**建筑节能设计报告书**

公共建筑

甲类  分散供暖空调

|  |  |
| --- | --- |
| 工程名称 | 浙江理工大学艺术与设计学院改造更新 |
| 工程地点 | 浙江-杭州 |
| 设计编号 |  |
| 建设单位 |  |
| 设计单位 |  |
| 设 计 人 |  |
| 校 对 人 |  |
| 审 核 人 |  |
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# 建筑概况

|  |  |  |
| --- | --- | --- |
| 工程名称 | 新建项目 | |
| 工程地点 | 浙江-杭州 | |
| 地理位置 | 北纬：30.23° | 东经：120.17° |
| 气候分区 | 夏热冬冷 | |
| 建筑面积 | 地上12054㎡ 地下0㎡ | |
| 建筑层数 | 地上3 地下0 | |
| 建筑高度 | 14.0m | |
| 建筑（节能计算）体积 | 0.00 | |
| 建筑（节能计算）外表面积 | 0.00 | |
| 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. 《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）

# 建筑大样



立面图例



1层平面



2层平面



3层平面

# 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 | 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 |
| 混凝土多孔砖(190六孔砖） | 0.750 | 7.490 | 1450.0 | 709.4 | 0.0000 |  |
| 轻质混合种植土 | 0.470 | 6.436 | 1200.0 | 1010.0 | 0.0000 | 蒸汽渗透系数没有给出 |
| 陶粒排（蓄）水层 | 0.260 | 4.366 | 1200.0 | 840.0 | 0.0000 |  |
| 细石混凝土（双向配筋） | 1.740 | 17.060 | 2500.0 | 920.0 | 0.0000 | 蒸汽渗透系数为测定值 |
| 防水层 | 0.170 | 3.302 | 600.0 | 1470.0 | 0.0000 |  |
| 水泥砂浆（1） | 0.930 | 11.306 | 1800.0 | 1050.0 | 0.0000 | 蒸汽渗透系数为测定值 |
| 现浇混凝土屋面板 | 1.740 | 17.060 | 2500.0 | 920.0 | 0.0000 | 蒸汽渗透系数为测定值 |
| 混合砂浆 | 0.870 | 10.627 | 1700.0 | 1050.0 | 0.0000 |  |
| 抗裂砂浆（玻纤网） | 0.930 | 11.306 | 1800.0 | 1050.0 | 0.0000 |  |
| 硬泡聚氨酯 | 0.027 | 0.420 | 50.0 | 1796.8 | 0.0000 |  |
| 蒸压加气混凝土砌块（B07） | 0.180 | 3.590 | 700.0 | 1050.0 | 0.0000 |  |
| 聚合物水泥石灰砂浆 | 0.930 | 11.306 | 1800.0 | 1050.0 | 0.0000 |  |
| C20细石混凝土(ρ=2300) | 1.510 | 15.243 | 2300.0 | 920.0 | 0.0000 | 蒸汽渗透系数为测定值 |
| 钢筋混凝土（1） | 1.740 | 17.060 | 2500.0 | 920.0 | 0.0000 | 蒸汽渗透系数为测定值 |
| 岩棉板 | 0.045 | 0.684 | 150.0 | 1340.0 | 0.0000 |  |
| 胶粉聚苯颗粒浆料 | 0.060 | 1.020 | 230.0 | 1036.0 | 0.0000 | （蒸汽渗透系数未给出）墙体外保温、内保温a=1.15 |
| 挤塑聚苯板 | 0.030 | 0.317 | 28.0 | 1647.0 | 0.0000 |  |

## 围护结构作法简要说明

**1. 屋顶构造：**屋顶构造一：（由上到下）

轻质混合种植土 300mm＋陶粒排（蓄）水层 100mm＋细石混凝土（双向配筋） 40mm＋挤塑聚苯板 35mm＋防水层 2mm＋水泥砂浆（1） 20mm＋现浇混凝土屋面板 120mm＋混合砂浆 15mm

**2. 外墙构造：**外墙构造一：（由外到内）

抗裂砂浆（玻纤网） 10mm＋硬泡聚氨酯 20mm＋水泥砂浆（1） 10mm＋蒸压加气混凝土砌块（B07） 240mm＋聚合物水泥石灰砂浆 8mm

**3. 挑空楼板构造：**挑空楼板构造一：（由上到下）

C20细石混凝土(ρ=2300) 30mm＋钢筋混凝土（1） 120mm＋岩棉板 55mm＋胶粉聚苯颗粒浆料 15mm＋抗裂砂浆（玻纤网） 5mm

**4. 幕墙：**6中透光Low-E+12氩气+6透明-塑料窗框：

传热系数1.700W/m^2.K，太阳得热系数0.331

**5. 外窗：**6中透光Low-E+12氩气+6透明-塑料窗框：

传热系数1.700W/m^2.K，太阳得热系数0.331

**6. 天窗：**6低透光Low-E+12空气+6透明-隔热金属多腔密封窗框：

传热系数2.400W/m^2.K，太阳得热系数0.209

## 体形系数

|  |  |
| --- | --- |
| 外表面积 | 0.00 |
| 建筑体积 | 0.00 |
| 体形系数 | 0.00 |

## 窗墙比

### 窗墙比

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 朝向 | 立面 | 窗面积(㎡) | 墙面积(㎡) | 窗墙比 | 限值 | 结论 |
| 南向 | 南-默认立面 | 831.95 | 1397.77 | 0.60 | 0.70 | 适宜 |
| 北向 | 北-默认立面 | 530.57 | 1622.69 | 0.33 | 0.70 | 适宜 |
| 东向 | 东-默认立面 | 546.02 | 1270.28 | 0.43 | 0.70 | 适宜 |
| 西向 | 西-默认立面 | 620.28 | 1350.00 | 0.46 | 0.70 | 适宜 |
| 标准依据 | | 《公共建筑节能设计标准》(GB50189-2015)第3.2.2条 | | | | |
| 标准要求 | | 夏热冬冷地区甲类公共建筑各单一立面窗墙面积比 (包括透光幕墙 )均不宜大于0.70 | | | | |
| 结论 | | 适宜 | | | | |

### 外窗表

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 朝向 | 立面 | 编号 | 尺寸 | 楼层 | 数量 | 单个面积 （㎡） | 合计面积 （㎡） |
| 南向 | 南-默认立面 831.95 |  | 1.02×6.00 | 1 | 1 | 6.12 | 6.12 |
|  | 2.40×0.90 | 1~3 | 7 | 2.16 | 15.12 |
|  | 2.40×3.30 | 1 | 2 | 7.92 | 15.84 |
|  | 6.64×6.00 | 1 | 1 | 39.86 | 39.86 |
|  | 2.28×6.00 | 1 | 1 | 13.67 | 13.67 |
|  | 2.00×0.90 | 1~2 | 3 | 1.80 | 5.40 |
|  | 2.00×2.70 | 1 | 1 | 5.40 | 5.40 |
|  | 0.92×6.00 | 1 | 1 | 5.54 | 5.54 |
|  | 6.15×6.00 | 1 | 1 | 36.90 | 36.90 |
|  | 2.25×0.90 | 1 | 1 | 2.03 | 2.03 |
|  | 2.25×3.00 | 1 | 1 | 6.75 | 6.75 |
|  | 1.87×6.00 | 1 | 1 | 11.23 | 11.23 |
|  | 0.85×0.90 | 1 | 1 | 0.76 | 0.76 |
|  | 0.85×3.30 | 1 | 1 | 2.80 | 2.80 |
|  | 1.57×0.90 | 1 | 1 | 1.41 | 1.41 |
|  | 1.57×3.30 | 1 | 1 | 5.17 | 5.17 |
|  | 1.15×6.00 | 1 | 1 | 6.92 | 6.92 |
|  | 0.22×0.90 | 1 | 1 | 0.20 | 0.20 |
|  | 0.22×3.30 | 1 | 1 | 0.74 | 0.74 |
|  | 3.27×6.00 | 1 | 1 | 19.61 | 19.61 |
|  | 0.07×0.90 | 1,3 | 2 | 0.06 | 0.12 |
|  | 0.07×3.30 | 1 | 1 | 0.23 | 0.23 |
|  | 2.36×0.90 | 1 | 1 | 2.12 | 2.12 |
|  | 2.36×3.30 | 1 | 1 | 7.78 | 7.78 |
|  | 1.20×6.00 | 1 | 1 | 7.21 | 7.21 |
|  | 0.39×0.90 | 1 | 1 | 0.35 | 0.35 |
|  | 0.39×2.70 | 1 | 1 | 1.06 | 1.06 |
|  | 1.73×6.00 | 1 | 1 | 10.39 | 10.39 |
|  | 4.20×4.00 | 2 | 1 | 16.80 | 16.80 |
|  | 1.16×4.00 | 2 | 1 | 4.63 | 4.63 |
|  | 1.20×1.90 | 2~3 | 2 | 2.28 | 4.56 |
|  | 1.84×4.00 | 2 | 1 | 7.37 | 7.37 |
|  | 14.25×4.00 | 2 | 1 | 56.98 | 56.98 |
|  | 2.40×1.30 | 2~3 | 5 | 3.12 | 15.60 |
|  | 1.02×4.00 | 2 | 1 | 4.08 | 4.08 |
|  | 2.50×4.00 | 2~3 | 2 | 9.99 | 19.98 |
|  | 0.52×4.00 | 2 | 1 | 2.08 | 2.08 |
|  | 2.00×0.70 | 2 | 2 | 1.40 | 2.80 |
|  | 1.36×4.00 | 2 | 1 | 5.43 | 5.43 |
|  | 1.00×1.90 | 2~3 | 6 | 1.90 | 11.40 |
|  | 0.90×4.00 | 2 | 1 | 3.60 | 3.60 |
|  | 0.63×4.00 | 2 | 1 | 2.50 | 2.50 |
|  | 1.88×4.00 | 2 | 1 | 7.50 | 7.50 |
|  | 0.85×0.90 | 2 | 1 | 0.76 | 0.76 |
|  | 0.85×1.30 | 2 | 1 | 1.10 | 1.10 |
|  | 1.57×0.90 | 2 | 1 | 1.42 | 1.42 |
|  | 1.57×1.30 | 2 | 1 | 2.04 | 2.04 |
|  | 1.15×4.00 | 2 | 1 | 4.59 | 4.59 |
|  | 0.24×0.90 | 2 | 1 | 0.21 | 0.21 |
|  | 0.24×1.30 | 2 | 1 | 0.31 | 0.31 |
|  | 3.33×4.00 | 2 | 1 | 13.30 | 13.30 |
|  | 3.56×4.00 | 2 | 1 | 14.24 | 14.24 |
|  | 2.12×4.00 | 2 | 1 | 8.49 | 8.49 |
|  | 0.94×4.00 | 3 | 1 | 3.74 | 3.74 |
|  | 1.87×0.90 | 3 | 1 | 1.68 | 1.68 |
|  | 1.87×1.30 | 3 | 1 | 2.43 | 2.43 |
|  | 0.55×0.90 | 3 | 1 | 0.49 | 0.49 |
|  | 0.55×1.30 | 3 | 1 | 0.71 | 0.71 |
|  | 0.62×4.00 | 3 | 1 | 2.46 | 2.46 |
|  | 0.64×4.00 | 3 | 1 | 2.57 | 2.57 |
|  | 0.44×4.00 | 3 | 1 | 1.77 | 1.77 |
|  | 0.08×4.00 | 3 | 1 | 0.33 | 0.33 |
|  | 0.63×4.00 | 3 | 1 | 2.52 | 2.52 |
|  | 0.45×4.00 | 3 | 1 | 1.80 | 1.80 |
|  | 0.39×4.00 | 3 | 1 | 1.54 | 1.54 |
|  | 0.18×4.00 | 3 | 1 | 0.71 | 0.71 |
|  | 1.34×4.00 | 3 | 1 | 5.36 | 5.36 |
|  | 1.11×4.00 | 3 | 1 | 4.42 | 4.42 |
|  | 0.07×1.30 | 3 | 1 | 0.09 | 0.09 |
|  | 2.37×0.90 | 3 | 1 | 2.13 | 2.13 |
|  | 2.37×1.30 | 3 | 1 | 3.08 | 3.08 |
|  | 1.15×4.00 | 3 | 1 | 4.58 | 4.58 |
|  | 1.13×4.00 | 3 | 1 | 4.52 | 4.52 |
|  | 0.28×1.90 | 3 | 1 | 0.54 | 0.54 |
|  | 1.47×4.00 | 3 | 1 | 5.88 | 5.88 |
|  | 0.15×0.90 | 3 | 1 | 0.13 | 0.13 |
|  | 0.15×1.30 | 3 | 1 | 0.19 | 0.19 |
|  | 0.37×4.00 | 3 | 1 | 1.50 | 1.50 |
|  | 1.29×4.00 | 3 | 1 | 5.18 | 5.18 |
|  | 4.44×4.00 | 3 | 1 | 17.76 | 17.76 |
|  | 3.06×4.00 | 3 | 1 | 12.24 | 12.24 |
|  | 2.36×4.00 | 3 | 1 | 9.43 | 9.43 |
|  | 3.64×4.00 | 3 | 1 | 14.57 | 14.57 |
|  | 3.25×4.00 | 3 | 1 | 13.00 | 13.00 |
|  | 2.75×4.00 | 3 | 1 | 11.00 | 11.00 |
| C2024 | 2.00×2.40 | 1~2 | 4 | 4.80 | 19.20 |
| C2024 | 0.39×2.40 | 1 | 1 | 0.94 | 0.94 |
| C2221 | 2.25×2.10 | 1 | 4 | 4.73 | 18.90 |
| C2418 | 2.40×1.80 | 1~3 | 8 | 4.32 | 34.56 |
| C2418 | 0.85×1.80 | 1 | 1 | 1.53 | 1.53 |
| C2418 | 1.57×1.80 | 1 | 1 | 2.82 | 2.82 |
| C2418 | 0.22×1.80 | 1 | 1 | 0.40 | 0.40 |
| C2418 | 0.07×1.80 | 1,3 | 2 | 0.12 | 0.25 |
| C2418 | 2.36×1.80 | 1 | 1 | 4.25 | 4.25 |
| C2418 | 0.85×1.80 | 2 | 1 | 1.52 | 1.52 |
| C2418 | 1.57×1.80 | 2 | 1 | 2.83 | 2.83 |
| C2418 | 0.24×1.80 | 2 | 1 | 0.42 | 0.42 |
| C2418 | 1.87×1.80 | 3 | 1 | 3.36 | 3.36 |
| C2418 | 0.55×1.80 | 3 | 1 | 0.98 | 0.98 |
| C2418 | 2.37×1.80 | 3 | 1 | 4.27 | 4.27 |
| C2418 | 0.15×1.80 | 3 | 1 | 0.26 | 0.26 |
| C2624 | 2.64×2.40 | 3 | 1 | 6.33 | 6.33 |
| C2824 | 2.82×2.40 | 3 | 1 | 6.77 | 6.77 |
| C2924 | 2.92×2.40 | 3 | 1 | 7.01 | 7.01 |
| C3024 | 3.03×2.40 | 3 | 1 | 7.27 | 7.27 |
| C3024 | 3.05×2.40 | 3 | 1 | 7.32 | 7.32 |
| C3224 | 3.27×2.40 | 3 | 1 | 7.85 | 7.85 |
| C7324 | 7.37×2.40 | 2 | 1 | 17.69 | 17.69 |
| C7424 | 7.50×2.40 | 2 | 1 | 17.99 | 17.99 |
| C7424 | 7.49×2.40 | 2 | 1 | 17.97 | 17.97 |
| C7524 | 7.52×2.40 | 2 | 1 | 18.06 | 18.06 |
| C8424 | 8.40×2.40 | 1,3 | 2 | 20.16 | 40.32 |
| 北向 | 北-默认立面 530.57 |  | 0.90×6.00 | 1 | 1 | 5.37 | 5.37 |
|  | 2.40×0.90 | 1~3 | 6 | 2.16 | 12.96 |
|  | 2.40×3.30 | 1 | 2 | 7.92 | 15.84 |
|  | 0.97×6.00 | 1 | 1 | 5.79 | 5.79 |
|  | 0.31×6.00 | 1 | 1 | 1.86 | 1.86 |
|  | 0.29×6.00 | 1 | 1 | 1.74 | 1.74 |
|  | 0.90×4.00 | 2 | 1 | 3.58 | 3.58 |
|  | 2.40×1.30 | 2~3 | 4 | 3.12 | 12.48 |
|  | 0.97×4.00 | 2 | 1 | 3.86 | 3.86 |
|  | 0.31×4.00 | 2 | 1 | 1.24 | 1.24 |
|  | 0.29×4.00 | 2 | 1 | 1.16 | 1.16 |
|  | 0.90×4.00 | 3 | 1 | 3.59 | 3.59 |
|  | 0.96×4.00 | 3 | 1 | 3.85 | 3.85 |
|  | 0.31×4.00 | 3 | 1 | 1.25 | 1.25 |
|  | 0.29×4.00 | 3 | 1 | 1.15 | 1.15 |
| C1815 | 1.80×1.50 | 2~3 | 2 | 2.70 | 5.40 |
| C2024 | 0.12×2.40 | 1 | 1 | 0.30 | 0.30 |
| C2024 | 0.70×2.40 | 1 | 1 | 1.69 | 1.69 |
| C2024 | 1.87×2.40 | 1 | 1 | 4.49 | 4.49 |
| C2024 | 1.29×2.40 | 1 | 1 | 3.10 | 3.10 |
| C2024 | 1.55×2.40 | 1 | 1 | 3.72 | 3.72 |
| C2024 | 2.00×2.40 | 1 | 1 | 4.80 | 4.80 |
| C2024 | 2.00×2.40 | 1~3 | 9 | 4.80 | 43.20 |
| C2221 | 2.25×2.10 | 1 | 12 | 4.73 | 56.70 |
| C2418 | 2.40×1.80 | 1~3 | 30 | 4.32 | 129.60 |
| C3724 | 3.77×2.40 | 2 | 1 | 9.06 | 9.06 |
| C3924 | 3.90×2.40 | 1 | 1 | 9.36 | 9.36 |
| C4018 | 4.08×1.80 | 1 | 2 | 7.34 | 14.69 |
| C4024 | 4.08×2.40 | 2~3 | 4 | 9.79 | 39.17 |
| C4024 | 4.08×2.40 | 3 | 3 | 9.80 | 29.40 |
| C4024 | 4.08×2.40 | 3 | 1 | 9.78 | 9.78 |
| C4324 | 4.39×2.40 | 2 | 1 | 10.53 | 10.53 |
| C8324 | 8.34×2.40 | 1~2 | 2 | 20.02 | 40.03 |
| C8324 | 8.30×2.40 | 2~3 | 2 | 19.92 | 39.84 |
| 东向 | 东-默认立面 546.02 |  | 2.81×6.00 | 1 | 1 | 16.88 | 16.88 |
|  | 2.40×0.90 | 1~3 | 12 | 2.16 | 25.92 |
|  | 2.40×3.30 | 1 | 2 | 7.92 | 15.84 |
|  | 0.99×6.00 | 1 | 2 | 5.92 | 11.83 |
|  | 0.51×6.00 | 1 | 1 | 3.08 | 3.08 |
|  | 6.14×4.00 | 2 | 1 | 24.57 | 24.57 |
|  | 2.26×4.00 | 2 | 1 | 9.03 | 9.03 |
|  | 4.40×4.00 | 2~3 | 2 | 17.60 | 35.20 |
|  | 4.20×4.00 | 2~3 | 3 | 16.80 | 50.40 |
|  | 2.25×4.00 | 2 | 1 | 9.00 | 9.00 |
|  | 2.40×1.30 | 2~3 | 10 | 3.12 | 31.20 |
|  | 3.75×4.00 | 2 | 1 | 15.00 | 15.00 |
|  | 2.82×4.00 | 2 | 1 | 11.26 | 11.26 |
|  | 3.18×4.00 | 2 | 1 | 12.74 | 12.74 |
|  | 0.76×4.00 | 2 | 1 | 3.02 | 3.02 |
|  | 1.04×4.00 | 2 | 1 | 4.18 | 4.18 |
|  | 0.51×4.00 | 2~3 | 2 | 2.06 | 4.11 |
|  | 0.99×4.00 | 2~3 | 2 | 3.94 | 7.89 |
|  | 4.17×4.00 | 2~3 | 2 | 16.69 | 33.38 |
|  | 1.83×4.00 | 2~3 | 2 | 7.31 | 14.62 |
|  | 2.82×4.00 | 3 | 2 | 11.27 | 22.54 |
|  | 3.18×4.00 | 3 | 2 | 12.73 | 25.46 |
|  | 3.75×4.00 | 3 | 1 | 15.00 | 15.00 |
|  | 2.25×4.00 | 3 | 1 | 9.00 | 9.00 |
| C0425 | 0.40×2.50 | 1 | 6 | 1.00 | 6.00 |
| C1215 | 1.20×1.50 | 1 | 3 | 1.80 | 5.40 |
| C2024 | 2.00×2.40 | 1~2 | 11 | 4.80 | 52.80 |
| C2024 | 1.81×2.40 | 1 | 1 | 4.34 | 4.34 |
| C2024 | 0.45×2.40 | 1 | 1 | 1.07 | 1.07 |
| C2024 | 0.19×2.40 | 1 | 1 | 0.45 | 0.45 |
| C2418 | 2.40×1.80 | 1~3 | 15 | 4.32 | 64.80 |
| 西向 | 西-默认立面 620.28 |  | 2.36×6.00 | 1 | 1 | 14.15 | 14.15 |
|  | 0.36×0.90 | 1 | 1 | 0.33 | 0.33 |
|  | 0.36×3.30 | 1 | 1 | 1.20 | 1.20 |
|  | 2.06×0.90 | 1 | 1 | 1.86 | 1.86 |
|  | 2.06×3.30 | 1 | 1 | 6.80 | 6.80 |
|  | 0.66×6.00 | 1 | 1 | 3.95 | 3.95 |
|  | 0.83×6.00 | 1 | 1 | 4.98 | 4.98 |
|  | 2.40×0.90 | 1~3 | 4 | 2.16 | 8.64 |
|  | 2.40×3.30 | 1 | 1 | 7.92 | 7.92 |
|  | 0.33×6.00 | 1 | 1 | 1.99 | 1.99 |
|  | 3.56×6.00 | 1 | 1 | 21.37 | 21.37 |
|  | 1.36×6.00 | 1 | 1 | 8.17 | 8.17 |
|  | 2.20×0.90 | 1 | 1 | 1.98 | 1.98 |
|  | 2.20×3.30 | 1 | 1 | 7.26 | 7.26 |
|  | 2.12×6.00 | 1 | 1 | 12.74 | 12.74 |
|  | 0.46×6.00 | 1 | 1 | 2.77 | 2.77 |
|  | 1.66×0.90 | 1 | 1 | 1.50 | 1.50 |
|  | 1.66×2.70 | 1 | 1 | 4.49 | 4.49 |
|  | 0.56×4.00 | 2 | 1 | 2.22 | 2.22 |
|  | 1.00×1.90 | 2~3 | 5 | 1.90 | 9.50 |
|  | 1.20×4.00 | 2 | 1 | 4.79 | 4.79 |
|  | 2.70×4.00 | 2 | 1 | 10.82 | 10.82 |
|  | 0.05×1.90 | 2 | 1 | 0.09 | 0.09 |
|  | 0.96×1.90 | 2 | 1 | 1.82 | 1.82 |
|  | 1.80×4.00 | 2 | 1 | 7.18 | 7.18 |
|  | 0.39×4.00 | 2 | 1 | 1.56 | 1.56 |
|  | 2.40×1.30 | 2 | 2 | 3.12 | 6.24 |
|  | 0.26×4.00 | 2 | 1 | 1.06 | 1.06 |
|  | 3.06×4.00 | 2 | 1 | 12.22 | 12.22 |
|  | 2.37×4.00 | 2 | 1 | 9.48 | 9.48 |
|  | 0.35×0.90 | 2 | 1 | 0.32 | 0.32 |
|  | 0.35×1.30 | 2 | 1 | 0.46 | 0.46 |
|  | 2.07×0.90 | 2 | 1 | 1.87 | 1.87 |
|  | 2.07×1.30 | 2 | 1 | 2.70 | 2.70 |
|  | 0.65×4.00 | 2 | 1 | 2.59 | 2.59 |
|  | 0.85×4.00 | 2 | 1 | 3.39 | 3.39 |
|  | 0.31×4.00 | 2 | 1 | 1.25 | 1.25 |
|  | 3.56×4.00 | 2 | 1 | 14.24 | 14.24 |
|  | 1.37×4.00 | 2 | 1 | 5.48 | 5.48 |
|  | 2.19×0.90 | 2 | 1 | 1.97 | 1.97 |
|  | 2.19×1.30 | 2 | 1 | 2.85 | 2.85 |
|  | 2.12×4.00 | 2 | 2 | 8.49 | 16.99 |
|  | 1.14×4.00 | 3 | 1 | 4.58 | 4.58 |
|  | 1.57×0.90 | 3 | 1 | 1.41 | 1.41 |
|  | 1.57×1.30 | 3 | 1 | 2.04 | 2.04 |
|  | 0.84×0.90 | 3 | 1 | 0.76 | 0.76 |
|  | 0.84×1.30 | 3 | 1 | 1.09 | 1.09 |
|  | 1.87×4.00 | 3 | 1 | 7.47 | 7.47 |
|  | 0.22×4.00 | 3 | 1 | 0.88 | 0.88 |
|  | 1.53×0.90 | 3 | 1 | 1.38 | 1.38 |
|  | 1.53×0.70 | 3 | 1 | 1.07 | 1.07 |
|  | 0.51×0.90 | 3 | 1 | 0.46 | 0.46 |
|  | 0.51×0.70 | 3 | 1 | 0.36 | 0.36 |
|  | 0.52×4.00 | 3 | 1 | 2.07 | 2.07 |
|  | 0.73×1.90 | 3 | 1 | 1.38 | 1.38 |
|  | 0.78×4.00 | 3 | 1 | 3.10 | 3.10 |
|  | 0.90×4.00 | 3 | 1 | 3.60 | 3.60 |
|  | 0.30×0.90 | 3 | 1 | 0.27 | 0.27 |
|  | 0.30×1.30 | 3 | 1 | 0.39 | 0.39 |
|  | 2.12×0.90 | 3 | 1 | 1.91 | 1.91 |
|  | 2.12×1.30 | 3 | 1 | 2.75 | 2.75 |
|  | 0.86×4.00 | 3 | 1 | 3.42 | 3.42 |
|  | 2.28×0.90 | 3 | 1 | 2.05 | 2.05 |
|  | 2.28×1.30 | 3 | 1 | 2.96 | 2.96 |
|  | 1.44×4.00 | 3 | 1 | 5.75 | 5.75 |
|  | 0.32×4.00 | 3 | 1 | 1.26 | 1.26 |
|  | 2.75×4.00 | 3 | 1 | 11.01 | 11.01 |
|  | 0.71×4.00 | 3 | 1 | 2.83 | 2.83 |
|  | 1.05×4.00 | 3 | 1 | 4.18 | 4.18 |
|  | 1.68×4.00 | 3 | 1 | 6.74 | 6.74 |
|  | 1.15×4.00 | 3 | 1 | 4.58 | 4.58 |
|  | 0.64×4.00 | 3 | 1 | 2.56 | 2.56 |
| C2024 | 2.00×2.40 | 1 | 3 | 4.80 | 14.40 |
| C2024 | 1.66×2.40 | 1 | 1 | 3.99 | 3.99 |
| C2024 | 1.53×2.40 | 3 | 1 | 3.68 | 3.68 |
| C2024 | 0.51×2.40 | 3 | 1 | 1.22 | 1.22 |
| C2418 | 2.40×1.80 | 1~2 | 7 | 4.32 | 30.24 |
| C2418 | 0.36×1.80 | 1 | 1 | 0.65 | 0.65 |
| C2418 | 2.06×1.80 | 1 | 1 | 3.71 | 3.71 |
| C2418 | 2.20×1.80 | 1 | 1 | 3.96 | 3.96 |
| C2418 | 0.35×1.80 | 2 | 1 | 0.63 | 0.63 |
| C2418 | 2.07×1.80 | 2 | 1 | 3.73 | 3.73 |
| C2418 | 2.19×1.80 | 2 | 1 | 3.94 | 3.94 |
| C2418 | 1.57×1.80 | 3 | 1 | 2.82 | 2.82 |
| C2418 | 0.84×1.80 | 3 | 1 | 1.52 | 1.52 |
| C2418 | 0.30×1.80 | 3 | 1 | 0.54 | 0.54 |
| C2418 | 2.12×1.80 | 3 | 1 | 3.81 | 3.81 |
| C2418 | 2.28×1.80 | 3 | 1 | 4.10 | 4.10 |
| C2924 | 2.93×2.40 | 1~2 | 2 | 7.03 | 14.05 |
| C5224 | 5.23×2.40 | 1~2 | 2 | 12.56 | 25.11 |
| C8324 | 8.40×2.40 | 1~2 | 3 | 20.16 | 60.48 |
| C8324 | 8.30×2.40 | 1~3 | 3 | 19.92 | 59.76 |
| C8424 | 8.40×2.40 | 3 | 3 | 20.16 | 60.48 |

## 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 | 南-默认立面 | 0.60 | C2418 | 0.80 | 0.40 |
| 北向 | 北-默认立面 | 0.33 | C8324 | 0.80 | 0.60 |
| 东向 | 东-默认立面 | 0.43 | C2418 | 0.80 | 0.40 |
| 西向 | 西-默认立面 | 0.46 | C8324 | 0.80 | 0.40 |
| 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 |
| 3004 | 2, | 612.35 | 1153.51 | 0.53 |
| 3049 | 1, | 132.09 | 138.71 | 0.95 |
| 整栋建筑 | | 744.44 | 6263.91 | 0.12 |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.2.7条 | | | |
| 标准要求 | 天窗面积不应大于屋顶总面积的20% | | | |
| 结论 | 满足 | | | |

### 天窗类型

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 序号 | 构造名称 | 构造编号 | 传热系数 | 综合太阳得热系数 | 备注 |
| 1 | 6低透光Low-E+12空气+6透明-隔热金属多腔密封窗框 | 66 | 2.40 | 0.21 | 摘自《全国民用建筑工程设计技术措施——节能专篇》，窗框面积约20% |
| 平均 | |  | 2.40 | 0.21 |  |
| 标准依据 | | 《公共建筑节能设计标准》(GB50189-2015)第3.3.1条 | | | |
| 标准要求 | | K≤2.6,SHGC≤0.3 | | | |
| 结论 | | 满足 | | | |

## 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 |
| 轻质混合种植土 | 300 | 0.470 | 6.436 | 1.50 | 0.426 | 4.108 |
| 陶粒排（蓄）水层 | 100 | 0.260 | 4.366 | 1.50 | 0.256 | 1.679 |
| 细石混凝土（双向配筋） | 40 | 1.740 | 17.060 | 1.00 | 0.023 | 0.392 |
| 挤塑聚苯板 | 35 | 0.030 | 0.317 | 1.10 | 1.061 | 0.370 |
| 防水层 | 2 | 0.170 | 3.302 | 1.10 | 0.011 | 0.039 |
| 水泥砂浆（1） | 20 | 0.930 | 11.306 | 1.00 | 0.022 | 0.243 |
| 现浇混凝土屋面板 | 120 | 1.740 | 17.060 | 1.00 | 0.069 | 1.177 |
| 混合砂浆 | 15 | 0.870 | 10.627 | 1.00 | 0.017 | 0.183 |
| 各层之和∑ | 632 | － | － | － | 1.884 | 8.191 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.49 | | | | | |
| 修正后K, D | K = 0.49, D = 8.19 | | | | | |
| 修正原因 |  | | | | | |
| 数据来源 | 浙江省《公共建筑节能设计标准》DB33/1036-2007，第72页 | | | | | |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.1条 | | | | | |
| 标准要求 | K应满足表3.3.1-4的规定(K≤0.50) | | | | | |
| 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 |
| 抗裂砂浆（玻纤网） | 10 | 0.930 | 11.306 | 1.00 | 0.011 | 0.122 |
| 硬泡聚氨酯 | 20 | 0.027 | 0.420 | 1.20 | 0.617 | 0.311 |
| 水泥砂浆（1） | 10 | 0.930 | 11.306 | 1.00 | 0.011 | 0.122 |
| 蒸压加气混凝土砌块（B07） | 240 | 0.180 | 3.590 | 1.25 | 1.067 | 4.787 |
| 聚合物水泥石灰砂浆 | 8 | 0.930 | 11.306 | 1.00 | 0.009 | 0.097 |
| 各层之和∑ | 288 | － | － | － | 1.714 | 5.438 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.16+∑R) | 0.53 | | | | | |
| 修正后K, D | K = 0.54, D = 17.57 | | | | | |
| 修正原因 |  | | | | | |
| 数据来源 | 浙江省《公共建筑节能设计标准》DB33/1036-2007，第60页 | | | | | |

#### 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 |
| 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 |
| 钢筋混凝土 | 200 | 1.740 | 17.200 | 1.00 | 0.115 | 1.977 |
| 石灰砂浆 | 20 | 0.810 | 10.070 | 1.00 | 0.025 | 0.249 |
| 各层之和∑ | 280 | － | － | － | 0.738 | 2.941 |
| 外表面太阳辐射吸收系数 | 0.75[默认] | | | | | |
| 传热系数K=1/(0.16+∑R) | 1.11 | | | | | |

### 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 | 518.59 | 1.000 | 0.54 | 17.57 | 0.75 |
| 凸窗外窗比（%） | 0% | | | | | |
| 考虑线性热桥后K | 0.54 × 1.10 = 0.59 | | | | | |

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 | 1079.56 | 1.000 | 0.54 | 17.57 | 0.75 |
| 凸窗外窗比（%） | 0% | | | | | |
| 考虑线性热桥后K | 0.54 × 1.10 = 0.59 | | | | | |

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 | 710.41 | 1.000 | 0.54 | 17.57 | 0.75 |
| 凸窗外窗比（%） | 0% | | | | | |
| 考虑线性热桥后K | 0.54 × 1.10 = 0.59 | | | | | |

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 | 697.10 | 1.000 | 0.54 | 17.57 | 0.75 |
| 凸窗外窗比（%） | 0% | | | | | |
| 考虑线性热桥后K | 0.54 × 1.10 = 0.59 | | | | | |

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 | 3005.66 | 1.000 | 0.54 | 17.57 | 0.75 |
| 凸窗外窗比（%） | 0% | | | | | |
| 考虑线性热桥后K | 0.54 × 1.10 = 0.59 | | | | | |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.1条 | | | | | |
| 标准要求 | K应满足表3.3.1-4的规定(K≤0.80) | | | | | |
| 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 |
| C20细石混凝土(ρ=2300) | 30 | 1.510 | 15.243 | 1.00 | 0.020 | 0.303 |
| 钢筋混凝土（1） | 120 | 1.740 | 17.060 | 1.00 | 0.069 | 1.177 |
| 岩棉板 | 55 | 0.045 | 0.684 | 1.20 | 1.019 | 0.836 |
| 胶粉聚苯颗粒浆料 | 15 | 0.060 | 1.020 | 1.20 | 0.208 | 0.255 |
| 抗裂砂浆（玻纤网） | 5 | 0.930 | 11.306 | 1.00 | 0.005 | 0.061 |
| 各层之和∑ | 225 | － | － | － | 1.321 | 2.631 |
| 传热系数K=1/(0.16+∑R) | 0.68 | | | | | |
| 修正后K, D | K = 0.68, D = 2.63 | | | | | |
| 修正原因 |  | | | | | |
| 数据来源 | 浙江省《公共建筑节能设计标准》DB33/1036-2007，第76页 | | | | | |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.1条 | | | | | |
| 标准要求 | K≤0.70 | | | | | |
| 结论 | 满足 | | | | | |

## 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 | 6中透光Low-E+12氩气+6透明-塑料窗框 | 65 | 1.70 | 0.33 | 1.000 | 摘自《全国民用建筑工程设计技术措施——节能专篇》，窗框面积约25% |
| 2 | 6中透光Low-E+12氩气+6透明-塑料窗框 | 18 | 1.70 | 0.33 | 0.800 | 摘自《全国民用建筑工程设计技术措施——节能专篇》，窗框面积约25% |

### 外遮阳类型

本工程无此内容

### 平均传热系数

1. 南向：

南-默认立面

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 6.120 | 6.120 | 65 | 1.700 |
| 2 |  | 1~3 | 7 | 2.160 | 15.120 | 65 | 1.700 |
| 3 |  | 1 | 2 | 7.920 | 15.840 | 65 | 1.700 |
| 4 |  | 1 | 1 | 39.864 | 39.864 | 65 | 1.700 |
| 5 |  | 1 | 1 | 13.668 | 13.668 | 65 | 1.700 |
| 6 |  | 1~2 | 3 | 1.800 | 5.400 | 65 | 1.700 |
| 7 |  | 1 | 1 | 5.400 | 5.400 | 65 | 1.700 |
| 8 |  | 1 | 1 | 5.544 | 5.544 | 65 | 1.700 |
| 9 |  | 1 | 1 | 36.900 | 36.900 | 65 | 1.700 |
| 10 |  | 1 | 1 | 2.025 | 2.025 | 65 | 1.700 |
| 11 |  | 1 | 1 | 6.750 | 6.750 | 65 | 1.700 |
| 12 |  | 1 | 1 | 11.232 | 11.232 | 65 | 1.700 |
| 13 |  | 1 | 1 | 0.764 | 0.764 | 65 | 1.700 |
| 14 |  | 1 | 1 | 2.802 | 2.802 | 65 | 1.700 |
| 15 |  | 1 | 1 | 1.411 | 1.411 | 65 | 1.700 |
| 16 |  | 1 | 1 | 5.174 | 5.174 | 65 | 1.700 |
| 17 |  | 1 | 1 | 6.918 | 6.918 | 65 | 1.700 |
| 18 |  | 1 | 1 | 0.202 | 0.202 | 65 | 1.700 |
| 19 |  | 1 | 1 | 0.739 | 0.739 | 65 | 1.700 |
| 20 |  | 1 | 1 | 19.608 | 19.608 | 65 | 1.700 |
| 21 |  | 1,3 | 2 | 0.062 | 0.124 | 65 | 1.700 |
| 22 |  | 1 | 1 | 0.228 | 0.228 | 65 | 1.700 |
| 23 |  | 1 | 1 | 2.123 | 2.123 | 65 | 1.700 |
| 24 |  | 1 | 1 | 7.785 | 7.785 | 65 | 1.700 |
| 25 |  | 1 | 1 | 7.212 | 7.212 | 65 | 1.700 |
| 26 |  | 1 | 1 | 0.353 | 0.353 | 65 | 1.700 |
| 27 |  | 1 | 1 | 1.058 | 1.058 | 65 | 1.700 |
| 28 |  | 1 | 1 | 10.386 | 10.386 | 65 | 1.700 |
| 29 |  | 2 | 1 | 16.800 | 16.800 | 65 | 1.700 |
| 30 |  | 2 | 1 | 4.628 | 4.628 | 65 | 1.700 |
| 31 |  | 2~3 | 2 | 2.280 | 4.560 | 65 | 1.700 |
| 32 |  | 2 | 1 | 7.372 | 7.372 | 65 | 1.700 |
| 33 |  | 2 | 1 | 56.980 | 56.980 | 65 | 1.700 |
| 34 |  | 2~3 | 5 | 3.120 | 15.600 | 65 | 1.700 |
| 35 |  | 2 | 1 | 4.084 | 4.084 | 65 | 1.700 |
| 36 |  | 2~3 | 2 | 9.988 | 19.976 | 65 | 1.700 |
| 37 |  | 2 | 1 | 2.076 | 2.076 | 65 | 1.700 |
| 38 |  | 2 | 2 | 1.400 | 2.800 | 65 | 1.700 |
| 39 |  | 2 | 1 | 5.428 | 5.428 | 65 | 1.700 |
| 40 |  | 2~3 | 6 | 1.900 | 11.400 | 65 | 1.700 |
| 41 |  | 2 | 1 | 3.596 | 3.596 | 65 | 1.700 |
| 42 |  | 2 | 1 | 2.500 | 2.500 | 65 | 1.700 |
| 43 |  | 2 | 1 | 7.504 | 7.504 | 65 | 1.700 |
| 44 |  | 2 | 1 | 0.761 | 0.761 | 65 | 1.700 |
| 45 |  | 2 | 1 | 1.099 | 1.099 | 65 | 1.700 |
| 46 |  | 2 | 1 | 1.416 | 1.416 | 65 | 1.700 |
| 47 |  | 2 | 1 | 2.045 | 2.045 | 65 | 1.700 |
| 48 |  | 2 | 1 | 4.592 | 4.592 | 65 | 1.700 |
| 49 |  | 2 | 1 | 0.212 | 0.212 | 65 | 1.700 |
| 50 |  | 2 | 1 | 0.306 | 0.306 | 65 | 1.700 |
| 51 |  | 2 | 1 | 13.304 | 13.304 | 65 | 1.700 |
| 52 |  | 2 | 1 | 14.244 | 14.244 | 65 | 1.700 |
| 53 |  | 2 | 1 | 8.493 | 8.493 | 65 | 1.700 |
| 54 |  | 3 | 1 | 3.744 | 3.744 | 65 | 1.700 |
| 55 |  | 3 | 1 | 1.682 | 1.682 | 65 | 1.700 |
| 56 |  | 3 | 1 | 2.430 | 2.430 | 65 | 1.700 |
| 57 |  | 3 | 1 | 0.491 | 0.491 | 65 | 1.700 |
| 58 |  | 3 | 1 | 0.710 | 0.710 | 65 | 1.700 |
| 59 |  | 3 | 1 | 2.464 | 2.464 | 65 | 1.700 |
| 60 |  | 3 | 1 | 2.572 | 2.572 | 65 | 1.700 |
| 61 |  | 3 | 1 | 1.768 | 1.768 | 65 | 1.700 |
| 62 |  | 3 | 1 | 0.332 | 0.332 | 65 | 1.700 |
| 63 |  | 3 | 1 | 2.516 | 2.516 | 65 | 1.700 |
| 64 |  | 3 | 1 | 1.796 | 1.796 | 65 | 1.700 |
| 65 |  | 3 | 1 | 1.544 | 1.544 | 65 | 1.700 |
| 66 |  | 3 | 1 | 0.708 | 0.708 | 65 | 1.700 |
| 67 |  | 3 | 1 | 5.364 | 5.364 | 65 | 1.700 |
| 68 |  | 3 | 1 | 4.420 | 4.420 | 65 | 1.700 |
| 69 |  | 3 | 1 | 0.090 | 0.090 | 65 | 1.700 |
| 70 |  | 3 | 1 | 2.133 | 2.133 | 65 | 1.700 |
| 71 |  | 3 | 1 | 3.081 | 3.081 | 65 | 1.700 |
| 72 |  | 3 | 1 | 4.580 | 4.580 | 65 | 1.700 |
| 73 |  | 3 | 1 | 4.522 | 4.522 | 65 | 1.700 |
| 74 |  | 3 | 1 | 0.538 | 0.538 | 65 | 1.700 |
| 75 |  | 3 | 1 | 5.876 | 5.876 | 65 | 1.700 |
| 76 |  | 3 | 1 | 0.132 | 0.132 | 65 | 1.700 |
| 77 |  | 3 | 1 | 0.191 | 0.191 | 65 | 1.700 |
| 78 |  | 3 | 1 | 1.496 | 1.496 | 65 | 1.700 |
| 79 |  | 3 | 1 | 5.176 | 5.176 | 65 | 1.700 |
| 80 |  | 3 | 1 | 17.756 | 17.756 | 65 | 1.700 |
| 81 |  | 3 | 1 | 12.244 | 12.244 | 65 | 1.700 |
| 82 |  | 3 | 1 | 9.432 | 9.432 | 65 | 1.700 |
| 83 |  | 3 | 1 | 14.568 | 14.568 | 65 | 1.700 |
| 84 |  | 3 | 1 | 13.000 | 13.000 | 65 | 1.700 |
| 85 |  | 3 | 1 | 11.000 | 11.000 | 65 | 1.700 |
| 86 | C2024 | 1~2 | 4 | 4.800 | 19.200 | 18 | 1.700 |
| 87 | C2024 | 1 | 1 | 0.941 | 0.941 | 18 | 1.700 |
| 88 | C2221 | 1 | 4 | 4.725 | 18.900 | 18 | 1.700 |
| 89 | C2418 | 1~3 | 8 | 4.320 | 34.560 | 18 | 1.700 |
| 90 | C2418 | 1 | 1 | 1.528 | 1.528 | 18 | 1.700 |
| 91 | C2418 | 1 | 1 | 2.822 | 2.822 | 18 | 1.700 |
| 92 | C2418 | 1 | 1 | 0.403 | 0.403 | 18 | 1.700 |
| 93 | C2418 | 1,3 | 2 | 0.124 | 0.248 | 18 | 1.700 |
| 94 | C2418 | 1 | 1 | 4.246 | 4.246 | 18 | 1.700 |
| 95 | C2418 | 2 | 1 | 1.521 | 1.521 | 18 | 1.700 |
| 96 | C2418 | 2 | 1 | 2.831 | 2.831 | 18 | 1.700 |
| 97 | C2418 | 2 | 1 | 0.423 | 0.423 | 18 | 1.700 |
| 98 | C2418 | 3 | 1 | 3.364 | 3.364 | 18 | 1.700 |
| 99 | C2418 | 3 | 1 | 0.983 | 0.983 | 18 | 1.700 |
| 100 | C2418 | 3 | 1 | 4.266 | 4.266 | 18 | 1.700 |
| 101 | C2418 | 3 | 1 | 0.265 | 0.265 | 18 | 1.700 |
| 102 | C2624 | 3 | 1 | 6.334 | 6.334 | 18 | 1.700 |
| 103 | C2824 | 3 | 1 | 6.773 | 6.773 | 18 | 1.700 |
| 104 | C2924 | 3 | 1 | 7.013 | 7.013 | 18 | 1.700 |
| 105 | C3024 | 3 | 1 | 7.267 | 7.267 | 18 | 1.700 |
| 106 | C3024 | 3 | 1 | 7.318 | 7.318 | 18 | 1.700 |
| 107 | C3224 | 3 | 1 | 7.848 | 7.848 | 18 | 1.700 |
| 108 | C7324 | 2 | 1 | 17.686 | 17.686 | 18 | 1.700 |
| 109 | C7424 | 2 | 1 | 17.988 | 17.988 | 18 | 1.700 |
| 110 | C7424 | 2 | 1 | 17.966 | 17.966 | 18 | 1.700 |
| 111 | C7524 | 2 | 1 | 18.058 | 18.058 | 18 | 1.700 |
| 112 | C8424 | 1,3 | 2 | 20.160 | 40.320 | 18 | 1.700 |
| 立面总面积(㎡) | | | 831.952 | 立面平均传热系数 | | | 1.700 |

2. 北向：

北-默认立面

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 5.370 | 5.370 | 65 | 1.700 |
| 2 |  | 1~3 | 6 | 2.160 | 12.960 | 65 | 1.700 |
| 3 |  | 1 | 2 | 7.920 | 15.840 | 65 | 1.700 |
| 4 |  | 1 | 1 | 5.790 | 5.790 | 65 | 1.700 |
| 5 |  | 1 | 1 | 1.860 | 1.860 | 65 | 1.700 |
| 6 |  | 1 | 1 | 1.740 | 1.740 | 65 | 1.700 |
| 7 |  | 2 | 1 | 3.580 | 3.580 | 65 | 1.700 |
| 8 |  | 2~3 | 4 | 3.120 | 12.480 | 65 | 1.700 |
| 9 |  | 2 | 1 | 3.860 | 3.860 | 65 | 1.700 |
| 10 |  | 2 | 1 | 1.240 | 1.240 | 65 | 1.700 |
| 11 |  | 2 | 1 | 1.160 | 1.160 | 65 | 1.700 |
| 12 |  | 3 | 1 | 3.588 | 3.588 | 65 | 1.700 |
| 13 |  | 3 | 1 | 3.852 | 3.852 | 65 | 1.700 |
| 14 |  | 3 | 1 | 1.252 | 1.252 | 65 | 1.700 |
| 15 |  | 3 | 1 | 1.148 | 1.148 | 65 | 1.700 |
| 16 | C1815 | 2~3 | 2 | 2.700 | 5.400 | 18 | 1.700 |
| 17 | C2024 | 1 | 1 | 0.298 | 0.298 | 18 | 1.700 |
| 18 | C2024 | 1 | 1 | 1.685 | 1.685 | 18 | 1.700 |
| 19 | C2024 | 1 | 1 | 4.495 | 4.495 | 18 | 1.700 |
| 20 | C2024 | 1 | 1 | 3.100 | 3.100 | 18 | 1.700 |
| 21 | C2024 | 1 | 1 | 3.720 | 3.720 | 18 | 1.700 |
| 22 | C2024 | 1 | 1 | 4.798 | 4.798 | 18 | 1.700 |
| 23 | C2024 | 1~3 | 9 | 4.800 | 43.200 | 18 | 1.700 |
| 24 | C2221 | 1 | 12 | 4.725 | 56.700 | 18 | 1.700 |
| 25 | C2418 | 1~3 | 30 | 4.320 | 129.600 | 18 | 1.700 |
| 26 | C3724 | 2 | 1 | 9.058 | 9.058 | 18 | 1.700 |
| 27 | C3924 | 1 | 1 | 9.360 | 9.360 | 18 | 1.700 |
| 28 | C4018 | 1 | 2 | 7.344 | 14.688 | 18 | 1.700 |
| 29 | C4024 | 2~3 | 4 | 9.792 | 39.168 | 18 | 1.700 |
| 30 | C4024 | 3 | 3 | 9.799 | 29.398 | 18 | 1.700 |
| 31 | C4024 | 3 | 1 | 9.785 | 9.785 | 18 | 1.700 |
| 32 | C4324 | 2 | 1 | 10.526 | 10.526 | 18 | 1.700 |
| 33 | C8324 | 1~2 | 2 | 20.016 | 40.032 | 18 | 1.700 |
| 34 | C8324 | 2~3 | 2 | 19.920 | 39.840 | 18 | 1.700 |
| 立面总面积(㎡) | | | 530.571 | 立面平均传热系数 | | | 1.700 |

3. 东向：

东-默认立面

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 16.884 | 16.884 | 65 | 1.700 |
| 2 |  | 1~3 | 12 | 2.160 | 25.920 | 65 | 1.700 |
| 3 |  | 1 | 2 | 7.920 | 15.840 | 65 | 1.700 |
| 4 |  | 1 | 2 | 5.916 | 11.832 | 65 | 1.700 |
| 5 |  | 1 | 1 | 3.084 | 3.084 | 65 | 1.700 |
| 6 |  | 2 | 1 | 24.573 | 24.573 | 65 | 1.700 |
| 7 |  | 2 | 1 | 9.027 | 9.027 | 65 | 1.700 |
| 8 |  | 2~3 | 2 | 17.600 | 35.200 | 65 | 1.700 |
| 9 |  | 2~3 | 3 | 16.800 | 50.400 | 65 | 1.700 |
| 10 |  | 2 | 1 | 9.000 | 9.000 | 65 | 1.700 |
| 11 |  | 2~3 | 10 | 3.120 | 31.200 | 65 | 1.700 |
| 12 |  | 2 | 1 | 15.000 | 15.000 | 65 | 1.700 |
| 13 |  | 2 | 1 | 11.264 | 11.264 | 65 | 1.700 |
| 14 |  | 2 | 1 | 12.736 | 12.736 | 65 | 1.700 |
| 15 |  | 2 | 1 | 3.024 | 3.024 | 65 | 1.700 |
| 16 |  | 2 | 1 | 4.176 | 4.176 | 65 | 1.700 |
| 17 |  | 2~3 | 2 | 2.056 | 4.112 | 65 | 1.700 |
| 18 |  | 2~3 | 2 | 3.944 | 7.888 | 65 | 1.700 |
| 19 |  | 2~3 | 2 | 16.692 | 33.384 | 65 | 1.700 |
| 20 |  | 2~3 | 2 | 7.308 | 14.616 | 65 | 1.700 |
| 21 |  | 3 | 2 | 11.268 | 22.536 | 65 | 1.700 |
| 22 |  | 3 | 2 | 12.732 | 25.464 | 65 | 1.700 |
| 23 |  | 3 | 1 | 14.996 | 14.996 | 65 | 1.700 |
| 24 |  | 3 | 1 | 9.004 | 9.004 | 65 | 1.700 |
| 25 | C0425 | 1 | 6 | 1.000 | 6.000 | 18 | 1.700 |
| 26 | C1215 | 1 | 3 | 1.800 | 5.400 | 18 | 1.700 |
| 27 | C2024 | 1~2 | 11 | 4.800 | 52.800 | 18 | 1.700 |
| 28 | C2024 | 1 | 1 | 4.342 | 4.342 | 18 | 1.700 |
| 29 | C2024 | 1 | 1 | 1.069 | 1.069 | 18 | 1.700 |
| 30 | C2024 | 1 | 1 | 0.450 | 0.450 | 18 | 1.700 |
| 31 | C2418 | 1~3 | 15 | 4.320 | 64.800 | 18 | 1.700 |
| 立面总面积(㎡) | | | 546.021 | 立面平均传热系数 | | | 1.700 |

4. 西向：

西-默认立面

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 14.148 | 14.148 | 65 | 1.700 |
| 2 |  | 1 | 1 | 0.327 | 0.327 | 65 | 1.700 |
| 3 |  | 1 | 1 | 1.198 | 1.198 | 65 | 1.700 |
| 4 |  | 1 | 1 | 1.856 | 1.856 | 65 | 1.700 |
| 5 |  | 1 | 1 | 6.805 | 6.805 | 65 | 1.700 |
| 6 |  | 1 | 1 | 3.954 | 3.954 | 65 | 1.700 |
| 7 |  | 1 | 1 | 4.980 | 4.980 | 65 | 1.700 |
| 8 |  | 1~3 | 4 | 2.160 | 8.640 | 65 | 1.700 |
| 9 |  | 1 | 1 | 7.920 | 7.920 | 65 | 1.700 |
| 10 |  | 1 | 1 | 1.986 | 1.986 | 65 | 1.700 |
| 11 |  | 1 | 1 | 21.366 | 21.366 | 65 | 1.700 |
| 12 |  | 1 | 1 | 8.166 | 8.166 | 65 | 1.700 |
| 13 |  | 1 | 1 | 1.980 | 1.980 | 65 | 1.700 |
| 14 |  | 1 | 1 | 7.260 | 7.260 | 65 | 1.700 |
| 15 |  | 1 | 1 | 12.738 | 12.738 | 65 | 1.700 |
| 16 |  | 1 | 1 | 2.766 | 2.766 | 65 | 1.700 |
| 17 |  | 1 | 1 | 1.496 | 1.496 | 65 | 1.700 |
| 18 |  | 1 | 1 | 4.487 | 4.487 | 65 | 1.700 |
| 19 |  | 2 | 1 | 2.220 | 2.220 | 65 | 1.700 |
| 20 |  | 2~3 | 5 | 1.900 | 9.500 | 65 | 1.700 |
| 21 |  | 2 | 1 | 4.792 | 4.792 | 65 | 1.700 |
| 22 |  | 2 | 1 | 10.816 | 10.816 | 65 | 1.700 |
| 23 |  | 2 | 1 | 0.093 | 0.093 | 65 | 1.700 |
| 24 |  | 2 | 1 | 1.818 | 1.818 | 65 | 1.700 |
| 25 |  | 2 | 1 | 7.184 | 7.184 | 65 | 1.700 |
| 26 |  | 2 | 1 | 1.564 | 1.564 | 65 | 1.700 |
| 27 |  | 2 | 2 | 3.120 | 6.240 | 65 | 1.700 |
| 28 |  | 2 | 1 | 1.056 | 1.056 | 65 | 1.700 |
| 29 |  | 2 | 1 | 12.220 | 12.220 | 65 | 1.700 |
| 30 |  | 2 | 1 | 9.480 | 9.480 | 65 | 1.700 |
| 31 |  | 2 | 1 | 0.316 | 0.316 | 65 | 1.700 |
| 32 |  | 2 | 1 | 0.456 | 0.456 | 65 | 1.700 |
| 33 |  | 2 | 1 | 1.867 | 1.867 | 65 | 1.700 |
| 34 |  | 2 | 1 | 2.696 | 2.696 | 65 | 1.700 |
| 35 |  | 2 | 1 | 2.588 | 2.588 | 65 | 1.700 |
| 36 |  | 2 | 1 | 3.392 | 3.392 | 65 | 1.700 |
| 37 |  | 2 | 1 | 1.252 | 1.252 | 65 | 1.700 |
| 38 |  | 2 | 1 | 14.244 | 14.244 | 65 | 1.700 |
| 39 |  | 2 | 1 | 5.484 | 5.484 | 65 | 1.700 |
| 40 |  | 2 | 1 | 1.971 | 1.971 | 65 | 1.700 |
| 41 |  | 2 | 1 | 2.847 | 2.847 | 65 | 1.700 |
| 42 |  | 2 | 2 | 8.493 | 16.986 | 65 | 1.700 |
| 43 |  | 3 | 1 | 4.576 | 4.576 | 65 | 1.700 |
| 44 |  | 3 | 1 | 1.409 | 1.409 | 65 | 1.700 |
| 45 |  | 3 | 1 | 2.036 | 2.036 | 65 | 1.700 |
| 46 |  | 3 | 1 | 0.758 | 0.758 | 65 | 1.700 |
| 47 |  | 3 | 1 | 1.095 | 1.095 | 65 | 1.700 |
| 48 |  | 3 | 1 | 7.472 | 7.472 | 65 | 1.700 |
| 49 |  | 3 | 1 | 0.880 | 0.880 | 65 | 1.700 |
| 50 |  | 3 | 1 | 1.379 | 1.379 | 65 | 1.700 |
| 51 |  | 3 | 1 | 1.072 | 1.072 | 65 | 1.700 |
| 52 |  | 3 | 1 | 0.457 | 0.457 | 65 | 1.700 |
| 53 |  | 3 | 1 | 0.356 | 0.356 | 65 | 1.700 |
| 54 |  | 3 | 1 | 2.072 | 2.072 | 65 | 1.700 |
| 55 |  | 3 | 1 | 1.379 | 1.379 | 65 | 1.700 |
| 56 |  | 3 | 1 | 3.100 | 3.100 | 65 | 1.700 |
| 57 |  | 3 | 1 | 3.596 | 3.596 | 65 | 1.700 |
| 58 |  | 3 | 1 | 0.270 | 0.270 | 65 | 1.700 |
| 59 |  | 3 | 1 | 0.390 | 0.390 | 65 | 1.700 |
| 60 |  | 3 | 1 | 1.907 | 1.907 | 65 | 1.700 |
| 61 |  | 3 | 1 | 2.755 | 2.755 | 65 | 1.700 |
| 62 |  | 3 | 1 | 3.420 | 3.420 | 65 | 1.700 |
| 63 |  | 3 | 1 | 2.048 | 2.048 | 65 | 1.700 |
| 64 |  | 3 | 1 | 2.958 | 2.958 | 65 | 1.700 |
| 65 |  | 3 | 1 | 5.748 | 5.748 | 65 | 1.700 |
| 66 |  | 3 | 1 | 1.264 | 1.264 | 65 | 1.700 |
| 67 |  | 3 | 1 | 11.012 | 11.012 | 65 | 1.700 |
| 68 |  | 3 | 1 | 2.832 | 2.832 | 65 | 1.700 |
| 69 |  | 3 | 1 | 4.180 | 4.180 | 65 | 1.700 |
| 70 |  | 3 | 1 | 6.736 | 6.736 | 65 | 1.700 |
| 71 |  | 3 | 1 | 4.584 | 4.584 | 65 | 1.700 |
| 72 |  | 3 | 1 | 2.557 | 2.557 | 65 | 1.700 |
| 73 | C2024 | 1 | 3 | 4.800 | 14.400 | 18 | 1.700 |
| 74 | C2024 | 1 | 1 | 3.989 | 3.989 | 18 | 1.700 |
| 75 | C2024 | 3 | 1 | 3.677 | 3.677 | 18 | 1.700 |
| 76 | C2024 | 3 | 1 | 1.219 | 1.219 | 18 | 1.700 |
| 77 | C2418 | 1~2 | 7 | 4.320 | 30.240 | 18 | 1.700 |
| 78 | C2418 | 1 | 1 | 0.653 | 0.653 | 18 | 1.700 |
| 79 | C2418 | 1 | 1 | 3.712 | 3.712 | 18 | 1.700 |
| 80 | C2418 | 1 | 1 | 3.960 | 3.960 | 18 | 1.700 |
| 81 | C2418 | 2 | 1 | 0.632 | 0.632 | 18 | 1.700 |
| 82 | C2418 | 2 | 1 | 3.733 | 3.733 | 18 | 1.700 |
| 83 | C2418 | 2 | 1 | 3.942 | 3.942 | 18 | 1.700 |
| 84 | C2418 | 3 | 1 | 2.819 | 2.819 | 18 | 1.700 |
| 85 | C2418 | 3 | 1 | 1.516 | 1.516 | 18 | 1.700 |
| 86 | C2418 | 3 | 1 | 0.540 | 0.540 | 18 | 1.700 |
| 87 | C2418 | 3 | 1 | 3.814 | 3.814 | 18 | 1.700 |
| 88 | C2418 | 3 | 1 | 4.095 | 4.095 | 18 | 1.700 |
| 89 | C2924 | 1~2 | 2 | 7.027 | 14.054 | 18 | 1.700 |
| 90 | C5224 | 1~2 | 2 | 12.557 | 25.114 | 18 | 1.700 |
| 91 | C8324 | 1~2 | 3 | 20.160 | 60.480 | 18 | 1.700 |
| 92 | C8324 | 1~3 | 3 | 19.920 | 59.760 | 18 | 1.700 |
| 93 | C8424 | 3 | 3 | 20.160 | 60.480 | 18 | 1.700 |
| 立面总面积(㎡) | | | 620.280 | 立面平均传热系数 | | | 1.700 |

### 综合太阳得热系数

1. 南向：

南-默认立面

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 6.120 | 6.120 | 65 | 0.331 |  | 1.000 | 0.331 |
| 2 |  | 1~3 | 7 | 2.160 | 15.120 | 65 | 0.331 |  | 1.000 | 0.331 |
| 3 |  | 1 | 2 | 7.920 | 15.840 | 65 | 0.331 |  | 1.000 | 0.331 |
| 4 |  | 1 | 1 | 39.864 | 39.864 | 65 | 0.331 |  | 1.000 | 0.331 |
| 5 |  | 1 | 1 | 13.668 | 13.668 | 65 | 0.331 |  | 1.000 | 0.331 |
| 6 |  | 1~2 | 3 | 1.800 | 5.400 | 65 | 0.331 |  | 1.000 | 0.331 |
| 7 |  | 1 | 1 | 5.400 | 5.400 | 65 | 0.331 |  | 1.000 | 0.331 |
| 8 |  | 1 | 1 | 5.544 | 5.544 | 65 | 0.331 |  | 1.000 | 0.331 |
| 9 |  | 1 | 1 | 36.900 | 36.900 | 65 | 0.331 |  | 1.000 | 0.331 |
| 10 |  | 1 | 1 | 2.025 | 2.025 | 65 | 0.331 |  | 1.000 | 0.331 |
| 11 |  | 1 | 1 | 6.750 | 6.750 | 65 | 0.331 |  | 1.000 | 0.331 |
| 12 |  | 1 | 1 | 11.232 | 11.232 | 65 | 0.331 |  | 1.000 | 0.331 |
| 13 |  | 1 | 1 | 0.764 | 0.764 | 65 | 0.331 |  | 1.000 | 0.331 |
| 14 |  | 1 | 1 | 2.802 | 2.802 | 65 | 0.331 |  | 1.000 | 0.331 |
| 15 |  | 1 | 1 | 1.411 | 1.411 | 65 | 0.331 |  | 1.000 | 0.331 |
| 16 |  | 1 | 1 | 5.174 | 5.174 | 65 | 0.331 |  | 1.000 | 0.331 |
| 17 |  | 1 | 1 | 6.918 | 6.918 | 65 | 0.331 |  | 1.000 | 0.331 |
| 18 |  | 1 | 1 | 0.202 | 0.202 | 65 | 0.331 |  | 1.000 | 0.331 |
| 19 |  | 1 | 1 | 0.739 | 0.739 | 65 | 0.331 |  | 1.000 | 0.331 |
| 20 |  | 1 | 1 | 19.608 | 19.608 | 65 | 0.331 |  | 1.000 | 0.331 |
| 21 |  | 1,3 | 2 | 0.062 | 0.124 | 65 | 0.331 |  | 1.000 | 0.331 |
| 22 |  | 1 | 1 | 0.228 | 0.228 | 65 | 0.331 |  | 1.000 | 0.331 |
| 23 |  | 1 | 1 | 2.123 | 2.123 | 65 | 0.331 |  | 1.000 | 0.331 |
| 24 |  | 1 | 1 | 7.785 | 7.785 | 65 | 0.331 |  | 1.000 | 0.331 |
| 25 |  | 1 | 1 | 7.212 | 7.212 | 65 | 0.331 |  | 1.000 | 0.331 |
| 26 |  | 1 | 1 | 0.353 | 0.353 | 65 | 0.331 |  | 1.000 | 0.331 |
| 27 |  | 1 | 1 | 1.058 | 1.058 | 65 | 0.331 |  | 1.000 | 0.331 |
| 28 |  | 1 | 1 | 10.386 | 10.386 | 65 | 0.331 |  | 1.000 | 0.331 |
| 29 |  | 2 | 1 | 16.800 | 16.800 | 65 | 0.331 |  | 1.000 | 0.331 |
| 30 |  | 2 | 1 | 4.628 | 4.628 | 65 | 0.331 |  | 1.000 | 0.331 |
| 31 |  | 2~3 | 2 | 2.280 | 4.560 | 65 | 0.331 |  | 1.000 | 0.331 |
| 32 |  | 2 | 1 | 7.372 | 7.372 | 65 | 0.331 |  | 1.000 | 0.331 |
| 33 |  | 2 | 1 | 56.980 | 56.980 | 65 | 0.331 |  | 1.000 | 0.331 |
| 34 |  | 2~3 | 5 | 3.120 | 15.600 | 65 | 0.331 |  | 1.000 | 0.331 |
| 35 |  | 2 | 1 | 4.084 | 4.084 | 65 | 0.331 |  | 1.000 | 0.331 |
| 36 |  | 2~3 | 2 | 9.988 | 19.976 | 65 | 0.331 |  | 1.000 | 0.331 |
| 37 |  | 2 | 1 | 2.076 | 2.076 | 65 | 0.331 |  | 1.000 | 0.331 |
| 38 |  | 2 | 2 | 1.400 | 2.800 | 65 | 0.331 |  | 1.000 | 0.331 |
| 39 |  | 2 | 1 | 5.428 | 5.428 | 65 | 0.331 |  | 1.000 | 0.331 |
| 40 |  | 2~3 | 6 | 1.900 | 11.400 | 65 | 0.331 |  | 1.000 | 0.331 |
| 41 |  | 2 | 1 | 3.596 | 3.596 | 65 | 0.331 |  | 1.000 | 0.331 |
| 42 |  | 2 | 1 | 2.500 | 2.500 | 65 | 0.331 |  | 1.000 | 0.331 |
| 43 |  | 2 | 1 | 7.504 | 7.504 | 65 | 0.331 |  | 1.000 | 0.331 |
| 44 |  | 2 | 1 | 0.761 | 0.761 | 65 | 0.331 |  | 1.000 | 0.331 |
| 45 |  | 2 | 1 | 1.099 | 1.099 | 65 | 0.331 |  | 1.000 | 0.331 |
| 46 |  | 2 | 1 | 1.416 | 1.416 | 65 | 0.331 |  | 1.000 | 0.331 |
| 47 |  | 2 | 1 | 2.045 | 2.045 | 65 | 0.331 |  | 1.000 | 0.331 |
| 48 |  | 2 | 1 | 4.592 | 4.592 | 65 | 0.331 |  | 1.000 | 0.331 |
| 49 |  | 2 | 1 | 0.212 | 0.212 | 65 | 0.331 |  | 1.000 | 0.331 |
| 50 |  | 2 | 1 | 0.306 | 0.306 | 65 | 0.331 |  | 1.000 | 0.331 |
| 51 |  | 2 | 1 | 13.304 | 13.304 | 65 | 0.331 |  | 1.000 | 0.331 |
| 52 |  | 2 | 1 | 14.244 | 14.244 | 65 | 0.331 |  | 1.000 | 0.331 |
| 53 |  | 2 | 1 | 8.493 | 8.493 | 65 | 0.331 |  | 1.000 | 0.331 |
| 54 |  | 3 | 1 | 3.744 | 3.744 | 65 | 0.331 |  | 1.000 | 0.331 |
| 55 |  | 3 | 1 | 1.682 | 1.682 | 65 | 0.331 |  | 1.000 | 0.331 |
| 56 |  | 3 | 1 | 2.430 | 2.430 | 65 | 0.331 |  | 1.000 | 0.331 |
| 57 |  | 3 | 1 | 0.491 | 0.491 | 65 | 0.331 |  | 1.000 | 0.331 |
| 58 |  | 3 | 1 | 0.710 | 0.710 | 65 | 0.331 |  | 1.000 | 0.331 |
| 59 |  | 3 | 1 | 2.464 | 2.464 | 65 | 0.331 |  | 1.000 | 0.331 |
| 60 |  | 3 | 1 | 2.572 | 2.572 | 65 | 0.331 |  | 1.000 | 0.331 |
| 61 |  | 3 | 1 | 1.768 | 1.768 | 65 | 0.331 |  | 1.000 | 0.331 |
| 62 |  | 3 | 1 | 0.332 | 0.332 | 65 | 0.331 |  | 1.000 | 0.331 |
| 63 |  | 3 | 1 | 2.516 | 2.516 | 65 | 0.331 |  | 1.000 | 0.331 |
| 64 |  | 3 | 1 | 1.796 | 1.796 | 65 | 0.331 |  | 1.000 | 0.331 |
| 65 |  | 3 | 1 | 1.544 | 1.544 | 65 | 0.331 |  | 1.000 | 0.331 |
| 66 |  | 3 | 1 | 0.708 | 0.708 | 65 | 0.331 |  | 1.000 | 0.331 |
| 67 |  | 3 | 1 | 5.364 | 5.364 | 65 | 0.331 |  | 1.000 | 0.331 |
| 68 |  | 3 | 1 | 4.420 | 4.420 | 65 | 0.331 |  | 1.000 | 0.331 |
| 69 |  | 3 | 1 | 0.090 | 0.090 | 65 | 0.331 |  | 1.000 | 0.331 |
| 70 |  | 3 | 1 | 2.133 | 2.133 | 65 | 0.331 |  | 1.000 | 0.331 |
| 71 |  | 3 | 1 | 3.081 | 3.081 | 65 | 0.331 |  | 1.000 | 0.331 |
| 72 |  | 3 | 1 | 4.580 | 4.580 | 65 | 0.331 |  | 1.000 | 0.331 |
| 73 |  | 3 | 1 | 4.522 | 4.522 | 65 | 0.331 |  | 1.000 | 0.331 |
| 74 |  | 3 | 1 | 0.538 | 0.538 | 65 | 0.331 |  | 1.000 | 0.331 |
| 75 |  | 3 | 1 | 5.876 | 5.876 | 65 | 0.331 |  | 1.000 | 0.331 |
| 76 |  | 3 | 1 | 0.132 | 0.132 | 65 | 0.331 |  | 1.000 | 0.331 |
| 77 |  | 3 | 1 | 0.191 | 0.191 | 65 | 0.331 |  | 1.000 | 0.331 |
| 78 |  | 3 | 1 | 1.496 | 1.496 | 65 | 0.331 |  | 1.000 | 0.331 |
| 79 |  | 3 | 1 | 5.176 | 5.176 | 65 | 0.331 |  | 1.000 | 0.331 |
| 80 |  | 3 | 1 | 17.756 | 17.756 | 65 | 0.331 |  | 1.000 | 0.331 |
| 81 |  | 3 | 1 | 12.244 | 12.244 | 65 | 0.331 |  | 1.000 | 0.331 |
| 82 |  | 3 | 1 | 9.432 | 9.432 | 65 | 0.331 |  | 1.000 | 0.331 |
| 83 |  | 3 | 1 | 14.568 | 14.568 | 65 | 0.331 |  | 1.000 | 0.331 |
| 84 |  | 3 | 1 | 13.000 | 13.000 | 65 | 0.331 |  | 1.000 | 0.331 |
| 85 |  | 3 | 1 | 11.000 | 11.000 | 65 | 0.331 |  | 1.000 | 0.331 |
| 86 | C2024 | 1~2 | 4 | 4.800 | 19.200 | 18 | 0.331 |  | 1.000 | 0.331 |
| 87 | C2024 | 1 | 1 | 0.941 | 0.941 | 18 | 0.331 |  | 1.000 | 0.331 |
| 88 | C2221 | 1 | 4 | 4.725 | 18.900 | 18 | 0.331 |  | 1.000 | 0.331 |
| 89 | C2418 | 1~3 | 8 | 4.320 | 34.560 | 18 | 0.331 |  | 1.000 | 0.331 |
| 90 | C2418 | 1 | 1 | 1.528 | 1.528 | 18 | 0.331 |  | 1.000 | 0.331 |
| 91 | C2418 | 1 | 1 | 2.822 | 2.822 | 18 | 0.331 |  | 1.000 | 0.331 |
| 92 | C2418 | 1 | 1 | 0.403 | 0.403 | 18 | 0.331 |  | 1.000 | 0.331 |
| 93 | C2418 | 1,3 | 2 | 0.124 | 0.248 | 18 | 0.331 |  | 1.000 | 0.331 |
| 94 | C2418 | 1 | 1 | 4.246 | 4.246 | 18 | 0.331 |  | 1.000 | 0.331 |
| 95 | C2418 | 2 | 1 | 1.521 | 1.521 | 18 | 0.331 |  | 1.000 | 0.331 |
| 96 | C2418 | 2 | 1 | 2.831 | 2.831 | 18 | 0.331 |  | 1.000 | 0.331 |
| 97 | C2418 | 2 | 1 | 0.423 | 0.423 | 18 | 0.331 |  | 1.000 | 0.331 |
| 98 | C2418 | 3 | 1 | 3.364 | 3.364 | 18 | 0.331 |  | 1.000 | 0.331 |
| 99 | C2418 | 3 | 1 | 0.983 | 0.983 | 18 | 0.331 |  | 1.000 | 0.331 |
| 100 | C2418 | 3 | 1 | 4.266 | 4.266 | 18 | 0.331 |  | 1.000 | 0.331 |
| 101 | C2418 | 3 | 1 | 0.265 | 0.265 | 18 | 0.331 |  | 1.000 | 0.331 |
| 102 | C2624 | 3 | 1 | 6.334 | 6.334 | 18 | 0.331 |  | 1.000 | 0.331 |
| 103 | C2824 | 3 | 1 | 6.773 | 6.773 | 18 | 0.331 |  | 1.000 | 0.331 |
| 104 | C2924 | 3 | 1 | 7.013 | 7.013 | 18 | 0.331 |  | 1.000 | 0.331 |
| 105 | C3024 | 3 | 1 | 7.267 | 7.267 | 18 | 0.331 |  | 1.000 | 0.331 |
| 106 | C3024 | 3 | 1 | 7.318 | 7.318 | 18 | 0.331 |  | 1.000 | 0.331 |
| 107 | C3224 | 3 | 1 | 7.848 | 7.848 | 18 | 0.331 |  | 1.000 | 0.331 |
| 108 | C7324 | 2 | 1 | 17.686 | 17.686 | 18 | 0.331 |  | 1.000 | 0.331 |
| 109 | C7424 | 2 | 1 | 17.988 | 17.988 | 18 | 0.331 |  | 1.000 | 0.331 |
| 110 | C7424 | 2 | 1 | 17.966 | 17.966 | 18 | 0.331 |  | 1.000 | 0.331 |
| 111 | C7524 | 2 | 1 | 18.058 | 18.058 | 18 | 0.331 |  | 1.000 | 0.331 |
| 112 | C8424 | 1,3 | 2 | 20.160 | 40.320 | 18 | 0.331 |  | 1.000 | 0.331 |
| 立面总面积(㎡) | | | | | 831.952 | 综合太阳得热系数 | | | 1.000 | 0.331 |

2. 北向：

北-默认立面

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 5.370 | 5.370 | 65 | 0.331 |  | 1.000 | 0.331 |
| 2 |  | 1~3 | 6 | 2.160 | 12.960 | 65 | 0.331 |  | 1.000 | 0.331 |
| 3 |  | 1 | 2 | 7.920 | 15.840 | 65 | 0.331 |  | 1.000 | 0.331 |
| 4 |  | 1 | 1 | 5.790 | 5.790 | 65 | 0.331 |  | 1.000 | 0.331 |
| 5 |  | 1 | 1 | 1.860 | 1.860 | 65 | 0.331 |  | 1.000 | 0.331 |
| 6 |  | 1 | 1 | 1.740 | 1.740 | 65 | 0.331 |  | 1.000 | 0.331 |
| 7 |  | 2 | 1 | 3.580 | 3.580 | 65 | 0.331 |  | 1.000 | 0.331 |
| 8 |  | 2~3 | 4 | 3.120 | 12.480 | 65 | 0.331 |  | 1.000 | 0.331 |
| 9 |  | 2 | 1 | 3.860 | 3.860 | 65 | 0.331 |  | 1.000 | 0.331 |
| 10 |  | 2 | 1 | 1.240 | 1.240 | 65 | 0.331 |  | 1.000 | 0.331 |
| 11 |  | 2 | 1 | 1.160 | 1.160 | 65 | 0.331 |  | 1.000 | 0.331 |
| 12 |  | 3 | 1 | 3.588 | 3.588 | 65 | 0.331 |  | 1.000 | 0.331 |
| 13 |  | 3 | 1 | 3.852 | 3.852 | 65 | 0.331 |  | 1.000 | 0.331 |
| 14 |  | 3 | 1 | 1.252 | 1.252 | 65 | 0.331 |  | 1.000 | 0.331 |
| 15 |  | 3 | 1 | 1.148 | 1.148 | 65 | 0.331 |  | 1.000 | 0.331 |
| 16 | C1815 | 2~3 | 2 | 2.700 | 5.400 | 18 | 0.331 |  | 1.000 | 0.331 |
| 17 | C2024 | 1 | 1 | 0.298 | 0.298 | 18 | 0.331 |  | 1.000 | 0.331 |
| 18 | C2024 | 1 | 1 | 1.685 | 1.685 | 18 | 0.331 |  | 1.000 | 0.331 |
| 19 | C2024 | 1 | 1 | 4.495 | 4.495 | 18 | 0.331 |  | 1.000 | 0.331 |
| 20 | C2024 | 1 | 1 | 3.100 | 3.100 | 18 | 0.331 |  | 1.000 | 0.331 |
| 21 | C2024 | 1 | 1 | 3.720 | 3.720 | 18 | 0.331 |  | 1.000 | 0.331 |
| 22 | C2024 | 1 | 1 | 4.798 | 4.798 | 18 | 0.331 |  | 1.000 | 0.331 |
| 23 | C2024 | 1~3 | 9 | 4.800 | 43.200 | 18 | 0.331 |  | 1.000 | 0.331 |
| 24 | C2221 | 1 | 12 | 4.725 | 56.700 | 18 | 0.331 |  | 1.000 | 0.331 |
| 25 | C2418 | 1~3 | 30 | 4.320 | 129.600 | 18 | 0.331 |  | 1.000 | 0.331 |
| 26 | C3724 | 2 | 1 | 9.058 | 9.058 | 18 | 0.331 |  | 1.000 | 0.331 |
| 27 | C3924 | 1 | 1 | 9.360 | 9.360 | 18 | 0.331 |  | 1.000 | 0.331 |
| 28 | C4018 | 1 | 2 | 7.344 | 14.688 | 18 | 0.331 |  | 1.000 | 0.331 |
| 29 | C4024 | 2~3 | 4 | 9.792 | 39.168 | 18 | 0.331 |  | 1.000 | 0.331 |
| 30 | C4024 | 3 | 3 | 9.799 | 29.398 | 18 | 0.331 |  | 1.000 | 0.331 |
| 31 | C4024 | 3 | 1 | 9.785 | 9.785 | 18 | 0.331 |  | 1.000 | 0.331 |
| 32 | C4324 | 2 | 1 | 10.526 | 10.526 | 18 | 0.331 |  | 1.000 | 0.331 |
| 33 | C8324 | 1~2 | 2 | 20.016 | 40.032 | 18 | 0.331 |  | 1.000 | 0.331 |
| 34 | C8324 | 2~3 | 2 | 19.920 | 39.840 | 18 | 0.331 |  | 1.000 | 0.331 |
| 立面总面积(㎡) | | | | | 530.571 | 综合太阳得热系数 | | | 1.000 | 0.331 |

3. 东向：

东-默认立面

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 16.884 | 16.884 | 65 | 0.331 |  | 1.000 | 0.331 |
| 2 |  | 1~3 | 12 | 2.160 | 25.920 | 65 | 0.331 |  | 1.000 | 0.331 |
| 3 |  | 1 | 2 | 7.920 | 15.840 | 65 | 0.331 |  | 1.000 | 0.331 |
| 4 |  | 1 | 2 | 5.916 | 11.832 | 65 | 0.331 |  | 1.000 | 0.331 |
| 5 |  | 1 | 1 | 3.084 | 3.084 | 65 | 0.331 |  | 1.000 | 0.331 |
| 6 |  | 2 | 1 | 24.573 | 24.573 | 65 | 0.331 |  | 1.000 | 0.331 |
| 7 |  | 2 | 1 | 9.027 | 9.027 | 65 | 0.331 |  | 1.000 | 0.331 |
| 8 |  | 2~3 | 2 | 17.600 | 35.200 | 65 | 0.331 |  | 1.000 | 0.331 |
| 9 |  | 2~3 | 3 | 16.800 | 50.400 | 65 | 0.331 |  | 1.000 | 0.331 |
| 10 |  | 2 | 1 | 9.000 | 9.000 | 65 | 0.331 |  | 1.000 | 0.331 |
| 11 |  | 2~3 | 10 | 3.120 | 31.200 | 65 | 0.331 |  | 1.000 | 0.331 |
| 12 |  | 2 | 1 | 15.000 | 15.000 | 65 | 0.331 |  | 1.000 | 0.331 |
| 13 |  | 2 | 1 | 11.264 | 11.264 | 65 | 0.331 |  | 1.000 | 0.331 |
| 14 |  | 2 | 1 | 12.736 | 12.736 | 65 | 0.331 |  | 1.000 | 0.331 |
| 15 |  | 2 | 1 | 3.024 | 3.024 | 65 | 0.331 |  | 1.000 | 0.331 |
| 16 |  | 2 | 1 | 4.176 | 4.176 | 65 | 0.331 |  | 1.000 | 0.331 |
| 17 |  | 2~3 | 2 | 2.056 | 4.112 | 65 | 0.331 |  | 1.000 | 0.331 |
| 18 |  | 2~3 | 2 | 3.944 | 7.888 | 65 | 0.331 |  | 1.000 | 0.331 |
| 19 |  | 2~3 | 2 | 16.692 | 33.384 | 65 | 0.331 |  | 1.000 | 0.331 |
| 20 |  | 2~3 | 2 | 7.308 | 14.616 | 65 | 0.331 |  | 1.000 | 0.331 |
| 21 |  | 3 | 2 | 11.268 | 22.536 | 65 | 0.331 |  | 1.000 | 0.331 |
| 22 |  | 3 | 2 | 12.732 | 25.464 | 65 | 0.331 |  | 1.000 | 0.331 |
| 23 |  | 3 | 1 | 14.996 | 14.996 | 65 | 0.331 |  | 1.000 | 0.331 |
| 24 |  | 3 | 1 | 9.004 | 9.004 | 65 | 0.331 |  | 1.000 | 0.331 |
| 25 | C0425 | 1 | 6 | 1.000 | 6.000 | 18 | 0.331 |  | 1.000 | 0.331 |
| 26 | C1215 | 1 | 3 | 1.800 | 5.400 | 18 | 0.331 |  | 1.000 | 0.331 |
| 27 | C2024 | 1~2 | 11 | 4.800 | 52.800 | 18 | 0.331 |  | 1.000 | 0.331 |
| 28 | C2024 | 1 | 1 | 4.342 | 4.342 | 18 | 0.331 |  | 1.000 | 0.331 |
| 29 | C2024 | 1 | 1 | 1.069 | 1.069 | 18 | 0.331 |  | 1.000 | 0.331 |
| 30 | C2024 | 1 | 1 | 0.450 | 0.450 | 18 | 0.331 |  | 1.000 | 0.331 |
| 31 | C2418 | 1~3 | 15 | 4.320 | 64.800 | 18 | 0.331 |  | 1.000 | 0.331 |
| 立面总面积(㎡) | | | | | 546.021 | 综合太阳得热系数 | | | 1.000 | 0.331 |

4. 西向：

西-默认立面

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 14.148 | 14.148 | 65 | 0.331 |  | 1.000 | 0.331 |
| 2 |  | 1 | 1 | 0.327 | 0.327 | 65 | 0.331 |  | 1.000 | 0.331 |
| 3 |  | 1 | 1 | 1.198 | 1.198 | 65 | 0.331 |  | 1.000 | 0.331 |
| 4 |  | 1 | 1 | 1.856 | 1.856 | 65 | 0.331 |  | 1.000 | 0.331 |
| 5 |  | 1 | 1 | 6.805 | 6.805 | 65 | 0.331 |  | 1.000 | 0.331 |
| 6 |  | 1 | 1 | 3.954 | 3.954 | 65 | 0.331 |  | 1.000 | 0.331 |
| 7 |  | 1 | 1 | 4.980 | 4.980 | 65 | 0.331 |  | 1.000 | 0.331 |
| 8 |  | 1~3 | 4 | 2.160 | 8.640 | 65 | 0.331 |  | 1.000 | 0.331 |
| 9 |  | 1 | 1 | 7.920 | 7.920 | 65 | 0.331 |  | 1.000 | 0.331 |
| 10 |  | 1 | 1 | 1.986 | 1.986 | 65 | 0.331 |  | 1.000 | 0.331 |
| 11 |  | 1 | 1 | 21.366 | 21.366 | 65 | 0.331 |  | 1.000 | 0.331 |
| 12 |  | 1 | 1 | 8.166 | 8.166 | 65 | 0.331 |  | 1.000 | 0.331 |
| 13 |  | 1 | 1 | 1.980 | 1.980 | 65 | 0.331 |  | 1.000 | 0.331 |
| 14 |  | 1 | 1 | 7.260 | 7.260 | 65 | 0.331 |  | 1.000 | 0.331 |
| 15 |  | 1 | 1 | 12.738 | 12.738 | 65 | 0.331 |  | 1.000 | 0.331 |
| 16 |  | 1 | 1 | 2.766 | 2.766 | 65 | 0.331 |  | 1.000 | 0.331 |
| 17 |  | 1 | 1 | 1.496 | 1.496 | 65 | 0.331 |  | 1.000 | 0.331 |
| 18 |  | 1 | 1 | 4.487 | 4.487 | 65 | 0.331 |  | 1.000 | 0.331 |
| 19 |  | 2 | 1 | 2.220 | 2.220 | 65 | 0.331 |  | 1.000 | 0.331 |
| 20 |  | 2~3 | 5 | 1.900 | 9.500 | 65 | 0.331 |  | 1.000 | 0.331 |
| 21 |  | 2 | 1 | 4.792 | 4.792 | 65 | 0.331 |  | 1.000 | 0.331 |
| 22 |  | 2 | 1 | 10.816 | 10.816 | 65 | 0.331 |  | 1.000 | 0.331 |
| 23 |  | 2 | 1 | 0.093 | 0.093 | 65 | 0.331 |  | 1.000 | 0.331 |
| 24 |  | 2 | 1 | 1.818 | 1.818 | 65 | 0.331 |  | 1.000 | 0.331 |
| 25 |  | 2 | 1 | 7.184 | 7.184 | 65 | 0.331 |  | 1.000 | 0.331 |
| 26 |  | 2 | 1 | 1.564 | 1.564 | 65 | 0.331 |  | 1.000 | 0.331 |
| 27 |  | 2 | 2 | 3.120 | 6.240 | 65 | 0.331 |  | 1.000 | 0.331 |
| 28 |  | 2 | 1 | 1.056 | 1.056 | 65 | 0.331 |  | 1.000 | 0.331 |
| 29 |  | 2 | 1 | 12.220 | 12.220 | 65 | 0.331 |  | 1.000 | 0.331 |
| 30 |  | 2 | 1 | 9.480 | 9.480 | 65 | 0.331 |  | 1.000 | 0.331 |
| 31 |  | 2 | 1 | 0.316 | 0.316 | 65 | 0.331 |  | 1.000 | 0.331 |
| 32 |  | 2 | 1 | 0.456 | 0.456 | 65 | 0.331 |  | 1.000 | 0.331 |
| 33 |  | 2 | 1 | 1.867 | 1.867 | 65 | 0.331 |  | 1.000 | 0.331 |
| 34 |  | 2 | 1 | 2.696 | 2.696 | 65 | 0.331 |  | 1.000 | 0.331 |
| 35 |  | 2 | 1 | 2.588 | 2.588 | 65 | 0.331 |  | 1.000 | 0.331 |
| 36 |  | 2 | 1 | 3.392 | 3.392 | 65 | 0.331 |  | 1.000 | 0.331 |
| 37 |  | 2 | 1 | 1.252 | 1.252 | 65 | 0.331 |  | 1.000 | 0.331 |
| 38 |  | 2 | 1 | 14.244 | 14.244 | 65 | 0.331 |  | 1.000 | 0.331 |
| 39 |  | 2 | 1 | 5.484 | 5.484 | 65 | 0.331 |  | 1.000 | 0.331 |
| 40 |  | 2 | 1 | 1.971 | 1.971 | 65 | 0.331 |  | 1.000 | 0.331 |
| 41 |  | 2 | 1 | 2.847 | 2.847 | 65 | 0.331 |  | 1.000 | 0.331 |
| 42 |  | 2 | 2 | 8.493 | 16.986 | 65 | 0.331 |  | 1.000 | 0.331 |
| 43 |  | 3 | 1 | 4.576 | 4.576 | 65 | 0.331 |  | 1.000 | 0.331 |
| 44 |  | 3 | 1 | 1.409 | 1.409 | 65 | 0.331 |  | 1.000 | 0.331 |
| 45 |  | 3 | 1 | 2.036 | 2.036 | 65 | 0.331 |  | 1.000 | 0.331 |
| 46 |  | 3 | 1 | 0.758 | 0.758 | 65 | 0.331 |  | 1.000 | 0.331 |
| 47 |  | 3 | 1 | 1.095 | 1.095 | 65 | 0.331 |  | 1.000 | 0.331 |
| 48 |  | 3 | 1 | 7.472 | 7.472 | 65 | 0.331 |  | 1.000 | 0.331 |
| 49 |  | 3 | 1 | 0.880 | 0.880 | 65 | 0.331 |  | 1.000 | 0.331 |
| 50 |  | 3 | 1 | 1.379 | 1.379 | 65 | 0.331 |  | 1.000 | 0.331 |
| 51 |  | 3 | 1 | 1.072 | 1.072 | 65 | 0.331 |  | 1.000 | 0.331 |
| 52 |  | 3 | 1 | 0.457 | 0.457 | 65 | 0.331 |  | 1.000 | 0.331 |
| 53 |  | 3 | 1 | 0.356 | 0.356 | 65 | 0.331 |  | 1.000 | 0.331 |
| 54 |  | 3 | 1 | 2.072 | 2.072 | 65 | 0.331 |  | 1.000 | 0.331 |
| 55 |  | 3 | 1 | 1.379 | 1.379 | 65 | 0.331 |  | 1.000 | 0.331 |
| 56 |  | 3 | 1 | 3.100 | 3.100 | 65 | 0.331 |  | 1.000 | 0.331 |
| 57 |  | 3 | 1 | 3.596 | 3.596 | 65 | 0.331 |  | 1.000 | 0.331 |
| 58 |  | 3 | 1 | 0.270 | 0.270 | 65 | 0.331 |  | 1.000 | 0.331 |
| 59 |  | 3 | 1 | 0.390 | 0.390 | 65 | 0.331 |  | 1.000 | 0.331 |
| 60 |  | 3 | 1 | 1.907 | 1.907 | 65 | 0.331 |  | 1.000 | 0.331 |
| 61 |  | 3 | 1 | 2.755 | 2.755 | 65 | 0.331 |  | 1.000 | 0.331 |
| 62 |  | 3 | 1 | 3.420 | 3.420 | 65 | 0.331 |  | 1.000 | 0.331 |
| 63 |  | 3 | 1 | 2.048 | 2.048 | 65 | 0.331 |  | 1.000 | 0.331 |
| 64 |  | 3 | 1 | 2.958 | 2.958 | 65 | 0.331 |  | 1.000 | 0.331 |
| 65 |  | 3 | 1 | 5.748 | 5.748 | 65 | 0.331 |  | 1.000 | 0.331 |
| 66 |  | 3 | 1 | 1.264 | 1.264 | 65 | 0.331 |  | 1.000 | 0.331 |
| 67 |  | 3 | 1 | 11.012 | 11.012 | 65 | 0.331 |  | 1.000 | 0.331 |
| 68 |  | 3 | 1 | 2.832 | 2.832 | 65 | 0.331 |  | 1.000 | 0.331 |
| 69 |  | 3 | 1 | 4.180 | 4.180 | 65 | 0.331 |  | 1.000 | 0.331 |
| 70 |  | 3 | 1 | 6.736 | 6.736 | 65 | 0.331 |  | 1.000 | 0.331 |
| 71 |  | 3 | 1 | 4.584 | 4.584 | 65 | 0.331 |  | 1.000 | 0.331 |
| 72 |  | 3 | 1 | 2.557 | 2.557 | 65 | 0.331 |  | 1.000 | 0.331 |
| 73 | C2024 | 1 | 3 | 4.800 | 14.400 | 18 | 0.331 |  | 1.000 | 0.331 |
| 74 | C2024 | 1 | 1 | 3.989 | 3.989 | 18 | 0.331 |  | 1.000 | 0.331 |
| 75 | C2024 | 3 | 1 | 3.677 | 3.677 | 18 | 0.331 |  | 1.000 | 0.331 |
| 76 | C2024 | 3 | 1 | 1.219 | 1.219 | 18 | 0.331 |  | 1.000 | 0.331 |
| 77 | C2418 | 1~2 | 7 | 4.320 | 30.240 | 18 | 0.331 |  | 1.000 | 0.331 |
| 78 | C2418 | 1 | 1 | 0.653 | 0.653 | 18 | 0.331 |  | 1.000 | 0.331 |
| 79 | C2418 | 1 | 1 | 3.712 | 3.712 | 18 | 0.331 |  | 1.000 | 0.331 |
| 80 | C2418 | 1 | 1 | 3.960 | 3.960 | 18 | 0.331 |  | 1.000 | 0.331 |
| 81 | C2418 | 2 | 1 | 0.632 | 0.632 | 18 | 0.331 |  | 1.000 | 0.331 |
| 82 | C2418 | 2 | 1 | 3.733 | 3.733 | 18 | 0.331 |  | 1.000 | 0.331 |
| 83 | C2418 | 2 | 1 | 3.942 | 3.942 | 18 | 0.331 |  | 1.000 | 0.331 |
| 84 | C2418 | 3 | 1 | 2.819 | 2.819 | 18 | 0.331 |  | 1.000 | 0.331 |
| 85 | C2418 | 3 | 1 | 1.516 | 1.516 | 18 | 0.331 |  | 1.000 | 0.331 |
| 86 | C2418 | 3 | 1 | 0.540 | 0.540 | 18 | 0.331 |  | 1.000 | 0.331 |
| 87 | C2418 | 3 | 1 | 3.814 | 3.814 | 18 | 0.331 |  | 1.000 | 0.331 |
| 88 | C2418 | 3 | 1 | 4.095 | 4.095 | 18 | 0.331 |  | 1.000 | 0.331 |
| 89 | C2924 | 1~2 | 2 | 7.027 | 14.054 | 18 | 0.331 |  | 1.000 | 0.331 |
| 90 | C5224 | 1~2 | 2 | 12.557 | 25.114 | 18 | 0.331 |  | 1.000 | 0.331 |
| 91 | C8324 | 1~2 | 3 | 20.160 | 60.480 | 18 | 0.331 |  | 1.000 | 0.331 |
| 92 | C8324 | 1~3 | 3 | 19.920 | 59.760 | 18 | 0.331 |  | 1.000 | 0.331 |
| 93 | C8424 | 3 | 3 | 20.160 | 60.480 | 18 | 0.331 |  | 1.000 | 0.331 |
| 立面总面积(㎡) | | | | | 620.280 | 综合太阳得热系数 | | | 1.000 | 0.331 |

### 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 | 南-默认立面 | 831.95 | 1.70 | 0.33 | 0.60 | K≤2.20, SHGC≤0.35 | 满足 |
| 北向 | 北-默认立面 | 530.57 | 1.70 | 0.33 | 0.33 | K≤2.60, SHGC≤0.44 | 满足 |
| 东向 | 东-默认立面 | 546.02 | 1.70 | 0.33 | 0.43 | K≤2.40, SHGC≤0.35 | 满足 |
| 西向 | 西-默认立面 | 620.28 | 1.70 | 0.33 | 0.46 | K≤2.40, SHGC≤0.35 | 满足 |
| 综合平均 |  | 2528.82 | 1.70 | 0.33 | 0.45 |  |  |
| 标准依据 | 《公共建筑节能设计标准》(GB50189-2015)第3.3.1条 | | | | | | |
| 标准要求 | 外窗传热系数和综合太阳得热系数满足表3.3.1-4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 | 1018(最不利房间) | 58.50 | | 42.00 | 未编号 | 3.04 | 0.00 | 幕墙 | 1.00 | 0.10 | 适宜 |
| 未编号 | 2.16 | 0.00 | 幕墙 |
| C2418 | 4.32 | 1.00 | 外窗 |
| 未编号 | 7.92 | 0.00 | 幕墙 |
| 未编号 | 5.96 | 0.00 | 幕墙 |
| 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 | | | 适宜 | | | | | | | | | |

注：达标时只列出一项，不达标时列出全部不达标项

## 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 | 南-默认立面 | 0.00 | 831.95 | 0.00 | 0.15 | 满足 |
| 北向 | 北-默认立面 | 0.00 | 530.57 | 0.00 | 0.15 | 满足 |
| 东向 | 东-默认立面 | 0.00 | 546.02 | 0.00 | 0.15 | 满足 |
| 西向 | 西-默认立面 | 0.00 | 620.28 | 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 C0425 | － |
| 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 |

## 规定性指标检查结论

|  |  |  |  |
| --- | --- | --- | --- |
| 序号 | 检查项 | 结论 | 可否性能权衡 |
| 1 | 窗墙比 | 适宜 |  |
| 2 | 可见光透射比 | 满足 |  |
| 3 | 天窗屋顶比 | 满足 |  |
| 4 | 天窗类型 | 满足 |  |
| 5 | 屋顶构造 | 满足 |  |
| 6 | 外墙构造 | 满足 |  |
| 7 | 挑空楼板构造 | 满足 |  |
| 8 | 外窗热工 | 满足 |  |
| 9 | 有效通风换气面积 | 满足 |  |
| 10 | 非中空窗面积比 | 满足 |  |
| 11 | 外窗气密性 | 满足 |  |
| 12 | 幕墙气密性 | 满足 |  |
| 结论 | | 满足 |  |

□说明：本工程所有规定性设计指标**满足**《公共建筑节能设计标准》(GB50189-2015)的要求。