a hand held reflected light meter approximately 12" from the screen, or use a hand held reflected light spot meter, or an in-camera spot meter, to measure the center and the four corners of the projected white light image on the screen. The illumination of each of the four corners should not vary from the illumination at the center by more than 0.5 EV (1/2 f-stop).

F. Keystoning:
1. Keystoning may be corrected by using the adjustment on the electronic projector.
2. If necessary, the projector height may be adjusted to eliminate keystoning.
3. In the event the projector should be pointed upward (or downward if in an auditorium with a sloping floor) the resulting angle between the lens axis and a line perpendicular to the screen should not exceed 10 degrees.

G. Focusing:
Focusing of electronic images may be accomplished by using the computer desktop for the image. This should be done before the judging starts. Adjust the distance from the projector to the screen so that the image fills the screen horizontally. Use the lens zoom adjustment if available. Adjust the focus for a sharp image. The electronic projector should hold focus throughout the judging session. Repeat the above procedure if it becomes necessary after a long break or if the equipment has been turned off and on again.

I. JUDGING ELECTRONIC STILL IMAGES USING VIDEO DISPLAY (MONITORS)

A. Electronic equipment and display:
The electronic equipment and video display (monitor) used for judging of electronic images should be calibrated. A monitor calibration color target is available on the EID web-site to check the monitor for correct color. The minimum size of the monitor screen should be 19 inches and have minimum pixel dimensions of 1024 X 768 pixels They should display 24 bit color (8 bits per channel) or better. Judging of electronic still images on monitors may be done on-site (with the judges assembled at one location) or off-site (with each judge at a different location).

B. ON-SITE JUDGING USING MONITORS
1. If judging is done on-site, each judge should be supplied with a separate monitor to view the images. The image changing should be controlled at a central computer so each judge views and votes on the same image at the same time.
2. If the scoring device is such that an individual judge's score can be recognized before all judges have voted, the scoring device should be out of view of the judges. The final total score may be announced.
3. If the judges are not viewing the same image at the same time, one or more scorers should be available to assist in recording the scores of each judge in such a way that the scores of one judge are not revealed to any other judge before the completion of the judging.

C. OFF-SITE (REMOTE) JUDGING
If done off-site, the judging will vary with the number of entrants, sections, and images, and can be done in one day or over a period of several days if necessary.
1. The chairman should choose judges who have technical knowledge of computer equipment as well as the usual judging qualifications. The chairman should furnish these judges with the technical standards necessary for them to calibrate their equipment so there is uniform viewing of all images at each remote location.
2. Remote judging may be done by either one of the following two methods.
   a. On a secure private website.
   The chairman is responsible for setting up a secure private website with a server capable of handling all the images.
   The judging process has two steps: The first is the on-line judging of all submitted images. The second is the selection of the medal winners and honorable mention images where the chairman can either set up a telephone conference call between the judges or a secure emailing conference so the voting can occur instantaneously.

b. If a secure private website is not available:
The chairman writes an entry form and entry rules and posts them on a website. The entrant then fills in the form and sends it along with the images by email (or the images can be put on a disk and mailed along with the entry form to the chairman. The chairman prepares the images for judging using appropriate software which includes a collator that prepares the images in a list for judging, an image viewer, and a scoring report for entering the scores and providing a uniform scoring system. The images and software are placed on CD-ROMs and sent to the judges. The judges score the images with the image viewer, use the scoring report to record the scores, and then email the results in a text file to the chairman. After receiving all the results, the chairman should tabulate the scores. The chairman should then send the judges a list of the images that may be considered for medals and honorable mention and a list of those images that may be re-voted to obtain the necessary number of acceptances for the exhibition. Voting by the judges on these images can be done by secure emailing or by telephone conference.

3. After the judging has been completed, the accepted images can be assembled into an html file for posting the results, as well as the exhibition catalog, on a website. If the accepted images are written to a CD-ROM to be distributed to the entrants, the maximum image size should be 550 pixels in the horizontal dimension and 450 pixels in the vertical dimension.

NOTE: For exhibitions with a large number of entries (over 100 entries) remote (off-site) judging is less suitable than on site judging

III. ROOM CONDITIONS FOR JUDGING (FOR ALL ON-SITE JUDGING)

A. All judging, including the final judging to select medal winners, etc. should take place under identical conditions.

B. If the scoring device is such that an individual judge's score can be recognized before all judges have voted, the scoring device is to be out of view of the judges. The final total score may be announced.

C. Room arrangements should be designed to produce a minimum of influence on the judging procedure. While judging projected images, the area surrounding the screen should be free from direct or reflected light and any other distractions. When judging on a monitor, the area around the monitor(s) should be free of clutter and distracting objects.

D. Seating for the audience should minimize any annoyance to the judges. Public seating should start a minimum of two rows behind the judges' position.

E. Comfortable chairs should be provided for the judges. Rest breaks may be arranged between the rounds, or more frequently if required.

F. There should be no audible comments or conversation from the audience or the workers that might influence, or distract, the judges.

III. PUBLIC SHOW RECOMMENDATIONS

Public showings of the exhibition should be done with a digital projector.

B. Projection Screen:
A matte white screen is preferred and recommended (especially if the area of seating for the audience exceeds a viewing angle of 25 degrees as measured from the screen to the end seats of the audience rows).

C. PUBLIC HEALTH AND SAFETY:
Public health and safety should always be considered prior to the opening of the public exhibition. Check the following:

1. Exit and aisle lighting
2. Other electrical service/hook-ups (e.g. tape down loose electrical drop-cords that cross public aisles).
3. Public access and egress, steps and stairways.
4. Availability of handicap parking and the entrance to the exhibition area.
5. Public Washrooms
6. Have a public or cellular phone available in case of sickness, injury or other emergencies.
7. Designate someone to turn the lights on and off when required.
8. As public safety laws vary from country to country and from state, the above may or may not be regulated in your area.
9. Fire Extinguishers should be available as a public safety precaution in all judging locations and public exhibition areas in accordance with local public safety regulations.

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B4 – JUDGING AND EXHIBITING STEREO IMAGES

I. STEREO SLIDES

A. Projectors:

1. Slides submitted in stereo mountings.
   Slides should be projected with a stereo projector having lamps with a rating of a minimum of 300 watts and a maximum of 750 watts.
2. Slides submitted in 2X2 mounts as stereo pairs.
   Slides should be projected using two matching and properly polarized projectors. The projectors should be aligned so the images from each coincide.

B. Projector Illumination Test

1. Before beginning the test, check the projector lamps for cracks, peeling and darkening of the reflector coating (the lamps should be in new or near new condition). Put an empty "super-slide" mount (40mm square format) in the projectors. Turn off all room lights and eliminate any window or other extraneous light entering the room, as the meter should measure only the projectors' white light being reflected from the screen.
2. Tests of the projected light being reflected from the screen should be made by using a hand held reflected photographic light meter, or by using an in-camera light meter.
   a. Hand held reflected light meter test: The overall brightness measurement of the projected image at the screen plane for judging should be a light value (EV) of 8.5 with an upper limit of EV9 and a lower limit of EV8.
   b. In-camera light meter test: Set the ISO (ASA) value at 100 and match the f-stop reading with the illumination value in the table below. A camera meter should be used with the lens having a focal length wide enough to cover the full white light image projected onto the screen.

3. PSA Exhibition Illumination Guide.

Light Value (EV)	f-stop value with shutter Set at 1/15th sec.
9.0	f5,6
8.5	f4.6
8.0	f4.0

4. When using two projectors to show 2X2 mounted stereo pairs, the illumination from each projector should be measured separately and the illumination from one projector should not vary from the illumination of the other projector by more than 0.5 EV (1/2 f-stop).

C. Projection screen:
A screen manufactured for the purpose of viewing projected images should be used. The screen should have a vertical lenticular surface (preferred) or a flat silver surface and be a minimum of 70 inches square. It should be clean and free of all blemishes and damage.
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D. Stereo Viewing Glasses:
Glasses polarized for stereo viewing should be available for judges and others in attendance at the judging and to those who attend a public showing.

E. Medium Format Transparencies:
At the discretion of the exhibition personnel, medium format transparencies may be projected with matched 2¼ projectors in the same manner as 2X2 mounted transparencies or may be viewed in a hand-held viewer.

II. STEREO PRINTS.

A. Stereo cards (Holmes-style views) 7" wide and a maximum height specified by the exhibition committee.

1. Each judge should be provided with a stereoscope. Judges who wear glasses should be provided a stereoscope with a hood wide enough to accommodate the glasses.
2. Stereo prints should be judged with lighting that is comfortable for the judges. Lighting may be by any lamp that provides adequate and even illumination, or by indirect natural (window) light as long as the images are evenly lighted and not washed out by excessive illumination. (Avoid direct sunlight. It is too harsh.) Each judge should use the same type of light to view the prints.

B. Anaglyphs:

1. Judges should be provided with red/cyan glasses for judging anaglyphs.
2. Lighting conditions should be as described under Stereo Cards – Item A2 (above).

C. Over-Under Pairs:
The judging of over-under pairs should be by ViewMagic, or comparable viewer in a lighting condition that eliminates glare.

III. ELECTRONIC STEREO IMAGES:

A. Judging electronic stereo images on a monitor:

1. The electronic equipment and video display (monitor) used for judging of electronic stereo images should be calibrated. A monitor calibration color target is available on the EID web-site to check the monitor for correct color. A minimum size of the monitor screen should be 19 inches and have minimum pixel dimensions of 1024 X 768 pixels. They should display 24-bit color (8 bits per channel) or better. Judging of electronic stereo images may be done on-site (with the judges assembled at one location) or off-site with the judges each at a different location).
2. The judges may use free vision viewing or a stereoscopic viewer. Such viewers should be furnished.
3. For entry specifications, refer to the Consolidated Exhibition Standards (2004). Entrants are requested to email up to 4 attached files, each containing a triplet described below. The body of the email should include contact information for the maker and the title of each submitted image with the corresponding entry number. The subject line of the email should contain the name of the maker and the name of the exhibition. Each attached stereo image should consist of 3 side-by-side chips – one left chip, one right chip, and a repeat of the left chip – each chip not to exceed 360 pixels in width. There should be a small gap, not greater than 10 pixels, between each chip. The total width of the composite stereo image should not exceed 1100 pixels. Such triplet constitutes one stereo image and should be sent by email as a JPEG at 72 dpi resolution and be a file size of about 100 to 500 KB.
4. Exhibitions may develop any other procedure that will achieve the same results as those specified in item 3. (above)

B. Digital projectors may be used to judge stereo images submitted as separate stereo pairs.

1. The digital projectors should be types that do not polarize the light internally.

2. The projectors, used in judging and at a public showing, should have the following specifications:
   Resolution: XGA, 1024 X 768 pixels (minimum)
   Brightness: 1000 lumens (minimum)
   Contrast Ratio: 400:1 (minimum)
   Keystone Correction: Automatic or Manually adjustable.
3. Projector Illumination Test:
   Test an image that is 1024 X 768 pixels and is filled with white. Turn off all room lights and eliminate window or other light entering the room. The meter should measure only the projector light reflected from the screen. The test can be conducted by using a hand held reflected light meter, or by using an in-camera light meter.
   a. Hand held reflected light meter test: The overall brightness measurement of the projected image at the screen plane for judging should be a light value (EV) of 9.0 with an upper limit of 11.0 and a lower limit of 8.5.
   b. In-camera meter projector illumination test: Set the ISO value at 100 and match the f-stop value reading with the illumination value in the table below. A camera with a spot meter can be used If necessary, adjust the projector brightness to meet the illumination criteria.
   c. Table: PSA Electronic Imaging Illumination Guide

Light Value (EV)	f-stop value @ 1/30th sec.
11.0	f8
10.0	f5.6
9.5	f4.6
9.0	f4

4. Projection Screen:
   The projection screen should be as listed under IC above.
5. Stereo Viewing Glasses:
   Glasses polarized for stereo viewing should be available for judges and others in attendance at the judging and to those who attend a public showing.

C. Any information identifying the maker should be removed from the image before it is judged.

E. Judging conditions:
   1. If judging is done on-site, each judge should be supplied with a separate monitor to view the images. Each judge should view and judge the same image at the same time.
   2. If the scoring device is such that an individual judge's score can be recognized before al judges have voted, the scoring device should be out of sight of the judges. The final total score may be announced.
   3. If the judges are not viewing the same image at the same time, one or more scorers should be available to assist in recording the scores of each judge in such a way that the scores of one judge are not revealed to any other judge before the completion of the judging.
   4. If the judging is done off-site, the judging may very with the number of entrants, sections, and images, and can be done in one day or over a period of several days if necessary.
      a. The chairman should choose judges who have technical knowledge of computer equipment as well as the usual judging qualifications. The chairman should furnish these judges with the technical standards necessary for them to calibrate their equipment so there is uniform viewing of all images at each remote location.
      b. Remote judging may be done by either of the following two methods.
         i). On a secure private website:
         The chairman is responsible for setting up a secure website with a server capable of handling all the images. The judging process has two steps: The first is the online judging of all submitted images. The second is the selection of the medal winners and honorable mention images where the chairman can either set up a telephone conference call between the judges or a secure emailing conference so the voting can occur instantaneously.
         ii). If a secure private website is not available:
         The chairman writes an entry form and entry rules and posts them on a website. The entrant then fills in the form and sends it along with the images by email (or the images can be put on a disk and mailed along with the entry form) to the chairman. The chairman prepares the images for judging using appropriate software which includes a collator that prepares the images in a list for judging, an image viewer, and a scoring report for entering the scores and providing a uniform scoring system. The images and software are placed on CD-ROMs and sent to the judges. The judges score the images with the image viewer, use the scoring report to record the scores, and then email the results in a text file to the chairman. After receiving the results, the chairman should tabulate the scores and then send the judges a list of the images that may be considered for medals and honorable mention and a list of those images that may be re-voted to obtain the necessary number of acceptances for the exhibition. Voting by the judges on these images may be done by using a secure emailing or by telephone conference.

F. After the judging has been completed, the accepted images can be assembled into an html file for posting the results as well as the exhibition catalog, on a website. If the accepted images are written to a CD-ROM to be distributed to the entrants, the maximum image size should be 550 pixels in the horizontal dimension and 450 pixels in the vertical dimension

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