

## Designers Lighting Forum

Lighting and Control Design to Promote  
Health & Well-being in Healthcare  
Spaces

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Credit(s) earned on completion of this course will be reported to **AIA CES** for AIA members. Certificates of Completion for both AIA members and non-AIA members are available upon request.

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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.



# Learning Objectives

At the end of this course, participants will be able to:

1. Understand lighting & control strategies for application specific spaces in healthcare: patient room, corridor, nurse station, and lobbies.
2. Design advanced lighting control solutions for health care projects to improve comfort and simplify control
3. Understand the unique approach required when designing for healthcare projects.
4. Best practices for specifiers when working with manufacturers & manufacturer reps to meet application-specific design requirements



Healthcare Lighting & Controls Design

# APPLICATION TO HEALING SPACES



# Introduction & Why We're Here



**Christian Groom**  
Director of Marketing  
Legrand



**Tom Kaczowski**  
Principal / Director of Lighting Design  
HOK



**Stacey Kennedy**  
Senior Director, Healthcare Vertical  
Focal Point







Conception > Occupancy

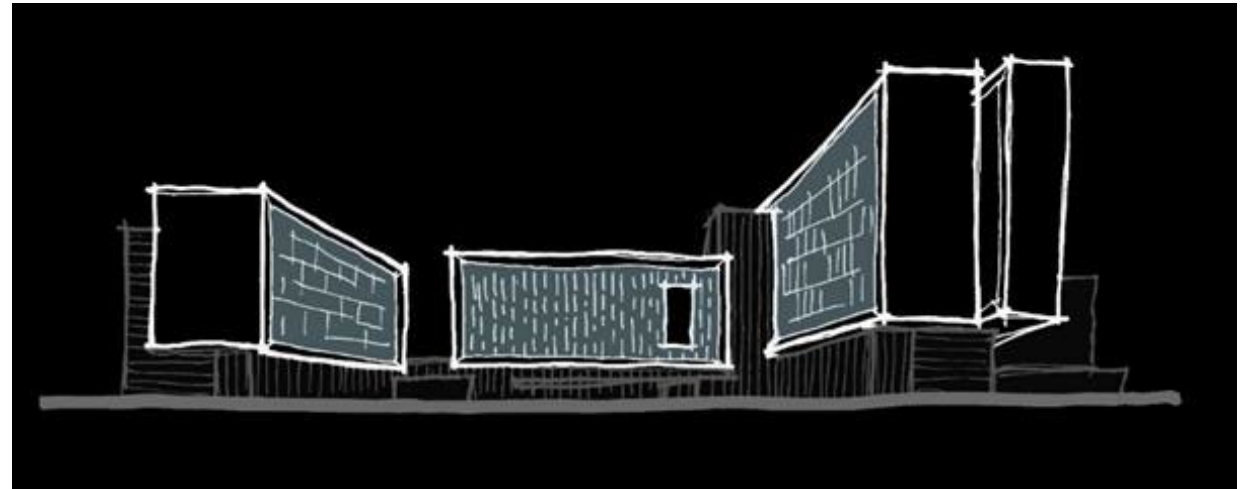
Scope of Work

Owner Engagement / Stakeholders

Standards, Lighting "History", Budgets

Design Process/Phases

Design Team, Owner Team, Contractor



Client / Stakeholders

Codes/AHU

Architecture

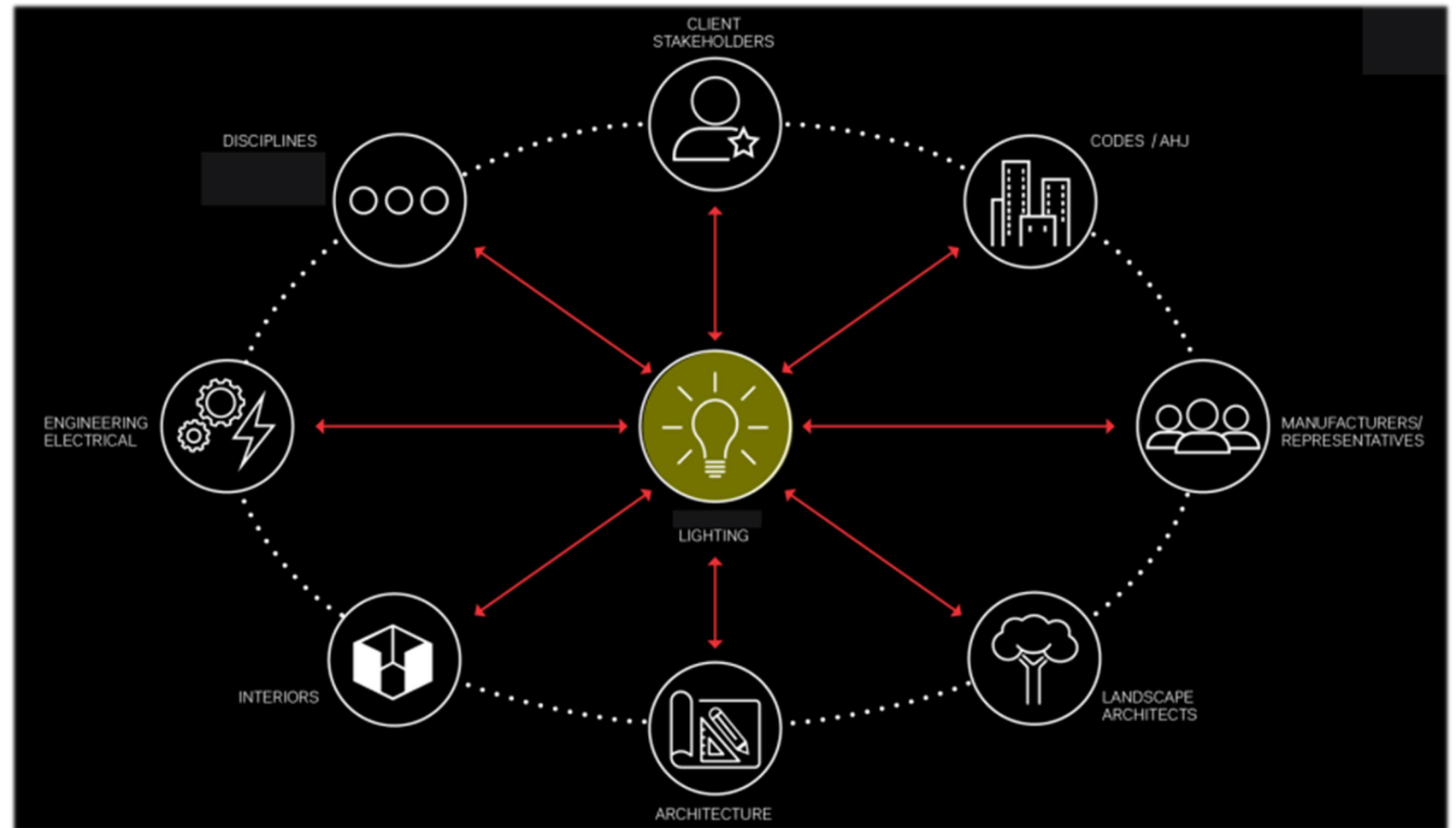
Interiors

Landscape

Electrical

Disciplines

Manufacturers/Reps







*“Healthcare facilities are, arguably, the most complex of architectural facility types.”*

**-ANSI/IES RP 29-20**

By adhering to standards, thoughtful documentation, & effective communication, **designers can positively influence the lives of patients and staff.**



Project Goals, Objectives

Client Goals, Objectives

Benchmarks

Budgets

Context

Empathy / Experience



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# **PUBLIC AREAS**

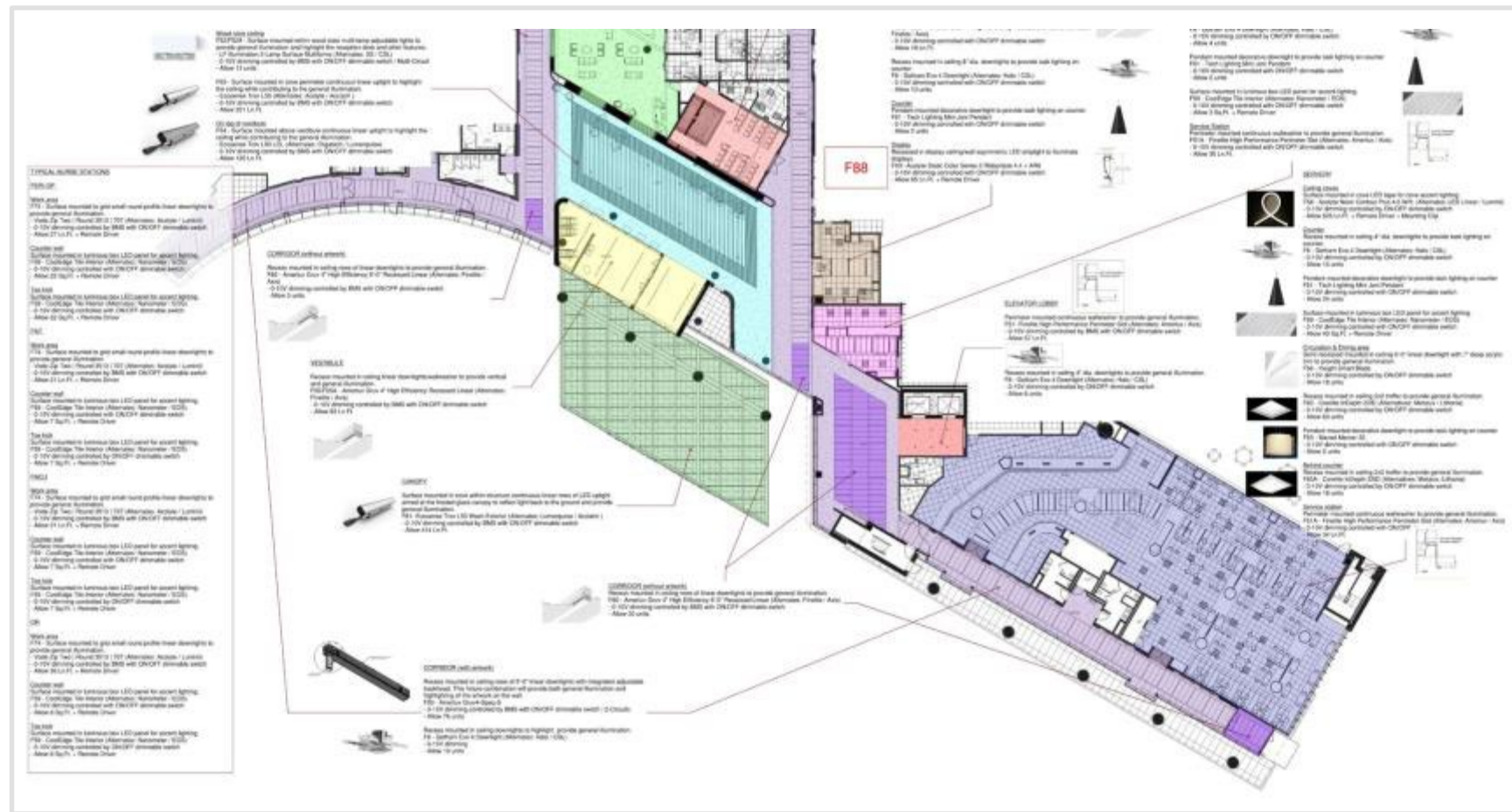






## Welcome, Accommodate & Comfort thru Design

- Orientation
- Destination
- Respite
- Distraction
- Day in the Life



## Day in the Life of ...

### Patient, Staff, Visitor

- 24/7 Facility
- Network or Stand-Alone lighting controls.
- Preset "Scenes" to Building vs Spaces
- Building Sleeps
- Occupancy Sensors
- Shades





## Lobbies, Atriums, Waiting Areas, Corridors, & Areas of Respite

- Design Philosophy
  - Unique, signature spaces (vs Standards)
  - Hospitality (vs Clinical) Look/Feel
  - Kit of Parts
- Lighting
  - Avoid environmental stressors
  - Behavioral health needs
  - Trends: Outdoor spaces, daylighting  
emphasis on artwork (hospitality), 405nm
- Control
  - Dynamic lighting control that is welcoming
  - Embrace & leverage ambient light in the space



# Support & Administration Areas



## Staff Lounges & Faculty Offices

- Design Philosophy
  - Standards (vs Unique)
  - Hospitality, "nice" ... but on budget
  - Kit of Parts
  - Privacy, respite ... flexible light levels
- Lighting
  - Wayfinding – Light can clearly delineate spaces
  - Watch for veiling reflections
- Control
  - Biggest opportunity for energy savings
  - Luminaire level lighting control in office spaces

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# PATIENT FLOORS



## Nursing Stations, Recovery Areas, Centralized Support Spaces

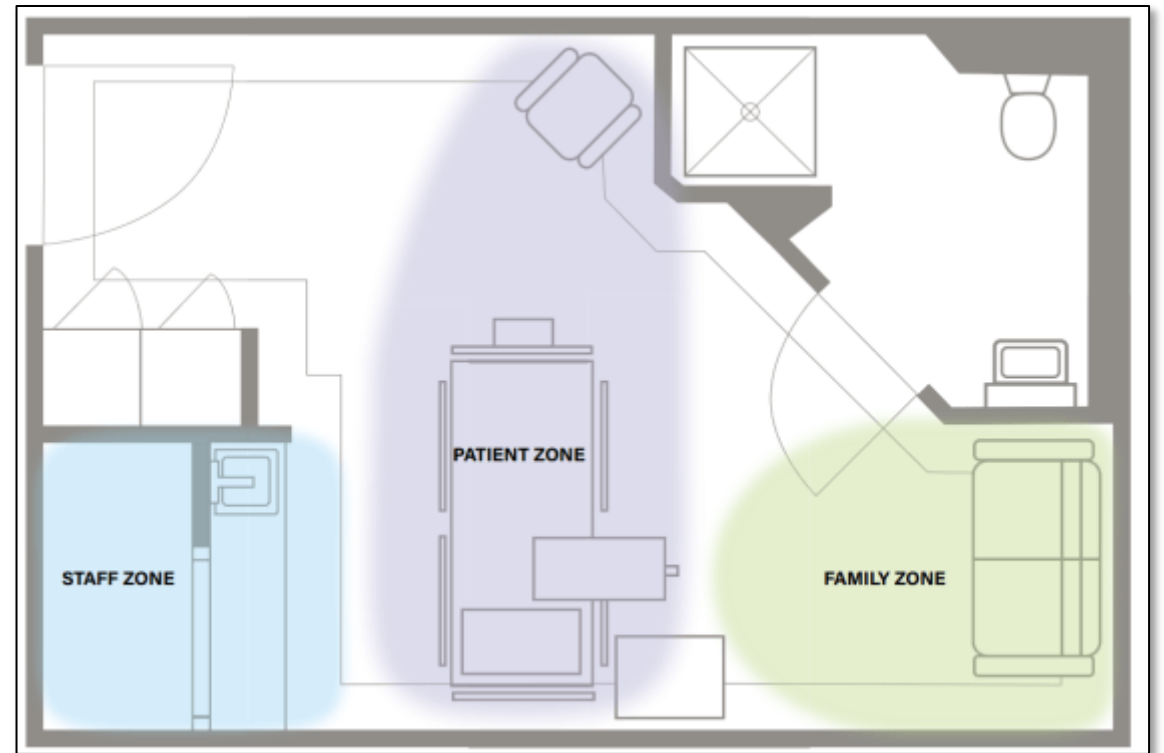
- Design Philosophy
  - Unique spaces (New Standards)
  - Hospitality v Clinical Look/Feel
  - "see my face, distress or calm"
  - Flexible, preset light levels ... Code Blue
- Lighting
  - Impacts of photobiological response for staff and patients
- Control
  - Tailor to the dynamic needs of this space & those who are in it
    - Simple control via wall stations
    - Light schedules
    - Emergency lighting control for the corridor



It's not just about the patient.

*“The design of the lighting system should address the wide range of tasks being performed in the room, including requirements for cleaning.”*

**-ANSI/IES RP 29-20**





- Design Philosophy
  - Patient comfort, control their environment
  - 2am Path to Toilet, Family Zone, Staff Zone
  - Bariatric Rails, Headwalls
  - Code Blue clearances > Bed moves
  - Mockups (Test 1 ... build 150 with edits)
- Lighting
  - Competing needs between the patient, caregiver, and staff
  - Cleanliness and maintenance across the three zones
  - Night lighting
- Control
  - Integration with software, shading, & patient's bedside controls (i.e. pillow speaker)
  - Wall stations that enable intuitive, simple control





# Intuitive Control for Anyone Entering the Room



## Lighting & Shading Control Improving Occupant Experience

- Seamless integration & single control point from patient bedside
- Programmable button configuration and engraving options
  - Switching, dimming and scene control
- **Simplicity starts with the control specification resources**
  - SOO, Narrative, Lighting Control Matrix, & BOM



## Enabling a Resilient Healthcare Space with Advanced Lighting Control

- Bolster building resilience with a “future-proof” design
  - Easily repurpose a space or add control
- Expandable systems to go beyond energy code
- Service plans allow for remote and/or on-site system configuration



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# **SPECIFIER & DESIGNER BEST PRACTICES**





# Specifier & Designer Best Practices



## What the Specifier Should Focus on When it Comes to Healthcare Lighting & Control Design

- Lighting Scope of Work
- Owner engagement, standards
- Design Process/Phases with Team, Owner, Contractor
- Buckets of Money ?



## What the Specifier Should Focus on When it Comes to Healthcare Lighting & Control Design

- Lighting Design - Options, iterations, pricing. Paint-by-Numbers vs Original Design?
- Controls – Owner, Electrical Engineer, Lighting Designer (+ Headwall/Bed Vendor).
- Relationships - Manufacturers + Sales Reps Collaboration, support, pricing, samples ... innovative or equal products.
- Full Scale Room Mockups





## Bringing it all together...



2023 Focal Point Next Generation Healthcare Lighting Solutions

Concept Name: DISCREET

Reviewer Name: TOM KACZYNSKI

How much do you love it? 1 2 3 4 5 6 7 8 9 10

• 22 > 7  
• 5w 1 [Durable] [Formal]

- WORKS BEST HAS POTENTIAL
- FEASIBLE WORKS FOR WFLA HOTEL

• TWO MAIN COMPONENTS

- HOSPITAL BY HILLCOM
- BELL TO HILLCOM

LIKES + FEEDBACK

? QUESTIONS IDEAS

DISCREET FUNCTION?

• NO WALL MOUNT TO AHEAD SERIES

3 TO PROCEED (NO ADD CHANGE)

10 MUST  
20 FILE  
30 BVA

①





This concludes The American Institute of Architects Continuing  
Education Systems Course



# APPENDIX

