**建筑节能设计报告书**

公共建筑

甲类

|  |  |
| --- | --- |
| 工程名称 | 新建项目 |
| 工程地点 | 浙江-湖州 |
| 设计编号 |  |
| 建设单位 |  |
| 设计单位 |  |
| 设 计 人 |  |
| 校 对 人 |  |
| 审 核 人 |  |
| 设计日期 | 2025年3月7日 |



|  |  |
| --- | --- |
| 采用软件 | 节能设计Becs2024 |
| 软件版本 | 20240430(SP1) |
| 研发单位 | 北京绿建软件股份有限公司 |
| 正版授权码 | T15057319739 |

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# 建筑概况

|  |  |
| --- | --- |
| 工程名称 | 新建项目 |
| 工程地点 | 浙江-湖州 |
| 气候分区 | 夏热冬冷A区 |
| 建筑面积 | 地上7441㎡ 地下0㎡ |
| 建筑层数 | 地上3 地下0 |
| 建筑高度 | 13.2m |
| 建筑（节能计算）体积 | 29824.13 |
| 建筑（节能计算）外表面积 | 8511.04 |
| 北向角度 | 80 |
| 结构类型 |  |
| 外墙太阳辐射吸收系数 | 0.75 |
| 屋顶太阳辐射吸收系数 | 0.75 |

# 设计依据

1. 《建筑节能与可再生能源利用通用规范》GB55015-2021

2. 《公共建筑节能设计标准》GB50189-2015

3. 《民用建筑热工设计规范》GB50176-2016

4. 《建筑幕墙、门窗通用技术条件》GB/T31433-2015

# 建筑大样



立面图例



1层平面



2层平面



3层平面



4层平面

# 规定性指标检查

## 工程材料

### 普通材料

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 | 导热系数λ | 蓄热系数S | 密度ρ | 比热容Cp | 蒸汽渗透 系数u | 数据来源 |
| W/(m.K) | W/(㎡.K) | kg/m3 | J/(kg.K) | g/(m.h.kPa) |
| 水泥砂浆 | 0.930 | 11.370 | 1800.0 | 1050.0 | 0.0210 | 民用建筑热工设计规范 GB50176-2016 |
| 聚合物水泥砂浆 | 0.930 | 11.306 | 1800.0 | 1050.0 | 0.0021 | DB23-T120-2001 |
| 石灰砂浆 | 0.810 | 10.070 | 1600.0 | 1050.0 | 0.0443 | 民用建筑热工设计规范 GB50176-2016 |
| 石灰水泥砂浆（混合砂浆） | 0.870 | 10.750 | 1700.0 | 1074.4 | 0.0140 | 无机轻集料防火保温板 JGT 435-2014 |
| 钢筋混凝土 | 1.740 | 17.200 | 2500.0 | 920.0 | 0.0158 | 民用建筑热工设计规范 GB50176-2016 |
| 细石混凝土（双向配筋） | 1.740 | 17.060 | 2500.0 | 920.0 | 0.0158 | 民用建筑热工设计规范 GB50176-2016 |
| C15混凝土垫层 | 1.740 | 17.060 | 2500.0 | 920.0 | 0.0173 |  |
| 蒸压砂加气混凝土砌块B05 | 0.140 | 2.800 | 500.0 | 1540.0 | 0.1110 | GB/T11968-2020 |
| 无机轻集料保温砂浆(ρ0≤450) | 0.085 | 1.500 | 450.0 | 810.0 | 0.0230 | 浙江居住建筑节能设计标准 DB33/1015-2021 |
| 挤塑聚苯板（XPS）(屋面楼板) | 0.030 | 0.320 | 35.0 | 1340.0 | 0.0162 | 民用建筑热工设计规范 GB50176-2016 |
| 碎石 | 1.280 | 13.410 | 2100.0 | 920.0 | 0.0173 |  |
| 岩棉板(ρ0≥80) | 0.044 | 0.750 | 80.0 | 2200.0 | 0.4880 | 民用建筑热工设计规范 GB50176-2016 |
| 单层铝板 | － | － | － | － | － | 民用建筑热工设计规范 GB50176-2016 |
| 加气混凝土、泡沫混凝土(ρ=500) | 0.190 | 2.693 | 500.0 | 1050.0 | 0.1110 | 民用建筑热工设计规范 GB50176-2016 |
| 弹性体改性沥青防水卷材 | 0.230 | 9.370 | 900.0 | 1620.0 | 0.0014 | DB34-T753-2007 |
| 石灰砂浆隔离层 | 0.810 | 10.070 | 1600.0 | 1050.0 | 0.0443 | 民用建筑热工设计规范 GB50176-2016 |
| 陶粒混凝土找坡 | 0.420 | 5.730 | 1300.0 | 825.0 | 0.0188 | 民用建筑热工设计规范 GB50176-2016 |
| 平板玻璃 | 0.760 | 10.690 | 2500.0 | 840.0 | 0.0000 | 民用建筑热工设计规范 GB50176-2016 |
| 涂料饰面(忽略保温性能) | 5.000 | 10.583 | 1800.0 | 171.1 | 0.0040 |  |
| 抹面砂浆（敷设耐碱玻纤网格布一层） | 0.760 | 9.440 | 1500.0 | 1074.9 | 0.0000 | 无机轻集料防火保温板 JGT 435-2014 |
| 挤塑聚苯板（xps）(墙体) | 0.030 | 0.340 | 35.0 | 1510.0 | 0.0000 | 浙江居住建筑节能设计标准 DB33/1015-2021 |
| 粘结砂浆 | 0.810 | 10.070 | 1600.0 | 1075.9 | 0.0000 | 无机轻集料防火保温板 JGT 435-2014 |
| 轻质砂浆找平层 | 0.290 | 4.706 | 1000.0 | 1050.0 | 0.0120 |  |
| 非黏土类烧结保温砖（800级） | 0.250 | 3.930 | 800.0 | 1060.0 | 0.0000 | 浙江居住建筑节能设计标准 DB33/1015-2021 |
| 烧结多孔砖墙 | 0.580 | 7.919 | 1400.0 | 1062.0 | 0.0000 | 黑龙江居住建筑节能设计标准 DB23-T120－2001 |
| m5预拌抹灰砂浆，保温板抹面砂浆，抗裂砂浆 | 0.870 | 10.750 | 1700.0 | 1050.0 | 0.0000 | 湖北低能耗居住建筑节能设计标准 DB42/T559-2022 |

### 其他材料

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 材料名称 | 厚度 | 热阻R | 太阳辐射吸收系数 | 备注 |
| mm | (㎡K)/W |
| 外墙界面剂 | － | － | － |  |
| 胶黏剂 | － | － | － |  |
| 金属龙骨 | － | － | － |  |
| 非固化橡胶沥青防水涂料I型 | － | － | － |  |
| 自粘无胎防水卷材I型(单面） | － | － | － |  |
| 夹心保温20mm空气层 | 20.0 | 0.040 | － |  |

## 围护结构作法简要说明

**1. 屋顶：**

（1） 上人平屋顶(倒置式) (K=0.245,D=4.103)：（由上到下）

细石混凝土（双向配筋） 50mm＋石灰砂浆 10mm＋弹性体改性沥青防水卷材 3mm＋非固化橡胶沥青防水涂料I型 1.5mm＋水泥砂浆 20mm＋挤塑聚苯板（XPS）(屋面楼板) 130mm＋加气混凝土、泡沫混凝土(ρ=500) 30mm＋钢筋混凝土 120mm＋石灰水泥砂浆（混合砂浆） 10mm

（2） 不上人平屋顶（倒置式） (K=0.236,D=3.729)：（由上到下）

细石混凝土（双向配筋） 40mm＋石灰砂浆隔离层 10mm＋陶粒混凝土找坡 30mm＋挤塑聚苯板（XPS）(屋面楼板) 140mm＋自粘无胎防水卷材I型(单面） 1.5mm＋非固化橡胶沥青防水涂料I型 1.5mm＋钢筋混凝土 120mm＋石灰水泥砂浆（混合砂浆） 10mm

（3） 玻璃顶 (K=0.400,D=0.844)：（由上到下）

平板玻璃 20mm＋夹心保温20mm空气层 20mm＋平板玻璃 20mm＋夹心保温20mm空气层 20mm＋平板玻璃 20mm

**2. 外墙（剪力墙）：**挤塑聚苯板外墙 (K=0.600,D=1.666)：（由外到内）

涂料饰面(忽略保温性能) 20mm＋抹面砂浆（敷设耐碱玻纤网格布一层） 20mm＋挤塑聚苯板（xps）(墙体) 43mm＋粘结砂浆 20mm＋轻质砂浆找平层 20mm＋非黏土类烧结保温砖（800级） 20mm

**3. 外墙（填充墙）：**

（1） 挤塑聚苯板外墙 (K=0.600,D=1.666)：（由外到内）

涂料饰面(忽略保温性能) 20mm＋抹面砂浆（敷设耐碱玻纤网格布一层） 20mm＋挤塑聚苯板（xps）(墙体) 43mm＋粘结砂浆 20mm＋轻质砂浆找平层 20mm＋非黏土类烧结保温砖（800级） 20mm

（2） 240砖墙 (K=1.816,D=3.225)：（由外到内）

m5预拌抹灰砂浆，保温板抹面砂浆，抗裂砂浆 20mm＋烧结多孔砖墙 200mm＋m5预拌抹灰砂浆，保温板抹面砂浆，抗裂砂浆 20mm

**4. 外窗：**

（1） 6中透三银Low-E+12A+6+12A+6(窗框比0.25)金属隔热框(隔热条26mm) (K=1.800)：

传热系数1.800W/㎡.K，窗太阳得热系数0.188

（2） 70系列平开隔热铝合金窗(5+12A+5+12A+5Low\_E)(中透光) (K=1.800)：

传热系数1.800W/㎡.K，窗太阳得热系数0.340

（3） 65系列内平开隔热铝合金窗(5mm超白透明玻璃(室外侧)+12Ar+5mm超白透明玻璃+12Ar+5mm离线Low-E镀膜玻璃(室内侧)) (K=2.000)：

传热系数2.000W/㎡.K，窗太阳得热系数0.505

**5. 幕墙：**6中透三银Low-E+12A+6+12A+6(窗框比0.25)金属隔热框(隔热条26mm) (K=1.800)：

传热系数1.800W/㎡.K，窗太阳得热系数0.188

**6. 天窗：**6中透三银Low-E+12A+6+12A+6(窗框比0.25)金属隔热框(隔热条26mm) (K=1.800)：

传热系数1.800W/㎡.K，窗太阳得热系数0.188

## 体形系数

### 体形系数

|  |  |
| --- | --- |
| 外表面积 | 8511.04 |
| 建筑体积 | 29824.13 |
| 体形系数 | 0.29 |

### 楼层信息表

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 楼层 | 层高(m) | 建筑面积(㎡) | 外表面积(㎡) | 计算体积(m3) |
| 1 | 3.600 | 4282.31 | 1241.08 | 15416.31 |
| 2 | 3.200 | 1900.61 | 3895.25 | 6644.07 |
| 3 | 3.200 | 1257.95 | 2173.01 | 6695.27 |
| 4 | 3.200 | 0.00 | 1201.70 | 1068.48 |
| 合计 | 13.20 | 7440.86 | 8511.04 | 29824.13 |

## 窗墙比

### 窗墙比

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 朝向 | 立面 | 窗面积(㎡) | 墙面积(㎡) | 窗墙比 |
| 南向 | 立面1 | 363.90 | 1237.07 | 0.29 |
| 北向 | 立面2 | 458.56 | 1315.94 | 0.35 |
| 东向 | 立面3 | 77.81 | 598.84 | 0.13 |
| 西向 | 立面4 | 45.81 | 598.85 | 0.08 |

### 外窗表

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 朝向 | 立面 | 编号 | 尺寸 | 楼层 | 数量 | 单个面积 （㎡） | 合计面积 （㎡） | 总面积 （㎡） |
| 南向 | 立面1 | (玻璃幕墙) |  | 3 |  |  | 4.53 | 363.90 |
|  | 1.50×0.90 | 3 | 1 | 1.35 | 1.35 |
| 1F shuba wai2 | 1.60×3.60 | 1 | 1 | 5.76 | 5.76 |
| C0915 | 0.90×1.50 | 1~2 | 12 | 1.35 | 16.20 |
| C1215 | 1.20×1.50 | 1 | 4 | 1.80 | 7.20 |
| C1215 | 1.20×3.00 | 2 | 2 | 3.60 | 7.20 |
| C1218 | 1.20×1.80 | 1 | 2 | 2.16 | 4.32 |
| C1432 | 1.40×3.20 | 2 | 1 | 4.48 | 4.48 |
| C1509 | 1.50×0.90 | 2~3 | 13 | 1.35 | 17.55 |
| C1524 | 1.50×2.40 | 1~3 | 6 | 3.60 | 21.60 |
| C1706 | 1.74×0.60 | 3 | 7 | 1.04 | 7.31 |
| C1821 | 1.80×2.10 | 1 | 11 | 3.78 | 41.58 |
| C2130 | 2.10×3.00 | 3 | 17 | 6.30 | 107.10 |
| C2415 | 2.40×3.00 | 2 | 2 | 7.20 | 14.40 |
| C2421 | 2.40×2.10 | 1 | 4 | 5.04 | 20.16 |
| 透光门- | 2.10×2.10 | 2 | 16 | 4.41 | 70.56 |
| 透光门-2 | 2.40×2.10 | 2 | 1 | 5.04 | 5.04 |
| 透光门1F | 1.20×2.10 | 1 | 3 | 2.52 | 7.56 |
| 北向 | 立面2 | (玻璃幕墙) |  | 1~3 |  |  | 160.30 | 458.56 |
|  | 3.60×1.80 | 1~2 | 8 | 6.48 | 51.84 |
|  | 1.50×0.90 | 3 | 1 | 1.35 | 1.35 |
| 1F shuba wai2 | 1.60×3.60 | 1 | 1 | 5.76 | 5.76 |
| C1432 | 1.40×3.20 | 2 | 1 | 4.48 | 4.48 |
| C1509 | 1.50×0.90 | 3 | 20 | 1.35 | 27.00 |
| C1524 | 1.50×2.40 | 1~2 | 10 | 3.60 | 36.00 |
| C1706 | 1.74×0.60 | 3 | 7 | 1.04 | 7.31 |
| C1824 | 1.80×2.40 | 1~2 | 4 | 4.32 | 17.28 |
| C2421 | 2.40×2.10 | 2 | 9 | 5.04 | 45.36 |
| C2424 | 2.40×2.40 | 1 | 4 | 5.76 | 23.04 |
| C3618 | 3.60×1.80 | 2 | 4 | 6.48 | 25.92 |
| 透光门-3 | 3.00×2.10 | 2 | 8 | 6.30 | 50.40 |
| 透光门1F | 1.20×2.10 | 1 | 1 | 2.52 | 2.52 |
| 东向 | 立面3 | (玻璃幕墙) |  | 1~3 |  |  | 33.12 | 77.81 |
| 1F shuba wai | 1.60×3.60 | 1 | 2 | 5.76 | 11.52 |
| C0915 | 0.90×1.50 | 2 | 1 | 1.35 | 1.35 |
| C0924 | 0.90×2.40 | 1 | 2 | 2.16 | 4.32 |
| C1224 | 1.20×2.40 | 1 | 2 | 2.88 | 5.76 |
| C1432 | 1.40×3.20 | 2 | 2 | 4.48 | 8.96 |
| C1706 | 1.74×0.60 | 3 | 2 | 1.04 | 2.09 |
| C1718 | 1.74×1.80 | 3 | 1 | 3.13 | 3.13 |
| C2118 | 2.10×1.80 | 3 | 2 | 3.78 | 7.56 |
| 西向 | 立面4 | (玻璃幕墙) |  | 1~2 |  |  | 33.03 | 45.81 |
| C1706 | 1.74×0.60 | 3 | 2 | 1.04 | 2.09 |
| C1718 | 1.74×1.80 | 3 | 1 | 3.13 | 3.13 |
| C2118 | 2.10×1.80 | 3 | 2 | 3.78 | 7.56 |

## 天窗

### 天窗屋顶比

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 房间 | 天窗编号 | 天窗面积（㎡） | 屋顶面积（㎡） | 面积比 |
| 3001 | 2,2,2,2, | 6.44 | 144.04 | 0.04 |
| 3002 | 2,2,2,2, | 5.53 | 52.60 | 0.11 |
| 3007 |  | 2.16 | 41.56 | 0.05 |
| 3008 |  | 2.16 | 41.56 | 0.05 |
| 3009 |  | 2.16 | 41.56 | 0.05 |
| 3011 |  | 2.16 | 41.56 | 0.05 |
| 3012 |  | 2.16 | 41.56 | 0.05 |
| 3013 |  | 2.16 | 41.56 | 0.05 |
| 3014 |  | 2.16 | 22.60 | 0.10 |
| 3016 |  | 2.16 | 22.60 | 0.10 |
| 3017 |  | 2.16 | 41.56 | 0.05 |
| 3022 |  | 2.16 | 22.60 | 0.10 |
| 3023 |  | 2.16 | 22.60 | 0.10 |
| 整栋建筑 | | 35.73 | 2321.32 | 0.02 |
| 标准依据 | 《建筑节能与可再生能源利用通用规范》GB55015-2021第3.1.6条 | | | |
| 标准要求 | 天窗面积不应大于屋顶总面积的20% | | | |
| 结论 | 满足 | | | |

### 天窗类型

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 序号 | 构造名称 | 构造编号 | 传热系数 | 综合太阳 得热系数 | 备注 |
| 1 | 6中透三银Low-E+12A+6+12A+6(窗框比0.25)金属隔热框(隔热条26mm) | 279 | 1.80 | 0.19 |  |
| 平均 | |  | 1.80 | 0.19 |  |
| 标准依据 | | 《建筑节能与可再生能源利用通用规范》GB55015-2021第3.1.10条 | | | |
| 标准要求 | | K≤2.2,SHGC≤0.3 | | | |
| 结论 | | 满足 | | | |

## 屋顶

### 屋顶相关构造

#### 上人平屋顶(倒置式)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 （由上到下） | 厚度δ | 导热系数λ | 蓄热系数S | 修正 系数 | 热阻R | 热惰性 指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 细石混凝土（双向配筋） | 50 | 1.740 | 17.060 | 1.00 | 0.029 | 0.490 |
| 石灰砂浆 | 10 | 0.810 | 10.070 | 1.00 | 0.012 | 0.124 |
| 弹性体改性沥青防水卷材 | 3 | 0.230 | 9.370 | 1.00 | 0.013 | 0.122 |
| 非固化橡胶沥青防水涂料I型 | 1.5 | － | － | － | － | － |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 挤塑聚苯板（XPS）(屋面楼板) | 130 | 0.030 | 0.320 | 1.20 | 3.611 | 1.387 |
| 加气混凝土、泡沫混凝土(ρ=500) | 30 | 0.190 | 2.693 | 1.00 | 0.158 | 0.425 |
| 钢筋混凝土 | 120 | 1.740 | 17.200 | 1.00 | 0.069 | 1.186 |
| 石灰水泥砂浆（混合砂浆） | 10 | 0.870 | 10.750 | 1.00 | 0.011 | 0.124 |
| 各层之和∑ | 374.5 | － | － | － | 3.925 | 4.103 |
| 外表面太阳辐射吸收系数 | 0.75 | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.25 | | | | | |

#### 不上人平屋顶（倒置式）

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 （由上到下） | 厚度δ | 导热系数λ | 蓄热系数S | 修正 系数 | 热阻R | 热惰性 指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 细石混凝土（双向配筋） | 40 | 1.740 | 17.060 | 1.00 | 0.023 | 0.392 |
| 石灰砂浆隔离层 | 10 | 0.810 | 10.070 | 1.00 | 0.012 | 0.124 |
| 陶粒混凝土找坡 | 30 | 0.420 | 5.730 | 1.00 | 0.071 | 0.409 |
| 挤塑聚苯板（XPS）(屋面楼板) | 140 | 0.030 | 0.320 | 1.20 | 3.889 | 1.493 |
| 自粘无胎防水卷材I型(单面） | 1.5 | － | － | － | － | － |
| 非固化橡胶沥青防水涂料I型 | 1.5 | － | － | － | － | － |
| 钢筋混凝土 | 120 | 1.740 | 17.200 | 1.00 | 0.069 | 1.186 |
| 石灰水泥砂浆（混合砂浆） | 10 | 0.870 | 10.750 | 1.00 | 0.011 | 0.124 |
| 各层之和∑ | 353 | － | － | － | 4.076 | 3.729 |
| 外表面太阳辐射吸收系数 | 0.75 | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.24 | | | | | |

#### 玻璃顶

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 （由上到下） | 厚度δ | 导热系数λ | 蓄热系数S | 修正 系数 | 热阻R | 热惰性 指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 平板玻璃 | 20 | 0.760 | 10.690 | 1.00 | 0.026 | 0.281 |
| 夹心保温20mm空气层 | 20 | － | － | － | 0.040 | － |
| 平板玻璃 | 20 | 0.760 | 10.690 | 1.00 | 0.026 | 0.281 |
| 夹心保温20mm空气层 | 20 | － | － | － | 0.040 | － |
| 平板玻璃 | 20 | 0.760 | 10.690 | 1.00 | 0.026 | 0.281 |
| 各层之和∑ | 100 | － | － | － | 0.159 | 0.844 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.16+∑R) | 3.14 | | | | | |
| 修正后K, D | K = 0.40, D = 0.84 | | | | | |
| 修正原因 |  | | | | | |

### 屋顶平均热工特性

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 构造名称 | 面积(㎡) | 面积所占比例 | 传热系数K W / (㎡K) | 热惰性 指标D | 太阳辐射 吸收系数 |
| 上人平屋顶(倒置式) | 1207.43 | 0.528 | 0.25 | 4.10 | 0.75 |
| 不上人平屋顶（倒置式） | 893.47 | 0.391 | 0.24 | 3.73 | 0.75 |
| 玻璃顶 | 184.67 | 0.081 | 0.40 | 0.84 | 0.75 |
| 合计 | 2285.57 | 1.000 | 0.25 | 3.69 | 0.75 |
| 标准依据 | 《建筑节能与可再生能源利用通用规范》GB55015-2021第3.1.10条 | | | | |
| 标准要求 | K≤0.40 | | | | |
| 结论 | 满足 | | | | |

## 外墙

### 外墙相关构造

#### 挤塑聚苯板外墙

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 （由外到内） | 厚度δ | 导热系数λ | 蓄热系数S | 修正 系数 | 热阻R | 热惰性 指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 涂料饰面(忽略保温性能) | 20 | 5.000 | 10.583 | 1.00 | 0.004 | 0.042 |
| 抹面砂浆（敷设耐碱玻纤网格布一层） | 20 | 0.760 | 9.440 | 1.00 | 0.026 | 0.248 |
| 挤塑聚苯板（xps）(墙体) | 43 | 0.030 | 0.340 | 1.10 | 1.303 | 0.487 |
| 粘结砂浆 | 20 | 0.810 | 10.070 | 1.00 | 0.025 | 0.249 |
| 轻质砂浆找平层 | 20 | 0.290 | 4.706 | 1.00 | 0.069 | 0.325 |
| 非黏土类烧结保温砖（800级） | 20 | 0.250 | 3.930 | 1.00 | 0.080 | 0.314 |
| 各层之和∑ | 143 | － | － | － | 1.507 | 1.666 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.60 | | | | | |

#### 挤塑聚苯板外墙

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 （由外到内） | 厚度δ | 导热系数λ | 蓄热系数S | 修正 系数 | 热阻R | 热惰性 指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 涂料饰面(忽略保温性能) | 20 | 5.000 | 10.583 | 1.00 | 0.004 | 0.042 |
| 抹面砂浆（敷设耐碱玻纤网格布一层） | 20 | 0.760 | 9.440 | 1.00 | 0.026 | 0.248 |
| 挤塑聚苯板（xps）(墙体) | 43 | 0.030 | 0.340 | 1.10 | 1.303 | 0.487 |
| 粘结砂浆 | 20 | 0.810 | 10.070 | 1.00 | 0.025 | 0.249 |
| 轻质砂浆找平层 | 20 | 0.290 | 4.706 | 1.00 | 0.069 | 0.325 |
| 非黏土类烧结保温砖（800级） | 20 | 0.250 | 3.930 | 1.00 | 0.080 | 0.314 |
| 各层之和∑ | 143 | － | － | － | 1.507 | 1.666 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.60 | | | | | |

#### 240砖墙

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 （由外到内） | 厚度δ | 导热系数λ | 蓄热系数S | 修正 系数 | 热阻R | 热惰性 指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| m5预拌抹灰砂浆，保温板抹面砂浆，抗裂砂浆 | 20 | 0.870 | 10.750 | 1.00 | 0.023 | 0.247 |
| 烧结多孔砖墙 | 200 | 0.580 | 7.919 | 1.00 | 0.345 | 2.731 |
| m5预拌抹灰砂浆，保温板抹面砂浆，抗裂砂浆 | 20 | 0.870 | 10.750 | 1.00 | 0.023 | 0.247 |
| 各层之和∑ | 240 | － | － | － | 0.391 | 3.225 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.16+∑R) | 1.82 | | | | | |

#### 铝板热桥柱

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料名称 （由外到内） | 厚度δ | 导热系数λ | 蓄热系数S | 修正 系数 | 热阻R | 热惰性 指标 |
| (mm) | W/(m.K) | W/(㎡.K) | α | (㎡K)/W | D=R\*S |
| 单层铝板 | 20 | － | － | － | 0.000 | － |
| 金属龙骨 | － | － | － | － | － | － |
| 岩棉板(ρ0≥80) | 40 | 0.044 | 0.750 | 1.20 | 0.758 | 0.682 |
| 胶黏剂 | 20 | － | － | － | － | － |
| 聚合物水泥砂浆 | 5 | 0.930 | 11.306 | 1.00 | 0.005 | 0.061 |
| 水泥砂浆 | 10 | 0.930 | 11.370 | 1.00 | 0.011 | 0.122 |
| 外墙界面剂 | － | － | － | － | － | － |
| 钢筋混凝土 | 200 | 1.740 | 17.200 | 1.00 | 0.115 | 1.977 |
| 各层之和∑ | 295 | － | － | － | 0.889 | 2.842 |
| 外表面太阳辐射吸收系数 | 0.75 | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.95 | | | | | |

### 外墙线性热桥

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 朝向 | 热桥部位 | 索引号 | 线传热系数Ψ [W/(m.K)] | 热桥长度L (m) | L\*Ψ (W/K) |
| 南 | 外墙－屋顶 | OW-R5 | 0.270 | 86.06 | 23.24 |
| 外墙－窗左右口 | OW-WR4 | 0.090 | 412.38 | 37.11 |
| 外墙－窗上口 | OW-WU4 | 0.090 | 173.58 | 15.62 |
| 外墙－窗下口 | OW-WB8 | 0.090 | 96.78 | 8.71 |
| 外墙－凹墙角 | OW-C2 | 0.02/2=0.01 | 42.36 | 0.42 |
| 合计 |  | | | 85.11 |
| 北 | 外墙－屋顶 | OW-R5 | 0.270 | 111.92 | 30.22 |
| 外墙－窗左右口 | OW-WR4 | 0.090 | 257.20 | 23.15 |
| 外墙－窗上口 | OW-WU4 | 0.090 | 130.50 | 11.75 |
| 外墙－窗下口 | OW-WB8 | 0.090 | 109.08 | 9.82 |
| 外墙－凹墙角 | OW-C2 | 0.02/2=0.01 | 0.74 | 0.01 |
| 合计 |  | | | 74.94 |
| 东 | 外墙－屋顶 | OW-R5 | 0.270 | 48.98 | 13.22 |
| 外墙－窗左右口 | OW-WR4 | 0.090 | 62.60 | 5.63 |
| 外墙－窗上口 | OW-WU4 | 0.090 | 12.78 | 1.15 |
| 外墙－窗下口 | OW-WB8 | 0.090 | 8.58 | 0.77 |
| 外墙－凹墙角 | OW-C2 | 0.02/2=0.01 | 16.05 | 0.16 |
| 合计 |  | | | 20.94 |
| 西 | 外墙－屋顶 | OW-R5 | 0.270 | 64.38 | 17.38 |
| 外墙－窗左右口 | OW-WR4 | 0.090 | 13.20 | 1.19 |
| 外墙－窗上口 | OW-WU4 | 0.090 | 7.68 | 0.69 |
| 外墙－窗下口 | OW-WB8 | 0.090 | 3.48 | 0.31 |
| 外墙－凹墙角 | OW-C2 | 0.02/2=0.01 | 14.40 | 0.14 |
| 合计 |  | | | 19.72 |
| 总计 |  | | | | 200.71 |

#### 热桥节点图

|  |  |
| --- | --- |
| 外墙－屋顶：OW-R5 | 外墙－窗左右口：OW-WR4 |
|  |  |

|  |  |
| --- | --- |
| 外墙－窗上口：OW-WU4 | 外墙－窗下口：OW-WB8 |
|  |  |

|  |  |
| --- | --- |
| 外墙－凹墙角：OW-C2 |  |
|  |  |

### 标准指定的外墙平均传热系数计算方法

采用基于二维传热计算的线性传热系数方法，一个单元墙体的平均传热系数用下式计算：

W/(m2K)

式中 *Km* —— 单元墙体的平均传热系数，W/(m2K)；

*K* —— 单元墙体的主断面传热系数，W/(m2K)；

*ψj* —— 单元墙体上的第j个结构性热桥的线传热系数，W/(mK)；

*lj ——* 单元墙体第j个结构性热桥的计算长度，m；

*A* —— 单元墙体的面积， m2

### 外墙平均热工特性

1.　南向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件 类型 | 面积(㎡) | 面积所占比例 | 传热系数K W / (㎡K) | 热惰性 指标D | 太阳辐射 吸收系数 |
| 挤塑聚苯板外墙 | 外墙（剪力墙） | 692.18 | 0.793 | 0.60 | 1.67 | 0.75 |
| 挤塑聚苯板外墙 | 主墙体 | 141.94 | 0.163 | 0.60 | 1.67 | 0.75 |
| 240砖墙 | 主墙体 | 39.04 | 0.045 | 1.82 | 3.23 | 0.75 |
| 合计 |  | 873.16 | 1.000 | 0.65 | 1.74 | 0.75 |
| 考虑线性热桥后K | 0.65 + 85.11/873.16 = 0.75 | | | | | |

2.　北向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件 类型 | 面积(㎡) | 面积所占比例 | 传热系数K W / (㎡K) | 热惰性 指标D | 太阳辐射 吸收系数 |
| 挤塑聚苯板外墙 | 外墙（剪力墙） | 799.26 | 0.943 | 0.60 | 1.67 | 0.75 |
| 240砖墙 | 主墙体 | 39.67 | 0.047 | 1.82 | 3.23 | 0.75 |
| 挤塑聚苯板外墙 | 主墙体 | 9.00 | 0.011 | 0.60 | 1.67 | 0.75 |
| 合计 |  | 847.93 | 1.000 | 0.66 | 1.74 | 0.75 |
| 考虑线性热桥后K | 0.66 + 74.94/847.93 = 0.75 | | | | | |

3.　东向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件 类型 | 面积(㎡) | 面积所占比例 | 传热系数K W / (㎡K) | 热惰性 指标D | 太阳辐射 吸收系数 |
| 挤塑聚苯板外墙 | 外墙（剪力墙） | 408.05 | 0.783 | 0.60 | 1.67 | 0.75 |
| 挤塑聚苯板外墙 | 主墙体 | 61.37 | 0.118 | 0.60 | 1.67 | 0.75 |
| 240砖墙 | 主墙体 | 51.59 | 0.099 | 1.82 | 3.23 | 0.75 |
| 合计 |  | 521.01 | 1.000 | 0.72 | 1.82 | 0.75 |
| 考虑线性热桥后K | 0.72 + 20.94/521.01 = 0.76 | | | | | |

4.　西向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件 类型 | 面积(㎡) | 面积所占比例 | 传热系数K W / (㎡K) | 热惰性 指标D | 太阳辐射 吸收系数 |
| 挤塑聚苯板外墙 | 外墙（剪力墙） | 473.71 | 0.857 | 0.60 | 1.67 | 0.75 |
| 挤塑聚苯板外墙 | 主墙体 | 62.81 | 0.114 | 0.60 | 1.67 | 0.75 |
| 240砖墙 | 主墙体 | 16.52 | 0.030 | 1.82 | 3.23 | 0.75 |
| 合计 |  | 553.04 | 1.000 | 0.64 | 1.71 | 0.75 |
| 考虑线性热桥后K | 0.64 + 19.72/553.04 = 0.68 | | | | | |

5.　总体

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件 类型 | 面积(㎡) | 面积所占比例 | 传热系数K W / (㎡K) | 热惰性 指标D | 太阳辐射 吸收系数 |
| 挤塑聚苯板外墙 | 外墙（剪力墙） | 2373.20 | 0.849 | 0.60 | 1.67 | 0.75 |
| 挤塑聚苯板外墙 | 主墙体 | 275.12 | 0.098 | 0.60 | 1.67 | 0.75 |
| 240砖墙 | 主墙体 | 146.82 | 0.053 | 1.82 | 3.23 | 0.75 |
| 合计 |  | 2795.14 | 1.000 | 0.66 | 1.75 | 0.75 |
| 考虑线性热桥后K | 0.66 + 200.71/2795.14 = 0.73 | | | | | |
| 标准依据 | 《建筑节能与可再生能源利用通用规范》GB55015-2021第3.1.10条 | | | | | |
| 标准要求 | K应满足表3.1.10-4的规定(K≤0.60) | | | | | |
| 结论 | 不满足 | | | | | |

## 挑空楼板

本工程无此项内容

## 外窗热工

### 外窗

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 序号 | 构造名称 | 构造 编号 | 传热 系数 | 窗太阳 得热系数 | 可见光 透射比 | 数据来源 |
| 1 | 6中透三银Low-E+12A+6+12A+6(窗框比0.25)金属隔热框(隔热条26mm) | 280 | 1.80 | 0.19 | 0.460 | 安徽省居住建筑节能设计标准 DB34/T1466-2023 |
| 窗编号 | | | | |
| 幕墙 | | | | |
| 2 | 70系列平开隔热铝合金窗(5+12A+5+12A+5Low\_E)(中透光) | 225 | 1.80 | 0.34 | 0.560 | 浙江居住建筑节能设计标准 DB33/1015-2021 |
| 窗编号 | | | | |
| 1F shuba wai | | | | |
| 3 | 6中透三银Low-E+12A+6+12A+6(窗框比0.25)金属隔热框(隔热条26mm) | 270 | 1.80 | 0.19 | 0.460 | 安徽省居住建筑节能设计标准 DB34/T1466-2023 |
| 窗编号 | | | | |
| C0915，C0924，C1224，C1432，C1706，C1718，C2118，，C1215，C1218，C1509，C1524，C1821，C2130，C2415，C2421，透光门-，透光门-2，透光门1F，C1824，C2424，C3618，透光门-3 | | | | |
| 4 | 65系列内平开隔热铝合金窗(5mm超白透明玻璃(室外侧)+12Ar+5mm超白透明玻璃+12Ar+5mm离线Low-E镀膜玻璃(室内侧)) | 268 | 2.00 | 0.51 | 0.500 | 实测数据 |
| 窗编号 | | | | |
| 1F shuba wai2 | | | | |

### 外遮阳类型

本工程无此项内容

### 平均传热系数

1. 南向：

立面1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗 编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造 编号 | 传热系数 |
| 1 | (玻璃幕墙) | 3 |  |  | 4.535 | 280 | 1.800 |
| 2 |  | 3 | 1 | 1.350 | 1.350 | 270 | 1.800 |
| 3 | 1F shuba wai2 | 1 | 1 | 5.760 | 5.760 | 268 | 2.000 |
| 4 | C0915 | 1~2 | 12 | 1.350 | 16.200 | 270 | 1.800 |
| 5 | C1215 | 1 | 4 | 1.800 | 7.200 | 270 | 1.800 |
| 6 | C1215 | 2 | 2 | 3.600 | 7.200 | 270 | 1.800 |
| 7 | C1218 | 1 | 2 | 2.160 | 4.320 | 270 | 1.800 |
| 8 | C1432 | 2 | 1 | 4.480 | 4.480 | 270 | 1.800 |
| 9 | C1509 | 2~3 | 13 | 1.350 | 17.550 | 270 | 1.800 |
| 10 | C1524 | 1~3 | 6 | 3.600 | 21.600 | 270 | 1.800 |
| 11 | C1706 | 3 | 7 | 1.044 | 7.308 | 270 | 1.800 |
| 12 | C1821 | 1 | 11 | 3.780 | 41.580 | 270 | 1.800 |
| 13 | C2130 | 3 | 17 | 6.300 | 107.100 | 270 | 1.800 |
| 14 | C2415 | 2 | 2 | 7.200 | 14.400 | 270 | 1.800 |
| 15 | C2421 | 1 | 4 | 5.040 | 20.160 | 270 | 1.800 |
| 16 | 透光门- | 2 | 16 | 4.410 | 70.560 | 270 | 1.800 |
| 17 | 透光门-2 | 2 | 1 | 5.040 | 5.040 | 270 | 1.800 |
| 18 | 透光门1F | 1 | 3 | 2.520 | 7.560 | 270 | 1.800 |
| 立面总面积(㎡) | | | 363.903 | 立面平均传热系数 | | | 1.803 |

2. 北向：

立面2

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗 编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造 编号 | 传热系数 |
| 1 | (玻璃幕墙) | 1~3 |  |  | 160.301 | 280 | 1.800 |
| 2 |  | 1~2 | 8 | 6.480 | 51.840 | 270 | 1.800 |
| 3 |  | 3 | 1 | 1.350 | 1.350 | 270 | 1.800 |
| 4 | 1F shuba wai2 | 1 | 1 | 5.760 | 5.760 | 268 | 2.000 |
| 5 | C1432 | 2 | 1 | 4.480 | 4.480 | 270 | 1.800 |
| 6 | C1509 | 3 | 20 | 1.350 | 27.000 | 270 | 1.800 |
| 7 | C1524 | 1~2 | 10 | 3.600 | 36.000 | 270 | 1.800 |
| 8 | C1706 | 3 | 7 | 1.044 | 7.308 | 270 | 1.800 |
| 9 | C1824 | 1~2 | 4 | 4.320 | 17.280 | 270 | 1.800 |
| 10 | C2421 | 2 | 9 | 5.040 | 45.360 | 270 | 1.800 |
| 11 | C2424 | 1 | 4 | 5.760 | 23.040 | 270 | 1.800 |
| 12 | C3618 | 2 | 4 | 6.480 | 25.920 | 270 | 1.800 |
| 13 | 透光门-3 | 2 | 8 | 6.300 | 50.400 | 270 | 1.800 |
| 14 | 透光门1F | 1 | 1 | 2.520 | 2.520 | 270 | 1.800 |
| 立面总面积(㎡) | | | 458.559 | 立面平均传热系数 | | | 1.803 |

3. 东向：

立面3

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗 编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造 编号 | 传热系数 |
| 1 | (玻璃幕墙) | 1~3 |  |  | 33.116 | 280 | 1.800 |
| 2 | 1F shuba wai | 1 | 2 | 5.760 | 11.520 | 225 | 1.800 |
| 3 | C0915 | 2 | 1 | 1.350 | 1.350 | 270 | 1.800 |
| 4 | C0924 | 1 | 2 | 2.160 | 4.320 | 270 | 1.800 |
| 5 | C1224 | 1 | 2 | 2.880 | 5.760 | 270 | 1.800 |
| 6 | C1432 | 2 | 2 | 4.480 | 8.960 | 270 | 1.800 |
| 7 | C1706 | 3 | 2 | 1.044 | 2.088 | 270 | 1.800 |
| 8 | C1718 | 3 | 1 | 3.132 | 3.132 | 270 | 1.800 |
| 9 | C2118 | 3 | 2 | 3.780 | 7.560 | 270 | 1.800 |
| 立面总面积(㎡) | | | 77.806 | 立面平均传热系数 | | | 1.800 |

4. 西向：

立面4

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗 编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造 编号 | 传热系数 |
| 1 | (玻璃幕墙) | 1~2 |  |  | 33.030 | 280 | 1.800 |
| 2 | C1706 | 3 | 2 | 1.044 | 2.088 | 270 | 1.800 |
| 3 | C1718 | 3 | 1 | 3.132 | 3.132 | 270 | 1.800 |
| 4 | C2118 | 3 | 2 | 3.780 | 7.560 | 270 | 1.800 |
| 立面总面积(㎡) | | | 45.810 | 立面平均传热系数 | | | 1.800 |

### 综合太阳得热系数

1. 南向：

立面1

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗 编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造 编号 | 窗太阳 得热系数 | 外遮阳 编号 | 外遮阳 系数 | 综合太阳 得热系数 |
| 1 | (玻璃幕墙) | 3 |  |  | 4.535 | 280 | 0.188 |  | 1.000 | 0.188 |
| 2 |  | 3 | 1 | 1.350 | 1.350 | 270 | 0.188 |  | 1.000 | 0.188 |
| 3 | 1F shuba wai2 | 1 | 1 | 5.760 | 5.760 | 268 | 0.505 |  | 1.000 | 0.505 |
| 4 | C0915 | 1~2 | 12 | 1.350 | 16.200 | 270 | 0.188 |  | 1.000 | 0.188 |
| 5 | C1215 | 1 | 4 | 1.800 | 7.200 | 270 | 0.188 |  | 1.000 | 0.188 |
| 6 | C1215 | 2 | 2 | 3.600 | 7.200 | 270 | 0.188 |  | 1.000 | 0.188 |
| 7 | C1218 | 1 | 2 | 2.160 | 4.320 | 270 | 0.188 |  | 1.000 | 0.188 |
| 8 | C1432 | 2 | 1 | 4.480 | 4.480 | 270 | 0.188 |  | 1.000 | 0.188 |
| 9 | C1509 | 2~3 | 13 | 1.350 | 17.550 | 270 | 0.188 |  | 1.000 | 0.188 |
| 10 | C1524 | 1~3 | 6 | 3.600 | 21.600 | 270 | 0.188 |  | 1.000 | 0.188 |
| 11 | C1706 | 3 | 7 | 1.044 | 7.308 | 270 | 0.188 |  | 1.000 | 0.188 |
| 12 | C1821 | 1 | 11 | 3.780 | 41.580 | 270 | 0.188 |  | 1.000 | 0.188 |
| 13 | C2130 | 3 | 17 | 6.300 | 107.100 | 270 | 0.188 |  | 1.000 | 0.188 |
| 14 | C2415 | 2 | 2 | 7.200 | 14.400 | 270 | 0.188 |  | 1.000 | 0.188 |
| 15 | C2421 | 1 | 4 | 5.040 | 20.160 | 270 | 0.188 |  | 1.000 | 0.188 |
| 16 | 透光门- | 2 | 16 | 4.410 | 70.560 | 270 | 0.188 |  | 1.000 | 0.188 |
| 17 | 透光门-2 | 2 | 1 | 5.040 | 5.040 | 270 | 0.188 |  | 1.000 | 0.188 |
| 18 | 透光门1F | 1 | 3 | 2.520 | 7.560 | 270 | 0.188 |  | 1.000 | 0.188 |
| 立面总面积(㎡) | | | | | 363.903 | 综合太阳得热系数 | | | | 0.193 |

2. 北向：

立面2

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗 编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造 编号 | 窗太阳 得热系数 | 外遮阳 编号 | 外遮阳 系数 | 综合太阳 得热系数 |
| 1 | (玻璃幕墙) | 1~3 |  |  | 160.301 | 280 | 0.188 |  | 1.000 | 0.188 |
| 2 |  | 1~2 | 8 | 6.480 | 51.840 | 270 | 0.188 |  | 1.000 | 0.188 |
| 3 |  | 3 | 1 | 1.350 | 1.350 | 270 | 0.188 |  | 1.000 | 0.188 |
| 4 | 1F shuba wai2 | 1 | 1 | 5.760 | 5.760 | 268 | 0.505 |  | 1.000 | 0.505 |
| 5 | C1432 | 2 | 1 | 4.480 | 4.480 | 270 | 0.188 |  | 1.000 | 0.188 |
| 6 | C1509 | 3 | 20 | 1.350 | 27.000 | 270 | 0.188 |  | 1.000 | 0.188 |
| 7 | C1524 | 1~2 | 10 | 3.600 | 36.000 | 270 | 0.188 |  | 1.000 | 0.188 |
| 8 | C1706 | 3 | 7 | 1.044 | 7.308 | 270 | 0.188 |  | 1.000 | 0.188 |
| 9 | C1824 | 1~2 | 4 | 4.320 | 17.280 | 270 | 0.188 |  | 1.000 | 0.188 |
| 10 | C2421 | 2 | 9 | 5.040 | 45.360 | 270 | 0.188 |  | 1.000 | 0.188 |
| 11 | C2424 | 1 | 4 | 5.760 | 23.040 | 270 | 0.188 |  | 1.000 | 0.188 |
| 12 | C3618 | 2 | 4 | 6.480 | 25.920 | 270 | 0.188 |  | 1.000 | 0.188 |
| 13 | 透光门-3 | 2 | 8 | 6.300 | 50.400 | 270 | 0.188 |  | 1.000 | 0.188 |
| 14 | 透光门1F | 1 | 1 | 2.520 | 2.520 | 270 | 0.188 |  | 1.000 | 0.188 |
| 立面总面积(㎡) | | | | | 458.559 | 综合太阳得热系数 | | | | 0.192 |

3. 东向：

立面3

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗 编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造 编号 | 窗太阳 得热系数 | 外遮阳 编号 | 外遮阳 系数 | 综合太阳 得热系数 |
| 1 | (玻璃幕墙) | 1~3 |  |  | 33.116 | 280 | 0.188 |  | 1.000 | 0.188 |
| 2 | 1F shuba wai | 1 | 2 | 5.760 | 11.520 | 225 | 0.340 |  | 1.000 | 0.340 |
| 3 | C0915 | 2 | 1 | 1.350 | 1.350 | 270 | 0.188 |  | 1.000 | 0.188 |
| 4 | C0924 | 1 | 2 | 2.160 | 4.320 | 270 | 0.188 |  | 1.000 | 0.188 |
| 5 | C1224 | 1 | 2 | 2.880 | 5.760 | 270 | 0.188 |  | 1.000 | 0.188 |
| 6 | C1432 | 2 | 2 | 4.480 | 8.960 | 270 | 0.188 |  | 1.000 | 0.188 |
| 7 | C1706 | 3 | 2 | 1.044 | 2.088 | 270 | 0.188 |  | 1.000 | 0.188 |
| 8 | C1718 | 3 | 1 | 3.132 | 3.132 | 270 | 0.188 |  | 1.000 | 0.188 |
| 9 | C2118 | 3 | 2 | 3.780 | 7.560 | 270 | 0.188 |  | 1.000 | 0.188 |
| 立面总面积(㎡) | | | | | 77.806 | 综合太阳得热系数 | | | | 0.211 |

4. 西向：

立面4

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 门窗 编号 | 楼层 | 数量 | 单个面积（㎡） | 总面积（㎡） | 构造 编号 | 窗太阳 得热系数 | 外遮阳 编号 | 外遮阳 系数 | 综合太阳 得热系数 |
| 1 | (玻璃幕墙) | 1~2 |  |  | 33.030 | 280 | 0.188 |  | 1.000 | 0.188 |
| 2 | C1706 | 3 | 2 | 1.044 | 2.088 | 270 | 0.188 |  | 1.000 | 0.188 |
| 3 | C1718 | 3 | 1 | 3.132 | 3.132 | 270 | 0.188 |  | 1.000 | 0.188 |
| 4 | C2118 | 3 | 2 | 3.780 | 7.560 | 270 | 0.188 |  | 1.000 | 0.188 |
| 立面总面积(㎡) | | | | | 45.810 | 综合太阳得热系数 | | | | 0.188 |

### 总体热工性能

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 朝向 | 立面 | 面积 | 传热系数 | 综合太阳得热系数 | 窗墙比 | 标准要求 | 结论 |
| 南向 | 立面1 | 363.90 | 1.80 | 0.19 | 0.29 | K≤2.60, SHGC≤0.40 | 满足 |
| 北向 | 立面2 | 458.56 | 1.80 | 0.19 | 0.35 | K≤2.20, SHGC≤0.40 | 满足 |
| 东向 | 立面3 | 77.81 | 1.80 | 0.21 | 0.13 | K≤3.00, SHGC≤0.45 | 满足 |
| 西向 | 立面4 | 45.81 | 1.80 | 0.19 | 0.08 | K≤3.00, SHGC≤0.45 | 满足 |
| 综合平均 |  | 946.08 | 1.80 | 0.19 | 0.25 |  |  |
| 标准依据 | 《建筑节能与可再生能源利用通用规范》GB55015-2021第3.1.10条 | | | | | | |
| 标准要求 | 外窗传热系数和综合太阳得热系数满足表3.1.10-4的要求 | | | | | | |
| 结论 | 满足 | | | | | | |

注：本表所统计的外窗包含凸窗。

## 非中空窗面积比

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 朝向 | 立面 | 非中空玻璃面积(㎡) | 透光面积(㎡) | 非中空面积比 | 限值 | 结论 |
| 南向 | 立面1 | 0.00 | 363.90 | 0.00 | 0.15 | 满足 |
| 北向 | 立面2 | 0.00 | 458.56 | 0.00 | 0.15 | 满足 |
| 东向 | 立面3 | 0.00 | 77.81 | 0.00 | 0.15 | 满足 |
| 西向 | 立面4 | 0.00 | 45.81 | 0.00 | 0.15 | 满足 |
| 标准依据 | | 《建筑节能与可再生能源利用通用规范》GB55015-2021第3.1.13条 | | | | |
| 标准要求 | | 非中空玻璃的面积不应超过同一立面透光面积的15% | | | | |
| 结论 | | 满足 | | | | |

## 可开启窗扇

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 楼层 | 房间编号 | 房间类型 | | 门窗类型 | 门窗编号 | 开启比例 | 可开启窗扇 |
| 1 | 1001(最不利房间) | 大厅 | | 外窗 | C1524 | 1.00 | 有可开启窗扇 |
| 外窗 | 透光门1F | 1.00 |
| 外窗 | 透光门1F | 1.00 |
| 外窗 | 透光门1F | 1.00 |
| 外窗 | C2421 | 1.00 |
| 外窗 | C2421 | 1.00 |
| 外窗 | C2421 | 1.00 |
| 外窗 | C2421 | 1.00 |
| 外窗 | C1524 | 1.00 |
| 外窗 | 透光门1F | 1.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 外窗 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 外窗 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 外窗 | C1524 | 1.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 外窗 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 外窗 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 外窗 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 外窗 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 外窗 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 外窗 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.00 |
| 幕墙 | 未编号 | 0.00 |
| 通风换气装置 | | | 无通风换气装置 | | | | | |
| 标准依据 | | | 《建筑节能与可再生能源利用通用规范》GB55015-2021第3.1.14条 | | | | | |
| 标准要求 | | | 主要功能房间的外窗应设置可开启窗扇或通风换气装置 | | | | | |
| 结论 | | | 满足 | | | | | |

注：达标时只列出一项，不达标时列出全部不达标项

## 规定性指标检查结论

|  |  |  |  |
| --- | --- | --- | --- |
| 序号 | 检查项 | 结论 | 可否性能权衡 |
| 1 | 天窗屋顶比 | 满足 |  |
| 2 | 天窗类型 | 满足 |  |
| 3 | 屋顶 | 满足 |  |
| 4 | 外墙 | 不满足 | 可 |
| 5 | 外窗热工 | 满足 |  |
| 6 | 非中空窗面积比 | 满足 |  |
| 7 | 可开启窗扇 | 满足 |  |
| 结论 | | 不满足 | 可 |

□说明：本工程规定性指标设计**不满足**要求，需依据《建筑节能与可再生能源利用通用规范》GB55015-2021的要求进行节能设计的权衡判断。

# 权衡判断基本要求

|  |  |  |  |
| --- | --- | --- | --- |
| 检查项 | 设计值 | 权衡判断基本要求 | 结论 |
| 屋顶 | K=0.25 | K<=0.4 | 满足 |
| 外墙 | K=0.73; D=1.75 | K<=0.8 | 满足 |
| 外窗热工－总体热工性能－南向－立面1 | K=1.80; SHGC=0.19 | K≤3.00, SHGC(不要求) | 满足 |
| 外窗热工－总体热工性能－北向－立面2 | K=1.80; SHGC=0.19 | K≤3.00, SHGC(不要求) | 满足 |
| 外窗热工－总体热工性能－东向－立面3 | K=1.80; SHGC=0.21 | K≤3.00, SHGC(不要求) | 满足 |
| 外窗热工－总体热工性能－西向－立面4 | K=1.80; SHGC=0.19 | K≤3.00, SHGC(不要求) | 满足 |
| 可开启窗扇 | 有可开启窗扇 | 有可开启窗扇或通风换气装置 | 满足 |
| 非中空窗面积比－南向－立面1 | 0.00 | ≤0.15 | 满足 |
| 非中空窗面积比－北向－立面2 | 0.00 | ≤0.15 | 满足 |
| 非中空窗面积比－东向－立面3 | 0.00 | ≤0.15 | 满足 |
| 非中空窗面积比－西向－立面4 | 0.00 | ≤0.15 | 满足 |

■结论：建筑相关参数**满足**权衡判断的基本要求，可进行围护结构的权衡判断。

# 权衡指标

## 计算条件

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | 设计建筑 | | | 参照建筑 | | |
| 天窗屋顶比 | | | 0.02 | | | 0.02 | | |
| 屋顶传热系数K  和热惰性指标 D | | | K=0.25  D=3.69 | | | K=0.40  D=0.84 | | |
| 外墙传热系数K  和热惰性指标 D | | | K=0.73  D=1.75 | | | K=0.60  D=1.67 | | |
| 挑空楼板传热系数K  和热惰性指标 D | | | K=－  D=－ | | | K=－  D=－ | | |
| 天窗传热系数K  和太阳得热系数 SHGC | | | K=1.80  SHGC=0.19 | | | K=2.20  SHGC=0.30 | | |
| 外窗（包括透明幕墙） | 朝向 | 立面 | 窗墙比 | 传热  系数 | 太阳得热系数 | 窗墙比 | 传热  系数 | 太阳得热系数 |
| 南向 | 立面1 | 0.29 | 1.80 | 0.19 | 0.29 | 2.60 | 0.40 |
| 北向 | 立面2 | 0.35 | 1.80 | 0.19 | 0.35 | 2.20 | 0.40 |
| 东向 | 立面3 | 0.13 | 1.80 | 0.21 | 0.13 | 3.00 | 0.45 |
| 西向 | 立面4 | 0.08 | 1.80 | 0.19 | 0.08 | 3.00 | 0.45 |
| 室内参数和气象条件设置 | | | 按《公共建筑节能设计标准》附录B设置 | | | | | |

备注：

1. 传热系数的单位W/(m2.k)，其他参数无量纲.

2. 屋顶和外墙的传热系数K和热情性指标D指平均值.

3. 设计建筑：“—”代表本工程无对应项.

## 房间类型

### 房间参数表

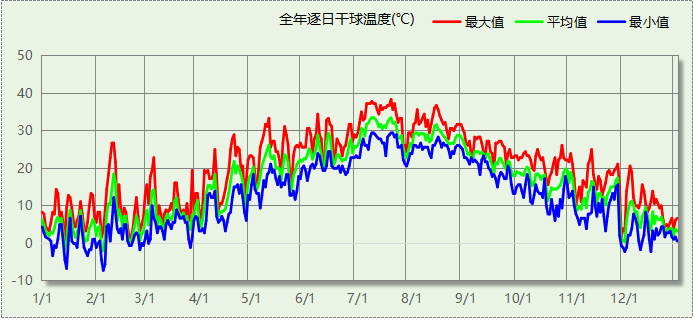
|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 空调温度 ℃ | 供暖温度 ℃ | 新风量 | 人员密度 | 照明功率 密度 | 电器设备 功率 |
| 3星客房 | 26 | 22 | 30(m3/h.人) | 25(㎡/人) | 6(W/㎡) | 15(W/㎡) |
| 一般商店 | 26 | 18 | 30(m3/h.人) | 8(㎡/人) | 9(W/㎡) | 13(W/㎡) |
| 休息室 | 26 | 22 | 30(m3/h.人) | 25(㎡/人) | 6(W/㎡) | 15(W/㎡) |
| 卫生间 | 26 | 22 | 30(m3/h.人) | 25(㎡/人) | 6(W/㎡) | 15(W/㎡) |
| 厨房 | 26 | 22 | 30(m3/h.人) | 25(㎡/人) | 6(W/㎡) | 15(W/㎡) |
| 大厅 | 26 | 22 | 30(m3/h.人) | 25(㎡/人) | 6(W/㎡) | 15(W/㎡) |
| 展示区 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 8(W/㎡) | 15(W/㎡) |
| 布草间 | 26 | 22 | 30(m3/h.人) | 25(㎡/人) | 6(W/㎡) | 15(W/㎡) |
| 开架书库 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 8(W/㎡) | 15(W/㎡) |
| 普通办公室 | 26 | 22 | 30(m3/h.人) | 25(㎡/人) | 6(W/㎡) | 15(W/㎡) |
| 楼梯间 | － | － | 0(m3/h.人) | 0(人) | 5(W/㎡) | 15(W/㎡) |
| 空房间 | － | － | 0(m3/h.人) | 0(人) | 0(W/㎡) | 0(W/㎡) |
| 空房间 | － | － | 0(m3/h.人) | 0(人) | 0(W/㎡) | 0(W/㎡) |
| 空房间 | － | － | 0(m3/h.人) | 0(人) | 0(W/㎡) | 0(W/㎡) |
| 空房间 | － | － | 0(m3/h.人) | 0(人) | 0(W/㎡) | 0(W/㎡) |
| 设备间 | － | － | 0(m3/h.人) | 0(人) | 3.5(W/㎡) | 15(W/㎡) |
| 走廊 | 26 | 22 | 30(m3/h.人) | 25(㎡/人) | 6(W/㎡) | 15(W/㎡) |
| 餐厅 | 26 | 22 | 30(m3/h.人) | 25(㎡/人) | 6(W/㎡) | 15(W/㎡) |

### 作息时间表

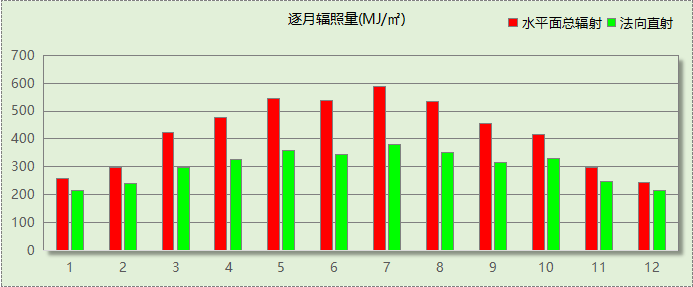
详见附录

## 气象数据

### 逐日干球温度表



### 逐月辐照量表



## 负荷分项统计

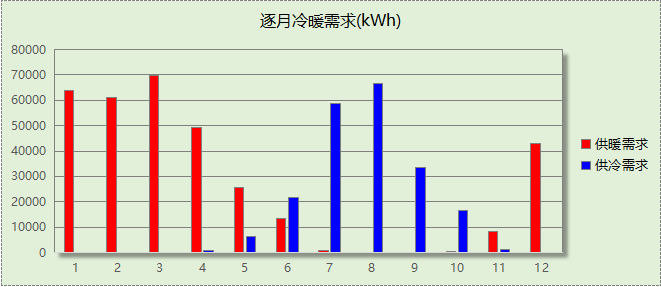
设计建筑：

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 分类 | 围护传热 | 室内得热 | 窗日射 | 新风/渗透 | 热回收 | 合计 |
| 供暖(kWh/㎡) | -52.17 | 12.32 | 3.33 | -8.52 | 0.00 | -45.04 |
| 供冷(kWh/㎡) | 4.50 | 12.61 | 2.95 | 7.55 | 0.00 | 27.61 |

参照建筑：

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 分类 | 围护传热 | 室内得热 | 窗日射 | 新风/渗透 | 热回收 | 合计 |
| 供暖(kWh/㎡) | -86.14 | 12.69 | 6.82 | -8.70 | 0.00 | -75.32 |
| 供冷(kWh/㎡) | 22.54 | 13.40 | 6.95 | 7.92 | 0.00 | 50.81 |

## 逐月负荷



## 逐月电耗

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 设计建筑 | | 参照建筑 | |
| 月 | 供冷(kWh/㎡) | 供暖(kWh/㎡) | 供冷(kWh/㎡) | 供暖(kWh/㎡) |
| 1 | 0.00 | 3.74 | 0.00 | 7.16 |
| 2 | 0.00 | 3.60 | 0.01 | 6.16 |
| 3 | 0.00 | 4.09 | 0.00 | 6.02 |
| 4 | 0.01 | 2.89 | 0.16 | 3.56 |
| 5 | 0.25 | 1.52 | 0.93 | 1.46 |
| 6 | 0.83 | 0.80 | 2.07 | 0.70 |
| 7 | 2.25 | 0.02 | 4.29 | 0.01 |
| 8 | 2.56 | 0.00 | 4.24 | 0.00 |
| 9 | 1.29 | 0.00 | 1.92 | 0.01 |
| 10 | 0.64 | 0.01 | 0.81 | 0.32 |
| 11 | 0.05 | 0.49 | 0.08 | 2.05 |
| 12 | 0.00 | 2.53 | 0.00 | 5.46 |
| 合计 | 7.89 | 19.68 | 14.52 | 32.92 |

## 权衡指标

|  |  |  |
| --- | --- | --- |
|  | 设计建筑 | 参照建筑 |
| 全年供暖和空调总耗电量(kWh/㎡) | 27.57 | 47.44 |
| 供冷耗电量(kWh/㎡) | 7.89 | 14.52 |
| 供热耗电量(kWh/㎡) | 19.68 | 32.92 |
| 耗冷量(kWh/㎡) | 27.61 | 50.81 |
| 耗热量(kWh/㎡) | 45.04 | 75.32 |
| 标准依据 | 《建筑节能与可再生能源利用通用规范》GB55015-2021附录C.0.2条 | |
| 标准要求 | 设计建筑的能耗不大于参照建筑的能耗 | |
| 结论 | 满足 | |

■说明：本建筑围护结构热工性能权衡判断**满足**《建筑节能与可再生能源利用通用规范》GB55015-2021的要求。建筑节能设计符合要求

## 附录

### 工作日/节假日室内空调温度时间表(℃)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 3星客房 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 一般商店 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 |
| 37 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 |
| 休息室 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 卫生间 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 厨房 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 大厅 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 展示区 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| 布草间 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 开架书库 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| 普通办公室 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 楼梯间 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 空房间 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 空房间 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| 空房间 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 空房间 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 设备间 | 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 37 | 37 | 37 | 37 | 37 | 37 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 37 | 37 | 37 | 37 | 37 | 37 |
| 走廊 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 餐厅 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |

注：上行：工作日；下行：节假日

### 工作日/节假日室内供暖温度时间表(℃)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 3星客房 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 一般商店 | 5 | 5 | 5 | 5 | 5 | 5 | 12 | 16 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 12 | 5 | 5 | 5 |
| 5 | 5 | 5 | 5 | 5 | 5 | 12 | 16 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 12 | 5 | 5 | 5 |
| 休息室 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 卫生间 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 厨房 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 大厅 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 展示区 | 5 | 5 | 5 | 5 | 5 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 18 | 12 | 5 | 5 | 5 | 5 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 布草间 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 开架书库 | 5 | 5 | 5 | 5 | 5 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 18 | 12 | 5 | 5 | 5 | 5 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 普通办公室 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 楼梯间 | 12 | 12 | 12 | 12 | 12 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 | 12 | 12 | 12 | 12 | 12 |
| 12 | 12 | 12 | 12 | 12 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 | 12 | 12 | 12 | 12 | 12 |
| 空房间 | 12 | 12 | 12 | 12 | 12 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 | 12 | 12 | 12 | 12 | 12 |
| 12 | 12 | 12 | 12 | 12 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 | 12 | 12 | 12 | 12 | 12 |
| 空房间 | 12 | 12 | 12 | 12 | 12 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 | 12 | 12 | 12 | 12 | 12 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 空房间 | 12 | 12 | 12 | 12 | 12 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 | 12 | 12 | 12 | 12 | 12 |
| 12 | 12 | 12 | 12 | 12 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 | 12 | 12 | 12 | 12 | 12 |
| 空房间 | 12 | 12 | 12 | 12 | 12 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 | 12 | 12 | 12 | 12 | 12 |
| 12 | 12 | 12 | 12 | 12 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 | 12 | 12 | 12 | 12 | 12 |
| 设备间 | 12 | 12 | 12 | 12 | 12 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 | 12 | 12 | 12 | 12 | 12 |
| 12 | 12 | 12 | 12 | 12 | 12 | 18 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 | 12 | 12 | 12 | 12 | 12 |
| 走廊 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 餐厅 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |

注：上行：工作日；下行：节假日

### 工作日/节假日人员逐时在室率(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 3星客房 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 一般商店 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 休息室 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 卫生间 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 厨房 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 大厅 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 展示区 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 80 | 80 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 布草间 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 开架书库 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 80 | 80 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 普通办公室 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 楼梯间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 空房间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 空房间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 空房间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 空房间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 设备间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 走廊 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 餐厅 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |
| 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 70 | 70 | 70 |

注：上行：工作日；下行：节假日

### 工作日/节假日照明开关时间表(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 3星客房 | 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 一般商店 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 休息室 | 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 卫生间 | 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 厨房 | 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 大厅 | 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 展示区 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 80 | 80 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 布草间 | 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 开架书库 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 80 | 80 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 普通办公室 | 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 楼梯间 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 空房间 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 空房间 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 空房间 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 空房间 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 设备间 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 80 | 90 | 100 | 100 | 100 | 10 | 10 | 10 |
| 走廊 | 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 餐厅 | 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 50 | 50 | 60 | 90 | 90 | 90 | 90 | 80 | 10 | 10 |

注：上行：工作日；下行：节假日

### 工作日/节假日设备逐时使用率(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 3星客房 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 一般商店 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 休息室 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 卫生间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 厨房 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 大厅 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 展示区 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 50 | 50 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 布草间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 开架书库 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50 | 95 | 95 | 95 | 50 | 50 | 95 | 95 | 95 | 95 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 普通办公室 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 楼梯间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 空房间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 空房间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 空房间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 空房间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 设备间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 走廊 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 餐厅 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |

注：上行：工作日；下行：节假日

### 工作日/节假日空调系统运行时间表(1:开,0:关)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 系统编号 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 默认 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

注：上行：工作日；下行：节假日

### 工作日/节假日新风运行时间表(%)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 系统编号 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 默认 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

注：上行：工作日；下行：节假日