

LINKTair™



# DESIGN GUIDE

## LINKTair WIRELESS CONTROL SOLUTION

### SYSTEM COMPONENTS



#### ONLINE PROJECT PORTAL

Faster field commissioning setup

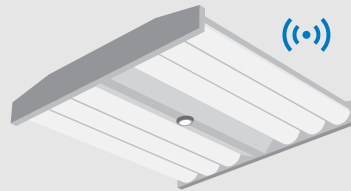
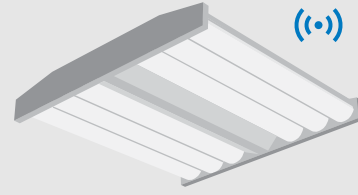
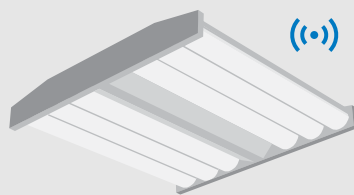
- Upload ceiling plans
- Create areas and zones
- Control sequencing



#### MOBILE APP

iOS app for simplified commissioning

- Add lights, sensors, and switches to zones
- Adjust profile and scenarios
- Control sequencing



**WILLIAMS FIXTURES WITH LINKTair CONTROLS**  
Factory-installed control with radio enables connection between fixtures, wall switches, and stand-alone devices



#### WALL SWITCHES

- On/off, dimming standard
- Optional occupancy sensor



#### WIRELESS SENSORS

Integral or stand-alone

- Occupancy
- Vacancy
- Daylighting

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## WIRELESS CONTROL SOLUTION

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### INTRODUCTION

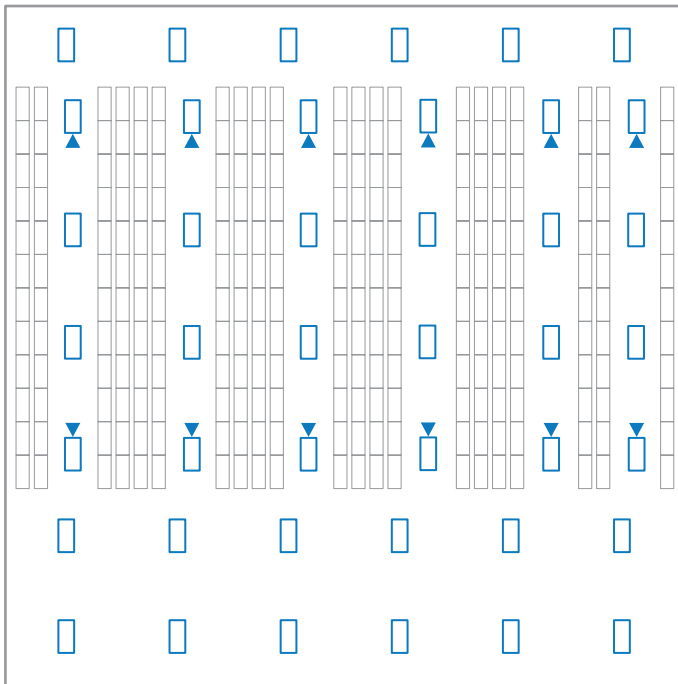
The Williams LINKTair wireless control solution uses globally recognized mesh technology integrated in Williams luminaires. Combined with wall switches, occupancy sensors and commissioning software, the Williams LINKTair wireless control solution is a simple way to provide wireless lighting controls for many applications types, including but not limited to: warehouses, gymnasiums, aircraft hangars, big box retail and convention centers.

### COMPLETE THE LIGHTING DESIGN LAYOUT

#### STEP 1: SELECT WILLIAMS LUMINAIRES WITH LINKTair CONTROL

- All luminaires require a LINKTair controller.
- Select control type shown on spec sheet:
  - LA-R/DA – LINKTair wireless fixture only control, RF only
  - LA-SL1/DA – LINKTair wireless fixture control with integral occupancy and daylight sensor, L1 lens
  - LA-SL2/DA – LINKTair wireless fixture control with integral occupancy and daylight sensor, L2 lens
- Refer to luminaire spec sheet for details.

#### WAREHOUSE LIGHTING PLAN EXAMPLE



Legend	Description
	Williams luminaire with LINKTair control (LA-R/DA)
	Williams luminaire with LINKTair sensors (LA-SL1/DA   LA-SL2/DA)

# LINKTair DESIGN GUIDE

## WIRELESS CONTROL SOLUTION

### STEP 2: COMPLETE LIGHTING CONTROL DESIGN & SEQUENCE OF OPERATIONS

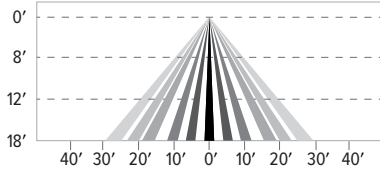
#### A. Determine control objectives

- Zone lights based on space control requirements, including energy codes, emergency lighting and customer needs.
- Select LINKTair wireless control devices based on zoning and control sequence.
  - Use occupancy sensor lens coverage patterns to add devices to control plan.

#### LENS COVERAGE PATTERNS

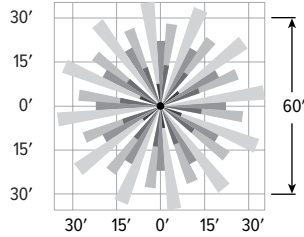
##### SIDE VIEW

L1 Coverage at 18' mounting height: ø60'

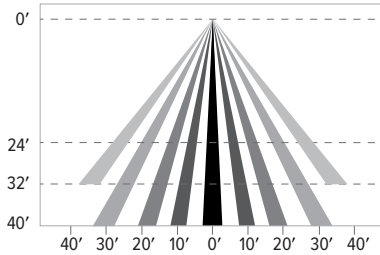


##### TOP VIEW

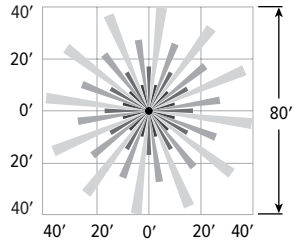
Coverage at 18' mounting height: ø60'



L2 Coverage at 40' mounting height: ø70'



Coverage at 32' mounting height: ø80'



- If daylighting is required, use the integral sensor (LA-SL1/DA or LA-SL2/DA) or stand-alone sensor (LA-SSL1 or LA-SSL2). Wall switch with occupancy sensor (LA-WSS) does not have a daylighting option.
- **RECOMMENDED:** Create a control schedule defining zones by control device, control type, and description of intended sequence of operation.

#### CONTROL SCHEDULE EXAMPLE

ZONE NAME	CONTROL DEVICE	LOCATION	CONTROL TYPE	SEQUENCE OF OPERATION <sup>1</sup>
ALL LIGHTS	Wall switches	Near dock doors	Manual control	Manual on, auto on/off via OCC, manual off
DK Z1	OCC sensor	Ceiling mount	OCC sensor w/daylighting	Manual on, auto on/off via OCC (15 min delay) or daylight (100fc), manual off
DK Z2	OCC sensor	Ceiling mount	OCC sensor w/daylighting	Manual on, auto on/off via OCC (15 min delay) or daylight (100fc), manual off
AL Z1	OCC sensor	Integral fixture	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
AL Z2	OCC sensor	Integral fixture	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
AL Z3	OCC sensor	Integral fixture	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
AL Z4	OCC sensor	Integral fixture	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
AL Z5	OCC sensor	Integral fixture	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
AL Z6	OCC sensor	Integral fixture	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
TR Z1	OCC sensor	Ceiling mount	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
TR Z2	OCC sensor	Ceiling Mount	OCC Sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)

<sup>1</sup> Sequencing starts when user enters space. Organization of sequence is: start of hours of operations; during hours of operations; end of hours of operations.

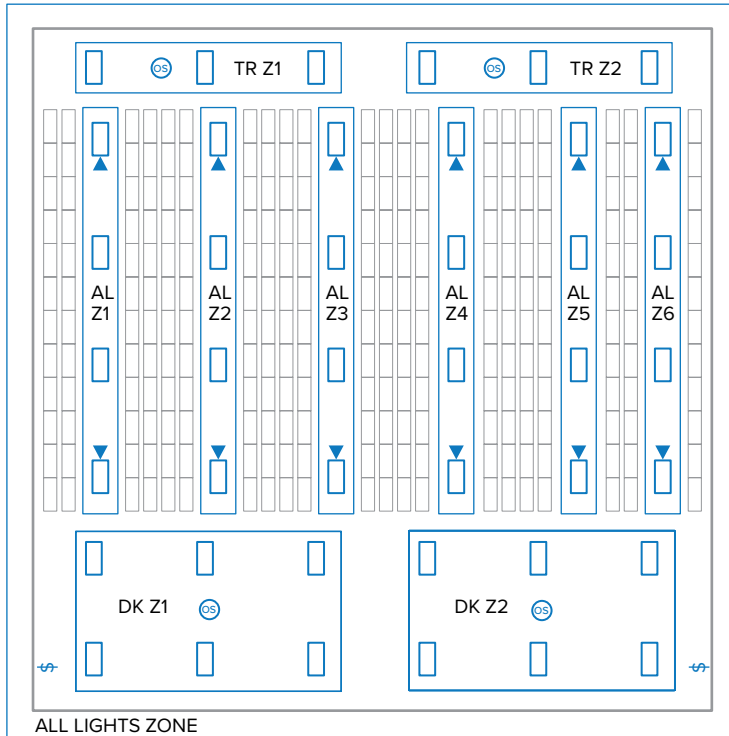
# LINKTair DESIGN GUIDE

## WIRELESS CONTROL SOLUTION

### B. Update lighting plan with all materials needed for a complete LINKTair wireless control system

- This plan can be used in the online project portal of the commissioning software. See [LINKTair Quick Start Guide](#) for details.

### WAREHOUSE LIGHTING PLAN COMPLETE EXAMPLE



Legend	Description
	Williams luminaire with LINKTair control (LA-R/DA)
	Williams luminaire with LINKTair sensors (LA-SL1/DA   LA-SL2/DA)
	Williams LINKTair ceiling sensor (LA-SSL1   LA-SSL2)
	Williams LINKTair manual wall switch (LA-WS)

### SPECIFICATION CHECKLIST

- Specify Williams luminaire with LINKTair control designator
  - Using the luminaire spec sheet, create complete catalog number (include all required luminaire designations).
    - Wireless occupancy sensor integral to Williams luminaire is designated under CONTROL on the luminaire spec sheet.
- Specify Williams LINKTair wireless mesh accessories
  - Stand-alone occupancy sensor control projects (if applicable)
  - Wall switch (on/off, dimming) or wall switch with occupancy sensor (if applicable)
  - Commissioning software tool
    - Required for use with Williams LINKTair wireless systems control projects, available in desktop and mobile apps.
- Construction documents
  - Luminaire schedule
  - Wiring diagram detail (including controls materials specification)
  - Controls schedule (including sequence of operations)
  - Division 26 specification
- For questions or concerns
  - Contact your local H.E. Williams, Inc. manufacturer's agent, or [controls@hew.com](mailto:controls@hew.com)