# JUDICIAL COUNCIL OF CALIFORNIA

**BID SPECIFICATION**

# EXHIBIT A



1. **SCOPE**

This section defines the technical and environmental requirements pertaining to the furniture standards.

# APPLICABLE SPECIFICATIONS / STANDARDS / CODES

The following standards, laws and regulations of the issue in effect on the date of the Request for Proposal (RFQ).

* 1. California Health and Safety Code §108920 - Limits presence of “Penta BDE” or “octaBDE”
  2. Air Toxics Hot Spots Information and Assessment Act – AB 2588, Connelly, as amended by SB1731, Calderon.
  3. California Code of Regulations (CCR), Title 17 §93120.2 – Air Toxic Control Measure to Reduce Formaldehyde Emission from Composite Wood Products.
  4. Appliance Efficiency Regulations, CCR, Title 20, Sections 1601through 1608
  5. California Public Contract Code (PCC), Division 2, Part 2, Chapter 6, Sections 12400-12404 - Environmentally Preferable Purchasing (EPP)
  6. American National Standards Institute / Business and Institution Furniture Manufacturer’s Association (ANSI/BIFMA) Standards M7.1-2011 Standard Test Method for Determining VOC Emissions From Office Furniture Systems, Components and Seating.
  7. ANSI/BIFMA X7.1-2011 Standard for Formaldehyde and TVOC Emissions of Low- emitting Office Furniture and Seating
  8. ANSI/BIFMA e3-2012 and e3-2014 Furniture Sustainability Standard.
  9. Illuminating Engineering Society (IES) LM-79-2008, Approved Method for the Electrical and Photometric Testing of Solid-State Lighting Devices.
  10. ANSI/BIFMA X5.6-2010, Panel Systems Tests
  11. ANSI/BIFMA X5.9-2012, Storage Units – Tests
  12. ASTM C423, Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
  13. ASTM E90, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
  14. ASTM E413, Classification for Rating Sound Insulation
  15. ASTM E84, Standard Test Method for Surface Burning Characteristics of Building Materials
  16. UL 723, Standard for Test for Surface Burning Characteristics of Building Materials
  17. NFPA 255, Standard Method of Test of Surface Burning Characteristics of Building Materials
  18. ASTM D5034, Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)
  19. UL 1286, Standard for Office Furnishings
  20. NEC, National Electrical Codes
  21. AATCC 16.2 and AATCC 16.3, (American Association of Textile Chemists and Colorists)
  22. NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films
  23. California Health and safety Code, Article 10.02. Lighting Toxics Reduction, section 25210.9-25210.12
  24. California technical bulletin TB133
  25. California technical bulletin CA117 - 2015

# TECHNICAL REQUIREMENTS

* 1. **Computer Aided Design and Design Work Requirements:**

# Drawings and Specifications

Drawings and specifications are based on space plans provided by JCC, Architect or other. The contractor shall utilize AutoCAD Architecture 2013 or newer version. In addition, the contractor shall produce three-dimensional drawings of workstations, which are compatible with AutoCAD Architecture 2013 or newer version to develop assembly plans and order lists.

# Check Plot Drawings Requirements

The contractor must return “Check Plot Drawings” (two hard copy sets) and product specifications to JCC.Check Plot Drawings are drawings based on space plans provided by JCC, generated by the contractor utilizing contractor software. Check Plot Drawings must include a 2- D drawing of all furniture submitted and a 3-D drawings of the typical workstations and/or workstation clusters. JCC is responsible for obtaining an authorized signature from the

court. JCC will return one (1) set of Check Plot Drawings to the contractor stamped “Approved”. Approved Check Plot Drawings indicate authorization for the contractor to proceed with the final assembly drawings.

# Field Verification for Building Accuracy Requirements

The contractor shall be responsible for “field verification for building accuracy” of all assembly of furniture systems, freestanding furnishings and all other items procured, for building shell accuracy. The contractor must verify all building conditions, which may impact the furniture system’s, freestanding furnishing and all items procured and any assembly requirements prior to order placement. The contractor shall be responsible for complete and accurate assembly drawings based on field dimensions and conditions. The contractor shall, prior to beginning furniture specifications, immediately notify the party that submitted the project, of any deviations or inconsistencies with the building shell, including any unusual assembly requirements for the project.

The fee for the field verification service shall be based on an hourly rate in Attachment F, for the life of the contract.

There will be no charges for lodging, travel time, bridge tolls, etc. Only actual hours at the job site will be chargeable under the resulting contract.

# Minor Changes to Check Plot Drawings Requirements

Minor changes by the JCC to the issuance of Final Assembly Drawings shall be accomplished in a timely manner. Minor changes to Check Plot Drawings do not constitute “re-work”. Minor changes may be “bubbled” and indicated directly on the Check Plot Drawings and does not constitute re-work.

# Re-work By Contractor Requirements

If it is necessary to make directed revisions to the plans more extensively than minor changes prior to the “approved” Check Plot Drawings/plans that have been submitted to the contractor; this constitutes “re-work”. For re-work, the contractor is entitled to charge for revisions based upon the hourly rate bid in Attachment F. Upon request, the contractor shall be entitled to written authorization from JCC for this revision of work.

# Purchase Order Cancellation Fee Requirements

Projects for which design services/plans have been completed and returned to JCC for issuance of a purchase order that does not result in an actual purchase order – and/or as a result of a purchase order will be paid out for service rendered up to the time of cancellation.

# Final Assembly Drawings Requirements

After receipt of the JCC approved check plot drawings and specifications, the contractor shall complete and return final assembly drawings and product specifications within fifteen (15) business days. The JCC or ordering department may request up to ten (10) colored drawings on projects greater than one hundred and fifty (150) workstations, and six (6) sets of drawings on projects less than one hundred and fifty (150) workstations.

# Outsourcing of Design Work Requirements

The contractor may outsource the design work at any time; however, no increase in timeframes will be given. At no additional cost to the JCC, contractor shall coordinate with JCC staff and shall also meet with JCC staff when requested by the JCC.

# Certification of Plans Requirements

The contractor shall certify that all JCC space plans are reviewed for correct product application and stability. The contractor shall, prior to completing furniture layout plans, immediately notify the JCC point of contact that submitted the project, of any deviations or inconsistencies with product capabilities, including any unusual assembly requirements of the project.

# Parts Specification List Requirements

The contractor is responsible for accurately specifying all necessary parts, including but not limited to electrical components, connectors, fillers, and trim pieces and including them in the product specification list. If corrective action is required, the contractor shall pay for the parts and for the quick shipment (if an emergency, shipment will be completed within forty-eight (48) hours) of these parts.

When buildings cannot be occupied as a direct result of the need for corrective action, the contractor shall be held responsible for the associated additional costs incurred by the JCC. Additional costs may include (but not limited to) double rents, construction delay penalties, or other related associated costs, etc.

# Design Work Requirements

The definition of Design Work is work that is given to the contractor as Non- Directed Work. The contractor shall provide any of the following services at a rate bid in Attachment F for the life of the contract; scaled plans (typically 1/8” to 1’-0”) depicting the building shell, workstation panel layouts, panel widths and heights, and “typical” workstations layouts, office layout and any other space where furniture is provided by the contractor. If three (3) workstation types are included in the plan, then details of the basic three (3) workstation types will be provided and so on per typical. If special areas, team spaces, or one-of-a-kind workstations are required, the contractor will provide details of these items. The contractor will not provide details of “flip/flop” or “reversed” (mirror-image) layouts. The contractor drawings shall also include requirements for hardwiring the panel systems to the building, telephone and electrical locations.

# Introduction to Technical Specifications

Bidders shall furnish, for each modular systems furniture series proposed, office space, open space and any other furniture and equipment provide by the contractor, supporting documents including but not limited to published literature, production specifications, sales brochures, independent lab test results, etc., to demonstrate that the proposed furniture and equipment meet all of the specifications. Statements made by the bidder that are not supported by published literature or test results as applicable will not constitute satisfactory proof and will not be accepted as such. Bidders may propose solutions that incorporate components from more than one line of furniture; the bidder’s response must be clearly cross-referenced to the specification to which it applies.

Parts used from other product lines shall be compatible and shall also meet specification requirements of this RFQ. JCC reserves the right to accept or reject the proposal.

Covered under this RFQ are modular systems furniture components and accessories which include: panels, work surfaces, adjustable work surfaces, free-standing components and accessories, workstation shelving, overhead storage, mountable tack-boards, pedestals, paper management systems, task lighting and all furniture and equipment proposed by the contractor.

# Scope Technical Specifications

This specification establishes the minimum technical requirements for JCC for modular systems furniture (tile & frame). All modular systems furniture shall be complete with re-locatable components of systems furniture, including but not limited to (see table on next page):

|  |  |
| --- | --- |
| * Standard panels | * Panel connectors |
| * Corner posts | * Work surfaces |
| * Vertical storage cabinets | * File/storage units |
| * Pedestals | * Task lights |
| * Work surface support brackets | * Wiring channels |
| * Power feeds | * Electronic support components |
| * Top caps, | * Base covers |
| * Miscellaneous connectors |  |

Intended for long- term use in offices occupied by the JCC, all modular systems furniture shall be designed for ease of field assembly, disassembly and r e -configuration, which shall be accomplished with a minimum number of tools and special hardware. All modular systems furniture shall also be designed to easily facilitate lifting for carpet installation. Any applicable ANSI/BIFMA standards, though not specifically cited, shall apply.

General Testing Requirements:

* + - 1. All Bidders shall confirm that the offered Modular Systems Furniture (MSF) was tested according to all tests listed in table “A” (see below), and MSF is compliant to all the requirements of this document.
      2. JCC reserves the right to require proof of actual tests. Testing must be verifiable. All signed test reports shall be submitted within five (5) working days of a request from the JCC.
      3. Manufacturer of MSF shall be certified to ISO 9001-latest edition. Copy of ISO 9001 certificate shall be submitted with the bid.
      4. Unless otherwise specified testing shall be conducted by an independent testing laboratory, or testing may be performed by the manufacturer at their laboratory.

Note: Please see Section 4 of this specification (Environmental Specifications) for Environmental testing, certification, and submission requirements.

* + - 1. Unless otherwise specified test report(s) shall be submitted within five

(5) working days of the request from the JCC.

At a minimum test report shall have the following:

Title of the report, name of the testing laboratory, report number, name of the client, identification of the item tested, identification of the test method(s) used, the name(s) and title of the person(s) authorizing the test report, date of issue of the report, and test results with unit of measurements (where applicable) and statement of compliance/non- compliance (i.e. Pass/Fail) with the requirement and/or specifications.

* + - 1. If the offered Modular systems furniture has been tested to compliance to all of the tests listed, the JCC may accept the test data for a system that is similar in construction and material. If a bidder is submitting test data for a system that is similar to the offered product line, the bidder must demonstrate and certify that the offered system shall meet or exceed the requirements of that test. The submitted compliance document must be signed by the testing facility manager.

# TABLE “A”

|  |  |
| --- | --- |
| **No**. | **Test Standards (see Notes below)** |
| 1. | ANSI/BIFMA X5.6 |
| 2. | ANSI/BIFMA X5.9 |
| 3 | ANSI/BIFMA M7.1 |
| 4 | BIFMA level® e3 |
| 5 | ASTM C423, E90/E-413 |
| 6 | ASTM E84/UL 723/NFPA 255 |
| 7 | ASTM D 5034 |
| 8 | UL 1286 |
| 9 | NEC |
| 10 | AATCC 16.2, Option 1 or AATCC 16.3, Option 3 |
| 11 | NFPA-701 |

Notes:

* All standards shall be of latest edition.
* In case of product refresh or product substitution, the substituted product shall be certified to the latest version of the standard in effect at the time of the substitution.

# MSF General Minimum Requirements

* + 1. **MSF and Components Requirements**

The offered MSF and all its components shall meet or exceed applicable test and performance standards prescribed in ANSI/BIFMA applicable standard. Details, finishes, colors and materials shall be consistent throughout. All items of systems furniture purchased under this specification must display good quality workmanship and must be free from sharp edges or burrs and any other defects which compromise their use, operation, or are harmful to persons or materials in contact with them.

# Panel System

The offered MSF shall be a tile and frame and monolithic panel system with removable tiles that comes in an assortment of heights and widths, which are applied to a rigid metal frame.

# Metal Components Requirements

All metal components shall be fabricated from top quality metal raw materials. Surfaces shall be free from pits, scale and other defects. All welds shall be ground smooth and all seams shall be flush.

# Mounting Hardware Requirements

All mounting hardware shall be concealed from view and feature safety locking devices or be manufactured in such a manner to prevent accidental dislodging. Exposed fasteners (i.e., screw heads, bolts and hinges) are not permitted. All connectors and fasteners shall be capable of being installed and dismantled without damage to panels or adjacent surfaces. All panel joints shall be designed to provide a continuous connection between panels, serving as an effective barrier against transmission of light and sound.

# Fabric General Requirements

Bidders must offer a minimum of three (3) grade level/price group fabrics, with “Grade A” or “Grade 1” being the lowest price group and “Grade C” or “Grade 3” being the highest price group. Each group shall be available in multiple patterns and in multiple colors including light colored fabrics. All offered fabric shall meet the following minimum requirements:

1. Flame Resistance, NFPA 701: Pass 2) Colorfastness to Light, AATCC

16.2 Option 1 or AATCC 16.3 option 3: Class 4 minimum at 40 hours.

3) Breaking strength, ASTM D 5034: 35lbs., minimum in warp & weft.

Unless otherwise specified latest edition of all standards shall be used at the time of manufacturing of the product. See table A, section 3.2.1.

1. Fabric shall be free from defects affecting service or appearance, such as:
   * Weaving irregularities (filling bars, moiré effect, etc.)
   * Dyeing or finishing irregularities (streaking, spotting, etc.), and
   * Other fabric flaws such as knots, burrs, slubs, etc.

Material shall be suited for its intended application allowing no bleed-through of adhesive, no excessive freedom for bowing/skewing when applied according to manufacturer’s instructions.

Bidders shall provide a fabric list with proprietary and non-proprietary fabric. All fabrics shall have Class A fire rating. Samples of fabric are not required at this time.

# Touch latches / U-shaped Pulls Requirements

Touch latches, intergral pulls and/ or U-shaped pulls shall be available for all the storage components.

# Standard Components Requirements

All components shall be standard products as shown in the most recent published price list.

# Product Quality Assurance Requirements

Products must be delivered free of all imperfections, defects, and hazards (see note below), which might affect appearance, normal life, serviceability, or user safety. Products delivered that do not meet this expectation shall be removed and replaced within ten (10) working days.

Note: Hazardous condition shall be removed immediately to prevent injury to the user or staff.

# Workstation Assembly and Disassembly Requirements

Workstations shall permit easy assembly and disassembly. Back-to-back workstations shall be able to be assembled in such a manner that components may be completely removed from one side without disturbing the workstation on the other side.

# Panels Minimum Requirements

* + 1. **Panel Assembly**

Each panel shall be an independent assembly that is capable of being connected with another independent panel.

# Panel Stability

All panels shall stand erect and rest firmly on their bases to assure safety, good appearances, and provide for a stationary work position.

# Panel Resistance to Impact and Loads

Each panel shall be constructed in a manner to prevent warping, twisting, sagging and deflection, without necessitating a counter balanced load. All panel systems must meet or exceed ANSI/BIFMA X5.6 latest edition requirements for mechanical strength and stability at the time of the Bid Proposal.

# Panel and Accessories

All panels shall include all of the necessary accessories (such as side rails, connector hinges, leveling glides, top cap, base raceways cover, cover- brackets, clamps, and braces, etc.) and all panels shall be shipped with all these necessary accessories for the assembly and layout in accordance with the manufacturer’s recommendations.

All panels shall include all standard trim for all exposed panels ends, panel junctions, corners or changes in height must be included.

# Powered Panel

Powered panels shall include a pre-wired or capability of electrical distribution system, flexible power connector, and raceway cover.

# Panel Structural Soundness

Panels must be structurally sound without the use of panel support legs or panel support components.

# Panel Light and Acoustical Seal

Adjacent panels must create a connection that is structurally sound and provides a continuous light and acoustical seal for the entire height of the panel.

# Panel Assembly on Finished Flooring

Panels shall be capable of being assembled over finished flooring without penetration or demarcation or the use of floor fasteners so as to allow for reconfiguration without any floor patching.

# Connection Capability of Panel System

Panels must be capable of connection in a variety of configurations, including connection of different height and connection of two (2), three (3), and four (4) panels from a single point.

# Capability of Assembly and Disassembly

Each panel shall be capable of being connected and disconnected from other panels in a vertical position.

# Tile and Frame Panel System Requirements

* + 1. **Tile and Frame Panel Systems General Requirements**

The tile and frame panel system shall have removable tiles that come in an assortment of heights and widths, which are applied to a rigid metal frame. Each structural frame shall accept stacking frames. All tiles or frames must have a type of enclosures that protects and prevents the tile material from dislodging.

# Tile and Frame Panel Heights

The panels and tiles must be available in a variety of heights. Shortest available frame height shall be ranging from twenty-eight (28) to thirty-two

(32) inches. Total frame height shall be available to at least eighty (80) inches using combination of base frame and stacking frames.

# Tile and Frame Panel Systems Widths

Panels and tiles must be available in a variety of widths, between the ranges from nominal eighteen (18) inches to nominal sixty (60) inches.

# Tile and Frame Panel Systems Thickness

Finished tile and frame panels thickness shall be a minimum of two (2) inches and a maximum of four (4) inches.

# Tile and Frame Panel Finish Options

The choices must include tack-able acoustical fabric, plastic laminate, steel mesh, technology, glazed tempered glass and marker-board.

# Panel System Requirements

* + 1. **Trim, Tops, and End Caps**

Each panel assembly shall include removable plastic, nylon, or painted steel or aluminum (or other durable material, standard to the industry) trim or end caps at both the top and exposed ends. Width of trim or end-cap shall be equal to panel width. Corners and edges shall be eased, radius, or ninety

(90) degree and free from sharp edges.

# Metal Trim, End Caps, and Exposed hardware Finish

The finish for metal trim, end-caps, and exposed hardware shall be either factory applied baked- on enamel or powder coat and must be mar, fade, and chip resistant.

# Suspended Components Support Channels

Each panel shall have vertical support channels along each side of the panel for mounting work surfaces, storage units and other suspended components. These support channels are to be an integral part of the assembled panel and run the full height of both sides of the panel. The support channels shall allow suspended components and work surfaces to be attached along the full length of the channels at 1” space intervals. Support channels must provide flush and level alignment of adjacent components.

# Panel Leveling Glides

Each panel shall be equipped with a minimum of two (2) leveling glides, with at least one at each end to provide uniform height for adjacent panels on uneven floors. The glides shall be manufactured of steel and shall allow vertical adjustment of 1” minimum. Connections to the floor shall not be permitted. Stabilizing feet are not permitted.

# Panel Connections

All panels systems shall provide for “panel to panel” connection. Connectors shall be concealed within finished panel structure. Connections shall allow continuation of lay-in electrical and communications wiring between panels. Connectors shall be reusable to allow for reconfiguration. Connecting posts are allowed only at a ninety (90) degree, two-way, three-way, and four-way connections. All panel connectors “panel to panel” and panel connectors adjacent to a wall or column shall be continuous seals serving as an effective barrier against the transmission of light or sound. Panels shall have the capability of assembly and disassembly in a vertical position and must be non-progressive. All panels shall be capable of being retrofitted or re-configured in the field.

# Panel System Flammability Requirements

* + - 1. All panels shall have a maximum smoke development rating of 450 and a maximum flame spread rating of 25 (Class A) when tested as specified herein.
      2. Face fabrics shall comply with National Fire Protection Association (NFPA) Standard No. 701(latest edition) or shall have a maximum smoke development rating of 450 and a maximum flame spread rating of 25 (Class A).
      3. During the term of the contract if the modular systems furniture’s “construction” or the product’s “material(s)” are changed, new fire tests shall be required. The test report must state the modular systems furniture(s) series and/or the revised product’s material(s) that has been tested.
      4. The test shall be conducted on the entire assembled panel (the complete core, adhesive, decorative fabric, frame, and joining components).
      5. Testing must be conducted on each different fabric, and interior construction.
      6. Additional fabrics may be offered for inclusion under the contract without additional ASTM E-84 testing provided the additional fabrics were tested and compliant to NFPA-701. Latest edition of all standard shall be used.
      7. Alternatively, testing may be conducted in accordance with Underwriter Laboratories (UL) Standard No. 723 or NFPA Standard No. 255. Latest editions of all standard shall be used.
      8. Offered product shall comply with Health and Safety Code 1089 that limits the presence of “pentaBDE” or “octaBDE” to not more than one- tenth (1/10) of 1 percent.

# Panel Acoustics Requirements

* + - 1. The acoustical test for sound absorption and for the Noise Reduction Coefficient (NRC) or Speech Frequency Sound Absorption Average shall be tested per ASTM C-423.
      2. The test shall be conducted on the entire assembled panel.
      3. Both sides of the panel shall be tested.
      4. The test must be conducted on each different construction offered as an acoustical panel.
      5. The test for Sound Transmission and Sound Transmission Class (STC) shall be conducted in accordance with ASTM E-90 and E-413.
      6. All panels designated “acoustical” over sixty (60) inches shall meet the acoustical requirements; Minimum reduction Coefficient (NRC) of

0.5 and a minimum Sound Transmission Coefficient (STC) of 15.

# Work-Surfaces Minimum Requirements

* + 1. **Work-Surfaces General Requirements**

All work-surfaces must permit easy access to cable management and electrical access at panel base and/or the beltline level of panel. Cable access cut outs or equivalent shall be provided in each work surface.

# Work-Surface Brackets and Components

All work-surfaces shall come pre-drilled from the factory with holes to accommodate support brackets and components. All brackets and components shall be attached to underside of work-surface utilizing the factory predrilled holes.

# Work-Surfaces Mounting

All work-surfaces shall be mounted in a manner that ensures firm and rigid support. Work-surface shall be capable of being mounted to the suspended component support channels of the panels. The mounting device(s) shall prevent the work-surface from being accidentally dislodged.

# Work-Surface Brackets

Brackets shall be non-obstructive and not interfere with leg room.

# Work-Surfaces Sizes

Work-surfaces shall be available in a variety of widths and depths to allow for a wide range of configurations and shapes.

# Rectangular Work Surface Width

Rectangular work-surfaces shall be available in widths to match panel widths.

# Rectangular Work Surface Depth

Rectangular work-surfaces must be available in a variety of depths.

# Corner Work Surfaces

Corner work-surfaces shall be available in a variety of lengths and widths to allow for a wide range of configurations. At a minimum all corner work- surfaces shall be available in widths to match panel widths.

# Corner Work-Surface Depth

Corner work-surfaces must be available in a variety of depths.

# Work-Surface End Supports

Supplemental end supports shall be used only under work-surfaces when the workstation configuration does not permit full support by the panels. Both panel-supported and free-standing work surfaces must be included in standard product line, allowing for integration of both types within a workstation.

# Work-Surface Edge Option

All panel systems work-surface edge options shall include flat and smooth edge trim, a T-molding trim. Bidder’s response shall include all of standard edge options, referenced above.

# Work-Surfaces Panel Mounted

All panel mounted work-surfaces must be height adjustable to allow for a wide range of applications. The systems must allow work-surfaces to be mounted in approximately 1” increments from 23” from the floor to full height of the panel. Bidder shall provide minimum height to maximum height measures in their proposal.

# Work Surfaces Material

Work-surfaces shall be a minimum of 1” thick. The work surfaces shall have a finished top surface of high-pressure plastic laminate and shall a protective backing sheet on the bottom side. The work-surfaces shall not be affected by ordinary household solvents and shall be capable of being cleaned with ordinary household cleaning solutions. If metal support brackets are visible, they shall match the color and finish of the trim or shall be in black color.

# Work Surface Support Post Legs

Provide height adjustable post legs with options including casters and glides. Legs shall be adjustable from 26" to 43" heights. Legs shall be attached to underside of work-surface in factory pre-drilled holes.

# Height Adjustable Bases

Provide 2-stage and 3-stage electric height adjustable T-leg base with a variety of work surface shapes in width and depths that coordinate with typical modular furniture layout. Height shall be adjustable from 27" to 50". Provide 2 or 3-leg options. Product shall include memory key pad. Weight rating shall be 300 lbs. minimum, including top. 1.5" per second travel speed. Work surface and base finishes shall coordinate with all available MSF product finishes.

# Drawers and Pedestals Minimum Requirements

* + 1. **File Drawers and Pedestals**

Floor supported and mobile pedestals must have a finished top. All file drawers shall have a minimum extension of 90% ball bearing suspension and anti-rebound devices. All drawers shall be equipped with safety catches to prevent accidental removal. Pedestals shall have field changeable, front mounted locks and bumpers at closure. File drawers shall accept both letter and legal-size file folders. Drawer fronts shall have an integral pull. Pedestals must include a pencil tray and file compressor at no extra charge.

# Pedestal Drawer Fronts

Pedestal drawer fronts may be either mitered steel with radius steel edges or other material with rounded edges. Drawer fronts shall have an integral pull. Touch latches and/or U-shaped pull latches shall also be available.

# Pedestal Types

Pedestal shall be available in three types:

* Suspended
* Floor supported
* Mobile

# Pedestal Construction

With the exception of drawer fronts, pedestals shall be of steel construction.

# Pedestal Height and Depth

Pedestal depth must match work surface depth (+ 0” / -2”). Pedestal height must fit under a 29” high work surface.

# Pedestal Drawers

Pedestals shall be available with 6” high and 12” high drawers. Maximum pedestal size shall have two (2) 12” high drawers.

# Metal Frame

Metal frame assembly and exposed metal surfaces (including inside drawers) shall have either a factory applied baked-on enamel or powder coat finish that is mar, fade, and chip resistant.

# Drawer Locking Option

All drawers shall have locking option with a “keyed alike” configuration option to match all other storage components in the workstation with two (2) keys provided per workstation.

# Shelf and Overhead Cabinets Requirements

* + 1. **Overhead Shelf and Flipper Cabinet**

Overhead shelf and flipper cabinet shall have full back or backstop edge. Flipper cabinet shall have locking mechanism for security purposes and be equipped with retractable door into or onto top of cabinet. Flipper cabinets shall have field changeable lock and bumpers at closure. Door shall utilize a ball bearing, rack and pinion; counter balance or scissors equalizer system. Door shall have an anti-racking design, which is easily operable from the seated position.

# Overhead Shelf / Flipper Cabinet Mounting

Overhead shelf and flipper cabinet shall be able to be mounted to standard panels and lock into place mechanically to prevent accidental dislodging.

# Overhead Flipper Cabinet Hardware

Standard lift option or touch latches and/or U-shaped pulls shall be available.

# Overhead Shelf and Flipper Cabinet Width Size

Overhead shelf and flipper cabinet shall match panel widths.

# Overhead Flipper Cabinet Clearances

Overhead flipper cabinet shall have at least an interior clearance of 12” (measured at center of the cabinet) when the retractable door is open (fully retracted).

# Overhead Flipper Cabinet Finish

All exposed and semi-exposed surfaces shall be finished with either factory applied baked-on enamel or powder finish.

Doors must be available in one or more of the following finishes:

* Factory applied baked on enamel or powder coat finish. Color shall match pedestal and trim colors and must be mar, fade, and chip resistant.
* High-pressure plastic laminate designed for durability, resistance to stains and resistance to heat from ordinary sources. Color shall match work surface color.
* ABS polymer designed for durability, resistance to marring and stains. Color shall match work surface colors.
* Fabric color/pattern shall match that of panels.

# Shelf and Overhead Cabinet

Shelf and overhead cabinets shall have mechanical safety devices to prevent accidental disengagement from the wall panels; and shall remain securely fastened to the wall panels when locked into position.

# Overhead Cabinet

Overhead cabinets shall be able to be operated from a seated position.

# Lock or Handles

Lock or handles on overhead cabinets shall be flush, recessed or protrude no more than 1/4".

* + - 1. Lock or handles on overhead cabinets shall be flush, recessed or protrude no more than ¼”.
      2. Bidder shall indicate where information on shelf and overhead cabinet construction and finishes is located in their bid response.
      3. Bidder shall indicate where information on standard measurements for shelves and overhead cabinets are located in their bid response.

# Lateral File and Storage Units Minimum Requirements

* + 1. **General Minimum**

The manufacturer shall offer lateral files and storage units compatible in height with standard panels. Storage units must have a finished top. Lateral file drawers shall be equipped with a full extension ball bearing suspension. All lateral file drawers shall be equipped with safety latches to prevent accidental removal. Storage units must have field changeable, front mounted locks and bumpers at closure. Lateral file drawers shall be easily gang-locked, and shall accept both letter and legal size filing system. Lateral file drawers shall be available with side-to-side or front-to- back options and shall be easily adjusted in the field to accommodate filing size changes. Lateral file drawers shall have integral pull. Lateral File drawers must have a counterweight if freestanding.

# Lateral File Drawer Front

Lateral file drawer fronts shall be available in the manufacturer’s full range of paint finishes.

# Lateral File and Storage Unit Dimensions

Lateral file and storage units’ widths and depths shall be offered in a complete range of compatible sizes with the panel system, and shall be compatible with the panel standard nominal heights.

# Lateral File Metal Frame Finish

Lateral file metal frame assembly and exposed metal finish shall have a factory applied baked-on enamel or powder coat finish that is mar, fade, and chip resistant. Colors shall be from the manufacturer’s full range of paint finishes.

# Accessories Minimum Requirements

* + 1. **Paper Management Accessories**

Paper management units, consisting of, but not limited to, 24” to 60” rail with in/out trays, vertical paper sorters, shelves and bins shall be available. Paper management unit shall be easily added and moved without tools.

# Keyboard Tray with Mouse Pad

All manufacturers’ systems shall provide a fully articulating keyboard tray with mouse pad support. Keyboard tray must raise, lower, pull forward, recess, and tilt. Keyboard tray sizes shall be compatible with all standard ergonomic keyboard types.

# Locks and Keying Minimum Requirements

* + 1. **Pedestal Drawers and Overhead cabinets**

Drawers, overhead cabinets, and pedestal drawer units shall be capable of having keyed locks.

# Locks and Keying Requirements

Locks shall be field interchangeable. Two (2) matching keys shall be provided for each lock; three (3) master keys and one (1) core-removal key/device shall be provided to the using department or JCC contact. All lock equipment must be clearly labeled/tagged as to the workstation, key number and location. A key schedule shall be submitted to the using department or JCC prior to the assembly of the lock cylinders.

# Removable Lock Cylinders Requirements

Removable lock cylinders shall be field interchangeable and provided with a minimum of one hundred (100) different key options. Keys and lock cylinders shall be factory numbered for ease of replacement. A minimum of one (1) master key shall be provided for each assembly as well as tools for removal of the cylinders.

# Electrical System Requirements

* + 1. **Electrical System/Components Requirements**

All electrical systems shall be in full compliance with the latest edition of NEC and with the latest edition of UL Standard 1286.

# Power Supply System

The power supply system shall provide a minimum of three (3) 20 ampere (minimum 8-wire), three (3) circuit capability with two (2) 20 ampere, 120 volt general circuits and one (1) 20 ampere, 120 volt, isolated ground circuit or two

(2) 20 ampere, 120 volt, isolated ground circuits and one (1) 20 ampere, 120 volt general circuit. A maximum of four (4) workstations shall be connected to any power distribution eight-wire circuit.

# Power System

The power system shall be modular and be able to provide power selectively only at needed locations, and be rearranged without altering or disassembling the panel system. The power system shall have access to any circuit via triplex, duplex, or simplex receptacles. The minimum eight-wire electrical system shall allow circuits to share a common ground or change to sharing and isolated ground in the field with only change of electrical harness or receptacle. Electrical components shall be non-handed for ease of assembly and reconfiguration.

# Receptacles

Each powered panel, 30” wide or wider, shall be capable of having a minimum of four (4), 15 ampere grounded electrical plug-in locations per side. Receptacles shall be commercial grade and identified easily by line/circuit identification numbers, letters or color-codes. Appropriate receptacles shall be indicated with an orange alpha symbol and triangle on the face to identify the isolated ground. Receptacles shall be field interchangeable anywhere along the wiring harness. All panels must be capable of wire management and pass through power harness.

# Base-Feed Modules

Base-feed modules shall supply power to the base panels by plugging into either side or the end of the raceway through connection ports or doors.

# Top Feed Modules

Top-feed modules shall supply power to the panel base through an adjustable height raceway which carries power from hard-wired connection at junction box in ceiling or wall to plug into base raceway.

# Internal Panel to Panel Power Connections

Internal panel-to-panel power connections shall be straight or flexible plug-in and plug-out grounded connections and shall provide multiple circuit type configurations (i.e. 1+2, 2+1, 1+3, 2+2, 3+1, etc.).

# Commercial Grade Receptacles

Receptacles shall be commercial grade and easily identified by line or circuit identification number, letters, or color-codes. Appropriate receptacles shall be indicated with an orange color alpha symbol and triangle on the face to identify the isolated ground. Receptacles shall be field interchangeable anywhere along the wiring harness. All panels must be capable of wire management and pass through power harness.

# In-Feed Modules

In-feed modules shall supply power to the base panels by a conduit built into a panel, or a conduit which attaches to a panel connection post, and shall provide access doors for routing the communication cables.

# Wire Management Capacity Modules

Actual wire management capacity shall allow for wire twist and right angle

corner radius loss.

# Power Communication Distribution Requirements

* + 1. **Raceways**

All powered standard panels shall have a horizontal raceway capable of distributing a minimum of three (3) 20-ampere electrical power circuits (with the capability to expand to six (6), and eight to twelve (8-12) 25 pair communications and data cables. Tile and Frame system’s standard powered panels shall be capable of delivering the aforementioned to the base as well as to the belt-line of the panel.

# Raceways General Requirements

All raceways shall be an integral part of the panel and not a modification to the panel.

# Raceway Cable Capability

All raceways both horizontal and vertical shall permit the installation of cables. All raceways must provide capability of handling “Category 6” cabling.

# Raceway Data and Communication Cabling

In addition to power distribution system the raceway shall also be capable of containing both data and communication cabling without interference from the raceway electrical system.

# Non-Powered Raceway

All non-powered raceways shall be capable of easy field conversion to powered raceways without requiring the workstation to be disassembled.

# Base Covers

Panel covers shall be nylon, plastic, or metal with knock-outs to receive back- to-back electrical outlets as required. Base covers shall be easily removed and replaced to provide quick and easy access to the electrical harnesses and telecommunications. These covers shall be replaceable. All panel bases, 30” wide or wider, shall have a minimum of two (2) knockouts, per panel, per side, for electrical or cable access. All panel bases, 24” to 30” shall have one

(1) knockout per panel, per side. Additionally, the base covers shall be easily opened without the use of special tools and shall seal tightly without any gap. Base covers shall not be secured by magnets and shall not become dislodged by an accidental knock from a shoe or vacuum.

# Communications and Data Minimum Requirements

* + 1. **Communication Modules**

All standard panels shall be able to accommodate industry standard communication modules with knockouts for communication modules on each side of panel.

# Cable Jacks

Panel bases shall be capable of accommodating cable jacks in a way in which they appear to be an integral part of the base.

# Additional Mandatory Technical Requirements

* + 1. **Adjustable Column Support Legs Requirements**

Adjustable column support legs shall be provided under peninsula type work- surfaces. Adjustable column support shall offer height adjustment in 1-inch increment to allow the work-surface to be positioned between 27 inches to 31 inches above the finished floor.

# List of Product Accessories Requirements

Bidder must include a detailed list of all accessories available for the proposed systems. Accessories must include, but not be limited to:

* Tool bars
* Paper management
* Coat Hooks
* Markerboard (i.e. whiteboard)
* Tackboard
* Storage Tower:

Provide 50" to 65" H Wardrobe Tower Storage 24" W x 24" D and other sizes as needed. Provide a variety of configurations including box drawer, file drawers and wardrobe door with hanger.

# Custom Ordered Panels

Bidder shall be able to accommodate requests for “custom” panels and work- surfaces. Custom requirements may include changes to standard widths, heights, and height adjustments to panels and work- surfaces. The awarded bidder will charge for the next larger panel or work-surface by size; then add the manufacturers surcharge.

# Panel System Features

Panels shall be available and/or include the following system features:

* Frosted glass or equivalent for applications that require privacy without blocking light.
* Open frame

# ENVIRONMENTAL SPECIFICATIONS

* 1. **SCOPE**

The law requires, “the procurement or acquisition of goods and services that have a lesser or reduced effect on human health and the environment when compared with competing goods and services that serve the same purpose.” Comparison requires the evaluation of the associated impacts from the product’s raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, disposal, energy efficiency, product performance, durability, safety, the needs of the purchaser, and cost. As part of this solicitation bidders and offered products should be in compliance with the specifications and may receive preference when meeting non-mandatory environmental requirements.

# CERTIFICATIONS

* + 1. BIFMA level® Certification
    2. GREENGUARD Gold Certification
    3. SCS Indoor Advantage™ Gold
    4. ENERGY STAR

# Indoor Air Quality (IAQ) Specifications

This section and its subsections specify the Indoor Air Quality (IAQ) requirements for the Modular systems Furniture (MSF). These requirements are collectively referred as the IAQ Specifications hereafter.

The MSF shall be certified to at least one of the acceptable third-party certifications listed in Sections 4.3.1 through 4.3.3. These certifications indicate that the certified products meet the requirements of the ANSI/BIFMA M7.1 and X7.1 standards for total and individual volatile organic compounds (VOCs) emissions, and the emissions do not exceed the limits acceptable to the JCC. Certifications not listed in these sections are unacceptable for demonstrating compliance with the IAQ specifications. The bidder is responsible for providing proof of certification and the bidder must meet all requirements listed in the Proof of Certification Requirements section of the respective certification. If the proposed MSF is certified to multiple acceptable third-party certifications, the bidder is required to meet the Proof of Certification requirements for only one certification to demonstrate compliance with the IAQ specifications.

The VOC emissions limits referenced in the acceptable certifications are based on the Chronic Reference Exposure Level (CREL) list established by the California Office of Environmental Health Hazard Assessment (OEHHA). Products certified to these certifications may be used to qualify for points in the US Green Building Council's LEED® Green Building Rating Systems.

# ANSI/BIFMA e3 / level® Credit 7.6

The offered MSF may be certified to the BIFMA level® e3-2012 or the BIFMA level® e3-2014 furniture sustainability standard. In order to meet the IAQ specifications, offered products that are BIFMA level® certified shall have received all possible points in Credit 7.6 for “low emitting furniture” as specified in sections 7.6.1, 7.6.2 and 7.6.3 of the BIFMA level® e3-2012 or the BIFMA level® e3-2014 furniture sustainability standard. BIFMA level® certification shall not be used to demonstrate compliance with the IAQ specifications if the offered product is certified without receiving all points specified in level® credit 7.6.

Business & institutional furniture manufacturers association’s (BIFMA) level® certification is a multi-attribute, sustainability standard and third-party certification program for the furniture industry. The certification criteria include energy usage, greenhouse gas (GHG) reporting, material selection, human and ecosystem health impacts, and social actions. The level® certification program uses a scoring system to assess a product or a line of products based on its performance and its associated impacts. Credit 7.6 – low emitting furniture of the level® certification specifies the requirements for furniture emissions. Details of the certification program can be found on the level® website at [www.levelcertified.org.](http://www.levelcertified.org/)

Proof of Certification Requirements:

* + - 1. The bidder shall submit a copy of the BIFMA level® certification with the bid. The certification shall be valid on the bid due date and shall not expire within 30 days after the bid due date.
      2. The bidder shall submit a copy of BIFMA level® Scorecard with the bid. The Scorecard shall indicate all points scored in Credit 7.6.
      3. The offered MSF product line shall be listed on the level® Certified Products database on the bid due date. The database can be found at: <http://levelcertified.org/products2>

# GREENGUARD Gold Certification

The offered MSF may be GREENGUARD Gold certified in order to meet the IAQ specifications.

Underwriters Laboratories (UL) is the provider of GREENGUARD Gold certification for furniture products. Details of the certification program can be found on the UL website at:

<http://greenguard.org/en/CertificationPrograms/CertificationPrograms_childrenSc> hools.aspx

Proof of Certification Requirements:

* + - 1. The bidder shall submit a copy of GREENGUARD Gold Certification with the bid. The certification shall be valid on the bid due date and shall not expire within 30 days after the bid due date.
      2. The offered MSF product line shall be listed on the online UL certified products database on the due date. The online data base can be found at:

[http://productguide.ulenvironment.com/SearchResults.aspx?category=21&](http://productguide.ulenvironment.com/SearchResults.aspx?category=21) SubCategoryID=97

# SCS Indoor Advantage™ Gold

The offered MSF may be SCS Indoor Advantage™ Gold certified in order to meet the IAQ specifications.

SCS Global Services is the provider of Indoor Advantage™ Gold Certification for furniture products. Details of the certification can be found on the SCS Global Services websites at:

[www.scsglobalservices.com/indoor-air-quality-certification](http://www.scsglobalservices.com/indoor-air-quality-certification) Proof of Certification Requirements:

* + - 1. The bidder shall submit a copy of the SCS Indoor Advantage™ Gold certification with the bid. The certification shall be current and valid on the bid due date and shall not expire within 30 days after the bid due date.
      2. the offered MSF product line shall be listed on the online SCS Global Services Certified Green Products Guide database on the bid due date. The database can be found at:

[www.scsglobalservices.com/indoor-air-quality-certification](http://www.scsglobalservices.com/indoor-air-quality-certification)

# Product Refresh / Substitution

In case of product refresh or product substitution, the substitute product shall be certified with the same third-party certification(s) as the original product. The substitute product shall be certified to the latest version of the certification or standard in effect at the time of the substitution.

# Chlorofluorocarbon / Hydro chlorofluorocarbon Restriction

The MSF shall not contain plastic foam that is manufactured or formulated using chlorofluorocarbon (CFCs) or hydro chlorofluorocarbon (HCFCs). Bidder shall submit Attachment Q Statement of Compliance with the bid proposal.

# BIFMA level® Certification (Non-Mandatory)

As an option, the offered MSF may be certified to the BIFMA level® e3-2012 or the BIFMA level® e3-2014 furniture sustainability standard. According to the BIFMA level® certification program, a product or a product line may be certified with a designation of “level 1”, “level 2” and “level 3” depending on the total credits the product receives. A bidder offering BIFMA level® certified MSF will be awarded points in accordance with section 9 – Evaluation and Selection of the solicitation documents. To be eligible for points the bidder must meet the Proof of Certification Requirements listed in section

5.3.1 for the BIFMA e3/level® certification. The MSF shall meet the mandatory IAQ Specifications regardless of the BIFMA level® certification status and designation.

# Task Light Specifications

This section and its subsections specify the mandatory task light requirements for the MSF. These requirements are collectively referred as the Task Light Specifications hereafter. Only task lights meeting the Task Light Specifications shall be offered.

* + 1. Definitions
       1. “Articulated Luminaire” means a portable luminaire with an adjustable arm that allows the lamp to be positioned in all directions.
       2. ”GU-24” means the designation of a lamp holder and socket configuration, based on a coding system by the International Energy Consortium.
       3. “GU-24 adaptor” means a one-piece device, pig-tail, wiring harness, or other such socket/base attachment that connects to a GU-24 socket on one end and provides a different type of socket or connection on the other end.
       4. “Lamp” means an electrical appliance that includes a glass envelope and produces optical radiation for the purpose of visual illumination, designated to be installed into a luminaire by means of an integral lamp holder.
       5. “Lamp Efficacy (LE)” means the measured lumen output of a lamp in lumens divided by the measured lamp electrical power in watts expressed in units of lumens per watt (LPW).
       6. “LED lamp, non-integrated” means an assembly comprised of an LED array (module) or LED packages (components) and an ANSI standards base. The device is intended to connect to the LED driver of an LED luminaire through an ANSI standard lamp-holder (socket). The device cannot be connected directly to the branch circuit.
       7. “LED lamp, integrated” means an integrated assembly comprised of LED packages (components) or LED arrays (modules), LED driver, ANSI standard base and other optical, thermal, mechanical and electrical components. The device is intended to connect directly to the branch circuit through a corresponding ANSI standard lamp holder (socket).
       8. “LED luminaire” means a complete lighting unit consisting of LED-based Light emitting elements and a matched driver together with parts to distribute light, to position and protect the light emitting element, and to connect the unit to a branch circuit. The LED-based lighting emitting elements may take the form of LED packages (components), LED array modules), or LED lamps. The LED luminaire is intended to connect directly to a branch circuit.
       9. “Luminaire efficacy” for LEDs means the luminous efficacy of the LED luminaire, or of the LED light engine with integral heat sink, when tested in accordance with IES LM-79-08. The test methods for LED luminaires using LED lamps and light engines are California Joint Appendix JA8 - 2008, “Testing of Light Emitting Diode Light Sources,” or IES LM-79-08, “Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products,” at manufacturer's option.
       10. “Lumens per watt” (LPW) means “average lamp efficacy (LPW)” as defined in Section 1602(k) of the California Appliance Efficiency Regulations.
       11. “Luminaire” means a complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps and to connect the lamps to the power supply.
       12. “Screw base” means an Edison screw base identified in the American National Standard for Electric Lamp Bases, ANSI IEC C81.61- 2003.
       13. “Task light” means an under cabinet luminaire or an articulated luminaire designed for illuminating a specific work surface.

# Task Lights Documentation

For each offered task light, Bidder shall submit legible, complete, accurate, and verifiable support documentation with the bid proposal. Submitted support documentation must include sufficient information to demonstrate compliance with each requirement in the Task Light Specifications. Statements made by the

bidder that are not supported by support documents do not constitute satisfactory proof and the bidder shall be considered non-responsive to this requirement.

Bidder shall submit, at a minimum, the following support documents with the bid proposal:

* + - 1. A completed Task Lights Work Sheet containing information for all offered task lights
      2. A copy of the lighting manufacturer’s technical information sheet for each unique model number of offered task light
      3. A copy of relevant pages from the MSF manufacturer’s lighting products catalog or technical information sheets

Bidder shall submit additional documentation to demonstrate compliance with the Task Light Specifications if all necessary information is not contained in documents listed in section 4.7.2.a, 4.7.2.b, and 4.7.2.c. Additional documentation may include but not limited to independent testing lab reports, documents posted on public websites, or lighting products sale sheets.

# 4.7.3 General Specifications

# 4.7.3.1 California Appliance Efficiency Regulations

Each task light shall comply with all applicable requirements of California Code of Regulations (CCR), Title 20, Section 1601 through 1608, as known as the California Appliance Efficiency Regulations. In accordance with these regulations, certain types of lamps, under- cabinet luminaires and portable luminaires must meet specific efficacy standards and must be certified to the California Energy Commission (CEC) by the manufacturer before they can be sold or offered for sale in California.

# Luminaire Types

Each task light shall be a fluorescent luminaire or a Light Emitting Diode (LED) luminaire.

# Minimum Luminaire Models

Offered task lights shall include a minimum of one model for each of the following:

* fluorescent articulated luminaire.
* fluorescent under-cabinet luminaire

# Optional LED Task Lights

Bidders may offer LED task lights as an option in addition to the fluorescent task lights.

# Task Lights Restrictions

Each task light shall not be equipped with incandescent lamps or screw base sockets, and shall not contain a GU-24 adapter or other adapters that convert a screw base socket to any other kind of socket or connectors.

# Task Lights Standards

Task lighting shall be listed in accordance with UL-153, 962, 1598, or 2108 as applicable.

# Luminaires

Each luminaire shall be a complete lighting unit consisting of a lamp, or a light emitting element, together with the parts designed to power and distribute the light, and to connect to the power source via a standard power socket.

# Electrical Circuit Requirement

Each task light shall be rated to operate on a 110-120VAC, 50-60Hz circuit.

# Lens, Baffle and Reflector

Each task light shall have a built-in prismatic lens, baffle, reflector system, or other method configured to minimize glare and shield the lamp or light emitting element from the view of a seated user.

# Power Switch

Each task light shall have a built-in power switch to allow the user to independently turn on and off the light.

# Electrical Cord-set

The line-voltage electrical cord for each task light shall be a 6-foot minimum length, factory installed, electrical cord-set. The cord-set shall be UL listed and California Electric Code compliant. The cord-set shall include a factory installed plug.

# Appearance

Each task light shall be aesthetically compatible with the MSF. Task lights shall not adversely affect the performance of any workstation component.

# General Mounting

Each task light shall have structurally sound mounting devices which prevent accidental displacement, and shall allow easy removal and replacement when necessary to permit cleaning and replacement of the lamp or lighting element.

# Defects and Hazards

All task lights must be delivered free of all imperfections, defects, and hazards, which might affect appearance, normal life, serviceability, or user safety. Task lights delivered that do not meet this requirement shall be immediately removed and replaced within ten (10) business days.

# Under Cabinet Task Lights

* + - 1. **Under Cabinet Task Light Size**

Each under cabinet task light shall be approximately the same length as the overhead storage units, or shall have an adjustable mounting system that allows the task light to be located anywhere along the length of the overhead storage units.

# Mounting

Each under cabinet task light shall be capable of mounting beneath overhead shelves and overhead storage units.

# Mounting Orientation

Each under cabinet task light shall be capable of being mounted in orientations that allows the electrical cord can be placed along the left or right side of the luminaire.

# Articulated Task Lights

* + - 1. **Table Base**

Each articulated task light shall be equipped with a fully adjustable arm mounted to a freestanding weighted table base appropriate for the selected MSF.

# Optional Mounting

Each articulated task light may also be capable of being mounted to support components, beneath overhead shelves, under cabinets, or table clamps.

# Adjustable Arm

The adjustable arm shall support the weight of the lamp and housing and shall remain in position without the tightening of knobs, thumb screws, clamps, or other types of fasteners.

# Position Adjustment

The adjustable arm shall allow the lamp or lighting element to be positioned to point in all directions and to be moved vertically and horizontally.

# Fluorescent Task Lights

Fluorescent task lights shall meet the requirements in this section and its subsections.

# Fluorescent Luminaire

Each fluorescent luminaire shall be equipped with the number of linear fluorescent lamp(s) or compact fluorescent lamp(s) that the luminaire is designed to operate.

# Fluorescent Lamp Restrictions

Each task light shall not be equipped with proprietary fluorescent lamp types, including electrical operating systems, lamp sockets, adaptors, or bases. Fluorescent task lights shall have ANSI recognized lamp sockets for which replacement lamps are readily available from a minimum of three (3) manufacturers.

# California Health and Safety Code

Each fluorescent lamp shall be in compliance with the California Health and Safety Code, Article 10.02, Lighting Toxics Reduction, Sections 25210.9-25210.12.

# Fluorescent Lamp

Each fluorescent lamp shall:

* + - * 1. have a minimum rated lamp life of 15,000 hours.
        2. have a maximum lamp diameter of 1 inch (T8 or smaller)
        3. have a minimum Color Rendering Index (CRI) of 80
        4. have a Color Correlated Temperature (CCT) between 2700K and 4100K

# Optional Task Light Specifications

Task lights specifications in this section and its subsections are optional. An offered task light meeting these optional specifications shall also meet the mandatory Task Light Specifications (Section 5.7 and its subsections). A bidder offering task lights that meet the optional specifications in this section and subsections will be awarded points in accordance with Section 9 – Evaluation and Selection of the solicitation documents.

# LED Task Lights

LED task lights may be offered as an option in addition to the fluorescent task lights. An offered LED task light shall meet the requirements in this section and its subsections. Each LED task light shall also meet the Task Light Specifications except for requirements specific to fluorescent task lights.

# LED Luminaire Types

Offered LED task lights may include one or both of the following:

* + - * 1. under cabinet LED luminaire
        2. articulated LED luminaire

# California Appliance Efficiency Regulations

Each offered LED luminaire must be in compliance with CCR, Title 20, Sections 1601-1608, the California Appliance Efficiency Regulations.

# LED Luminaires Requirements

Each LED luminaire must meet requirements in Table 1 – Minimum Requirements for Portable LED Luminaires.

# Table 1 – Minimum Requirements for Portable LED Luminaires

|  |  |
| --- | --- |
| Luminaire Type | LED |
| \*Minimum Light Output | 200 lumens |
| \*Minimum LED Luminaire Efficacy | 29 lumens per Watt |
| Color Correlated Temperature (CCT) | Between 2700K and 5000K |
| Minimum Color Rendering Index (CRI) | 80 |
| Lumen Maintenance (70% of initial light output) | L70, 50,000 hours minimum |
| Total Harmonic Distortion (THD) | 20% Maximum |

\* The proposed task lights shall be tested in accordance with IES LM-79-2008 by a laboratory listed in the U.S. Department (DOE) LED Lighting Facts® Approved Testing Laboratories List under LM-79 sections 9, 10, and 12. DOE’s approved laboratories list can be found at: [www.lightingfacts.com/approvedlabs](http://www.lightingfacts.com/approvedlabs)

# Energy Star

An offered task light may be Energy Star certified. If an Energy Star certified task light is offered then it shall meet all of the following requirements:

# Certification

The offered product must be Energy Star certified by the bid due date.

# Documentation

The bidder shall submit written documentation that verifies the certification of the offered product.

# Energy Star Certified Light Fixtures Database

The offered product shall be listed in the online Energy Star Certified Light Fixtures database on the bid due date. The database can be found at:

<http://www.energystar.gov/productfinder/product/certified-light-> fixtures/results

# Occupancy Sensor

An offered task light may be equipped with an occupancy sensor (OS). A task light equipped with an occupancy sensor shall meet all of the following requirements:

# Occupancy Sensor

The OS shall be an occupancy sensing device that is an integrated part of the luminaire or a modular unit specifically designed to be used with the luminaire.

# Sensor Type Restriction

The luminaire shall not be equipped with or offered with a retrofit OS. A retrofit OS is an independent universal device that switches the power source on and off based on occupancy and it is not specifically designed to be used with the luminaire.

# Sensor Capability

The task light shall be capable of sensing occupancy within a typical workstation.

# Auto On/Off Function

The luminaire shall automatically turn on when occupancy is detected within the workstation. The luminaire shall automatically turn off no sooner than ten (10) minutes after occupancy is not detected within the workstation.

# Greenhouse Gas Reporting Questionnaire

As part of the JCC’s sustainability effort to reduce greenhouse gas (GHG) emissions, the JCC is collecting GHG emissions reporting participation information from its supply chain. The bidder or the MSF manufacturer may participate in a GHG reporting program where companies annually inventory and report their GHG emissions to a governmental or non-governmental organization. Bidders shall complete Attachment R– Greenhouse Gas Reporting Questionnaire to indicate whether or not the bidder or the MSF manufacturer participates in a GHG reporting program. Bidders shall provide information regarding the GHG reporting program as stated in the Questionnaire if the bidder or the MSF manufacturer is a GHG reporting program participant. Bidders are only required to complete and submit Attachment R with the bid for each MSF manufacturer. This specification does not require the bidder or the MSF manufacturer to participate in a GHG reporting program.