

Installation : MA 400W

Project number :

Customer :

Processed by : GigaTera EU by KMW

Date : 21.10.2016

Project description:

1. Pole height : 15 m
2. MF : 0.9

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.

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## Table of contents

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|                                                        |   |
|--------------------------------------------------------|---|
| First Page                                             | 1 |
| Table of contents                                      | 2 |
| <b>1 Luminaire data</b>                                |   |
| <b>1.1 KMW Inc., MA400-A50NG1S (MA400-A50NG1S.ies)</b> |   |
| 1.1.1 Data sheet                                       | 3 |
| <b>2 Exterior 1</b>                                    |   |
| <b>2.1 Description, Exterior 1</b>                     |   |
| 2.1.1 Floor plan                                       | 4 |
| <b>2.2 Summary, Exterior 1</b>                         |   |
| 2.2.1 Result overview, Sports ground 1.1               | 5 |
| <b>2.3 Calculation results, Exterior 1</b>             |   |
| 2.3.1 Table, Sports ground 1.1 (E)                     | 6 |
| 2.3.2 3D luminance, View 1                             | 7 |

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## 1 Luminaire data

### 1.1 KMW Inc., MA400-A50NG1S (MA400-A50NG1S.ies)

#### 1.1.1 Data sheet

Manufacturer: KMW Inc.

MA400-A50NG1S.ies

MA400-A50NG1S

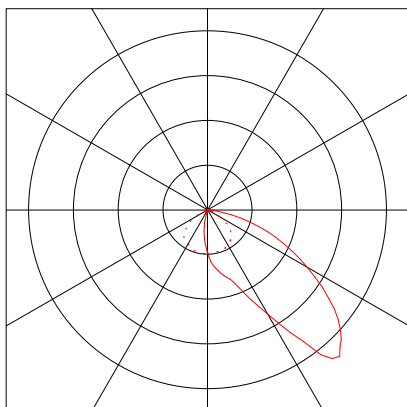
#### Luminaire data

Luminaire efficiency : 100%  
Luminaire efficacy : 130 lm/W  
Classification : A30 ↓100.0% ↑0.0%  
CIE Flux Codes : 34 75 97 100 100  
UGR 4H 8H : 35.7 / 30.1  
Power : 390 W  
Luminous flux : 50700 lm

#### Equipped with

Quantity : 1  
Designation : LED  
Colour :  
Luminous flux : 50700 lm

Dimensions : 550 mm x 530 mm x 200 mm



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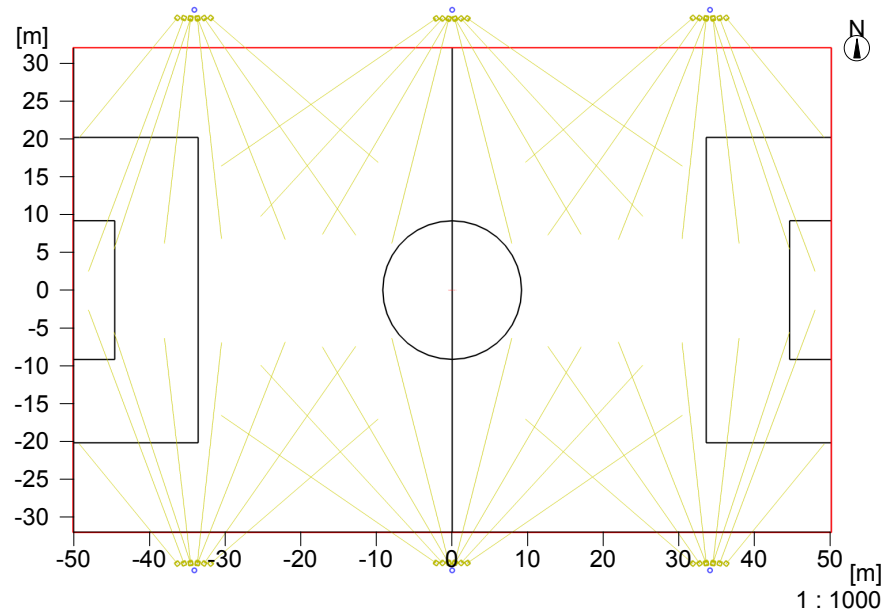
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## 2 Exterior 1

### 2.1 Description, Exterior 1

#### 2.1.1 Floor plan



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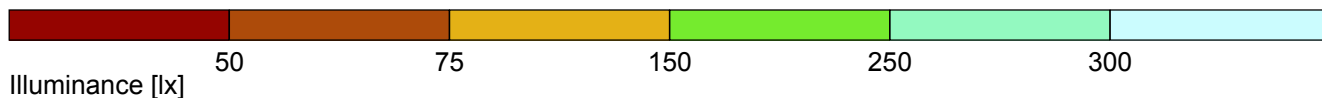
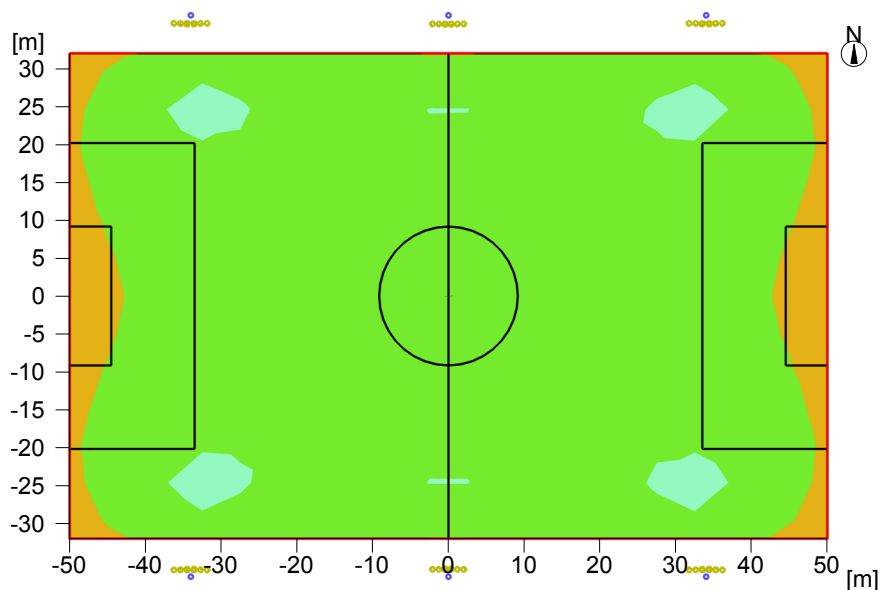
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## 2 Exterior 1

### 2.2 Summary, Exterior 1

#### 2.2.1 Result overview, Sports ground 1.1



#### General

|                                   |                             |
|-----------------------------------|-----------------------------|
| Calculation algorithm used        | Average indirect fraction   |
| Height of evaluation surface      | 0.00 m                      |
| Maintenance factor                | 0.95                        |
| Total luminous flux of all lamps  | 2433600 lm                  |
| Total power                       | 18720 W                     |
| Total power per area (6400.00 m²) | 2.92 W/m² (1.43 W/m²/100lx) |

#### Illuminance

|                     |           |               |
|---------------------|-----------|---------------|
| Average illuminance | Eav       | 204 lx        |
| Minimum illuminance | Emin      | 126 lx        |
| Maximum illuminance | Emax      | 277 lx        |
| Uniformity Uo       | Emin/Em   | 1:1.62 (0.62) |
| Diversity Ud        | Emin/Emax | 1:2.19 (0.46) |

#### Type No.\Make

|   |    |                 |                |                            |
|---|----|-----------------|----------------|----------------------------|
| 1 | 48 | <b>KMW Inc.</b> | Order No.      | : MA400-A50NG1S.ies        |
|   |    |                 | Luminaire name | : MA400-A50NG1S            |
|   |    |                 | Equipment      | : 1 x LED 390 W / 50700 lm |



## 2 Exterior 1

### 2.3 Calculation results, Exterior 1

#### 2.3.1 Table, Sports ground 1.1 (E)

|                  |     |     |     |     |       |     |     |     |     |     |     |     |     |     |     |     |     |       |     |     |       |
|------------------|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|-----|-------|
|                  | 134 | 178 | 216 | 238 | 223   | 197 | 184 | 193 | 209 | 202 | 203 | 209 | 192 | 184 | 198 | 224 | 237 | 215   | 175 | 133 |       |
| [m]              | 55  | 155 | 201 | 248 | [277] | 259 | 225 | 208 | 212 | 232 | 251 | 251 | 232 | 211 | 209 | 226 | 260 | [277] | 247 | 198 | 153   |
|                  | 50  | 159 | 196 | 229 | 245   | 242 | 231 | 221 | 220 | 228 | 240 | 240 | 228 | 220 | 221 | 232 | 242 | 245   | 228 | 195 | 158   |
|                  | 45  | 149 | 185 | 210 | 223   | 228 | 224 | 220 | 218 | 218 | 222 | 221 | 218 | 218 | 221 | 224 | 228 | 223   | 210 | 184 | 148   |
|                  | 40  | 139 | 170 | 193 | 207   | 214 | 215 | 212 | 210 | 207 | 207 | 207 | 208 | 209 | 213 | 215 | 214 | 207   | 192 | 169 | 139   |
|                  | 35  | 131 | 157 | 179 | 193   | 201 | 203 | 203 | 200 | 198 | 197 | 198 | 198 | 200 | 202 | 203 | 201 | 193   | 178 | 157 | 130   |
|                  | 30  | 127 | 151 | 171 | 187   | 195 | 198 | 197 | 195 | 194 | 193 | 193 | 194 | 195 | 197 | 198 | 195 | 187   | 171 | 151 | (126) |
|                  | 25  | 131 | 157 | 178 | 193   | 201 | 203 | 202 | 200 | 198 | 197 | 197 | 198 | 200 | 202 | 203 | 201 | 193   | 178 | 156 | 130   |
|                  | 20  | 139 | 169 | 192 | 206   | 213 | 215 | 212 | 209 | 207 | 207 | 207 | 207 | 209 | 212 | 215 | 213 | 206   | 192 | 169 | 138   |
|                  | 15  | 149 | 184 | 209 | 223   | 227 | 224 | 220 | 218 | 218 | 221 | 221 | 218 | 218 | 220 | 224 | 227 | 223   | 209 | 184 | 148   |
|                  | 10  | 158 | 195 | 228 | 244   | 242 | 231 | 221 | 220 | 228 | 240 | 239 | 228 | 220 | 221 | 231 | 242 | 244   | 228 | 195 | 158   |
|                  | 5   | 154 | 199 | 247 | 276   | 260 | 226 | 209 | 212 | 233 | 251 | 251 | 232 | 212 | 209 | 226 | 260 | 276   | 247 | 200 | 154   |
|                  | 0   | 135 | 178 | 218 | 241   | 226 | 199 | 185 | 194 | 210 | 206 | 206 | 211 | 194 | 185 | 199 | 226 | 242   | 218 | 178 | 134   |
|                  |     | 0   | 10  | 20  | 30    | 40  | 50  | 60  | 70  | 80  | 90  | [m] |     |     |     |     |     |       |     |     |       |
| Illuminance [lx] |     |     |     |     |       |     |     |     |     |     |     |     |     |     |     |     |     |       |     |     |       |



Height of the reference plane

|                     |           |                   |
|---------------------|-----------|-------------------|
| Average illuminance | Eav       | : 0.00 m          |
| Minimum illuminance | Emin      | : 204 lx          |
| Maximum illuminance | Emax      | : 126 lx          |
| Uniformity Uo       | Emin/Eav  | : 1 : 1.62 (0.62) |
| Diversity Ud        | Emin/Emax | : 1 : 2.19 (0.46) |

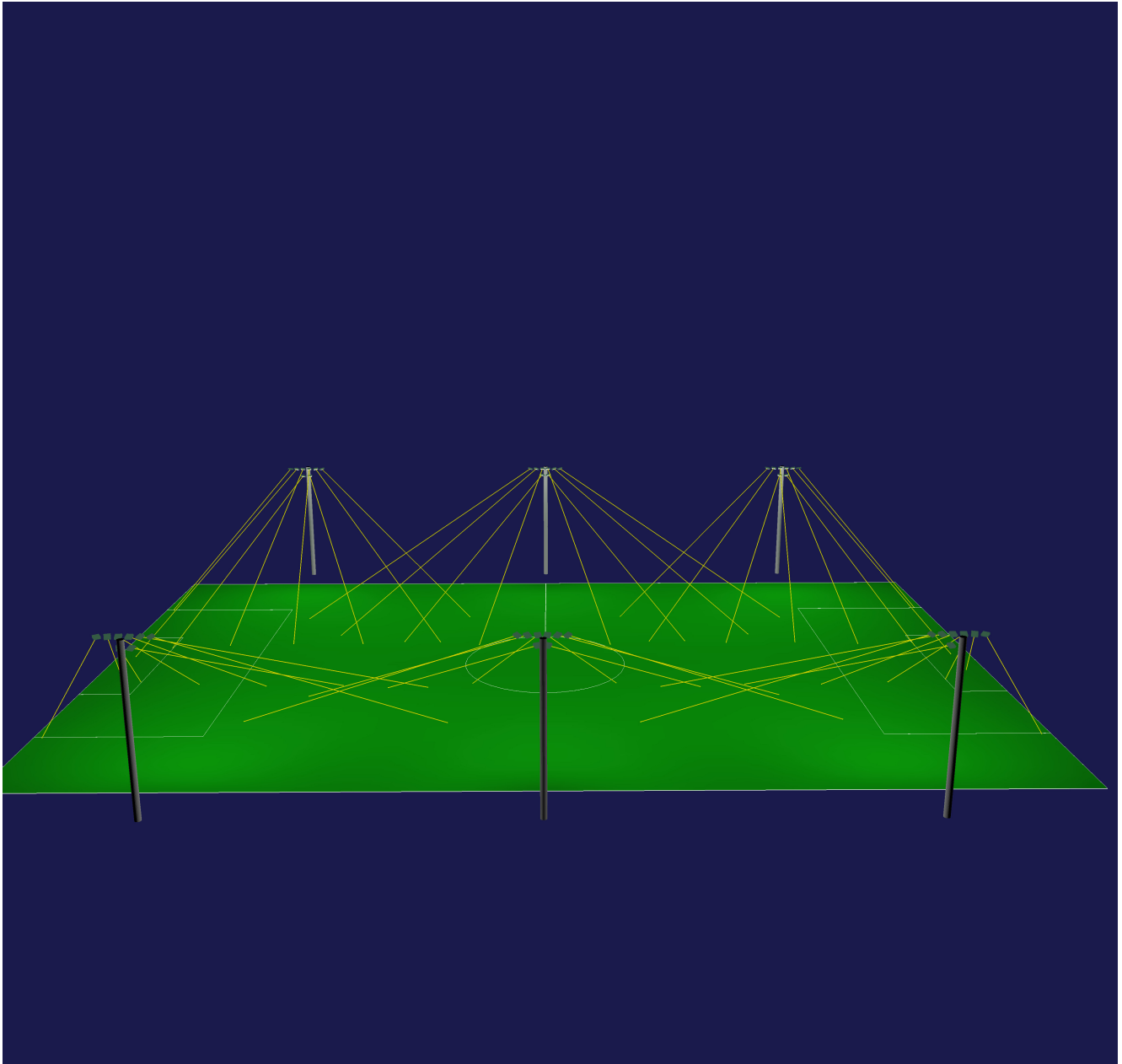
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## 2.3 Calculation results, Exterior 1

### 2.3.2 3D luminance, View 1



Luminance in the scene

Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 34.1 cd/m<sup>2</sup>