**附錄四 建築節能設計應附表格文件**

A.基本門檻指標

**附件A-1 屋頂平均熱傳透率Uar評估計算表**

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| 構造  編號 | 構造大樣簡圖 | | | | 厚度d  （m） | | 熱阻係數  1/k  (m.K/W) | 熱阻  r=d/k  (m2.K/W) | 不透光部位 熱傳透率Uri  =1/R=1/Σd/k  W/(㎡.K)) | | | | 不透光部位 水平投影面積Ari(m2) | |
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| 不透光屋頂部位總熱傳透率ΣUri ×Ari= | | | | | | | |  | | | | | (W/K) | |
| 透光部位（以一種透光部位為例，二種以上另附表格） | | 天窗水平投影面積Ag= | | | | | |  | | | | | ㎡ | |
| 透光面 | | 材質: 厚度: mm | | | | 熱傳透率Ugi = | | |  | | (W/(㎡.K)) | |
| 框架 | | 材質:□木窗或塑鋼窗框 □金屬框 | | | | 熱傳透率Ufi = | | |  | | (W/(㎡.K)) | |
| 窗框  面積比 | | □木窗或塑鋼窗框，則rfr＝0.18， □金屬框，則rfr＝0.14， | | | | | | | | | | |
| 透光部位熱傳透率（Ufi×rfr＋Ugi×（1.0-rfr））= | | | | | |  | | (W/(㎡.K)) | | | | |
| 透光部位總熱傳透率Σ（Ufi×rfr＋Ugi×（1.0-rfr））×Agi = | | | | | | | |  | | (W/K) | | | | |
| 屋頂層總水平投影面積Σ(Ari+Agi)= | | | | | | | | | | | |  | | ㎡ |
| **平均熱傳透率** | | | **Uar=（ΣUri ×Ari+Σ（Ufi×rfr ＋Ugi×（1.0-rfr））×Agi）÷Σ（Ari+ Agi）**  **= (W/(㎡. K)) ＜0.8 (W/(㎡. K)) OK!!** | | | | | | | | | | | |
| 簽證人 | | | 姓 名 | | | （簽章） | | | | | | | | |

**附件A-2 透光天窗平均日射透過率HWs及玻璃可見光反射率Rvi評估表**

第 / 頁

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| **天窗平均日射透過率HWs評估表** （天窗仰角大於80° 或HWa＜1.0m2時免評估） | | | | | | | | |
| 天窗  編號 | 玻璃材質及 日射透過率  ηi | 外遮陽或樑下1.0m以內之內遮陽(外遮陽或內遮陽之圖示，無則免繪) | | 外遮陽對天窗面之正投影遮蔽率khi（樑下1.0m以內之內遮陽時，以1.0– 0.3×（1.0-水平投影間隙率σ）計之），無內外遮陽時khi＝1.0 | | | | 透光天窗水平投影面積Agi(㎡) |
| No.1 |  |  | |  | | | |  |
| No.2 |  |  | |  | | | |  |
|  |  |  | |  | | | |  |
| Σ（Khi×ηi×Agi）＝ | | | | | | | | |
| HWa＝ΣAgi＝ | | | | | | | | |
| 指標計算值HWs＝Σ（Khi ×ηi×Agi）/ΣAgi＝ | | | | | | | | |
| 當HWa ＜30 ㎡時，HWsc＝0.35; 當30㎡≦Hwa＜230 ㎡時，HWsc＝0.35－0.001×（HWa－30.0）; 當HWa ≧230 ㎡時，HWsc＝0.15 | | | | | HWa＜1.0㎡ 免評估 | | |  |
| HWs＜基準值HWsc＝ | | |  |
| **外殼玻璃(包括立面窗與天窗之玻璃)可見光反射率Rvi評估表** | | | | | | | | |
| 玻璃材質與編號 | | 所在部位描述（相同材質可並列描述） | 玻璃可見光反射率Rvi  查附錄二表2.1或廠商玻璃型錄 | | | Rvi≦0.2？ | | |
| 是 | 否 | |
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| 簽證人 | | 姓名： （簽章） | | | | | | |

B.海拔800公尺以上建築物以及低於海拔800公尺採分項規範建築物共用

附件B-1 外牆平均熱傳透率**Uaw**評估表

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| 外牆構造編號 | 構 造 大 樣 簡 圖 | | 厚度d  （m） | | 熱阻係數  1/k(m.k/W) | | | 熱 阻  r=d/k(㎡.k/W) | | 熱傳透率  Uwi=1/R(W/(㎡.k)) | | | |
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| 構造編號 | | 熱傳透率Uwi | | 面積Awi | | | Uwi×Awi | | | | Σ(Uwi×Awi) | | |
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| 外牆總面積ΣAwi= | | | | | | | | | | |  | | ㎡ |
| 外牆平均熱傳透率計算值Uaw | | | | | | Σ(Uwi×Awi)÷ΣAwi = | | |  | | | (W/(㎡.K)) | |
| 外牆平均熱傳透率基準值Uaws（查表3） | | | | | |  | | | | | | | |
| 合格判斷 Uaw＜Uaws ? | | | | | | 否 □ 是 □ | | | | | | | |
| 簽證人 | | 姓名:  （簽章） | | | | | | | | | | | |

附件B-2 窗平均遮陽係數SF與立面開窗率WR評估表(所有海拔高度均應檢討ＷＲ；海拔高度≥800公尺，免檢討SF)

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| 方位樓層 | 毎樘窗扇資料 | | | | | | | 數量  ni | ηi | | 窗戶面積 Agi=  ni×Agsi(㎡) | 外遮陽  Ki | Ki×ηi×Agi | | k立面  面積  Aek(㎡) |
| 編號 | 寬  (m) | | 高  (m) | | 遮陽形式 | 面積Agsi(㎡) |
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| 總開窗面積ΣAgi（㎡）= | | | | | | | | | | |  | 日射透過率合計 ΣKi×ηi× Agi＝ | |  |  |
| 立面總面積ΣAek（㎡）＝ | | | | | | | | | | | | | | |
| **立面開窗率WR＝Σ Agi/ΣAek＝** | | | | | | | | | | | | | | |  |
| **窗平均遮陽係數基準值SFs（**查本規範表4**）＝** | | | | | | | | | | | | | | |  |
| **窗平均遮陽係數計算值SF＝Σ（Ki×ηi× Agi）÷Σ Agi＝** | | | | | | | | | | | | | | |  |
| **外遮陽處理（參照附錄二）** | | | | | | | | | | | | | | | |
| 立面或屋頂外遮陽係數Ksi (無遮陽時ksi=1.0，天窗ki以法線面遮蔽率計算) | | | | | | | | | | | | | | | |
| 方位樓層 | 窗  編號 | | 遮陽  形式 | | 遮陽尺寸描述  與深度比計算  附錄二表2.2.1至2.2.3 | | | | | 修正前  遮陽係  數Ki | | 短外遮陽修正 | | 修正後  遮陽係  數Ki | |
| Δki | (Ww/Ws)2或(Hw/Hs)2 |
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| 註1: 外遮陽Ki數值應與本表下半之外遮陽處理結果一致。  註2: 較短形水平遮陽之遮陽係數修正量ΔKsi,hor，垂直遮陽之遮陽係數修正量ΔKsi,ver，查附錄二表2.2.4。  註3: 水平遮陽修正係數如圖2.3之(Ww/Ws)2，垂直遮陽修正係數如圖2.4之(Hw/Hs)2。  註4: 修正後Ksi,hor =原 Ksi, hor +ΔKsi, hor × (Ww/Ws)2, 修正後Ksi,ver =原 Ksi,ver +ΔKsi,ver×(Hw/Hs)2。 | | | | | | | | | | | | | | | |
| **窗平均遮陽係數合格判斷 SF= ＜ SFs= 否 □ 是 □** | | | | | | | | | | | | | | | |
| 簽證人 | | | | | **姓名： （簽章）** | | | | | | | | | | |

附件B-3 窗平均熱傳透率Uaf評估表

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 立面總面積ΣAek= | | | | | | （㎡） | | | 立面開窗率WR＝ΣAgi÷ΣAek＝ | | | | |  |
| 方位 | 樓層 | | 每扇窗規格 | | | | | 數量  ni | 窗面積Agi=  ni×Agsi(㎡) | 窗框  Ufi | 玻璃  Ugi | rfr | 1.0-rfr | Ufi×rfr×Agi＋Ugi×(1.0-rfr)×Agi |
| 編號 | 寬(m) | 高(m) | | 面積 Agsi |
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| 開窗總面積（㎡）Ag=ΣAgi= | | | | | | | | |  |  |  |  |  |  |
| ΣUfi×rfr×Agi＋Σ〔Ugi×(1.0-rfr)×Agi〕= | | | | | | | | | | | | | |  |
| 窗平均熱傳透率Uaf=｛ΣUfi×rfr×Agi＋Σ〔Ugi×(1.0-rfr)×Agi〕｝÷ΣAgi= | | | | | | | | | | | | | |  |
| 基準值檢討 | | | | | | 窗平均熱傳透率基準查本規範表4， Uafs ＝ (W/(㎡. K))  Uaf＜ Uafs ？  **否 □ 是 □** | | | | | | | | |
| 簽證人 | | | | | | **姓名： （簽章）** | | | | | | | | |
| **註(1)玻璃熱傳透率Ugi及窗框熱傳透率Ufi查附錄一表1.3。**  **註(2)窗框面積比可自行選定簡算或精算法，精算法之窗框面積比rfr應查附錄一表1.4數值代入。** | | | | | | | | | | | | | | |

附件B-4 住宿類建築可開啟窗面積比OWR檢討表

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| --- | --- | --- | --- | --- | --- | --- |
| 住戶編號 | 居室編號j | 窗編號i | 窗戶面積Agi（㎡） | 可開窗面積OWij（㎡） | 可開啟窗面積比OWRj＝ΣOWij ÷ΣAgij | 合格判斷  OWRj＞0.15 ? |
|  |  |  |  |  |  | 否 □ 是 □ |
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| 簽證人 | | **姓名： （簽章）** | | | | |

**C 空調型建築物外殼耗能量ENVLOAD指標計算表**

**附件C-1 外周區、內部區、被排除密閉空調樓地板面積 AFmp、AFmi、AFmo 計算查核表**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 單一空間樓地板面積≧100㎡之「外殼熱性能固定之大空調空間」(表格不足可自行增加) | | | | | | 分區  編號 | | 樓層 | | 空間名稱 | | 排除之分區面積AFmoi |
| AFmo1 | |  | |  | |  |
| AFmo2 | |  | |  | |  |
| 應被排除之「外殼熱性能固定之大空調空間」總面積ΣAFmo= | | | | | | | | | | | | ㎡ |
| 耗能  分區 | 方位  k  樓層 | 外周區面積Afmkpj (㎡)(含接外氣地下層）註1 | | | | | | | | 內部區面積Afmij(㎡) | 其他面積Afmei(㎡) | 法定總樓地板面積AFm(㎡) |
| 方位一E | 方位二W | 方位三S | 方位四N | | 水平  方位R | | 小計 |
| 編號名稱 |  |  |  |  |  | |  | |  |  |  |  |
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| 小計  Afmkpj |  |  |  |  | |  | |  |  |  |  |
| 分區合計 | AF1p=ΣAfmkpj  = ㎡ | | | | | | | | | AF1i=ΣAf1i  = ㎡ | AF1e=ΣAf1ei  = ㎡ | AF1=AF1p＋AF1i＋AF1e  = ㎡ |
| 編號名稱 |  |  |  |  |  | |  | |  |  |  |  |
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| 小計  Afmkpj |  |  |  |  | |  | |  |  |  |  |
| 分區合計 | AF2p=ΣAfmkpj  = ㎡ | | | | | | | | | AF2i=ΣAf2i  = ㎡ | AF2e=ΣAf2ei  = ㎡ | AF2=AF2p＋AF2i＋AF2e  = ㎡ |
| 全建築物合計 | 外周區空調總樓地板面積ΣAFmp  = ㎡ | | | | | | | | | 內部區空調總樓地板面積ΣAFmi  = ㎡ | 其他法定總樓地板面積AFe  = ㎡ | 法定總樓地板面積  = ㎡ |

**註一：外周區方位k依實際建物立面之方位自行填列。**

**附件C-2 建築物外殼耗能量ENVLOAD計算表(2)－外殼熱傳透率Ui計算表**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 不透光  構造編號 | 構造大樣 | 厚度  d  [m] | 熱阻係數  1/k  [m.K/W] | 熱阻  r=d/k  [㎡.K/W] | 總熱阻  R=Σr  [㎡.K/W] | 熱傳透率  Ui=1/R  [W/(㎡K)] |
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| 透光構造編號 | 透光材質及厚度 | 透光部位  框架類型 | 窗框比  rfr | 透光材料  ηi | 透光材料（含框）  Ui值 | |
|  |  |  |  |  |  | |
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| 備註：(1)熱阻係數k、熱傳透率Ui值計算方法見附錄一。  　　　(2)透光材料採玻璃材質之ηi與窗（含框）Ui值見附錄二。 | | | | | | |

**附件C-3 建築物外殼耗能量ENVLOAD計算表(3)**

**----------------透光部位傳透熱與日射透過熱計算表（每一耗能特性分區一套表）**

**耗能特性分區編號及名稱m：**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 方位  樓層 | 窗編號  及尺寸(m) | | 窗框比rfr | | 窗(含框)  Ui | 數量  ni | 毎樘窗面積Ai(㎡) | Ui×Ai×ni | | 方位別累算b.  ΣUi×Ai×ni | | | 外遮陽  Ki(註2) | ηi | | Ki×ηi×Ai×ni | | 方位別累算a.  ΣKi×ηi×Ai×ni | |
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| **外遮陽處理（參照附錄二）** | | | | | | | | | | | | | | | | | | | |
| 立面或屋頂外遮陽係數Ksi (無遮陽時ksi=1.0，天窗ki以法線面遮蔽率計算) | | | | | | | | | | | | | | | | | 鄰棟建物 遮陽係數Kbi  (簡算:1.0 精算:表C-4) | | 最終 Ki值（Ksi, Kbi取小值) |
| 方位  樓層 | 窗編號 | 遮陽  形式 | | 遮陽尺寸描述  與深度比計算  附錄二表2.2.1~2.2.3 | | | | | 修正前遮陽係數Ksi | | 短外遮陽修正 | | | | 修正後  遮陽係 數Ksi | |
| Δksi | (Ww/Ws)2或(Hw/Hs)2 | | |
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| 註1:ΣUi×Ai 及ΣKi×ηi ×Ai 應依方位別計算（含水平面）。  註2:外遮陽Ki數值應與本表下半之外遮陽處理結果一致。  註3:較短形水平遮陽之遮陽係數修正量ΔKsi,hor，垂直遮陽之遮陽係數修正量ΔKsi,ver，查附錄二表2.2.4。  註4:水平遮陽修正係數如圖2.3之(Ww/Ws)2，垂直遮陽修正係數如圖2.4之(Hw/Hs)2。  註5:修正後Ksi,hor =原 Ksi, hor +ΔKsi, hor × (Ww/Ws)2, 修正後Ksi,ver =原 Ksi,ver +ΔKsi,ver×(Hw/Hs)2。 | | | | | | | | | | | | | | | | | | | |

**附件C-4 鄰棟建物遮陽係數Kbi檢討表（有檢討Kbi者才須檢附）**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 方位 | 樓層 | 窗  編號 | 30M內鄰棟建物平行本建物之參數 | | | | | | | 鄰棟建築物遮蔽仰角 D/AH檢討 | | | |
| 棟别 | 垂直距離yi(m) | | 面寬  xi(m) | | 樓高  hi(m) | | 牆距D加權  yi\*xi | | 牆高AH加權  yi\*hi | |
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|  |  |  | Σyi= |  | Σxi= |  | Σhi= |  | Σ(yi\*xi)= |  | Σ(yi\*hi)= |  |
|  |  | D=Σ(yi\*xi)/Σxi= | | | | | | |  | |  |  |
|  |  | AH=Σ(yi\*hi)/Σyi= | | | | | | | | | |
| 遮蔽仰角D/AH= | | | | | | | | | | | |  |
| 鄰棟建物遮陽係數Kbi (查附錄二-表2.2.5)= | | | | | | | | | | | |  |
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|  |  |  | Σyi= |  | Σxi= |  | Σhi= |  | Σ(yi\*xi)= |  | Σ(yi\*hi)= |  |
|  |  | D=Σ(yi\*xi)/Σxi= | | | | | | |  | |  |  |
|  |  | AH=Σ(yi\*hi)/Σyi= | | | | | | | | | |
| 遮蔽仰角D/AH= | | | | | | | | | | | |  |
| 鄰棟建物遮陽係數Kbi (查附錄二-表2.2.5)= | | | | | | | | | | | |  |

**附件C-5 建築物外殼耗能量ENVLOAD計算表(4)**

**--------實牆外殼傳透熱因子ΣUi ×Ai計算表（每一耗能特性分區一套表）**

**耗能特性分區編號及名稱m：**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 方位 | 構造代號 | Ui  W/(㎡.K) | Ai  (㎡) | Ui ×Ai  (W/K) | **Σ**Ui ×Ai  方位別累算值 |
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**附件C-6 建築物外殼耗能量ENVLOAD計算表 (5)－ Mmk、Lm計算表  
（每一耗能特性分區一套表）**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **耗能特性分區編號及名稱m：** | | |  | | 外周區空調總樓地板面積AFmp： | | | |  |
| 方位k | ΣKi×ηi×Ai×ni  窗部位  a | ΣUi×Ai×ni  窗部位  b | | ΣUi×Ai 實牆部  c | | 日射取得係數 Mmk  d=Σ(a＋0.03×c)÷AFmp | 日射時  IHk  (表7) | | 日射取得量 Mk×IHk  [kWh/(㎡.yr)] |
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| 開窗部位單位溫差熱流量合計Σb= | |  | |  | |  | | |  |
| 實牆部位單位溫差熱流量合計Σc ＝ | | | |
| 開窗部位與實牆部位單位溫差熱流量合計(e)=Σb＋Σc ＝ | | | |  | |
| 總日射取得量[kWh/(㎡.yr)] (g) ＝ ΣMmk×IHk ＝ | | | | | | | | |
| 外殼熱損失係數Lm[W/(㎡.K)]=（ΣUi×Ai）/AFmp ＝ (e) / AFmp ＝ | | | | | | | |  | |

**附件C-7 建築物外殼耗能量ENVLOAD計算表(6)－最終ENVLOAD計算表**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 建築物地點 | | |  | 海拔高度(m) |  | |
| 冷房度時DH (查表7) | | | [1000.K.h/yr] | | | |
| 耗能特性分區m= | 外周區樓地板面積AFmp | | | [㎡] | | |
| **Lm** = [W/(㎡.K) ] | | | ΣMmk×IHk= [kWh/(㎡.yr)] | | |
| 自然通風空調節能率Vacm（依附錄三提出計算書，Vacm僅限辦公文教宗教照護等耗能特性分區使用，為了簡化可令Vacm為1.0而省略之）＝ | | | | |
| 回歸係數a1： [kWh/(㎡.yr)]，a2： ，a3： 。 | | | | |
| 建築物外殼耗能量ENVLOADm  ＝a1m＋[ a2m×Lm×DH＋a3m×(ΣMmk×IHk)]×Vacm＝ [kWh/(㎡.yr)] | | | | |
| 建築物外殼耗能量基準值ENVLOADms(查表5) ＝ [kWh/(㎡.yr)] | | | | |
| 耗能特性分區m= | 外周區樓地板面積AFmp | | | [㎡] | | |
| **Lm** | | [W/(㎡.K)] | ΣMmk×IHk | [kWh/(㎡.yr)] | |
| 自然通風空調節能率Vacm（依附錄三提出計算書，Vacm僅限辦公文教宗教照護等耗能特性分區使用，為了簡化可令Vacm為1.0而省略之）＝ | | | | |
| 回歸係數a1： [kWh/(㎡.yr)]，a2： ，a3： 。 | | | | |
| 建築物外殼耗能量ENVLOADm  ＝a1m＋[ a2m×Lm×DH＋a3m×(ΣMmk×IHk)]×Vacm＝ [kWh/(㎡.yr)] | | | | |
| 建築物外殼耗能量基準值ENVLOADms(查表5) ＝ [kWh/(㎡.yr)] | | | | |
| 設計值ENVLOAD | | Σ(ENVLOADm×AFmp)／ΣAFmp＝ [kWh/(㎡.yr)] | | | |
| 基準值ENVLOADs | | Σ(ENVLOADms×AFmp)／ΣAFmp＝ [kWh/(㎡.yr)] | | | |
| 合格判斷 | | ENVLOAD＜ENVLOADs？ 否 □ 是 □ | | | |
| 簽證人 | | 姓名： （簽章） | | | |

**D 住宿類建築物外殼等價開窗率Req指標計算表**

**附件D-1 Req計算表1--------外遮陽係數Ki與外殼等價開窗面積Aeq計算表**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 方位 | 日射修正係數fk | | 樓層  空間 | | 窗扇資料 | | | 毎樘面積  Agi(㎡)  或Agsi(㎡) | | 數量  ni | 窗戶面積小計 ΣAgi=ni×Agi(㎡)  或ΣAgsi=ni×Agsi(㎡) | | | 外遮陽  Ki | | 外殼等價開窗面積  ΣAgi×fk×ki(㎡)  或ΣAgsi×fk×ki(㎡) | |
| 編號 | 寬(m) | 高(m) |
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| 外殼等價開窗面積Aeq=ΣAgi×fk×Ki ＋ ΣAgsi×fk×Ki＝ | | | | | | | | | | | | | | | |  | |
| **自然通風空調節能率Vac（簡算逕為1.0，精算依附錄三提出計算書）＝** | | | | | | | | | | | | | | | |  | |
| **自然通風空調節能修正Aeq＝ (ΣAgi×fk×Ki ＋ ΣAgsi×fk×Ki) × Vac＝** | | | | | | | | | | | | | | | |  | |
| **外遮陽Ki處理（參照附錄二）** | | | | | | | | | | | | | | | | | |
| 立面或屋頂外遮陽係數Ksi (無遮陽時ksi=1.0，天窗ki以法線面遮蔽率計算) | | | | | | | | | | | | | | | 鄰棟建物 遮陽係數Kbi  (簡算:1.0 精算:表D-2) | | 最終 Ki值（Ksi, Kbi 取小值) |
| 方位樓層 | 窗編號 | 遮陽  形式 | | 遮陽尺寸描述  與深度比計算  附錄二表2.2.1至2.2.3 | | | | | 修正前  遮陽係  數Ksi | | 短外遮陽修正 | | 修正後  遮陽係  數Ksi | |
| Δksi | (Ww/Ws)2或(Hw/Hs)2 |
|  |  |  | |  | | | | |  | |  |  |  | |  | |  |
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| 註1: 外遮陽Ki數值應與本表下半之外遮陽處理結果一致。  註2: 較短形水平遮陽之遮陽係數修正量ΔKsi,hor，垂直遮陽之遮陽係數修正量ΔKsi,ver，查附錄二表2.2.4。  註3: 水平遮陽修正係數如圖2.3之(Ww/Ws)2，垂直遮陽修正係數如圖2.4之(Hw/Hs)2。  註4:修正後 Ksi,hor =原 Ksi, hor +ΔKsi, hor × (Ww/Ws)2, 修正後Ksi,ver =原 Ksi,ver +ΔKsi,ver×(Hw/Hs)2。 | | | | | | | | | | | | | | | | | |

**附件D-2 鄰棟建物遮陽係數Kbi檢討表（有檢討Kbi者才須檢附）**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 方位 | 樓層 | 窗  編號 | 30M內鄰棟建物平行本建物之參數 | | | | | | | 鄰棟建築物遮蔽仰角 D/AH檢討 | | | |
| 棟别 | 垂直距離yi(m) | | 面寬  xi(m) | | 樓高  hi(m) | | 牆距D加權  yi\*xi | | 牆高AH加權  yi\*hi | |
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|  |  |  | Σyi= |  | Σxi= |  | Σhi= |  | Σ(yi\*xi)= |  | Σ(yi\*hi)= |  |
|  |  | D=Σ(yi\*xi)/Σxi= | | | | | | |  | |  |  |
|  |  | AH=Σ(yi\*hi)/Σyi= | | | | | | | | | |
| 遮蔽仰角D/AH= | | | | | | | | | | | |  |
| 鄰棟建物遮陽係數Kbi (查附錄二-表2.2.5)= | | | | | | | | | | | |  |
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|  |  |  |  | |  | |  | |  | |  | |
|  |  |  | Σyi= |  | Σxi= |  | Σhi= |  | Σ(yi\*xi)= |  | Σ(yi\*hi)= |  |
|  |  | D=Σ(yi\*xi)/Σxi= | | | | | | |  | |  |  |
|  |  | AH=Σ(yi\*hi)/Σyi= | | | | | | | | | |
| 遮蔽仰角D/AH= | | | | | | | | | | | |  |
| 鄰棟建物遮陽係數Kbi (查附錄二-表2.2.5)= | | | | | | | | | | | |  |

**附件D-3 Req指標計算表及基準值檢討表**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **立面外殼位置** | | | | **立面外殼面積**  **Aewi （㎡）** | | **屋頂位置描述** | | **屋頂外殼面積**  **Aeri（㎡）** |
|  | | | |  | |  | |  |
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|  | | | |  | |  | |  |
| ΣAewi＝ （㎡） | | | | | | ΣAeri ＝ （㎡） | | |
| 透天連棟住宅分戶牆(共同壁)修正係數Ab計算  (非透天連棟住宅，令Ab＝0.0，以下免計算) | | | | | | | | |
| 分戶牆j序號 | | 分戶牆臨戶編號 | | | 共同壁面積Abj（㎡） | | | |
|  | |  | | |  | | | |
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|  | |  | | |  | | | |
|  | |  | | |  | | | |
| 分戶牆總面積ΣAbj ＝ | | | | |  | | | |
| Ab＝0.3×ΣAbj ＝ | | | | | （㎡）  (非透天連棟住宅時，Ab＝0.0) | | | |
| **外殼面積合計** | **Aen＝ ΣAewi ＋ΣAeri ＋Ab＝ （㎡）** | | | | | | | |
| **外殼等價開窗面積Aeq（取自附件D-1）** | | | | | | | （㎡） | |
| **基準檢討Req＝Aeq／Aen＝ ＜ Reqs＝**  **合格與否 否 □ 是 □** | | | | | | | | |
| **簽證人** | | | **姓名： （簽章）** | | | | | |

**E 學校類建築物AWSG指標計算表**

**附件E 學校類建築物AWSG正式評估表**

**（本表不適用於大型空間類建築物，玻璃ηi統一設為1.0，不必檢討玻璃之日射透過率）**

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| 方位  樓層 | 毎扇窗資料 | | | | | 數量  ni | ηi | IHki(表7)  (kWh/(㎡.yr)) | | 外遮陽  Ki | | 開窗面積 小計Ai(㎡) | IHki×Ki×ηi×Ai | | |
| 編號 | | 寬(m) | | 高(m) |
|  |  | |  | |  |  | 1.0 |  | |  | |  |  | | |
|  | |  | |  |  | 1.0 |  | |  | |  |  | | |
|  | |  | |  |  | 1.0 |  | |  | |  |  | | |
|  |  | |  | |  |  | 1.0 |  | |  | |  |  | | |
|  | |  | |  |  | 1.0 |  | |  | |  |  | | |
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|  | |  | |  |  | 1.0 |  | |  | |  |  | | |
|  | |  | |  |  | 1.0 |  | |  | |  |  | | |
|  |  | |  | |  |  | 1.0 |  | |  | |  |  | | |
|  | |  | |  |  | 1.0 |  | |  | |  |  | | |
|  | |  | |  |  | 1.0 |  | |  | |  |  | | |
| ΣAi＝ | | | | | | | | | | | |  |  | | |
| ΣIHki×Ki×ηi ×Ai＝ | | | | | | | | | | | | |  | | |
| AWSG=（ΣIHki×Ki×ηi×Ai）÷ΣAi＝ | | | | | | | | | | | | |  | | (kWh/(㎡.yr)) |
| 基準值AWSGs 區= (kWh/(㎡.yr))＞AWSG ? 否 □ 是 □ | | | | | | | | | | | | | | | |
| **外遮陽Ki處理（參照附錄二）** | | | | | | | | | | | | | | | |
| 立面外遮陽係數Ksi (無遮陽時ksi=1.0) | | | | | | | | | | | | | | | |
| 方位  樓層 | 窗  編號 | 遮陽  形式 | | 遮陽尺寸描述  與深度比計算  附錄二表2.2.1至2.2.3 | | | | 修正前  遮陽係  數Ksi | 短外遮陽修正 | | | | | 修正後  遮陽係數Ksi | |
| Δksi | | (Ww/Ws)2或(Hw/Hs)2 | | |
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| 註1: 外遮陽Ki數值應與本表下半之外遮陽處理結果一致。  註2: 較短形水平遮陽之遮陽係數修正量ΔKsi,hor，垂直遮陽之遮陽係數修正量ΔKsi,ver，查附錄二表2.2.4。  註3: 水平遮陽修正係數如圖2.3之(Ww/Ws)2，垂直遮陽修正係數如圖2.4之(Hw/Hs)2。  註4:修正後 Ksi,hor =原 Ksi, hor +ΔKsi, hor × (Ww/Ws)2, 修正後Ksi,ver =原 Ksi,ver +ΔKsi,ver×(Hw/Hs)2。 | | | | | | | | | | | | | | | |
| 簽證人 | | **姓名： （簽章）** | | | | | | | | | | | | | |

**F 大型空間類建築物AWSG指標計算表－**

**附件F-1大型空間類建築物平均立面開窗率AWR計算表（本表不適用於學校類建築物）**

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| **應被排除之單一空間樓地板面積≧100㎡之「外殼熱性能固定之大空調空間」(可自行加行數)** | | | | 分區編號 | | | 樓層 | 空間名稱 | | | | 應排除之分區面積AFmoi |
| AFmo1 | | |  |  | | | |  |
| AFmo2 | | |  |  | | | |  |
| **應被排除之「外殼熱性能固定之大空調空間」總面積ΣAFmo=** | | | | | | | | | | | **㎡** | |
| 樓層  方位 | 窗  編號 | 窗尺寸(m) | | | 數量 | 開窗面積  小計Ai（m2） | | | 外殼  樓層方位 | 建築外殼面積  Awj (m2) | | |
| 寬 | 高 | |
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| 開窗面積合計ΣAi= （m2） | | | | | | | | | 外殼面積合計ΣAwj= (m2) | | | |
| 1. AWR=ΣAi/(ΣAwj)=\_\_ \_\_，本案適用\_\_ \_部氣候分區。 2. 依建築技術規則建築設計施工編第312條規定，本案之基準值AWSGs計算如下：  |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | 北部 | AWSGs＝146.2AWR2－414.9AWR＋276.2 |  | kWh/(m2.yr） | |  | 中部 | AWSGs＝273.3 AWR2－616.9 AWR＋375.4 | |  | 南部 | AWSGs＝348.4AWR2－748.4 AWR＋436.0 | | | | | | | | | | | | | |

**附件F-2大型空間類建築物AWSG評估表（本表不適用學校類建築物）**

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| 方位樓層 | 毎扇窗資料 | | | | | | | 數量  ni | ηi | IHki  (kWh/(㎡.yr)) | | 外遮陽  Ki | 開窗面積 小計Ai(㎡) | | IHki×Ki×ηi×Ai | | |
| 編號 | | 寬(m) | | | 高(m) | |
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| ΣAi＝ | | | | | | | | | | | | |  | |  | | |
| ΣIHki×Ki×ηi ×Ai＝ | | | | | | | | | | | | | | |  | | |
| AWSG=（ΣIHki×Ki×ηi×Ai）÷ΣAi＝ | | | | | | | | | | | | | | |  | | (kWh/(㎡.yr)) |
| 基準值AWSGs 區= (kWh/(㎡.yr))＞AWSG ? 否 □ 是 □ | | | | | | | | | | | | | | | | | |
| **外遮陽Ki處理（參照附錄二）** | | | | | | | | | | | | | | | | | |
| 立面外遮陽係數Ksi (無遮陽時ksi=1.0) | | | | | | | | | | | | | | | | | |
| 方位樓層 | | 窗編號 | | 遮陽  形式 | | | 遮陽尺寸描述  與深度比計算  附錄二表2.2.1至2.2.3 | | | | 修正前  遮陽係  數Ksi | 短外遮陽修正 | | | | 修正後  遮陽係數Ksi | |
| Δksi | | (Ww/Ws)2或(Hw/Hs)2 | |
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| 註1: 外遮陽Ki數值應與本表下半之外遮陽處理結果一致。  註2: 較短形水平遮陽之遮陽係數修正量ΔKsi,hor，垂直遮陽之遮陽係數修正量ΔKsi,ver，查附錄二表2.2.4。  註3: 水平遮陽修正係數如圖2.3之(Ww/Ws)2，垂直遮陽修正係數如圖2.4之(Hw/Hs)2。  註4:修正後 Ksi,hor =原 Ksi, hor +ΔKsi, hor × (Ww/Ws)2, 修正後Ksi,ver =原 Ksi,ver +ΔKsi,ver×(Hw/Hs)2。 | | | | | | | | | | | | | | | | | |
| 簽證人 | | | | | **姓名： （簽章）** | | | | | | | | | | | | |