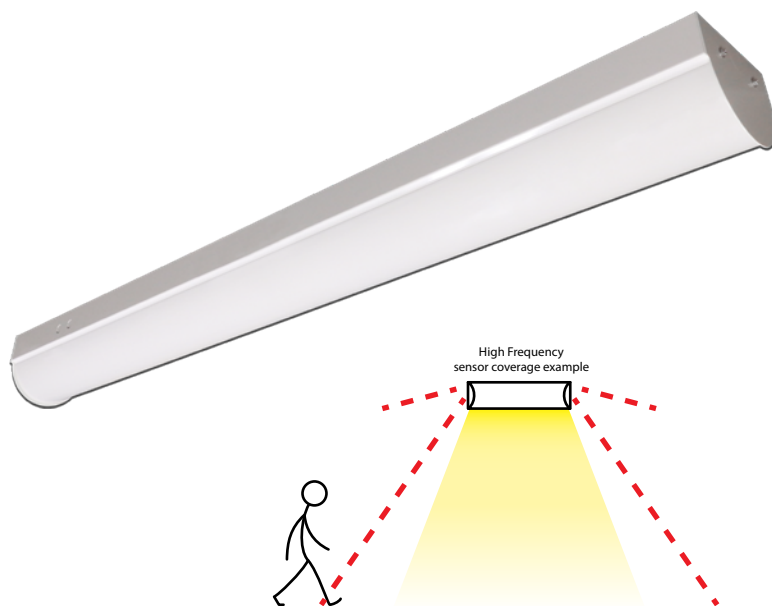


The Titan series is part of our Occu-Smart® S³ product line. Equipped with a concealed high frequency motion sensor, the Titan HF features bi-level operation with adjustable standby light levels, time delay and daylight hold-off for maximum energy savings. If all the features are just too much for your application, a simple on/off version is available too!

TTH titan series | high frequency motion sensor | adjustable standby or on/off



High frequency motion sensors can detect motion through many materials including glass, sheet rock walls, wood doors and the lens of a fixture, enabling the sensor to be hidden from view - consult factory to see if a HF sensor is the right fit for your application

Features and Specifications:

Construction:

- Housings are die-formed of code gauge steel for long-term dependable service
- Knockouts are provided for convenient mounting with recessed or surface power feeds
- Toolless entry and simple removal of board gear tray allow for easy installation and field maintenance
- High impact frosted Acrylic diffuser retained by injection molded end caps

Sensor Options:

- High Frequency motion sensor, internally mounted (on/off)
- High Frequency motion sensor with adjustable standby light level

Size Options:

- Available in 2' and 4' lengths (nominal)

Listing & Ratings:

- Fixtures are U.L. Certified and Union made in the USA
- Electrical components are U.L. listed or recognized
- Design Lights Consortium® (DLC) Premium qualified luminaire (2' Low 120V, 2' Med & High Universal Voltage, 4' Low & Med Universal Voltage)

Mounting Options:

- Stem mount or surface mount on ceiling or wall

Driver:

- Universal voltage 120-277V standard
- Custom driver tuning available for specific lumen requirements

Warranty:

- 5 years - part replacement only (see our terms & conditions page at www.lamarled.com for details)

See page 2 for lumen chart & dimensions

See page 3 for sensor details

Ordering Guide / Example

TTHF48M-50

TTH					
Series	Standby Options	Size	Power	CCT	General Options
TTH = Titan high frequency	F = High frequency occupancy sensor on/off (internal) A = High frequency occupancy sensor adjustable standby 10, 20, 30 or 50%	24 = 2' nominal 48 = 4' nominal	L = Low M = Medium H = High	30 = 3000K 35 = 3500K 40 = 4000K 50 = 5000K	EM = Emergency pack >90 min., >500 lumens (higher output & run time available - consult factory)

Consult factory for additional options not shown or listed

Correlated Color Temperatures (CCTs) fall within the nominal range as per ANSI C78.377A

Accessories (order separately)

HRC = HF sensor remote control

Project Information:

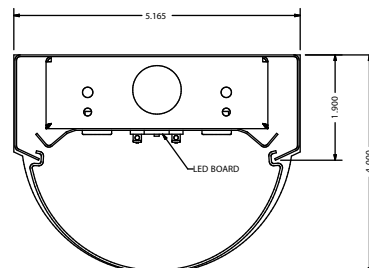
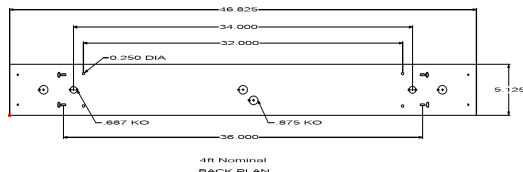
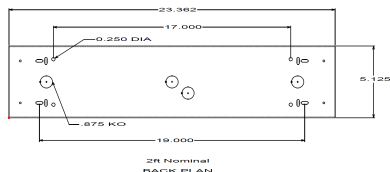
Job Name:	Fixture Type:
Catalog #:	Date:
Comments:	

Certification & Listings:



BEFORE INSTALLATION, PLEASE CONSULT YOUR LOCAL ORDINANCES AND BUILDING CODES FOR COMPLIANCE

Dimensions



When used in draft prone areas, fixtures with high frequency sensors should be rigidly mounted

LED Lumen/Wattage Chart - 4000K

High Mode

	Low (L)	Medium (M)	High (H)
2' (1 Board)	11.7W - 1370 lu	17.3W - 1618 lu	26W - 3045 lu
4' (2 Boards)	19.6W - 2716 lu	29.4W - 3462 lu	50.5W - 5920 lu

Low Mode Wattage

	Low (L)	Medium (M)	High (H)
2' (1 Board)	10% - 4.8W	10% - 4.7W	10% - 4.6W
	20% - 5.3W	20% - 6.0W	20% - 7.7W
	30% - 5.8W	30% - 7.4W	30% - 9.5W
	50% - 7.3W	50% - 10.3W	50% - 14.5W
4' (2 Boards)	10% - 4.8W	10% - 4.8W	10% - 7.3W
	20% - 6.3W	20% - 8.2W	20% - 14.2W
	30% - 9.1W	30% - 13.5W	30% - 20.5W
	50% - 11.4W	50% - 29.4W	50% - 27.7W

Photometrics TT(H,U)48M-4

Luminaire Lumens 3,462 / Luminaire Efficacy Rating (LER) 111 / Total Luminaire Watts 31.1
Spacing Criterion (0-180) 1.20 Spacing Criterion (90-270) 1.10

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

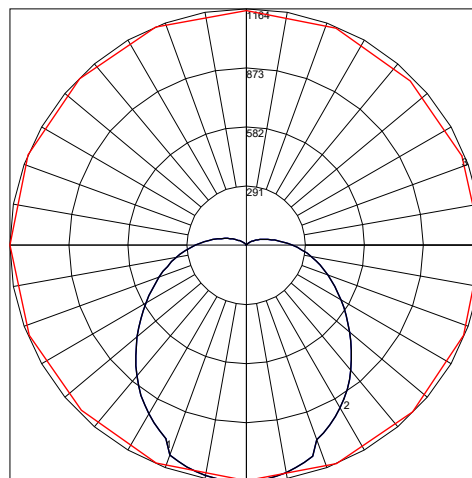
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	93			
1	105	100	95	91	102	97	92	88	91	88	84	86	83	80	81	79	77	74			
2	95	87	79	73	92	84	77	72	79	74	69	75	70	66	71	67	64	61			
3	87	76	67	61	84	74	66	60	70	63	58	66	60	56	62	58	54	51			
4	80	67	58	51	77	65	57	51	62	55	49	59	53	48	56	50	46	44			
5	73	60	51	44	71	59	50	44	56	48	42	53	46	41	50	45	40	38			
6	68	54	45	39	65	53	44	38	50	43	37	48	41	36	46	40	35	33			
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	32	29			
8	59	45	36	31	57	44	36	30	42	35	30	40	34	29	38	33	28	26			
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24			
10	51	38	30	25	50	37	30	25	36	29	24	34	28	24	33	27	23	22			

Maximum Candela = 1163.582 Located at Horizontal Angle = 180, Vertical Angle = 2.5

#1 - Vertical Plane Through Horizontal Angels (180-0) (Through Max. Cd.)

#2 - Vertical Plane Through Horizontal Angels (0-180)

#3 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)



ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	109.41
10-20	306.89
20-30	442.76
30-40	518.19
40-50	517.31
50-60	458.30
60-70	372.82
70-80	281.74
80-90	196.15
90-100	125.36
100-110	72.21
110-120	36.66
120-130	16.00
130-140	5.90
140-150	1.48
150-160	0.41
160-170	0.37
170-180	0.15

Specifications subject to change without notice - Rev 0721

Sensor Features/Details

Tri-level dimming control (corridor function)

Tri-level dimming control sensors offer 3 levels of light: 100% --> dimmed light (10%, 20%, 30% or 50% optional) --> off; And 2 periods of selectable waiting time: Motion hold-time and stand-by period; selectable daylight threshold and freedom of detection area



With sufficient natural light, the light does not switch on when presence is detected



With insufficient natural light, the sensor switches the light on automatically when a person enters the room



After hold-time, the light dims to stand-by level or turns off completely if surrounding natural light is above the daylight threshold



Light switches off automatically after the stand-by period elapses

Features:

- Adjustable detection area
- Hold-time
- Daylight threshold
- Stand-by period
- Stand-by dimming level
- Sensor antenna interface

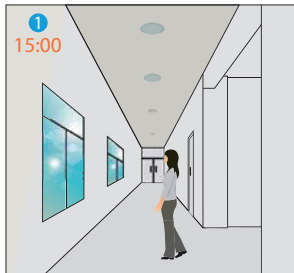
Factory set for bi-level operation 100%/10%

Tri-level dimming default factory setting = 10% bi-level
Off function = disabled

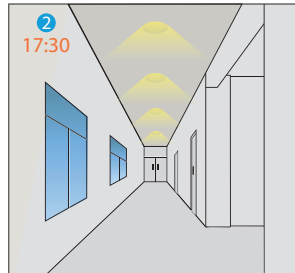
Daylight monitoring function default factory setting = disabled

Daylight monitoring function

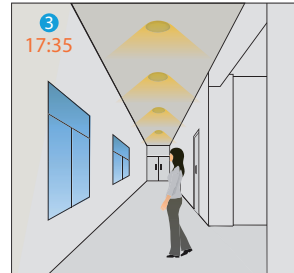
- 1) With sufficient natural light, the light will not turn on when motion is detected
- 2) After hold-time, the light turns off completely if surrounding natural light is sufficient
- 3) When stand-by period is preset at "+∞", the light will turn off completely when surrounding natural light is sufficient during stand-by period and turn on at dimming level automatically when natural light is below daylight threshold



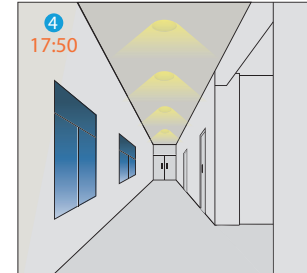
With sufficient natural light, the light does not switch on even when there is motion detected



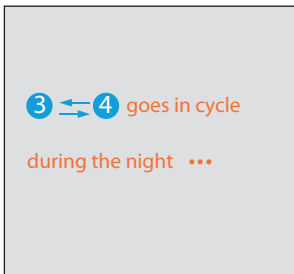
At dusk, as the natural light drops below threshold value, the sensor turns the light on at the dimmed level



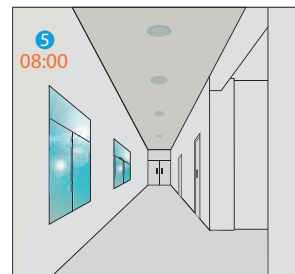
The light switches on at 100% when there is motion detected



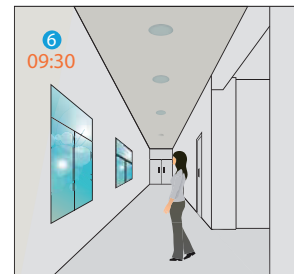
Light dims to stand-by level after the hold-time



100% on when motion is detected and dims to 10% in long absence



At dawn, light turns off completely when natural light reaches above daylight threshold



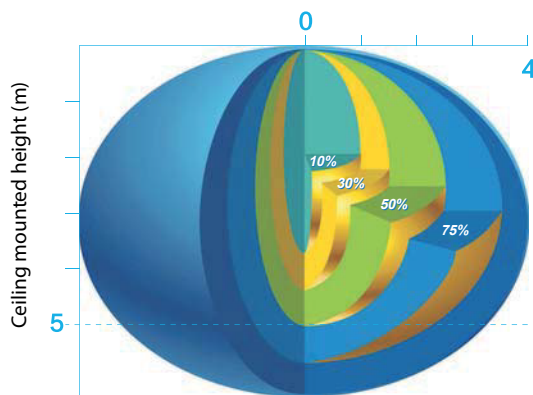
Light does not switch on even when motion is detected during the daytime

Settings on this demonstration:

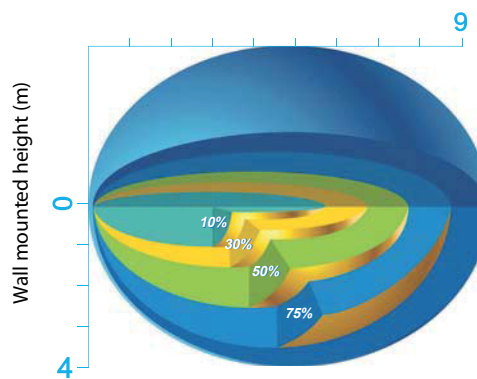
Hold-time = 10min
Daylight threshold = 50lux
Stand-by period +∞
Stand-by dimming level = 10%

Sensor Features/Details Continued

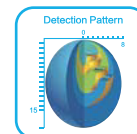
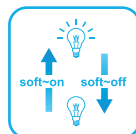
Detection pattern



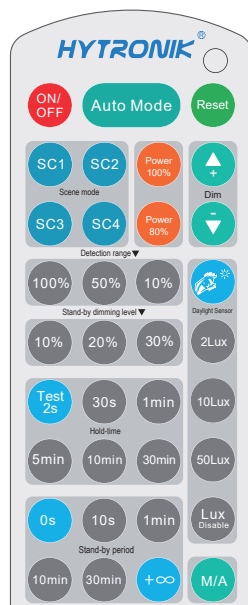
Ceiling mounted detection pattern (m)



Wall mounted detection pattern (m)



Sensor Accessories



HRC = High frequency sensor remote control

occu-smart®

LAMAR LED assumes no responsibility for misapplication of fixtures

Due to the rapid advancements in LED technology, please consult our website for the most current technical data.

Specifications subject to change without notice - Rev 0721

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