

22.04.2016



**Applicant** Varton LLC 14/6 Dorogobuzhskaya st,  
Moscow, Russian Federation, 121354

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

**Description:** LED Luminaire VARTON Mercury LED Mall 1500\*66\*58mm 58°x121°

**Product code:** V1-R0-70150-31L13-2305640

**Weight:** 2,5kg

The test results refer to the tested sample only.

## **Characteristics declared by the manufacture**

|                   |       |
|-------------------|-------|
| Power consumption | 56W   |
| 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

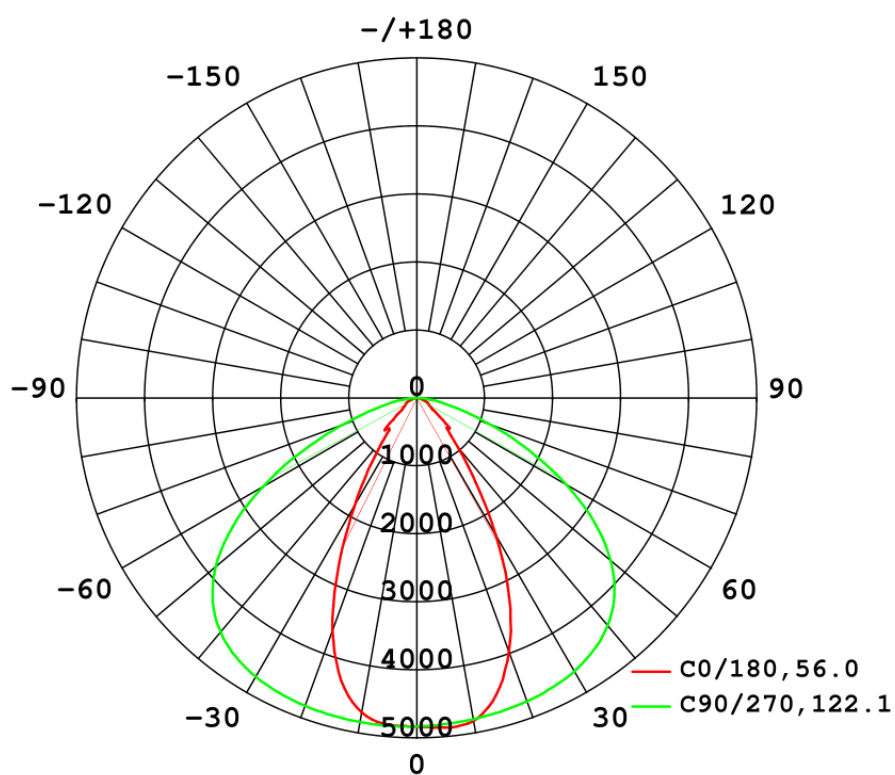
## Equipment Used during Test

| № | 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

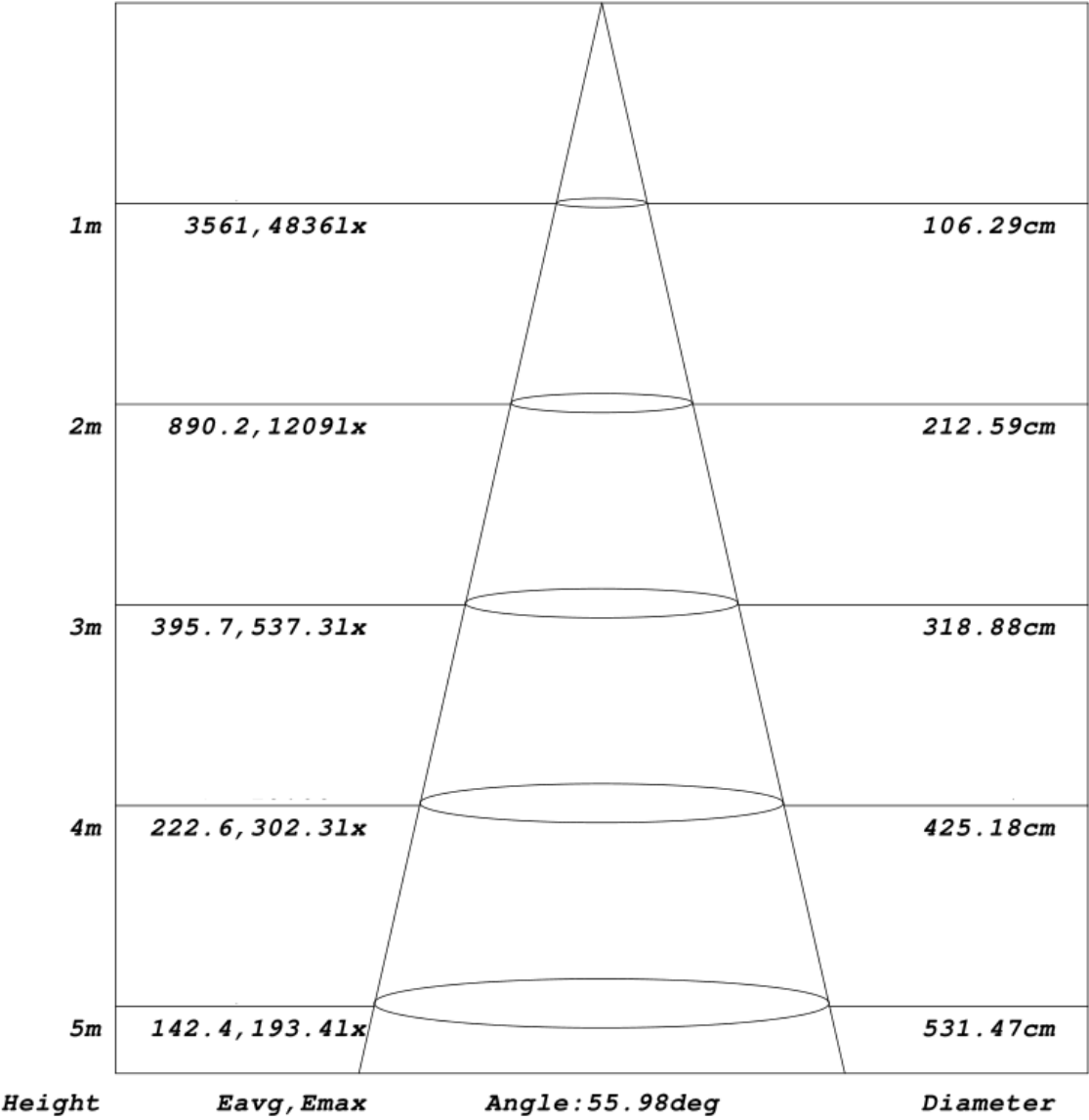
|                              |         |
|------------------------------|---------|
| Luminous flux, lm            | 8551,03 |
| Luminous intensity (Max), cd | 4872    |
| Luminous efficacy, lm/W      | 152,97  |
| Power input, W               | 55,90   |
| Power factor                 | 0,9682  |
| Current intensity, A         | 0,2512  |
| Reactive power, VAr          | 14,2    |
| Total power consumption, VA  | 57,8    |
| Beam angle, deg              | 89,0    |

### Luminous intensity distribution diagram



UNIT: 4872cd

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) $k(RI) \times RCR = 5$ |     |     |     |     |     |     |     |     |        |
| $k = 0.60$                       | 67                                                   | 57  | 51  | 66  | 57  | 51  | 65  | 57  | 51  | 45     |
| 0.80                             | 77                                                   | 67  | 61  | 76  | 67  | 61  | 74  | 66  | 60  | 55     |
| 1.00                             | 84                                                   | 75  | 69  | 83  | 75  | 69  | 81  | 75  | 68  | 62     |
| 1.25                             | 91                                                   | 82  | 76  | 89  | 81  | 76  | 87  | 80  | 75  | 69     |
| 1.50                             | 95                                                   | 87  | 81  | 93  | 86  | 81  | 91  | 84  | 80  | 73     |
| 2.00                             | 100                                                  | 93  | 88  | 99  | 92  | 87  | 95  | 90  | 86  | 79     |
| 2.50                             | 103                                                  | 97  | 92  | 101 | 96  | 91  | 98  | 93  | 89  | 82     |
| 3.00                             | 106                                                  | 101 | 96  | 104 | 99  | 95  | 100 | 96  | 93  | 85     |
| 4.00                             | 109                                                  | 105 | 101 | 107 | 103 | 100 | 103 | 100 | 97  | 89     |
| 5.00                             | 111                                                  | 107 | 104 | 109 | 105 | 102 | 104 | 102 | 99  | 91     |
| ROOM INDEX                       | UF (total)                                           |     |     |     |     |     |     |     |     | Direct |
| According to DIN EN 13032-2 2004 |                                                      |     |     |     |     |     |     |     |     |        |
| Suspended                        |                                                      |     |     |     |     |     |     |     |     |        |
| SHRNOM = 1.25                    |                                                      |     |     |     |     |     |     |     |     |        |

Head of the Testing Laboratory \_\_\_\_\_/D. Timonin

Test conducted by: S. Laukhin

Test report drawn up by: V. Smishchenko