**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 | 湖北-武汉 |
| 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 | 2024年12月29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 |
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# 建筑概况

|  |  |
| --- | --- |
| 工程名称 | 新建项目 |
| 工程地点 | 湖北-武汉 |
| 气候分区 | 夏热冬冷A区 |
| 建筑面积 | 地上46915㎡ 地下0㎡ |
| 建筑层数 | 地上24 地下0 |
| 建筑高度 | 112.8m |
| 建筑（节能计算）体积 | 213686.77 |
| 建筑（节能计算）外表面积 | 39781.38 |
| 北向角度 | 90 |
| 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



5层平面



6层平面



7~9层平面



10~15层平面



16~18层平面



19~21层平面



22层平面



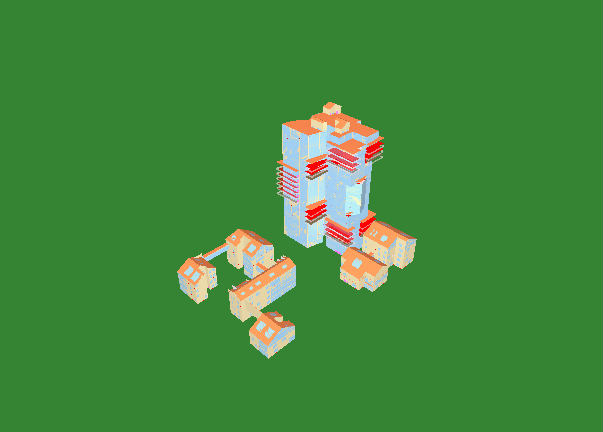
23层平面



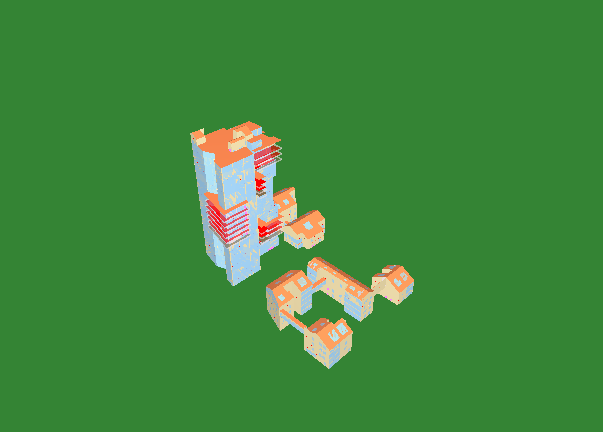
24层平面



25层平面



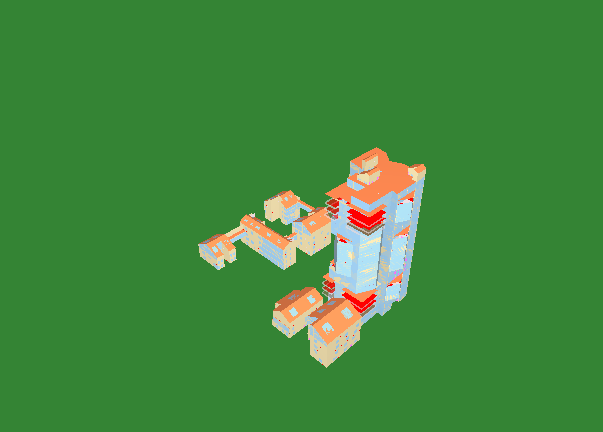
西南轴侧图



东南轴侧图



西北轴侧图



东北轴侧图

# 规定性指标检查

## 工程材料

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |
| 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 |
| 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 |
| 夯实粘土(ρ=2000) | 1.160 | 12.990 | 2000.0 | 1010.0 | 0.0000 |  |
| 碎石、卵石混凝土(ρ=2300) | 1.510 | 15.360 | 2300.0 | 920.0 | 0.0173 |  |
| 挤塑聚苯乙烯泡沫塑料（带表皮） | 0.030 | 0.340 | 35.0 | 1380.0 | 0.0000 |  |
| 热固复合聚苯乙烯泡沫保温板 | 0.045 | 0.750 | 140.0 | 1000.0 | 0.0000 |  |
| 硬质岩棉板 | 0.046 | 0.649 | 120.0 | 1050.0 | 0.0000 |  |
| 蒸压加气混凝土砌块 | 0.160 | 2.642 | 600.0 | 999.8 | 0.0000 |  |
| 无机纤维喷涂棉 | 0.038 | 0.340 | 60.0 | 1000.0 | 0.0000 |  |
| CPS-TS反应粘结型皮芯结构热压交联高分子胎基湿铺防水卷材 | 0.170 | 3.330 | 600.0 | 1470.0 | 0.0000 |  |
| JS聚合物水泥防水涂料 | 0.270 | 6.730 | 1400.0 | 1680.0 | 0.0000 |  |
| 发泡混凝土保温板 | 0.080 | 2.490 | 260.0 | 1170.0 | 0.1910 |  |

## 围护结构作法简要说明

**1. 屋顶：**屋顶构造一 (K=0.240,D=4.301)：（由上到下）

水泥砂浆 20mm＋挤塑聚苯乙烯泡沫塑料（带表皮） 130mm＋CPS-TS反应粘结型皮芯结构热压交联高分子胎基湿铺防水卷材 1.5mm＋CPS-TS反应粘结型皮芯结构热压交联高分子胎基湿铺防水卷材 1.5mm＋JS聚合物水泥防水涂料 1.5mm＋发泡混凝土保温板 30mm＋水泥砂浆 30mm＋钢筋混凝土 120mm

**2. 外墙（填充墙）：**外墙构造一 (K=0.347,D=4.941)：（由外到内）

水泥砂浆 5mm＋热固复合聚苯乙烯泡沫保温板 80mm＋水泥砂浆 20mm＋蒸压加气混凝土砌块 200mm

**3. 热桥梁：**热桥梁构造一 (K=0.497,D=3.799)：（由外到内）

水泥砂浆 20mm＋热固复合聚苯乙烯泡沫保温板 80mm＋水泥砂浆 20mm＋钢筋混凝土 200mm

**4. 挑空楼板：**挑空楼板构造一 (K=0.437,D=3.472)：（由上到下）

水泥砂浆 20mm＋钢筋混凝土 120mm＋水泥砂浆 20mm＋硬质岩棉板 110mm＋水泥砂浆 20mm

**5. 幕墙：**70系列平开(高透型6Low-E双银+12A+6 暖边)(隔热条宽29mm) (K=2.000)：

传热系数2.000W/㎡.K，窗太阳得热系数0.281

**6. 外窗：**70系列平开(高透型6Low-E双银+12A+6 暖边)(隔热条宽29mm) (K=2.000)：

传热系数2.000W/㎡.K，窗太阳得热系数0.281

**7. 天窗：**70系列平开(高透型6Low-E双银+12A+6 暖边)(隔热条宽29mm) (K=2.000)：

传热系数2.000W/㎡.K，窗太阳得热系数0.281

## 体形系数

### 体形系数

|  |  |
| --- | --- |
| 外表面积 | 39781.38 |
| 建筑体积 | 213686.77 |
| 体形系数 | 0.19 |

### 楼层信息表

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 楼层 | 层高(m) | 建筑面积(㎡) | 外表面积(㎡) | 计算体积(m3) |
| 1 | 4.500 | 4316.32 | 3720.86 | 19423.42 |
| 2 | 4.500 | 4357.97 | 3834.11 | 19610.86 |
| 3 | 4.500 | 4437.17 | 4169.91 | 19967.26 |
| 4 | 4.500 | 3571.01 | 4865.79 | 18276.97 |
| 5 | 4.500 | 2634.44 | 2827.34 | 14668.64 |
| 6 | 4.500 | 1524.43 | 2023.45 | 9266.87 |
| 7~9 | 12.600 | 4748.44 | 3189.01 | 19943.45 |
| 10~15 | 25.200 | 9019.47 | 4861.69 | 42641.89 |
| 16~18 | 12.600 | 4748.44 | 3249.07 | 19943.45 |
| 19~21 | 12.600 | 4573.29 | 2676.78 | 21678.69 |
| 22 | 4.200 | 1407.50 | 1372.25 | 5991.44 |
| 23 | 4.200 | 1401.94 | 930.30 | 5968.07 |
| 24 | 7.200 | 174.52 | 1865.54 | -2937.92 |
| 25 | 7.200 | 0.00 | 195.28 | -756.31 |
| 合计 | 112.80 | 46914.93 | 39781.38 | 213686.77 |

## 窗墙比

### 窗墙比

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 朝向 | 立面 | 窗面积(㎡) | 墙面积(㎡) | 窗墙比 |
| 南向 | 立面1 | 5171.08 | 8087.67 | 0.64 |
| 北向 | 立面2 | 5719.35 | 8306.97 | 0.69 |
| 东向 | 立面3 | 5358.32 | 8166.31 | 0.66 |
| 西向 | 立面4 | 5431.99 | 8338.45 | 0.65 |

### 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) |  | 1~23 |  |  | 4979.25 | 5171.08 |
| C1025 | 1.01×2.50 | 2~4 | 3 | 2.52 | 7.55 |
| C1425 | 1.39×2.50 | 2,4 | 2 | 3.49 | 6.97 |
| C1815 | 1.80×1.50 | 24 | 1 | 2.70 | 2.70 |
| C1825 | 1.80×2.50 | 1~4 | 25 | 4.50 | 112.50 |
| C3025 | 3.00×2.50 | 1~5 | 7 | 7.50 | 52.50 |
| C3025[1725] | 1.69×2.50 | 1 | 1 | 4.21 | 4.21 |
| C3615 | 3.60×1.50 | 24 | 1 | 5.40 | 5.40 |
| 北向 | 立面2 | (玻璃幕墙) |  | 1~23 |  |  | 5495.95 | 5719.34 |
| C1425 | 1.39×2.50 | 2 | 1 | 3.49 | 3.49 |
| C1425 | 1.43×2.50 | 2 | 1 | 3.58 | 3.58 |
| C1525 | 1.54×2.50 | 3~4 | 2 | 3.85 | 7.70 |
| C1525 | 1.50×2.50 | 3~4 | 2 | 3.76 | 7.51 |
| C1815 | 1.80×1.50 | 7~9 | 6 | 2.70 | 16.20 |
| C1825 | 1.80×2.50 | 1~4 | 18 | 4.50 | 81.00 |
| C1825[0325] | 0.27×2.50 | 1 | 1 | 0.67 | 0.67 |
| C1825[1525] | 1.53×2.50 | 1 | 1 | 3.83 | 3.83 |
| C1825[1625] | 1.61×2.50 | 1 | 1 | 4.03 | 4.03 |
| C3025 | 3.00×2.50 | 1~4 | 12 | 7.50 | 90.00 |
| C3615 | 3.60×1.50 | 24 | 1 | 5.40 | 5.40 |
| 东向 | 立面3 | (玻璃幕墙) |  | 1~23 |  |  | 5051.04 | 5358.32 |
| C0425 | 0.40×2.50 | 2~3 | 2 | 1.01 | 2.02 |
| C0525 | 0.47×2.50 | 4 | 1 | 1.18 | 1.18 |
| C0825 | 0.83×2.50 | 2 | 1 | 2.07 | 2.07 |
| C0915 | 0.90×1.50 | 24 | 1 | 1.35 | 1.35 |
| C1225 | 1.25×2.50 | 2 | 1 | 3.12 | 3.12 |
| C1715 | 1.75×2.50 | 2 | 1 | 4.38 | 4.38 |
| C1725 | 1.75×2.50 | 2~3 | 2 | 4.37 | 8.74 |
| C1725 | 1.73×2.50 | 3 | 1 | 4.32 | 4.32 |
| C1725 | 1.67×2.50 | 4 | 1 | 4.17 | 4.17 |
| C1815 | 1.80×1.50 | 4~6,24 | 9 | 2.70 | 24.30 |
| C1825 | 1.80×2.50 | 1~4 | 19 | 4.50 | 85.50 |
| C1825 | 1.81×2.50 | 4 | 1 | 4.52 | 4.52 |
| C1925 | 1.91×2.50 | 3 | 1 | 4.78 | 4.78 |
| C1925 | 1.93×2.50 | 4 | 1 | 4.82 | 4.82 |
| C2025 | 2.00×2.50 | 2 | 1 | 4.99 | 4.99 |
| C3025 | 3.00×2.50 | 1~4 | 16 | 7.50 | 120.00 |
| C3025[1925] | 1.88×2.50 | 1 | 1 | 4.69 | 4.69 |
| C3025[2325] | 2.33×2.50 | 1 | 1 | 5.84 | 5.84 |
| C3325 | 3.30×2.50 | 4 | 2 | 8.25 | 16.50 |
| 西向 | 立面4 | (玻璃幕墙) |  | 1~23 |  |  | 5195.65 | 5431.99 |
| C1815 | 1.80×1.50 | 24 | 2 | 2.70 | 5.40 |
| C1825 | 1.80×2.50 | 1~4 | 26 | 4.50 | 117.00 |
| C2425 | 2.40×2.50 | 2~4 | 5 | 6.00 | 30.00 |
| C2425 | 2.38×2.50 | 4 | 1 | 5.95 | 5.95 |
| C3025 | 3.00×2.50 | 1~4 | 7 | 7.50 | 52.50 |
| C3025[0225] | 0.16×2.50 | 1 | 1 | 0.40 | 0.40 |
| C3025[2825] | 2.84×2.50 | 1 | 1 | 7.10 | 7.10 |
| C3625 | 3.60×2.50 | 1 | 2 | 9.00 | 18.00 |

## 天窗

### 天窗屋顶比

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 房间 | 天窗编号 | 天窗面积（㎡） | 屋顶面积（㎡） | 面积比 |
| 3004 |  | 72.56 | 482.37 | 0.15 |
| 3006 |  | 76.73 | 336.03 | 0.23 |
| 3009 |  | 5.05 | 98.85 | 0.05 |
| 3028 |  | 3.97 | 25.36 | 0.16 |
| 3032 |  | 6.07 | 21.98 | 0.28 |
| 4001 |  | 54.24 | 491.57 | 0.11 |
| 4007 |  | 63.36 | 194.12 | 0.33 |
| 4020 |  | 3.72 | 40.75 | 0.09 |
| 4021 |  | 1.42 | 40.28 | 0.04 |
| 4030 |  | 0.53 | 29.01 | 0.02 |
| 4031 |  | 2.58 | 28.91 | 0.09 |
| 4033 |  | 7.37 | 26.79 | 0.28 |
| 4036 |  | 3.18 | 24.72 | 0.13 |
| 4044 |  | 4.94 | 16.48 | 0.30 |
| 4060 |  | 0.21 | 4.69 | 0.05 |
| 4061 |  | 0.21 | 4.69 | 0.05 |
| 5001 |  | 66.11 | 481.22 | 0.14 |
| 5003 |  | 42.55 | 291.34 | 0.15 |
| 5008 |  | 12.70 | 136.96 | 0.09 |
| 5011 |  | 22.00 | 93.00 | 0.24 |
| 5014 |  | 9.51 | 78.62 | 0.12 |
| 5015 |  | 12.25 | 52.97 | 0.23 |
| 5027 |  | 3.15 | 25.42 | 0.12 |
| 5028 |  | 0.82 | 21.61 | 0.04 |
| 5032 |  | 2.05 | 14.21 | 0.14 |
| 5040 |  | 1.79 | 7.18 | 0.25 |
| 5042 |  | 3.33 | 4.79 | 0.70 |
| 整栋建筑 | | 482.42 | 6356.03 | 0.08 |
| 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 | 70系列平开(高透型6Low-E双银+12A+6 暖边)(隔热条宽29mm) | 32 | 2.00 | 0.28 | 来源《民用建筑热工设计规范》 |
| 平均 | |  | 2.00 | 0.28 |  |
| 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

### 屋顶构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 挤塑聚苯乙烯泡沫塑料（带表皮） | 130 | 0.030 | 0.340 | 1.20 | 3.611 | 1.473 |
| CPS-TS反应粘结型皮芯结构热压交联高分子胎基湿铺防水卷材 | 1.5 | 0.170 | 3.330 | 1.00 | 0.009 | 0.029 |
| CPS-TS反应粘结型皮芯结构热压交联高分子胎基湿铺防水卷材 | 1.5 | 0.170 | 3.330 | 1.00 | 0.009 | 0.029 |
| JS聚合物水泥防水涂料 | 1.5 | 0.270 | 6.730 | 1.00 | 0.006 | 0.037 |
| 发泡混凝土保温板 | 30 | 0.080 | 2.490 | 1.50 | 0.250 | 0.934 |
| 水泥砂浆 | 30 | 0.930 | 11.370 | 1.00 | 0.032 | 0.367 |
| 钢筋混凝土 | 120 | 1.740 | 17.200 | 1.00 | 0.069 | 1.186 |
| 各层之和∑ | 334.5 | － | － | － | 4.007 | 4.301 |
| 外表面太阳辐射吸收系数 | 0.75 | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.24 | | | | | |
| 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

#### 外墙构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |
| 水泥砂浆 | 5 | 0.930 | 11.370 | 1.00 | 0.005 | 0.061 |
| 热固复合聚苯乙烯泡沫保温板 | 80 | 0.045 | 0.750 | 1.05 | 1.693 | 1.333 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 蒸压加气混凝土砌块 | 200 | 0.160 | 2.642 | 1.25 | 1.000 | 3.303 |
| 各层之和∑ | 305 | － | － | － | 2.720 | 4.941 |
| 外表面太阳辐射吸收系数 | 0.75 | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.35 | | | | | |

#### 热桥梁构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 热固复合聚苯乙烯泡沫保温板 | 80 | 0.045 | 0.750 | 1.05 | 1.693 | 1.333 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 钢筋混凝土 | 200 | 1.740 | 17.200 | 1.00 | 0.115 | 1.977 |
| 各层之和∑ | 320 | － | － | － | 1.851 | 3.799 |
| 外表面太阳辐射吸收系数 | 0.75 | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.50 | | | | | |

#### 热桥梁构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 热固复合聚苯乙烯泡沫保温板 | 80 | 0.045 | 0.750 | 1.05 | 1.693 | 1.333 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 钢筋混凝土 | 200 | 1.740 | 17.200 | 1.00 | 0.115 | 1.977 |
| 各层之和∑ | 320 | － | － | － | 1.851 | 3.799 |
| 外表面太阳辐射吸收系数 | 0.75 | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.50 | | | | | |

#### 热桥柱构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 热固复合聚苯乙烯泡沫保温板 | 80 | 0.045 | 0.750 | 1.05 | 1.693 | 1.333 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 钢筋混凝土 | 240 | 1.740 | 17.200 | 1.00 | 0.138 | 2.372 |
| 各层之和∑ | 360 | － | － | － | 1.874 | 4.195 |
| 外表面太阳辐射吸收系数 | 0.75 | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.49 | | | | | |

#### 热桥板构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 热固复合聚苯乙烯泡沫保温板 | 80 | 0.045 | 0.750 | 1.05 | 1.693 | 1.333 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 钢筋混凝土 | 120 | 1.740 | 17.200 | 1.00 | 0.069 | 1.186 |
| 各层之和∑ | 240 | － | － | － | 1.805 | 3.009 |
| 外表面太阳辐射吸收系数 | 0.75 | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.51 | | | | | |

### 外墙主断面传热系数的修正系数ψ

**外墙主体部位传热系数的修正系数ψ**

|  |  |  |  |
| --- | --- | --- | --- |
| 气候分区 | 外保温 | 夹心保温 (自保温) | 内保温 |
| 严寒地区 | 1.30 | — | — |
| 寒冷地区 | 1.20 | 1.25 |  |
| 夏热冬冷地区 | 1.10 | 1.20 | 1.20 |
| 夏热冬暖地区 | 1.00 | 1.05 | 1.05 |

### 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 |
| 外墙构造一 | 主墙体 | 2772.83 | 0.961 | 0.35 | 4.94 | 0.75 |
| 热桥梁构造一 | 热桥梁 | 112.26 | 0.039 | 0.50 | 3.80 | 0.75 |
| 合计 |  | 2885.09 | 1.000 | 0.35 | 4.90 | 0.75 |
| 平均传热系数K | 0.35 × 1.10 = 0.39 | | | | | |

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 |
| 外墙构造一 | 主墙体 | 2440.70 | 0.967 | 0.35 | 4.94 | 0.75 |
| 热桥梁构造一 | 热桥梁 | 83.28 | 0.033 | 0.50 | 3.80 | 0.75 |
| 合计 |  | 2523.99 | 1.000 | 0.35 | 4.90 | 0.75 |
| 平均传热系数K | 0.35 × 1.10 = 0.39 | | | | | |

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 |
| 外墙构造一 | 主墙体 | 2617.89 | 0.939 | 0.35 | 4.94 | 0.75 |
| 热桥梁构造一 | 热桥梁 | 171.17 | 0.061 | 0.50 | 3.80 | 0.75 |
| 合计 |  | 2789.06 | 1.000 | 0.36 | 4.87 | 0.75 |
| 平均传热系数K | 0.36 × 1.10 = 0.40 | | | | | |

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 |
| 外墙构造一 | 主墙体 | 2771.95 | 0.960 | 0.35 | 4.94 | 0.75 |
| 热桥梁构造一 | 热桥梁 | 115.61 | 0.040 | 0.50 | 3.80 | 0.75 |
| 合计 |  | 2887.55 | 1.000 | 0.35 | 4.90 | 0.75 |
| 平均传热系数K | 0.35 × 1.10 = 0.39 | | | | | |

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 |
| 外墙构造一 | 主墙体 | 10603.37 | 0.956 | 0.35 | 4.94 | 0.75 |
| 热桥梁构造一 | 热桥梁 | 482.31 | 0.044 | 0.50 | 3.80 | 0.75 |
| 合计 |  | 11085.69 | 1.000 | 0.35 | 4.89 | 0.75 |
| 平均传热系数K | 0.35 × 1.10 = 0.39 | | | | | |
| 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≤0.80) | | | | | |
| 结论 | 满足 | | | | | |

## 挑空楼板

### 挑空楼板构造一

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 钢筋混凝土 | 120 | 1.740 | 17.200 | 1.00 | 0.069 | 1.186 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 硬质岩棉板 | 110 | 0.046 | 0.649 | 1.20 | 1.993 | 1.552 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 各层之和∑ | 290 | － | － | － | 2.126 | 3.472 |
| 传热系数K=1/(0.16+∑R) | 0.44 | | | | | |
| 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≤0.70 | | | | | |
| 结论 | 满足 | | | | | |

## 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 | 70系列平开(高透型6Low-E双银+12A+6 暖边)(隔热条宽29mm) | 33 | 2.00 | 0.28 | 0.630 |  |
| 窗编号 | | | | |
| 幕墙 | | | | |
| 2 | 70系列平开(高透型6Low-E双银+12A+6 暖边)(隔热条宽29mm) | 29 | 2.00 | 0.28 | 0.630 | 湖北低能耗居住建筑节能设计标准 DB42-T559-2022 |
| 窗编号 | | | | |
| C0425，C0525，C0825，C0915，C1225，C1715，C1725，C1815，C1825，C1925，C2025，C3025，C3025[1925]，C3025[2325]，C3325，C2425，C3025[0225]，C3025[2825]，C3625，C1025，C1425，C3025[1725]，C3615，C1525，C1825[0325]，C1825[1525]，C1825[1625] | | | | |

### 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) | 1~23 |  |  | 4979.250 | 33 | 2.000 |
| 2 | C1025 | 2~4 | 3 | 2.515 | 7.545 | 29 | 2.000 |
| 3 | C1425 | 2,4 | 2 | 3.485 | 6.970 | 29 | 2.000 |
| 4 | C1815 | 24 | 1 | 2.700 | 2.700 | 29 | 2.000 |
| 5 | C1825 | 1~4 | 25 | 4.500 | 112.500 | 29 | 2.000 |
| 6 | C3025 | 1~5 | 7 | 7.500 | 52.500 | 29 | 2.000 |
| 7 | C3025[1725] | 1 | 1 | 4.213 | 4.213 | 29 | 2.000 |
| 8 | C3615 | 24 | 1 | 5.400 | 5.400 | 29 | 2.000 |
| 立面总面积(㎡) | | | 5171.078 | 立面平均传热系数 | | | 2.000 |

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) | 1~23 |  |  | 5495.948 | 33 | 2.000 |
| 2 | C1425 | 2 | 1 | 3.485 | 3.485 | 29 | 2.000 |
| 3 | C1425 | 2 | 1 | 3.578 | 3.578 | 29 | 2.000 |
| 4 | C1525 | 3~4 | 2 | 3.848 | 7.695 | 29 | 2.000 |
| 5 | C1525 | 3~4 | 2 | 3.755 | 7.510 | 29 | 2.000 |
| 6 | C1815 | 7~9 | 6 | 2.700 | 16.200 | 29 | 2.000 |
| 7 | C1825 | 1~4 | 18 | 4.500 | 81.000 | 29 | 2.000 |
| 8 | C1825[0325] | 1 | 1 | 0.669 | 0.669 | 29 | 2.000 |
| 9 | C1825[1525] | 1 | 1 | 3.831 | 3.831 | 29 | 2.000 |
| 10 | C1825[1625] | 1 | 1 | 4.027 | 4.027 | 29 | 2.000 |
| 11 | C3025 | 1~4 | 12 | 7.500 | 90.000 | 29 | 2.000 |
| 12 | C3615 | 24 | 1 | 5.400 | 5.400 | 29 | 2.000 |
| 立面总面积(㎡) | | | 5719.342 | 立面平均传热系数 | | | 2.000 |

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) | 1~23 |  |  | 5051.039 | 33 | 2.000 |
| 2 | C0425 | 2~3 | 2 | 1.010 | 2.020 | 29 | 2.000 |
| 3 | C0525 | 4 | 1 | 1.178 | 1.178 | 29 | 2.000 |
| 4 | C0825 | 2 | 1 | 2.065 | 2.065 | 29 | 2.000 |
| 5 | C0915 | 24 | 1 | 1.350 | 1.350 | 29 | 2.000 |
| 6 | C1225 | 2 | 1 | 3.123 | 3.123 | 29 | 2.000 |
| 7 | C1715 | 2 | 1 | 4.375 | 4.375 | 29 | 2.000 |
| 8 | C1725 | 2~3 | 2 | 4.370 | 8.740 | 29 | 2.000 |
| 9 | C1725 | 3 | 1 | 4.318 | 4.318 | 29 | 2.000 |
| 10 | C1725 | 4 | 1 | 4.170 | 4.170 | 29 | 2.000 |
| 11 | C1815 | 4~6,24 | 9 | 2.700 | 24.300 | 29 | 2.000 |
| 12 | C1825 | 1~4 | 19 | 4.500 | 85.500 | 29 | 2.000 |
| 13 | C1825 | 4 | 1 | 4.518 | 4.518 | 29 | 2.000 |
| 14 | C1925 | 3 | 1 | 4.783 | 4.783 | 29 | 2.000 |
| 15 | C1925 | 4 | 1 | 4.823 | 4.823 | 29 | 2.000 |
| 16 | C2025 | 2 | 1 | 4.990 | 4.990 | 29 | 2.000 |
| 17 | C3025 | 1~4 | 16 | 7.500 | 120.000 | 29 | 2.000 |
| 18 | C3025[1925] | 1 | 1 | 4.690 | 4.690 | 29 | 2.000 |
| 19 | C3025[2325] | 1 | 1 | 5.837 | 5.837 | 29 | 2.000 |
| 20 | C3325 | 4 | 2 | 8.250 | 16.500 | 29 | 2.000 |
| 立面总面积(㎡) | | | 5358.316 | 立面平均传热系数 | | | 2.000 |

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) | 1~23 |  |  | 5195.646 | 33 | 2.000 |
| 2 | C1815 | 24 | 2 | 2.700 | 5.400 | 29 | 2.000 |
| 3 | C1825 | 1~4 | 26 | 4.500 | 117.000 | 29 | 2.000 |
| 4 | C2425 | 2~4 | 5 | 6.000 | 30.000 | 29 | 2.000 |
| 5 | C2425 | 4 | 1 | 5.945 | 5.945 | 29 | 2.000 |
| 6 | C3025 | 1~4 | 7 | 7.500 | 52.500 | 29 | 2.000 |
| 7 | C3025[0225] | 1 | 1 | 0.405 | 0.405 | 29 | 2.000 |
| 8 | C3025[2825] | 1 | 1 | 7.095 | 7.095 | 29 | 2.000 |
| 9 | C3625 | 1 | 2 | 9.000 | 18.000 | 29 | 2.000 |
| 立面总面积(㎡) | | | 5431.991 | 立面平均传热系数 | | | 2.000 |

### 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) | 1~23 |  |  | 4979.250 | 33 | 0.281 |  | 1.000 | 0.281 |
| 2 | C1025 | 2~4 | 3 | 2.515 | 7.545 | 29 | 0.281 |  | 1.000 | 0.281 |
| 3 | C1425 | 2,4 | 2 | 3.485 | 6.970 | 29 | 0.281 |  | 1.000 | 0.281 |
| 4 | C1815 | 24 | 1 | 2.700 | 2.700 | 29 | 0.281 |  | 1.000 | 0.281 |
| 5 | C1825 | 1~4 | 25 | 4.500 | 112.500 | 29 | 0.281 |  | 1.000 | 0.281 |
| 6 | C3025 | 1~5 | 7 | 7.500 | 52.500 | 29 | 0.281 |  | 1.000 | 0.281 |
| 7 | C3025[1725] | 1 | 1 | 4.213 | 4.213 | 29 | 0.281 |  | 1.000 | 0.281 |
| 8 | C3615 | 24 | 1 | 5.400 | 5.400 | 29 | 0.281 |  | 1.000 | 0.281 |
| 立面总面积(㎡) | | | | | 5171.078 | 综合太阳得热系数 | | | | 0.281 |

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) | 1~23 |  |  | 5495.948 | 33 | 0.281 |  | 1.000 | 0.281 |
| 2 | C1425 | 2 | 1 | 3.485 | 3.485 | 29 | 0.281 |  | 1.000 | 0.281 |
| 3 | C1425 | 2 | 1 | 3.578 | 3.578 | 29 | 0.281 |  | 1.000 | 0.281 |
| 4 | C1525 | 3~4 | 2 | 3.848 | 7.695 | 29 | 0.281 |  | 1.000 | 0.281 |
| 5 | C1525 | 3~4 | 2 | 3.755 | 7.510 | 29 | 0.281 |  | 1.000 | 0.281 |
| 6 | C1815 | 7~9 | 6 | 2.700 | 16.200 | 29 | 0.281 |  | 1.000 | 0.281 |
| 7 | C1825 | 1~4 | 18 | 4.500 | 81.000 | 29 | 0.281 |  | 1.000 | 0.281 |
| 8 | C1825[0325] | 1 | 1 | 0.669 | 0.669 | 29 | 0.281 |  | 1.000 | 0.281 |
| 9 | C1825[1525] | 1 | 1 | 3.831 | 3.831 | 29 | 0.281 |  | 1.000 | 0.281 |
| 10 | C1825[1625] | 1 | 1 | 4.027 | 4.027 | 29 | 0.281 |  | 1.000 | 0.281 |
| 11 | C3025 | 1~4 | 12 | 7.500 | 90.000 | 29 | 0.281 |  | 1.000 | 0.281 |
| 12 | C3615 | 24 | 1 | 5.400 | 5.400 | 29 | 0.281 |  | 1.000 | 0.281 |
| 立面总面积(㎡) | | | | | 5719.342 | 综合太阳得热系数 | | | | 0.281 |

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) | 1~23 |  |  | 5051.039 | 33 | 0.281 |  | 1.000 | 0.281 |
| 2 | C0425 | 2~3 | 2 | 1.010 | 2.020 | 29 | 0.281 |  | 1.000 | 0.281 |
| 3 | C0525 | 4 | 1 | 1.178 | 1.178 | 29 | 0.281 |  | 1.000 | 0.281 |
| 4 | C0825 | 2 | 1 | 2.065 | 2.065 | 29 | 0.281 |  | 1.000 | 0.281 |
| 5 | C0915 | 24 | 1 | 1.350 | 1.350 | 29 | 0.281 |  | 1.000 | 0.281 |
| 6 | C1225 | 2 | 1 | 3.123 | 3.123 | 29 | 0.281 |  | 1.000 | 0.281 |
| 7 | C1715 | 2 | 1 | 4.375 | 4.375 | 29 | 0.281 |  | 1.000 | 0.281 |
| 8 | C1725 | 2~3 | 2 | 4.370 | 8.740 | 29 | 0.281 |  | 1.000 | 0.281 |
| 9 | C1725 | 3 | 1 | 4.318 | 4.318 | 29 | 0.281 |  | 1.000 | 0.281 |
| 10 | C1725 | 4 | 1 | 4.170 | 4.170 | 29 | 0.281 |  | 1.000 | 0.281 |
| 11 | C1815 | 4~6,24 | 9 | 2.700 | 24.300 | 29 | 0.281 |  | 1.000 | 0.281 |
| 12 | C1825 | 1~4 | 19 | 4.500 | 85.500 | 29 | 0.281 |  | 1.000 | 0.281 |
| 13 | C1825 | 4 | 1 | 4.518 | 4.518 | 29 | 0.281 |  | 1.000 | 0.281 |
| 14 | C1925 | 3 | 1 | 4.783 | 4.783 | 29 | 0.281 |  | 1.000 | 0.281 |
| 15 | C1925 | 4 | 1 | 4.823 | 4.823 | 29 | 0.281 |  | 1.000 | 0.281 |
| 16 | C2025 | 2 | 1 | 4.990 | 4.990 | 29 | 0.281 |  | 1.000 | 0.281 |
| 17 | C3025 | 1~4 | 16 | 7.500 | 120.000 | 29 | 0.281 |  | 1.000 | 0.281 |
| 18 | C3025[1925] | 1 | 1 | 4.690 | 4.690 | 29 | 0.281 |  | 1.000 | 0.281 |
| 19 | C3025[2325] | 1 | 1 | 5.837 | 5.837 | 29 | 0.281 |  | 1.000 | 0.281 |
| 20 | C3325 | 4 | 2 | 8.250 | 16.500 | 29 | 0.281 |  | 1.000 | 0.281 |
| 立面总面积(㎡) | | | | | 5358.316 | 综合太阳得热系数 | | | | 0.281 |

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) | 1~23 |  |  | 5195.646 | 33 | 0.281 |  | 1.000 | 0.281 |
| 2 | C1815 | 24 | 2 | 2.700 | 5.400 | 29 | 0.281 |  | 1.000 | 0.281 |
| 3 | C1825 | 1~4 | 26 | 4.500 | 117.000 | 29 | 0.281 |  | 1.000 | 0.281 |
| 4 | C2425 | 2~4 | 5 | 6.000 | 30.000 | 29 | 0.281 |  | 1.000 | 0.281 |
| 5 | C2425 | 4 | 1 | 5.945 | 5.945 | 29 | 0.281 |  | 1.000 | 0.281 |
| 6 | C3025 | 1~4 | 7 | 7.500 | 52.500 | 29 | 0.281 |  | 1.000 | 0.281 |
| 7 | C3025[0225] | 1 | 1 | 0.405 | 0.405 | 29 | 0.281 |  | 1.000 | 0.281 |
| 8 | C3025[2825] | 1 | 1 | 7.095 | 7.095 | 29 | 0.281 |  | 1.000 | 0.281 |
| 9 | C3625 | 1 | 2 | 9.000 | 18.000 | 29 | 0.281 |  | 1.000 | 0.281 |
| 立面总面积(㎡) | | | | | 5431.991 | 综合太阳得热系数 | | | | 0.281 |

### 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 | 5171.08 | 2.00 | 0.28 | 0.64 | K≤2.10, SHGC≤0.25 | 不满足 |
| 北向 | 立面2 | 5719.34 | 2.00 | 0.28 | 0.69 | K≤2.10, SHGC≤0.30 | 满足 |
| 东向 | 立面3 | 5358.32 | 2.00 | 0.28 | 0.66 | K≤2.10, SHGC≤0.25 | 不满足 |
| 西向 | 立面4 | 5431.99 | 2.00 | 0.28 | 0.65 | K≤2.10, SHGC≤0.25 | 不满足 |
| 综合平均 |  | 21680.73 | 2.00 | 0.28 | 0.66 |  |  |
| 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 | 不满足 | | | | | | |

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 | 5171.08 | 0.00 | 0.15 | 满足 |
| 北向 | 立面2 | 0.00 | 5719.35 | 0.00 | 0.15 | 满足 |
| 东向 | 立面3 | 0.00 | 5358.32 | 0.00 | 0.15 | 满足 |
| 西向 | 立面4 | 0.00 | 5431.99 | 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 |
| 10 | 10001@10(最不利房间) | 休息室 | | 幕墙 | 未编号 | 0.30 | 有可开启窗扇 |
| 幕墙 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.30 |
| 幕墙 | 未编号 | 0.30 |
| 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 | 满足 |  |
| 5 | 挑空楼板 | 满足 |  |
| 6 | 外窗热工 | 不满足 | 可 |
| 7 | 非中空窗面积比 | 满足 |  |
| 8 | 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=0.24 | K<=0.4 | 满足 |
| 外墙 | K=0.39; D=4.89 | K<=0.8 | 满足 |
| 外窗热工－总体热工性能－南向－立面1 | K=2.00; SHGC=0.28 | K≤2.20, SHGC≤0.40 | 满足 |
| 外窗热工－总体热工性能－北向－立面2 | K=2.00; SHGC=0.28 | K≤2.20, SHGC≤0.40 | 满足 |
| 外窗热工－总体热工性能－东向－立面3 | K=2.00; SHGC=0.28 | K≤2.20, SHGC≤0.40 | 满足 |
| 外窗热工－总体热工性能－西向－立面4 | K=2.00; SHGC=0.28 | K≤2.20, SHGC≤0.40 | 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 | | | 0.08 | | | 0.08 | | |
| 屋顶传热系数K  和热惰性指标 D | | | K=0.24  D=4.30 | | | K=0.40  D=3.62 | | |
| 外墙传热系数K  和热惰性指标 D | | | K=0.39  D=4.89 | | | K=0.80  D=3.67 | | |
| 挑空楼板传热系数K  和热惰性指标 D | | | K=0.44  D=3.47 | | | K=0.70  D=2.80 | | |
| 天窗传热系数K  和太阳得热系数 SHGC | | | K=2.00  SHGC=0.28 | | | 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 | 0.64 | 2.00 | 0.28 | 0.64 | 2.10 | 0.25 |
| 北向 | 立面2 | 0.69 | 2.00 | 0.28 | 0.69 | 2.10 | 0.30 |
| 东向 | 立面3 | 0.66 | 2.00 | 0.28 | 0.66 | 2.10 | 0.25 |
| 西向 | 立面4 | 0.65 | 2.00 | 0.28 | 0.65 | 2.10 | 0.25 |
| 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.

## 房间类型

### 房间参数表

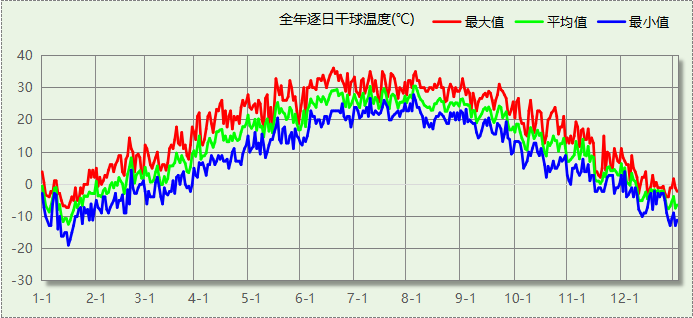
|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 空调温度 ℃ | 供暖温度 ℃ | 新风量 | 人员密度 | 照明功率 密度 | 电器设备 功率 |
| 休息室 | 26 | 20 | 30(m3/h.人) | 6(㎡/人) | 8(W/㎡) | 5(W/㎡) |
| 会议室 | 26 | 20 | 30(m3/h.人) | 6(㎡/人) | 8(W/㎡) | 5(W/㎡) |
| 会议室 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 8(W/㎡) | 15(W/㎡) |
| 共享空间 | 26 | 18 | 30(m3/h.人) | 8(㎡/人) | 9(W/㎡) | 13(W/㎡) |
| 办公建筑 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 8(W/㎡) | 15(W/㎡) |
| 卫生间 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 8(W/㎡) | 15(W/㎡) |
| 卫生间 | 26 | 20 | 30(m3/h.人) | 6(㎡/人) | 8(W/㎡) | 5(W/㎡) |
| 密集办公室 | 26 | 20 | 30(m3/h.人) | 6(㎡/人) | 8(W/㎡) | 5(W/㎡) |
| 密集办公室 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 8(W/㎡) | 15(W/㎡) |
| 展示区 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 8(W/㎡) | 15(W/㎡) |
| 普通办公室 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 8(W/㎡) | 15(W/㎡) |
| 普通教室 | 26 | 20 | 30(m3/h.人) | 6(㎡/人) | 8(W/㎡) | 5(W/㎡) |
| 楼梯间 | － | － | 0(m3/h.人) | 0(人) | 5(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/㎡) |
| 设备间 | － | － | 0(m3/h.人) | 0(人) | 3.5(W/㎡) | 15(W/㎡) |
| 走廊 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 8(W/㎡) | 15(W/㎡) |
| 走廊 | 26 | 20 | 30(m3/h.人) | 6(㎡/人) | 8(W/㎡) | 5(W/㎡) |
| 阅览室 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 8(W/㎡) | 15(W/㎡) |
| 音乐教室 | 26 | 20 | 30(m3/h.人) | 6(㎡/人) | 8(W/㎡) | 5(W/㎡) |

### 作息时间表

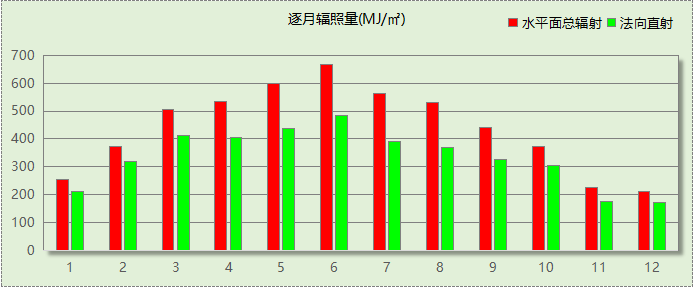
详见附录

## 气象数据

### 逐日干球温度表



### 逐月辐照量表



## 负荷分项统计

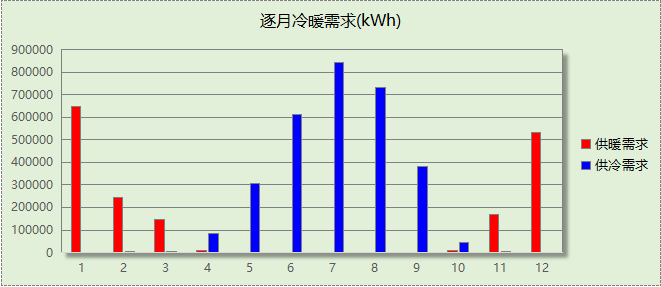
设计建筑：

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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/㎡) | -36.22 | 16.49 | 7.54 | -25.28 | 0.00 | -37.47 |
| 供冷(kWh/㎡) | 13.87 | 28.99 | 12.49 | 8.68 | 0.00 | 64.04 |

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/㎡) | -44.72 | 17.90 | 7.73 | -26.52 | 0.00 | -45.61 |
| 供冷(kWh/㎡) | 13.17 | 27.36 | 11.12 | 9.84 | 0.00 | 61.48 |

## 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 | 6.03 | 0.00 | 7.02 |
| 2 | 0.00 | 2.27 | 0.00 | 2.87 |
| 3 | 0.01 | 1.38 | 0.00 | 1.88 |
| 4 | 0.52 | 0.08 | 0.37 | 0.14 |
| 5 | 1.85 | 0.00 | 1.67 | 0.00 |
| 6 | 3.73 | 0.00 | 3.70 | 0.00 |
| 7 | 5.13 | 0.00 | 5.11 | 0.00 |
| 8 | 4.44 | 0.00 | 4.39 | 0.00 |
| 9 | 2.32 | 0.00 | 2.17 | 0.00 |
| 10 | 0.28 | 0.09 | 0.15 | 0.17 |
| 11 | 0.01 | 1.57 | 0.00 | 2.04 |
| 12 | 0.00 | 4.95 | 0.00 | 5.82 |
| 合计 | 18.30 | 16.38 | 17.57 | 19.94 |

## 权衡指标

|  |  |  |
| --- | --- | --- |
|  | 设计建筑 | 参照建筑 |
| 全年供暖和空调总耗电量(kWh/㎡) | 34.67 | 37.50 |
| 供冷耗电量(kWh/㎡) | 18.30 | 17.57 |
| 供热耗电量(kWh/㎡) | 16.38 | 19.94 |
| 耗冷量(kWh/㎡) | 64.04 | 61.48 |
| 耗热量(kWh/㎡) | 37.47 | 45.61 |
| 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 |
| 休息室 | 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 |
| 会议室 | 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 |
| 会议室 | 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 |
| 共享空间 | 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 |
| 办公建筑 | 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 |
| 卫生间 | 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 |
| 卫生间 | 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 |
| 密集办公室 | 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 |
| 密集办公室 | 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 |
| 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 |
| 普通办公室 | 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 |
| 普通教室 | 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 |
| 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 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| 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 | 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 | 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 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 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 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| 走廊 | 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 |
| 走廊 | 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 |
| 阅览室 | 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 |
| 音乐教室 | 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 |

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 |
| 休息室 | 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 |
| 会议室 | 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 |
| 会议室 | 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 |
| 共享空间 | 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 |
| 办公建筑 | 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 |
| 卫生间 | 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 |
| 卫生间 | 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 |
| 密集办公室 | 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 |
| 密集办公室 | 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 |
| 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 |
| 普通办公室 | 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 |
| 普通教室 | 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 |
| 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 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 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 | 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 | 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 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 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 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 走廊 | 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 |
| 走廊 | 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 |
| 阅览室 | 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 |
| 音乐教室 | 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 |

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 |
| 休息室 | 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 |
| 会议室 | 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 |
| 会议室 | 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 |
| 共享空间 | 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 |
| 办公建筑 | 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 |
| 卫生间 | 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 |
| 卫生间 | 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 |
| 密集办公室 | 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 |
| 密集办公室 | 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 |
| 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 |
| 普通办公室 | 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 |
| 普通教室 | 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 |
| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 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 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 走廊 | 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 |
| 走廊 | 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 |
| 阅览室 | 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 |
| 音乐教室 | 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 |

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 |
| 休息室 | 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 |
| 会议室 | 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 |
| 会议室 | 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 |
| 共享空间 | 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 |
| 办公建筑 | 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 |
| 卫生间 | 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 |
| 卫生间 | 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 |
| 密集办公室 | 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 |
| 密集办公室 | 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 |
| 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 |
| 普通办公室 | 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 |
| 普通教室 | 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 |
| 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 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 |
| 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 |
| 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 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 走廊 | 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 |
| 走廊 | 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 |
| 阅览室 | 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 |
| 音乐教室 | 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 |

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 |
| 休息室 | 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 |
| 会议室 | 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 |
| 会议室 | 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 |
| 共享空间 | 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 |
| 办公建筑 | 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 |
| 卫生间 | 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 |
| 卫生间 | 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 |
| 密集办公室 | 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 |
| 密集办公室 | 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 |
| 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 |
| 普通办公室 | 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 |
| 普通教室 | 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 |
| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 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 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 走廊 | 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 |
| 走廊 | 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 |
| 阅览室 | 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 |
| 音乐教室 | 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 |

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 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 | 0 |

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 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 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 | 0 |

注：上行：工作日；下行：节假日