#### **PROGRAMMING FUNCTIONS** -

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Follow Photocell Mode	4
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- 19 Dimming Rate
- 23 Occupied Bright Level
- 24 Unoccupied Dim Level

- EVEL FUNCTIONS Name Unit w/ Number Manual On (Semi-Auto) Grace Period Predictive Exit Time
- Predictive Grace Time
- Occupancy Tracking
- Occupancy Tracking Channel
- Photocell Tracking

- 22 Maintain Dim Level When Vacant
- 23 Special Switch Tracking Mode
- 29 Occupancy Expiration of Manual Off
- 30 Timed Expiration of Manual Off
- 31 High End Trim
- 32 Low End Trim

### NOTE:

Additional settings can be configured via SensorView software.

- 14 Photocell Tracking Channel
- 15 Switch Tracking
- 17 Forced Override
- 18 Special Operating Mode

### A-LEVEL PROGRAMMING INSTRUCTIONS \_\_\_\_

### PLEASE READ ALL 4 STEPS BEFORE PROGRAMMING

- Enter A-Level programming mode by pressing button the number of times as the desired function number from A-Level Detailed Function Tables below (e.g., press 5 times for function 5. Switch Tracking Channel).
- 2. The selected function's current setting is indicated via LED flashes (e.g., 2 flashes for Switch Tracking - Channel 2). To change, proceed to step 3 before it repeats 3 times.
- . While the sensor flashes back current setting, press the button the number of times for the new desired setting as indicated in the detailed table (e.g., press 3 times for Switch Tracking - Channel 3). Sensor flashes new setting as confirmation.
- 4. Programming mode exits automatically when setting sequence flashes back 3 times without interruption

### A-LEVEL DETAILED FUNCTION TABLES .

2 = Lumen Compensation

1	Disabled (n100	) <b>2</b> Er	abled (n80)

#### 3 = Idle Time Until Dim

1 30 sec 3 5 min 5 10 min 7 15 min 9 20 min 2 2.5 min 4 7.5\* min 6 12.5 min 8 17.5 min

# 5 = Switch Tracking Channel 1 - 16 (e.g., 1 = Channel 1\*; 2 = Channel 2; etc.)

### 6 = Follow Photocell Mode

1 Disable\* 2 Enabled (Neg) 3 Enabled (Pos/Neg)

#### 7 = Secondary Zone Dimming Offset

						_						
1	-100%	5	-60%	9	-20%	13	20%	17	60%	21	100%	
2	-90%	6	-50%	10	-10%	14	30%	18	70%			
3	-80%	7	-40%	11	0% *	15	40%	19	80%			
4	-70%	8	-30%	12	10%	16	50%	20	90%			

=	WallPo	d E	Dimmiı	ng /	Adjus	tm	ents		
1	Permane	ent*		2	Tempo	rary		3	Photocell Temp. Override
=	Restore	e F	actorv	De	aults	5			
1	Maintain	Cu	rrent*	2	Restor	e De	efaults		
9 =	Dimm	inc	Rate						
1	5 min	2	15 sec	3	5 sec*	4	2 sec	5	Instant
3 =	= Occur	oie	d Bria	ht L	evel				

23 =	UCCU	pie	a Bri	αητι	.evei							
1	1%	3	20%	5	40%	7	60%	9	80%	11	100%*	
2	10%	4	30%	6	50%	8	70%	10	90%			

#### 24 = Unoccupied Dim Level

1	1%*	3	20%	5	40%	7	60%	9	80%	11	100%	
2	10%	4	30%	6	50%	8	70%	10	90%			

### B-LEVEL PROGRAMMING INSTRUCTIONS

#### PLEASE READ ALL 4 STEPS BEFORE PROGRAMMING

- Enter B-Level programming mode by holding down button until status LED flashes rapidly, release, hold down until rapid flash again, release, then immediately enter programming function as described in step 2.
- Enter a programming function by pressing button the number of times as the desired function number from the *B-Level Detailed Function Tables* below (e.g., press twice for function 2. Semi-Auto Grace Period).
- Staus LED will flash back the selected function's current setting (e.g., 3 flashes for 15 sec). To change setting, proceed to step 3 before flash back sequence repeats 3 times. To exit the current function or to change to a different function, wait for sequence to repeat 3 times and return to step 1
- Press button the number of times indicated in the particular function's detailed table for the new desired setting (e.g., press 1 time for 0 sec). As confirmation of setting change, status LED flashes back the new setting 3 times before exiting.

### **B-LEVEL DETAILED FUNCTION TABLES**

#### 1 = Name Unit w/ Number

1	1	3	3	
2	2	4	4	

### 2 = Manual On (Semi-Auto) Grace Period

1 0 sec 3 15 sec\*

#### 3 = Predictive Exit Time

		_							
1	5 sec	3	7 sec	5	9 sec	7	15 sec	9	30 sec
2	6 sec	4	8 sec	6	10 sec*	8	20 sec		

### 4 = Predictive Grace Time

1	0 sec	3	10 s
2	5 sec*	4	20 s

11 = Occupancy Tracking 1 Disable 2 Enable\*

# 12 = Occupancy Tracking Channel 1 - 16 (e.g., 1 = Channel 1\*; 2 = Channel 2; etc.)

13 = Photocell Tracking 1 Disable 2 Enable\*

14 = Photocell Tracking Channel 1 - 16 (e.g., 1 = Channel 1\*; 2 = Channel 2; etc.)

15 = Switch Tracking 1 Disable 2 Enable\*

5	5	7	7	9	9
6	6	8	8	10	Unassigned*

C	5	30 sec	7	50 sec
C	6	40 sec	8	60 sec

\*Indicates Factory Default

#### 17 = Forced Override

<ol> <li>Disabled (not forced)*</li> </ol>	2	Override On	3	Override Off
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#### 18 = Special Operating Mode

1	Normal*	5	Predictive Off						
2	Manual On	6	Manual to Override On						
3	Auto to Override On	7	Manual to Normal						
4	Manual to Full Auto								
2 = Maintain Dim Level When Vacant									
1	No* 2 Yes								
2 -	Special Switch Tree	kin	a Modo						

#### 23 = Special Switch Tracking Mode

1	Disable*	2	Ignore Offs	3	Ignore Ons	4	Ignore Ons & Offs
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### 29 = Occupancy Expiration of Manual Off

1 Disabled\* 2 Enabled

#### 30 = Timed Expiration of Manual Off

1 Disabled\* 2 Enabled

#### 31 = High End Trim\*\*

1	0.7V	3	2V	5	4V	7	6V	9	8V	11	10V
2	1V	4	3V	6	5V	8	7V	10	9V		

#### 32 = Low End Trim\*\*

1	0.7V	3	2V	5	4V	7	6V	9	8V	11	10V
2	1V	4	3V	6	5V	8	7V	10	9V		

\*Indicates factory default unless dependent on model number.

\*\* Setting precision of 0.1V is available via SensorView. Device status LED blinks out current value rounded to nearest selection above

#### A-LEVEL FUNCTION DEFINITIONS

#### 2 LUMEN COMPENSATION An algorithm that tracks the LED luminaire's runtime and manages

its light output to maintain constant lumen output over the system life.

#### **3 IDLE TIME UNTIL DIM**

The length of time after last detected occupancy that the luminaire will reduce lighting level to Unoccupied Dim Level setting.

are implemented. Note: dimmind level changes initiated via global or local preset scenes are always

this setting. When set at 100%

light level will match High End Trim

The percentage of controllable

dimming range to which lights

manually or automatically dim to.

once the Idle Time Until Dim timer

expires. When set at 1%, light level

will match Low End Trim level. See

level See function B31

function B32

#### 5 SWITCH TRACKING CHANNEL

The channel on which the luminaire 23 OCCUPIED BRIGHT LEVEL receives switch information.

#### 6 FOLLOW PHOTOCELL MODE Directs the luminaire relative to a dimming photocell in its zone.

SECONDARY ZONE DIMMING OFFSET Percentage difference of unit's dimming level from its connected zone's primary dimming level (Function 6 must be enabled). 24 UNOCCUPIED DIM LEVEL

8 WALLPOD DIMMING ADJUSTMENTS

Defines whether user dimmina adjustments are maintained after lights are cycled, whether they revert to preset levels, or whether they temporarily disable a connected dimming photocell (until lights cycle)

9 RESTORE FACTORY DEFAULTS Returns all functions to original settinas.

#### 19 DIMMING RATE

The elapsed time over which changes to dimming levels initiated via global or local profile scenes

### 4 PREDICTIVE GRACE TIME (valid for Predictive Off mode only)

The time period after the Predictive Exit Time that the sensor rescans the room for The percentage of the controllable remaining occupants dimming range up to which lights will rise when occupancy 11 OCCUPANCY TRACKING is detected or the luminaire is Indicates whether luminaire will react to occupancy information overridden on. Adjusting the dim level using a WallPod changes

#### 12 OCCUPANCY TRACKING CHANNEL

The channel on which luminaire receives occupancy information

3 PREDICTIVE EXIT TIME (valid for Predictive Off mode only)

B-LEVEL FUNCTION DEFINITIONS

Applies a number to the default name visible in SensorView (useful during

When in Manual On (Semi-Auto) mode (Function B-18), the time period after lights

The time period after manually switching lights off for the occupant to leave the

are automatically turned off that they can be reactivated with movement

#### 13 PHOTOCELL TRACKING

1 NAME UNIT w/ NUMBER

commisioning)

space

Indicates whether luminaire will react to photocell information

### 14 PHOTOCELL TRACKING CHANNEL

2 MANUAL ON (SEMI-AUTO) GRACE PERIOD

The channel on which luminaire receives photocell information

#### 15 SWITCH TRACKING

Indicates whether luminaire will react to switch information

#### 17 FORCED OVERRIDE

Indicates whether luminaire is forced to max level or off

B-LEVEL FUNCTION DEFINITIONS (cont.)

#### 18 SPECIAL OPERATING MODE

Unique defined behaviors of luminaire:

#### NORMAI

Operating Mode where occupancy sensors are capable of turning lights both on/off

#### SEMI-AUTO (MANUAL ON)

Special Mode that requires the occupant to manually turn the lights on, while having them turn off automatically by a sensor

#### AUTO TO OVERRIDE ON

Special Mode where lights are turned on initially by occupant detection but remain in the Override On state

#### MANUAL ON TO FULL AUTO

Special Mode that initially requires the occupant to manually turn on the lights, after which the sensor assumes full on/off control

#### PREDICTIVE OFF

When lights are switched off, sensor determines whether occupants remain or left the room, so as to leave the lights in either the Override Off or Auto On state

#### MANUAL TO TIMED OVERRIDE ON

Special Mode where lights are initially turned on manually but remain in the Override On state for a pre-determined period (Timed Override Delav)

#### MANUAL TO NORMAL

Special Mode where lights are initially turned on manually but remain in the Normal State (enabling auto-dimming) for a pre-determined period (Timed Override Delay)

#### 22 MAINTAIN DIM LEVEL WHEN VACANT

Prevents lights from turning fully off once in unoccupied state

### B-LEVEL FUNCTION DEFINITIONS (cont.)

#### 23 SPECIAL SWITCH TRACKING MODE

information

#### 29 OCCUPANCY EXPIRATION of MANUAL OFF

When enabled, operation of device will revert from a push-button triggered override off state to Normal mode once the Occupancy Time Delay (adjustable via SensorView or push-button) expires. Not used with Manual On operating modes.

#### 30 TIMED EXPIRATION of MANUAL OFF

When enabled, operation of device will revert from a push-button triggered override off state to Normal mode once the *Timed Override Delay* (adjustable via SensorView) expires. Not used with Manual On operating modes.

#### 31 HIGH END TRIM

Maximum voltage level of the device's dimming output. Commonly used for task tuning where absolute light level is not to be increased via a Wallpod or scene. When output is at high end trim, the reported control percentage will be 100%. Corresponding lumen output % is dependent on ballast/driver capabilities. Raising setting above factory default is not recommended as default is optimized to driver control range.

#### 32 LOW END TRIM

Minimum voltage level of the device's active dimming range. Level can not be reduced via a WallPod or scene. Note, voltage level may go below this level when device is given an OFF command (for example when controlling LED drivers with sleep mode). When output is at low end trim, the reported control percentage will be 1%. Corresponding lumen output % is dependent on ballast/driver capabilities Lowering setting below factory default is not recommended as default is optimized to driver control range.

Defines unique behavior related to how luminaire responds to particular switch

# **Cuity**Controls nLight<sub>®</sub>

# PROGRAMMING INSTRUCTIONS for nLIGHT ENABLED DIGITAL LUMINAIRES

nLight Device Series:

nIO LED(G)

nEIO LED(G)

nIO EZ

nEPS 60 IO EZ

nPS 80 EZ

Technical Support: 1.800.535.2465

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