



# LIGHTSWITCH<sup>TM</sup> ARCHITECTURAL

Lighting Your Vision with Responsible Design<sup>TM</sup>



# Specifying Green Products in the Real World:

Avraham Mor, IALD, LEED AP, MIES

Partner, Lightswitch Architectural





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## Avraham Mendall Mor, IALD, LEED AP, MIES



- Graduate of the University of Kansas.
- Lightswitch since 2004, Partner 2009
- Past experience as a project manager for specialty distributor
- Been a Lighting Designer for 10+ years
- One of the youngest designers to become a professional member of the IALD
- Spoken around the country about LEDs and Lighting Design 20+ times



- Multidisciplinary Lighting & Visual Design Practice
- Serving a diverse range of clients since 1993
- Large Team of Designers, Associates, and Support Staff
- Nationwide Coverage
  - Chicago
  - New York
  - San Francisco
  - Los Angeles
  - Orlando



LIGHTSWITCH ARCHITECTURAL™

## Two Divisions



- Architecture
- Museums

Hidden Wires



- Entertainment
- Environments
- Events
- Museums

Visible Wires



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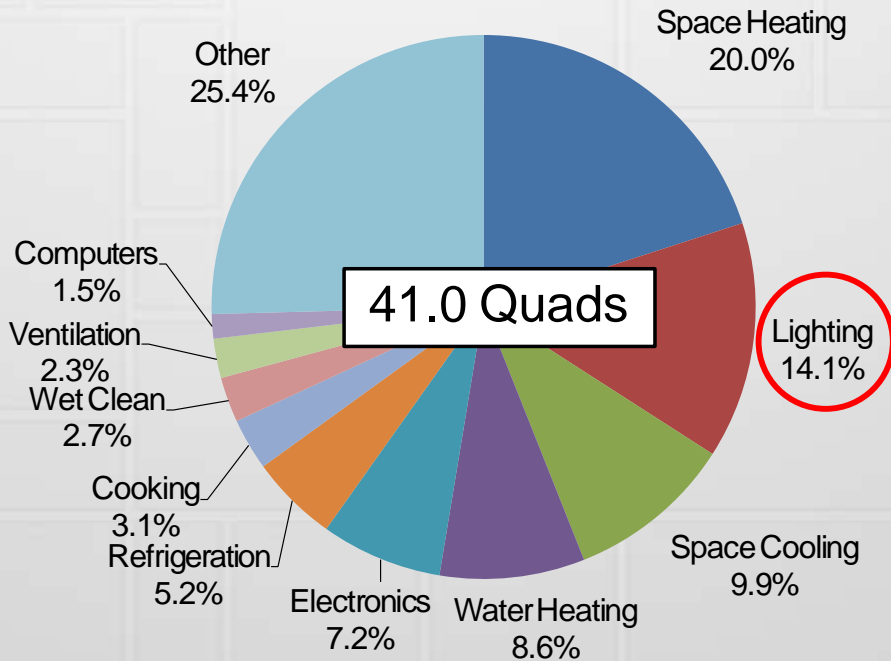




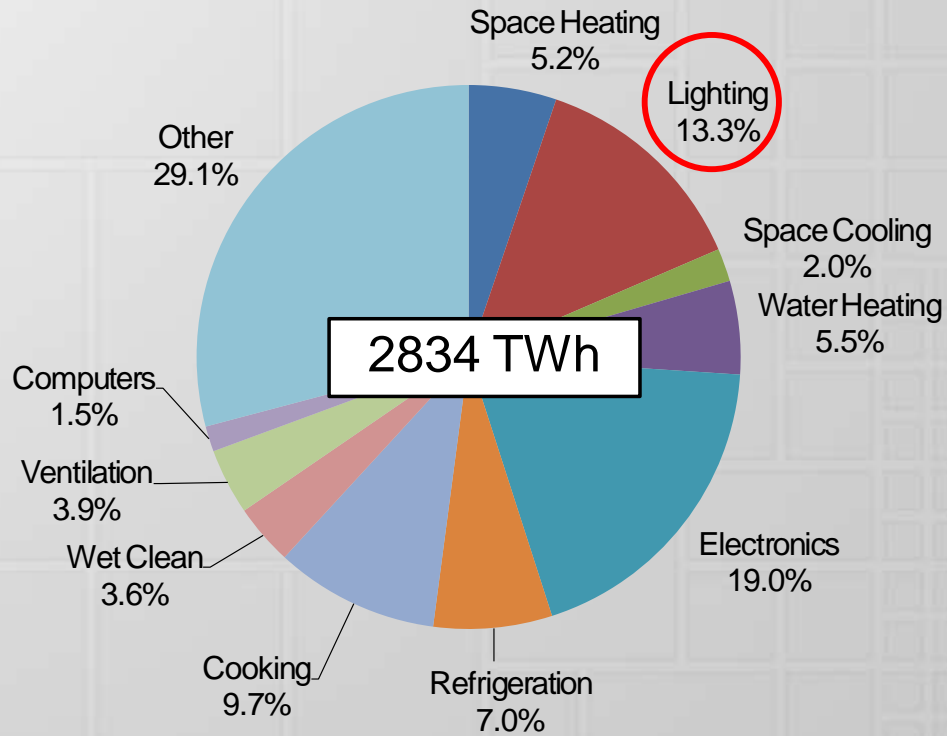
# Why?

## U.S. Buildings Energy End-Use Breakdown, 2010

### Site Electricity Consumption



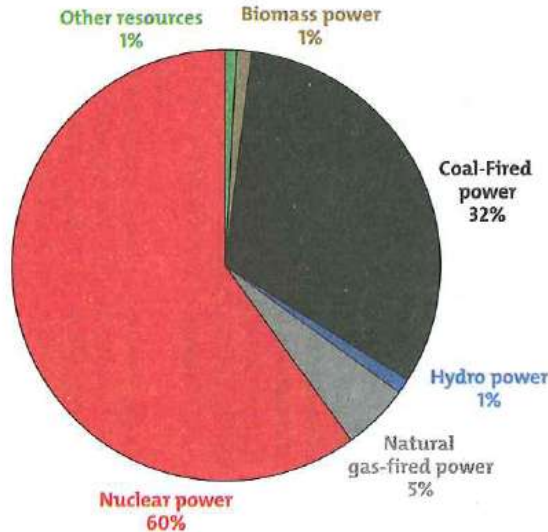
### Total Primary Energy (all fuels)





# Why?

## Sources of Electricity Supplied for the 12 months ending September 30, 2009



## ComEd's Environmental Disclosure Statement

The disclosure of this information is required under Section 16-127 of the Electric Service Customer Choice and Rate Relief Law of 1997 and the rules of the Illinois Commerce Commission, 83 Ill Admn. Code 421.

Sources of Electricity Supplied for the 12 months ending September 30, 2009	Percentage of Total
Biomass power	1%
Coal-fired power	32%
Hydro power	1%
Natural gas-fired power	5%
Nuclear power	60%
Oil-fired power	0%
Solar power	0%
Wind power	0%
Other resources	1%
Unknown resources purchased from other companies	0%
TOTAL	100%

**AVERAGE AMOUNTS OF EMISSIONS<sup>2</sup> and AMOUNT OF NUCLEAR WASTE<sup>3</sup> per 1000 kilowatt-hours (kWh) PRODUCED FROM KNOWN SOURCES for the 12 months ending September 30, 2009**

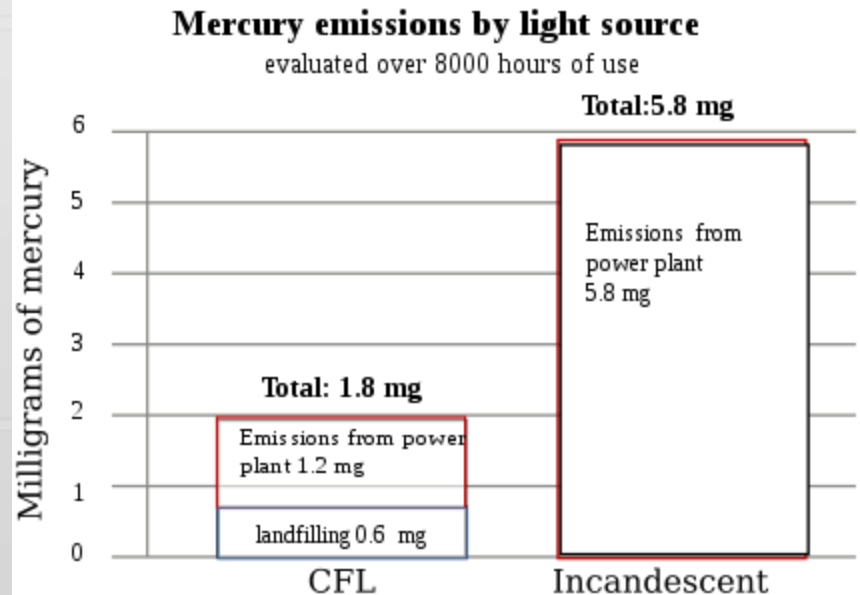
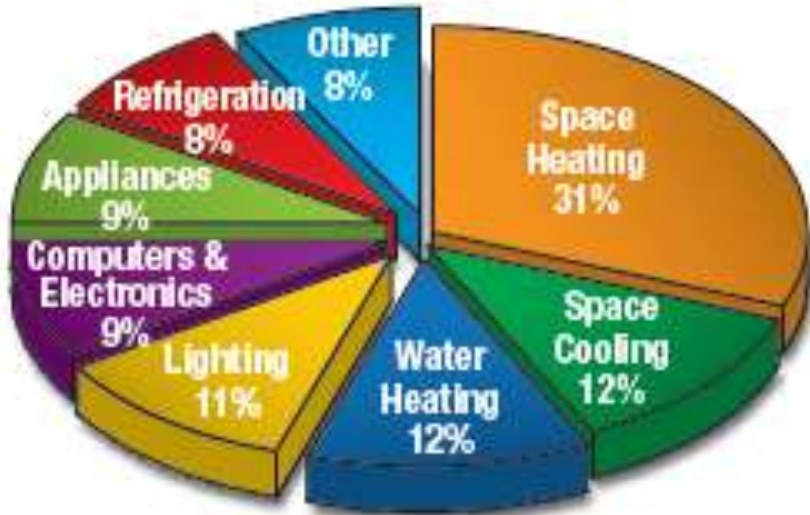
Carbon dioxide	717.58 lbs.
Nitrogen oxides	1.05 lbs.
Sulfur dioxide	3.43 lbs.
High level nuclear waste	0.006 lbs
Low level nuclear waste	0.0004 cubic feet



# Why?

“Low Hanging Fruit” – Ed Begley Jr.

The easiest task or the most readily achievable goal





# Why?



3000 K

WARM

8000 K

COOL

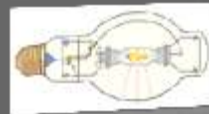
Warm Happy Shot According to Vivian's LA Agent's Taste

FINAL IMAGE SELECTION

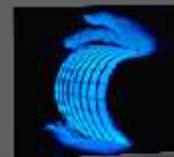


# Sustainability Tools

- Incandescent
- Halogen
- Fluorescent
- Arc Source
- Gas - discharge
- LED & OLED



- Dimming
- Color
- Mood

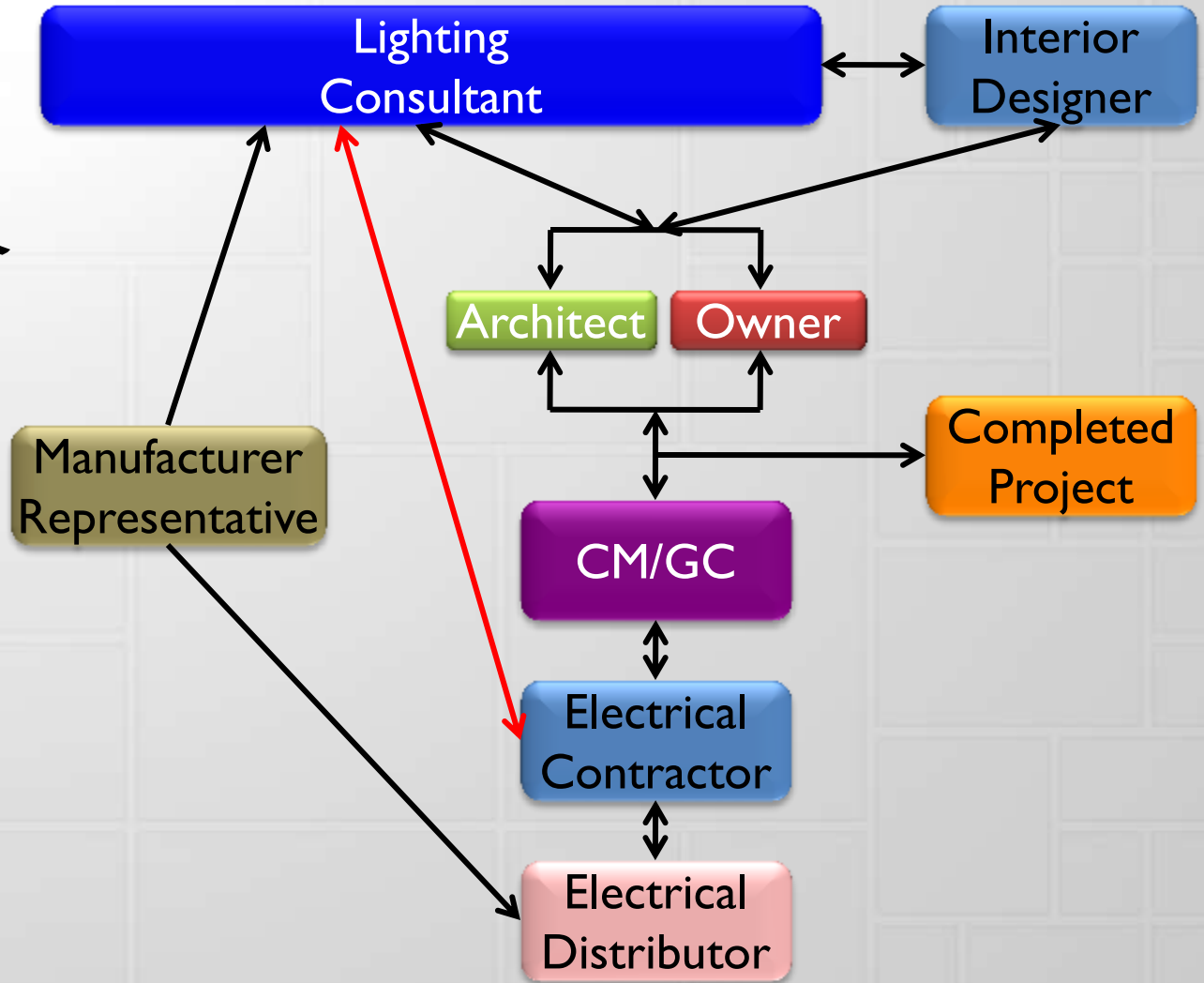




# Project Team

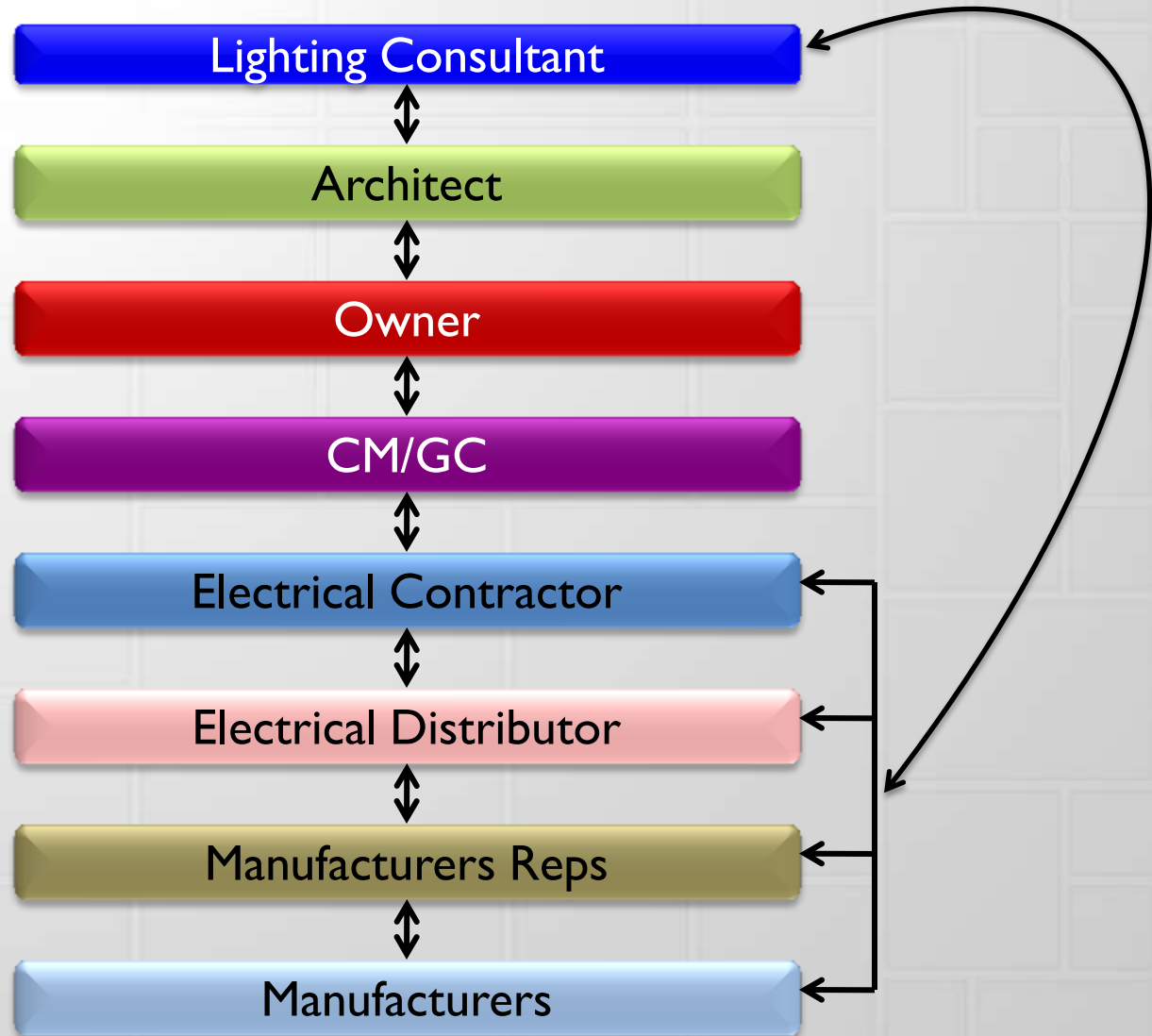


Manufacturer  
Manufacturer  
Manufacturer





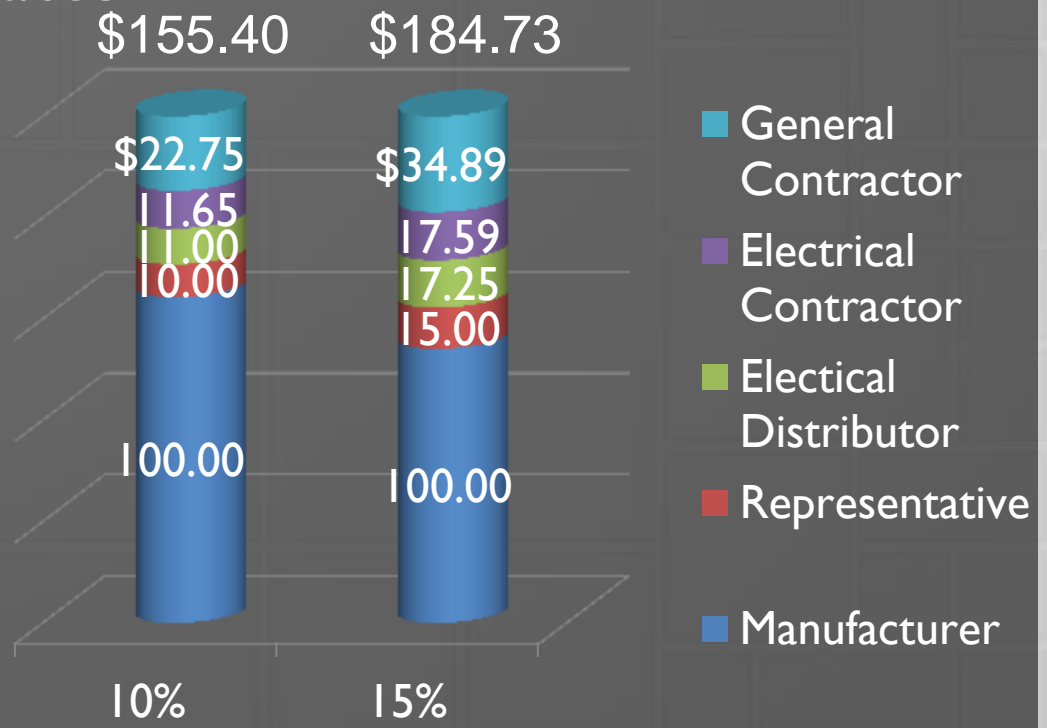
# Process...





# Lighting Cost Formula

- Impacting the Outcome
  - Bidding
  - Changes / Alternates
  - Communication
  - Consequences





## Sustainable Design Example

- Hotel Project
  - Design/Build Project
  - 27 Story Designer Hotel
    - Koo & Associates
    - Lightswitch Architectural
    - JMS Electric
    - Evergreen Oak Electric
- EC/ED Priced Lighting Fixtures
- Owner Supplied
- 95% North American Made Fixtures
- Estimated \$15,000/mo, Actual \$4,000 Electricity Bills



# theWit



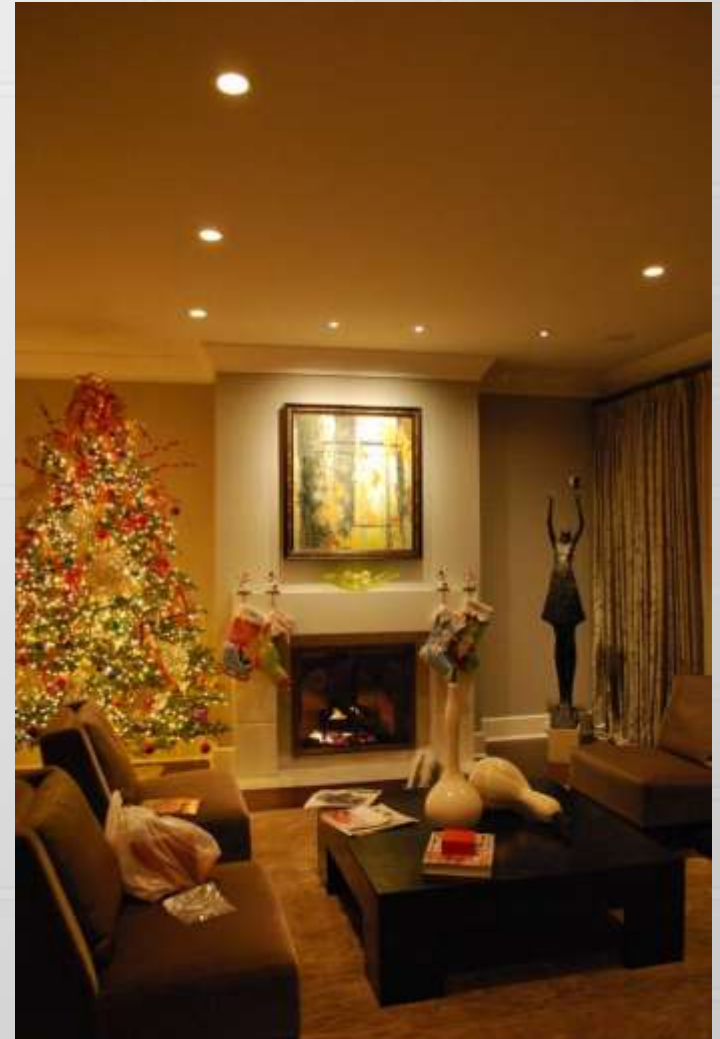


# theWit





# Honore Street Residence





# Dyson USA





# Dyson USA





# The Oceanarium





# The Oceanarium





# 'Fantasea'





# Ensuring Desired Outcome

- Strong team partners
- Communication, Communication, Communication
- Specifications to include:
  - Distributor Requirements
  - Alternates Policy
  - Line Item Pricing Policy
- Representatives who respect specifications
- Confirm budget pricing with owner
- Stick to specifications!



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## Lighting Your Vision with Responsible Design™

Lightswitch Architectural is a premier architectural lighting design firm whose cutting edge lighting designs make it a leader in the industry. Known for innovation, attention to detail, professionalism and client service, we have a proven track record of delivering designs that are exciting, dynamic and visionary – on time and on budget.

Principals and staff members are highly trained industry professionals who understand the importance of communication. We work with property owners, developers, architects and property managers on projects such as corporate offices and exteriors, residential properties, museums, schools, outdoor events and hotels.