

HCC P50/P5F LED

Bin Table



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Product Nomenclature

Part Number

P 5 X₁ - X₂

X₁: Product Characteristic

X₂: Color

Group Code

Y₁Y₂ Y₃Y₄Y₅ Y₆Y₇Y₈

Y₁Y₂ : Luminous Flux / Radiation Power Bin

Y₃Y₄Y₅ : Color / Wavelength Bin

Y₆Y₇Y₈ : Forward Voltage Bin

Product Characteristic

| Abbreviation | Product |
|--------------|---------------|
| O | 1W, no lens |
| F | 0.5W, no lens |
| | |

Color

| Abbreviation | Color |
|--------------|------------|
| W | White |
| R | Red |
| S | Super Red |
| A | Amber |
| G | Green |
| C | Cyan |
| B | Blue |
| D | Royal Blue |
| U | UV |



Forward Voltage Binning

| Forward voltage | Range (V) | |
|-----------------|--------------|------|
| | Abbreviation | Min. |
| V18 | 1.8 | 2 |
| V20 | 2 | 2.2 |
| V22 | 2.2 | 2.4 |
| V24 | 2.4 | 2.6 |
| V26 | 2.6 | 2.8 |
| V28 | 2.8 | 3 |

| Forward voltage | Range (V) | |
|-----------------|--------------|------|
| | Abbreviation | Min. |
| V30 | 3 | 3.2 |
| V32 | 3.2 | 3.4 |
| V34 | 3.4 | 3.6 |
| V36 | 3.6 | 3.8 |
| V38 | 3.8 | 4 |
| V3X | 3 | 3.6 |

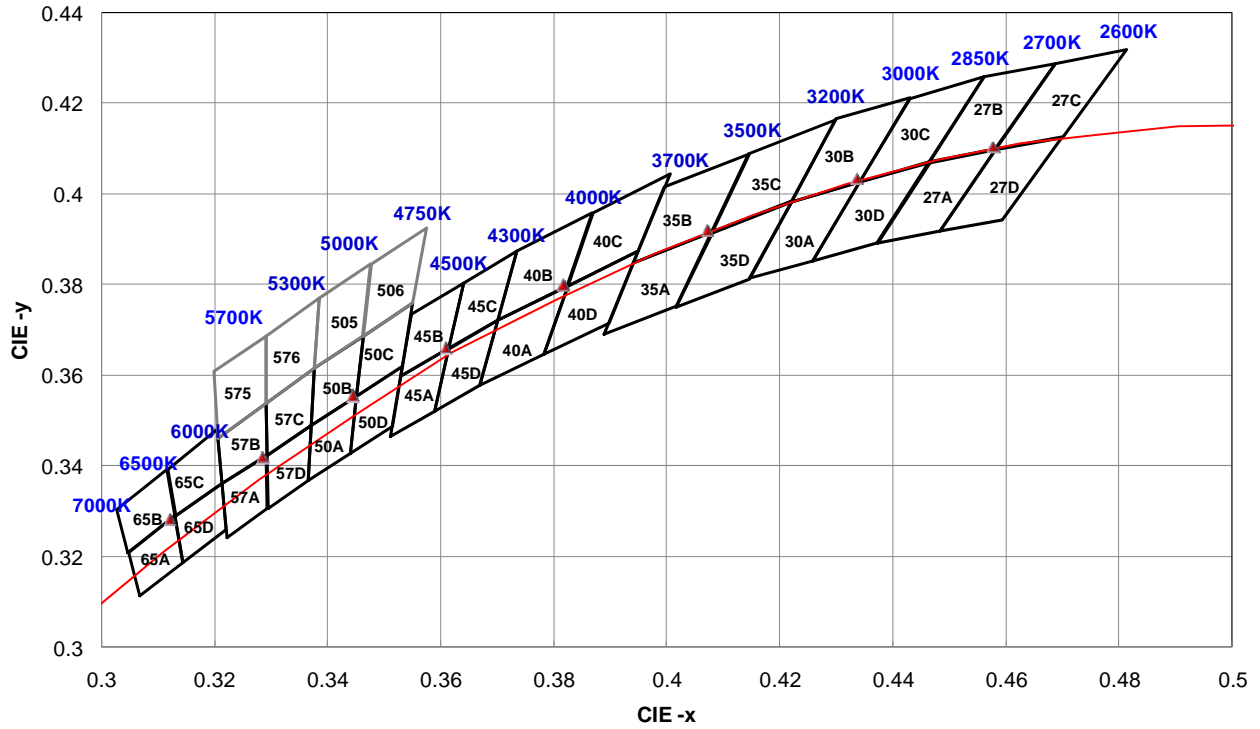


Wavelength Binning

| Color | Abbreviation | Min. | Max. |
|------------|--------------|-------|-------|
| Red | R10 | 620 | 625 |
| | R20 | 625 | 630 |
| | R30 | 630 | 635 |
| Super Red | S20 | 655 | 665 |
| Amber | A20 | 585 | 590 |
| | A2A | 585 | 587.5 |
| | A2B | 587.5 | 590 |
| | A30 | 590 | 595 |
| | A3A | 590 | 592.5 |
| | A3B | 592.5 | 595 |
| | A40 | 595 | 600 |
| Green | G10 | 520 | 525 |
| | G20 | 525 | 530 |
| | G30 | 530 | 535 |
| Cyan | C10 | 490 | 495 |
| | C20 | 495 | 500 |
| | C30 | 500 | 505 |
| | C40 | 505 | 510 |
| | C50 | 510 | 515 |
| | C60 | 515 | 520 |
| Blue | B10 | 460 | 465 |
| | B20 | 465 | 470 |
| | B30 | 470 | 475 |
| Royal Blue | D10 | 440 | 445 |
| | D20 | 445 | 450 |
| | D30 | 450 | 455 |
| | D40 | 455 | 460 |

White Color Binning

Overview





| | x | y |
|-----|--------|--------|
| 65A | 0.3068 | 0.3113 |
| | 0.3048 | 0.3209 |
| | 0.3131 | 0.3290 |
| | 0.3145 | 0.3187 |
| 65B | 0.3048 | 0.3209 |
| | 0.3028 | 0.3304 |
| | 0.3117 | 0.3393 |
| | 0.3131 | 0.3290 |

| | x | y |
|-----|--------|--------|
| 65C | 0.3131 | 0.3290 |
| | 0.3117 | 0.3393 |
| | 0.3205 | 0.3481 |
| | 0.3214 | 0.3362 |
| 65D | 0.3145 | 0.3187 |
| | 0.3131 | 0.3290 |
| | 0.3214 | 0.3362 |
| | 0.3221 | 0.3261 |

| | x | y |
|-----|--------|--------|
| 57A | 0.3222 | 0.3243 |
| | 0.3214 | 0.3362 |
| | 0.3293 | 0.3424 |
| | 0.3294 | 0.3306 |
| 57B | 0.3214 | 0.3362 |
| | 0.3207 | 0.3462 |
| | 0.3292 | 0.3539 |
| | 0.3293 | 0.3424 |

| | x | y |
|-----|--------|--------|
| 57C | 0.3293 | 0.3424 |
| | 0.3292 | 0.3539 |
| | 0.3376 | 0.3616 |
| | 0.3371 | 0.3490 |
| 57D | 0.3294 | 0.3306 |
| | 0.3293 | 0.3424 |
| | 0.3371 | 0.3490 |
| | 0.3366 | 0.3369 |

| | x | y |
|-----|--------|--------|
| 575 | 0.3207 | 0.3462 |
| | 0.3200 | 0.3610 |
| | 0.3291 | 0.3687 |
| | 0.3291 | 0.3539 |
| 576 | 0.3291 | 0.3687 |
| | 0.3291 | 0.3539 |
| | 0.3376 | 0.3616 |
| | 0.3385 | 0.3770 |

| | x | y |
|-----|--------|--------|
| 50A | 0.3366 | 0.3369 |
| | 0.3371 | 0.3490 |
| | 0.3451 | 0.3554 |
| | 0.3440 | 0.3428 |
| 50B | 0.3371 | 0.3490 |
| | 0.3376 | 0.3616 |
| | 0.3463 | 0.3687 |
| | 0.3451 | 0.3554 |

| | x | y |
|-----|--------|--------|
| 50C | 0.3451 | 0.3554 |
| | 0.3463 | 0.3687 |
| | 0.3551 | 0.3760 |
| | 0.3533 | 0.3620 |
| 50D | 0.3440 | 0.3428 |
| | 0.3451 | 0.3554 |
| | 0.3533 | 0.3620 |
| | 0.3515 | 0.3487 |

| | x | y |
|-----|--------|--------|
| 505 | 0.3376 | 0.3616 |
| | 0.3385 | 0.3770 |
| | 0.3477 | 0.3845 |
| | 0.3463 | 0.3687 |
| 506 | 0.3463 | 0.3687 |
| | 0.3477 | 0.3845 |
| | 0.3575 | 0.3925 |
| | 0.3551 | 0.3760 |



| | x | y |
|-----|--------|--------|
| 45A | 0.3512 | 0.3465 |
| | 0.3529 | 0.3597 |
| | 0.3615 | 0.3659 |
| | 0.3590 | 0.3521 |
| 45B | 0.3529 | 0.3597 |
| | 0.3548 | 0.3736 |
| | 0.3641 | 0.3804 |
| | 0.3615 | 0.3659 |

| | x | y |
|-----|--------|--------|
| 45C | 0.3615 | 0.3659 |
| | 0.3641 | 0.3804 |
| | 0.3736 | 0.3874 |
| | 0.3702 | 0.3722 |
| 45D | 0.3590 | 0.3521 |
| | 0.3615 | 0.3659 |
| | 0.3702 | 0.3722 |
| | 0.3670 | 0.3578 |

| | x | y |
|-----|--------|--------|
| 40A | 0.3670 | 0.3578 |
| | 0.3702 | 0.3722 |
| | 0.3825 | 0.3798 |
| | 0.3783 | 0.3646 |
| 40B | 0.3702 | 0.3722 |
| | 0.3736 | 0.3874 |
| | 0.3869 | 0.3958 |
| | 0.3825 | 0.3798 |

| | x | y |
|-----|--------|--------|
| 40C | 0.3825 | 0.3798 |
| | 0.3869 | 0.3958 |
| | 0.4006 | 0.4044 |
| | 0.3950 | 0.3875 |
| 40D | 0.3783 | 0.3646 |
| | 0.3825 | 0.3798 |
| | 0.3950 | 0.3875 |
| | 0.3898 | 0.3716 |

| | x | y |
|-----|--------|--------|
| 35A | 0.3889 | 0.3690 |
| | 0.3941 | 0.3848 |
| | 0.4080 | 0.3916 |
| | 0.4017 | 0.3751 |
| 35B | 0.3941 | 0.3848 |
| | 0.3996 | 0.4015 |
| | 0.4146 | 0.4089 |
| | 0.4080 | 0.3916 |

| | x | y |
|-----|--------|--------|
| 35C | 0.4080 | 0.3916 |
| | 0.4146 | 0.4089 |
| | 0.4299 | 0.4165 |
| | 0.4221 | 0.3984 |
| 35D | 0.4017 | 0.3751 |
| | 0.4080 | 0.3916 |
| | 0.4221 | 0.3984 |
| | 0.4147 | 0.3814 |



| | x | y |
|-----|--------|--------|
| 30A | 0.4147 | 0.3814 |
| | 0.4221 | 0.3984 |
| | 0.4342 | 0.4028 |
| | 0.4259 | 0.3853 |
| 30B | 0.4221 | 0.3984 |
| | 0.4299 | 0.4165 |
| | 0.4430 | 0.4212 |
| | 0.4342 | 0.4028 |

| | x | y |
|-----|--------|--------|
| 30C | 0.4342 | 0.4028 |
| | 0.4430 | 0.4212 |
| | 0.4562 | 0.4260 |
| | 0.4465 | 0.4071 |
| 30D | 0.4259 | 0.3853 |
| | 0.4342 | 0.4028 |
| | 0.4465 | 0.4071 |
| | 0.4373 | 0.3893 |

| | x | y |
|-----|--------|--------|
| 27A | 0.4373 | 0.3893 |
| | 0.4465 | 0.4071 |
| | 0.4582 | 0.4099 |
| | 0.4483 | 0.3919 |
| 27B | 0.4465 | 0.4071 |
| | 0.4562 | 0.4260 |
| | 0.4687 | 0.4289 |
| | 0.4582 | 0.4099 |

| | x | y |
|-----|--------|--------|
| 27C | 0.4582 | 0.4099 |
| | 0.4687 | 0.4289 |
| | 0.4813 | 0.4319 |
| | 0.4700 | 0.4126 |
| 27D | 0.4483 | 0.3919 |
| | 0.4582 | 0.4099 |
| | 0.4700 | 0.4126 |
| | 0.4593 | 0.3944 |