

Often these are cylindrical to reduce the effect of wind on a tall structure on less stable soil. An example of this style is [Pulau Batu Puteh Lighthouse](#). Smaller versions of this design are often used as [harbor lights](#) to mark the entrance into a harbor, such as [New London Harbor Light](#).

Where a tall cliff exists, a smaller structure may be placed atop it as the site is already high above the water, such as at [Horton Point Light](#). Sometimes, such a location can actually be too high as along the west coast of the United States. In these cases, the lights are often placed below the top of the cliff to ensure that they can still be seen at the surface during periods of fog. An example of this is [Point Reyes Lighthouse](#). Sometimes a lighthouse needs to be constructed in the water itself. Wave-washed lights are masonry structures constructed to withstand water impact, such as [Eddystone Lighthouse](#).



In shallower bays, [screw-pile](#) ironwork structures are screwed into the seabed and a low wooden structure is placed above the

open framework, such as [Thomas Point Shoal Light](#). As screw-piles

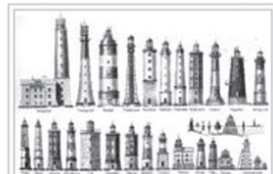
Building

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Building design

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In order to be effective, the lamp needs to be placed at an appropriate height so as to be seen over the horizon before the danger is reached by a mariner. The necessary height can be determined by taking the square root of the height of a light in feet and multiplying it by 1.17 to get the distance to the horizon in nautical miles. ^[2]



The lighthouses in Finland as of the year 1909, showing differing architecture.

Where dangerous shoals are located far off a flat sandy beach, the prototypical tall masonry **coastal lighthouse** is constructed to assist the navigator making a landfall after an ocean crossing.

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