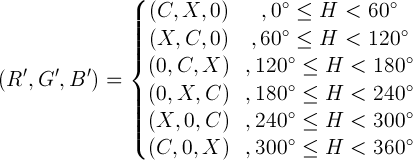
1. **HSV (300, 100%, 100%) RGB - ?**

*C* = *V* × *S = 1\*1 = 1*

*X* = *C* × (1 - |(*H* / 60°) mod 2 - 1|) = 1\*(1-|(*300* / 60°) mod 2 - 1|) = 1

*m* = *V* – *C=1 – 1 = 0*



(*R`*,*G`*,*B`*) = (1, 0, 1)

(*R*,*G*,*B*) = ((*R*'+*m*)×255, (*G*'+*m*)×255, (*B*'+*m*)×255) = (255, 0, 255)

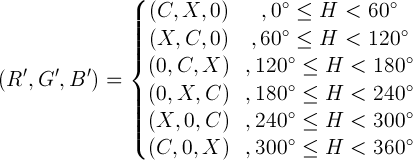
|  |  |  |  |
| --- | --- | --- | --- |
|  | Magenta | #FF00FF | (255,0,255) |

1. **HSL (1*2*0, 100%, 50%) RGB - ?**

*C* = (1 - |2L - 1|) × *S =* (1 - |2\*0.5 - 1|) × *1 = 1*

*X* = *C* × (1 - |(*H* / 60°) mod 2 - 1|) = *1* × (1 - |(*120* / 60°) mod 2 - 1|) = 0

*m* = *L* - *C/2 = 0.5* - *½ = 0*



(*R`*,*G`*,*B`*) = (0, 1, 0)

(*R*,*G*,*B*) = ((R'+*m*)×255, (G'+*m*)×255,(*B*'+*m*)×255) = (0, 255, 0)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Lime | (120°,100%,50%) | #00FF00 | (0,255,0) |

1. **Вычисление диапазонов цветов для температуры изображения.**

**Температура = 8000K, RGB - ?**

x = (kelvin/100) – 55 = (8000/100) – 55 = 25

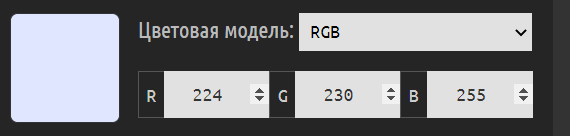
R = 352 – 40\*ln(x) = 352 – 40\*ln(25) ~ 352 – 40\*3.2 = 224

x = (kelvin/100) – 50 = (8000/100) – 50 = 30

g = 325 − 28 ln(x) = 325 − 28 ln(30) ~ 325 – 28\*3.4 = 229.9 ~ 230

b = 255

(*R*,*G*,*B*) = (224, 230, 255)



#e0e6ff