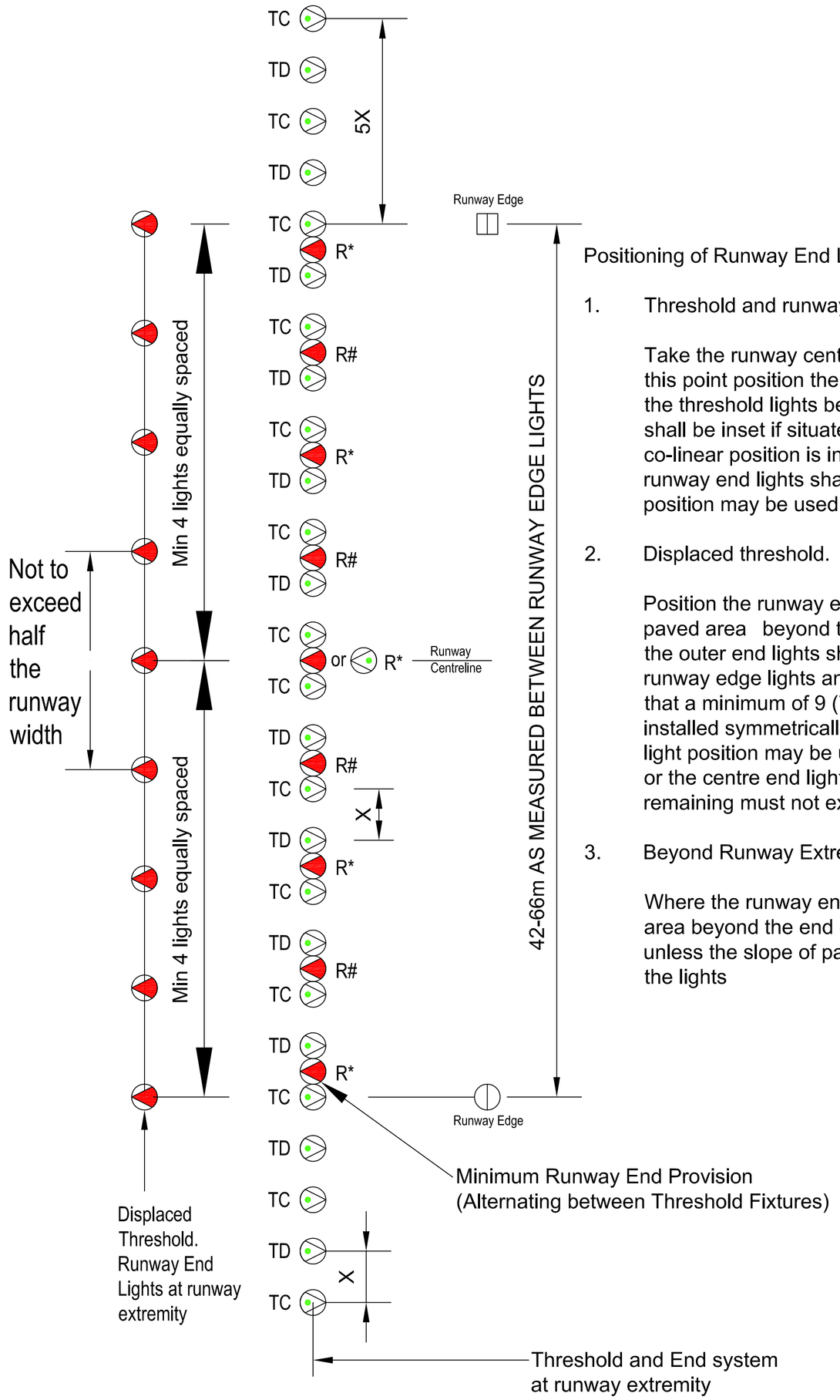
ISO A1 594mm x 841mm

THRESHOLD LAYOUT FOR CAT I, CAT II APPROACHES AND THEIR CONJUGATE APPROACHES, FOR DISTANCES BETWEEN RUNWAY EDGE LIGHTS EXCEEDING 42m AND LESS THAN 66m



Positioning of Runway End Lights

1. Threshold and runway end at the runway extremity.

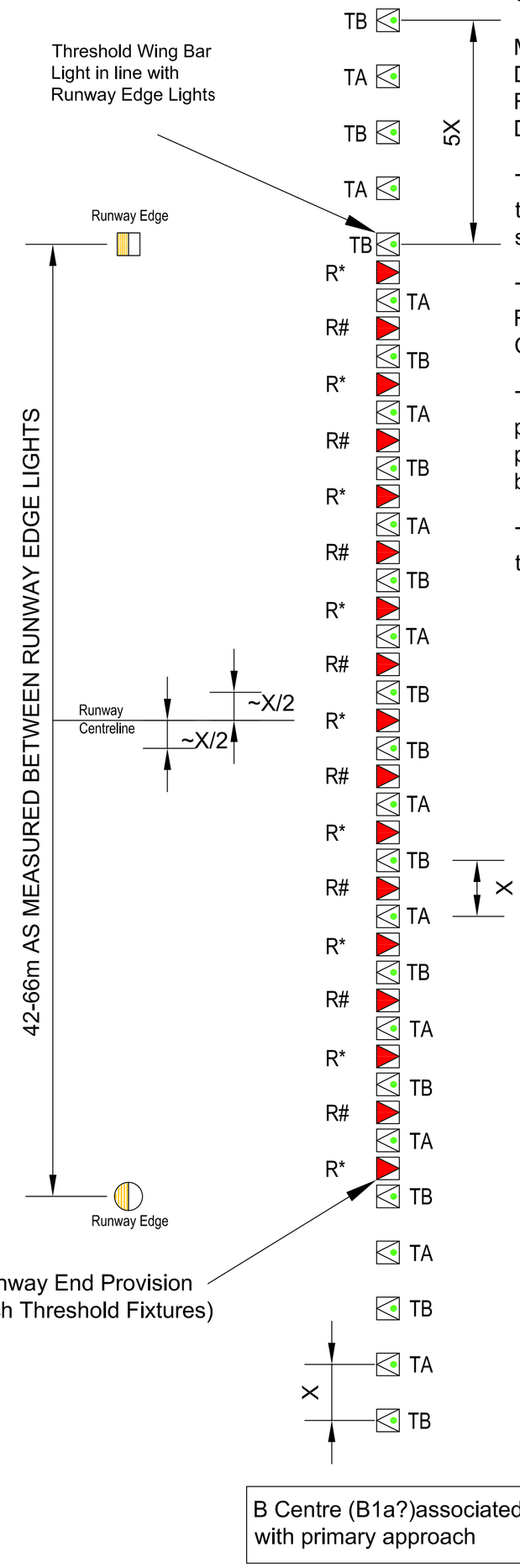
   Take the runway centreline as the reference point. From this point position the runway end lights to be co-linear with the threshold lights between the threshold lights. The lights shall be inset if situated in the runway pavement. Where co-linear position is in a net barrier overrun pavement the runway end lights shall be inset. The centre end light position may be used as an end light or an NBW light

2. Displaced threshold.

   Position the runway end lights at the runway end or in a paved area beyond the end of the runway. The position of the outer end lights should positioned in line with the runway edge lights and the spacing calculated to ensure that a minimum of 9 (7 for NI and NPI) light positions are installed symmetrically across a PI runway. The centre end light position may be used as an end light or an NBW light or the centre end light may be omitted, but the gap remaining must not exceed half the width of the runway.

3. Beyond Runway Extremity

   Where the runway end lights are positioned in a paved area beyond the end of the runway they shall be inset unless the slope of paved area prevents adequate siting of the lights



Positioning of Runway Threshold / Threshold Wing Bar Lights where such lights are at the extremity of the runway or displaced

Measure distance between runway edge lights.
Divide this distance by 3.
Round-up the result to the nearest odd number.
Divide the distance by the obtained odd number.

This exercise will result in lights being spaced equally at less than or equal to 3m. The two inner lights will then be set symmetrically either side of the runway centreline.

The position on the runway centreline shall be occupied by a Runway End Light, Net Barrier Aiming Light or a Runway Centreline Light, as appropriate.

Threshold lights shall be inset where positioned in the runway pavement. Where the threshold lights are positioned on a paved area beyond the end of the runway pavement they may be elevated for improved conspicuity.

Threshold wing bar lights should match the installation of the threshold lights.

Procedure

$\frac{\text{Runway Width}}{3}$ = Light Units per threshold

Obtained figure to be rounded up to next odd number. (Z). Do not apply this roundup where the runway widths are exactly 45.00m, 51.00m, 57.00m .

Calculate spacing for Threshold lights

$\frac{\text{Runway Width}}{Z} = X$

Example Calculation:

Runway defined Width is 45.1m
Threshold Spacing Maximum 3m

45.1/3 = 15.033 light units per Threshold

Round up to 17 (Z)

45.1/17 = 2.6529m (X)

Roundup this number to 2 or 3 decimal places. This will give 2.65 or 2.654. The rounding will depend on the accuracy that measurements on the pavement can be achieved

In this example there will be (17-1) 16 Threshold Lights & 10 Threshold Wing Bar Lights equally spaced at 2.654m (X) centred to the Runway Centreline.

To layout the Threshold commence the measurement from each edge light at the runway edge.
Any small error, because of rounding will be accommodated between the two central lights.
Calculations for runway widths of 42m to 66m show that the spacing is never less than 2.6m. Hence if Wing lights are required the mandated length of 10m will be accomplished with 5 Wing lights.

Runway End Lights

The Runway End lights are interleaved with the Runway Edge lights, numbering shall commence from the Runway End located nearest to the Primary Approach. R* or R# where * is the circuit designator and # is the circuit designator of the interleave circuit.

Where Threshold and End lights are collocated at the runway extremity the Runway end lights may occupy all gaps between threshold lights or may occupy gaps between alternative threshold lights as shown, with end light or NBA light always occupying the gap across the runway centreline.

The Threshold & Threshold Wing Bar lights

The Primary Approach threshold the interleaved circuits are to be Designated TA & TB. Note that drawing shows interleave is mirrored from one half of threshold to other half.
The Threshold circuits at the opposite Runway heading to be Designated TC, TD. Where a secondary Runway is present The B2a end shall use TE, TF etc

Threshold Wingbars are to be incorporated as part of the Threshold circuitry

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PROJECT

AGL Design Guide
Typical Drawings

NOTES

Regulations RA 3515(10), RA 3515(11) & RA 3515(12) applies

KEY

Elevated or Inset Uni-Directional

Elevated or Inset Bi-Directional

Elevated or Inset Combined Omni & Bi-Directional

Elevated or Inset Omni-Directional

The visible colours from the light fixture shall be:

White (or Clear) - None
Red - Solid
Blue - A Cross
Green - Small Circular Solid Disc
Yellow - Stripes
Blank - Letter B.

Examples

ISSUE/REVISION

I/R	DATE	DESCRIPTION
0	25 Sep 20	Issue 0

SHEET TITLE

Runway, Threshold & Runway End Spacing
and Circuit Configuration

SHEET NUMBER

DIO-VA-008