# wdr部分

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| **ae算法内参数名称** | **tuningTool参数名称** | **参数含义** | **建议参数范围** |
| ucIsEnableiAE | wdrEnable | 0: 关闭wdr; 1: 开启wdr | 0，1 |
| iaeluxIdxTh[0] | luxIdxth\_0 | luxidx <= luxIdxth\_0时，wdr参数选择case0对应的参数 | [0,600] |
| iaeluxIdxTh[1] | luxIdxth\_insert\_01 | luxIdxth\_0 < luxidx <= luxIdxth\_insert\_01时，wdr参数选择case0和case1进行插值对应的参数 |
| iaeluxIdxTh[2] | luxIdxth\_1 | luxIdxth\_insert\_01 < luxidx <= luxIdxth\_1时，  wdr参数选择case1对应的参数 |
| iaeluxIdxTh[3] | luxIdxth\_insert\_12 | luxIdxth\_1 < luxidx <= luxIdxth\_insert\_12时，wdr参数选择case1和case2进行插值对应的参数 |
|  | …… | 同理 |
| iaeluxIdxTh[16] | luxIdxth\_8 | luxIdxth\_insert\_78 < luxidx <= luxIdxth\_8时，  wdr参数选择case8对应的参数 |
| iaeluxIdxTh[17] | luxIdxth\_insert\_89 | luxIdxth\_8 < luxidx <= luxIdxth\_insert\_89时，wdr参数选择case8和case9进行插值对应的参数；  luxidx > luxIdxth\_insert\_89时，wdr参数选择case9对应的参数 |
| iAE\_tuning\_para[0~9] | case0~9 | wdr case0~9对应的参数 | \ |
| hist\_dark\_high | hist\_dark\_high | 当前环境下调试认为暗区的较大的合适亮度，值越大dark hightarget越大 | [0,255] |
| hist\_dark\_low | hist\_dark\_low | 当前环境下调试认为暗区的较小的合适亮度，值越大dark lowtarget越大 | [0,255] |
| hist\_sat\_high | hist\_sat\_high | 当前环境下调试认为中高亮区的较大的合适亮度，值越小bright hightarget越小 | [0,255] |
| hist\_sat\_low | hist\_sat\_low | 当前环境下调试认为中高亮区的较小的合适亮度，值越小bright lowtarget越小 | [0,255] |
| hist\_dark\_range\_end | hist\_dark\_range\_end | 用于计算直方图中数量占比在后start%~end%的像素的移动平均亮度作为暗区当前亮度，最终计算dark target，占比越靠后dark target越小 | [0,100] |
| hist\_dark\_range\_start | hist\_dark\_range\_start | [0,100] |
| hist\_sat\_pushdown\_range\_end | hist\_sat\_pushdown\_range\_end | 用于计算直方图中数量占比在前start%~end%的像素的移动平均亮度作为中高亮区当前亮度，最终计算bright hightarget，占比越靠前bright hightarget越小 | [0,100] |
| hist\_sat\_pushdown\_range\_start | hist\_sat\_pushdown\_range\_start | [0,100] |
| hist\_sat\_pushup\_range\_end | hist\_sat\_pushup\_range\_end | 用于计算直方图中数量占比在前start%~end%的像素的移动平均亮度作为中高亮区当前亮度，最终计算bright lowtarget，占比越靠前bright lowtarget越小 | [0,100] |
| hist\_sat\_pushup\_range\_start | hist\_sat\_pushup\_range\_start | [0,100] |
| max\_adjust\_ratio | max\_adjust\_ratio | safe target <= reftarget \* max\_adjust\_ratio | [100,200] |
| min\_adjust\_ratio | min\_adjust\_ratio | safe target >= reftarget \* min\_adjust\_ratio | [0,100] |
| max\_midtones\_gain | max\_midtones\_gain | midtones\_gain的最大值 | [100,1000] |
| max\_shadows\_gain | max\_shadows\_gain | shadows\_gain的最大值 | [100,1000] |
| brightYhistTh | brightYhistTh | 8bit，raw上认为是较亮值的Y值阈值，注：raw上亮度未经过gamma  example：116 | [0,255] |
| darkYHistTh | darkYHistTh | 8bit，raw上认为是较暗值的Y值阈值，注：raw上亮度未经过gamma  example: 2 | [0,255] |
| brightRatioInTh | brightRatioInTh | 进入dynamic场景的亮区占比阈值以及暗区占比阈值，亮区占比大于阈值并且暗区占比小于阈值则进入dynamic，选择wdr target  example：brightRatioInTh 4，darkRatioInTh 30 | [0,100] |
| darkRatioInTh | darkRatioInTh | [0,100] |
| brightRatioOutTh | brightRatioOutTh | 退出dynamic场景的亮区占比阈值以及暗区占比阈值，亮区占比小于阈值或者暗区占比大于阈值则退出dynamic，选择sdr target  example：brightRatioOutTh 2，darkRatioOutTh 50 | [0,100] |
| darkRatioOutTh | darkRatioOutTh | [0,100] |

# 控制部分

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| **ae算法内参数名称** | **tuningTool参数名称** | **参数含义** | **建议参数范围** |
| afd\_flicker\_mode | afd\_flicker\_mode | 0: off; 1: 50HZ; 2: 60HZ | 0，1，2 |
| manual\_isolevel | manual\_isolevel | 0: auto;  1: iso100;  2: iso200;  3: iso400;  4: iso800;  5: iso1600;  6: iso3200;  7: iso6400;  8: iso12800 | 0，1，2，3，4，5，6，7，8 |
| manual\_exptime | manual\_exptime | 设置不等于0时为手动设置曝光时间，单位ms | [0,11111] |
| manual\_adgain | manual\_adgain | scale1，设置不等于0时为手动设置gain，和manual\_isolevel同时使用时manual\_adgain优先级较高 | [0,256] |
| manual\_ae\_target | manual\_ae\_target | scale100，设置范围[100,25500]时为手动设置target，需要与ae\_target\_mode一起设置 | [100,25500] |
| ae\_metering\_mode | ae\_metering\_mode | 0: avg metering;  1: center metering | 0,1 |
| converge\_speedlv | converge\_speedlv | 收敛速度等级：  0: normal;  1: fastest;  2: fast;  3: smooth (slow);  4: slow (slowest) | 0,1,2,3,4 |
| ae\_target\_mode | ae\_target\_mode | 选择target的方式：  0: fix, manual target;  1: normal (target table: sdr normal, wdr preview);  2: night;  3: userdef | 0,1,2,3 |
| ae\_expo\_mode | ae\_expo\_mode | 选择查曝光表的方式：  0: iso prior;  1: exptime prior;  2: normal (exptable: capture\_auto);  3: night;  4: userdef (exptable: preview\_auto) | 0,1,2,3,4 |

# table部分

## target table

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| **ae算法内参数名称** | **tuningTool参数名称** | **参数含义** | **建议参数范围** |
| ae\_target\_table[][0] | luxidx | scale100，当cur Y = target时，expidx = luxidx，用于查表  example: 24342 = 243.43 | [0,60000] |
| ae\_target\_table[][1] | value | scale100，target值 | [100,25500] |
| \ | default0 | 预留位置，无含义 | 0 |

## exposure table

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| **ae算法内参数名称** | **tuningTool参数名称** | **参数含义** | **建议参数范围** |
| ae\_expo\_table[0] | expidx | scale100，当cur Y = target时，expidx = luxidx，用于查表  example: 24342 = 243.43 | [0,60000] |
| ae\_expo\_table[1] | exptime | 该节点的曝光时间，单位ms | [0,11111] |
| ae\_expo\_table[2] | gain | 该节点的gain | [0,256] |
| ae\_expo\_table[3] | prio | gain或曝光时间变化的优先级：  0: gain优先；  1: exptime优先 | 0,1 |