



# Best Practices for Healthcare Lighting

## Patient Room



**CHAD**  
National Sales Manager



**AMANDA**  
Regional Sales Manager, West



**SCOTT**  
Regional Sales Manager, Central



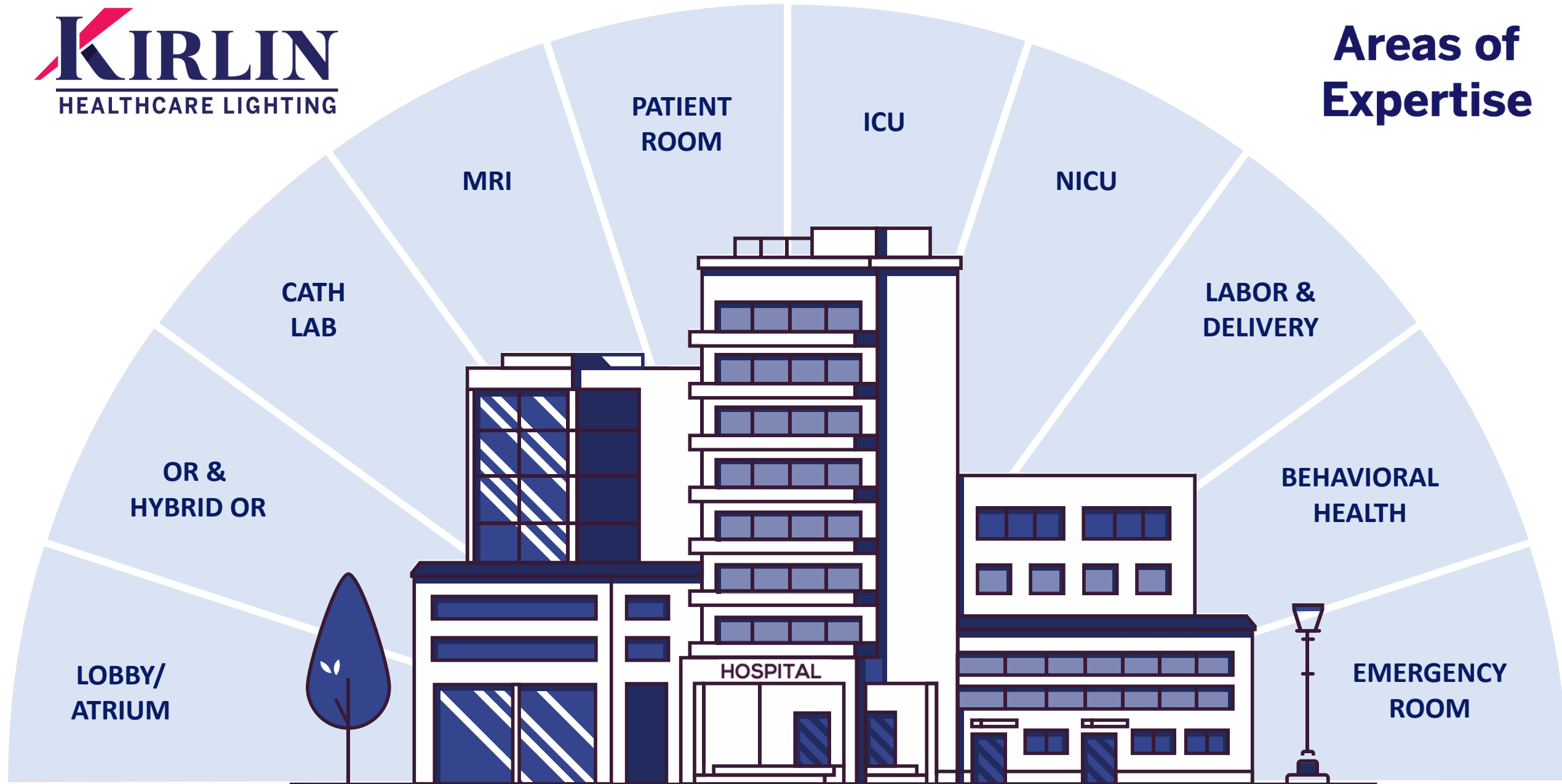
**CHRIS**  
VP Sales & Marketing

# Kirlin's Key Focus Areas

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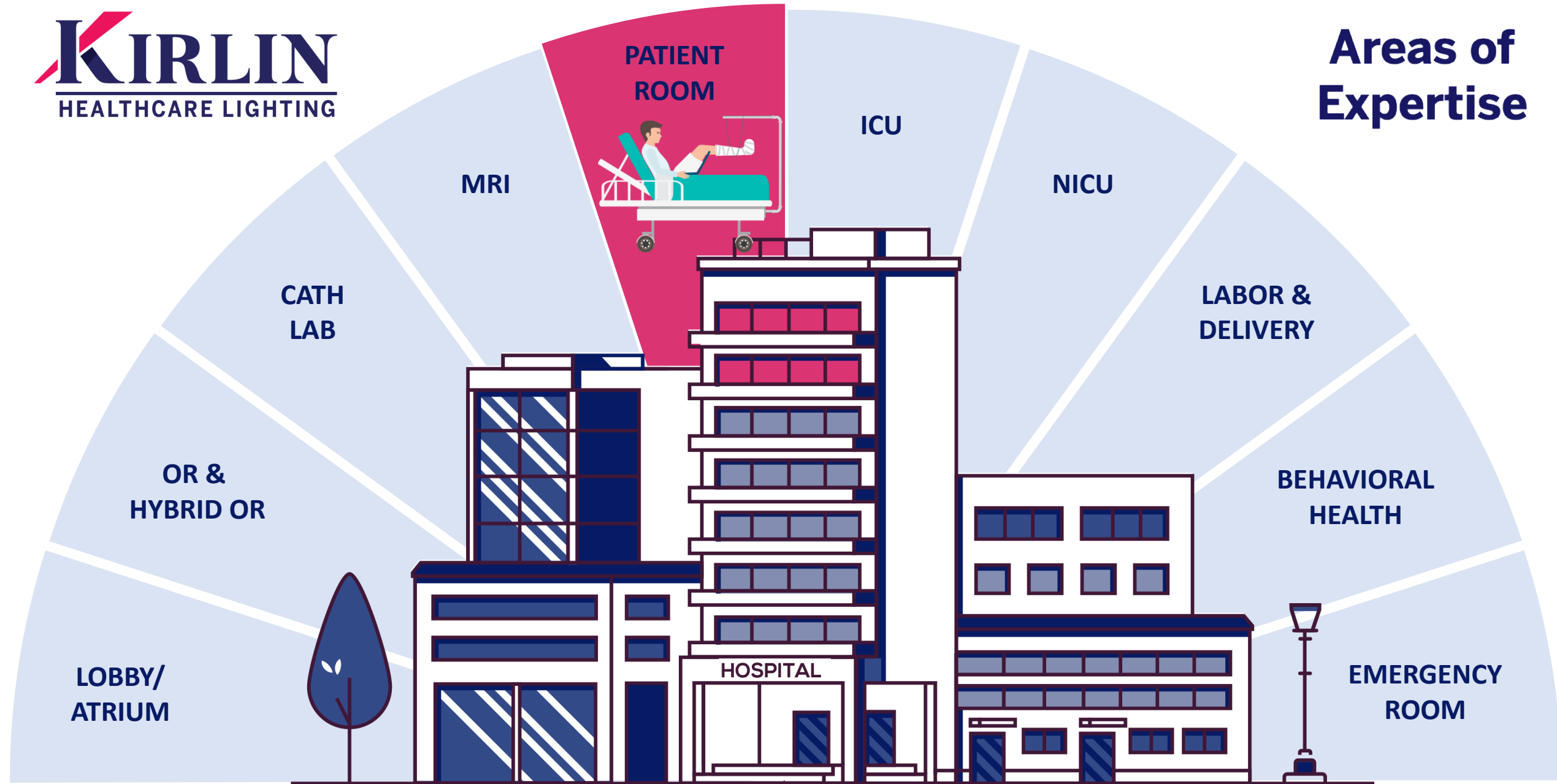


## Areas of Expertise





# Areas of Expertise

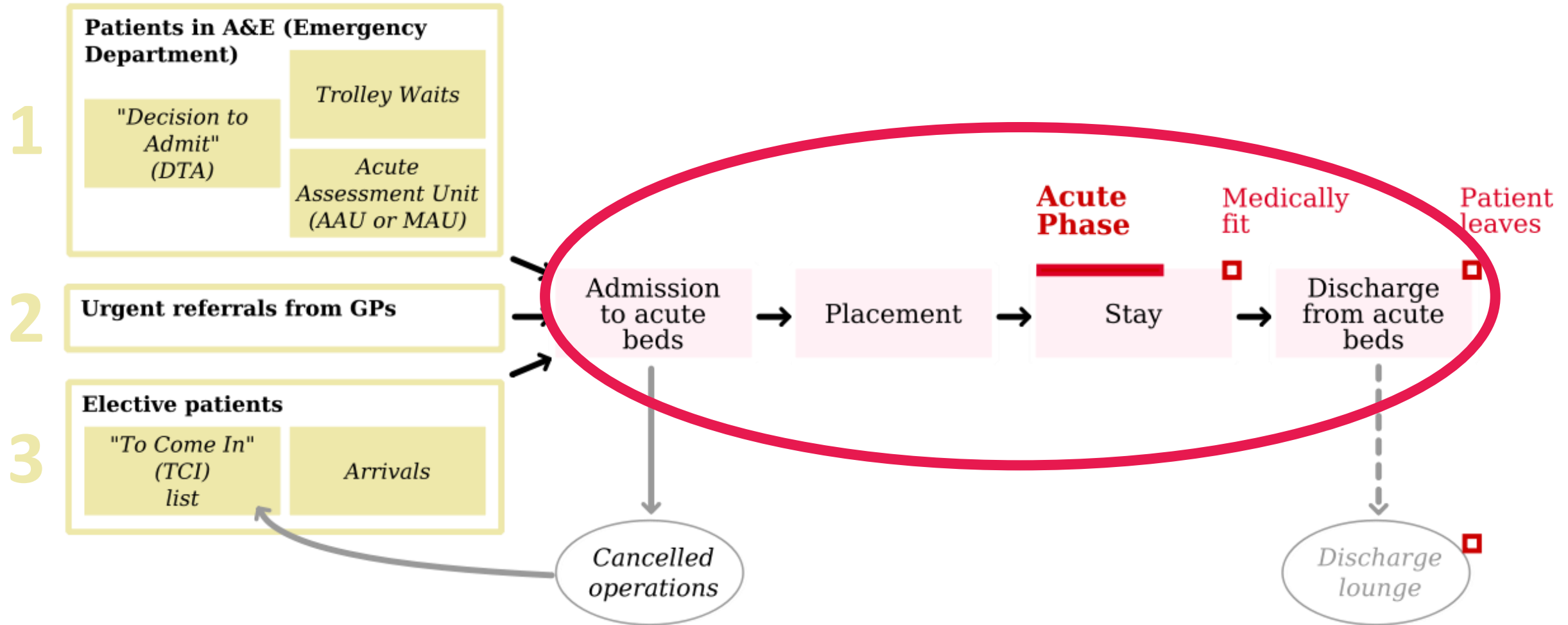


# The Multi-Purpose Room

*The Patient Room is the most common room in many hospitals, and the site for:*



# Admission to a Patient Room



# Three Core Principles for any Procedure/Patient

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1



Enhanced Visual  
Acuity

2



A Safer  
Environment

3



Improved Patient  
Comfort



# Patient Room Considerations



## Enhanced Visual Acuity

- High color-rendering exam lighting enables accurate visual diagnosis with low contrast ratios



## A Safer Environment

- Level 1-3 infection prevention
- Wayfinding luminaires to ensure patient safety



## Improved Patient Comfort

- Use of circadian-supporting chart lights and tunable white ambient light
- Glare-free and sufficient illumination with dimming
- Clinical performance without the clinical appearance



# Patient-Satisfaction Drives Reimbursement

**HCAHPS Survey**

**SURVEY INSTRUCTIONS**

- ◆ You should only fill out this survey if you were the patient during the hospital stay named in the cover letter. Do not fill out this survey if you were not the patient.
- ◆ Answer all the questions by checking the box to the left of your answer.
- ◆ You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:  
☐ Yes  
☒ No → If No, Go to Question 1

*You may notice a number on the survey. This number is used to let us know if you returned your survey so we don't have to send you reminders.*

*Please note: Questions 1-25 in this survey are part of a national initiative to measure the quality of care in hospitals. OMB #0938-0981*

Please answer the questions in this survey about your stay at the hospital named on the cover letter. Do not include any other hospital stays in your answers.

**YOUR CARE FROM NURSES**

1. During this hospital stay, how often did nurses treat you with courtesy and respect?

☐ 1 Never  
☐ 2 Sometimes  
☐ 3 Usually  
☐ 4 Always

2. During this hospital stay, how often did nurses listen carefully to you?

☐ 1 Never  
☐ 2 Sometimes  
☐ 3 Usually  
☐ 4 Always

3. During this hospital stay, how often did nurses explain things in a way you could understand?

☐ 1 Never  
☐ 2 Sometimes  
☐ 3 Usually  
☐ 4 Always

4. During this hospital stay, after you pressed the call button, how often did you get help as soon as you wanted it?

☐ 1 Never  
☐ 2 Sometimes  
☐ 3 Usually  
☐ 4 Always  
☐ 9 I never pressed the call button

- HCA HPS survey is used to determine the reimbursement rates that hospitals receive
- Better patient experiences lead to higher reimbursement rates
  - ✓ Hospitality-inspired aesthetics
  - ✓ Wellness-focused lighting (e.g. circadian systems)
  - ✓ Patient-centric controls

# The Top 10 Complaints

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1. **Sleep deprivation** from clinicians coming to do tests and draw blood in the middle of the night.
2. **Noisy nurses' stations** that can interfere with sleep.
3. **Personal belongings being lost.**
4. **Staff not knocking before entering the room,** which can be interpreted as a sign of disrespect.
5. **Not keeping whiteboards updated.** Updated whiteboards allow patients to know who is caring for them. Patients would also appreciate a notebook where they can keep important information and take notes.
6. **Lack of clear communication** and not updating the patient or family members if the patient's condition changes.
7. **Messy rooms** where surfaces aren't wiped down, or the bathroom smells.
8. **Feeling unengaged in their care** or like they are not being listened to.
9. **Lack of orientation to the room and hospital.** Patients would like to know how to work the television and how to order food.
10. **Lack of professionalism from hospital staff,** especially when they are on break.

Source: Armstrong Institute for Patient Safety and Quality

# The Anatomy of a Great Patient Experience

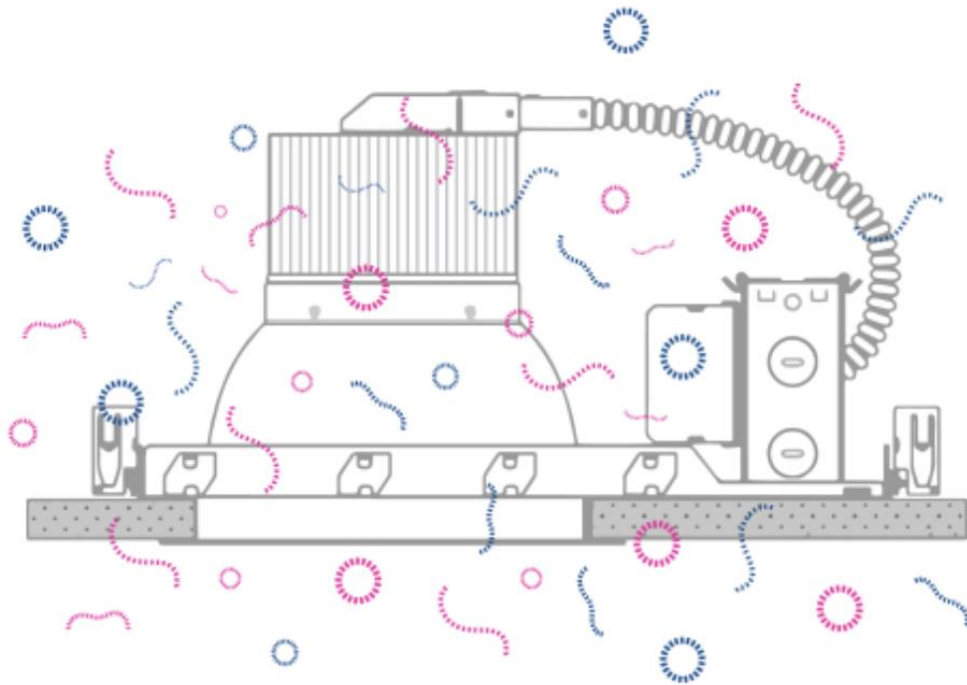
Hospital patients suffer unnecessary pain and anxiety when their surroundings are poorly-managed. And low patient satisfaction can cost your hospital, big-time. 2% of Medicare and Medicaid reimbursements are now tied to patient satisfaction.<sup>1</sup> Beyond top-notch clinical care, how can your hospital provide its patients with a comfortable, healing experience?



- 1 Reliable Equipment**  
Properly maintained equipment instills patient confidence and takes stress off clinicians. The right vendor can save your facility up to 20% on medical equipment maintenance management.<sup>2</sup>
- 2 Clean Environment**  
Over 1.7 million patients per year contract HAIs, costing hospitals \$10 billion.<sup>3</sup> A sterile environment reduces the risk of infection, protects patients, reassures their families, and improves employee morale.
- 3 Comfortable, Well-lit Facility**  
Patients expect their rooms to be well-lit and at a comfortable temperature. A proactive approach to HVAC and lighting upgrades saves money and enhances the patient experience.
- 4 Nourishing Menu**  
A food service program that provides great taste, good nutrition, and courteous service is key to patient healing and satisfaction. Patients who eat nutritiously during their stay are less likely to be readmitted.<sup>4</sup>
- 5 Clean Sheets**  
A hygienic, comfortable bed is key to the patient's healing and creating a positive perception of the facility's overall cleanliness. Proper linen sanitation tactics are also key to curbing the spread of HAIs.<sup>5</sup>
- 6 Patient Sitter/Companions**  
The national average hourly wage of a nurse is now above \$35 an hour.<sup>6</sup> Patient companions can help provide critical attention they need while freeing up your costly nursing staff to focus on clinical needs.
- 7 Engaged Staff**  
When nurses are free to focus on clinical tasks, they report higher engagement and job satisfaction, creating better patient experiences. Hospitals with engaged workers report an 8% higher net revenue.<sup>7</sup>



# Infection in the Hospital



NON-KIRLIN DESIGN

## THE PROBLEM

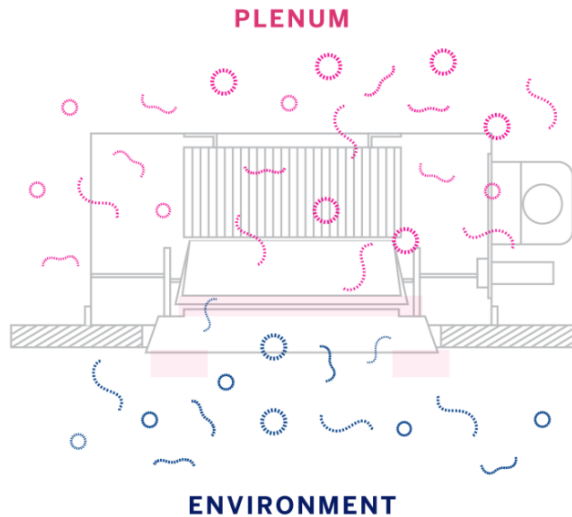
Without lensing, gasketing, or a sealed housing, pathogens and bacteria from the environment mix freely with pathogens and bacteria from the plenum, increasing the risk of widespread infection throughout the hospital.

# Three Levels of Infection Control

## LEVEL 1



Biogard™ Antimicrobial Finish



1

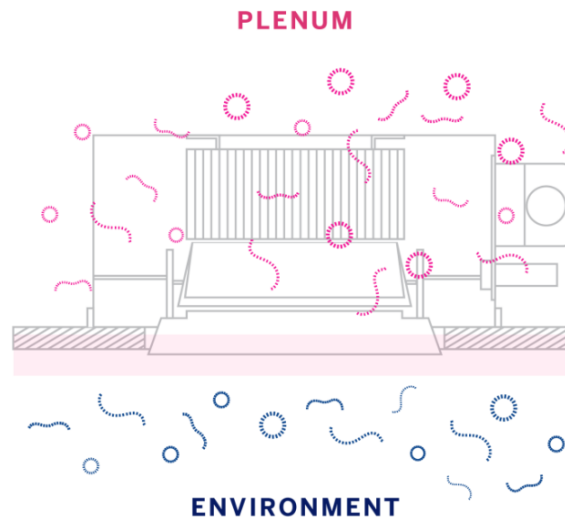
## LEVEL 2



IP65 Sealed Trim



Biogard™ Antimicrobial Finish



2

## LEVEL 3



ISO 5/Class 100 Sealed "Cleanroom"  
Fixture with IP65 Trim



Biogard™ Antimicrobial Finish

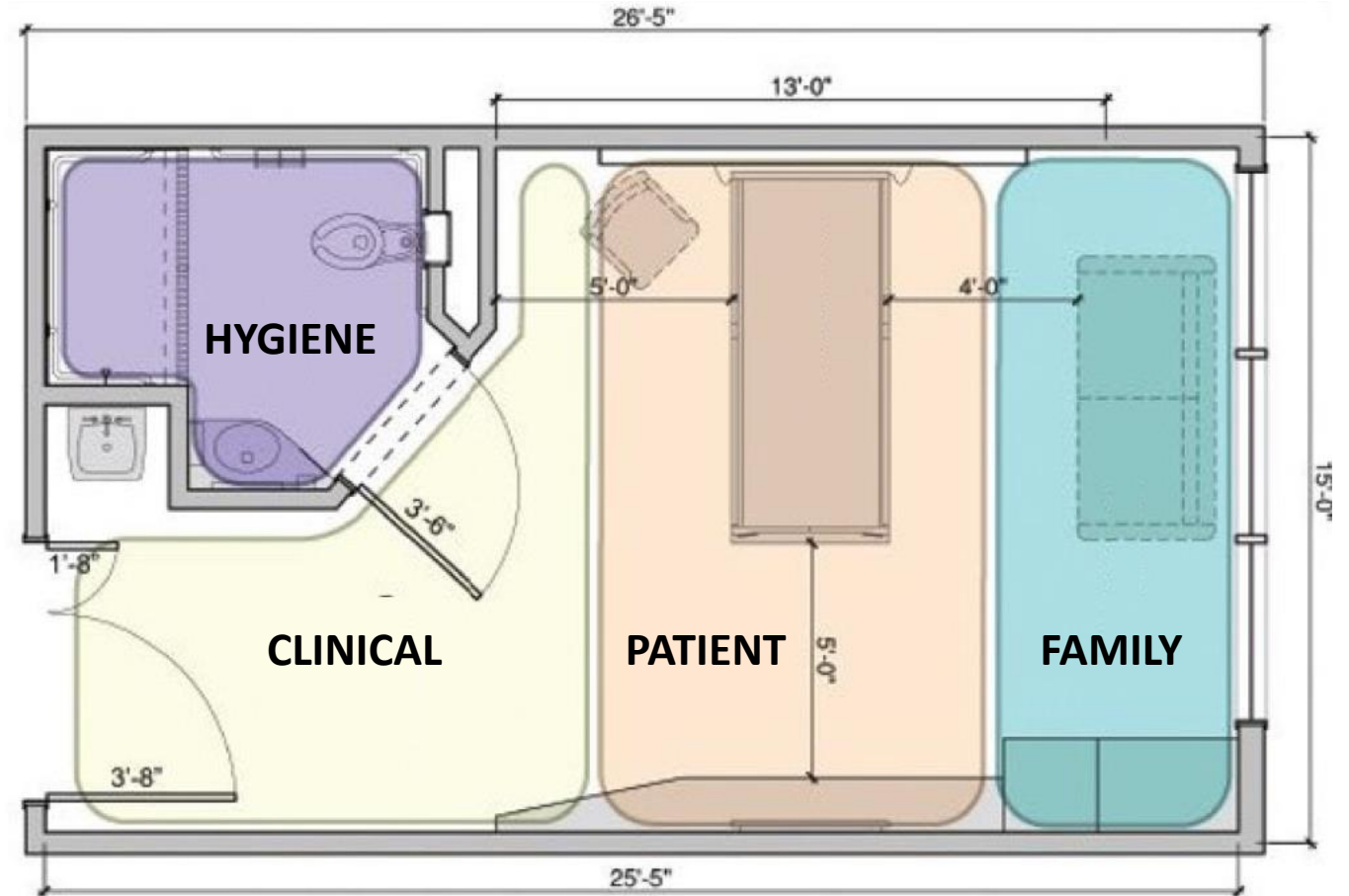


3

# Today's Patient Room

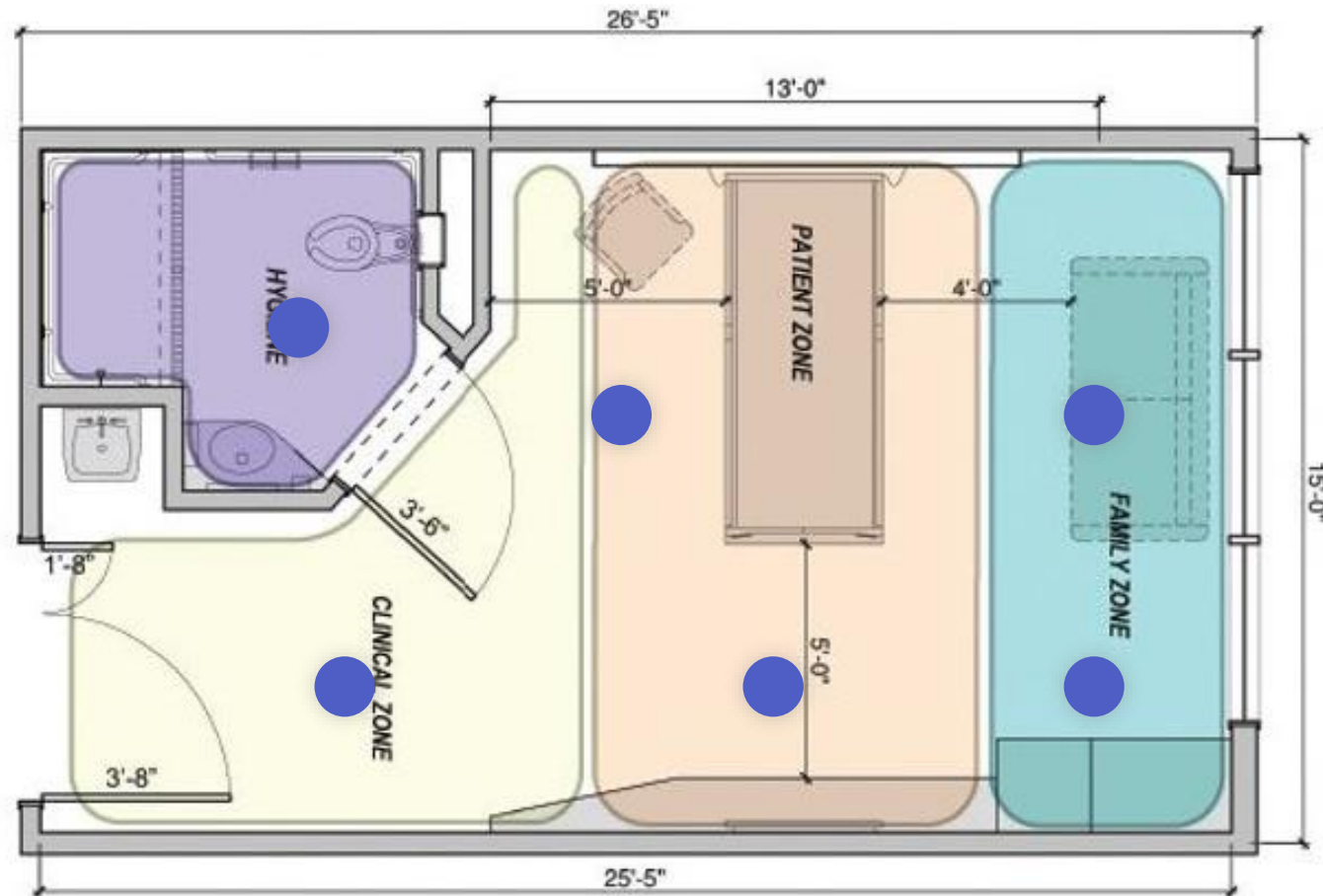
## 4 Zones of Concern

- **Clinical Zone:** Well-marked & illuminated
- **Patient Zone:** High quality exam lighting & patient control
- **Family Zone:** Dimmable, separately switched
- **Hygiene Zone:** High levels of illumination, switched or sensor





# The Ideal Patient Room



## ● Ambient

- **Performance Driven:** Tunable White Downlights
- **Budget-Driven:** Lensed Downlight

4"



Level  
1

2700 K

3000 K

3500 K

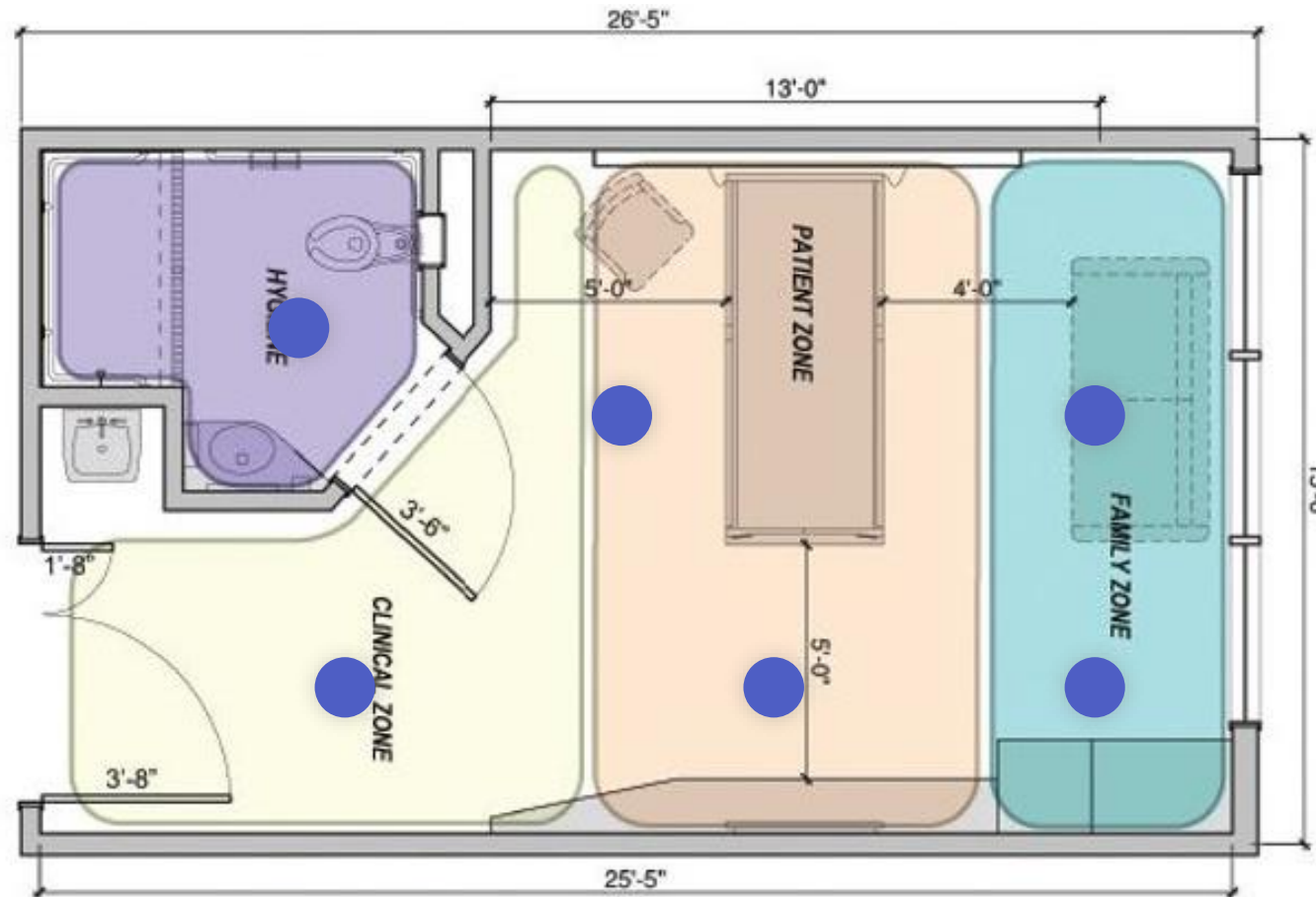
4000 K

5000 K

Tunable: 1650-8000K



# The Ideal Patient Room



## ● Ambient

- **Performance Driven:** Tunable White Downlights
- **Budget-Driven:** Lensed Downlight

6"



Level  
2/3

2700 K

3000 K

3500 K

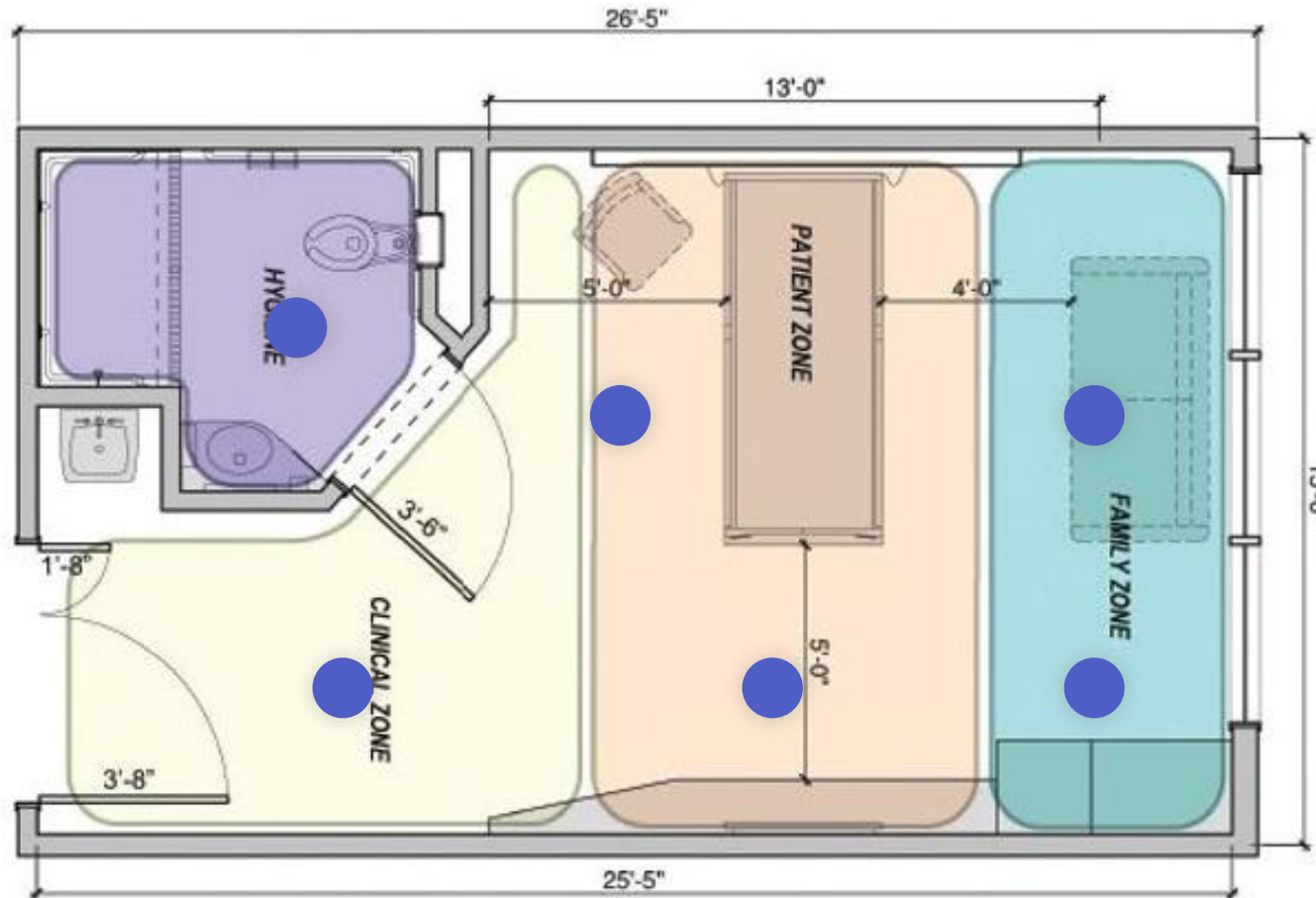
4000 K

5000 K

Tunable White: 2700-6500K



# The Ideal Patient Room



## ● Ambient

- Performance Driven: Tunable White Downlights
- Budget-Driven: Lensed Downlight

4"



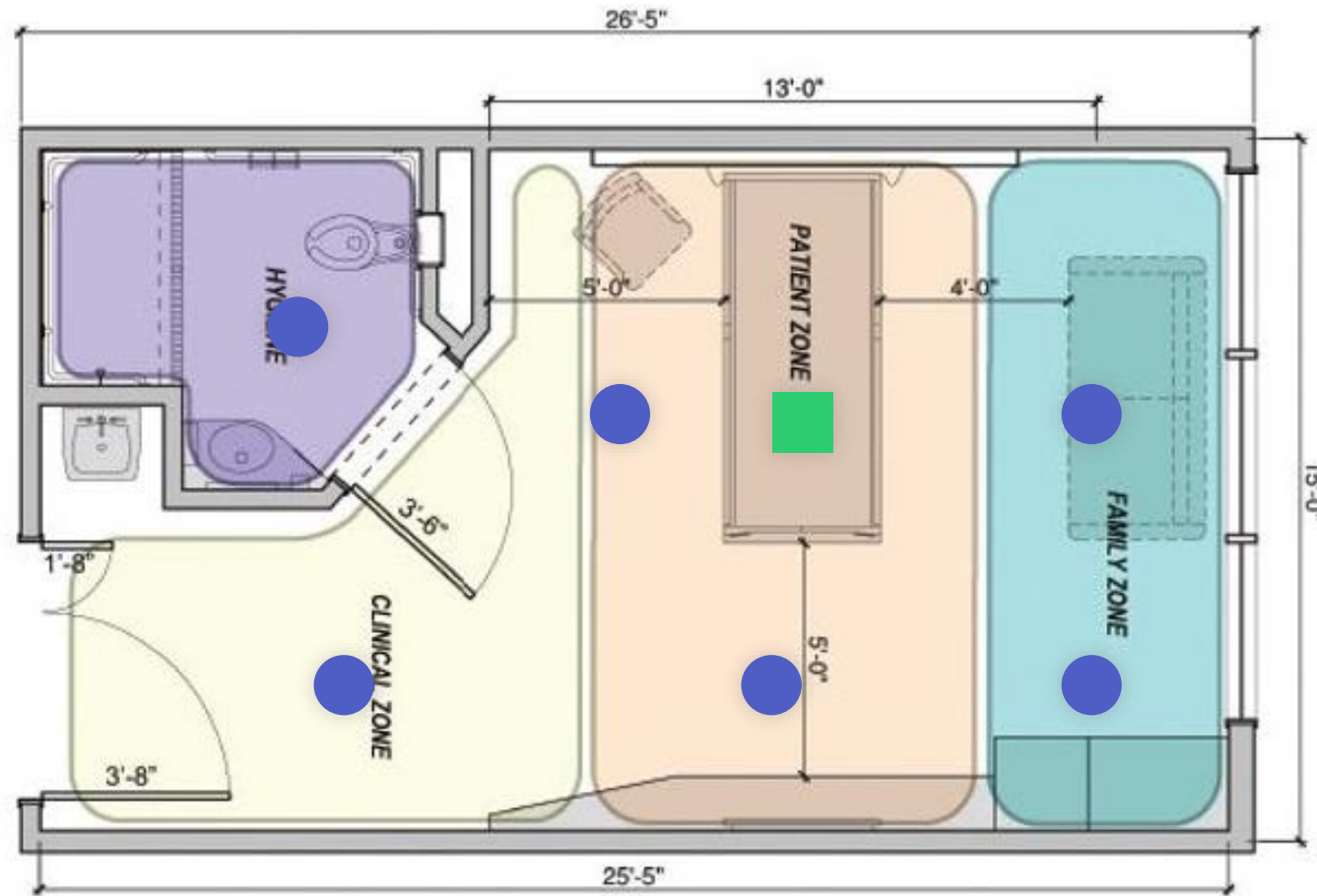
Level  
2/3



**COMING SOON!**



# The Ideal Patient Room



## Ambient

## Exam

- Performance Driven: PRO 25 or PRO 35
- Budget-Driven: Fixed/Adjustable Exam Light



# The Dreaded 3-in-1

(Come on – You Can Do Better!)

- Patient Should Control Ambient/Reading
- Practitioner Should Control Exam/Chart
- Night Lights Should be “Automatic”
- But we Love the ambient downlights in this room!



# 3-in-1 Troffers and Patient Lifts



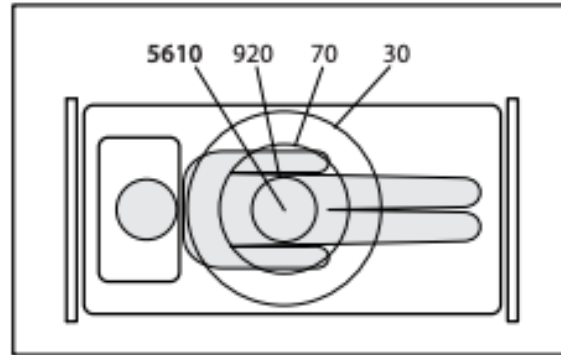


# Smaller Footprint & Precision Aiming with PRO 35

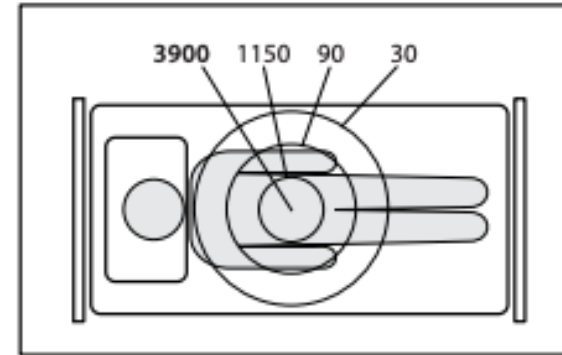


# Footcandles on Task

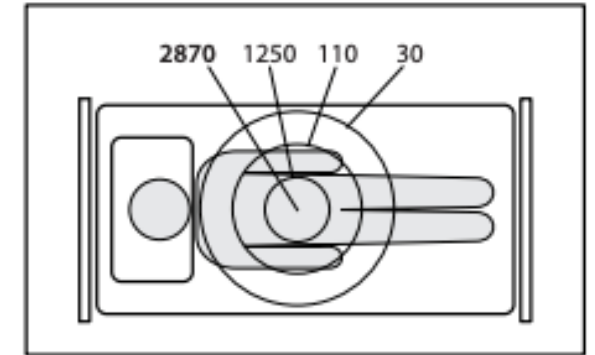
## PRO-12035



8' Ceiling: 3' Work Plane 5610 fc  
3'4" Work Plane 6420 fc

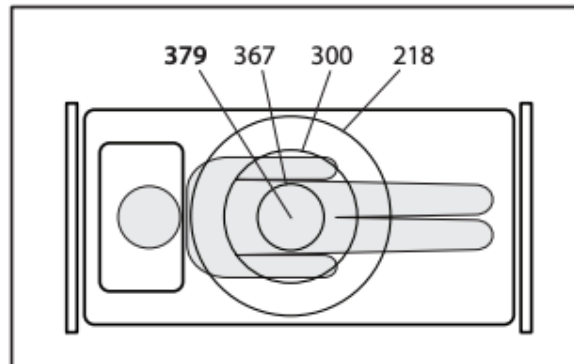


9' Ceiling: 3' Work Plane 3900 fc  
3'4" Work Plane 4370 fc

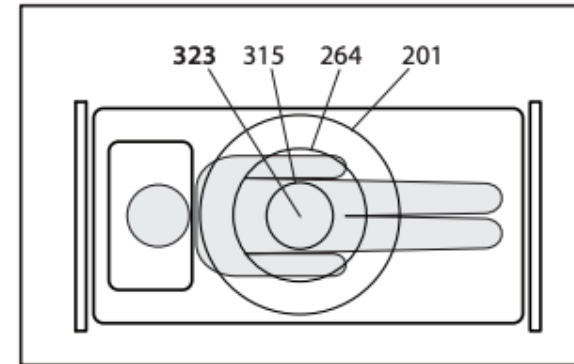


10' Ceiling: 3' Work Plane 2870 fc  
3'4" Work Plane 3160 fc

## MRT-05512

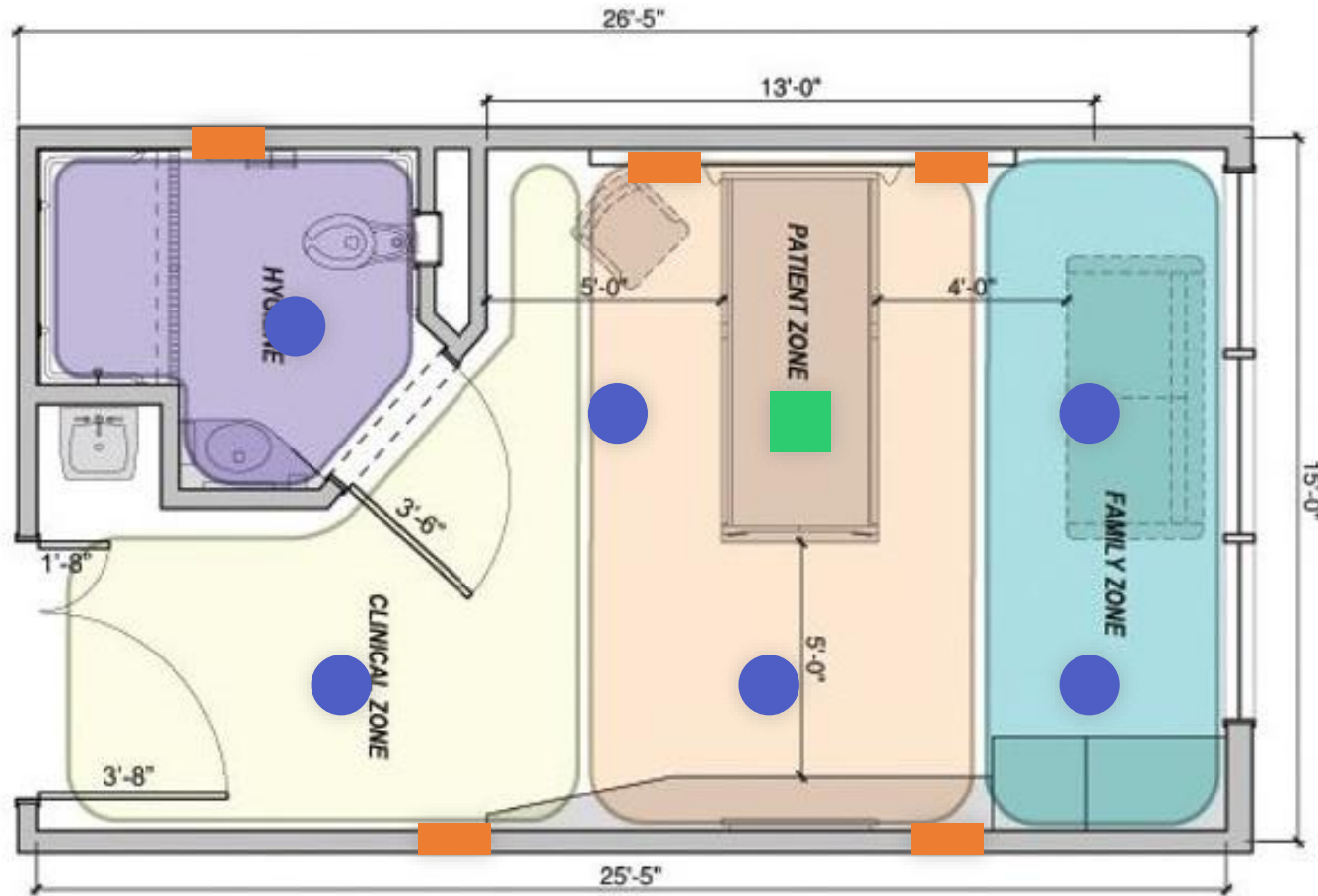


fc on Task: 8' Ceiling 3'6" Work Plane



fc on Task: 8'6" Ceiling 3'6" Work Plane

# The Ideal Patient Room



● Ambient

■ Exam

■ Wayfinding

- NightLights (wet-listed), ChartLights



# The Patient Zone at Night

## 1. Night Lighting:

- Patient Wayfinding
- Red Amber is Preferred!
- Photocell Controlled
- Wet Location





# The Patient Zone at Night

## 2. Chart Lighting:

- Less Disruptive Night Observation and Nurse Documentation Lighting
- Red Amber in Color or White
- Dimmable
- Switched at the door
- Or small aperture recessed



# The Hygiene Zone at Night

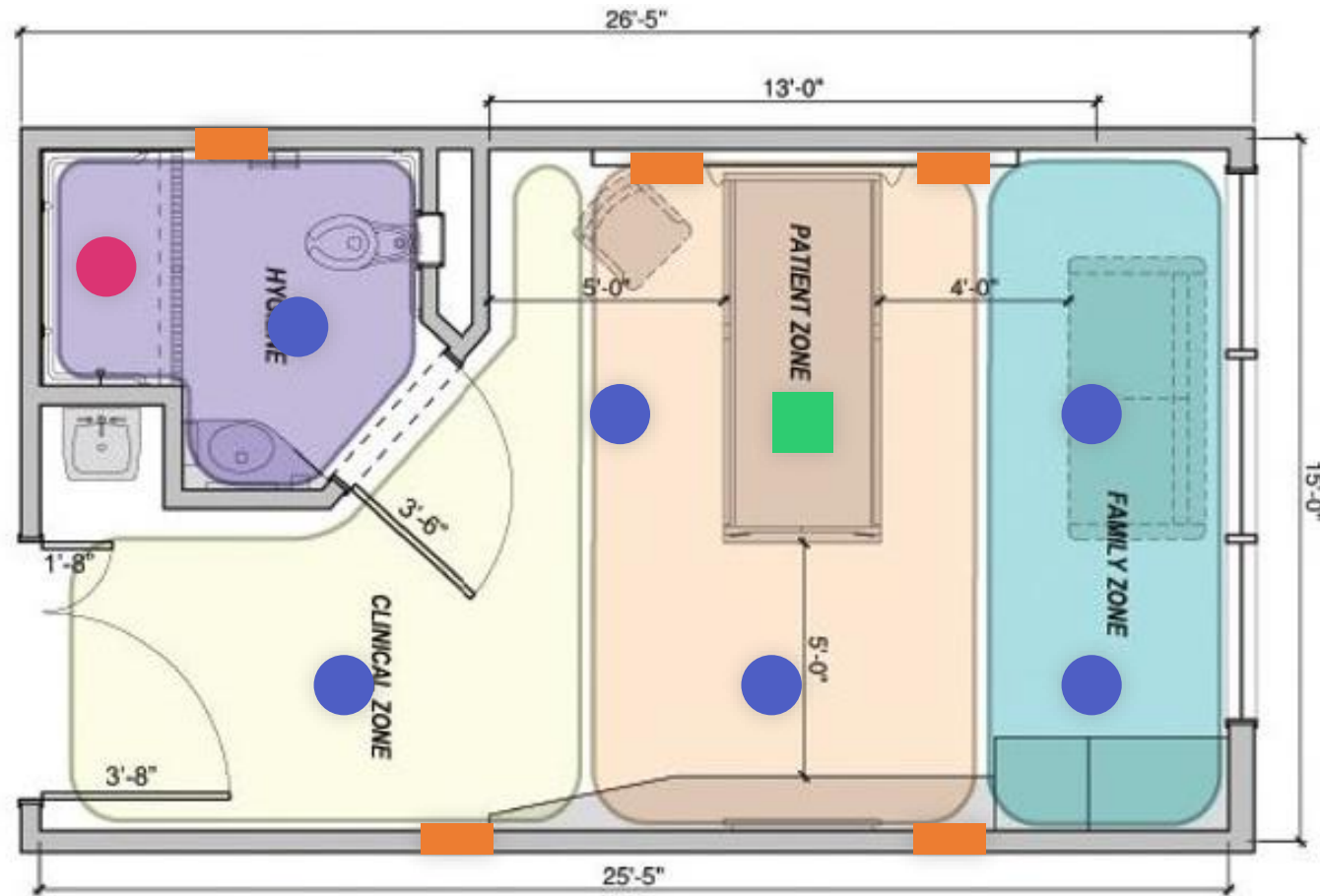
Increased use of  
“tubless” showers



Desire for more  
wet-listed night lights



# The Ideal Patient Room



● Ambient

■ Exam

■ Wayfinding

● Shower Light

- Dead-front shower light





# Best Practices for Shower Lighting



1. Wet-location listed
2. Rustproof, corrosion-resistant
3. Dead front designs
4. 30-50 fc for safety and cleaning
5. LED for long life, energy savings





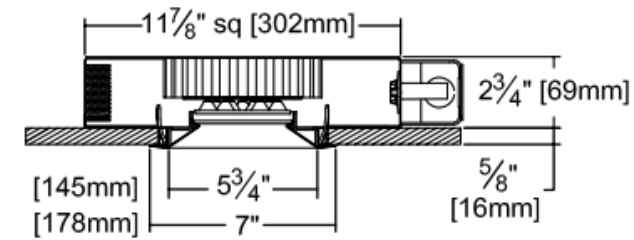
A photograph of a modern hospital room. The room features large windows on the right side, providing a view of trees outside. In the center, there is a patient bed with a white blanket and a patterned bedspread. To the left of the bed, there is a medical equipment stand with various monitors and outlets. A potted plant sits on a small table next to the bed. Two blue armchairs with wooden frames are positioned near the windows, one with a green cushion. A vase of red flowers sits on the windowsill. The room is brightly lit, and the overall atmosphere is clean and professional.

# Project Examples

# Novant Health Presbyterian: Charlotte, NC



**LRR-05438**

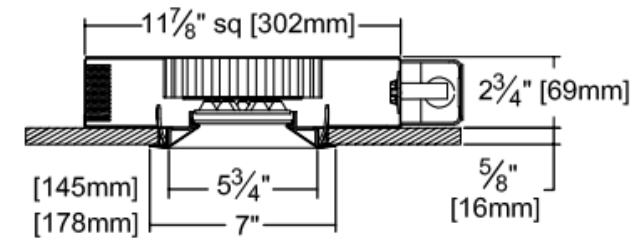




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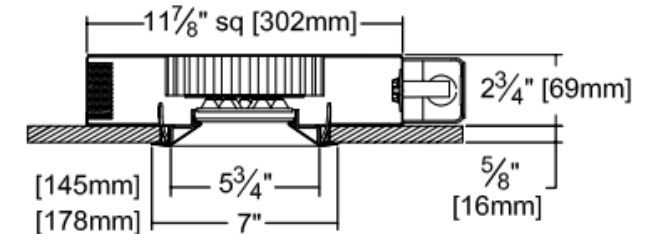


# Novant Health Presbyterian: Charlotte, NC



**MRR-05725**

Dead Front Shower Light





# Mt Sinai Hospital: New York, NY

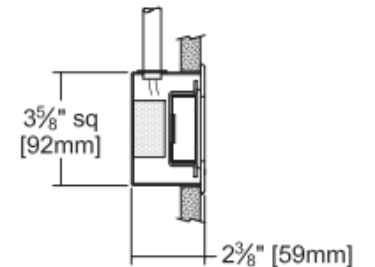


**INFRALED PRO 35**

# Dell Seton Medical Center: Austin, TX



**MNS-05924**







## ICU



September 18, 2020

## Behavioral



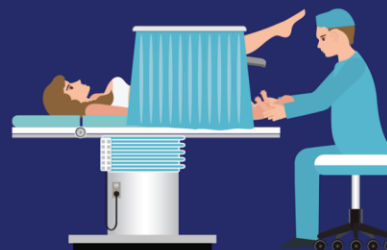
October 16, 2020

## OR/Hybrid



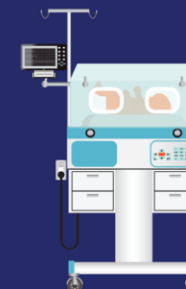
November 20, 2020

## Labor & Delivery



December 18, 2020

## NICU



January 15, 2021

## Emergency



February 19, 2021

## Cath Lab



March 19, 2021

## MRI



April 16, 2021

## Patient Room



May 21, 2021

# Healthcare Lighting Best Practices: Lighting the Modern Hospital

8 CEU credits (AIA, IESNA, NCQLP)

On site at the Kirlin factory in Detroit, MI

## Course Dates:

- July 19-20, 2021
- Sept. 13-14, 2021
- Oct. 14-15, 2021
- Nov. 8-9, 2021





A photograph of a modern building's interior, featuring multiple levels with curved balconies and glass railings. The space is illuminated by recessed ceiling lights, and the overall color palette is dominated by blues and greys, with some warmer tones from the railings and structural elements.

# Questions?