**建筑节能设计报告书**

公共建筑－综合权衡

甲类

|  |  |
| --- | --- |
| 工程名称 | 广州大学演艺中心 |
| 工程地点 | 广东-广州 |
| 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 | 2020年12月27日 |



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# 建筑概况

|  |  |
| --- | --- |
| 工程名称 | 广州大学演艺中心 |
| 工程地点 | 广东-广州 |
| 地理位置 | 北纬：23.08° | 东经：113.14° |
| 建筑面积 | 地上12911㎡ 地下0㎡ |
| 建筑层数 | 地上3 地下0 |
| 建筑高度 | 18.3m |
| 建筑（节能计算）体积 | 80942.26 |
| 建筑（节能计算）外表面积 | 17737.62 |
| 北向角度 | 180 |
| 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. 《公共建筑节能设计标准》(GB50189-2015)

2. 《民用建筑热工设计规范》(GB50176)

3. 《建筑外门窗气密，水密，抗风压性能分级及检测方法》（GB/T 7106-2008）

4. 《建筑幕墙》（GB/T 21086-2007）

# 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 | 备注 |
| 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 | 来源：《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 | 来源：《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 | 来源：《民用建筑热工设计规范》GB50176-2016 |
| 挤塑聚苯乙烯泡沫塑料（带表皮） | 0.030 | 0.340 | 35.0 | 1380.0 | 0.0000 | 来源：《民用建筑热工设计规范》GB50176-2016，蒸汽渗透系数没有给出 |
| 陶粒混凝土空心砖墙 | 0.480 | 6.492 | 1150.0 | 1050.0 | 0.0000 |  |
| 防水卷材 | 0.230 | 9.370 | 900.0 | 1620.0 | 0.0000 |  |
| C20细石混凝土(ρ=2300) | 1.510 | 15.243 | 2300.0 | 920.0 | 0.0000 |  |
| 挤塑聚苯板 | 0.033 | 0.347 | 28.0 | 1790.0 | 0.0000 |  |
| 粉煤灰陶粒混凝土(ρ=1700) | 0.950 | 11.105 | 1700.0 | 1050.0 | 0.0000 |  |
| 空心砖(ρ=1500) | 0.640 | 8.014 | 1500.0 | 920.0 | 0.0000 | 建筑材料手册（第四版） |

# 围护结构作法简要说明

**1. 屋顶构造：**屋顶构造一：（由上到下）

 C20细石混凝土(ρ=2300) 40mm＋水泥砂浆 20mm＋防水卷材 4mm＋水泥砂浆 20mm＋粉煤灰陶粒混凝土(ρ=1700) 80mm＋挤塑聚苯板 30mm＋钢筋混凝土 120mm

**2. 外墙：**外墙构造一：（由外到内）

 水泥砂浆 20mm＋空心砖(ρ=1500) 240mm＋陶粒混凝土空心砖墙 190mm＋水泥砂浆 20mm

**3. 屋顶：**屋顶构造一：（由上到下）

 C20细石混凝土(ρ=2300) 40mm＋水泥砂浆 20mm＋防水卷材 4mm＋水泥砂浆 20mm＋粉煤灰陶粒混凝土(ρ=1700) 80mm＋挤塑聚苯板 30mm＋钢筋混凝土 120mm

**4. 挑空楼板构造：**挑空楼板构造一：（由上到下）

 水泥砂浆 20mm＋钢筋混凝土 120mm＋水泥砂浆 20mm＋挤塑聚苯乙烯泡沫塑料（带表皮） 20mm＋水泥砂浆 20mm

**5. 外窗：**12A钢铝单框双玻窗（平均）：

 传热系数3.900W/m^2.K，自身遮阳系数0.750

**6. 幕墙：**普通铝合金窗+Low-E中空玻璃：

 传热系数3.500W/m^2.K，自身遮阳系数0.300

**7. 天窗：**普通铝合金窗+Low-E中空玻璃：

 传热系数3.500W/m^2.K，自身遮阳系数0.300

# 体形系数

|  |  |
| --- | --- |
| 外表面积 | 17737.62 |
| 建筑体积 | 80942.26 |
| 体形系数 | 0.22 |

# 窗墙比

## 窗墙比

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 朝向 | 立面 | 窗面积(㎡) | 墙面积(㎡) | 窗墙比 |
| 南向 | 立面3 | 350.10 | 1847.71 | 0.19 |
| 北向 | 立面4 | 835.87 | 2316.06 | 0.36 |
| 东向 | 立面1 | 695.80 | 2439.94 | 0.29 |
| 西向 | 立面2 | 493.22 | 3002.00 | 0.16 |
| 平均 |  | 2375.00 | 9605.71 | 0.25 |

## 外窗表

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 朝向 | 编号 | 尺寸 | 楼层 | 数量 | 单个面积（㎡） | 合计面积（㎡） |
| 南向350.10 |  | 3.15×4.90 | 1 | 1 | 15.42 | 15.42 |
|  | 0.40×4.90 | 1 | 1 | 1.95 | 1.95 |
|  | 2.10×0.90 | 1 | 2 | 1.89 | 3.78 |
|  | 2.10×0.70 | 1 | 2 | 1.47 | 2.94 |
|  | 0.56×4.90 | 1 | 1 | 2.75 | 2.75 |
|  | 1.50×2.70 | 1,3~4 | 4 | 4.05 | 16.20 |
|  | 0.07×4.90 | 1 | 1 | 0.36 | 0.36 |
|  | 0.89×4.90 | 1 | 1 | 4.34 | 4.34 |
|  | 1.08×4.90 | 1 | 1 | 5.27 | 5.27 |
|  | 0.88×4.50 | 3~4 | 8 | 3.96 | 31.72 |
|  | 1.50×0.90 | 3~4 | 6 | 1.35 | 8.10 |
|  | 1.50×0.60 | 3~4 | 6 | 0.90 | 5.40 |
|  | 0.07×4.50 | 3~4 | 2 | 0.32 | 0.65 |
|  | 1.72×4.50 | 3~4 | 4 | 7.75 | 31.00 |
|  | 0.75×0.90 | 3~4 | 4 | 0.68 | 2.70 |
|  | 0.75×0.60 | 3~4 | 4 | 0.45 | 1.80 |
| C0923 | 0.90×2.30 | 1 | 1 | 2.07 | 2.07 |
| C0923 | 0.90×2.30 | 1~2 | 2 | 2.07 | 4.14 |
| C0923 | 0.90×2.30 | 1~2 | 6 | 2.07 | 12.42 |
| C0923 | 0.90×2.30 | 1 | 1 | 2.07 | 2.07 |
| C0923 | 0.90×2.30 | 1 | 1 | 2.07 | 2.07 |
| C0923 | 0.90×2.30 | 1 | 1 | 2.07 | 2.07 |
| C0923 | 0.90×2.30 | 1 | 1 | 2.07 | 2.07 |
| C0923 | 0.90×2.29 | 1 | 1 | 2.07 | 2.07 |
| C0923 | 0.90×2.30 | 1~2 | 2 | 2.07 | 4.14 |
| C0923 | 0.90×2.30 | 1 | 1 | 2.07 | 2.07 |
| C0923 | 0.90×2.30 | 2 | 1 | 2.07 | 2.07 |
| C0923 | 0.90×2.30 | 2 | 1 | 2.07 | 2.07 |
| C0923 | 0.90×2.30 | 2 | 1 | 2.07 | 2.07 |
| C0923 | 0.90×2.30 | 2 | 1 | 2.07 | 2.07 |
| C0923 | 0.90×2.30 | 2 | 1 | 2.07 | 2.07 |
| C0923 | 0.90×2.30 | 2 | 1 | 2.07 | 2.07 |
| C0923 | 0.90×2.30 | 2 | 1 | 2.07 | 2.07 |
| C1010 | 1.00×1.00 | 4 | 3 | 1.00 | 3.00 |
| C1223 | 1.20×2.30 | 1 | 1 | 2.76 | 2.76 |
| C1223 | 1.20×2.30 | 2 | 1 | 2.76 | 2.76 |
| C2006 | 2.00×0.60 | 1 | 1 | 1.20 | 1.20 |
| C2020 | 2.00×2.00 | 1,3~4 | 24 | 4.00 | 96.00 |
| C2020 | 2.00×2.00 | 2 | 1 | 4.00 | 4.00 |
| C2020 | 2.00×2.00 | 2 | 1 | 4.00 | 4.00 |
| C2510 | 2.50×1.00 | 1 | 1 | 2.50 | 2.50 |
| HC1530 | 1.50×3.00 | 3~4 | 6 | 4.50 | 27.00 |
| HC1530 | 0.75×3.00 | 3~4 | 4 | 2.25 | 9.00 |
| HC2133 | 2.10×3.30 | 1 | 2 | 6.93 | 13.86 |
| 北向835.87 |  | 0.49×6.30 | 1 | 1 | 3.11 | 3.11 |
|  | 2.10×0.90 | 1 | 2 | 1.89 | 3.78 |
|  | 2.10×1.20 | 1 | 2 | 2.52 | 5.04 |
|  | 1.00×6.30 | 1 | 1 | 6.33 | 6.33 |
|  | 0.49×6.30 | 1 | 1 | 3.10 | 3.10 |
|  | 0.37×6.30 | 1 | 2 | 2.32 | 4.65 |
|  | 2.10×0.90 | 1,3~4 | 9 | 1.89 | 17.01 |
|  | 2.10×1.20 | 1 | 2 | 2.52 | 5.04 |
|  | 1.79×6.30 | 1 | 2 | 11.28 | 22.55 |
|  | 4.26×6.30 | 1 | 2 | 26.83 | 53.66 |
|  | 1.32×6.30 | 1 | 1 | 8.30 | 8.30 |
|  | 1.50×4.10 | 1 | 3 | 6.15 | 18.45 |
|  | 1.52×6.30 | 1 | 1 | 9.56 | 9.56 |
|  | 0.84×6.30 | 1 | 1 | 5.26 | 5.26 |
|  | 1.04×6.30 | 1 | 1 | 6.53 | 6.53 |
|  | 0.22×6.30 | 1 | 1 | 1.39 | 1.39 |
|  | 2.10×2.10 | 1 | 1 | 4.41 | 4.41 |
|  | 0.99×6.30 | 1 | 1 | 6.21 | 6.21 |
|  | 0.79×6.30 | 1 | 1 | 4.95 | 4.95 |
|  | 1.24×4.50 | 3 | 1 | 5.56 | 5.56 |
|  | 2.10×0.30 | 3~4 | 6 | 0.63 | 3.78 |
|  | 0.53×4.50 | 3 | 1 | 2.39 | 2.39 |
|  | 0.69×4.50 | 3 | 1 | 3.09 | 3.09 |
|  | 0.95×4.50 | 3 | 1 | 4.25 | 4.25 |
|  | 0.92×4.50 | 3 | 1 | 4.16 | 4.16 |
|  | 0.57×4.50 | 3 | 1 | 2.57 | 2.57 |
|  | 0.71×4.50 | 4 | 4 | 3.20 | 12.80 |
|  | 1.90×0.60 | 4 | 2 | 1.14 | 2.28 |
|  | 1.90×1.15 | 4 | 2 | 2.19 | 4.37 |
|  | 0.81×4.50 | 4 | 1 | 3.62 | 3.62 |
|  | 1.00×4.50 | 4 | 1 | 4.51 | 4.51 |
|  | 0.64×4.50 | 4 | 1 | 2.89 | 2.89 |
| 1927 | 1.90×2.75 | 3 | 4 | 5.22 | 20.88 |
| 1927 | 1.90×2.75 | 3 | 2 | 5.22 | 10.45 |
| 1927 | 1.95×2.75 | 3 | 2 | 5.36 | 10.72 |
| 1927 | 1.90×2.75 | 3 | 3 | 5.22 | 15.67 |
| 1927 | 1.90×2.75 | 3 | 3 | 5.22 | 15.66 |
| 1927 | 1.90×2.75 | 3 | 1 | 5.22 | 5.22 |
| 1927 | 1.90×2.75 | 3 | 2 | 5.22 | 10.44 |
| 1927 | 1.90×2.75 | 3 | 2 | 5.22 | 10.45 |
| 1927 | 1.90×2.75 | 3 | 2 | 5.22 | 10.44 |
| 1927 | 0.38×2.75 | 3 | 2 | 1.06 | 2.11 |
| 1927 | 1.51×2.75 | 3 | 2 | 4.16 | 8.32 |
| 1927 | 1.90×2.75 | 3 | 2 | 5.22 | 10.45 |
| C1928 | 1.90×2.75 | 4 | 7 | 5.23 | 36.58 |
| C1928 | 1.90×2.75 | 4 | 11 | 5.23 | 57.48 |
| C1928 | 1.90×2.75 | 4 | 11 | 5.23 | 57.48 |
| C2020 | 2.00×2.00 | 3~4 | 2 | 4.00 | 8.00 |
| C6443 | 6.46×4.30 | 1 | 3 | 27.79 | 83.36 |
| C6443 | 6.46×4.30 | 1 | 2 | 27.79 | 55.57 |
| C6443 | 6.46×4.30 | 1 | 1 | 27.79 | 27.79 |
| HC2133 | 2.10×3.30 | 1,3~4 | 5 | 6.93 | 34.65 |
| HC2133 | 2.10×3.30 | 3 | 2 | 6.93 | 13.86 |
| HC2142 | 2.10×4.20 | 1 | 4 | 8.82 | 35.28 |
| HC7222 | 7.19×2.20 | 1 | 1 | 15.82 | 15.82 |
| HC7422 | 7.39×2.20 | 1 | 1 | 16.26 | 16.26 |
| HC7922 | 7.89×2.20 | 1 | 1 | 17.35 | 17.35 |
| 东向695.80 |  | 0.20×6.30 | 1 | 8 | 1.26 | 10.08 |
|  | 1.50×4.10 | 1 | 4 | 6.15 | 24.60 |
|  | 0.55×6.30 | 1 | 1 | 3.47 | 3.47 |
|  | 0.33×6.30 | 1 | 1 | 2.10 | 2.10 |
|  | 1.20×6.30 | 1 | 1 | 7.55 | 7.55 |
|  | 8.44×6.30 | 1 | 1 | 53.14 | 53.14 |
|  | 1.40×6.30 | 1 | 1 | 8.84 | 8.84 |
|  | 2.10×0.90 | 1,3 | 5 | 1.89 | 9.45 |
|  | 2.10×1.20 | 1 | 1 | 2.52 | 2.52 |
|  | 4.93×6.30 | 1 | 1 | 31.07 | 31.07 |
|  | 0.69×6.30 | 1 | 2 | 4.37 | 8.73 |
|  | 2.10×4.20 | 1 | 7 | 8.82 | 61.74 |
|  | 1.39×6.30 | 1 | 5 | 8.73 | 43.66 |
|  | 1.39×6.30 | 1 | 1 | 8.73 | 8.73 |
|  | 1.25×6.30 | 1 | 2 | 7.88 | 15.75 |
|  | 0.85×6.30 | 1 | 1 | 5.37 | 5.37 |
|  | 2.10×2.10 | 1 | 2 | 4.41 | 8.82 |
|  | 0.73×6.30 | 1 | 1 | 4.59 | 4.59 |
|  | 0.86×6.30 | 1 | 1 | 5.41 | 5.41 |
|  | 0.88×4.50 | 3~4 | 4 | 3.96 | 15.86 |
|  | 1.50×0.90 | 3~4 | 4 | 1.35 | 5.40 |
|  | 1.50×0.60 | 3~4 | 4 | 0.90 | 3.60 |
|  | 0.07×4.50 | 3~4 | 2 | 0.32 | 0.65 |
|  | 0.90×4.50 | 3~4 | 2 | 4.05 | 8.10 |
|  | 1.00×4.50 | 3~4 | 4 | 4.50 | 18.00 |
|  | 2.00×0.90 | 3~4 | 2 | 1.80 | 3.60 |
|  | 2.00×2.60 | 3~4 | 2 | 5.20 | 10.40 |
|  | 0.68×4.50 | 3 | 1 | 3.08 | 3.08 |
|  | 2.10×0.30 | 3 | 2 | 0.63 | 1.26 |
|  | 1.00×4.50 | 3 | 1 | 4.48 | 4.48 |
|  | 0.76×4.50 | 3 | 1 | 3.42 | 3.42 |
| 1927 | 1.90×2.75 | 3 | 1 | 5.22 | 5.22 |
| 1927 | 1.90×2.75 | 3 | 1 | 5.22 | 5.22 |
| 1927 | 1.90×2.75 | 3 | 1 | 5.22 | 5.22 |
| 1927 | 1.90×2.75 | 3 | 1 | 5.22 | 5.22 |
| 1927 | 1.90×2.75 | 3 | 1 | 5.22 | 5.22 |
| 1927 | 1.90×2.75 | 3 | 1 | 5.22 | 5.22 |
| 1927 | 1.90×2.75 | 3 | 1 | 5.22 | 5.22 |
| 1927 | 0.96×2.75 | 3 | 1 | 2.63 | 2.63 |
| 1927 | 0.94×2.75 | 3 | 1 | 2.58 | 2.58 |
| 1927 | 1.90×2.75 | 3 | 1 | 5.22 | 5.22 |
| 1927 | 1.90×2.75 | 3 | 1 | 5.22 | 5.22 |
| 1927 | 1.90×2.75 | 3 | 1 | 5.22 | 5.22 |
| 1927 | 1.90×2.75 | 3 | 1 | 5.22 | 5.22 |
| 1944 | 1.90×4.40 | 4 | 2 | 8.36 | 16.72 |
| C0923 | 0.90×2.30 | 4 | 2 | 2.07 | 4.14 |
| C1928 | 1.90×2.75 | 4 | 6 | 5.23 | 31.35 |
| C2010 | 2.00×1.00 | 3~4 | 2 | 2.00 | 4.00 |
| C2020 | 2.00×2.00 | 1,3~4 | 9 | 4.00 | 36.00 |
| C2115 | 2.10×1.50 | 1 | 7 | 3.15 | 22.05 |
| C2844 | 2.87×4.40 | 1 | 1 | 12.65 | 12.65 |
| C3006 | 3.00×0.60 | 1,3~4 | 7 | 1.80 | 12.60 |
| C4043 | 4.04×4.30 | 1 | 1 | 17.35 | 17.35 |
| C6543 | 6.58×4.30 | 1 | 1 | 28.31 | 28.31 |
| HC1530 | 1.50×3.00 | 3~4 | 4 | 4.50 | 18.00 |
| HC2133 | 2.10×3.30 | 1,3 | 4 | 6.93 | 27.72 |
| HC2142 | 2.10×4.20 | 1 | 1 | 8.82 | 8.82 |
| 西向493.22 |  | 2.16×6.30 | 1 | 1 | 13.60 | 13.60 |
|  | 2.10×0.90 | 1 | 10 | 1.89 | 18.90 |
|  | 2.10×1.20 | 1 | 10 | 2.52 | 25.20 |
|  | 0.64×6.30 | 1 | 1 | 4.01 | 4.01 |
|  | 0.37×6.30 | 1 | 1 | 2.34 | 2.34 |
|  | 0.32×6.30 | 1 | 1 | 2.00 | 2.00 |
|  | 0.21×6.30 | 1 | 1 | 1.32 | 1.32 |
|  | 0.54×6.30 | 1 | 1 | 3.37 | 3.37 |
|  | 1.50×4.10 | 1 | 5 | 6.15 | 30.75 |
|  | 0.07×6.30 | 1 | 1 | 0.47 | 0.47 |
|  | 0.06×6.30 | 1 | 1 | 0.38 | 0.38 |
|  | 0.05×6.30 | 1 | 1 | 0.28 | 0.28 |
|  | 0.03×6.30 | 1 | 1 | 0.18 | 0.18 |
|  | 0.43×6.30 | 1 | 1 | 2.72 | 2.72 |
|  | 0.95×6.30 | 1 | 1 | 5.97 | 5.97 |
|  | 0.45×6.30 | 1 | 1 | 2.83 | 2.83 |
|  | 3.01×6.30 | 1 | 1 | 18.94 | 18.94 |
|  | 2.10×0.90 | 1 | 1 | 1.89 | 1.89 |
|  | 2.10×1.20 | 1 | 1 | 2.52 | 2.52 |
|  | 0.60×6.30 | 1 | 1 | 3.81 | 3.81 |
|  | 1.05×0.90 | 1 | 1 | 0.95 | 0.95 |
|  | 1.05×1.20 | 1 | 1 | 1.26 | 1.26 |
|  | 1.05×0.90 | 1 | 3 | 0.95 | 2.84 |
|  | 1.05×1.20 | 1 | 3 | 1.26 | 3.78 |
|  | 3.31×6.30 | 1 | 2 | 20.85 | 41.71 |
|  | 0.30×6.30 | 1 | 2 | 1.90 | 3.79 |
|  | 0.60×6.30 | 1 | 1 | 3.81 | 3.81 |
|  | 3.01×6.30 | 1 | 1 | 18.94 | 18.94 |
| C0912 | 0.90×1.20 | 4 | 1 | 1.08 | 1.08 |
| C0923 | 0.90×2.30 | 1~2 | 2 | 2.07 | 4.14 |
| C1010 | 1.00×1.00 | 4 | 11 | 1.00 | 11.00 |
| C1010 | 1.00×1.00 | 4 | 2 | 1.00 | 2.00 |
| C1510 | 1.50×1.00 | 3 | 1 | 1.50 | 1.50 |
| C2006 | 2.00×0.60 | 1~3 | 11 | 1.20 | 13.20 |
| C2010 | 2.00×1.00 | 3 | 1 | 2.00 | 2.00 |
| C2010 | 2.00×1.00 | 4 | 2 | 2.00 | 4.00 |
| C2020 | 2.00×2.00 | 3~4 | 7 | 4.00 | 28.00 |
| C2020 | 2.00×2.00 | 4 | 1 | 4.00 | 4.00 |
| C2142 | 2.10×4.20 | 1 | 7 | 8.82 | 61.74 |
| C2510 | 2.50×1.00 | 1 | 1 | 2.50 | 2.50 |
| C2510 | 2.50×1.00 | 1 | 1 | 2.50 | 2.50 |
| C2510 | 2.50×1.00 | 1 | 1 | 2.50 | 2.50 |
| C2510 | 2.50×1.00 | 1 | 1 | 2.50 | 2.50 |
| C2510 | 2.50×1.00 | 1 | 1 | 2.50 | 2.50 |
| C2510 | 2.50×1.00 | 1 | 1 | 2.50 | 2.50 |
| C3010 | 3.00×1.00 | 3 | 1 | 3.00 | 3.00 |
| C7424 | 7.49×2.45 | 3 | 1 | 18.34 | 18.34 |
| C7424 | 7.49×2.45 | 4 | 1 | 18.34 | 18.34 |
| C7427 | 7.49×2.75 | 1 | 1 | 20.59 | 20.59 |
| HC2133 | 2.09×3.30 | 1 | 1 | 6.91 | 6.91 |
| HC2133 | 2.10×3.30 | 1 | 1 | 6.92 | 6.92 |
| HC2142 | 2.10×4.20 | 1 | 4 | 8.82 | 35.28 |
| HC2142 | 1.05×4.20 | 1 | 4 | 4.41 | 17.64 |

# 可见光透射比

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 朝向 | 立面 | 窗墙比 | 最不利窗编号 | 最不利透射比 | 透射比限值 |
| 南向 | 立面3 | 0.19 |  | 0.62 | 0.60 |
| 北向 | 立面4 | 0.36 |  | 0.62 | 0.60 |
| 东向 | 立面1 | 0.29 |  | 0.62 | 0.60 |
| 西向 | 立面2 | 0.16 |  | 0.62 | 0.60 |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.2.4条 |
| 标准要求 | 当窗墙面积比小于0.40时，玻璃的可见光透射比不应当小于0.6;当窗墙面积比大于等于0.40时，玻璃的可见光透射比不应当小于0.4; |
| 结论 | 满足 |

# 天窗

## 天窗屋顶比

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 房间 | 天窗编号 | 天窗面积（㎡） | 屋顶面积（㎡） | 面积比 |
| 4018 | 1,1,1,1,1,1, | 43.51 | 116.48 | 0.37 |
| 4024 | 1,1, | 2.25 | 8.26 | 0.27 |
| 4028 | 1, | 2.70 | 8.64 | 0.31 |
| 4033 | 1,1, | 2.08 | 8.26 | 0.25 |
| 4036 | 1, | 2.88 | 8.64 | 0.33 |
| 4044 | 1, | 1.03 | 9.54 | 0.11 |
| 4045 | 1,1, | 1.98 | 8.26 | 0.24 |
| 4046 | 1, | 2.80 | 8.64 | 0.32 |
| 4050 | 1,1, | 2.22 | 8.64 | 0.26 |
| 4051 | 1,1, | 1.74 | 8.26 | 0.21 |
| 4052 | 1,1, | 1.05 | 9.54 | 0.11 |
| 4057 | 1, | 2.84 | 8.64 | 0.33 |
| 4058 | 1,1, | 1.92 | 8.26 | 0.23 |
| 4059 | 1, | 0.98 | 9.54 | 0.10 |
| 4060 | 1, | 2.92 | 8.64 | 0.34 |
| 4064 | 1,1, | 1.91 | 8.26 | 0.23 |
| 4065 | 1, | 0.87 | 9.54 | 0.09 |
| 4066 | 1, | 2.74 | 8.64 | 0.32 |
| 4067 | 1,1, | 1.95 | 8.26 | 0.24 |
| 4069 | 1, | 1.10 | 9.54 | 0.12 |
| 4072 | 1, | 0.03 | 9.54 | 0.00 |
| 4078 | 1,1,1,1, | 33.57 | 72.85 | 0.46 |
| 4083 | 1, | 2.12 | 7.16 | 0.30 |
| 4085 | 1, | 2.22 | 7.16 | 0.31 |
| 4086 | 1, | 0.06 | 7.91 | 0.01 |
| 4088 | 1,1, | 1.22 | 6.85 | 0.18 |
| 4090 | 1, | 2.17 | 7.16 | 0.30 |
| 4091 | 1, | 1.21 | 7.91 | 0.15 |
| 4092 | 1,1, | 1.13 | 6.85 | 0.17 |
| 4097 | 1,1, | 1.95 | 7.16 | 0.27 |
| 4098 | 1,1, | 1.17 | 6.85 | 0.17 |
| 4099 | 1, | 1.08 | 7.91 | 0.14 |
| 4100 | 1, | 2.31 | 7.16 | 0.32 |
| 4103 | 1,1, | 1.10 | 6.85 | 0.16 |
| 4104 | 1, | 1.14 | 7.91 | 0.14 |
| 4105 | 1, | 2.36 | 7.16 | 0.33 |
| 4106 | 1,1, | 1.03 | 6.85 | 0.15 |
| 4108 | 1, | 1.90 | 7.16 | 0.27 |
| 4111 | 1,1, | 1.06 | 7.91 | 0.13 |
| 4113 | 1,1, | 0.98 | 6.85 | 0.14 |
| 4114 | 1, | 0.99 | 7.91 | 0.12 |
| 4118 | 1, | 0.89 | 6.85 | 0.13 |
| 4119 | 1, | 0.92 | 7.91 | 0.12 |
| 4121 | 1, | 0.89 | 7.91 | 0.11 |
| 4125 | 1,1,1, | 24.70 | 83.35 | 0.30 |
| 4129 | 1, | 1.53 | 7.16 | 0.21 |
| 4131 | 1, | 1.64 | 7.16 | 0.23 |
| 4134 | 1, | 1.59 | 7.16 | 0.22 |
| 4135 | 1,1, | 1.15 | 7.16 | 0.16 |
| 4136 | 1, | 1.83 | 6.85 | 0.27 |
| 4137 | 1, | 1.59 | 7.16 | 0.22 |
| 4139 | 1, | 1.64 | 7.16 | 0.23 |
| 4140 | 1, | 1.72 | 6.85 | 0.25 |
| 4141 | 1, | 1.52 | 7.16 | 0.21 |
| 4143 | 1, | 1.78 | 6.85 | 0.26 |
| 4148 | 1,1, | 1.47 | 6.85 | 0.21 |
| 4150 | 1,1, | 1.78 | 6.85 | 0.26 |
| 4157 | 1,1, | 1.74 | 6.85 | 0.25 |
| 4171 | 1,1, | 1.80 | 6.85 | 0.26 |
| 4172 | 1, | 0.46 | 7.91 | 0.06 |
| 4173 | 1, | 0.91 | 7.91 | 0.12 |
| 4181 | 1, | 0.85 | 7.91 | 0.11 |
| 4184 | 1, | 0.94 | 7.91 | 0.12 |
| 整栋建筑 | 195.61 | 6322.57 | 0.03 |

## 天窗类型

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 序号 | 构造名称 | 构造编号 | 传热系数 | 自遮阳系数 | 备注 |
| 1 | 普通铝合金窗+Low-E中空玻璃 | 66 | 3.50 | 0.30 |  |
| 平均 |  | 3.50 | 0.30 |  |

# 屋顶构造

## 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 |
| C20细石混凝土(ρ=2300) | 40 | 1.510 | 15.243 | 1.00 | 0.026 | 0.404 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 防水卷材 | 4 | 0.230 | 9.370 | 1.00 | 0.017 | 0.163 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 粉煤灰陶粒混凝土(ρ=1700) | 80 | 0.950 | 11.105 | 1.00 | 0.084 | 0.935 |
| 挤塑聚苯板 | 30 | 0.033 | 0.347 | 1.00 | 0.909 | 0.315 |
| 钢筋混凝土 | 120 | 1.740 | 17.200 | 1.00 | 0.069 | 1.186 |
| 各层之和∑ | 314 | － | － | － | 1.149 | 3.493 |
| 外表面太阳辐射吸收系数 | 0.75 |
| 传热系数K=1/(0.16+∑R) | 0.76 |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.4.1条 |
| 标准要求 | K<=0.9 |
| 结论 | 满足 |

# 外墙构造

## 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 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 空心砖(ρ=1500) | 240 | 0.640 | 8.014 | 1.00 | 0.375 | 3.005 |
| 陶粒混凝土空心砖墙 | 190 | 0.480 | 6.492 | 1.00 | 0.396 | 2.570 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 各层之和∑ | 470 | － | － | － | 0.814 | 6.064 |
| 外表面太阳辐射吸收系数 | 0.75 |
| 传热系数K=1/(0.16+∑R) | 1.03 |

### 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 |
| C20细石混凝土(ρ=2300) | 40 | 1.510 | 15.243 | 1.00 | 0.026 | 0.404 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 防水卷材 | 4 | 0.230 | 9.370 | 1.00 | 0.017 | 0.163 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 粉煤灰陶粒混凝土(ρ=1700) | 80 | 0.950 | 11.105 | 1.00 | 0.084 | 0.935 |
| 挤塑聚苯板 | 30 | 0.033 | 0.347 | 1.00 | 0.909 | 0.315 |
| 钢筋混凝土 | 120 | 1.740 | 17.200 | 1.00 | 0.069 | 1.186 |
| 各层之和∑ | 314 | － | － | － | 1.149 | 3.493 |
| 外表面太阳辐射吸收系数 | 0.75 |
| 传热系数K=1/(0.16+∑R) | 0.76 |

## 外墙主断面传热系数的修正系数ψ



## 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KW / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 外墙构造一 | 主墙体 | 1476.84 | 1.000 | 1.03 | 6.06 | 0.75 |
| 考虑线性热桥后K | 1.03 × 1.00 = 1.03 |

2.　北向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件类型 | 面积(㎡) | 面积所占比例 | 传热系数KW / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 外墙构造一 | 主墙体 | 1280.50 | 0.875 | 1.03 | 6.06 | 0.75 |
| 屋顶构造一 | 屋顶 | 183.19 | 0.125 | 0.76 | 3.49 | 0.75 |
| 合计 |  | 1463.70 | 1.000 | 0.99 | 5.74 | 0.75 |
| 考虑线性热桥后K | 0.99 × 1.00 = 0.99 |

3.　东向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件类型 | 面积(㎡) | 面积所占比例 | 传热系数KW / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 外墙构造一 | 主墙体 | 1237.92 | 0.722 | 1.03 | 6.06 | 0.75 |
| 屋顶构造一 | 屋顶 | 475.63 | 0.278 | 0.76 | 3.49 | 0.75 |
| 合计 |  | 1713.55 | 1.000 | 0.95 | 5.35 | 0.75 |
| 考虑线性热桥后K | 0.95 × 1.00 = 0.95 |

4.　西向

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件类型 | 面积(㎡) | 面积所占比例 | 传热系数KW / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 外墙构造一 | 主墙体 | 1910.93 | 0.800 | 1.03 | 6.06 | 0.75 |
| 屋顶构造一 | 屋顶 | 476.40 | 0.200 | 0.76 | 3.49 | 0.75 |
| 合计 |  | 2387.33 | 1.000 | 0.97 | 5.55 | 0.75 |
| 考虑线性热桥后K | 0.97 × 1.00 = 0.97 |

5.　总体

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构件类型 | 面积(㎡) | 面积所占比例 | 传热系数KW / (㎡K) | 热惰性指标D | 太阳辐射吸收系数 |
| 外墙构造一 | 主墙体 | 5906.18 | 0.839 | 1.03 | 6.06 | 0.75 |
| 屋顶构造一 | 屋顶 | 1135.23 | 0.161 | 0.76 | 3.49 | 0.75 |
| 合计 |  | 7041.41 | 1.000 | 0.98 | 5.65 | 0.75 |
| 考虑线性热桥后K | 0.98 × 1.00 = 0.98 |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.4.1条 |
| 标准要求 | K<=1.5 |
| 结论 | 满足 |

# 挑空楼板构造

## 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 |
| 挤塑聚苯乙烯泡沫塑料（带表皮） | 20 | 0.030 | 0.340 | 1.20 | 0.556 | 0.227 |
| 水泥砂浆 | 20 | 0.930 | 11.370 | 1.00 | 0.022 | 0.245 |
| 各层之和∑ | 200 | － | － | － | 0.689 | 2.146 |
| 传热系数K=1/(0.16+∑R) | 1.18 |

# 外窗热工

## 外窗构造

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 序号 | 构造名称 | 构造编号 | 传热系数 | 太阳得热系数 | 可见光透射比 | 备注 |
| 1 | 普通铝合金窗+Low-E中空玻璃 | 74 | 3.50 | 0.26 | 0.620 |  |
| 2 | 12A钢铝单框双玻窗（平均） | 18 | 3.90 | 0.65 | 0.800 | 来源《民用建筑热工设计规范》 |

## 外遮阳类型

### 百叶遮阳



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 序号 | 编号 | 挑出A (m) | 百叶间距D (m) | 下垂C (m) |
| 1 | 百叶遮阳0 | 0.570 | 1.000 | 0.600 |

## 平均传热系数

1. 立面1(东向)：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |  | 1 | 8 | 1.260 | 10.080 | 74 | 3.500 |
| 2 |  | 1 | 4 | 6.150 | 24.600 | 74 | 3.500 |
| 3 |  | 1 | 1 | 3.465 | 3.465 | 74 | 3.500 |
| 4 |  | 1 | 1 | 2.098 | 2.098 | 74 | 3.500 |
| 5 |  | 1 | 1 | 7.547 | 7.547 | 74 | 3.500 |
| 6 |  | 1 | 1 | 53.141 | 53.141 | 74 | 3.500 |
| 7 |  | 1 | 1 | 8.839 | 8.839 | 74 | 3.500 |
| 8 |  | 1,3 | 5 | 1.890 | 9.450 | 74 | 3.500 |
| 9 |  | 1 | 1 | 2.520 | 2.520 | 74 | 3.500 |
| 10 |  | 1 | 1 | 31.072 | 31.072 | 74 | 3.500 |
| 11 |  | 1 | 2 | 4.366 | 8.732 | 74 | 3.500 |
| 12 |  | 1 | 7 | 8.820 | 61.740 | 74 | 3.500 |
| 13 |  | 1 | 5 | 8.732 | 43.659 | 74 | 3.500 |
| 14 |  | 1 | 1 | 8.726 | 8.726 | 74 | 3.500 |
| 15 |  | 1 | 2 | 7.875 | 15.750 | 74 | 3.500 |
| 16 |  | 1 | 1 | 5.374 | 5.374 | 74 | 3.500 |
| 17 |  | 1 | 2 | 4.410 | 8.820 | 74 | 3.500 |
| 18 |  | 1 | 1 | 4.593 | 4.593 | 74 | 3.500 |
| 19 |  | 1 | 1 | 5.405 | 5.405 | 74 | 3.500 |
| 20 |  | 3~4 | 4 | 3.965 | 15.858 | 74 | 3.500 |
| 21 |  | 3~4 | 4 | 1.350 | 5.400 | 74 | 3.500 |
| 22 |  | 3~4 | 4 | 0.900 | 3.600 | 74 | 3.500 |
| 23 |  | 3~4 | 2 | 0.324 | 0.648 | 74 | 3.500 |
| 24 |  | 3~4 | 2 | 4.050 | 8.100 | 74 | 3.500 |
| 25 |  | 3~4 | 4 | 4.500 | 18.000 | 74 | 3.500 |
| 26 |  | 3~4 | 2 | 1.800 | 3.600 | 74 | 3.500 |
| 27 |  | 3~4 | 2 | 5.200 | 10.400 | 74 | 3.500 |
| 28 |  | 3 | 1 | 3.078 | 3.078 | 74 | 3.500 |
| 29 |  | 3 | 2 | 0.630 | 1.260 | 74 | 3.500 |
| 30 |  | 3 | 1 | 4.482 | 4.482 | 74 | 3.500 |
| 31 |  | 3 | 1 | 3.420 | 3.420 | 74 | 3.500 |
| 32 | 1927 | 3 | 1 | 5.221 | 5.221 | 18 | 3.900 |
| 33 | 1927 | 3 | 1 | 5.224 | 5.224 | 18 | 3.900 |
| 34 | 1927 | 3 | 1 | 5.220 | 5.220 | 18 | 3.900 |
| 35 | 1927 | 3 | 1 | 5.215 | 5.215 | 18 | 3.900 |
| 36 | 1927 | 3 | 1 | 5.223 | 5.223 | 18 | 3.900 |
| 37 | 1927 | 3 | 1 | 5.224 | 5.224 | 18 | 3.900 |
| 38 | 1927 | 3 | 1 | 5.219 | 5.219 | 18 | 3.900 |
| 39 | 1927 | 3 | 1 | 2.629 | 2.629 | 18 | 3.900 |
| 40 | 1927 | 3 | 1 | 2.582 | 2.582 | 18 | 3.900 |
| 41 | 1927 | 3 | 1 | 5.219 | 5.219 | 18 | 3.900 |
| 42 | 1927 | 3 | 1 | 5.224 | 5.224 | 18 | 3.900 |
| 43 | 1927 | 3 | 1 | 5.223 | 5.223 | 18 | 3.900 |
| 44 | 1927 | 3 | 1 | 5.215 | 5.215 | 18 | 3.900 |
| 45 | 1944 | 4 | 2 | 8.359 | 16.718 | 18 | 3.900 |
| 46 | C0923 | 4 | 2 | 2.070 | 4.140 | 18 | 3.900 |
| 47 | C1928 | 4 | 6 | 5.225 | 31.350 | 18 | 3.900 |
| 48 | C2010 | 3~4 | 2 | 2.000 | 4.000 | 18 | 3.900 |
| 49 | C2020 | 1,3~4 | 9 | 4.000 | 36.000 | 18 | 3.900 |
| 50 | C2115 | 1 | 7 | 3.150 | 22.050 | 18 | 3.900 |
| 51 | C2844 | 1 | 1 | 12.646 | 12.646 | 18 | 3.900 |
| 52 | C3006 | 1,3~4 | 7 | 1.800 | 12.600 | 18 | 3.900 |
| 53 | C4043 | 1 | 1 | 17.355 | 17.355 | 18 | 3.900 |
| 54 | C6543 | 1 | 1 | 28.311 | 28.311 | 18 | 3.900 |
| 55 | HC1530 | 3~4 | 4 | 4.500 | 18.000 | 18 | 3.900 |
| 56 | HC2133 | 1,3 | 4 | 6.930 | 27.720 | 18 | 3.900 |
| 57 | HC2142 | 1 | 1 | 8.820 | 8.820 | 18 | 3.900 |
| 朝向总面积(㎡) | 695.804 | 朝向平均传热系数 | 3.674 |

2. 立面2(西向)：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |  | 1 | 1 | 13.595 | 13.595 | 74 | 3.500 |
| 2 |  | 1 | 10 | 1.890 | 18.900 | 74 | 3.500 |
| 3 |  | 1 | 10 | 2.520 | 25.200 | 74 | 3.500 |
| 4 |  | 1 | 1 | 4.007 | 4.007 | 74 | 3.500 |
| 5 |  | 1 | 1 | 2.337 | 2.337 | 74 | 3.500 |
| 6 |  | 1 | 1 | 2.003 | 2.003 | 74 | 3.500 |
| 7 |  | 1 | 1 | 1.323 | 1.323 | 74 | 3.500 |
| 8 |  | 1 | 1 | 3.371 | 3.371 | 74 | 3.500 |
| 9 |  | 1 | 5 | 6.150 | 30.750 | 74 | 3.500 |
| 10 |  | 1 | 1 | 0.466 | 0.466 | 74 | 3.500 |
| 11 |  | 1 | 1 | 0.384 | 0.384 | 74 | 3.500 |
| 12 |  | 1 | 1 | 0.284 | 0.284 | 74 | 3.500 |
| 13 |  | 1 | 1 | 0.183 | 0.183 | 74 | 3.500 |
| 14 |  | 1 | 1 | 2.722 | 2.722 | 74 | 3.500 |
| 15 |  | 1 | 1 | 5.972 | 5.972 | 74 | 3.500 |
| 16 |  | 1 | 1 | 2.829 | 2.829 | 74 | 3.500 |
| 17 |  | 1 | 1 | 18.944 | 18.944 | 74 | 3.500 |
| 18 |  | 1 | 1 | 1.890 | 1.890 | 74 | 3.500 |
| 19 |  | 1 | 1 | 2.520 | 2.520 | 74 | 3.500 |
| 20 |  | 1 | 1 | 3.805 | 3.805 | 74 | 3.500 |
| 21 |  | 1 | 1 | 0.945 | 0.945 | 74 | 3.500 |
| 22 |  | 1 | 1 | 1.260 | 1.260 | 74 | 3.500 |
| 23 |  | 1 | 3 | 0.945 | 2.835 | 74 | 3.500 |
| 24 |  | 1 | 3 | 1.260 | 3.780 | 74 | 3.500 |
| 25 |  | 1 | 2 | 20.853 | 41.706 | 74 | 3.500 |
| 26 |  | 1 | 2 | 1.896 | 3.793 | 74 | 3.500 |
| 27 |  | 1 | 1 | 3.805 | 3.805 | 74 | 3.500 |
| 28 |  | 1 | 1 | 18.944 | 18.944 | 74 | 3.500 |
| 29 | C0912 | 4 | 1 | 1.080 | 1.080 | 18 | 3.900 |
| 30 | C0923 | 1~2 | 2 | 2.070 | 4.140 | 18 | 3.900 |
| 31 | C1010 | 4 | 11 | 1.000 | 11.000 | 18 | 3.900 |
| 32 | C1010 | 4 | 2 | 1.000 | 1.999 | 18 | 3.900 |
| 33 | C1510 | 3 | 1 | 1.498 | 1.498 | 18 | 3.900 |
| 34 | C2006 | 1~3 | 11 | 1.200 | 13.200 | 18 | 3.900 |
| 35 | C2010 | 3 | 1 | 2.000 | 2.000 | 18 | 3.900 |
| 36 | C2010 | 4 | 2 | 1.999 | 3.998 | 18 | 3.900 |
| 37 | C2020 | 3~4 | 7 | 4.000 | 28.000 | 18 | 3.900 |
| 38 | C2020 | 4 | 1 | 4.000 | 4.000 | 18 | 3.900 |
| 39 | C2142 | 1 | 7 | 8.820 | 61.740 | 18 | 3.900 |
| 40 | C2510 | 1 | 1 | 2.500 | 2.500 | 18 | 3.900 |
| 41 | C2510 | 1 | 1 | 2.500 | 2.500 | 18 | 3.900 |
| 42 | C2510 | 1 | 1 | 2.500 | 2.500 | 18 | 3.900 |
| 43 | C2510 | 1 | 1 | 2.500 | 2.500 | 18 | 3.900 |
| 44 | C2510 | 1 | 1 | 2.499 | 2.499 | 18 | 3.900 |
| 45 | C2510 | 1 | 1 | 2.499 | 2.499 | 18 | 3.900 |
| 46 | C3010 | 3 | 1 | 3.000 | 3.000 | 18 | 3.900 |
| 47 | C7424 | 3 | 1 | 18.341 | 18.341 | 18 | 3.900 |
| 48 | C7424 | 4 | 1 | 18.341 | 18.341 | 18 | 3.900 |
| 49 | C7427 | 1 | 1 | 20.587 | 20.587 | 18 | 3.900 |
| 50 | HC2133 | 1 | 1 | 6.908 | 6.908 | 18 | 3.900 |
| 51 | HC2133 | 1 | 1 | 6.917 | 6.917 | 18 | 3.900 |
| 52 | HC2142 | 1 | 4 | 8.820 | 35.280 | 18 | 3.900 |
| 53 | HC2142 | 1 | 4 | 4.410 | 17.640 | 18 | 3.900 |
| 朝向总面积(㎡) | 493.219 | 朝向平均传热系数 | 3.723 |

3. 立面3(南向)：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |  | 1 | 1 | 15.416 | 15.416 | 74 | 3.500 |
| 2 |  | 1 | 1 | 1.950 | 1.950 | 74 | 3.500 |
| 3 |  | 1 | 2 | 1.890 | 3.780 | 74 | 3.500 |
| 4 |  | 1 | 2 | 1.470 | 2.940 | 74 | 3.500 |
| 5 |  | 1 | 1 | 2.754 | 2.754 | 74 | 3.500 |
| 6 |  | 1,3~4 | 4 | 4.050 | 16.200 | 74 | 3.500 |
| 7 |  | 1 | 1 | 0.358 | 0.358 | 74 | 3.500 |
| 8 |  | 1 | 1 | 4.341 | 4.341 | 74 | 3.500 |
| 9 |  | 1 | 1 | 5.272 | 5.272 | 74 | 3.500 |
| 10 |  | 3~4 | 8 | 3.965 | 31.716 | 74 | 3.500 |
| 11 |  | 3~4 | 6 | 1.350 | 8.100 | 74 | 3.500 |
| 12 |  | 3~4 | 6 | 0.900 | 5.400 | 74 | 3.500 |
| 13 |  | 3~4 | 2 | 0.324 | 0.648 | 74 | 3.500 |
| 14 |  | 3~4 | 4 | 7.749 | 30.996 | 74 | 3.500 |
| 15 |  | 3~4 | 4 | 0.675 | 2.700 | 74 | 3.500 |
| 16 |  | 3~4 | 4 | 0.450 | 1.800 | 74 | 3.500 |
| 17 | C0923 | 1 | 1 | 2.068 | 2.068 | 18 | 3.900 |
| 18 | C0923 | 1~2 | 2 | 2.070 | 4.140 | 18 | 3.900 |
| 19 | C0923 | 1~2 | 6 | 2.070 | 12.420 | 18 | 3.900 |
| 20 | C0923 | 1 | 1 | 2.069 | 2.069 | 18 | 3.900 |
| 21 | C0923 | 1 | 1 | 2.069 | 2.069 | 18 | 3.900 |
| 22 | C0923 | 1 | 1 | 2.070 | 2.070 | 18 | 3.900 |
| 23 | C0923 | 1 | 1 | 2.068 | 2.068 | 18 | 3.900 |
| 24 | C0923 | 1 | 1 | 2.065 | 2.065 | 18 | 3.900 |
| 25 | C0923 | 1~2 | 2 | 2.070 | 4.140 | 18 | 3.900 |
| 26 | C0923 | 1 | 1 | 2.070 | 2.070 | 18 | 3.900 |
| 27 | C0923 | 2 | 1 | 2.069 | 2.069 | 18 | 3.900 |
| 28 | C0923 | 2 | 1 | 2.069 | 2.069 | 18 | 3.900 |
| 29 | C0923 | 2 | 1 | 2.069 | 2.069 | 18 | 3.900 |
| 30 | C0923 | 2 | 1 | 2.069 | 2.069 | 18 | 3.900 |
| 31 | C0923 | 2 | 1 | 2.068 | 2.068 | 18 | 3.900 |
| 32 | C0923 | 2 | 1 | 2.066 | 2.066 | 18 | 3.900 |
| 33 | C0923 | 2 | 1 | 2.070 | 2.070 | 18 | 3.900 |
| 34 | C1010 | 4 | 3 | 1.000 | 3.000 | 18 | 3.900 |
| 35 | C1223 | 1 | 1 | 2.760 | 2.760 | 18 | 3.900 |
| 36 | C1223 | 2 | 1 | 2.760 | 2.760 | 18 | 3.900 |
| 37 | C2006 | 1 | 1 | 1.200 | 1.200 | 18 | 3.900 |
| 38 | C2020 | 1,3~4 | 24 | 4.000 | 96.000 | 18 | 3.900 |
| 39 | C2020 | 2 | 1 | 3.997 | 3.997 | 18 | 3.900 |
| 40 | C2020 | 2 | 1 | 3.999 | 3.999 | 18 | 3.900 |
| 41 | C2510 | 1 | 1 | 2.500 | 2.500 | 18 | 3.900 |
| 42 | HC1530 | 3~4 | 6 | 4.500 | 27.000 | 18 | 3.900 |
| 43 | HC1530 | 3~4 | 4 | 2.250 | 9.000 | 18 | 3.900 |
| 44 | HC2133 | 1 | 2 | 6.930 | 13.860 | 18 | 3.900 |
| 朝向总面积(㎡) | 350.105 | 朝向平均传热系数 | 3.746 |

4. 立面4(北向)：

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |  | 1 | 1 | 3.106 | 3.106 | 74 | 3.500 |
| 2 |  | 1 | 2 | 1.890 | 3.780 | 74 | 3.500 |
| 3 |  | 1 | 2 | 2.520 | 5.040 | 74 | 3.500 |
| 4 |  | 1 | 1 | 6.325 | 6.325 | 74 | 3.500 |
| 5 |  | 1 | 1 | 3.100 | 3.100 | 74 | 3.500 |
| 6 |  | 1 | 2 | 2.325 | 4.649 | 74 | 3.500 |
| 7 |  | 1,3~4 | 9 | 1.890 | 17.010 | 74 | 3.500 |
| 8 |  | 1 | 2 | 2.520 | 5.040 | 74 | 3.500 |
| 9 |  | 1 | 2 | 11.277 | 22.554 | 74 | 3.500 |
| 10 |  | 1 | 2 | 26.832 | 53.663 | 74 | 3.500 |
| 11 |  | 1 | 1 | 8.297 | 8.297 | 74 | 3.500 |
| 12 |  | 1 | 3 | 6.150 | 18.450 | 74 | 3.500 |
| 13 |  | 1 | 1 | 9.557 | 9.557 | 74 | 3.500 |
| 14 |  | 1 | 1 | 5.261 | 5.261 | 74 | 3.500 |
| 15 |  | 1 | 1 | 6.533 | 6.533 | 74 | 3.500 |
| 16 |  | 1 | 1 | 1.386 | 1.386 | 74 | 3.500 |
| 17 |  | 1 | 1 | 4.410 | 4.410 | 74 | 3.500 |
| 18 |  | 1 | 1 | 6.212 | 6.212 | 74 | 3.500 |
| 19 |  | 1 | 1 | 4.952 | 4.952 | 74 | 3.500 |
| 20 |  | 3 | 1 | 5.558 | 5.558 | 74 | 3.500 |
| 21 |  | 3~4 | 6 | 0.630 | 3.780 | 74 | 3.500 |
| 22 |  | 3 | 1 | 2.385 | 2.385 | 74 | 3.500 |
| 23 |  | 3 | 1 | 3.087 | 3.087 | 74 | 3.500 |
| 24 |  | 3 | 1 | 4.253 | 4.253 | 74 | 3.500 |
| 25 |  | 3 | 1 | 4.158 | 4.158 | 74 | 3.500 |
| 26 |  | 3 | 1 | 2.570 | 2.570 | 74 | 3.500 |
| 27 |  | 4 | 4 | 3.200 | 12.798 | 74 | 3.500 |
| 28 |  | 4 | 2 | 1.140 | 2.280 | 74 | 3.500 |
| 29 |  | 4 | 2 | 2.185 | 4.370 | 74 | 3.500 |
| 30 |  | 4 | 1 | 3.623 | 3.623 | 74 | 3.500 |
| 31 |  | 4 | 1 | 4.514 | 4.514 | 74 | 3.500 |
| 32 |  | 4 | 1 | 2.894 | 2.894 | 74 | 3.500 |
| 33 | 1927 | 3 | 4 | 5.221 | 20.882 | 18 | 3.900 |
| 34 | 1927 | 3 | 2 | 5.225 | 10.449 | 18 | 3.900 |
| 35 | 1927 | 3 | 2 | 5.361 | 10.722 | 18 | 3.900 |
| 36 | 1927 | 3 | 3 | 5.224 | 15.673 | 18 | 3.900 |
| 37 | 1927 | 3 | 3 | 5.221 | 15.664 | 18 | 3.900 |
| 38 | 1927 | 3 | 1 | 5.220 | 5.220 | 18 | 3.900 |
| 39 | 1927 | 3 | 2 | 5.220 | 10.439 | 18 | 3.900 |
| 40 | 1927 | 3 | 2 | 5.225 | 10.449 | 18 | 3.900 |
| 41 | 1927 | 3 | 2 | 5.220 | 10.441 | 18 | 3.900 |
| 42 | 1927 | 3 | 2 | 1.056 | 2.111 | 18 | 3.900 |
| 43 | 1927 | 3 | 2 | 4.159 | 8.318 | 18 | 3.900 |
| 44 | 1927 | 3 | 2 | 5.223 | 10.447 | 18 | 3.900 |
| 45 | C1928 | 4 | 7 | 5.225 | 36.575 | 18 | 3.900 |
| 46 | C1928 | 4 | 11 | 5.225 | 57.475 | 18 | 3.900 |
| 47 | C1928 | 4 | 11 | 5.225 | 57.475 | 18 | 3.900 |
| 48 | C2020 | 3~4 | 2 | 4.000 | 8.000 | 18 | 3.900 |
| 49 | C6443 | 1 | 3 | 27.787 | 83.360 | 18 | 3.900 |
| 50 | C6443 | 1 | 2 | 27.787 | 55.573 | 18 | 3.900 |
| 51 | C6443 | 1 | 1 | 27.787 | 27.787 | 18 | 3.900 |
| 52 | HC2133 | 1,3~4 | 5 | 6.930 | 34.650 | 18 | 3.900 |
| 53 | HC2133 | 3 | 2 | 6.930 | 13.860 | 18 | 3.900 |
| 54 | HC2142 | 1 | 4 | 8.820 | 35.280 | 18 | 3.900 |
| 55 | HC7222 | 1 | 1 | 15.820 | 15.820 | 18 | 3.900 |
| 56 | HC7422 | 1 | 1 | 16.257 | 16.257 | 18 | 3.900 |
| 57 | HC7922 | 1 | 1 | 17.353 | 17.353 | 18 | 3.900 |
| 朝向总面积(㎡) | 835.873 | 朝向平均传热系数 | 3.782 |

## 综合太阳得热系数

1. 南向：

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |  | 1 | 1 | 15.416 | 15.416 | 74 | 0.261 |  | 1.000 | 0.261 |
| 2 |  | 1 | 1 | 1.950 | 1.950 | 74 | 0.261 |  | 1.000 | 0.261 |
| 3 |  | 1 | 2 | 1.890 | 3.780 | 74 | 0.261 |  | 1.000 | 0.261 |
| 4 |  | 1 | 2 | 1.470 | 2.940 | 74 | 0.261 |  | 1.000 | 0.261 |
| 5 |  | 1 | 1 | 2.754 | 2.754 | 74 | 0.261 |  | 1.000 | 0.261 |
| 6 |  | 1,3~4 | 4 | 4.050 | 16.200 | 74 | 0.261 |  | 1.000 | 0.261 |
| 7 |  | 1 | 1 | 0.358 | 0.358 | 74 | 0.261 |  | 1.000 | 0.261 |
| 8 |  | 1 | 1 | 4.341 | 4.341 | 74 | 0.261 |  | 1.000 | 0.261 |
| 9 |  | 1 | 1 | 5.272 | 5.272 | 74 | 0.261 |  | 1.000 | 0.261 |
| 10 |  | 3~4 | 8 | 3.965 | 31.716 | 74 | 0.261 |  | 1.000 | 0.261 |
| 11 |  | 3~4 | 6 | 1.350 | 8.100 | 74 | 0.261 |  | 1.000 | 0.261 |
| 12 |  | 3~4 | 6 | 0.900 | 5.400 | 74 | 0.261 |  | 1.000 | 0.261 |
| 13 |  | 3~4 | 2 | 0.324 | 0.648 | 74 | 0.261 |  | 1.000 | 0.261 |
| 14 |  | 3~4 | 4 | 7.749 | 30.996 | 74 | 0.261 |  | 1.000 | 0.261 |
| 15 |  | 3~4 | 4 | 0.675 | 2.700 | 74 | 0.261 |  | 1.000 | 0.261 |
| 16 |  | 3~4 | 4 | 0.450 | 1.800 | 74 | 0.261 |  | 1.000 | 0.261 |
| 17 | C0923 | 1 | 1 | 2.068 | 2.068 | 18 | 0.653 |  | 1.000 | 0.653 |
| 18 | C0923 | 1~2 | 2 | 2.070 | 4.140 | 18 | 0.653 |  | 1.000 | 0.653 |
| 19 | C0923 | 1~2 | 6 | 2.070 | 12.420 | 18 | 0.653 |  | 1.000 | 0.653 |
| 20 | C0923 | 1 | 1 | 2.069 | 2.069 | 18 | 0.653 |  | 1.000 | 0.653 |
| 21 | C0923 | 1 | 1 | 2.069 | 2.069 | 18 | 0.653 |  | 1.000 | 0.653 |
| 22 | C0923 | 1 | 1 | 2.070 | 2.070 | 18 | 0.653 |  | 1.000 | 0.653 |
| 23 | C0923 | 1 | 1 | 2.068 | 2.068 | 18 | 0.653 |  | 1.000 | 0.653 |
| 24 | C0923 | 1 | 1 | 2.065 | 2.065 | 18 | 0.653 |  | 1.000 | 0.653 |
| 25 | C0923 | 1~2 | 2 | 2.070 | 4.140 | 18 | 0.653 |  | 1.000 | 0.653 |
| 26 | C0923 | 1 | 1 | 2.070 | 2.070 | 18 | 0.653 |  | 1.000 | 0.653 |
| 27 | C0923 | 2 | 1 | 2.069 | 2.069 | 18 | 0.653 |  | 1.000 | 0.653 |
| 28 | C0923 | 2 | 1 | 2.069 | 2.069 | 18 | 0.653 |  | 1.000 | 0.653 |
| 29 | C0923 | 2 | 1 | 2.069 | 2.069 | 18 | 0.653 |  | 1.000 | 0.653 |
| 30 | C0923 | 2 | 1 | 2.069 | 2.069 | 18 | 0.653 |  | 1.000 | 0.653 |
| 31 | C0923 | 2 | 1 | 2.068 | 2.068 | 18 | 0.653 |  | 1.000 | 0.653 |
| 32 | C0923 | 2 | 1 | 2.066 | 2.066 | 18 | 0.653 |  | 1.000 | 0.653 |
| 33 | C0923 | 2 | 1 | 2.070 | 2.070 | 18 | 0.653 |  | 1.000 | 0.653 |
| 34 | C1010 | 4 | 3 | 1.000 | 3.000 | 18 | 0.653 |  | 1.000 | 0.653 |
| 35 | C1223 | 1 | 1 | 2.760 | 2.760 | 18 | 0.653 |  | 1.000 | 0.653 |
| 36 | C1223 | 2 | 1 | 2.760 | 2.760 | 18 | 0.653 |  | 1.000 | 0.653 |
| 37 | C2006 | 1 | 1 | 1.200 | 1.200 | 18 | 0.653 |  | 1.000 | 0.653 |
| 38 | C2020 | 1,3~4 | 24 | 4.000 | 96.000 | 18 | 0.653 |  | 1.000 | 0.653 |
| 39 | C2020 | 2 | 1 | 3.997 | 3.997 | 18 | 0.653 |  | 1.000 | 0.653 |
| 40 | C2020 | 2 | 1 | 3.999 | 3.999 | 18 | 0.653 |  | 1.000 | 0.653 |
| 41 | C2510 | 1 | 1 | 2.500 | 2.500 | 18 | 0.653 |  | 1.000 | 0.653 |
| 42 | HC1530 | 3~4 | 6 | 4.500 | 27.000 | 18 | 0.653 |  | 1.000 | 0.653 |
| 43 | HC1530 | 3~4 | 4 | 2.250 | 9.000 | 18 | 0.653 |  | 1.000 | 0.653 |
| 44 | HC2133 | 1 | 2 | 6.930 | 13.860 | 18 | 0.653 |  | 1.000 | 0.653 |
| 朝向总面积(㎡) | 350.105 | 综合太阳得热系数 | 1.000 | 0.502 |

2. 北向：

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |  | 1 | 1 | 3.106 | 3.106 | 74 | 0.261 | 百叶遮阳0 | 0.605 | 0.158 |
| 2 |  | 1 | 2 | 1.890 | 3.780 | 74 | 0.261 | 百叶遮阳0 | 0.223 | 0.058 |
| 3 |  | 1 | 2 | 2.520 | 5.040 | 74 | 0.261 | 百叶遮阳0 | 0.334 | 0.087 |
| 4 |  | 1 | 1 | 6.325 | 6.325 | 74 | 0.261 | 百叶遮阳0 | 0.605 | 0.158 |
| 5 |  | 1 | 1 | 3.100 | 3.100 | 74 | 0.261 | 百叶遮阳0 | 0.605 | 0.158 |
| 6 |  | 1 | 2 | 2.325 | 4.649 | 74 | 0.261 |  | 1.000 | 0.261 |
| 7 |  | 1,3~4 | 9 | 1.890 | 17.010 | 74 | 0.261 |  | 1.000 | 0.261 |
| 8 |  | 1 | 2 | 2.520 | 5.040 | 74 | 0.261 |  | 1.000 | 0.261 |
| 9 |  | 1 | 2 | 11.277 | 22.554 | 74 | 0.261 |  | 1.000 | 0.261 |
| 10 |  | 1 | 2 | 26.832 | 53.663 | 74 | 0.261 |  | 1.000 | 0.261 |
| 11 |  | 1 | 1 | 8.297 | 8.297 | 74 | 0.261 |  | 1.000 | 0.261 |
| 12 |  | 1 | 3 | 6.150 | 18.450 | 74 | 0.261 |  | 1.000 | 0.261 |
| 13 |  | 1 | 1 | 9.557 | 9.557 | 74 | 0.261 |  | 1.000 | 0.261 |
| 14 |  | 1 | 1 | 5.261 | 5.261 | 74 | 0.261 |  | 1.000 | 0.261 |
| 15 |  | 1 | 1 | 6.533 | 6.533 | 74 | 0.261 |  | 1.000 | 0.261 |
| 16 |  | 1 | 1 | 1.386 | 1.386 | 74 | 0.261 |  | 1.000 | 0.261 |
| 17 |  | 1 | 1 | 4.410 | 4.410 | 74 | 0.261 |  | 1.000 | 0.261 |
| 18 |  | 1 | 1 | 6.212 | 6.212 | 74 | 0.261 |  | 1.000 | 0.261 |
| 19 |  | 1 | 1 | 4.952 | 4.952 | 74 | 0.261 |  | 1.000 | 0.261 |
| 20 |  | 3 | 1 | 5.558 | 5.558 | 74 | 0.261 |  | 1.000 | 0.261 |
| 21 |  | 3~4 | 6 | 0.630 | 3.780 | 74 | 0.261 |  | 1.000 | 0.261 |
| 22 |  | 3 | 1 | 2.385 | 2.385 | 74 | 0.261 |  | 1.000 | 0.261 |
| 23 |  | 3 | 1 | 3.087 | 3.087 | 74 | 0.261 |  | 1.000 | 0.261 |
| 24 |  | 3 | 1 | 4.253 | 4.253 | 74 | 0.261 |  | 1.000 | 0.261 |
| 25 |  | 3 | 1 | 4.158 | 4.158 | 74 | 0.261 |  | 1.000 | 0.261 |
| 26 |  | 3 | 1 | 2.570 | 2.570 | 74 | 0.261 |  | 1.000 | 0.261 |
| 27 |  | 4 | 4 | 3.200 | 12.798 | 74 | 0.261 | 百叶遮阳0 | 0.578 | 0.151 |
| 28 |  | 4 | 2 | 1.140 | 2.280 | 74 | 0.261 | 百叶遮阳0 | -0.000 | -0.000 |
| 29 |  | 4 | 2 | 2.185 | 4.370 | 74 | 0.261 | 百叶遮阳0 | 0.319 | 0.083 |
| 30 |  | 4 | 1 | 3.623 | 3.623 | 74 | 0.261 |  | 1.000 | 0.261 |
| 31 |  | 4 | 1 | 4.514 | 4.514 | 74 | 0.261 |  | 1.000 | 0.261 |
| 32 |  | 4 | 1 | 2.894 | 2.894 | 74 | 0.261 |  | 1.000 | 0.261 |
| 33 | 1927 | 3 | 4 | 5.221 | 20.882 | 18 | 0.653 |  | 1.000 | 0.653 |
| 34 | 1927 | 3 | 2 | 5.225 | 10.449 | 18 | 0.653 |  | 1.000 | 0.653 |
| 35 | 1927 | 3 | 2 | 5.361 | 10.722 | 18 | 0.653 |  | 1.000 | 0.653 |
| 36 | 1927 | 3 | 3 | 5.224 | 15.673 | 18 | 0.653 |  | 1.000 | 0.653 |
| 37 | 1927 | 3 | 3 | 5.221 | 15.664 | 18 | 0.653 |  | 1.000 | 0.653 |
| 38 | 1927 | 3 | 1 | 5.220 | 5.220 | 18 | 0.653 |  | 1.000 | 0.653 |
| 39 | 1927 | 3 | 2 | 5.220 | 10.439 | 18 | 0.653 |  | 1.000 | 0.653 |
| 40 | 1927 | 3 | 2 | 5.225 | 10.449 | 18 | 0.653 |  | 1.000 | 0.653 |
| 41 | 1927 | 3 | 2 | 5.220 | 10.441 | 18 | 0.653 |  | 1.000 | 0.653 |
| 42 | 1927 | 3 | 2 | 1.056 | 2.111 | 18 | 0.653 |  | 1.000 | 0.653 |
| 43 | 1927 | 3 | 2 | 4.159 | 8.318 | 18 | 0.653 |  | 1.000 | 0.653 |
| 44 | 1927 | 3 | 2 | 5.223 | 10.447 | 18 | 0.653 |  | 1.000 | 0.653 |
| 45 | C1928 | 4 | 7 | 5.225 | 36.575 | 18 | 0.653 |  | 1.000 | 0.653 |
| 46 | C1928 | 4 | 11 | 5.225 | 57.475 | 18 | 0.653 | 百叶遮阳0 | 0.521 | 0.340 |
| 47 | C1928 | 4 | 11 | 5.225 | 57.475 | 18 | 0.653 | 百叶遮阳0 | 0.591 | 0.386 |
| 48 | C2020 | 3~4 | 2 | 4.000 | 8.000 | 18 | 0.653 |  | 1.000 | 0.653 |
| 49 | C6443 | 1 | 3 | 27.787 | 83.360 | 18 | 0.653 |  | 1.000 | 0.653 |
| 50 | C6443 | 1 | 2 | 27.787 | 55.573 | 18 | 0.653 | 百叶遮阳0 | 0.574 | 0.374 |
| 51 | C6443 | 1 | 1 | 27.787 | 27.787 | 18 | 0.653 | 百叶遮阳0 | 0.651 | 0.425 |
| 52 | HC2133 | 1,3~4 | 5 | 6.930 | 34.650 | 18 | 0.653 |  | 1.000 | 0.653 |
| 53 | HC2133 | 3 | 2 | 6.930 | 13.860 | 18 | 0.653 | 百叶遮阳0 | 0.545 | 0.356 |
| 54 | HC2142 | 1 | 4 | 8.820 | 35.280 | 18 | 0.653 |  | 1.000 | 0.653 |
| 55 | HC7222 | 1 | 1 | 15.820 | 15.820 | 18 | 0.653 |  | 1.000 | 0.653 |
| 56 | HC7422 | 1 | 1 | 16.257 | 16.257 | 18 | 0.653 |  | 1.000 | 0.653 |
| 57 | HC7922 | 1 | 1 | 17.353 | 17.353 | 18 | 0.653 |  | 1.000 | 0.653 |
| 朝向总面积(㎡) | 835.873 | 综合太阳得热系数 | 0.865 | 0.460 |

3. 东向：

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |  | 1 | 8 | 1.260 | 10.080 | 74 | 0.261 |  | 1.000 | 0.261 |
| 2 |  | 1 | 4 | 6.150 | 24.600 | 74 | 0.261 |  | 1.000 | 0.261 |
| 3 |  | 1 | 1 | 3.465 | 3.465 | 74 | 0.261 |  | 1.000 | 0.261 |
| 4 |  | 1 | 1 | 2.098 | 2.098 | 74 | 0.261 |  | 1.000 | 0.261 |
| 5 |  | 1 | 1 | 7.547 | 7.547 | 74 | 0.261 |  | 1.000 | 0.261 |
| 6 |  | 1 | 1 | 53.141 | 53.141 | 74 | 0.261 |  | 1.000 | 0.261 |
| 7 |  | 1 | 1 | 8.839 | 8.839 | 74 | 0.261 |  | 1.000 | 0.261 |
| 8 |  | 1,3 | 5 | 1.890 | 9.450 | 74 | 0.261 |  | 1.000 | 0.261 |
| 9 |  | 1 | 1 | 2.520 | 2.520 | 74 | 0.261 |  | 1.000 | 0.261 |
| 10 |  | 1 | 1 | 31.072 | 31.072 | 74 | 0.261 |  | 1.000 | 0.261 |
| 11 |  | 1 | 2 | 4.366 | 8.732 | 74 | 0.261 |  | 1.000 | 0.261 |
| 12 |  | 1 | 7 | 8.820 | 61.740 | 74 | 0.261 |  | 1.000 | 0.261 |
| 13 |  | 1 | 5 | 8.732 | 43.659 | 74 | 0.261 |  | 1.000 | 0.261 |
| 14 |  | 1 | 1 | 8.726 | 8.726 | 74 | 0.261 |  | 1.000 | 0.261 |
| 15 |  | 1 | 2 | 7.875 | 15.750 | 74 | 0.261 |  | 1.000 | 0.261 |
| 16 |  | 1 | 1 | 5.374 | 5.374 | 74 | 0.261 |  | 1.000 | 0.261 |
| 17 |  | 1 | 2 | 4.410 | 8.820 | 74 | 0.261 |  | 1.000 | 0.261 |
| 18 |  | 1 | 1 | 4.593 | 4.593 | 74 | 0.261 |  | 1.000 | 0.261 |
| 19 |  | 1 | 1 | 5.405 | 5.405 | 74 | 0.261 |  | 1.000 | 0.261 |
| 20 |  | 3~4 | 4 | 3.965 | 15.858 | 74 | 0.261 |  | 1.000 | 0.261 |
| 21 |  | 3~4 | 4 | 1.350 | 5.400 | 74 | 0.261 |  | 1.000 | 0.261 |
| 22 |  | 3~4 | 4 | 0.900 | 3.600 | 74 | 0.261 |  | 1.000 | 0.261 |
| 23 |  | 3~4 | 2 | 0.324 | 0.648 | 74 | 0.261 |  | 1.000 | 0.261 |
| 24 |  | 3~4 | 2 | 4.050 | 8.100 | 74 | 0.261 |  | 1.000 | 0.261 |
| 25 |  | 3~4 | 4 | 4.500 | 18.000 | 74 | 0.261 |  | 1.000 | 0.261 |
| 26 |  | 3~4 | 2 | 1.800 | 3.600 | 74 | 0.261 |  | 1.000 | 0.261 |
| 27 |  | 3~4 | 2 | 5.200 | 10.400 | 74 | 0.261 |  | 1.000 | 0.261 |
| 28 |  | 3 | 1 | 3.078 | 3.078 | 74 | 0.261 |  | 1.000 | 0.261 |
| 29 |  | 3 | 2 | 0.630 | 1.260 | 74 | 0.261 |  | 1.000 | 0.261 |
| 30 |  | 3 | 1 | 4.482 | 4.482 | 74 | 0.261 |  | 1.000 | 0.261 |
| 31 |  | 3 | 1 | 3.420 | 3.420 | 74 | 0.261 |  | 1.000 | 0.261 |
| 32 | 1927 | 3 | 1 | 5.221 | 5.221 | 18 | 0.653 |  | 1.000 | 0.653 |
| 33 | 1927 | 3 | 1 | 5.224 | 5.224 | 18 | 0.653 |  | 1.000 | 0.653 |
| 34 | 1927 | 3 | 1 | 5.220 | 5.220 | 18 | 0.653 |  | 1.000 | 0.653 |
| 35 | 1927 | 3 | 1 | 5.215 | 5.215 | 18 | 0.653 |  | 1.000 | 0.653 |
| 36 | 1927 | 3 | 1 | 5.223 | 5.223 | 18 | 0.653 |  | 1.000 | 0.653 |
| 37 | 1927 | 3 | 1 | 5.224 | 5.224 | 18 | 0.653 |  | 1.000 | 0.653 |
| 38 | 1927 | 3 | 1 | 5.219 | 5.219 | 18 | 0.653 |  | 1.000 | 0.653 |
| 39 | 1927 | 3 | 1 | 2.629 | 2.629 | 18 | 0.653 |  | 1.000 | 0.653 |
| 40 | 1927 | 3 | 1 | 2.582 | 2.582 | 18 | 0.653 |  | 1.000 | 0.653 |
| 41 | 1927 | 3 | 1 | 5.219 | 5.219 | 18 | 0.653 |  | 1.000 | 0.653 |
| 42 | 1927 | 3 | 1 | 5.224 | 5.224 | 18 | 0.653 |  | 1.000 | 0.653 |
| 43 | 1927 | 3 | 1 | 5.223 | 5.223 | 18 | 0.653 |  | 1.000 | 0.653 |
| 44 | 1927 | 3 | 1 | 5.215 | 5.215 | 18 | 0.653 |  | 1.000 | 0.653 |
| 45 | 1944 | 4 | 2 | 8.359 | 16.718 | 18 | 0.653 | 百叶遮阳0 | 0.624 | 0.407 |
| 46 | C0923 | 4 | 2 | 2.070 | 4.140 | 18 | 0.653 |  | 1.000 | 0.653 |
| 47 | C1928 | 4 | 6 | 5.225 | 31.350 | 18 | 0.653 |  | 1.000 | 0.653 |
| 48 | C2010 | 3~4 | 2 | 2.000 | 4.000 | 18 | 0.653 |  | 1.000 | 0.653 |
| 49 | C2020 | 1,3~4 | 9 | 4.000 | 36.000 | 18 | 0.653 |  | 1.000 | 0.653 |
| 50 | C2115 | 1 | 7 | 3.150 | 22.050 | 18 | 0.653 |  | 1.000 | 0.653 |
| 51 | C2844 | 1 | 1 | 12.646 | 12.646 | 18 | 0.653 |  | 1.000 | 0.653 |
| 52 | C3006 | 1,3~4 | 7 | 1.800 | 12.600 | 18 | 0.653 |  | 1.000 | 0.653 |
| 53 | C4043 | 1 | 1 | 17.355 | 17.355 | 18 | 0.653 |  | 1.000 | 0.653 |
| 54 | C6543 | 1 | 1 | 28.311 | 28.311 | 18 | 0.653 |  | 1.000 | 0.653 |
| 55 | HC1530 | 3~4 | 4 | 4.500 | 18.000 | 18 | 0.653 |  | 1.000 | 0.653 |
| 56 | HC2133 | 1,3 | 4 | 6.930 | 27.720 | 18 | 0.653 | 百叶遮阳0 | 0.591 | 0.386 |
| 57 | HC2142 | 1 | 1 | 8.820 | 8.820 | 18 | 0.653 |  | 1.000 | 0.653 |
| 朝向总面积(㎡) | 695.804 | 综合太阳得热系数 | 0.975 | 0.415 |

4. 西向：

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |  | 1 | 1 | 13.595 | 13.595 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 2 |  | 1 | 10 | 1.890 | 18.900 | 74 | 0.261 | 百叶遮阳0 | 0.236 | 0.061 |
| 3 |  | 1 | 10 | 2.520 | 25.200 | 74 | 0.261 | 百叶遮阳0 | 0.353 | 0.092 |
| 4 |  | 1 | 1 | 4.007 | 4.007 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 5 |  | 1 | 1 | 2.337 | 2.337 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 6 |  | 1 | 1 | 2.003 | 2.003 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 7 |  | 1 | 1 | 1.323 | 1.323 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 8 |  | 1 | 1 | 3.371 | 3.371 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 9 |  | 1 | 5 | 6.150 | 30.750 | 74 | 0.261 | 百叶遮阳0 | 0.603 | 0.157 |
| 10 |  | 1 | 1 | 0.466 | 0.466 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 11 |  | 1 | 1 | 0.384 | 0.384 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 12 |  | 1 | 1 | 0.284 | 0.284 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 13 |  | 1 | 1 | 0.183 | 0.183 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 14 |  | 1 | 1 | 2.722 | 2.722 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 15 |  | 1 | 1 | 5.972 | 5.972 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 16 |  | 1 | 1 | 2.829 | 2.829 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 17 |  | 1 | 1 | 18.944 | 18.944 | 74 | 0.261 | 百叶遮阳0 | 0.605 | 0.158 |
| 18 |  | 1 | 1 | 1.890 | 1.890 | 74 | 0.261 | 百叶遮阳0 | 0.223 | 0.058 |
| 19 |  | 1 | 1 | 2.520 | 2.520 | 74 | 0.261 | 百叶遮阳0 | 0.334 | 0.087 |
| 20 |  | 1 | 1 | 3.805 | 3.805 | 74 | 0.261 | 百叶遮阳0 | 0.605 | 0.158 |
| 21 |  | 1 | 1 | 0.945 | 0.945 | 74 | 0.261 | 百叶遮阳0 | 0.223 | 0.058 |
| 22 |  | 1 | 1 | 1.260 | 1.260 | 74 | 0.261 | 百叶遮阳0 | 0.334 | 0.087 |
| 23 |  | 1 | 3 | 0.945 | 2.835 | 74 | 0.261 | 百叶遮阳0 | 0.236 | 0.061 |
| 24 |  | 1 | 3 | 1.260 | 3.780 | 74 | 0.261 | 百叶遮阳0 | 0.353 | 0.092 |
| 25 |  | 1 | 2 | 20.853 | 41.706 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 26 |  | 1 | 2 | 1.896 | 3.793 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 27 |  | 1 | 1 | 3.805 | 3.805 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 28 |  | 1 | 1 | 18.944 | 18.944 | 74 | 0.261 | 百叶遮阳0 | 0.639 | 0.167 |
| 29 | C0912 | 4 | 1 | 1.080 | 1.080 | 18 | 0.653 |  | 1.000 | 0.653 |
| 30 | C0923 | 1~2 | 2 | 2.070 | 4.140 | 18 | 0.653 |  | 1.000 | 0.653 |
| 31 | C1010 | 4 | 11 | 1.000 | 11.000 | 18 | 0.653 |  | 1.000 | 0.653 |
| 32 | C1010 | 4 | 2 | 1.000 | 1.999 | 18 | 0.653 |  | 1.000 | 0.653 |
| 33 | C1510 | 3 | 1 | 1.498 | 1.498 | 18 | 0.653 |  | 1.000 | 0.653 |
| 34 | C2006 | 1~3 | 11 | 1.200 | 13.200 | 18 | 0.653 |  | 1.000 | 0.653 |
| 35 | C2010 | 3 | 1 | 2.000 | 2.000 | 18 | 0.653 |  | 1.000 | 0.653 |
| 36 | C2010 | 4 | 2 | 1.999 | 3.998 | 18 | 0.653 |  | 1.000 | 0.653 |
| 37 | C2020 | 3~4 | 7 | 4.000 | 28.000 | 18 | 0.653 |  | 1.000 | 0.653 |
| 38 | C2020 | 4 | 1 | 4.000 | 4.000 | 18 | 0.653 | 百叶遮阳0 | 0.495 | 0.323 |
| 39 | C2142 | 1 | 7 | 8.820 | 61.740 | 18 | 0.653 |  | 1.000 | 0.653 |
| 40 | C2510 | 1 | 1 | 2.500 | 2.500 | 18 | 0.653 |  | 1.000 | 0.653 |
| 41 | C2510 | 1 | 1 | 2.500 | 2.500 | 18 | 0.653 |  | 1.000 | 0.653 |
| 42 | C2510 | 1 | 1 | 2.500 | 2.500 | 18 | 0.653 |  | 1.000 | 0.653 |
| 43 | C2510 | 1 | 1 | 2.500 | 2.500 | 18 | 0.653 |  | 1.000 | 0.653 |
| 44 | C2510 | 1 | 1 | 2.499 | 2.499 | 18 | 0.653 |  | 1.000 | 0.653 |
| 45 | C2510 | 1 | 1 | 2.499 | 2.499 | 18 | 0.653 |  | 1.000 | 0.653 |
| 46 | C3010 | 3 | 1 | 3.000 | 3.000 | 18 | 0.653 | 百叶遮阳0 | 0.283 | 0.184 |
| 47 | C7424 | 3 | 1 | 18.341 | 18.341 | 18 | 0.653 | 百叶遮阳0 | 0.534 | 0.348 |
| 48 | C7424 | 4 | 1 | 18.341 | 18.341 | 18 | 0.653 |  | 1.000 | 0.653 |
| 49 | C7427 | 1 | 1 | 20.587 | 20.587 | 18 | 0.653 | 百叶遮阳0 | 0.552 | 0.360 |
| 50 | HC2133 | 1 | 1 | 6.908 | 6.908 | 18 | 0.653 |  | 1.000 | 0.653 |
| 51 | HC2133 | 1 | 1 | 6.917 | 6.917 | 18 | 0.653 |  | 1.000 | 0.653 |
| 52 | HC2142 | 1 | 4 | 8.820 | 35.280 | 18 | 0.653 |  | 1.000 | 0.653 |
| 53 | HC2142 | 1 | 4 | 4.410 | 17.640 | 18 | 0.653 |  | 1.000 | 0.653 |
| 朝向总面积(㎡) | 493.219 | 综合太阳得热系数 | 0.752 | 0.397 |

## 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3 | 350.10 | 3.75 | 0.50 | 0.19 | K(不要求), SHGC(不要求) | 满足 |
| 北向 | 立面4 | 835.87 | 3.78 | 0.46 | 0.36 | K(不要求), SHGC(不要求) | 满足 |
| 东向 | 立面1 | 695.80 | 3.67 | 0.41 | 0.29 | K(不要求), SHGC(不要求) | 满足 |
| 西向 | 立面2 | 493.22 | 3.72 | 0.40 | 0.16 | K(不要求), SHGC(不要求) | 满足 |
| 综合平均 |  | 2375.00 | 3.73 | 0.44 | 0.25 |  |  |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.4.1条 |
| 标准要求 | 单一立面窗墙比大于或等于0.40时，外窗传热系数和综合太阳得热系数应满足表3.4.1-3的要求 |
| 结论 | 满足 |

注：本表所统计的外窗包含凸窗。

# 有效通风换气面积

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 楼层 | 房间编号 | 房间面积（㎡） | 立面面积（㎡） | 门窗编号 | 门窗面积（㎡） | 有效通风面积比 | 门窗类型 | 有效通风面积/外窗面积 | 有效通风面积/立面面积 | 结论 |
| 1 | 1001 | 17.16 | 49.00 | C2006 | 1.20 | 0.50 | 外窗 | 0.50 | 0.02 | 不适宜 |
| C2006 | 1.20 | 0.50 | 外窗 |
| 1002 | 7.80 | 16.66 | C2006 | 1.20 | 0.50 | 外窗 | 0.50 | 0.04 | 不适宜 |
| 1003 | 46.86 | 36.75 | C2006 | 1.20 | 0.50 | 外窗 | 0.50 | 0.03 | 不适宜 |
| C2006 | 1.20 | 0.50 | 外窗 |
| 1004 | 17.82 | 29.89 | C2006 | 1.20 | 0.50 | 外窗 | 0.50 | 0.04 | 不适宜 |
| C2006 | 1.20 | 0.50 | 外窗 |
| 1012 | 1061.47 | 881.27 | 未编号 | 53.14 | 0.00 | 幕墙 | 0.30 | 0.06 | 不适宜 |
| 未编号 | 8.84 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| HC2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 31.07 | 0.00 | 幕墙 |
| 未编号 | 2.32 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| HC2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 11.28 | 0.00 | 幕墙 |
| 未编号 | 26.83 | 0.00 | 幕墙 |
| 未编号 | 2.32 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| HC2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 11.28 | 0.00 | 幕墙 |
| 未编号 | 26.83 | 0.00 | 幕墙 |
| 未编号 | 4.37 | 0.00 | 幕墙 |
| 未编号 | 1.26 | 0.00 | 幕墙 |
| C2115 | 3.15 | 0.30 | 外窗 |
| 未编号 | 8.82 | 0.00 | 幕墙 |
| 未编号 | 8.73 | 0.00 | 幕墙 |
| 未编号 | 1.26 | 0.00 | 幕墙 |
| C2115 | 3.15 | 0.30 | 外窗 |
| 未编号 | 8.82 | 0.00 | 幕墙 |
| 未编号 | 8.73 | 0.00 | 幕墙 |
| 未编号 | 1.26 | 0.00 | 幕墙 |
| C2115 | 3.15 | 0.30 | 外窗 |
| 未编号 | 8.82 | 0.00 | 幕墙 |
| 未编号 | 8.73 | 0.00 | 幕墙 |
| 未编号 | 1.26 | 0.00 | 幕墙 |
| C2115 | 3.15 | 0.30 | 外窗 |
| 未编号 | 8.82 | 0.00 | 幕墙 |
| 未编号 | 8.73 | 0.00 | 幕墙 |
| 未编号 | 1.26 | 0.00 | 幕墙 |
| C2115 | 3.15 | 0.30 | 外窗 |
| 未编号 | 8.82 | 0.00 | 幕墙 |
| 未编号 | 8.73 | 0.00 | 幕墙 |
| 未编号 | 1.26 | 0.00 | 幕墙 |
| C2115 | 3.15 | 0.30 | 外窗 |
| 未编号 | 8.82 | 0.00 | 幕墙 |
| 未编号 | 8.73 | 0.00 | 幕墙 |
| 未编号 | 1.26 | 0.00 | 幕墙 |
| C2115 | 3.15 | 0.30 | 外窗 |
| 未编号 | 8.82 | 0.00 | 幕墙 |
| 未编号 | 4.37 | 0.00 | 幕墙 |
| 未编号 | 1.26 | 0.00 | 幕墙 |
| 未编号 | 6.15 | 0.00 | 幕墙 |
| 未编号 | 3.47 | 0.00 | 幕墙 |
| 未编号 | 6.15 | 0.00 | 幕墙 |
| 未编号 | 2.10 | 0.00 | 幕墙 |
| 未编号 | 6.15 | 0.00 | 幕墙 |
| 未编号 | 7.55 | 0.00 | 幕墙 |
| 未编号 | 8.30 | 0.00 | 幕墙 |
| 未编号 | 6.15 | 0.00 | 幕墙 |
| 未编号 | 9.56 | 0.00 | 幕墙 |
| 未编号 | 13.60 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| C2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 4.01 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| C2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 2.34 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| C2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 2.00 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| C2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 1.32 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| C2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 3.37 | 0.00 | 幕墙 |
| 未编号 | 6.15 | 0.00 | 幕墙 |
| 未编号 | 0.47 | 0.00 | 幕墙 |
| 未编号 | 6.15 | 0.00 | 幕墙 |
| 未编号 | 0.38 | 0.00 | 幕墙 |
| 未编号 | 6.15 | 0.00 | 幕墙 |
| 未编号 | 0.28 | 0.00 | 幕墙 |
| 未编号 | 6.15 | 0.00 | 幕墙 |
| 未编号 | 0.18 | 0.00 | 幕墙 |
| 未编号 | 6.15 | 0.00 | 幕墙 |
| 未编号 | 2.72 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| C2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 5.97 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| C2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 2.83 | 0.00 | 幕墙 |
| 未编号 | 3.11 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| HC2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 6.33 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| HC2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 3.10 | 0.00 | 幕墙 |
| 未编号 | 18.94 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| HC2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 3.81 | 0.00 | 幕墙 |
| 未编号 | 0.95 | 0.00 | 幕墙 |
| HC2142 | 4.41 | 0.30 | 外窗 |
| 未编号 | 1.26 | 0.00 | 幕墙 |
| 未编号 | 0.95 | 0.00 | 幕墙 |
| HC2142 | 4.41 | 0.30 | 外窗 |
| 未编号 | 1.26 | 0.00 | 幕墙 |
| 未编号 | 20.85 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| HC2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 1.90 | 0.00 | 幕墙 |
| 未编号 | 1.90 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| HC2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 20.85 | 0.00 | 幕墙 |
| 未编号 | 0.95 | 0.00 | 幕墙 |
| HC2142 | 4.41 | 0.30 | 外窗 |
| 未编号 | 1.26 | 0.00 | 幕墙 |
| 未编号 | 0.95 | 0.00 | 幕墙 |
| HC2142 | 4.41 | 0.30 | 外窗 |
| 未编号 | 1.26 | 0.00 | 幕墙 |
| 未编号 | 3.81 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| HC2142 | 8.82 | 0.30 | 外窗 |
| 未编号 | 2.52 | 0.00 | 幕墙 |
| 未编号 | 18.94 | 0.00 | 幕墙 |
| 1014 | 224.64 | 101.02 | 未编号 | 1.95 | 0.00 | 幕墙 | 0.50 | 0.08 | 不适宜 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| HC2133 | 6.93 | 0.50 | 外窗 |
| 未编号 | 1.47 | 0.00 | 幕墙 |
| 未编号 | 2.75 | 0.00 | 幕墙 |
| 未编号 | 4.05 | 0.00 | 幕墙 |
| 未编号 | 0.36 | 0.00 | 幕墙 |
| 未编号 | 4.05 | 0.00 | 幕墙 |
| 未编号 | 4.34 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| HC2133 | 6.93 | 0.50 | 外窗 |
| 未编号 | 1.47 | 0.00 | 幕墙 |
| 未编号 | 5.27 | 0.00 | 幕墙 |
| 未编号 | 15.42 | 0.00 | 幕墙 |
| C0923 | 2.07 | 0.50 | 外窗 |
| 1019 | 20.95 | 33.15 | C0923 | 2.07 | 0.50 | 外窗 | 0.50 | 0.06 | 不适宜 |
| C0923 | 2.07 | 0.50 | 外窗 |
| 1070 | 29.57 | 21.84 | C0923 | 2.07 | 0.50 | 外窗 | 0.50 | 0.09 | 不适宜 |
| C0923 | 2.07 | 0.50 | 外窗 |
| 1075 | 25.48 | 22.29 | C0923 | 2.07 | 0.50 | 外窗 | 0.50 | 0.09 | 不适宜 |
| C0923 | 2.07 | 0.50 | 外窗 |
| 1080 | 13.69 | 19.62 | C1223 | 2.76 | 0.50 | 外窗 | 0.50 | 0.07 | 不适宜 |
| 1120 | 18.88 | 39.82 | 未编号 | 5.26 | 0.00 | 幕墙 | － | 0.00 | 不适宜 |
| 未编号 | 6.15 | 0.00 | 幕墙 |
| 未编号 | 6.53 | 0.00 | 幕墙 |
| 1122 | 35.02 | 42.51 | C2020 | 4.00 | 0.50 | 外窗 | 0.50 | 0.09 | 不适宜 |
| C2020 | 4.00 | 0.50 | 外窗 |
| 1126 | 18.22 | 38.56 | 未编号 | 6.21 | 0.00 | 幕墙 | － | 0.00 | 不适宜 |
| 未编号 | 6.15 | 0.00 | 幕墙 |
| 未编号 | 4.95 | 0.00 | 幕墙 |
| 1144 | 54.66 | 95.53 | 未编号 | 5.37 | 0.00 | 幕墙 | 0.50 | 0.09 | 不适宜 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| HC2133 | 6.93 | 0.50 | 外窗 |
| 未编号 | 4.41 | 0.00 | 幕墙 |
| 未编号 | 4.59 | 0.00 | 幕墙 |
| 未编号 | 1.89 | 0.00 | 幕墙 |
| HC2133 | 6.93 | 0.50 | 外窗 |
| 未编号 | 4.41 | 0.00 | 幕墙 |
| 未编号 | 5.41 | 0.00 | 幕墙 |
| C2510 | 2.50 | 0.50 | 外窗 |
| 1159 | 32.76 | 50.40 | 未编号 | 7.88 | 0.00 | 幕墙 | － | 0.00 | 不适宜 |
| 未编号 | 6.15 | 0.00 | 幕墙 |
| 未编号 | 7.88 | 0.00 | 幕墙 |
| 1174 | 43.00 | 49.77 | C3006 | 1.80 | 0.50 | 外窗 | 0.50 | 0.02 | 不适宜 |
| 1175 | 38.10 | 91.98 | C3006 | 1.80 | 0.50 | 外窗 | 0.50 | 0.01 | 不适宜 |
| 1188 | 10.60 | 39.69 | C3006 | 1.80 | 0.50 | 外窗 | 0.50 | 0.02 | 不适宜 |
| 2 | 2003 | 221.98 | 74.22 | C2020 | 4.00 | 0.50 | 外窗 | 0.50 | 0.07 | 不适宜 |
| C2020 | 4.00 | 0.50 | 外窗 |
| C0923 | 2.07 | 0.50 | 外窗 |
| 2013 | 23.10 | 14.04 | C2006 | 1.20 | 0.50 | 外窗 | 0.50 | 0.04 | 不适宜 |
| 2014 | 21.12 | 12.96 | C2006 | 1.20 | 0.50 | 外窗 | 0.50 | 0.05 | 不适宜 |
| 2015 | 20.56 | 24.35 | C0923 | 2.07 | 0.50 | 外窗 | 0.50 | 0.08 | 不适宜 |
| C0923 | 2.07 | 0.50 | 外窗 |
| 3 | 3007 | 21.12 | 14.04 | C2006 | 1.20 | 0.50 | 外窗 | 0.50 | 0.04 | 不适宜 |
| 3008 | 16.45 | 15.21 | C2006 | 1.20 | 0.50 | 外窗 | 0.50 | 0.04 | 不适宜 |
| 3009 | 12.69 | 12.09 | C2006 | 1.20 | 0.50 | 外窗 | 0.50 | 0.05 | 不适宜 |
| 3022 | 146.60 | 168.03 | 未编号 | 4.05 | 0.00 | 幕墙 | 0.37 | 0.09 | 不适宜 |
| 未编号 | 1.35 | 0.00 | 幕墙 |
| HC1530 | 4.50 | 0.30 | 外窗 |
| 未编号 | 0.90 | 0.00 | 幕墙 |
| 未编号 | 0.32 | 0.00 | 幕墙 |
| 未编号 | 7.75 | 0.00 | 幕墙 |
| 未编号 | 0.68 | 0.00 | 幕墙 |
| HC1530 | 2.25 | 0.30 | 外窗 |
| 未编号 | 0.45 | 0.00 | 幕墙 |
| 未编号 | 0.68 | 0.00 | 幕墙 |
| HC1530 | 2.25 | 0.30 | 外窗 |
| 未编号 | 0.45 | 0.00 | 幕墙 |
| 未编号 | 7.75 | 0.00 | 幕墙 |
| 未编号 | 0.32 | 0.00 | 幕墙 |
| 未编号 | 1.35 | 0.00 | 幕墙 |
| HC1530 | 4.50 | 0.30 | 外窗 |
| 未编号 | 0.90 | 0.00 | 幕墙 |
| 未编号 | 4.05 | 0.00 | 幕墙 |
| 未编号 | 3.96 | 0.00 | 幕墙 |
| 未编号 | 1.35 | 0.00 | 幕墙 |
| HC1530 | 4.50 | 0.30 | 外窗 |
| 未编号 | 0.90 | 0.00 | 幕墙 |
| 未编号 | 3.96 | 0.00 | 幕墙 |
| 未编号 | 3.96 | 0.00 | 幕墙 |
| 未编号 | 1.35 | 0.00 | 幕墙 |
| HC1530 | 4.50 | 0.30 | 外窗 |
| 未编号 | 0.90 | 0.00 | 幕墙 |
| 未编号 | 3.96 | 0.00 | 幕墙 |
| 未编号 | 3.96 | 0.00 | 幕墙 |
| 未编号 | 1.35 | 0.00 | 幕墙 |
| HC1530 | 4.50 | 0.30 | 外窗 |
| 未编号 | 0.90 | 0.00 | 幕墙 |
| 未编号 | 3.96 | 0.00 | 幕墙 |
| C3010 | 3.00 | 0.50 | 外窗 |
| C2020 | 4.00 | 0.50 | 外窗 |
| C2020 | 4.00 | 0.50 | 外窗 |
| C2020 | 4.00 | 0.50 | 外窗 |
| 3163 | 32.76 | 36.00 | 未编号 | 4.50 | 0.00 | 幕墙 | 0.50 | 0.03 | 不适宜 |
| 未编号 | 1.80 | 0.00 | 幕墙 |
| C2010 | 2.00 | 0.50 | 外窗 |
| 未编号 | 5.20 | 0.00 | 幕墙 |
| 未编号 | 4.50 | 0.00 | 幕墙 |
| 3176 | 43.00 | 43.20 | C3006 | 1.80 | 0.50 | 外窗 | 0.50 | 0.02 | 不适宜 |
| 3177 | 38.10 | 72.00 | C3006 | 1.80 | 0.50 | 外窗 | 0.50 | 0.01 | 不适宜 |
| 4 | 4116 | 34.79 | 24.40 | C2010 | 2.00 | 0.50 | 外窗 | 0.50 | 0.08 | 不适宜 |
| C2010 | 2.00 | 0.50 | 外窗 |
| 4146 | 25.17 | 24.40 | C1010 | 1.00 | 1.00 | 外窗 | 1.00 | 0.08 | 不适宜 |
| C1010 | 1.00 | 1.00 | 外窗 |
| 4154 | 9.64 | 11.86 | C0912 | 1.08 | 1.00 | 外窗 | 1.00 | 0.09 | 不适宜 |
| 4167 | 32.76 | 36.00 | 未编号 | 4.50 | 0.00 | 幕墙 | 0.50 | 0.03 | 不适宜 |
| 未编号 | 1.80 | 0.00 | 幕墙 |
| C2010 | 2.00 | 0.50 | 外窗 |
| 未编号 | 5.20 | 0.00 | 幕墙 |
| 未编号 | 4.50 | 0.00 | 幕墙 |
| 4178 | 41.90 | 43.20 | C3006 | 1.80 | 0.50 | 外窗 | 0.50 | 0.02 | 不适宜 |
| 4179 | 37.05 | 72.00 | C3006 | 1.80 | 0.50 | 外窗 | 0.50 | 0.01 | 不适宜 |
| 4187 | 12.86 | 29.44 | C0923 | 2.07 | 0.50 | 外窗 | 0.50 | 0.04 | 不适宜 |
| 通风换气装置 | 无 |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.2.8条 |
| 标准要求 | 甲类建筑外窗有效通风换气面积不宜小于所在房间立面面积的10%  |
| 结论 | 不适宜 |

注：达标时只列出一项，不达标时列出全部不达标项

# 隔热检查

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 构造名称 | 构造类型 | 朝向 | 传热系数 | 热惰性指标 | 面密度 | 面积(㎡) | 内表最高温度(℃) | 温度限值(℃) | 结论 |
| 外墙构造一 | 外墙 | 东 | 1.03 | 6.06 | 651 | 1237.92 | 27.51 | 28.00 | 满足 |
| 外墙构造一 | 外墙 | 西 | 1.03 | 6.06 | 651 | 1910.93 | 27.59 | 28.00 | 满足 |
| 屋顶构造一 | 屋顶 | 东 | 0.76 | 3.49 | 604 | 475.63 | 27.18 | 28.50 | 满足 |
| 屋顶构造一 | 屋顶 | 西 | 0.76 | 3.49 | 604 | 476.40 | 27.25 | 28.50 | 满足 |
| 屋顶构造一 | 屋顶 | 北 | 0.76 | 3.49 | 604 | 183.19 | 26.93 | 28.50 | 满足 |
| 屋顶构造一 | 屋顶 | 上 | 0.76 | 3.49 | 604 | 6126.96 | 27.80 | 28.50 | 满足 |
| 标准依据 | 《公共建筑节能设计标准广东省实施细则》(DBJ15-51-2007)第4.2.2条和《民用建筑热工设计规范》GB50176 |
| 标准要求 | 内表面温度不超过限值 |
| 结论 | 满足 |

# 非中空窗面积比

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 朝向 | 非中空玻璃面积(㎡) | 透光面积(㎡) | 非中空面积比 | 限值 | 结论 |
| 南向 | 0.00 | 350.10 | 0.00 | 0.15 | 满足 |
| 北向 | 0.00 | 835.87 | 0.00 | 0.15 | 满足 |
| 东向 | 0.00 | 695.80 | 0.00 | 0.15 | 满足 |
| 西向 | 0.00 | 493.22 | 0.00 | 0.15 | 满足 |
| 《标准》依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.7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 |

# 外窗气密性

|  |  |  |
| --- | --- | --- |
| 层数 | 1～9层 | 10层以上 |
| 最不利气密性等级 | 6级 1927 | － |
| 外窗气密性措施 |  |  |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.5条，分级与检测方法《建筑外门窗气密、水密、抗风压性能分级及检测方法》（GB/T 7106-2008） | 《公共建筑节能设计标准》(GB50189-2015)第3.3.5条，分级与检测方法《建筑外门窗气密、水密、抗风压性能分级及检测方法》（GB/T 7106-2008） |
| 标准要求 | 10层以下外窗气密性不应低于《建筑外门窗气密、水密、抗风压性能分级及检测方法》（GB/T 7106-2008）的6级 | 10层及以上外窗气密性不应低于《建筑外门窗气密、水密、抗风压性能分级及检测方法》（GB/T 7106-2008）的7级 |
| 结论 | 满足 | － |

# 幕墙气密性

|  |  |
| --- | --- |
| 最不利气密性等级 | 3级  |
| 幕墙气密性措施 |  |
| 通风换气装置 | 无 |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.6条，《建筑幕墙》（GB/T 21086-2007） |
| 标准要求 | 幕墙气密性不应低于《建筑幕墙》（GB/T 21086-2007）的3级，即《建筑幕墙物理性能分级》(GB/T15225-94)的3级 |
| 结论 | 满足 |

# 综合权衡

## 计算条件

|  |  |  |
| --- | --- | --- |
|  | 设计建筑 | 参照建筑 |
| 屋顶传热系数K [W/(m2·K)] | 0.76(D:3.49) | 0.80 |
| 外墙（包括非透明幕墙）传热系数K [W/(m2·K)] | 0.98(D:5.65) | 1.50 |
| 屋顶透光部分传热系数K [W/(m2·K)] | 3.50 | 3.00 |
| 屋顶透光部分太阳得热系数 | 0.26 | 0.30 |
| 屋顶透明部分面积与屋顶面积之比 | 0.03 | 0.03 |
| 底面接触室外的架空或外挑楼板传热系数K [W/(m2·K)] | 1.18 | 1.50 |
| 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3 | 0.19 | 3.75 | 0.50 | 0.19 | 5.20 | 0.52 |
| 北向 | 立面4 | 0.36 | 3.78 | 0.46 | 0.36 | 3.00 | 0.44 |
| 东向 | 立面1 | 0.29 | 3.67 | 0.41 | 0.29 | 4.00 | 0.44 |
| 西向 | 立面2 | 0.16 | 3.72 | 0.40 | 0.16 | 5.20 | 0.52 |
| 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. — 代表本工程无对应项; 2. ——代表参照建筑不要求，取值同设计建筑。

## 房间类型

### 房间表

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |
| 办公-普通办公室 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 9(W/㎡) | 15(W/㎡) |
| 办公-走廊 | 26 | 20 | 30(m3/h.人) | 10(㎡/人) | 9(W/㎡) | 15(W/㎡) |
| 宾馆-2星级多功能厅 | 25 | 22 | 30(m3/h.人) | 25(㎡/人) | 7(W/㎡) | 15(W/㎡) |
| 宾馆-4～5星级大堂 | 25 | 22 | 30(m3/h.人) | 25(㎡/人) | 7(W/㎡) | 15(W/㎡) |
| 空房间 | － | － | 20(m3/h.人) | 50(㎡/人) | 0(W/㎡) | 0(W/㎡) |

### 作息时间表

详见附录

## 综合权衡

|  |  |  |
| --- | --- | --- |
|  | 设计建筑 | 参照建筑 |
| 全年供暖和空调总耗电量(kWh/㎡) | 34.15 | 36.66 |
| 供冷耗电量(kWh/㎡) | 25.51 | 26.96 |
| 供热耗电量(kWh/㎡) | 8.64 | 9.70 |
| 耗冷量(kWh/㎡) | 63.78 | 67.39 |
| 耗热量(kWh/㎡) | 19.03 | 21.36 |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.4.2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 |

# 结论

|  |  |  |
| --- | --- | --- |
| 序号 | 检查项 | 结论 |
| 1 | 可见光透射比 | 满足 |
| 2 | 屋顶构造 | 满足 |
| 3 | 外墙构造 | 满足 |
| 4 | 外窗热工 | 满足 |
| 5 | 有效通风换气面积 | 不适宜 |
| 6 | 隔热检查 | 满足 |
| 7 | 非中空窗面积比 | 满足 |
| 8 | 外窗气密性 | 满足 |
| 9 | 幕墙气密性 | 满足 |
| 10 | 综合权衡 | 满足 |
| 结论 | 满足 |

# 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 |
| 办公-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 |
| 办公-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 |
| 宾馆-2星级多功能厅 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 宾馆-4～5星级大堂 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 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 |

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 |
| 办公-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 |
| 办公-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 |
| 宾馆-2星级多功能厅 | 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 |
| 宾馆-4～5星级大堂 | 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 |
| 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 |

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 |
| 办公-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 |
| 办公-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 |
| 宾馆-2星级多功能厅 | 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 |
| 宾馆-4～5星级大堂 | 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 |
| 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 |

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 |
| 办公-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 |
| 办公-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 |
| 宾馆-2星级多功能厅 | 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 |
| 宾馆-4～5星级大堂 | 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 |
| 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 |

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 |
| 办公-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 |
| 办公-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 |
| 宾馆-2星级多功能厅 | 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 |
| 宾馆-4～5星级大堂 | 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 |
| 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 |

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 |
| Sys全空气 | 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 |
| Sys风机盘管 | 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