

22.04.2016

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## **Equipment Under Test (EUT)**

**Description:** LED Luminaire VARTON Mercury LED Mall 1500\*66\*58mm narrow asymmetry

**Product code:** V1-R0-70150-31L15-2304440

**Weight:** 2,5kg

The test results refer to the tested sample only.

## **Characteristics declared by the manufacture**

|                   |       |
|-------------------|-------|
| Power consumption | 44W   |
| Color temperature | 4000K |

## **Test objective**

is to perform lighting tests and to determine the main photometric characteristics.

## **Test conditions**

|                           |            |
|---------------------------|------------|
| Ambient temperature       | 25±4°C     |
| Humidity                  | 65±10%     |
| Stabilized voltage supply | 230V       |
| Pressure                  | 101kPa ±3% |
| Frequency                 | 50Hz       |
| Operating time            | ≥60min     |

## Normative references

GOST 54350-2015

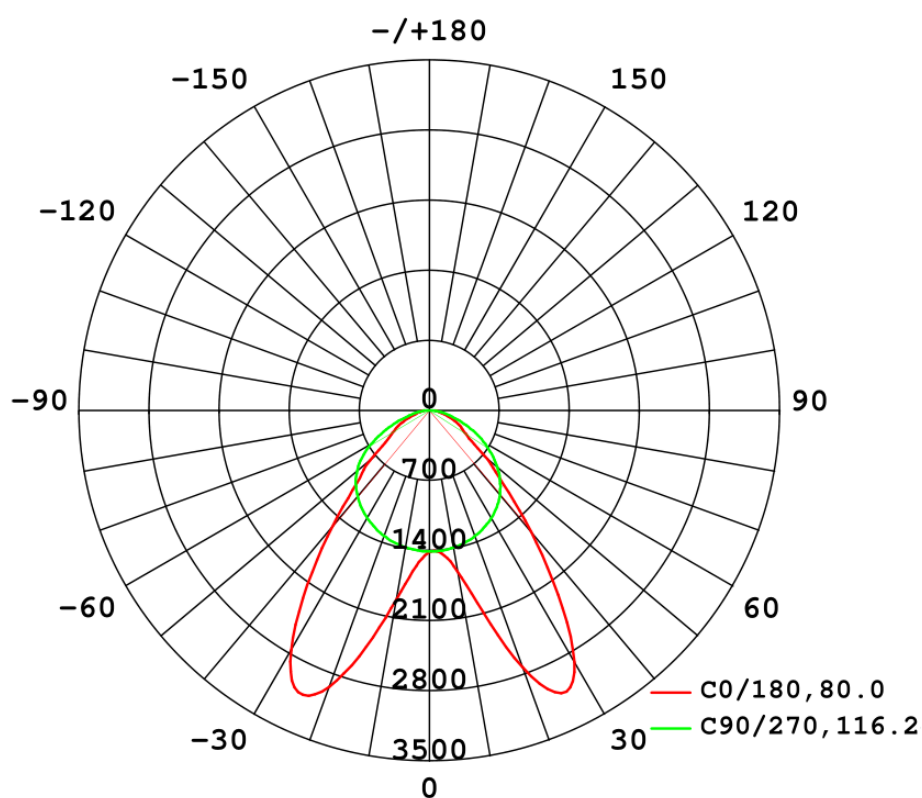
## Equipment Used during Test

| № | Name MS (UE)                              | Type MS (UE)   |
|---|-------------------------------------------|----------------|
| 1 | Goniophotometer                           | GO-R5000       |
| 2 | Digital power meter                       | PF2010         |
| 3 | Power source AC pulse width modulation    | DPS1010        |
| 4 | Light meter + Pulsometr + Luminance meter | "TKA-PKM" (09) |
| 5 | Spectroradiometer                         | HAAS-2000      |

## Test results of measurement of photometric and electrical characteristics

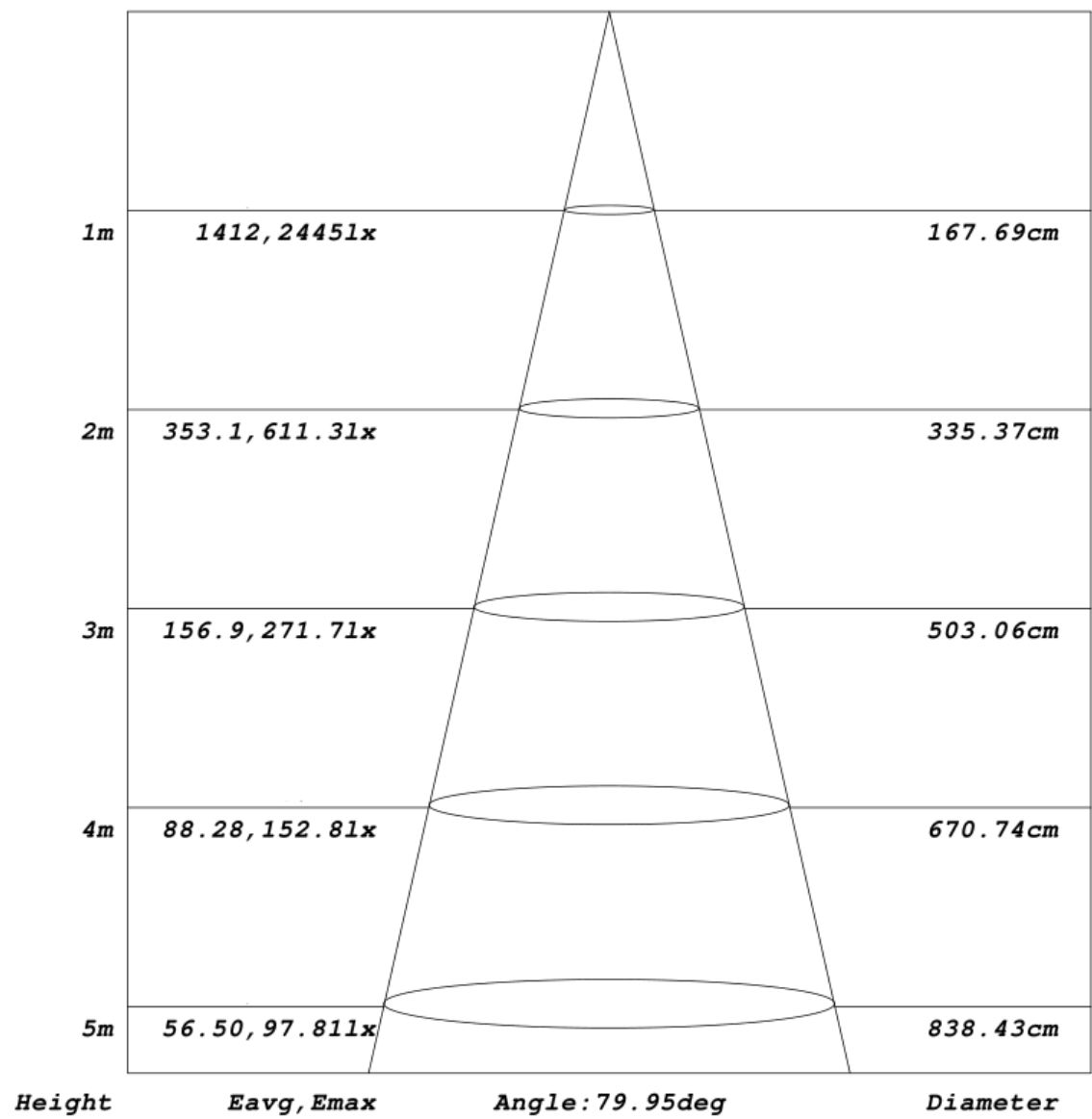
|                              |         |
|------------------------------|---------|
| Luminous flux, lm            | 5681,12 |
| Luminous intensity (Max), cd | 3123    |
| Luminous efficacy, lm/W      | 131,17  |
| Power input, W               | 43,31   |
| Power factor                 | 0,9494  |
| Current intensity, A         | 0,1985  |
| Reactive power, VAr          | 14,3    |
| Total power consumption, VA  | 45,6    |
| Beam angle, deg              | 98,1    |

### Luminous intensity distribution diagram



UNIT: 3123cd

AAI figure



## Utilization factor table

| REFLECTANCE                      |                                                      |     |           |     |     |     |     |               |     |        |
|----------------------------------|------------------------------------------------------|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| Ceiling                          | 0.8                                                  | 0.8 | 0.8       | 0.7 | 0.7 | 0.7 | 0.5 | 0.5           | 0.5 | 0      |
| Walls                            | 0.7                                                  | 0.5 | 0.3       | 0.7 | 0.5 | 0.3 | 0.7 | 0.5           | 0.3 | 0      |
| Working plane                    | 0.2                                                  | 0.2 | 0.2       | 0.2 | 0.2 | 0.2 | 0.2 | 0.2           | 0.2 | 0      |
| ROOM INDEX                       | UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$ |     |           |     |     |     |     |               |     |        |
| $k = 0.60$                       | 63                                                   | 53  | 46        | 63  | 53  | 46  | 62  | 52            | 46  | 40     |
| 0.80                             | 73                                                   | 63  | 57        | 73  | 63  | 56  | 71  | 62            | 56  | 50     |
| 1.00                             | 82                                                   | 72  | 66        | 81  | 71  | 65  | 79  | 72            | 65  | 58     |
| 1.25                             | 88                                                   | 79  | 73        | 87  | 79  | 73  | 85  | 77            | 72  | 65     |
| 1.50                             | 93                                                   | 84  | 78        | 91  | 84  | 78  | 89  | 82            | 77  | 70     |
| 2.00                             | 99                                                   | 92  | 86        | 97  | 90  | 85  | 94  | 88            | 84  | 77     |
| 2.50                             | 102                                                  | 95  | 90        | 100 | 94  | 89  | 97  | 92            | 88  | 80     |
| 3.00                             | 105                                                  | 99  | 94        | 103 | 98  | 93  | 99  | 95            | 91  | 83     |
| 4.00                             | 108                                                  | 103 | 99        | 106 | 102 | 98  | 102 | 98            | 95  | 87     |
| 5.00                             | 110                                                  | 106 | 103       | 108 | 104 | 101 | 104 | 101           | 98  | 89     |
| ROOM INDEX                       | UF(total)                                            |     |           |     |     |     |     |               |     | Direct |
| According to DIN EN 13032-2 2004 |                                                      |     | Suspended |     |     |     |     | SHRNOM = 1.25 |     |        |

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Test conducted by: S. Laukhin

Test report drawn up by: V. Smishchenko