


| TSUH09                                    |                    | Plot No/ Area No :    |                                  | 346 - 595/BUSSINES SBAY             |   |                                       |                                  | 30/06/2024 2:36                      |                   |                   |                   |
|---|--------------------|-----------------------|----------------------------------|-------------------------------------|---|---------------------------------------|----------------------------------|--------------------------------------|-------------------|-------------------|-------------------|
|   |                    | Project:              |                                  | DIMD GROUP TRADING L.L.C            |   |                                       |                                  | Revised                              |                   |                   |                   |
|   |                    | Consultant:           |                                  | INSIGHT INTERIORS                   |   |                                       |                                  | (2) - 1/4/2003                       |                   |                   |                   |
| <b>HEAT LOAD</b>                          |                    |                       |                                  | <b>Condition Data</b>               |   |                                       | <b>Design Data</b>               |                                      | <b>Outdoor</b>    | <b>Indoor</b>     | <b>Difference</b> |
| <i>The Input Data And Calculation</i>     |                    |                       |                                  | <b>Month</b>                        | 8   |                                       | <b>dB F</b>                      | 115.00                               | 75.00             | 40.00             |                   |
| <b>Space Data</b>                         |                    |                       |                                  | <b>Yearly Range</b>                 | 50.00   |                                       | <b>WB F</b>                      | 84.00                                | 63.00             | 21.00             |                   |
| <b>Machine No</b>                         | 1                  | <b>Height (ft)</b>    | 11.20                            | <b>Daily Range</b>                  | 25.00   |                                       | <b>% RH</b>                      | 30%                                  | 50%               |                   |                   |
| <b>Space No</b>                           |                    | <b>Area ( ft2)</b>    | 1,400                            | <b>Time</b>                         | 16.00   |                                       | <b>GR./LB</b>                    | 135.00                               | 66.00             | 69.00             |                   |
| <b>Floor No.</b>                          | FIRST FLOOR        | <b>Volume ( ft3)</b>  | 15,680.00                        | <b>Latitude</b>                     | 25 N  |                                       | <b>Dew point</b>                 | 54                                   | 53                | 1                 |                   |
| <b>Units Type</b>                         | DUCT SPLIT         |                       |                                  | <b>Altitude</b>                     | 26.00   |                                       | <b>Haze Factor</b>               | (0 to .15)                           | 0.15              |                   |                   |
| <b>Solar &amp; Trans Gain Glass</b>       |                    |                       |                                  | <b>External Load</b>                |   |                                       |                                  | <b>SOLAR GAIN</b>                    | <b>TRANS GAIN</b> |                   |                   |
| <b>GLASS</b>                              | <b>H</b>           | <b>W</b>              | <b>Glass Area Ft<sup>2</sup></b> | <b>U</b>                            | <b>SC</b>   | <b>COLOR</b>                          | <b>Frame Factors</b>             | <b>BTU/HR</b>                        | <b>BTU/HR</b>     |                   |                   |
| N   |                    |                       |                                  | 0.58                                | 0.40  | L                                     |                                  |                                      |                   |                   |                   |
| NE  |                    |                       |                                  | 0.58                                | 0.40  | L                                     |                                  |                                      |                   |                   |                   |
| E   |                    |                       |                                  | 0.58                                | 0.40  | L                                     |                                  |                                      |                   |                   |                   |
| SE  |                    |                       |                                  | 0.58                                | 0.40  | L                                     |                                  |                                      |                   |                   |                   |
| S   |                    |                       |                                  | 0.58                                | 0.40  | L                                     |                                  |                                      |                   |                   |                   |
| SW  |                    |                       |                                  | 0.58                                | 0.40  | L                                     |                                  |                                      |                   |                   |                   |
| W   |                    |                       |                                  | 0.58                                | 0.40  | L                                     |                                  |                                      |                   |                   |                   |
| NW  |                    |                       |                                  | 0.58                                | 0.40  | L                                     |                                  |                                      |                   |                   |                   |
| HORIZONTAL                                |                    |                       |                                  | 0.58                                | 0.40  | L                                     |                                  |                                      |                   |                   |                   |
| <b>Total Solar &amp; Trans Gain Glass</b> |                    |                       |                                  |                                     |   |                                       |                                  |                                      |                   |                   |                   |
| <b>Trans Gain -Except Glass</b>           |                    |                       |                                  | <b>External Load</b>                |   |                                       |                                  |                                      |                   |                   |                   |
| <b>WALL</b>                               | <b>H</b>           | <b>W</b>              | <b>Total Wall Area Ft</b>        | <b>Net Wall Area Ft<sup>2</sup></b> | <b>U</b>  | <b>Mass lb/Ft<sup>2</sup></b>         | <b>Color</b>                     |                                      | <b>TRANS GAIN</b> |                   |                   |
| N   |                    |                       |                                  |                                     | 0.09  | 80.00                                 | L                                |                                      |                   |                   |                   |
| NE  | 11.20              | 50.00                 | 560.00                           | 560.00                              | 0.09  | 80.00                                 | L                                |                                      | 1835              |                   |                   |
| E   |                    |                       |                                  |                                     | 0.09  | 80.00                                 | L                                |                                      |                   |                   |                   |
| SE  | 11.20              | 28.00                 | 313.60                           | 313.60                              | 0.09  | 80.00                                 | L                                |                                      | 1194              |                   |                   |
| S   |                    |                       |                                  |                                     | 0.09  | 80.00                                 | L                                |                                      |                   |                   |                   |
| SW  |                    |                       |                                  |                                     | 0.09  | 80.00                                 | L                                |                                      |                   |                   |                   |
| W   |                    |                       |                                  |                                     | 0.09  | 80.00                                 | L                                |                                      |                   |                   |                   |
| NW  |                    |                       |                                  |                                     | 0.09  | 80.00                                 | L                                |                                      |                   |                   |                   |
| <b>External Load</b>                      |                    |                       |                                  |                                     |   |                                       |                                  | <b>Trans Gain -Wall</b>              | 3029              |                   |                   |
|   | <b>H</b>           | <b>W</b>              | <b>Area Ft<sup>2</sup></b>       | <b>EX OR NO</b>                     | <b>U</b>  | <b>Mass lb/Ft2</b>                    | <b>Color</b>                     | <b>heat to space%</b>                | <b>Exposure</b>   | <b>TRANS GAIN</b> |                   |
| ROOF                                      |                    |                       |                                  | 1.00                                | 0.05  | 2.07                                  | L                                | 100%                                 |                   |                   |                   |
| FLOOR                                     |                    |                       |                                  | 0.50                                | 0.09  | 105.61                                | L                                | 100%                                 |                   |                   |                   |
| PARTITION                                 |                    |                       |                                  | 1.00                                | 0.41  | 82.81                                 | L                                | 50%                                  |                   |                   |                   |
| CEILING                                   |                    |                       |                                  | 0.50                                | 0.35  | 105.61                                | L                                | 100%                                 |                   |                   |                   |
| <b>Internal Load</b>                      |                    |                       |                                  |                                     |   |                                       |                                  | <b>Trans Gain- Roof &amp; Others</b> |                   |                   |                   |
|   |                    |                       |                                  |                                     |   |                                       |                                  | <b>SENSIBLE</b>                      | <b>LATENT</b>     |                   |                   |
| <b>ELEMENTS</b>                           | <b>MOTORS</b>      | <b>HP</b>             |                                  |                                     |   |                                       |                                  |                                      |                   |                   |                   |
|   | <b>REHEAT</b>      | <b>WATT</b>           |                                  |                                     |   |                                       |                                  |                                      |                   |                   |                   |
|   | <b>APPLIANCES</b>  | <b>WATT</b>           | 500.00                           |                                     |   |                                       |                                  |                                      | 1705              |                   |                   |
|   | <b>MISC.</b>       | <b>WATT</b>           |                                  |                                     |   |                                       |                                  |                                      |                   |                   |                   |
|   | <b>STEAM</b>       | <b>LB/H</b>           |                                  |                                     |   |                                       |                                  |                                      |                   |                   |                   |
| <b>LIGHTS</b>                             | <b>W/FT2</b>       | <b>Watt</b>           | <b>Light Factor</b>              | <b>Total Watt</b>                   | <b>Operat %</b>   | <b>Heat to space%</b>                 |                                  | <b>SENSIBLE</b>                      |                   |                   |                   |
|   | 2.00               | 2800.00               | 1.80                             | 5040.00                             | 100%  | 100%                                  |                                  | 17186                                |                   |                   |                   |
| <b>PEOPLE</b>                             | <b>FT2/ Person</b> | <b>Persons</b>        | <b>Activity Level</b>            | <b>Attendance %</b>                 |   |                                       |                                  | <b>SENSIBLE</b>                      | <b>LATENT</b>     |                   |                   |
|   | 65.00              | 21.54                 | 1                                | 100%                                |   |                                       |                                  | 5277                                 | 4415              |                   |                   |
|   |                    |                       |                                  |                                     |   |                                       |                                  | <b>27197</b>                         | <b>4415</b>       |                   |                   |
| <b>VENTILATION</b>                        |                    | <b>CFM/Person</b>     | 20.00                            | <b>CFM</b>                          | 430.77  |                                       |                                  |                                      |                   |                   |                   |
|   |                    | <b>Air Change /Hr</b> | 1.00                             | <b>No</b>                           | 261.33  |                                       | <b>Out Door Air</b>              | <b>V</b>                             | 11290             | 11360             |                   |
|   |                    | <b>Infiltration</b>   |                                  | <b>%</b>                            |   |                                       | <b>INF.</b>                      |                                      |                   |                   |                   |
|   |                    |                       |                                  |                                     |   |                                       | <b>Sub-Total</b>                 | <b>BTU/HR</b>                        | 38487             | 15776             |                   |
| <b>SAFETY FACTOR s</b>                    |                    | <b>SH %</b>           | 7.00%                            |                                     |   |                                       | <b>Safety Factor</b>             |                                      | 2694              | 158               |                   |
|   |                    | <b>LH %</b>           | 1.00%                            |                                     |   |                                       |                                  |                                      |                   |                   |                   |
|   |                    | <b>Others%</b>        | 1.00%                            |                                     |   |                                       | <b>Duct Losses+ Fan HP</b>       |                                      | 571               |                   |                   |
| <b>UNITS DATA</b>                         |                    |                       |                                  |                                     |   |                                       |                                  |                                      |                   |                   |                   |
| <b>Operat. Time</b>                       | <b>No Of Units</b> | <b>T adb</b>          | <b>by-pass F(BF)</b>             | <b>Trm - Tsa</b>                    | <b>Off Coil Air T° F</b>  | <b>PI</b>                             | <b>Losses</b>                    | <b>SENSIBLE</b>                      | <b>LATENT</b>     |                   |                   |
| 18.00                                     | 2.00               | 56.00                 | 0.15                             | 20.00                               | 55.00   |                                       | 2.00                             | Effective Room Heat                  | 41752             | 15933             |                   |
| <b>TOTAL LOAD</b>                         |                    | <b>BTU/HR</b>         |                                  | <b>CFM</b>                          | <b>THERMAL INSULATION</b>   |                                       | <b>Effective Room Total Heat</b> |                                      | 57685             |                   |                   |
| <b>Total Grand Load</b>                   |                    | 89,511                | <b>Supply Air</b>                | 2394                                |  |                                       | <b>Out Door Air Heat</b>         |                                      | 14646             | 17180             |                   |
| <b>Total Sensible Heat</b>                |                    | 56,398                | <b>Return Air</b>                | 1963                                |   |                                       | <b>Roof Load To Plenum</b>       |                                      |                   |                   |                   |
| <b>Total Latent Heat</b>                  |                    | 33,113                | <b>Out Door Air</b>              | 431                                 |   |                                       | <b>Lights Load To Plenum</b>     |                                      |                   |                   |                   |
|   |                    |                       |                                  |                                     |   |                                       | <b>Sensible Heat (Plenum)</b>    |                                      |                   |                   |                   |
|   |                    | <b>TONS</b>           | <b>BTU/HR.FT2</b>                | <b>CFM/FT2</b>                      | <b>SHF</b>  | <b>REFLECT SOLUTION FOR A PERFECT</b> |                                  |                                      |                   |                   |                   |
|   |                    | 7.46                  | 63.94                            | 1.71                                | 0.63  |                                       |                                  |                                      |                   |                   |                   |