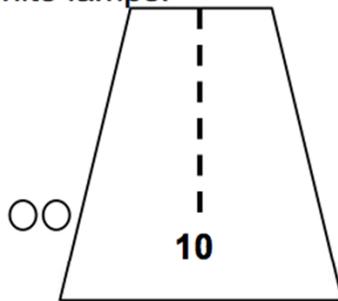


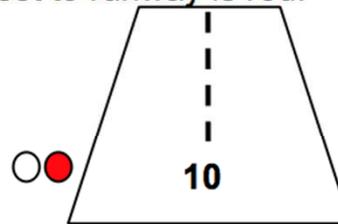
TS07 Runway 18 L-881 PAPI

L-881 PAPI Glide Path Depictions

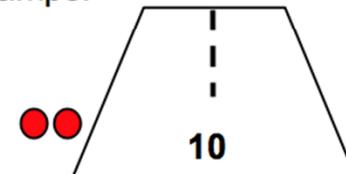
(3) High glide path:
Two white lamps.



(1) Correct glide path:
Leftmost lamp is white;
lamp closest to runway is red.



(2) Low glide path:
Two red lamps.



Caveat in PAPI Advisory Circular (AC) that allows for deviation from standard Siting Protocols:

(g) Additional Siting Considerations.

1. If the terrain drops off rapidly near the approach threshold and severe turbulence is experienced, then PAPI must be located farther from the threshold to keep the aircraft at the maximum possible threshold crossing height.
2. For short runways, the PAPI must be as near the threshold as possible to provide the maximum amount of runway for braking after landing.
3. At locations where snow is likely to obscure the light beams, the light units may be installed so the top of the unit is a maximum of 6 ft. (2 m) above ground level.
4. PAPI LHAs must not be located closer than 50 ft. from a crossing runway, taxiway, or warm-up apron or within the ILS critical area.

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**While we did our best to adhere to as many FAA recommendations as published in PAPI-related AC's throughout the installation of this system, it is important to note that the respective AC's are only mandatory for airports that utilize federal money!

Dry Creek's Rwy 18 on-glide slope PAPI setting of 3.65 degrees equates to a TCH (actual Threshold, NOT the Displaced Threshold) of 34' AGL

- (5) Threshold Crossing Height (TCH). The TCH is the height of the lowest on-course signal at a point directly above the intersection of the runway centerline and the threshold.
 - (a) The minimum TCH varies with the height group of aircraft that primarily use the runway.
 - (b) The PAPI approach path must provide the proper TCH for the most demanding height group using the runway per Table 7.1.
- (6) PAPI AIMING. The standard aiming angles for Type L-880 and Type L-881 systems are shown in Tables 7.2 and 7.3.

Table 7-1. Threshold Crossing Heights.

Representative aircraft type	Approximate Cockpit-to-wheel height	Visual Threshold Crossing Height	Remarks
<u>Height Group 1</u> General aviation Small commuters Corporate turbo jets	10 feet (3 m) or less	40 feet (+5, -20) 12 m (+2, -6)	Many runways less than 6,000 feet (1829 m) long with reduced widths and/or restricted weight bearing that would normally prohibit landings by larger aircraft.

Why is this thing so sensitive?

- Let's say you're perfectly centered in the cone as you come down the glide path with a red / white indication. Listed below are the calculated **MSL** altitudes for the center of the glide path at various ranges, along with how many feet of deviation (high or low) that it would take to be looking at a "high" indication of white / white, or a "low" indication of red / red:
 - 5.6 nm (KREEC – the Final App. Fix on our GPS App.): **2,327' MSL, ± 150'**
 - 3.0 nm: **1,320' MSL, ± 80'**
 - 2.0 nm (WOTPU – our GPS Approach step-down Fix): **932' MSL, ± 54'**
 - 1.0 nm: **545' MSL, ± 27'**
 - 0.5 nm: **351' MSL, ± 14'**
 - 903 ft (dist. from Power Pole on NE corner to PAPI): **212' MSL, ± 4'**
 - **PS: If you're looking at red / white as you pass this power pole, you are clearing it by at least 14' vertically, and are of course also clearing it laterally provided you are on centerline**
 - 487 ft (dist. from Threshold to PAPI): **186' MSL, ± 2.5'**

Bottom Line: once you're slightly inside of ½ mile from touchdown, all it takes is 10' or less deviation from glide path to be looking at white / white or red / red – that's how sensitive and precise this thing is!

Caution:

- Don't let the PAPI distract you after you've got the runway made. Once you've cleared the power pole, simply look out the window and concentrate on landing.. . . 😊

