

Linear relation  $olv^*$  and relative chroma  $c^*_{olv^*}$  or chroma  $a^*_{olv^*}, b^*_{olv^*}$

System: GE87\_FRS09\_92\_D65\_00%\_O0

$$c^*_{olv^*} = \max(olv^*) - \min(olv^*)$$

Result:  $c^*_{olv^*} = c^*_{lab^*}$ ;  $l^*_{olv^*} = l^*_{lab^*}$

$$n^* = 1 - \max(olv^*) = 1 - i^*$$

CIELAB hue angles:

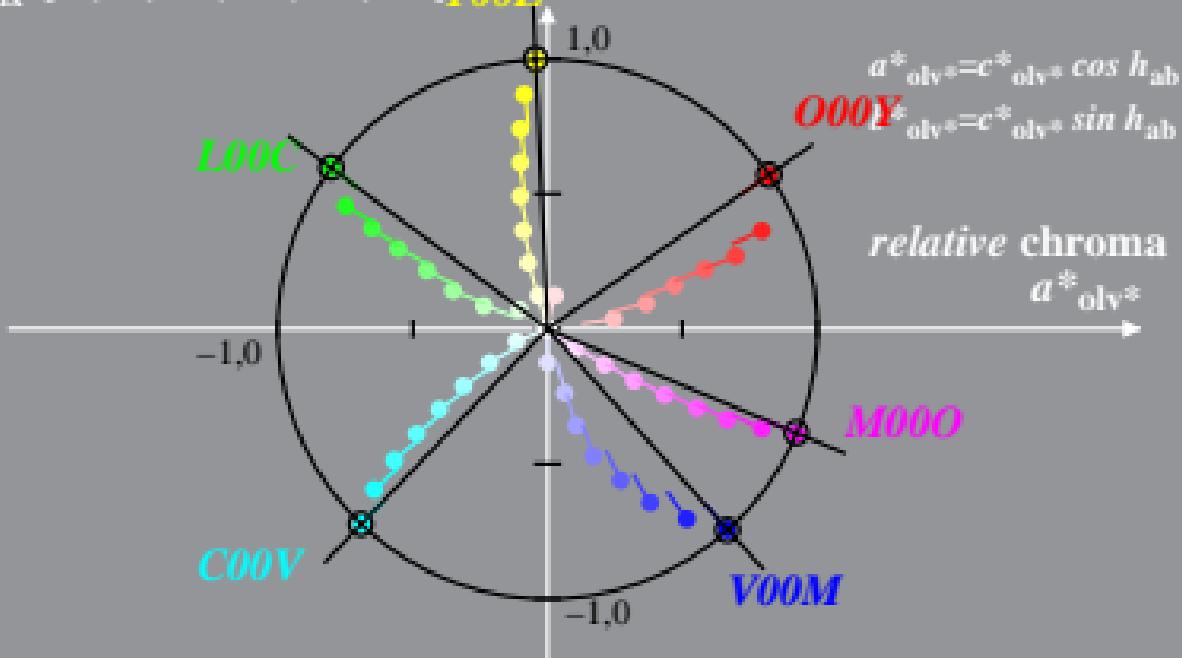
$$b^*_{olv^*}$$

$$h_{ab,d} = [34, 92, 143, 226, 312, 337]$$

$$w^* = \min(olv^*) = 1 - d^*$$

$$h_{ab,dx} = [38, 96, 151, 236, 305, 354]$$

$$l^*_{olv^*} = w^* + 0,5 c^*_{olv^*}$$



Linear relation  $olv^*$  and relative chroma  $c^*_{olv^*}$  or chroma  $a^*_{olv^*}, b^*_{olv^*}$

System: GE87\_FRS09\_92\_D65\_00%\_O1       $c^*_{olv^*} = \max(olv^*) - \min(olv^*)$

Result:  $c^*_{olv^*} = c^*_{lab^*}$ ;  $l^*_{olv^*} = l^*_{lab^*}$        $n^* = 1 - \max(olv^*) = 1 - i^*$

CIELAB hue angles:

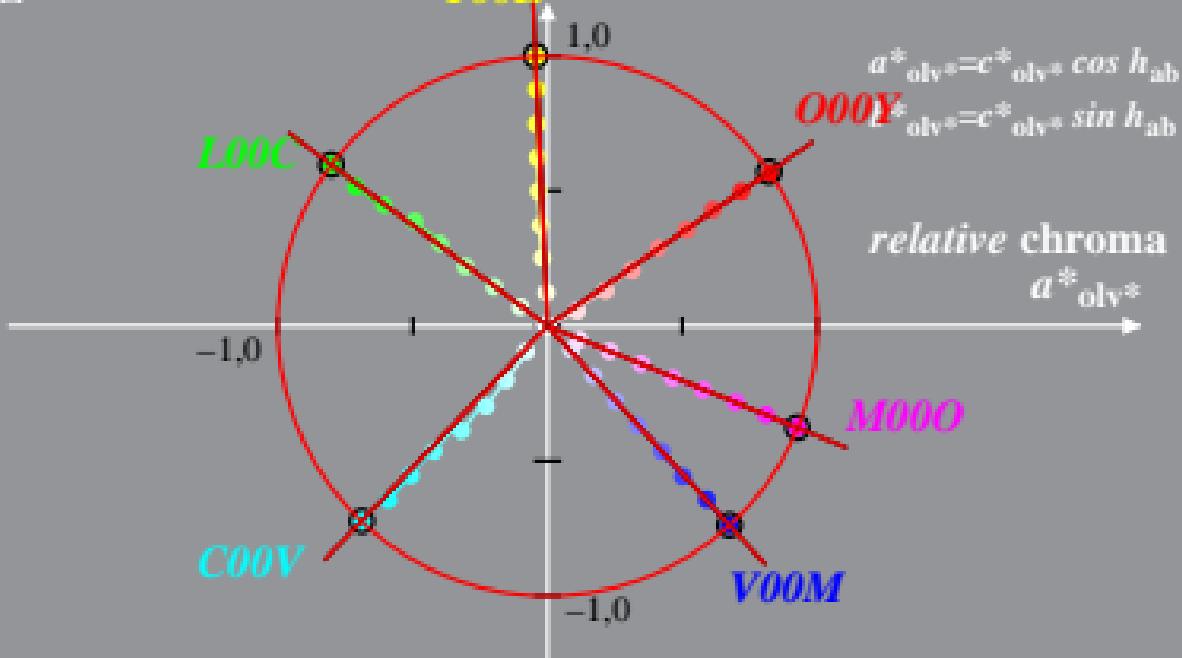
$h_{ab,d} = [34, 92, 143, 226, 312, 337]$

$h_{ab,dx} = [38, 96, 151, 236, 305, 354]$  **Y00L**

$b^*_{olv^*}$

$w^* = \min(olv^*) = 1 - d^*$

$l^*_{olv^*} = w^* + 0,5 c^*_{olv^*}$



Linear relation  $olv^*$  and relative chroma  $c^*_{olv^*}$  or chroma  $a^*_{olv^*}, b^*_{olv^*}$

System: GE87\_FRS09\_92\_D65\_25%\_O0

$$c^*_{olv^*} = \max(olv^*) - \min(olv^*)$$

Result:  $c^*_{olv^*} = c^*_{lab^*}$ ;  $l^*_{olv^*} = l^*_{lab^*}$

$$n^* = 1 - \max(olv^*) = 1 - i^*$$

CIELAB hue angles:

$$b^*_{olv^*}$$

$$w^* = \min(olv^*) = 1 - d^*$$

$$h_{ab,d} = [34, 92, 143, 226, 312, 337]$$

$$l^*_{olv^*} = w^* + 0,5 c^*_{olv^*}$$

$$h_{ab,dx} = [52, 109, 172, 253, 317, 365]$$

$Y25Y00L$

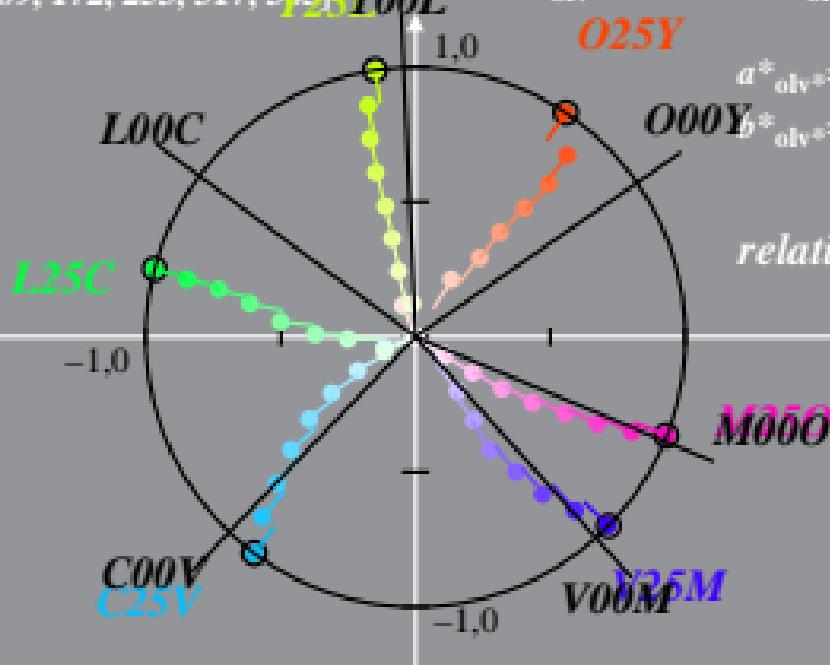
$O25Y$

$$a^*_{olv^*} = c^*_{olv^*} \cos h_{ab}$$

$$b^*_{olv^*} = c^*_{olv^*} \sin h_{ab}$$

relative chroma

$$a^*_{olv^*}$$



Linear relation  $olv^*$  and relative chroma  $c^*_{olv^*}$  or chroma  $a^*_{olv^*}, b^*_{olv^*}$

System: GE87\_FRS09\_92\_D65\_25%\_O1

$$c^*_{olv^*} = \max(olv^*) - \min(olv^*)$$

Result:  $c^*_{olv^*} = c^*_{lab^*}$ ;  $l^*_{olv^*} = l^*_{lab^*}$

$$n^* = 1 - \max(olv^*) = 1 - i^*$$

CIELAB hue angles:

$$b^*_{olv^*}$$

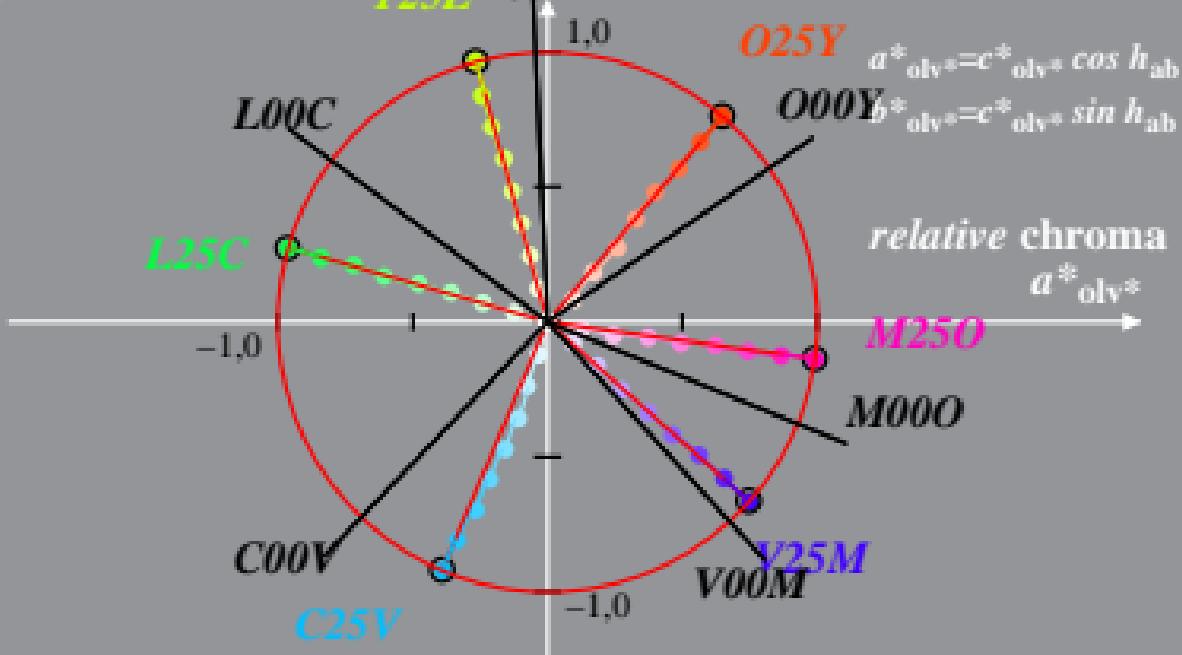
$$h_{ab,d} = [34, 92, 143, 226, 312, 337]$$

$$w^* = \min(olv^*) = 1 - d^*$$

$$h_{ab,dx} = [52, 109, 172, 253, 317, 365]$$

$$l^*_{olv^*} = w^* + 0,5 c^*_{olv^*}$$

**Y25L Y00L**



Linear relation  $olv^*$  and relative chroma  $c^*_{olv^*}$  or chroma  $a^*_{olv^*}, b^*_{olv^*}$

System: GE87\_FRS09\_92\_D65\_50%\_O0

$$c^*_{olv^*} = \max(olv^*) - \min(olv^*)$$

Result:  $c^*_{olv^*} = c^*_{lab^*}$ ;  $l^*_{olv^*} = l^*_{lab^*}$

$$n^* = 1 - \max(olv^*) = 1 - i^*$$

CIELAB hue angles:

$$b^*_{olv^*} \quad w^* = \min(olv^*) = 1 - d^*$$

$$h_{ab,d} = [34, 92, 143, 226, 312, 337]$$

$$h_{ab,dx} = [67, 123, 193, 270, 329, 376] \quad Y00L \quad O50Y_{olv^*} = w^* + 0,5 c^*_{olv^*}$$

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

$$a^*_{olv^*} = c^*_{olv^*} \cos h_{ab}$$

$$b^*_{olv^*} = c^*_{olv^*} \sin h_{ab}$$

relative chroma

$$a^*_{olv^*}$$

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

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*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

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*V50M*

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*C50V*

*C00V*

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*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

*V00M*

*C50V*

*C00V*

*L50C*

*L00C*

*YS0L*

*Y00L*

*O50Y*

*O00Y*

*M50O*

*M00O*

*V50M*

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*C50V*

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CIELAB hue angles:

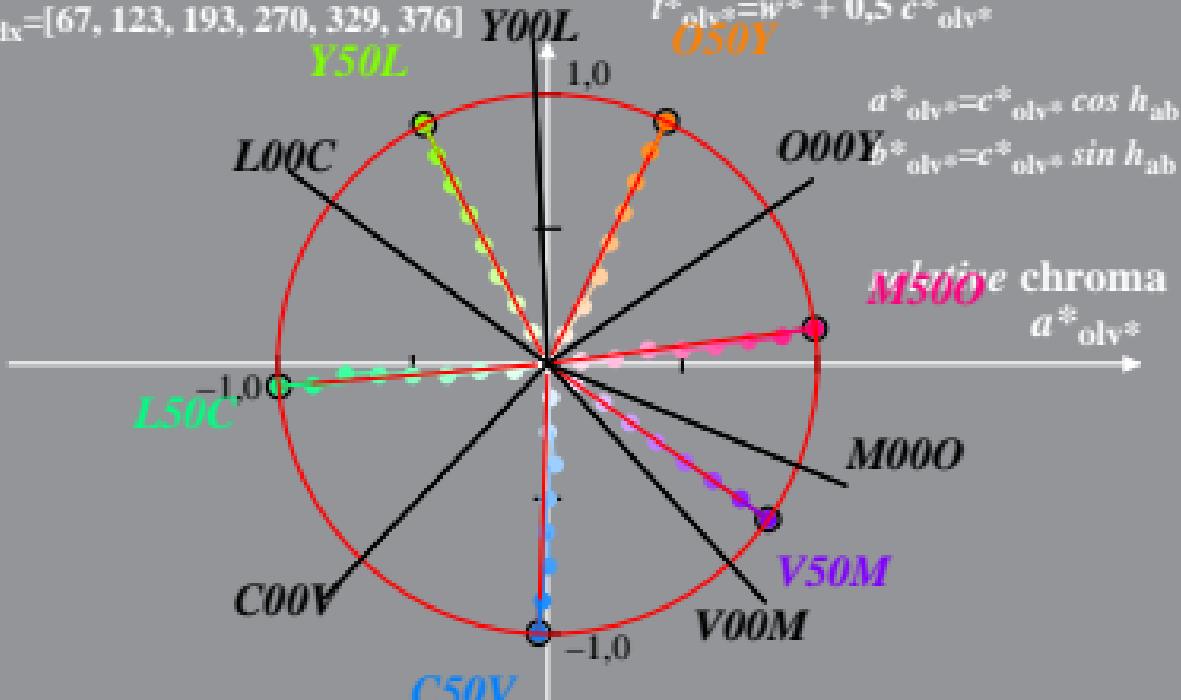
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$$h_{ab,dx} = [67, 123, 193, 270, 329, 376]$$

$$l^*_{olv^*} = w^* + 0,5 c^*_{olv^*}$$



Linear relation  $olv^*$  and relative chroma  $c^*_{olv^*}$  or chroma  $a^*_{olv^*}, b^*_{olv^*}$

System: GE87\_FRS09\_92\_D65\_75%\_00

$$c^*_{olv^*} = \max(olv^*) - \min(olv^*)$$

**Result:**  $c^*_{\text{obj}^*} = c^*_{\text{lab}^*}$ ;  $t^*_{\text{obj}^*} = t^*_{\text{lab}^*}$

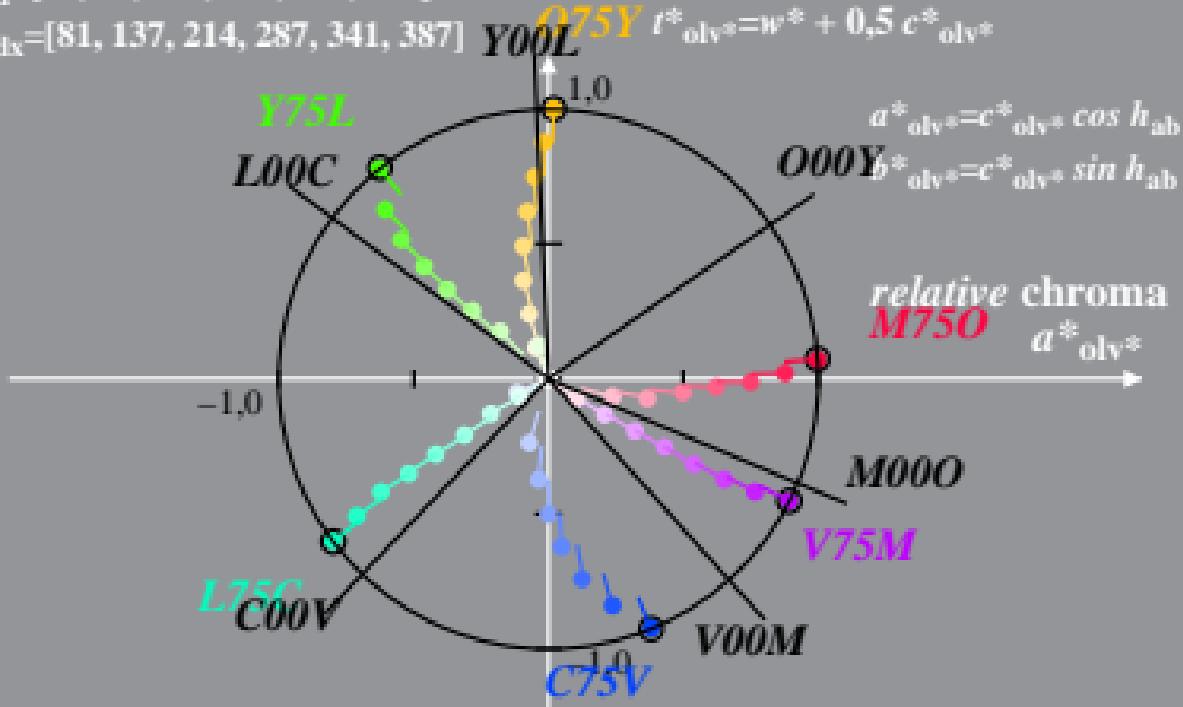
$$y^* = 1 - \max_i (obj_i y^*) = 1 - j^*$$

#### CIELAB hue angles:

$$b^*_{\text{obj}^*} = \min_{b^*} \text{obj}(b^*) = 1 - \epsilon$$

$$h_{ab,4} = [34, 92, 143, 226, 312, 337]$$

$$h_{\text{sh}, \text{olv}} = [81, 137, 214, 287, 341, 387] \text{ } Y00f^{Q75Y} l^*_{\text{olv}} = w^* + 0,5 c^*_{\text{olv}} *$$



Linear relation  $olv^*$  and relative chroma  $c^*_{olv^*}$  or chroma  $a^*_{olv^*}, b^*_{olv^*}$

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Result:  $c^*_{olv^*} = c^*_{lab^*}$ ;  $l^*_{olv^*} = l^*_{lab^*}$        $n^* = 1 - \max(olv^*) = 1 - i^*$

CIELAB hue angles:

$h_{ab,d} = [34, 92, 143, 226, 312, 337]$

$b^*_{olv^*}$        $w^* = \min(olv^*) = 1 - d^*$

$h_{ab,dx} = [81, 137, 214, 287, 341, 387]$        $Y00L$        $O75Y_{olv^*} = w^* + 0,5 c^*_{olv^*}$

