Spatial Factors:

Pleasantness: non-uniform lighting is usually the most appealing. The visual clarity will give the total impression of the space.

Spaciousness: The space accommodate the needs of the patrons.

Privacy: soft lighting and warm lighting colors contribute to a more intimate setting.

Relaxation / Energy: light helps to create some spaces calming and some ones energetic according to the activity.

Spatial Definition: The use of lighting can add to or subtract from the overall colors of a space or from only those surfaces the light is meant to enhance. Darker colors make a room feel smaller and cramped, while light-colored walls do the opposite. The illusion of space is defined by light reflected off of the surfaces of the walls. Some types of lighting help with this illusion by further illuminating the walls. Our goal is to use light colored walls where the light will be reflected and help with the illusion of a bigger space.

Spatial Order: The lighting will be create visual attraction to the art features as a sculptures and paintings on wall and small galleries.—Accent lighting—low voltage 6” recessed luminaire and a 50 watt low voltage lamp.

Circulation: The circulation path will be highlighted by slight variations in luminous intensity thus lighting will be used as a way finding tool—Illuminance will define the circulation path.—Pendant Decorative Chandelliers—Incandescent source.

Psychological and Physiological Factors:

Hierarchies and focus: We will use illumination to give the hierarchy and focus to the space designed for the art pieces, using accent lighting for an specific task.

Color-Light Surface: The color of light should make customer feel relaxed, but at the same time reflect the vibrancy of the space.

Day light: Natural light will be enhance the illumination of the space.

Night light: We will use dim night light. The dim light that will be perfect for overnight guests navigating to different spaces and providing a bit of style through colored light and finish.

Task Factors:

Visual Task on the desk: The task light is used to increase illuminance on the reading area. Lamp supplies both ambient light and task light. Freely adjustable.

On the ceiling: Task light illuminate the whole working area. Localized lighting consists of a luminaire that provides ambient light as well as task light. It is intended to be mounted immediately over the workplace, and it is hung from the ceiling. Energy-efficient office architectural luminaire—mounted pendant LED high efficiency.

Luminance: Day light—Natural light will be enhance the illumination of the space and helps to reduce energy consumption during the day.

Levels of luminance will be little to no glare. The patrons of the hostel need to have a clear view of the spaces and for every activity that is taking in place such a café, retail space, juice bar computer lounge and offices.

Surface Reflectance: Our goal is to use light colored walls where the light will be reflected and help with the illusion of a bigger and clean space.

Illuminance: The illuminance levels will be with the appropriate range for every place according to the activity that is taking in place.
**LIGHTING PLAN**

**L1** LGF

- Light Source: Compact Fluorescent, Halogen
- Mounting Type: Recessed
- New Construction or Remodel: New Construction
- Primary Material: Steel
- Product Type: Downlighting, Lamps, Mounting
- Series: LGF
- Shape: Round
- Trim Options: Gasketing
- Trim Style: Lensed
- Voltage Rating: 120, 277, 347, MV/DLT
- Correlated Color Temperature: 3500 K, 4100 K

**L2** Cylinders LED Pendant 5420 Granger LED

- Lamp Included: Optional based on configuration
- Light Distribution: Indirect (0-20% down)
- Light Source: LED
- Mounting Location: Ceiling
- Mounting Type: Pendant
- Product Type: Decorative Indoor
- Series: WPF5420
- Voltage Rating: 120, 277, 347, MV/DLT

**L3** Staple Wall Lens

- Light Source: Fluorescent
- Mounting Type: Wall
- Product Type: Architectural Indoor
- Series: SPWR
- Specification: 120V, 277V or 347V, Pre-wired with 16AWG fixture wires

**L4** Avante® Sconces

- Application Type: Residential, Restaurant, Light Commercial, Architectural Style / Traditional
- Mounting Type: Wall
- Primary Material: Steel
- Product Type: Architectural Indoor
- Series: AVSTK, AVSTR, AVSTWW
- Shape: Rectangular
- Voltage Rating: 120, 130, 208, 230, 239, 240, 250, 277, 347, MV/DLT

**L5** Ferros Vanity

- Application Type: Residential, Restaurant, Light Commercial, Architectural Style / Traditional
- Mounting Type: Wall
- Primary Material: Steel
- Product Type: Architectural Indoor
- Series: FVSTK, FVSTR, FVTWW
- Voltage Rating: 120

**L6** Exit Sien Double Side

- Application Type: Emergency
- Application Type: Exit/Recessed, Emergency
- Battery Included: Yes
- Battery Required: Yes
- Battery Chemistry Type: NiCd
- Battery Powered: Yes
- Battery Charge Time: 24 hours
- Battery Run Time: 90 min
- Battery Voltage: 9.6 volts
- Color: Black, Bronze, Silver, White
FLOOR PLAN

FINISH SCHEDULE

FAUX WOOD CARAMEL CEILING (OFFICE AREA): 18.93% REFLECTANCE VALUE

WHITE PLASTER FOR WALLS: 92% REFLECTANCE VALUE

WHITE TERRAZO FLOORING (CIRCULATION AND OFFICE AREAS): 85% REFLECTANCE VALUE

DARK BAMBOO FLOORING (CAFÉ, INTERNET LOUNG & RECEPTION AREAS): 5.22% REFLECTANCE VALUE
**POINT METHOD CALCULATIONS**

**AREA: RECEPTION** Intensity value of a luminaire in our reception to allow an illuminance of 20 foot candles at a point on a wall (vertical surface) 8’ below and 4’ horizontal.

\[
E = \frac{CP \times \sin \theta}{d^2}
\]

\[d^2 = a^2 + b^2\]

\[d^2 = 8^2 + 4^2\]

\[d^2 = 80\]

\[\tan \theta = \frac{4}{8} = 0.5 = 27^\circ\]

\[\sin 27^\circ = 0.4540\]

\[20\text{fc} = \frac{CP \times 0.4540}{80}\]

\[CP = \frac{20\text{fc} \times 80}{0.4540} = 3,524.22\text{ Luminous Intensity}\]

**LUMEN METHOD CALCULATIONS**

**AREA: OFFICES**

Goal according to use of the space = 50fc
Lamp lumens = 8800 fc
Lamps per luminaire = 6
Task= 2.5' AFF
Area = 12 x 17
Height = 15ft - 2.5 = 12.5ft
Ceiling Reflectance = 80%
Wall = 30%
CU = 0.25
LLF = 0.65

\[RCR = 2.5 \times \frac{H \times \text{PERIMETER}}{\text{AREA}}\]

\[RCR = 2.5 \times \frac{12.5 \times 58}{204} = 8.884\]

\[\frac{\text{Number of Luminaries}}{50 fc \times 204} = 1.18\]

\[\text{Number of Luminaries} = \frac{8800 \times 6 \times 0.25 \times 0.65}{50 fc \times 204} = 4.9\]

1 Luminaire per office
ART CORREDOR AND RESTROOMS
**SCHEMATIC DESIGN LIGHTING SCHEDULE**

**ART CORREDOR AND RESTROOMS**

| Symbol | Tag | Ambient (K) | Focused (F) | Task (T) | Illuminance Goal | Spacing Criteria | Illuminance Achieved | Lamp | CT or CCT | CRI | Watts / Fixtures | # Fixtures | Total Watts / Fixtures Type | *Goals Addressed*
|--------|-----|-------------|-------------|----------|-----------------|------------------|---------------------|------|------------|-----|----------------|-----------|--------------------------|-----------------
| ![Image](image1.png) | L1 | F | 12 X 8 | 6fc | Recessed fluorescent | 3500 k | 26.5 | 15 | 397.5 | Power Density 0.28 w/ft² |
| ![Image](image2.png) | L2 | F | 12 X 8 | 5fc | Pendant LED | 132 | 6 | 792 | Power Density 0.57 w/ft² |
| ![Image](image3.png) | L3 | T | 8 X 12 | 6fc | Wall fluorescent | 32 | 6 | 192 | Power Density 0.14 w/ft² |

**OFFICE & RECEPTION**

| Symbol | Tag | Ambient (K) | Focused (F) | Task (T) | Illuminance Goal | Spacing Criteria | Illuminance Achieved | Lamp | CT or CCT | CRI | Watts / Fixtures | # Fixtures | Total Watts / Fixtures Type | *Goals Addressed*
|--------|-----|-------------|-------------|----------|-----------------|------------------|---------------------|------|------------|-----|----------------|-----------|--------------------------|-----------------
| ![Image](image4.png) | L1 | F | 6 x 4 | 15 fc | Recessed fluorescent | 3500 k | 26.5 | 40 | 1060 | Power Density 0.76 w/ft² |
| ![Image](image5.png) | L2 | F | 10 x 10 | 14 fc | Pendant LED | 132 | 12 | 1584 | Power Density 1.17 w/ft² |

**LOUNGE, CAFÉ INTERNET & LOBBY**

| Symbol | Tag | Ambient (K) | Focused (F) | Task (T) | Illuminance Goal | Spacing Criteria | Illuminance Achieved | Lamp | CT or CCT | CRI | Watts / Fixtures | # Fixtures | Total Watts / Fixtures Type | *Goals Addressed*
|--------|-----|-------------|-------------|----------|-----------------|------------------|---------------------|------|------------|-----|----------------|-----------|--------------------------|-----------------
| ![Image](image6.png) | L4 | A | 14 X 14 | 1 fc | Sconces fluorescent | 3500 k | 29 | 6 | 174 | Power Density 0.13 w/ft² |
| ![Image](image7.png) | L1 | F | 6 x 4 | 15 fc | Recessed fluorescent | 3500 k | 26.5 | 40 | 1060 | Power Density 0.76 w/ft² |
| ![Image](image8.png) | L2 | F | 10 x 10 | 14 fc | Pendant LED | 132 | 12 | 1584 | Power Density 1.17 w/ft² |

**Notes:**

- The Tag is the reference to the fixture specification - Image, fixture type (pendant, wall wash, etc.), manufacturer, fixture name and catalog number, lamp (repeated from schedule above) dimensions, mounting height.