

DESCRIPTION

The Encounter HP™ redefines ambient lighting by blending modern contemporary styling with innovative WaveStream™ technology delivering exceptional performance and superior energy savings. Improved optics ensure better uniformity and distribution. Encounter HP's highly efficient LED system with advance optical design delivers an unparalleled combination of optimal light uniformity for enhanced visual comfort and superior efficiency for greater energy savings.

Encounter HP is compatible with today's popular ceiling systems and available in a variety of configurations for application versatility. A balance of form and function makes it an ideal choice for commercial office spaces, schools, hospitals, retail, and other indoor ambient applications.

SPECIFICATION FEATURES

Construction

Shallow 3-1/4" deep housing is extruded aluminum frame and injection molded composite end plates. End plates are securely attached with screws for strength and rigidity and the elimination of gaps. End plates have accessory grid-lock feature for safety and convenience. Four auxiliary fixture end suspension points are provided. Large access plate for supply connection.

Controls

The Encounter HP is Powered by Fifth Light, with a standard 0-10V continuous dimming driver that works with many types of controls, like dimmers, occupancy sensors, daylighting controls, or lighting relay panels to maximize energy savings. For individual control and out-of-the-box energy savings, the Encounter HP can include an optional factory-installed integrated sensor system "SVDP1" for occupancy, daylight dimming and manual control from within the footprint of the fixture. Combine safe, low-voltage power delivery and easy to use control with dim-to-dark performance into one cable, with the Distributed Low voltage Power (DLVP) system module providing increased safety and installation savings in place of traditional wiring. In addition, a

factory-installed integrated sensor system "SLVPD1" adds occupancy, daylight dimming and manual control to the DLVP system. Expand into fully-addressable systems by specifying Digital Addressable Lighting Interface (DALI) 10% "5LTD" or 1% "5LTHD" dimming drivers for use with Fifth Light controls. Or, go wireless and use the LumaWatt Pro powered by Enlighted option "LWIPD1" for a fully integrated sensor system with Internet of Things (IoT) connectivity and configurable software.

Electrical

Long-life LED system coupled with electrical driver to deliver optimal performance. LED's available in 3000K, 3500K, 4000K or 5000K with a typical CRI ≤ 85. Projected life is 100,000 hours at 92% lumen output. Electronic drivers are available for 120-277V applications.

Emergency Battery Pack Option

Optional 120v-277v integral emergency battery pack is available in 7-watts or 14-watts to meet critical life-safety lighting requirements. The 90-minute batteries provide constant power to the LED system, ensuring code-compliance. A test switch/indicator button can be tested safely from the ground using a laser pointer, while the patented EZ Key prevents

Catalog #		Type
Project		
Comments		Date
Prepared by		

accidental discharge of the battery during construction. See ordering information for details.

Driver Access

Drivers can be accessed via plenum.

Finish

Durable frame has high reflectance baked matte white enamel finish for luminous uniformity.

Optics

Precision formed optical assembly with positively retained high optical grade acrylic lenses provide a directed optical distribution using WaveStream technology. Benefits include reduced high angle light, better uniformity due to batwing distribution, and more direct light on the intended space.

Compliance

Components are UL recognized. Indoor luminaires are cULus and CSA listed for 25° C ambient environments, RoHS compliant, and comply with IESNA LM-79. LEDs comply with LM-80 standards. DesignLights Consortium™ Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.

Warranty

Five year warranty.



**24EN
LED**

**HIGH PERFORMANCE
2' X 4' TROFFER
LED MODULE**

Specification Grade Troffer

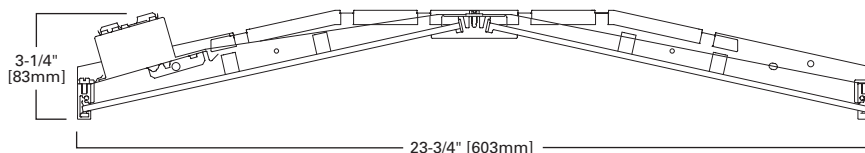


CERTIFICATION DATA

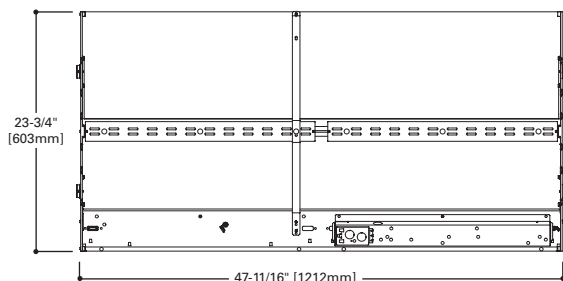
cULus - 1598 and 2043**
Damp Location Listed
CSA
IC Rated
LM79/LM80 Compliant
ROHS Compliant
DesignLights Consortium™ Qualified
NOM Compliant

*See Drywall Frame Kit Accessory in Ordering Information section.

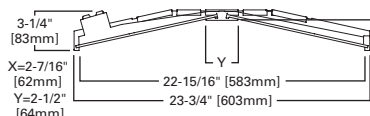
**Fixture construction is suitable for use in Air-handling and plenum rated spaces in accordance with Section 300.22 (C) of the National Electrical Code, Section 4.3.11.2.6.5 of NFPA 90A and Section 602.2.1.4 of ICC.



MOUNTING DATA



LAMP CONFIGURATIONS



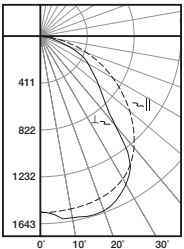
CEILING COMPATIBILITY

Grid/Lay-in Standard	Drywall Frame Kit	Ceiling Type	Trim Type
G	F	Exposed Grid	G
		Concealed T	G or T
		Slot Grid	G or T
		Flange	*

LINEAR DISCONNECT
Safe and convenient means of disconnecting power



PHOTOMETRICS



24EN-LD2-45HP-UNV-L835-CD1-U

Electronic Driver
 Linear LED 3500K
 Spacing criterion:
 (II) 1.39 x mounting height, (⊥) 1.4 x mounting height
 Lumens: 4488.5
 Input Watts: 33.2W
 Efficacy: 135.2 lm/W
 Test Report:
 24EN-LD2-45HP-UNV-L835-CD1-U.
 IES

Candlepower

Angle	Along II	45°	Across ⊥
0	1545	1545	1545
5	1549	1555	1573
10	1543	1597	1621
15	1537	1603	1639
20	1524	1590	1638
25	1502	1553	1597
30	1459	1481	1518
35	1392	1384	1405
40	1299	1264	1074
45	1179	1106	822
50	1049	924	695
55	906	758	592
60	766	604	508
65	621	471	430
70	479	355	309
75	336	243	187
80	200	131	124
85	94	63	59
90	0	0	0

Coefficients of Utilization

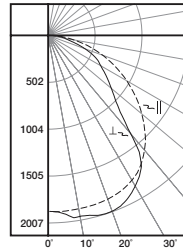
rc rw RCR	Effective floor cavity reflectance 20%																				
	80%				70%				50%				30%				10%				0%
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100	100	
1	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85	85	85	
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71	71	71	
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63	60	60	60	
4	84	72	63	57	81	70	62	56	68	61	56	66	60	55	64	58	54	52	52	52	
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45	45	45	
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40	40	40	
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35	35	35	
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31	31	31	
9	57	44	36	31	56	44	36	31	42	35	30	41	35	30	40	34	30	28	28	28	
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26	26	26	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	1314	29.3
0-40	2176	48.5
0-60	3655	81.4
0-90	4488	100.0
0-180	4488	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	2554	2396	1780
55	2419	2024	1581
65	2251	1707	1558
75	1988	1438	1107
85	1652	1107	1037



24EN-LD2-54HP-UNV-L835-CD1-U

Electronic Driver
 Linear LED 3500K
 Spacing criterion:
 (II) 1.39 x mounting height, (⊥) 1.4 x mounting height
 Lumens: 5491.9
 Input Watts: 40.4W
 Efficacy: 135.9 lm/W
 Test Report:
 24EN-LD2-54HP-UNV-L835-CD1-U.
 IES

Candlepower

Angle	Along II	45°	Across ⊥
0	1890	1890	1890
5	1894	1903	1927
10	1887	1950	1970
15	1880	1952	2001
20	1863	1940	2002
25	1834	1895	1950
30	1782	1809	1849
35	1701	1689	1716
40	1585	1544	1306
45	1441	1352	1003
50	1282	1136	850
55	1114	927	729
60	942	744	621
65	764	578	523
70	587	435	379
75	415	297	229
80	244	161	154
85	112	77	72
90	0	0	0

Coefficients of Utilization

rc rw RCR	Effective floor cavity reflectance 20%																				
	80%				70%				50%				30%				10%				0%
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100	100	
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	89	87	85	85	85	
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71	71	71	
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60	60	60	
4	84	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52	52	52	
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45	45	45	
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40	40	40	
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35	35	35	
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31	31	31	
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28	28	28	
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26	26	26	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	1604	29.2
0-40	2656	48.4
0-60	4469	81.4
0-90	5491	100.0
0-180	5491	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	3121	2928	2173
55	2975	2475	1947
65	2769	2095	1895
75	2456	1758	1355
85	1968	1353	1265

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (100,000 hours)	Theoretical L70 (Hours)
25°C	> 92%	> 448,000

Non-IC data

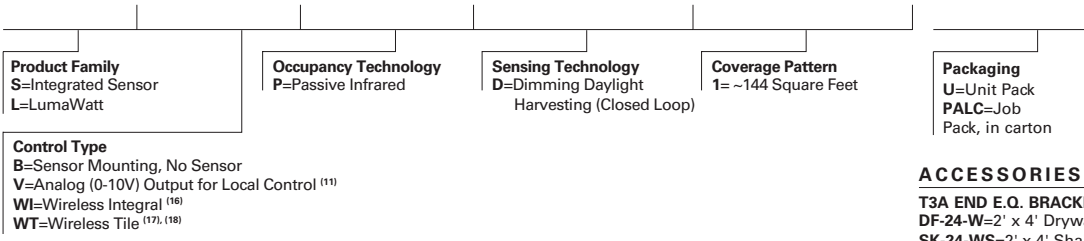
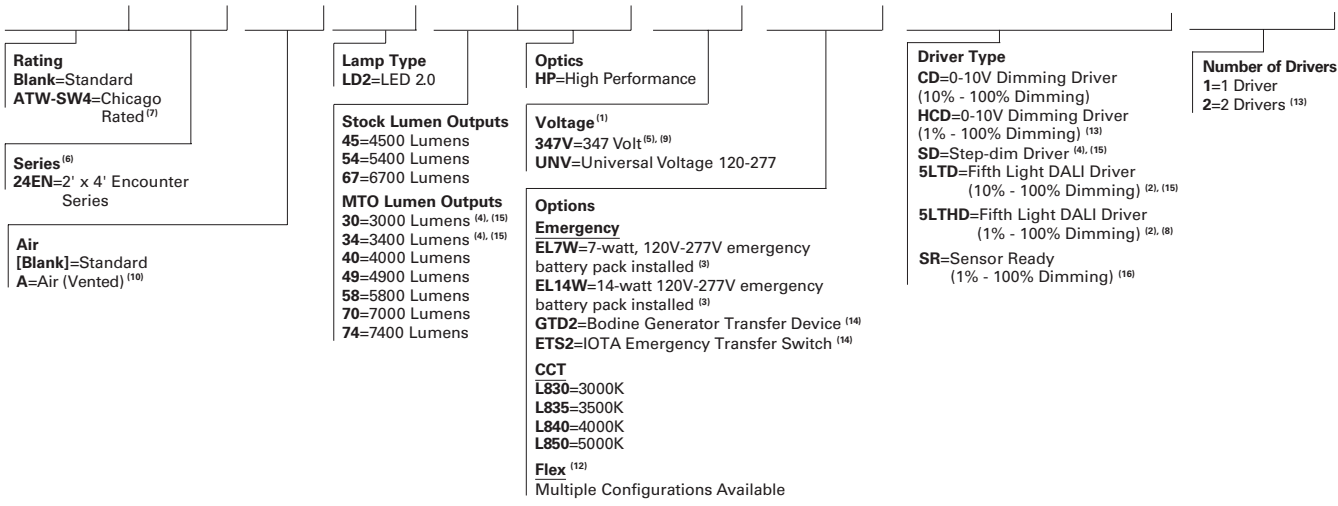
ENERGY AND PERFORMANCE DATA BY CATALOG NUMBER

Stock or MTO*	Catalog Logic (Curved)	Delivered Lumens	Watts	Efficacy (LPW)
MTO	24EN-LD2-30HP-UNV-L830-CD1-U	2981	22.2	134
MTO	24EN-LD2-30HP-UNV-L835-CD1-U	3073	22.2	138
MTO	24EN-LD2-30HP-UNV-L840-CD1-U	3134	22.2	141
MTO	24EN-LD2-30HP-UNV-L850-CD1-U	3411	22.2	153
MTO	24EN-LD2-34HP-UNV-L830-CD1-U	3333	24.9	134
MTO	24EN-LD2-34HP-UNV-L835-CD1-U	3436	24.9	138
MTO	24EN-LD2-34HP-UNV-L840-CD1-U	3505	24.9	141
MTO	24EN-LD2-34HP-UNV-L850-CD1-U	3814	24.9	153
MTO	24EN-LD2-40HP-UNV-L830-CD1-U	3899	29.6	132
MTO	24EN-LD2-40HP-UNV-L835-CD1-U	4020	29.6	136
MTO	24EN-LD2-40HP-UNV-L840-CD1-U	4100	29.6	139
MTO	24EN-LD2-40HP-UNV-L850-CD1-U	4462	29.6	151
MTO	24EN-LD2-45HP-UNV-L830-CD1-U	4353	33.2	131
Stock	24EN-LD2-45HP-UNV-L835-CD1-U	4488	33.2	135
Stock	24EN-LD2-45HP-UNV-L840-CD1-U	4578	33.2	138
MTO	24EN-LD2-45HP-UNV-L850-CD1-U	4982	33.2	150
MTO	24EN-LD2-49HP-UNV-L830-CD1-U	4819	37.0	130
MTO	24EN-LD2-49HP-UNV-L835-CD1-U	4968	37.0	134
MTO	24EN-LD2-49HP-UNV-L840-CD1-U	5067	37.0	137
MTO	24EN-LD2-49HP-UNV-L850-CD1-U	5514	37.0	149
MTO	24EN-LD2-54HP-UNV-L830-CD1-U	5327	40.4	132
Stock	24EN-LD2-54HP-UNV-L835-CD1-U	5492	40.4	136
Stock	24EN-LD2-54HP-UNV-L840-CD1-U	5602	40.4	139
MTO	24EN-LD2-54HP-UNV-L850-CD1-U	6096	40.4	151
MTO	24EN-LD2-58HP-UNV-L830-CD1-U	5664	43.3	131
MTO	24EN-LD2-58HP-UNV-L835-CD1-U	5839	43.3	135
MTO	24EN-LD2-58HP-UNV-L840-CD1-U	5956	43.3	138
MTO	24EN-LD2-58HP-UNV-L850-CD1-U	6481	43.3	150
MTO	24EN-LD2-67HP-UNV-L830-CD1-U	6571	51.4	128
Stock	24EN-LD2-67HP-UNV-L835-CD1-U	6774	51.4	132
Stock	24EN-LD2-67HP-UNV-L840-CD1-U	6909	51.4	134
MTO	24EN-LD2-67HP-UNV-L850-CD1-U	7519	51.4	146
MTO	24EN-LD2-70HP-UNV-L830-CD1-U	6904	54.5	127
MTO	24EN-LD2-70HP-UNV-L835-CD1-U	7118	54.5	131
MTO	24EN-LD2-70HP-UNV-L840-CD1-U	7260	54.5	133
MTO	24EN-LD2-70HP-UNV-L850-CD1-U	7901	54.5	145
MTO	24EN-LD2-74HP-UNV-L830-CD1-U	7251	56.4	129
MTO	24EN-LD2-74HP-UNV-L835-CD1-U	7475	56.4	133
MTO	24EN-LD2-74HP-UNV-L840-CD1-U	7624	56.4	135
MTO	24EN-LD2-74HP-UNV-L850-CD1-U	8297	56.4	147

*Made to order (MTO) requires a typical two week lead time.

ORDERING INFORMATION

SAMPLE NUMBER: 24EN-LD2-67HP-UNV-L835-CD1-SVPD1-U



NOTES: ⁽¹⁾Products also available in non-US voltages and frequencies for international markets. ⁽²⁾Must be used in conjunction with a DALI control system. For complete DALI solutions by Fifth Light, visit www.eaton.com/lightingsystems ⁽³⁾With integral test switch/indicator/laser test. For approximate delivered lumens multiply the lumens per watt of the desired fixture by the wattage of the emergency battery pack (100 lm/W x 7=700 lumens). IES-format photometry for luminaire under emergency operation available. ⁽⁴⁾Step-dim driver not available with 3000, 3400, 7000 and 7400 lumen options. ⁽⁵⁾347V emergency option not available. ⁽⁶⁾DesignLights Consortium™ Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details. ⁽⁷⁾Chicago rated version does not allow for row mounting. ⁽⁸⁾Two drivers required for 5LTHD option for 6400 lumens and up. ⁽⁹⁾347V option not available with 7400 lumen package. ⁽¹⁰⁾Air version is vented but does not meet air handling requirements; a 6% reduction in delivered lumens is experienced with this option. ⁽¹¹⁾Integral sensor works only with "CD" driver and is factory prewired to the driver for stand-alone control. ⁽¹²⁾Flex does not include dimming leads. Control leads provided by others. ⁽¹³⁾HCD driver option is not available with 7000 and 7400 lumen packages. Two drivers required for 6700 lumen package. ⁽¹⁴⁾Used to transfer fixture to secondary power source for life-safety operation. When used with a dimming fixture, two devices are required to ensure control is disabled while operating under emergency power. Add 120V, 277V, or 347V if ordering GTD2 or ETS2 emergencies. ⁽¹⁵⁾5LTD DALI option not available with 3000 and 3400 lumen packages. ⁽¹⁶⁾SR driver compatible with LWI option only. ⁽¹⁷⁾LWT compatible with CD and HCD drivers only. ⁽¹⁸⁾LWT sensor is external to luminaire, cable factory wired.

Specifications & dimensions subject to change without notice. Consult your Eaton Representative for availability and ordering information.

ACCESSORIES

- T3A END E.Q. BRACKET PARTS BAG (Standard with fixture)
- DF-24-W=2' x 4' Drywall Frame Kit
- SK-24-WS=2' x 4' Shallow Surface Mount Kit
- SK-24-WT=2' x 4' Tall Surface Mount Kit
- DF10P-C =Decorator Dimmer, 0-10V
- SF10P- =Decorator Slide Dimmer, 0-10V
- ISHH-01=Programming Remote for Integrated Sensor
- ISHH-02=Personal Control Remote for Integrated Sensor

SHIPPING DATA

Catalog No.	Wt.
24EN-LD2-45HP	28 lbs.
24EN-LD2-54HP	28 lbs.
24EN-LD2-67HP	28 lbs.



Eaton
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.eaton.com/lighting

Specifications and dimensions subject to change without notice.

INTEGRATED SENSOR

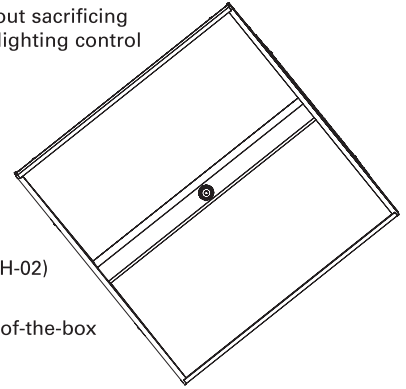
The Encounter and Encounter HP with Integrated Sensor technology provides automatic energy savings without sacrificing performance. Traditionally, these types of energy savings required coordination between the luminaire and a lighting control system. The Encounter delivers superior lighting with integrated occupancy and daylighting controls.

Capture the benefits of traditional lighting controls, without complicated coverage planning or special wiring. Ideal for new construction or retrofit, the Encounter delivers automatic ON to an energy saving light level, while ensuring lighting is turned OFF when the space is unoccupied.

The integral daylight sensor reduces the need for special daylight zone planning. Each luminaire will automatically adjust the light level based on reflected light beneath the sensor in a closed loop method.

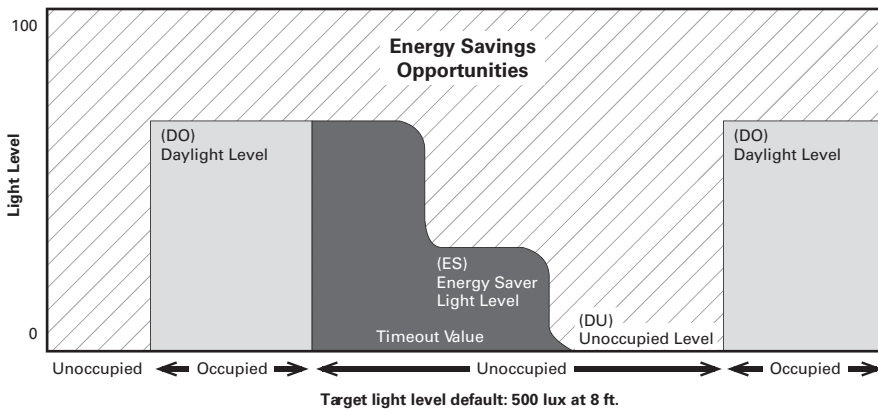
Occupied daylight light levels and unoccupied light levels can be adjusted using the integrated sensor programming remote (Catalog Number: ISHH-01). The integrated sensor personal remote (Catalog Number: ISHH-02) provides code compliant manual raise, lower, ON, OFF control.

The Encounter with Integrated Sensor is easy to install with no special wiring and ensures energy savings out-of-the-box with default control settings.

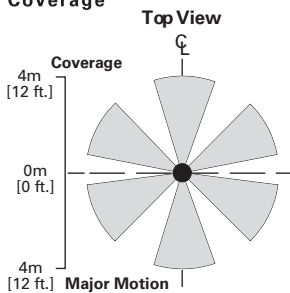


How it works:

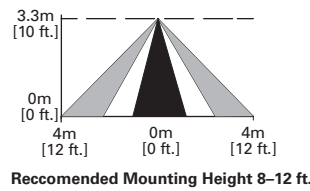
- As the user enters the space controlled by the integral sensor, the lighting turns ON to the default daylight level.
- Lighting will remain at that the daylight level until the space is unoccupied. This will start the occupancy timeout period (default 20 minutes).
- If the space remains unoccupied for half of the timeout period, the lighting will automatically reduce to the Energy Saver light level. This adjustable light level is typically half of the occupied daylight level.
- At the end of the timeout period the lighting will go to the unoccupied light level. This adjustable light level uses the OFF default setting.



Coverage



Side View



Optional Remote Controls



ISHH-01 Programming Remote



ISHH-02 Personal Control Remote