

LENS DATASHEET

For LRD-309S / ON-LRD-309S

OVERVIEW

The LRD-309S and ON-LRD-309S sensors feature with interchangeable lens options. Each lens provides different sensing coverage which varies with the actual mounting height.

The specified detection coverage and mounting height of each lens are based on the test result of human motion walking across the detection zones. The actual coverage may be reduced if the motion is moving toward or away the sensor. High ambient temperature (above 28°C/82°F) could reduce the coverage of PIR sensor. If ambient temperature at the covered area are expected to be high sometimes, consider adding more sensors or reduce the mounting height, if possible.

The followings are all available lens options and their respective detection patterns at printing time. For details of latest lens options available, please visit www.irtec.com.

LENS OPTIONS

| Lens | | Shape | Recommended Mounting Height | | Coverage |
|------|------------|------------|-----------------------------|-----------|-----------|
| a | Standard | Cone | 2.4~4.5 m | 8~15 ft. | 2X height |
| b | Extra wide | Cone | 2.4~3.0 m | 8~10 ft. | 6X height |
| c | High bay | Cone | 4.5~9.0 m | 15~30 ft. | 3X height |
| d | Standard | Round flat | 2.4~6.0 m | 8~20 ft. | 2X height |
| f | Extra wide | Dome | 2.4~6.0 m | 8~20 ft. | 4X height |
| g | Aisle way | Arch | 2.4~12.0 m | 8~40 ft. | 3X height |
| h | High bay | Dome | 9.0~15.0 m | 30~50 ft. | 1X height |
| l | Long aisle | Arch | 2.4~3.0 m | 8~10 ft. | 6X height |

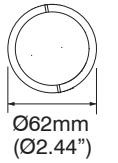
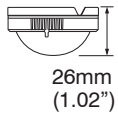
NOTE:

- Lens g/l can be rotated to change its direction of coverage. Its 3X/6X height coverage refers only to the total length, the width of coverage will vary with the mounting height (see table of Lens g/l section). This lens is not IP-66 rated.
- Lens c/g may be mounted up to 12/15 m (40/50 ft.) or higher at the area, providing with large moving object such as forklift trucks. Before installing all sensors, please ensure that the sensor can have optimal detection at desired height.

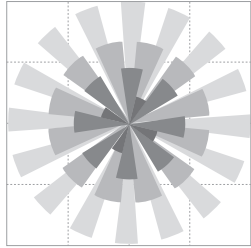
| | | | | | | | | | | | | | | | | | | | |
|--|--|-----------------|-----------|-----------|-----------|----------|----------|-----------------|---------|-----------|-----------|-----------|-----------|----------------|---------|----------|----------|---------|----|
| <p>LENS a 2X Standard</p> <p>31mm (1.22")</p> <p>Ø62mm (Ø2.44")</p> | <table border="1"> <tr> <td>Mounting Height</td> <td>m (ft.)</td> <td>2.4 (8)</td> <td>3.0 (10)</td> <td>3.6 (12)</td> <td>4.5 (15)</td> </tr> <tr> <td>Max. Coverage Ø</td> <td>m (ft.)</td> <td>4.8 (16)</td> <td>6.0 (20)</td> <td>7.2 (24)</td> <td>9.0 (30)</td> </tr> <tr> <td>Minor Motion Ø</td> <td>m (ft.)</td> <td>3.0 (10)</td> <td>1.8 (6)</td> <td>1.8 (6)</td> <td>--</td> </tr> </table> | Mounting Height | m (ft.) | 2.4 (8) | 3.0 (10) | 3.6 (12) | 4.5 (15) | Max. Coverage Ø | m (ft.) | 4.8 (16) | 6.0 (20) | 7.2 (24) | 9.0 (30) | Minor Motion Ø | m (ft.) | 3.0 (10) | 1.8 (6) | 1.8 (6) | -- |
| Mounting Height | m (ft.) | 2.4 (8) | 3.0 (10) | 3.6 (12) | 4.5 (15) | | | | | | | | | | | | | | |
| Max. Coverage Ø | m (ft.) | 4.8 (16) | 6.0 (20) | 7.2 (24) | 9.0 (30) | | | | | | | | | | | | | | |
| Minor Motion Ø | m (ft.) | 3.0 (10) | 1.8 (6) | 1.8 (6) | -- | | | | | | | | | | | | | | |
| <p>LENS b 6X Extra wide</p> <p>31mm (1.22")</p> <p>Ø62mm (Ø2.44")</p> | <table border="1"> <tr> <td>Mounting Height</td> <td>m (ft.)</td> <td>2.4 (8)</td> <td>2.6 (8.5)</td> <td>2.8 (9)</td> <td>3.0 (10)</td> </tr> <tr> <td>Max. Coverage Ø</td> <td>m (ft.)</td> <td>14.4 (48)</td> <td>15.6 (51)</td> <td>16.8 (54)</td> <td>18.0 (60)</td> </tr> </table> | Mounting Height | m (ft.) | 2.4 (8) | 2.6 (8.5) | 2.8 (9) | 3.0 (10) | Max. Coverage Ø | m (ft.) | 14.4 (48) | 15.6 (51) | 16.8 (54) | 18.0 (60) | | | | | | |
| Mounting Height | m (ft.) | 2.4 (8) | 2.6 (8.5) | 2.8 (9) | 3.0 (10) | | | | | | | | | | | | | | |
| Max. Coverage Ø | m (ft.) | 14.4 (48) | 15.6 (51) | 16.8 (54) | 18.0 (60) | | | | | | | | | | | | | | |
| <p>LENS c 3X High bay</p> <p>31mm (1.22")</p> <p>Ø62mm (Ø2.44")</p> | <table border="1"> <tr> <td>Mounting Height</td> <td>m (ft.)</td> <td>4.5 (15)</td> <td>6.0 (20)</td> <td>8.0 (26)</td> <td>9.0 (30)</td> </tr> <tr> <td>Max. Coverage Ø</td> <td>m (ft.)</td> <td>13.5 (45)</td> <td>18.0 (60)</td> <td>24.0 (78)</td> <td>27.0 (90)</td> </tr> </table> | Mounting Height | m (ft.) | 4.5 (15) | 6.0 (20) | 8.0 (26) | 9.0 (30) | Max. Coverage Ø | m (ft.) | 13.5 (45) | 18.0 (60) | 24.0 (78) | 27.0 (90) | | | | | | |
| Mounting Height | m (ft.) | 4.5 (15) | 6.0 (20) | 8.0 (26) | 9.0 (30) | | | | | | | | | | | | | | |
| Max. Coverage Ø | m (ft.) | 13.5 (45) | 18.0 (60) | 24.0 (78) | 27.0 (90) | | | | | | | | | | | | | | |
| <p>LENS d 2X Standard</p> <p>17mm (0.67")</p> <p>Ø62mm (Ø2.44")</p> | <table border="1"> <tr> <td>Mounting Height</td> <td>m (ft.)</td> <td>2.4 (8)</td> <td>3.0 (10)</td> <td>4.5 (15)</td> <td>6.0 (20)</td> </tr> <tr> <td>Max. Coverage Ø</td> <td>m (ft.)</td> <td>4.8 (16)</td> <td>6.0 (20)</td> <td>9.0 (30)</td> <td>12.0 (40)</td> </tr> <tr> <td>Minor Motion Ø</td> <td>m (ft.)</td> <td>1.8 (6)</td> <td>3.0 (10)</td> <td>--</td> <td>--</td> </tr> </table> | Mounting Height | m (ft.) | 2.4 (8) | 3.0 (10) | 4.5 (15) | 6.0 (20) | Max. Coverage Ø | m (ft.) | 4.8 (16) | 6.0 (20) | 9.0 (30) | 12.0 (40) | Minor Motion Ø | m (ft.) | 1.8 (6) | 3.0 (10) | -- | -- |
| Mounting Height | m (ft.) | 2.4 (8) | 3.0 (10) | 4.5 (15) | 6.0 (20) | | | | | | | | | | | | | | |
| Max. Coverage Ø | m (ft.) | 4.8 (16) | 6.0 (20) | 9.0 (30) | 12.0 (40) | | | | | | | | | | | | | | |
| Minor Motion Ø | m (ft.) | 1.8 (6) | 3.0 (10) | -- | -- | | | | | | | | | | | | | | |

LENS f 4X Extra wide

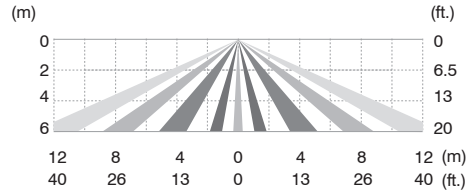
| | | | | | |
|-----------------|---------|----------|-----------|-----------|-----------|
| Mounting Height | m (ft.) | 2.4 (8) | 3.0 (10) | 4.5 (15) | 6.0 (20) |
| Max. Coverage Ø | m (ft.) | 9.6 (32) | 12.0 (40) | 18.0 (60) | 24.0 (80) |
| Minor Motion Ø | m (ft.) | 1.8 (6) | 4.0 (13) | -- | -- |



Top View

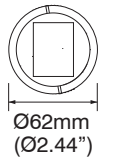
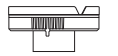
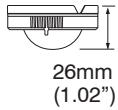


Side View

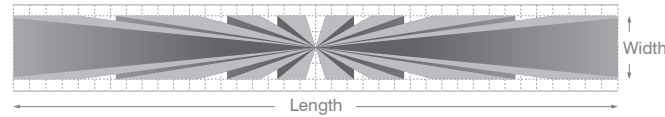


LENS g 3X Aisle way

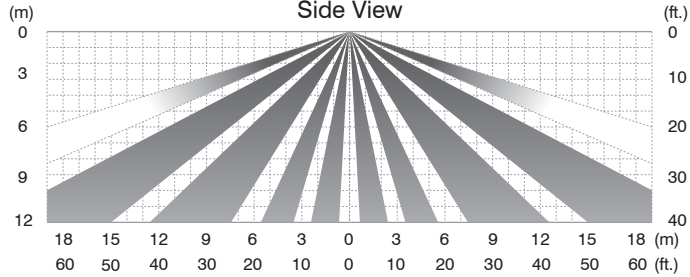
| | | | | | |
|-----------------|---------|-------------------|--------------------|--------------------|---------------------|
| Mounting Height | m (ft.) | 3.0 (10) | 6.0 (20) | 9.0 (30) | 12.0 (40) |
| Max. Coverage Ø | m (ft.) | 9.0 x 4 (30 x 13) | 18.0 x 4 (60 x 13) | 27.0 x 4 (90 x 13) | 36.0 x 4 (120 x 13) |



Top View

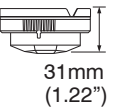


Side View

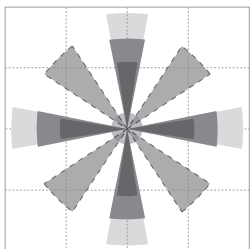


LENS h 1X High bay

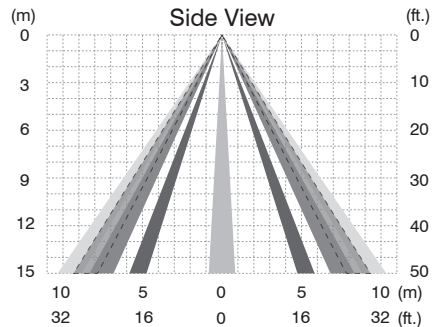
| | | | | | |
|-----------------|---------|----------|-----------|-----------|-----------|
| Mounting Height | m (ft.) | 9.0 (30) | 11.0 (36) | 13.0 (43) | 15.0 (49) |
| Max. Coverage Ø | m (ft.) | 9.0 (30) | 11.0 (36) | 13.0 (43) | 15.0 (49) |



Top View

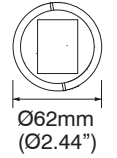
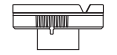
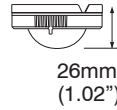


Side View

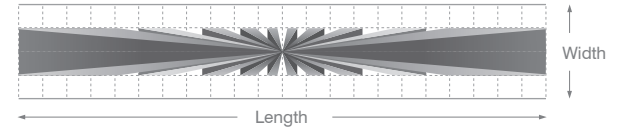


LENS I 6X Long aisle

| | | | | | |
|-----------------|---------|---------------------|---------------------|---------------------|---------------------|
| Mounting Height | m (ft.) | 2.4 (8) | 2.6 (8.5) | 2.8 (9) | 3.0 (10) |
| Max. Coverage Ø | m (ft.) | 14.4 x 2 (48 x 6.5) | 15.6 x 2 (51 x 6.5) | 16.8 x 2 (54 x 6.5) | 18.0 x 2 (60 x 6.5) |



Top View



Side View

