Advantage Series Strip (AST)
LED Strip Fixture

OVERVIEW

Lumen Package (lm)	1,400 - 11,000
Wattage Range (W)	10 - 80
Efficacy Range (LPW)	121 - 144
Weight lbs (kg)	1.7 - 5.9 (0.8 - 2.7)
Control Options	QCMSx, IMWS

QUICK LINKS

FEATURES & SPECIFICATIONS

Construction

- Rigid steel body with a variety of lens shape options
- Standard finish is gloss white

Optical System

- Available with diffuse square or curved polycarbonate lens.
- All units are CCT (3000K/3500K/4000K/5000K) and lumen selectable (see ordering guide for details)
- Selectability can be locked to a specific setting using the LxxCxx feature, which is processed as a special request.
- Wide distribution, 130 degree beam spread
- Minimum CRI of 80

Electrical

- Universal Voltage (120-347 VAC) Input 50/60Hz
- L70 Calculated Life: 100,000+ hours
- High Efficiency Driver: minimum 85%
- 0-10V dimming (1% - 100%) standard

- Emergency battery backup available with 4W (4ft) or 8W (8ft) output
- Operating temperature range -30 to +50C (-22F to +122F) refer to ambient temperature table for specific units.

Controls

- Controls Options Include:
- Simple Sensor PIR end mount motion sensor available (QCMS35)
- Simple Sensor Integral Microwave Sensor (IMWS)

Installation

- Mounting options include: cable mount (MCH), surface mount (SMK), or Toggle Cable Hanger(CH). See accessory table for appropriate mounting hardware ordering information.
  - For continuous row application, please refer to the accessory table for appropriate row alignment plates and continuous row connector part numbers
  - Maximum continuous row installation lengths are noted in the performance table section

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsiindustries.com/resources/terms-and-warranty.aspx for more information.

Listings

- Listed to UL 1598 and UL 8750.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for damp locations
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.Specifications and dimensions subject to change without notice.

Advantage Series Strip (AST) LED Strip Fixture

Have questions? Call us at (800) 436-7800

ORDERING GUIDE

TYPICAL ORDER EXAMPLE: AST 4 FS CPD UNC QCR35 EM

Prefix	Length	Lumen Package		Lens/Distribution
AST - Advantage Series Strip (2nd Generation)	**2** - 2ft	**FS** - Fully Selectable (14L-20L-28L/3000K-3500K-4000K-5000K)		**SPD** - Square Polycarbonate Diffuse General Distribution
	4 - 4ft	**FS** - Fully Selectable (28L-42L-54L/3000K-3500K-4000K-5000K)		**CPD** - Curved Polycarbonate Diffuse General Distribution
	8 - 8ft	**FS** - Fully Selectable (84L-96L-110L/3000K-3500K-4000K-5000K)		

Voltage	Controls	EM Options	Options	
UNC - 120 - 347V	**QCR35** - Quick Control Receptacle (Allows addition of QCMS35 sensor accessory) **IMWS** - Integral Microwave Motion Sensor[2, 3] For programming, please see "Sensors Sequence of Operations Charts"	**EM** - Battery Backup (120-347V)[1]	**E6CN** - 6ft cord 16/3 non-dimming; no plug installed on TOP END **E6CD** - 6ft cord 16/5 dimming; no plug installed on TOP END **E10CN** - 10ft cord 16/3 non-dimming; no plug installed on TOP END **E10CD** - 10ft cord 16/5 dimming; no plug installed on TOP END **515P** - 5-15 plug only (120V)	**L515P** - 5-15P Twistlock Plug (125V) **L615P** - 6-15P Twistlock Plug (250V) **L715P** - 7-15P Twistlock Plug (277V) **L2420P** - 24-20P Twistlock Plug only 347V) **LxxCxx** - Selectable Lock (i.e. L84C30 = 84L/3000K)[2, 3]

Need more information?
Click here for our glossary

Have additional questions?
Call us at (800) 436-7800

ACCESSORY ORDERING INFORMATION

| Part Number	Order Number	Description
832394	AST-2-BP	AST 2ft Beauty Plate (Covers 4 inches)
832396	AST-4-BP	AST 4ft Beauty Plate (Covers 4 inches)
832397	AST-8-BP	AST 8ft Beauty Plate (Covers 4 inches)
832398	AST-CRAL	AST Continuous Row Alignment Long Plate (Screw into fixture - Suspended and Surface Mount)
835513	AST-CRAS	AST Continuous Row Alignment Short Plate (No screws - Surface Mount Only)
885922	AST-TGAJ	AST-T Grid Alignment Bracket Joiner Kit (4ft/8ft only)
885923	AST-TGAE	AST-T Grid Alignment Bracket Ender Kit (4ft/8ft only)
838272	AST-2-CRCK3	AST 2ft Continuous Row Connector Kit (2 Cables with quick connects - 3 wire power, 2 wire dimming)
838274	AST-4-CRCK3	AST 4ft Continuous Row Connector Kit (2 Cables with quick connects - 3 wire power, 2 wire dimming)
838275	AST-8-CRCK3	AST 8ft Continuous Row Connector Kit (2 Cables with quick connects - 3 wire power, 2 wire dimming)
845454	ASH-2	Asymmetrical Shield 2ft
845456	ASH-4	Asymmetrical Shield 4ft
845457	ASH-8	Asymmetrical Shield 8ft
832410	TCH3	3' Toggle Cable Hanger (2 per) - Up/Down Adjustable and Left/Right Adjustable
431373	TCH10	10' Toggle Cable Hanger (2 per)
783379R4	MCH10	10' Mini Hook Cable Hanger (2 per) - Up/Down Adjustable and Left/Right Adjustable
842373	QCMS35	Quick Control PIR Motion Sensor 3.5mm
808429	QCEA35	Quick Control Motion Elbow Extender 3.5mm
802874	QCALBMSD35	Quick Control Airlink Blue Motion Sensor 3.5mm
792552	QCREM	Quick Control Remote Config Tool
838361	AST-SL	AST Selector Lock Plate (if needed after installation)
832411	AST-2-WG	AST 2ft Wireguard
832413	AST-4-WG	AST 4ft Wireguard
832414	AST-8-WG	AST 8ft Wireguard

AST-CRAL

AST-CRAS

AST-TGAJ
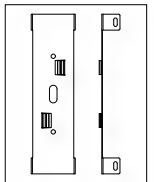
AST-TGAE
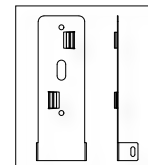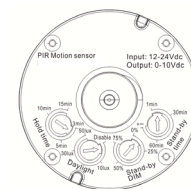
AST-X-CRCK

IMWS

QCR35

QCEA35

QCMS35

QCMS35

1 - Not used
2 - LxxCxx option is processed as a special request with price adders
3 - Continuous run wiring is not compatible with the Selectable Lock option

Advantage Series Strip (AST) LED Strip Fixture

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Type : _____

PERFORMANCE

Cord Application Notes

		Not Dimming				Dimming	
		No Emergency or Controls	Emergency	Controls[1]	Emergency and Controls	No Emergency or Controls	Emergency
Switched Circuitry Using a Wall Switch to Dim[2]	Plug	Yes	No	Yes	No	No	No
	# of Cord Wires	3	4	3	4	5	6
Non-Switched Circuitry Using Controls to Dim[3]	Plug	Yes	Yes	Yes	Yes	No	No
	# of Cord Wires	3	3	3	3	5	6

Delivered Lumens

Length	Lumen Package	Lens Type	CRI	3000K CCT		3500K CCT		4000K CCT		5000K CCT		Wattage
				Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	
2 FT	14L	CPD - Curved	80	1314	130	1420	141	1456	144	1411	140	10
		SPD - Square		1278	127	1381	137	1416	140	1372	136	
	20L	CPD - Curved	80	1861	128	2009	139	2061	142	1998	138	15
		SPD - Square		1815	125	1961	135	2011	139	1949	134	
	28L	CPD - Curved	80	2514	123	2715	133	2785	137	2699	132	20
		SPD - Square		2466	121	2664	131	2732	134	2648	130	
4 FT	28L	CPD - Curved	80	2556	130	2760	140	2831	144	2744	139	20
		SPD - Square		2531	128	2734	139	2804	142	2718	138	
	42L	CPD - Curved	80	3805	126	4109	137	4215	140	4085	136	30
		SPD - Square		3756	125	4057	135	4161	138	4033	134	
	54L	CPD - Curved	80	4936	123	5331	133	5468	136	5300	132	40
		SPD - Square		4866	121	5255	131	5390	134	5224	130	
8 FT	84L	CURVED	80	8344	139	9011	150	9242	154	8958	149	60
		SQUARE		8093	135	8740	145	8965	149	8689	145	
	96L	CURVED	80	9218	131	9955	142	10211	146	9896	141	70
		SQUARE		9027	129	9748	139	9999	143	9691	138	
	110L	CURVED	80	10101	125	10908	135	11188	138	10844	134	81
		SQUARE		9920	122	10712	132	10988	136	10649	132	

*LED Chips are frequently updated therefore values are nominal

Electrical Data (Amps)*

Lumen Package	Wattage	120V	208V	240V	277V	347V	480V
2 FT	10	0.08	0.05	0.04	0.04	0.03	0.02
2 FT	15	0.12	0.07	0.06	0.05	0.04	0.03
2 FT	20	0.17	0.10	0.09	0.07	0.06	0.04
4 FT	20	0.16	0.09	0.08	0.07	0.06	0.04
4 FT	30	0.25	0.14	0.13	0.11	0.09	0.06
4 FT	40	0.33	0.19	0.17	0.14	0.12	0.08
8 FT	60	0.50	0.29	0.25	0.22	0.17	0.13
8 FT	70	0.58	0.34	0.29	0.25	0.20	0.15
8 FT	80	0.67	0.38	0.33	0.29	0.23	0.17

*Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

CCT Proration

3000	0.90
3500	0.97
4000	1.00
5000	0.97

Ambient Temperature Rating C(F)

Length	W/O EM	W/ EM
2	50C (104F)	30C (86F)
4	50C (104F)	30C (86F)
8	35C (104F)	30C (86F)

EM Output Lumens

Length	EM Lumens	Wattage
2	No EM	No EM
4	540	4
8	1080	8

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PERFORMANCE (CONT.)

Max Run Length – # of Fixtures (Max Ft)						
Size	**Wattage**	**120V**	**208V**	**240V**	**277V**	**347V**
2 FT	10.1	35 (70')	61 (122')	70 (140')	81 (162')	101 (202')
2 FT	14.5	23 (46')	40 (80')	47 (94')	54 (108')	67 (134')
2 FT	20.4	17 (34')	30 (60')	35 (70')	40 (80')	50 (100')
4 FT	19.7	17 (68')	30 (120')	35 (140')	40 (160')	50 (200')
4 FT	30.1	12 (48')	20 (80')	23 (92')	27 (108')	34 (136')
4 FT	40.1	9 (36')	15 (60')	17 (68')	20 (80')	25 (100')
8 FT	60.1	6 (48')	10 (80')	12 (96')	13 (104')	17 (136')
8 FT	70.1	5 (40')	9 (72')	10 (80')	12 (96')	14 (112')
8 FT	81.0	4 (32')	8 (64')	9 (72')	10 (80')	13 (104')

PHOTOMETRICS

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

See the individual product page on https://www.lsicorp.com/ for detailed photometric data.

AST 4 FS SPD UN

Zonal Lumen Summary		
Zone	**Lumens**	**% Luminaire**
Low (0-30°)	1,001	19%
Medium (30-60°)	2,109	39%
High (60-80°)	1,086	20%
Very High (80-90°)	307	6%
Uplight (90-180°)	886	16%
Total Flux	5,390	100%

Polar Curve

■ Vertical Plane   ■ Horizontal Cone

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SPEC.2124.B.0425
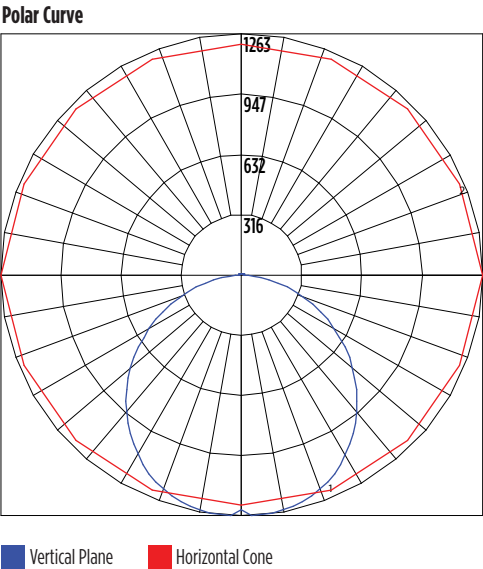
Advantage Series Strip (AST) LED Strip Fixture

Type : _____

PRODUCT DIMENSIONS

Advantage Series Strip, 2ft
with Curved Polycarbonate Diffuse
(AST 2 CPD)

2-3/8"
2-3/4"
24" (2ft)
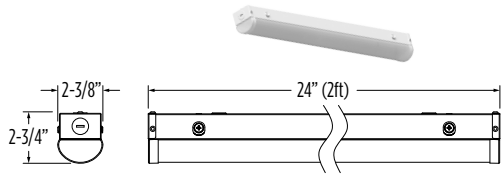
Advantage Series Strip, 2ft
with Square Polycarbonate Diffuse
(AST 2 SPD)

2-1/2"
2-5/8"
24" (2ft)
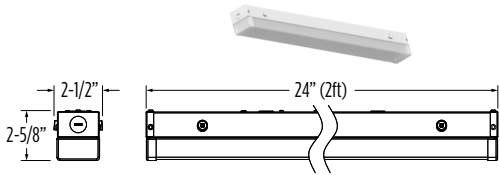
Advantage Series Strip, 4ft
with Curved Polycarbonate Diffuse
(AST 4 CPD)

2-3/8"
2-3/4"
48" (4ft)
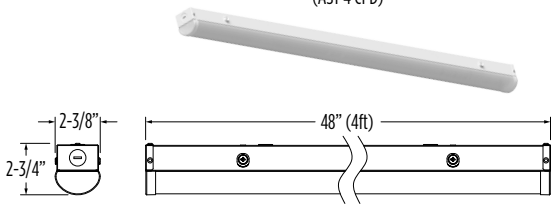
Advantage Series Strip, 4ft
with Square Polycarbonate Diffuse
(AST 4 SPD)

2-1/2"
2-5/8"
48" (4ft)
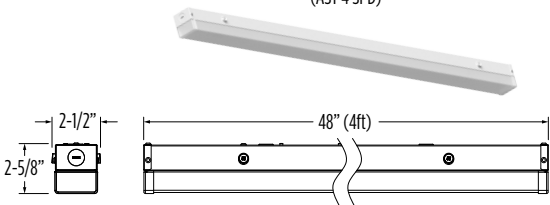
Advantage Series Strip, 8ft
with Curved Polycarbonate Diffuse
(AST 8 CPD)

2-3/8"
2-3/4"
96" (8ft)
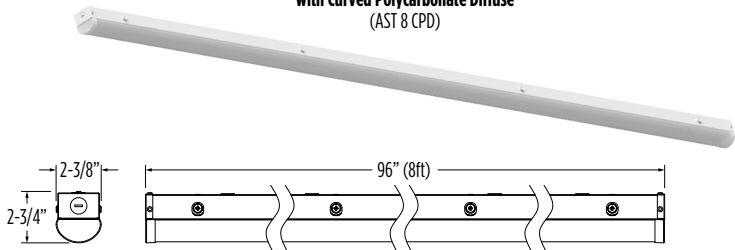
Advantage Series Strip, 8ft
with Square Polycarbonate Diffuse
(AST 8 SPD)
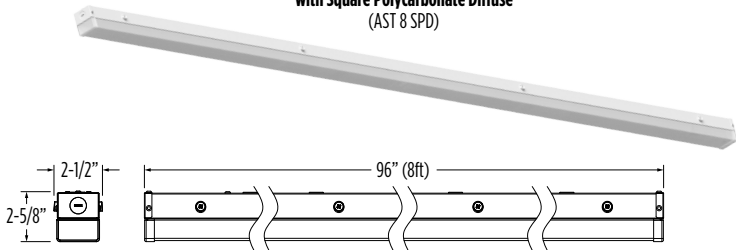
2-1/2"
2-5/8"
96" (8ft)

Advantage Series Strip (AST) LED Strip Fixture

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CONTROLS

1. 5.8GHz microwave motion sensor with dimmable function.
2. Suitable for Ceiling lights or Bulkhead.
3. Loop in and loop out for easy installation.
4. Sensitive and reliable
5. 3 year limited warranty.

HAISEN

cULus E496850   FC

On/off control | Detection area | Hold time | Daylight threshold | Stand-by period | Stand-by dimming level | warranty 3 years

Technical Data	
Operating voltage	120-277VAC,50Hz/60Hz
Switching capacity	Max,3.0A@120Vac,50/60Hz; Max,2.0A@277Vac,50/60Hz
Stand-by power	≤1W
Control method	On/off / 1-10V Dimming
Microwave frequency	5.8GHz±75MHz
Microwave power	<0.3mW
Detection area	10%/50%/75%/100%
Hold time	5s/30s/1min/5min/10min/20min/30min
Daylight threshold	2Lux/10Lux/50Lux/Disable
Stand-by period	0s/10 s/1 min/10 min/30 min/1 H/∞
Stand-by dimming level	10%/20%/30%/50%
Mounting height	2.5-6m /8.2-19.68ft
Detection range	Max.ø14m/45.93ft
Motion detection	0.5-1.5m/s
Operating temperature	-20ºC~+55ºC
IP rating	IP20
Warranty	3 years

Factory Default Setting: Detection area 100%/ Hold time 5s/ Daylight threshold Disable/Stand-by period 0s/ Stand-by dimming level 10%.
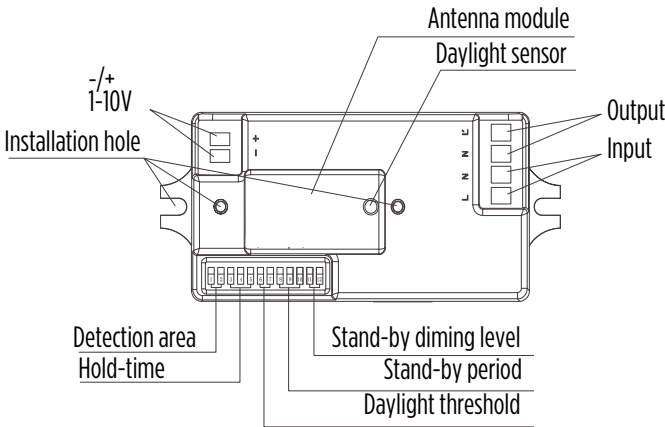
Detection Coverage

This figure indicates the maximum distance at the highest mounting height with 100% sensitivity. Typical installation height 2.5-6m

Ceiling Mounted
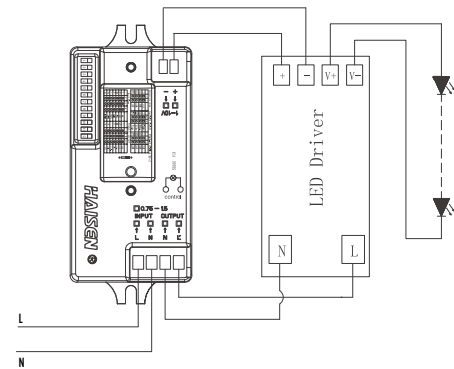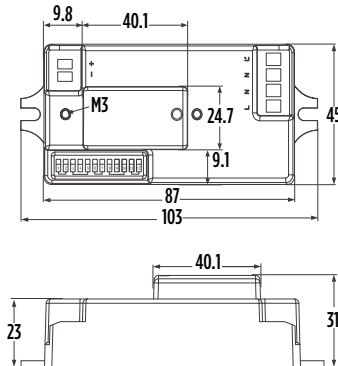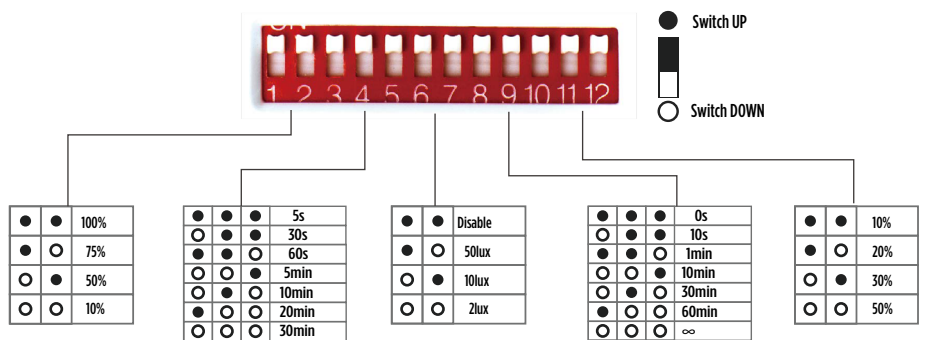
Mounting height

Wall Mounted

Mounting height
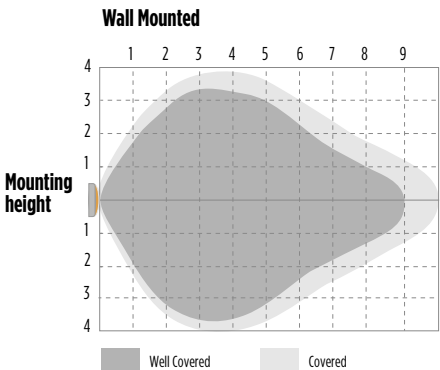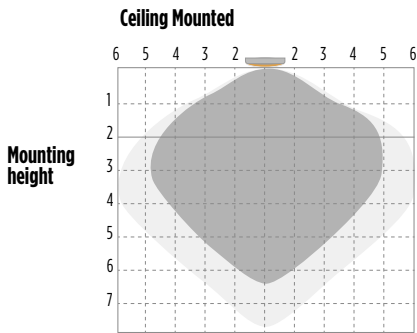
Well Covered   Covered

Mechanical Structure

Antenna module
Daylight sensor
-/+ 1-10V
Installation hole
Output
Input
Detection area
Hold-time
Stand-by diming level
Stand-by period
Daylight threshold

Have questions? Call us at (800) 436-7800

CONTROLS

Dimensions (Unit: mm)

Wiring Diagram

Settings

● Switch UP
○ Switch DOWN

		100%
●	●	100%
●	○	75%
○	●	50%
○	○	10%

●	●	●	5s
○	●	●	30s
●	●	○	60s
○	○	●	5min
●	○	○	10min
●	○	○	20min
○	○	○	30min

●	●	Disable
●	○	50lux
○	●	10lux
○	○	2lux

●	●	●	0s
○	●	●	10s
●	●	○	1min
○	○	●	10min
●	○	●	30min
●	○	○	60min
○	○	○	∞

●	●	10%
●	○	20%
○	●	30%
○	○	50%

Detection Area
In this area, movement will be detected and able to trigger the sensor. 100% detection area is also known as the strong sensitvity.

Hold-time
The period of light keeping 100% brightness after moving objects leave the detection area.

Daylight Threshold
Definition of the ambient brightness; only when the ambient brightness is lower than the preset specific lux amount, the sensor will work; when it's preset as "disable", the sensor works everytime it detects motion regardless the ambient brightness.

Stand-by Period
The period of light keeping low output before it's completely switched off. When it's preset as ∞ the light always keep at low output if no movement in the detection area and doesn't turn off.
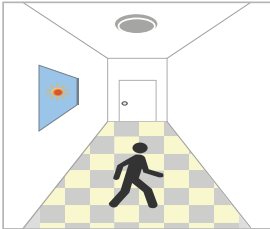
Stand-by Dimming Level
The definition of low output in the standby period.
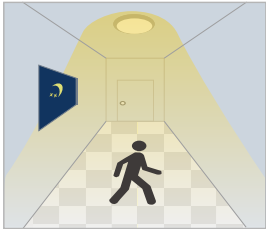
CONTROLS

Application

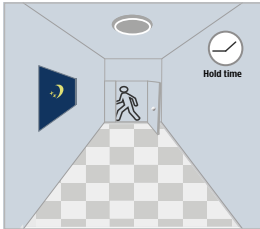#### 1. Automatically ON/OFF function:

Light on when detect movement and off after people leave at night. Applications: Corridor, Staircase.

With sufficient daylight, even when motion detected, light remains OFF.

With insufficient daylight, when motion detected, light ON.

After the last detection and the present hold time elapsed, light OFF.
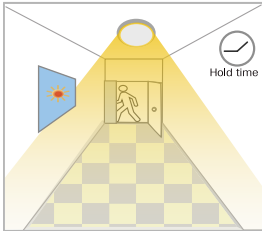
2. No daylight function

The daylight threshold is set to "Disable".

Light on when detect movement, After people leave, Light off after stand-by period.
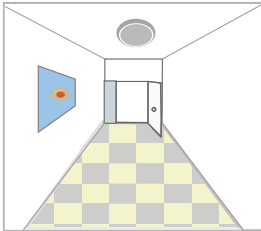
Applications: Dim places such as Basement Parking, Underpass.

When motion is detected, the sensor will switch on the light to 100% brightness.

After people leave the detection area, light remains 100% brightness within hold time.

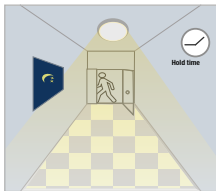After the last detection and the present hold time elapsed, light OFF.

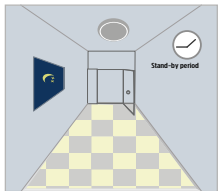#### 3. Function Demo - Dimmable control/Corridor function

With sufficient daylight, even when motion detected, light remains OFF.

With insufficient daylight, when motion detected, light ON.

After last detection, the light will be dimmed down to the stand-by dimming level (10%,20%,30% or 50%) after holdtime.

After the stand-by period, light OFF.