

**Proposed Chapter 246-366A WAC, Primary and Secondary Schools
Web Comments Received by August 21, 2008 about Rule Text**

Aug 8 2008 1:46PM WAC 246-366A-115(1): Table 2 lists minimum lighting intensities for several types of spaces in the school. Recommend reducing the minimum illumination level for shower rooms and locker rooms from 20 footcandles to 10 footcandles. Note that these are not average illumination levels, but minimum levels. The minimum lighting levels generally occur along the edges of the room, especially in the corners. State inspectors measure the illumination levels at various points where tasks are being performed in a room, not necessarily in the corners. Depending on the reflectance of the paint on the walls, it is often necessary to provide an average illumination nearly double the specified minimum levels in order to achieve the required minimum levels along the edges of the room. Nevertheless, in most cases the minimum levels specified in Table 2 are reasonable. The objection here is to the requirement for 20 footcandles minimum in shower rooms and locker rooms. IESNA is an organization that publishes design and application recommendations for the lighting industry. IESNA recommends 10 footcandles for locker rooms, and we have seen locker rooms lit to that level where the lighting was more than adequate for the tasks to be performed. If the minimum level in Table 2 for locker rooms were dropped to 10 footcandles, to achieve that minimum level, the average illumination in the locker rooms would still be in the 15 to 20 footcandles range. The current requirement for 20 footcandles minimum is overkill. Lowering the minimum illumination level in these spaces would allow for energy savings without compromising the health or safety of the students. In spite of the above comment, in the other cases the minimum levels specified in Table 2 seem reasonable. For reading #2 pencil, ball-point pen and 8-point to 10-point type, IESNA recommends 30 footcandles of illumination, which corresponds to the 30 footcandles required by Table 2 for classrooms. For laboratory work, rough bench or machine work, drafting on high-contrast media, and graphic design in moderate detail with photographs, IESNA recommends 50 footcandles of illumination, which corresponds to the 50 footcandles required by Table 2 for science laboratories, shops, drafting rooms, and arts and crafts rooms. For gymnasiums in educational facilities where basketball is to be played, the illumination recommended by IESNA is 50 footcandles, which is higher than the 20 footcandles minimum level for gymnasiums in Table 2; but the minimum level normally occurs around the edges of the gymnasium, not on the playing court, so 20 footcandles minimum for a gymnasium is still quite reasonable. Thus these minimum levels seem appropriate enough, except for the 20 footcandles minimum for shower rooms and locker rooms.

Aug 8 2008 1:51PM WAC 246-366A-060(3): This paragraph requires sun control to exclude direct sunlight, but only for angles higher than 42 degrees. This does not seem to make sense for Washington. Recommend that this paragraph be rewritten to clarify the intent. This paragraph does not require the sun control to be fixed, so presumably blinds would meet the requirement. But why would sun angles below 42 degrees be an exception? In Spokane, even at noon the sun never reaches an angle of 42 degrees above the horizon from September 22 to March 19, which is most of the school year. Fixed-position shading for March 21 to September 21 is already covered in IEQ1.2 of the Washington Sustainable Schools Protocol, where it is optional. Such fixed shading may not always make sense for Washington schools. The idea may have originated from a California requirement that applies to south-facing windows, and is designed to reduce air conditioning costs. Air conditioning is not as big of an issue in Washington as in California. Much of the school year we are heating the school buildings. If our state is going to have a rule regarding sun control, more thought should go into writing the rule so that it applies specifically to the needs of schools in our state.