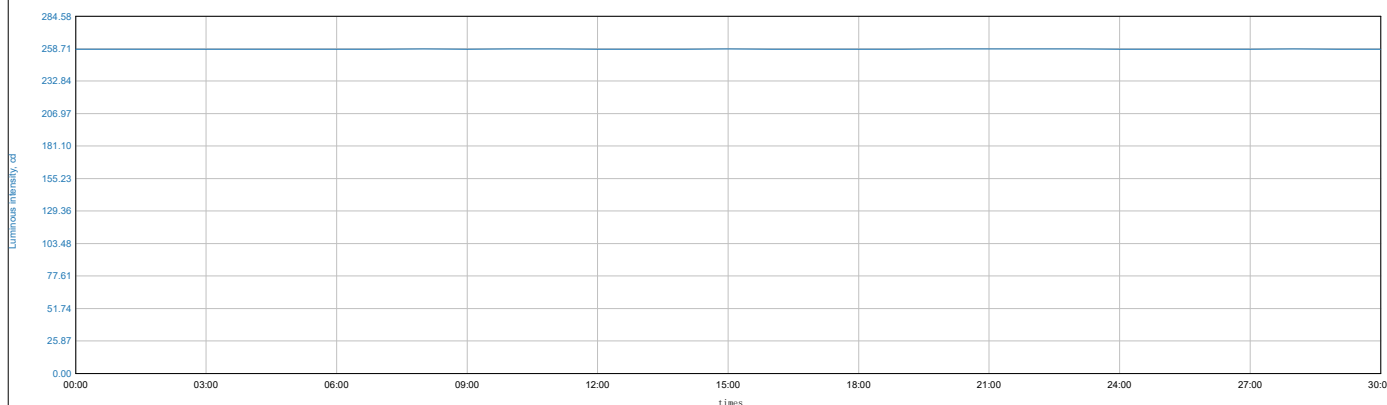


**Measurements for VAD with range <10m Report**

|                           |                                                              |
|---------------------------|--------------------------------------------------------------|
| Test Standard             | EN54-23-2010                                                 |
| Publisher                 | EUROPEAN STANDARD                                            |
| Release Time              | 2010                                                         |
| Comment                   | Fire Detection and fire alarm systems - Visual alarm devices |
| Voltage (V)               | DC 24 (CV)                                                   |
| Test Time                 | 2026-08-01 12:38:56                                          |
| Goniophotometer           | LSG-1930 [E812035D]                                          |
| Flash Light Illuminometer | PM-400F [D512107A]                                           |

**Variation of light output**


| Time                   | 00:00  | 01:00  | 02:00  | 03:00  | 04:00  | 05:00  | 06:00  | 07:00  |
|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Luminous intensity, cd | 258.51 | 258.49 | 258.49 | 258.34 | 258.52 | 258.50 | 258.48 | 258.52 |
| Time                   | 08:00  | 09:00  | 10:00  | 11:00  | 12:00  | 13:00  | 14:00  | 15:00  |
| Luminous intensity, cd | 258.57 | 258.54 | 258.57 | 258.61 | 258.55 | 258.45 | 258.57 | 258.58 |
| Time                   | 16:00  | 17:00  | 18:00  | 19:00  | 20:00  | 21:00  | 22:00  | 23:00  |
| Luminous intensity, cd | 258.47 | 258.52 | 258.55 | 258.56 | 258.57 | 258.61 | 258.59 | 258.71 |
| Time                   | 24:00  | 25:00  | 26:00  | 27:00  | 28:00  | 29:00  | 30:00  |        |
| Luminous intensity, cd | 258.53 | 258.56 | 258.57 | 258.41 | 258.61 | 258.52 | 258.54 |        |

| Pmax:Pmin         |            |            |            |      |             |
|-------------------|------------|------------|------------|------|-------------|
| Calculation       | Min. limit | Max. limit | Test Value | Unit | Test Result |
| MAXMIN([光强时间数据]); |            | 1.3300     | 1.0014     |      | Passed      |

| $\alpha 0$                |              |            |            |                 |        |             |        |
|---------------------------|--------------|------------|------------|-----------------|--------|-------------|--------|
| $\beta$ [°]               | $\alpha$ [°] | Min. limit | Max. limit | Test Value      | Unit   | Test Result |        |
| 0~180:15                  | 0.0          |            | 500.000    | [1.465, 45.371] | cd     | Passed      |        |
| $\alpha \backslash \beta$ | 0.00         | 15.00      | 30.00      | 45.00           | 60.00  | 75.00       | 90.00  |
| 0.00                      | 42.367       | 15.292     | 1.968      | 1.465           | 1.907  | 9.305       | 45.371 |
| $\alpha \backslash \beta$ | 105.00       | 120.00     | 135.00     | 150.00          | 165.00 | 180.00      |        |
| 0.00                      | 14.396       | 1.991      | 1.486      | 1.930           | 9.676  | 39.872      |        |

| $\alpha 15$               |              |            |            |                 |        |             |        |
|---------------------------|--------------|------------|------------|-----------------|--------|-------------|--------|
| $\beta$ [°]               | $\alpha$ [°] | Min. limit | Max. limit | Test Value      | Unit   | Test Result |        |
| 0~180:15                  | 15.0         |            | 500.000    | [5.770, 58.307] | cd     | Passed      |        |
| $\alpha \backslash \beta$ | 0.00         | 15.00      | 30.00      | 45.00           | 60.00  | 75.00       | 90.00  |
| 15.00                     | 58.307       | 16.832     | 6.965      | 5.796           | 6.292  | 13.386      | 58.003 |
| $\alpha \backslash \beta$ | 105.00       | 120.00     | 135.00     | 150.00          | 165.00 | 180.00      |        |
| 15.00                     | 17.426       | 6.281      | 5.770      | 6.435           | 13.249 | 52.975      |        |

| $\alpha 30$    |              |            |        |            |        |                  |
|----------------|--------------|------------|--------|------------|--------|------------------|
| $\beta$ [°]    | $\alpha$ [°] | Min. limit |        | Max. limit |        | Test Value       |
| 0~180:16.36    | 30.0         |            |        | 500.000    |        | [11.737, 67.853] |
| $\alpha/\beta$ | 0.00         | 16.36      | 32.72  | 49.08      | 65.44  | 81.80            |
| 30.00          | 62.574       | 19.927     | 15.588 | 12.816     | 11.737 | 18.057           |
| $\alpha/\beta$ | 98.16        | 114.52     | 130.88 | 147.24     | 163.60 | 179.96           |
| 30.00          | 32.576       | 14.681     | 14.337 | 16.418     | 20.935 | 67.853           |

| $\alpha 45$    |              |            |        |        |            |        |        |                   |        |         |
|----------------|--------------|------------|--------|--------|------------|--------|--------|-------------------|--------|---------|
| $\beta$ [°]    | $\alpha$ [°] | Min. limit |        |        | Max. limit |        |        | Test Value        |        | Unit    |
| 0~180:20       | 45.0         |            |        |        | 500.000    |        |        | [20.912, 108.345] |        | cd      |
| $\alpha/\beta$ | 0.00         | 20.00      | 40.00  | 60.00  | 80.00      | 100.00 | 120.00 | 140.00            | 160.00 | 180.00  |
| 45.00          | 101.980      | 49.783     | 32.700 | 33.465 | 20.912     | 34.793 | 53.054 | 47.333            | 55.331 | 108.345 |

| $\alpha 60$    |              |            |        |            |        |                   |         |
|----------------|--------------|------------|--------|------------|--------|-------------------|---------|
| $\beta$ [°]    | $\alpha$ [°] | Min. limit |        | Max. limit |        | Test Value        |         |
| 0~180:30       | 60.0         |            |        | 500.000    |        | [43.355, 149.614] |         |
| $\alpha/\beta$ | 0.00         | 30.00      | 60.00  | 90.00      | 120.00 | 150.00            | 180.00  |
| 60.00          | 139.643      | 48.324     | 47.129 | 137.640    | 43.355 | 48.418            | 149.614 |

| $\alpha 75$    |              |            |  |            |  |                   |
|----------------|--------------|------------|--|------------|--|-------------------|
| $\beta$ [°]    | $\alpha$ [°] | Min. limit |  | Max. limit |  | Test Value        |
| 0~180:60       | 75.0         |            |  | 500.000    |  | [45.584, 128.965] |
| $\alpha/\beta$ | 0.00         | 60.00      |  | 120.00     |  | 180.00            |
| 75.00          | 122.410      | 45.584     |  | 48.737     |  | 128.965           |

| $\alpha 90[\alpha 90]$ |              |            |  |            |  |            |
|------------------------|--------------|------------|--|------------|--|------------|
| $\beta$ [°]            | $\alpha$ [°] | Min. limit |  | Max. limit |  | Test Value |
| 0                      | 90           |            |  | 500.000    |  | 258.430    |
|                        |              |            |  |            |  | cd         |
|                        |              |            |  |            |  | Passed     |

| Frequency                  |            |  |            |  |            |
|----------------------------|------------|--|------------|--|------------|
| Calculation                | Min. limit |  | Max. limit |  | Test Value |
| FLICKFREQ([ $\alpha 90$ ]) | 0.50       |  | 2.00       |  | 1.00       |
|                            |            |  |            |  | Hz         |
|                            |            |  |            |  | Passed     |

| Flash duration                 |            |  |            |  |            |
|--------------------------------|------------|--|------------|--|------------|
| Calculation                    | Min. limit |  | Max. limit |  | Test Value |
| FLASHDURATION([ $\alpha 90$ ]) |            |  | 200        |  | 20         |
|                                |            |  |            |  | ms         |
|                                |            |  |            |  | Passed     |

| $\geq 70\%$ of test points have luminous intensity $\geq 1$ cd |            |  |            |  |            |
|----------------------------------------------------------------|------------|--|------------|--|------------|
| Calculation                                                    | Min. limit |  | Max. limit |  | Test Value |
| MIN AND MAX EFFECTIVE LUMINOUS INTENSITY                       | 70.00%     |  | 100.00%    |  | 100.00%    |
|                                                                |            |  |            |  | %          |
|                                                                |            |  |            |  | Passed     |

| W-x-y           |            |  |            |  |            |
|-----------------|------------|--|------------|--|------------|
| Calculation     | Min. limit |  | Max. limit |  | Test Value |
| COVERAGE VOLUME |            |  |            |  | W-2.4-6.7  |
|                 |            |  |            |  |            |
|                 |            |  |            |  |            |