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IES RP-4-13

Recommended Practice for Library Lighting

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Publication of this Recommended Practice has been approved by the IES. Suggestions for revisions should be directed to the IES.

Prepared by:
IES Library Lighting Committee

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Cover image: Minneapolis Central Library – Children's Reading Room
Computers are available throughout the building, in every reading room, even those meant for the youngest users. The lighting design must respond to the density and variety of electronic media. Photo – © Paul Crosby Architectural Photography

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1.0 INTRODUCTION

The last time the IES published a "Recommended Practice of Library Lighting" was in July 1973. Much has changed since then. New lighting techniques and equipment as well as new and more efficient light sources provide the lighting designer with the tools to meet the varied visual tasks encountered in today's libraries. This document has been written for use by lighting design professionals, architects, engineers, library administrators, librarians and educators to provide useful practical information that will help produce an energy efficient and pleasing lighted environment.

This new Recommended Practice provides design criteria for the many different types of spaces found within today's libraries. This document addresses the many and varied visual tasks encountered by users and staff during the course of their activities in libraries of all types. As energy criteria have gained predominance throughout our society, so too has a focus on light quality. The relationship between energy demand and light quality is evident within this document.

With the diversity of tasks occurring within a library, as well as the differing ages of the target audience, it is not possible to provide complete comprehensive recommendations for every possible situation. It will always be necessary for the lighting designer to have a clear understanding of the visual tasks and the demographic of the primary audience to determine if the recommendations presented in this document are appropriate to the actual conditions encountered and to make the modifications required.

2.0 TYPES OF LIBRARIES AND TASKS

The physical nature of libraries has changed significantly since this Recommended Practice was last published. Among the features that have become common in libraries since then are: hard-wired computer workstations, wireless communications systems, laptop computers and electronic readers, increasing numbers of meeting spaces (ranging from large meeting rooms to conference rooms and auditoriums to small study rooms), computer and digital content creation labs, book stacks open to library users, compact shelving, improved accessibility for users with disabilities, and increasing emphasis on flexible, multi-function library spaces. Each of these new features has led to changes in library building design, library illumination requirements and controls.

2.1 Types of Libraries

Librarians divide libraries into four basic types: public libraries, school libraries, special libraries, and

Figure 1: St. Paul Central Library first opened its doors to the public in 1917. During the 90 years that followed, the original architecture of the grand reading room had been concealed and the lighting "updated". The architecture of the space has been restored to its original beauty and the latest lighting update includes historically re-created lighting that dims in response to available daylight. St. Paul Central Library (Image courtesy of Assassi Productions)

academic and research libraries. Librarians see the distinctions among these types as important, and the profession is organized on that basis. All types of libraries have basic functions and lighting needs in common. All have shelving and other storage for books and other library materials, work space for users, and work space for staff. All need low-glare lighting suitable for a variety of tasks, including reading and computer use. Some of the greatest lighting challenges occur in the many surviving historic libraries (see **Figure 1**).

2.1.1 Public Libraries Public libraries are libraries for general public use. The majority are government owned, but a significant number are private. Most community public library systems consist of a single building providing all the required library functions. However, larger library service areas may be served by central libraries supplemented by one or more branches. Public library buildings vary in size, but most are less than 100,000 square feet, and the majority of them are much smaller. Virtually all public libraries include book stacks (shelving arranged in rows), study tables, public computer workstations, soft seating and lounge areas, play spaces for children, exhibit spaces, staff service desks, multifunction meeting rooms, study rooms, story hour and craft rooms, widespread use of laptop computers supported by wireless service, computer labs, special collections (typically local history and genealogy), staff workspaces, restrooms, server rooms, exterior walk-up and drive-up services. Some public libraries have bookmobile garages.

Large central public libraries may have auditoriums with sloped floors for major programs, large book stack units, major exhibit spaces, central administrative offices, and housing for delivery vans to transfer material to branches.

2.1.2 School Libraries School libraries serve elementary and secondary schools. These libraries exist to support the curricular needs of their schools. The majority of school libraries are relatively small, with all services except staff workspaces provided in a single room. Like small public libraries, school libraries have shelving, reading tables, computer workstations, and wireless service, but they typically lack soft seating for leisure reading. Almost all have enough seating to allow an entire class to visit. Depending on the mission of the individual library, a school library may incorporate computer labs, staging areas for the school's audio-visual services, and other facilities to meet special requirements.

2.1.3 Special Libraries Special libraries serve institutions with specific needs for information and for support of research in narrowly-defined areas. The most common special libraries are medical and law libraries, but there are thousands of special libraries serving businesses, government agencies, associations, and industries. Physically, special libraries are much like other small libraries; the primary distinction between special libraries and other libraries lies in the intense subject expertise of their staffs and the high level of sophisticated personal service they provide to their sponsoring agencies. Special libraries have many of the same characteristics and requirements as academic and research libraries. Frequently, special libraries consist of one or two rooms in larger structures.

2.1.4 Academic and Research Libraries The majority of academic and research libraries serve colleges and universities, where they support both curriculum and research. They vary widely in size, reflecting academic scope and the caliber of the institutions they serve. Undergraduate libraries serve undergraduate colleges, but they can also be found as separate units in large universities, where the comprehensive research collections may have restricted access. Some departmental libraries in university libraries are structurally similar to special libraries.

Figure 2: Adjustable accent lighting emphasizes the verticality of the room and exhibit features. Dimmable lamp sources with UV filters assure the lighting respects conservation criteria. William Jefferson Clinton Presidential Library. (Photo ©Paul Goldberger/Esto)

Academic libraries store books both in perimeter shelving in reading rooms and in book stack units. Seating is commonly provided at reading tables, carrels, and soft seating.

Academic libraries have computer workstations in a variety of configurations, including various groupings such as "information commons." Virtually all academic libraries provide wireless high-speed internet access, and seating throughout libraries must be