

LAMPIRAN 1

DATA ANTROPOMETRI

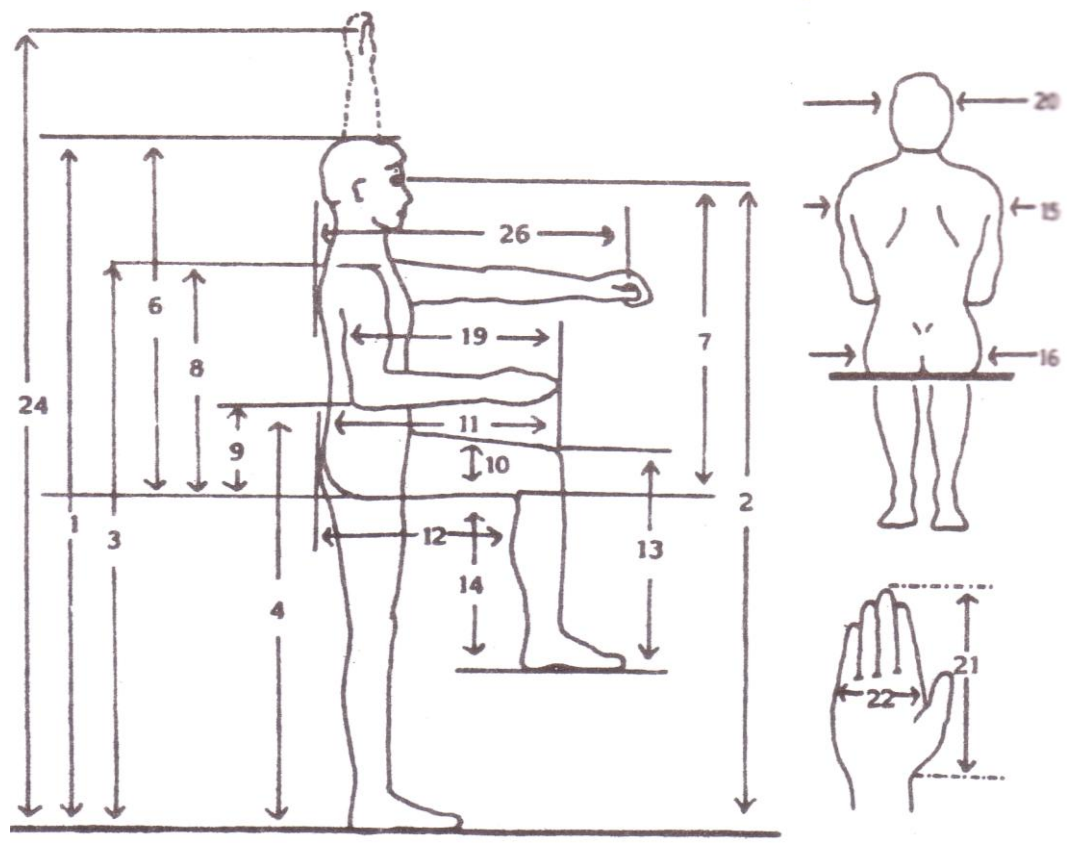
ORANG INDONESIA MENURUT

EKO NURMIANTO

Tabel Data Anthropometri Tubuh Masyarakat Indonesia

| DIMENSI TUBUH | P R I A | | | | WANITA | | | |
|--|---------|-------|-------|-----|--------|-------|-------|-----|
| | 5% | X | 95% | S.D | 5% | X | 95% | S.D |
| 1. Tinggi Tubuh Posisi berdiri Tegak | 1.532 | 1.632 | 1.732 | 61 | 1.464 | 1.563 | 1.662 | 60 |
| 2. Tinggi Mata | 1.425 | 1.520 | 1.615 | 58 | 1.350 | 1.446 | 1.542 | 58 |
| 3. Tinggi Bahu | 1.247 | 1.338 | 1.429 | 55 | 1.184 | 1.272 | 1.361 | 54 |
| 4. Tinggi Siku | 932 | 1.003 | 1.074 | 43 | 886 | 957 | 1.028 | 43 |
| 5. Tinggi Genggaman Tangan (<i>Knuckle</i>) pada Posisi Relaks kebawah | 655 | 718 | 782 | 39 | 646 | 708 | 771 | 38 |
| 6. Tinggi Badan pada Posisi Duduk | 809 | 864 | 919 | 33 | 775 | 834 | 893 | 36 |
| 7. Tinggi Mata pada Posisi Duduk | 694 | 749 | 804 | 33 | 666 | 721 | 776 | 33 |
| 8. Tinggi Bahu pada Posisi Duduk | 523 | 572 | 621 | 30 | 501 | 550 | 599 | 30 |
| 9. Tinggi siku pada Posisi Duduk | 181 | 231 | 282 | 31 | 175 | 229 | 283 | 33 |
| 10. Tebal Paha | 117 | 140 | 163 | 14 | 115 | 140 | 165 | 15 |
| 11. Jarak dari Pantat ke Lutut | 500 | 545 | 590 | 27 | 488 | 537 | 586 | 30 |
| 12. Jarak dari Lipat Lutut (<i>popliteal</i>) ke Pantat | 405 | 450 | 495 | 27 | 488 | 537 | 586 | 30 |
| 13. Tinggi Lutut | 448 | 496 | 544 | 29 | 428 | 472 | 516 | 27 |
| 14. Tinggi Lipat Lutut (<i>popliteal</i>) | 361 | 403 | 445 | 26 | 337 | 382 | 428 | 28 |
| 15. Lebar Bahu (<i>bideloid</i>) | 382 | 424 | 466 | 26 | 342 | 385 | 428 | 26 |
| 16. Lebar Panggul | 291 | 331 | 371 | 24 | 298 | 345 | 392 | 29 |
| 17. Tebal Dada | 174 | 212 | 250 | 23 | 178 | 228 | 278 | 30 |
| 18. Tebal Perut (<i>abdominal</i>) | 174 | 228 | 282 | 33 | 175 | 231 | 287 | 34 |
| 19. Jarak dari Siku ke Ujung Jari | 405 | 439 | 473 | 21 | 374 | 409 | 444 | 34 |
| 20. Lebar Kepala | 140 | 150 | 160 | 6 | 135 | 146 | 157 | 7 |
| 21. Panjang Tangan | 161 | 176 | 191 | 9 | 153 | 168 | 183 | 9 |
| 22. Lebar Tangan | 71 | 79 | 87 | 5 | 64 | 71 | 78 | 4 |
| 23. Jarak Bentang dari Ujung Jari Tangan Kiri ke Kanan | 1.520 | 1.663 | 1.806 | 87 | 1.400 | 1.523 | 1.646 | 75 |
| 24. Tinggi Pegangan Tangan (<i>grip</i>) pada Posisi Tangan Vertikal ke Atas & Berdiri Tegak | 1.795 | 1.923 | 2.051 | 78 | 1.713 | 1.841 | 1.969 | 79 |
| 25. Tinggi Pegangan Tangan (<i>grip</i>) pada Posisi Tangan Vertikal ke Atas & Duduk | 1.065 | 1.169 | 1.273 | 63 | 945 | 1.030 | 1.115 | 52 |
| 26. Jarak Genggaman Tangan (<i>grip</i>) ke Punggung pada Posisi Tangan ke Depan (<i>horisontal</i>) | 649 | 708 | 767 | 37 | 610 | 661 | 712 | 31 |

Gambar Anthropometri Tubuh Manusia



LAMPIRAN 2

HANDBOOK OF ERGONOMICS

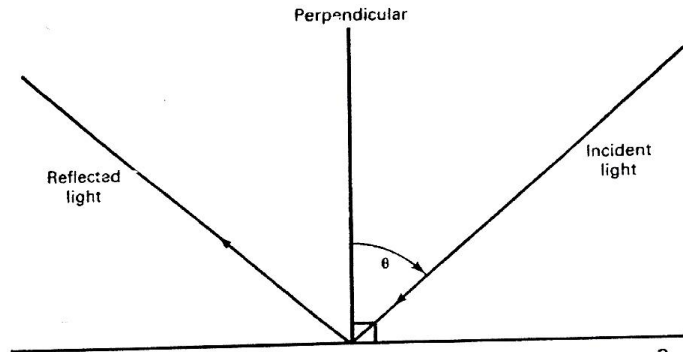


Figure WRKSTN-D1: Reflectance Relationships²

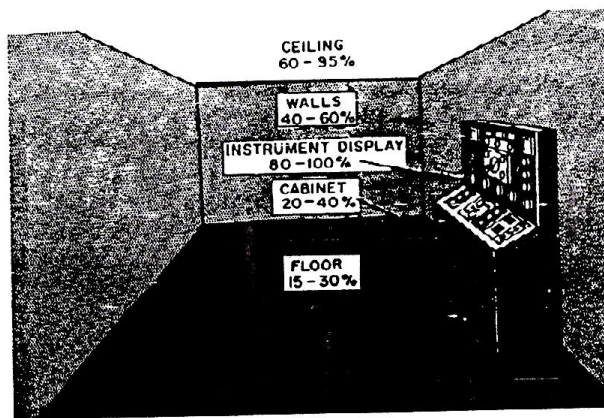


Figure WRKSTN-D2: General Recommendations for Workplac Reflectances³

Table WRKSTN-D7: Reflectance Factors for Surface Color³

| Color | Reflectance | Color | Reflectance |
|----------------|-------------|---------------------|-------------|
| White..... | 85 | | |
| Light: | | Dark: | |
| Cream..... | 75 | Gray..... | 30 |
| Gray..... | 75 | Red..... | 13 |
| Yellow..... | 75 | Brown..... | 10 |
| Buff..... | 70 | Blue..... | 8 |
| Green..... | 65 | Green..... | 7 |
| Blue..... | 55 | | |
| Medium: | | Wood Finish: | |
| Yellow..... | 65 | Maple..... | 42 |
| Buff..... | 63 | Satinwood..... | 34 |
| Gray..... | 55 | English Oak..... | 17 |
| Green..... | 52 | Walnut..... | 16 |
| Blue..... | 35 | Mahogany..... | 12 |

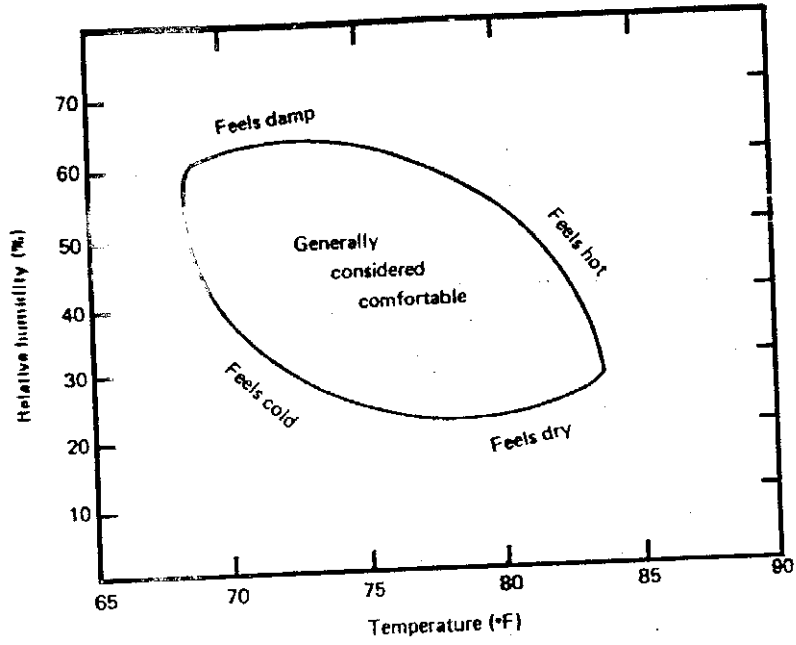
Table WRKSTN-D8: Techniques for Controlling Glare⁴

| To Control Direct Glare | To Control Indirect Glare (Veiling Reflections and Reflected Glare) |
|--|---|
| Position luminaires, the lighting units, as far from the operator's line of sight as is practical | Avoid placing luminaires in the indirect-glare offending zone (see Figure VC-2) |
| Use several low-intensity luminaires instead of one bright one | Use luminaires with diffusing or polarizing lenses |
| Use luminaires that produce a batwing light distribution*, and position workers so that the highest light level comes from the sides, not front and back | Use surfaces that diffuse light, such as flat paint, non-gloss paper, and textured finishes |
| Use luminaires with louvers or prismatic lenses | Change the orientation of a workplace, task, viewing angle, or viewing direction until maximum visibility is achieved |
| Use indirect lighting | |
| Use light shields, hoods, and visors at the workplace if other methods are impractical | |

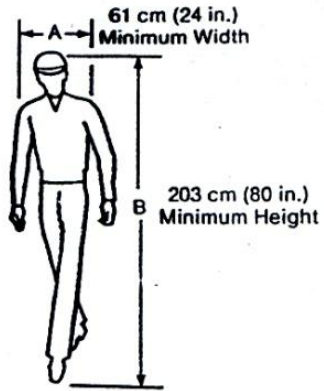
* The effectiveness of the batwing distribution varies with the orientation of the workplace and worker. It can also be used to control indirect glare, because maximum output is in the arc between approximately 35° to 45° angles.

Examples of ways to control direct glare (column 1) and indirect glare (column 2) at the workplace are given. These methods include design approaches that can be used when installing the lighting, as well as interventions that can be made after glare has been identified in a workplace.

Workplace Tables



WRKSTN-E4: Comfort Zone as a Function of Relative Humidity Versus Temperature²



The minimum amount of space needed to permit a person to walk normally is shown. The minimum width (A) includes about 5 cm (2 in.) of clearance on either side of the shoulders of a very broad-shouldered person.

Figure WRKSTN-C2: Minimum Clearances for Walking¹

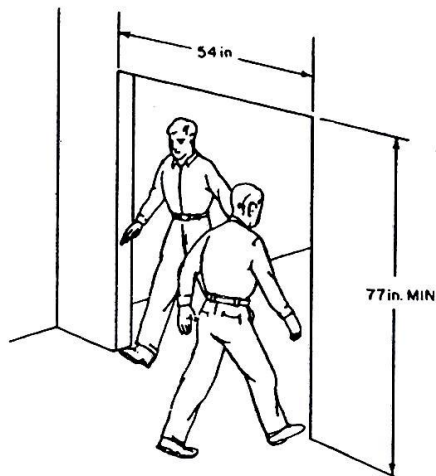


Figure WRKSTN-C10: Archway Dimension for Two-Person Flow³

LAMPIRAN 3

GAMBAR PRODUK TERPILIH



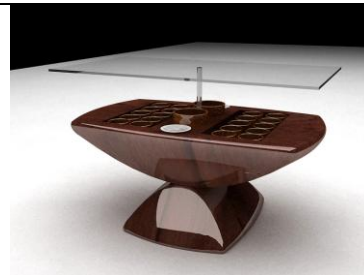
Meja Makan



Meja Makan



Kursi Makan



Meja Salad



Kursi Tunggu



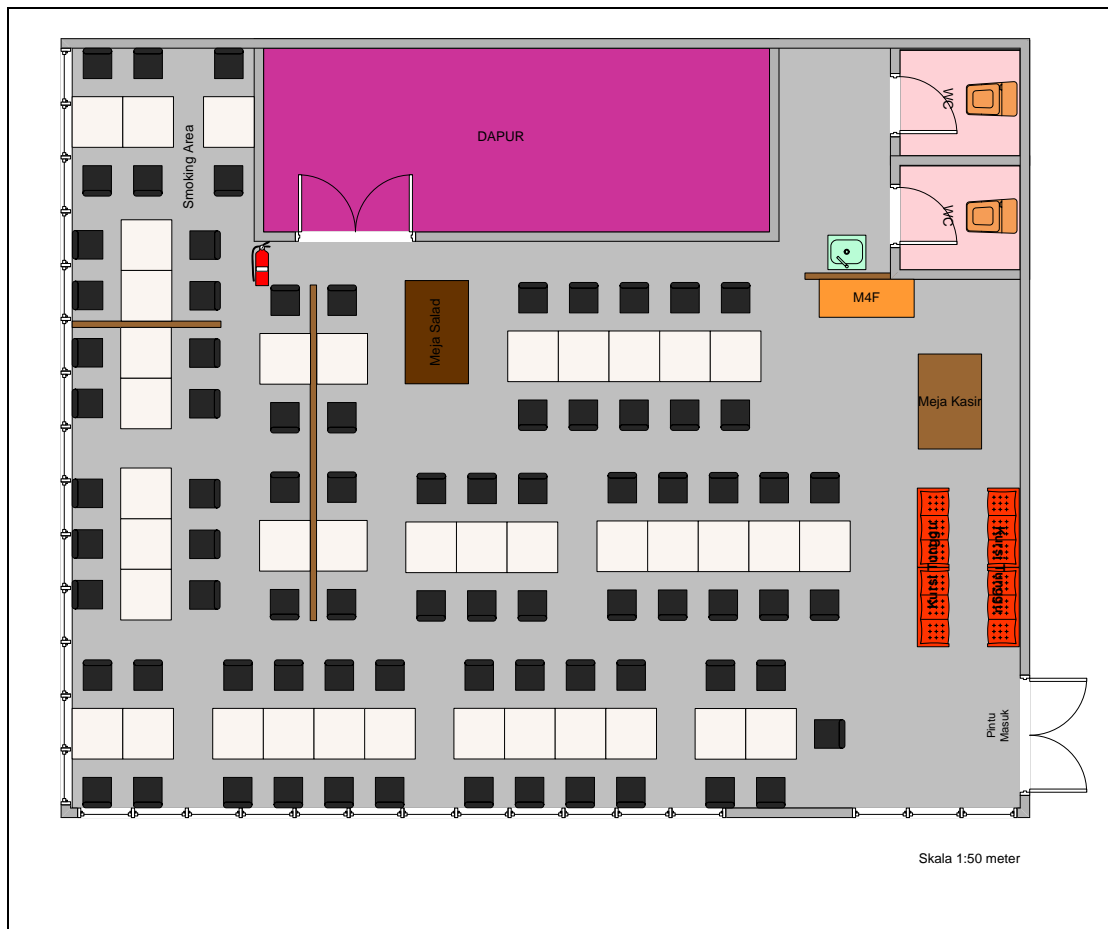
Meja Kasir



Mix 4 Fun





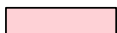



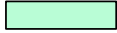




LAMPIRAN 4

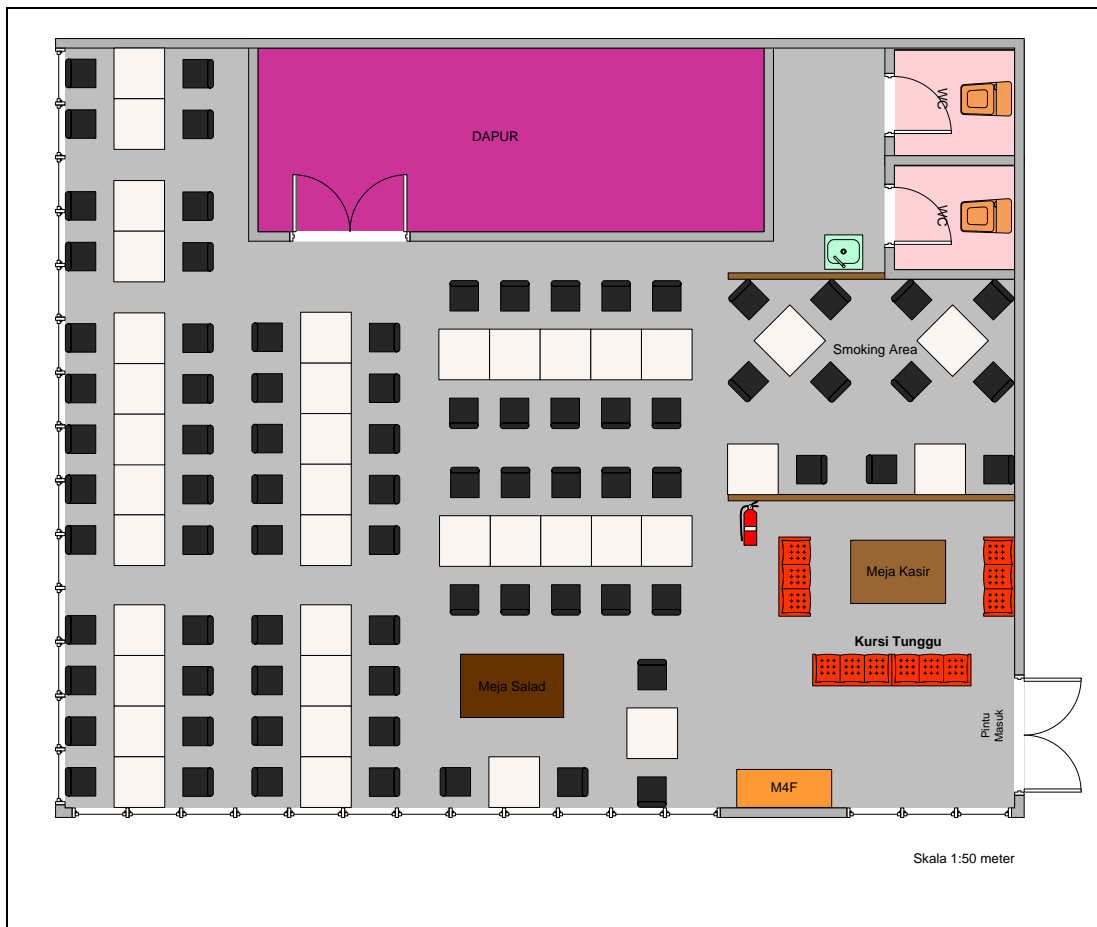
GAMBAR *LAYOUT* TERPILIH



Layout Alternatif ke 1





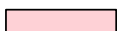








Keterangan Gambar :

| | | | |
|---|--------------------|--|--------------|
|  | Warna Lantai |  | Meja Salad |
|  | Warna Lantai Dapur |  | Meja Makan |
|  | Warna Lantai WC |  | Mix 4 fun |
|  | Kloset WC |  | Kursi Tunggu |
|  | Wastafel WC |  | Sekat Kayu |
|  | Meja Kasir |  | Sekat Kaca |
|  | Kursi Makan | | |



Layout Alternatif ke 6

Keterangan Gambar :

| | | | |
|---|--------------------|--|--------------|
|  | Warna Lantai |  | Meja Salad |
|  | Warna Lantai Dapur |  | Meja Makan |
|  | Warna Lantai WC |  | Mix 4 fun |
|  | Kloset WC |  | Kursi Tunggu |
|  | Wastafel WC |  | Sekat Kayu |
|  | Meja Kasir |  | Sekat Kaca |
|  | Kursi Makan | | |

KOMENTAR DOSEN PENGUJI

Nama : Fitriana Salim

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Judul Tugas Akhir : Analisis Dan Perancangan Fasilitas Fisik, Tata Letak Fasilitas, Dan Lingkungan Fisik Ditinjau Dari Segi Ergonomi (Studi Kasus Restoran “X” Di Bandung)

Komentar :

1. Perbaiki gambar teknik untuk gambar meja kasir alternatif 2
2. Perbaiki gambar 3D meja *salad* alternatif 1
3. Perbaiki penulisan hal 5 – 42
4. Tambahkan posisi *exhaust fan* untuk *layout* alternatif 6

DATA PENULIS

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Tanggal USTA : 09 Februari 2010