**建筑碳排放报告书**

公共建筑

|  |  |
| --- | --- |
| 工程名称 | 新建项目 |
| 工程地点 | 重庆-重庆 |
| 设计编号 |  |
| 建设单位 |  |
| 设计单位 |  |
| 设 计 人 |  |
| 审 核 人 |  |
| 审 定 人 |  |
| 设计日期 | 2024年12月28日 |



|  |  |
| --- | --- |
| 采用软件 | 建筑碳排放CEEB2024 |
| 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 | T17365288669  |

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# 建筑概况

|  |  |
| --- | --- |
| 工程名称 | 新建项目 |
| 工程地点 | 重庆-重庆 |
| 地理位置 | 北纬：29.58° | 东经：106.47° |
| 建筑寿命(年) | 50 |
| 建筑面积(m2) | 地上11434 地下0 |
| 建筑层数 | 地上5 地下0 |
| 建筑高度（m） | 地上22.8 地下0.0 |
| 建筑体积(m3) | 47965.35 |
| 建筑外表面积(m2) | 12705.72 |
| 北向角度 | 90 |
| 结构类型 |  |
| 外墙太阳辐射吸收系数 | 0.70 |
| 屋顶太阳辐射吸收系数 | 0.70 |
| 控温期 | 供冷期:6.14-8.31,供暖期:11.30-2.28 |

#  标准依据

1. 《建筑节能与可再生能源利用通用规范》GB 55015-2021

2. 《建筑碳排放计算标准》GB/T 51366-2019

3. 《绿色建筑评价标准》GB/T50378-2019

4. 《民用建筑绿色性能计算标准》JGJ/T 449-2018

# 软件介绍

本报告内容由建筑碳排放CEEB2024计算并输出，建筑碳排放CEEB以CAD为平台，可与建筑节能模型无缝对接，以国家标准《建筑碳排放计算标准》为主要依据，完整支持建筑全生命周期的碳排放计算，包括建材生产运输、建造拆除、建筑运行和碳汇的计算，以及详细的结果数据分析。

# 气象数据

## 逐日干球温度表



## 逐月辐照量表



## 峰值工况

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 气象数据 | 时刻 | 干球温度(℃) | 湿球温度(℃) | 含湿量(g/kg) | 焓值(kj/kg) |
| 最热 | 08月05日17时 | 38.9 | 25.6 | 16.3 | 81.0 |
| 最冷 | 12月13日05时 | 0.0 | 0.0 | 3.7 | 9.3 |

# 围护结构

## 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) |
| 混合砂浆（1） | 0.870 | 10.750 | 1700.0 | 1074.4 | 0.0000 | 无机轻集料防火保温板 JGT 435-2014 |
| 轻集料混凝土 | 0.890 | 10.673 | 1600.0 | 1100.0 | 0.0158 | 建筑外保温 13BJ2-12 |
| 蒸压加气混凝土砌块526～625(外墙灰缝≤3mm) | 0.190 | 3.010 | 600.0 | 1050.0 | 0.0000 |  |
| 蒸压加气混凝土ALC板 | 0.190 | 3.010 | 600.0 | 1050.0 | 0.0000 |  |
| 半硬质矿（岩）棉板(ρ=100-180) | 0.048 | 0.770 | 140.0 | 1213.0 | 0.0000 | 重庆居住建筑节能设计标准 50-5024-2002 |
| 增强型改性发泡水泥保温板A型 | 0.055 | 0.900 | 180.0 | 1000.0 | 0.0000 |  |
| 增强型水泥基泡沫保温隔声板 | 0.070 | 1.070 | 250.0 | 1000.0 | 0.0000 |  |
| 岩棉板（垂直纤维） | 0.048 | 0.750 | 140.0 | 1000.0 | 0.0000 |  |

## 围护结构作法简要说明

**1. 屋顶：**屋顶构造一 (K=0.567,D=3.573)：（由上到下）

 轻集料混凝土 40mm＋混合砂浆（1） 10mm＋半硬质矿（岩）棉板(ρ=100-180) 80mm＋混合砂浆（1） 20mm＋轻集料混凝土 120mm

**2. 外墙：**外墙（填充墙）构造一 (K=0.657,D=4.455)：（由外到内）

 混合砂浆（1） 20mm＋蒸压加气混凝土砌块526～625(外墙灰缝≤3mm) 250mm＋混合砂浆（1） 20mm

**3. 挑空楼板：**挑空楼板构造一 (K=0.848,D=2.402)：（由上到下）

 轻集料混凝土 30mm＋轻集料混凝土 100mm＋岩棉板（垂直纤维） 50mm＋混合砂浆（1） 5mm

**4. 外窗：**{6透明+2M+6中透光Low-E+12A+6透明} (K=2.400)：

 传热系数2.400W/㎡.K，窗太阳得热系数0.330

**5. 幕墙：**{6透明+2M+6中透光Low-E+12A+6透明} (K=2.400)：

 传热系数2.400W/㎡.K，窗太阳得热系数0.330

# 围护结构概况

|  |  |
| --- | --- |
|  | 设计建筑 |
| 体形系数S | 0.26 |
| 屋顶传热系数K和热惰性指标 D | 0.573.57 |
| 外墙传热系数K和热惰性指标 D | 0.734.46 |
| 挑空(或架空)楼板传热系数K和热惰性指标 D | 0.852.40 |
| 天窗传热系数K和太阳得热系数 SHGC | －－ |
| 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 |
| 南向 | 南-默认立面 | 0.27 | 2.40 | 0.33 |
| 北向 | 北-默认立面 | 0.17 | 2.40 | 0.33 |
| 东向 | 东-默认立面 | 0.25 | 2.40 | 0.33 |
| 西向 | 西-默认立面 | 0.16 | 2.40 | 0.33 |

# 房间类型

## 房间参数表

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 空调温度℃ | 供暖温度℃ | 新风量 | 渗透风换气次数 | 人员密度 | 照明功率密度 | 电器设备功率 |
| 书库 | 26 | 20 | 30(m3/h.人) | 0(次/h) | 10(㎡/人) | 8(W/㎡) | 13(W/㎡) |
| 卫生间 | 26 | 20 | 30(m3/h.人) | 0(次/h) | 10(㎡/人) | 8(W/㎡) | 13(W/㎡) |
| 开架书库 | 26 | 20 | 30(m3/h.人) | 0(次/h) | 10(㎡/人) | 8(W/㎡) | 13(W/㎡) |
| 楼梯间 | － | － | 20(m3/h.人) | 0(次/h) | 50(㎡/人) | 0(W/㎡) | 0(W/㎡) |
| 目录室 | 26 | 20 | 30(m3/h.人) | 0(次/h) | 10(㎡/人) | 8(W/㎡) | 13(W/㎡) |
| 空房间 | － | － | 20(m3/h.人) | 0(次/h) | 50(㎡/人) | 0(W/㎡) | 0(W/㎡) |
| 设备间 | － | － | 0(m3/h.人) | 0(次/h) | 0(人) | 5(W/㎡) | 0(W/㎡) |
| 走廊 | 26 | 20 | 30(m3/h.人) | 0(次/h) | 20(㎡/人) | 8(W/㎡) | 0(W/㎡) |
| 阅览室 | 26 | 20 | 30(m3/h.人) | 0(次/h) | 2.5(㎡/人) | 8(W/㎡) | 5(W/㎡) |

## 作息时间表

详见附录

# 暖通空调系统

## 系统类型

### 系统分区

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 系统编号 | 系统类型 | 制冷SEER | 制热HSPF | 面积(㎡) | 包含的房间 |
| 默认 | 单元式房间空调器 | 7.00 | 3.00 | 7491.77 | 所有房间 |

### 热回收参数

|  |  |  |  |
| --- | --- | --- | --- |
| 系统编号 | 热回收 | 供冷 | 供暖 |
| 回收效率 | 启动温(焓)差 | 回收效率 | 启动温(焓)差 |
| 默认 | 无 | － | － | － | － |

## 制冷系统

### 多联机/单元式空调能耗

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 系统编号 | 制冷SEER | 耗冷量(kWh/a) | 耗电量(kWh/a) | 碳排放因子(kgCO2/kWh) | 碳排放量(tCO2/a) |
| 默认 | 7.00 | 333534 | 47648 | 0.5257 | 25.048 |

## 供暖系统

### 多联机/单元式热泵能耗

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 系统编号 | 制热HSPF | 耗热量(kWh/a) | 耗电量(kWh/a) | 碳排放因子(kgCO2/kWh) | 碳排放量(tCO2/a) |
| 默认 | 3.00 | 156776 | 52259 | 0.5257 | 27.472 |

## 空调风机

|  |  |  |  |
| --- | --- | --- | --- |
| 类别 | 电耗(kWh/a) | 碳排放因子(kgCO2/kWh) | 碳排放量(tCO2/a) |
| 独立新排风 | 20365 | 0.5257 | 10.706 |
| 风机盘管 | 0 | 0.000 |
| 全空气机组 | 0 | 0.0000 |
| 合计 | 10.706 |

# 照明

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 房间类型 | 单位面积电耗(kWh/㎡.a) | 房间个数 | 房间合计面积(㎡) | 合计电耗(kWh/a) | 碳排放因子(kgCO2/kWh) | 碳排放量(tCO2/a) |
| 书库 | 24.00 | 5 | 1602 | 38440 | 0.5257 | 20.208 |
| 卫生间 | 24.00 | 20 | 368 | 8840 | 4.647 |
| 开架书库 | 24.00 | 2 | 583 | 13986 | 7.353 |
| 楼梯间 | 0.00 | 17 | 518 | 0 | 0.000 |
| 目录室 | 24.00 | 21 | 3129 | 75093 | 39.476 |
| 空房间 | 0.00 | 1 | 1036 | 0 | 0.000 |
| 设备间 | 0.00 | 29 | 368 | 0 | 0.000 |
| 走廊 | 2.60 | 6 | 551 | 1433 | 0.754 |
| 阅览室 | 18.04 | 4 | 1563 | 28198 | 14.824 |
| 总计 | 87.262 |

# 排风机

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 额定功率(kW) | 台数 | 使用系数 | 运行时间(h/天) | 年运行天数 | 全年电耗(kWh/a) | 碳排放因子(kgCO2/kWh) | 碳排放量(tCO2/a) |
| 5 | 1 | 0.8 | 5 | 365 | 7300 | 0.5257 | 3.838 |
| 总计 | 3.838 |

注：此类风机指非空调区域排风机

# 电梯

## 直梯

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 名称 | 特定能量消耗(mWh/kgm) | 额定载重量(kg) | 速度(m/s) | 待机功率(W) | 运行时长(h/天) | 年运行天数 | 数量 | 全年电耗(kWh) |
| 直梯1 | 1.26 | 1350 | 1.75 | 200 | 1.5 | 365 | 5 | 37548 |
| 总计 | 37548 |

## 电梯碳排放

|  |  |  |  |
| --- | --- | --- | --- |
| 电梯 | 电耗(kWh/a) | 碳排放因子(kgCO2/kWh) | 碳排放量(tCO2/a) |
| 直梯1 | 37548 | 0.5257 | 19.739 |
| 合计 | 19.739 |

# 风力发电

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 地形 | 叶片直径(m) | 叶片离地高度(m) | 年可利用平均风速(m/s) | 转换效率 | 台数 | 年供电(kWh/a) | 可减少碳排放量(tCO2/a) |
| 有护栏的农村,临时的农村建筑、房屋 | 54 | 65 | 5 | 0.35 | 1 | 163 | 0.086 |
| 总计 | 0.086 |

# 计算结果

## 建材生产运输碳排放

### 建材生产阶段

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 材料 | 单位 | 用量 | 拆除后回收比例 | 寿命(年) | 碳排放因子(kgCO2e/单位) | 碳排放量(tCO2e) |
| 水泥 | t | 466.00 | 0.179 | 全生命周期 | 977 | 414.534 |
| 石灰 | t | 760.00 | 0.179 | 全生命周期 | 1750 | 1210.965 |
| 商品混凝土C30 | t | 3719.00 | 0.179 | 全生命周期 | 126 | 426.655 |
| 钢管 | t | 68.00 | 0.179 | 全生命周期 | 2200 | 136.211 |
| 防水涂料 | t | 10.00 | 0.179 | 全生命周期 | 6550 | 59.638 |
| 砾石 | t | 1963.00 | 0.179 | 全生命周期 | 6.4 | 11.439 |
| 烧结煤粉灰实心砖 | m3 | 790.00 | 0.179 | 全生命周期 | 134 | 96.386 |
| 陶瓷地面砖 | t | 400.00 | 0.179 | 全生命周期 | 1070 | 389.694 |
| 丙级防火门 | m2 | 40.00 | 0.179 | 全生命周期 | 35.1 | 1.278 |
| 挤塑聚苯板 | m3 | 4.00 | 0.179 | 20 | 669 | 7.309 |
| 合计 | 2754.109 |

### 建材运输阶段

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 材料 | 重量(t) | 运输距离(km) | 寿命(年) | 碳排放因子(kgCO2e/t·km) | 碳排放量(tCO2e) |
| 水泥 | 466.00 | 40 | 全生命周期 | 0.115 | 2.144 |
| 石灰 | 760.00 | 500 | 全生命周期 | 0.115 | 43.700 |
| 商品混凝土C30 | 3719.00 | 500 | 全生命周期 | 0.115 | 213.843 |
| 钢管 | 68.00 | 500 | 全生命周期 | 0.115 | 3.910 |
| 防水涂料 | 10.00 | 500 | 全生命周期 | 0.115 | 0.575 |
| 砾石 | 1963.00 | 500 | 全生命周期 | 0.115 | 112.873 |
| 烧结煤粉灰实心砖 | 790.00 | 500 | 全生命周期 | 0.115 | 45.425 |
| 陶瓷地面砖 | 400.00 | 500 | 全生命周期 | 0.115 | 23.000 |
| 丙级防火门 | 40.00 | 500 | 全生命周期 | 0.115 | 2.300 |
| 挤塑聚苯板 | 4.00 | 500 | 20 | 0.115 | 0.690 |
| 总计 | 448.460 |

## 建筑建造拆除碳排放

### 建筑建造

|  |  |  |  |
| --- | --- | --- | --- |
| 阶段 | 物化阶段（建材生产运输、建筑建造） | 建造占物化阶段比例 | 碳排放量(tCO2) |
| 建造阶段 | 3371.126 | 0.05 | 160.530 |
| 施工临时设施 | 碳排放占施工机械碳排放的比例：0.05 | 8.027 |
|  | 168.556 |

### 建筑拆除

根据广东省《建筑碳排放计算导则（试行）》，建议粗略估算拆除阶段的碳排放，计算方法与建造阶段公式一致即可，公式如下：

Y = X + 1.99

其中X 为地上层数，Y 为单位面积的碳排放量，单位为：kgCO2/㎡,

则拆除阶段碳排放估算值 Ccc=Y×A, 其中A——建筑总面积，㎡。

|  |  |  |  |
| --- | --- | --- | --- |
| 建筑面积(㎡) | 地上层数 | 单位面积碳排放量(kgCO2/㎡) | 拆除碳排放量(tCO2) |
| 11434.05 | 5 | 6.99 | 79.924 |

## 碳汇

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 绿植 | 生长期修正因子 | CO2固定量(kg/㎡·a) | 面积(㎡) | 年数 | 碳固定量(tCO2) |
| 休闲绿地 | 1 | 2.9628 | 11000 | 50 | 1629.540 |
| 道路绿地 | 1 | 3.4127 | 617 | 105.282 |
| 合计 | 1734.822 |

## 建筑运行碳排放

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 电力 | 类别 | 耗电 (kWh/㎡) | 碳排放因子(kgCO2/kWh) | 碳排放量(tCO2) |
| 供冷(Ec) | 中央冷源 | 0.00 | 0.5257 | 1252.421 |
|  | 冷却水泵 | 0.00 |  |  |
|  | 冷冻水泵 | 0.00 |  |  |
|  | 冷却塔 | 0.00 |  |  |
|  | 多联机/单元式空调 | 208.36 |  |  |
|  | 供冷合计 | 208.36 |  |  |
| 供暖(Eh) | 中央热源 | 0.00 | 0.5257 | 1373.624 |
|  | 供暖水泵 | 0.00 |  |  |
|  | 热源侧水泵 | 0.00 |  |  |
|  | 多联机/单元式热泵 | 228.52 |  |  |
|  | 供暖合计 | 228.52 |  |  |
| 空调风机(Ef) | 新排风 | 89.06 | 0.5257 | 535.329 |
|  | 风机盘管 | 0.00 |  |  |
|  | 全空气系统 | 0.00 |  |  |
|  | 风机合计 | 89.06 |  |  |
| 照明 | 725.86 | 0.5257 | 4363.081 |
| 其他(Eo) | 电梯 | 164.19 | 0.5257 | 1178.842 |
|  | 排风机 | 31.92 |  |  |
|  | 生活热水(扣减了太阳能) | 0.00 |  |  |
|  | 其他设备 | 0.00 |  |  |
|  | 合计 | 196.12 |  |  |
| 其他 | 所属类别 | 消耗量(kg) | 碳排放量(tCO2) |
| 制冷剂 | 供冷 | 0 | 0.000 |
| 可再生 | 类别 | 供电(kWh/㎡) | 碳排放因子(kgCO2/kWh) | 碳减排量(tCO2) |
| 可再生能源(Er) | 光伏(Ep) | 0.00 | 0.5257 | 0.000 |
|  | 风力(Ew) | 0.71 |  | 4.286 |
| 建筑运行碳排放合计 | 8699.005 |

## 全生命周期

### 单位面积指标

|  |  |  |
| --- | --- | --- |
| 类别 | 年碳排放量(kgCO2/㎡·a) | 碳排放量(kgCO2/㎡) |
| 建筑材料生产 | 4.82 | 240.87 |
| 建筑材料运输 | 0.78 | 39.22 |
| 建筑建造 | 0.29 | 14.74 |
| 建筑拆除 | 0.14 | 6.99 |
| 建筑运行 | 15.22 | 760.80 |
| 碳汇 | -3.03 | -151.72 |
| 合计 | 18.22 | 910.90 |

### 总碳排放量

|  |  |  |
| --- | --- | --- |
| 类别 | 年碳排放量(tCO2/a) | 碳排放量(tCO2) |
| 建筑材料生产 | 55.082 | 2754.109 |
| 建筑材料运输 | 8.969 | 448.460 |
| 建筑建造 | 3.372 | 168.557 |
| 建筑拆除 | 1.598 | 79.924 |
| 建筑运行 | 173.980 | 8699.005 |
| 碳汇 | -34.696 | -1734.822 |
| 合计 | 208.305 | 10415.233 |





# 附录

## 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 |
| 书库 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 0 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 开架书库 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 20 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 目录室 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 |
| 设备间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 0 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 0 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 |
| 书库 | 0 | 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 |
| 卫生间 | 0 | 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 |
| 开架书库 | 0 | 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 |
| 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 |
| 目录室 | 0 | 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 |
| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 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 | 0 | 0 | 0 | 0 | 0 |
| 阅览室 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 |
| 书库 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 0 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 开架书库 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 30 | 50 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 70 | 50 | 0 | 0 | 0 |
| 目录室 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 |
| 设备间 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 0 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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)

采暖期：

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 0 | 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 |

供冷期：

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 0 | 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(%)

采暖期：

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 0 | 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 |

供冷期：

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 0 | 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