

THORN

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KIG Intermodal area - LIZ0067878

Luminance Calculation Report

File : ...
Project : Corridor
Date 22/6/2007

Sales engineer : ...
Client : ...
Author: oriol.cid

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Luminance Calculation Report

Road Section 1

Scheme parameters

Drive side Left side drive
 Road surface REVRL6 Qo=0.073 S1=0.437
 Qo 0.073
 Section length 240m
 Number of lanes 2
 Lane width 4m

Subsidiary lane parameters

| Road side | Description | Width | Wall | Wall height |
|-----------|-------------|-------|------|-------------|
| Right | Other | 0.00m | Yes | 1.00m |
| Left | Other | 0.00m | Yes | 1.00m |

Luminaire details

| Row | Catalogue Number/Description |
|-----|---|
| 1 | 96231244 ORUS 35W HIT DGE CL1 MFX ROAD |

| Row | Lane | Side | Lamp Type | Lamp Position | Lamp Flux | Maintenance Factor |
|-----|--------|------|--------------------------|---------------|-----------|--------------------|
| 1 | Lane 1 | left | 35W GE ConstantColor CMH | | 3400 | 0.8 |

| Row | Height(m) | Spacing(m) | Staggered | Overhang(m) | Setback(m) | Rotation(deg) | Tilt(deg) | Twist(deg) |
|-----|-----------|------------|-----------|-------------|------------|---------------|-----------|------------|
| 1 | 0.9 | 12.5 | No | -1.5 | 1.5 | 180 | -1 | 0 |

NOTE. Lane 1 is defined as the first lane on the drive side. Therefore for left side drive lane 1 is on the left and for right side drive lane 1 is on the right.






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Luminance Calculation Report

Road Section 1

Calculation results : CEN EN 13201 - ME4b - Flat_Beam

ULR 8.0%

| | |
|---|---|
|  Surround ratio | unclassified |
|  Average | 1.3 passes limit of $\geq 0.7 \text{ cd/m}^2$ |
|  Overall uniformity | 0.4 passes limit of ≥ 0.4 |
|  Longitudinal uniformity | 0.5 passes limit of ≥ 0.5 |
|  Threshold increment | 1.3 passes limit of $\leq 15.0 \%$ |

This calculation is only valid for the specified luminaires under the exact given conditions

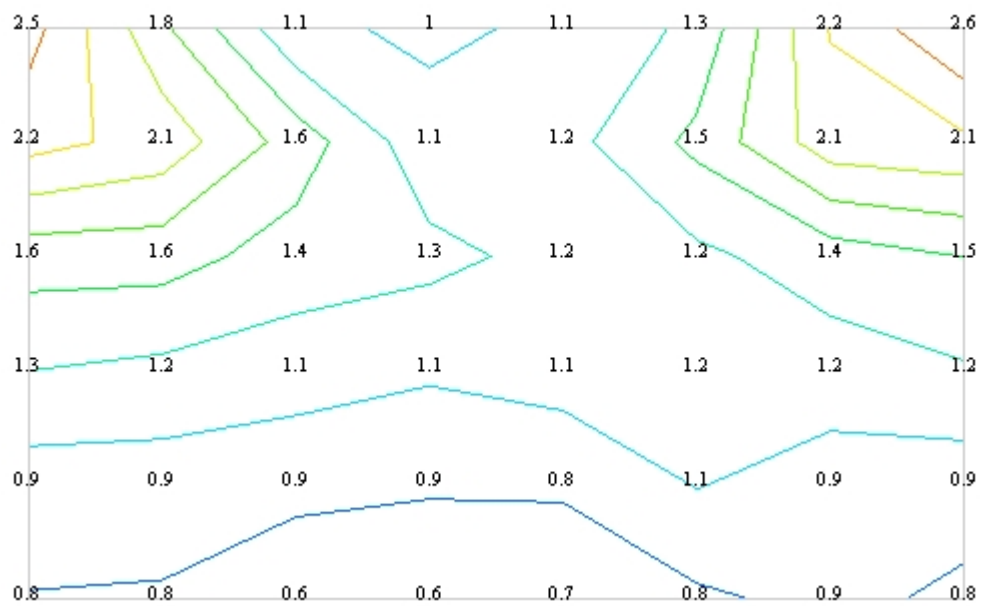
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Luminance Calculation Report

Road Section 1

Luminance : Observer - Lane 1

| Distance (m) | Transverse position (% of lane width) | Height (m) | Observation angle (°) |
|--------------|---------------------------------------|------------|-----------------------|
| 60 | 50 | 1.5 | 1 |



| | | | |
|---------|-----------------------|-------------------------|-----|
| Minimum | 0.6 cd/m ² | Overall uniformity | 0.5 |
| Maximum | 2.6 cd/m ² | Longitudinal uniformity | 0.5 |
| Average | 1.3 cd/m ² | | |

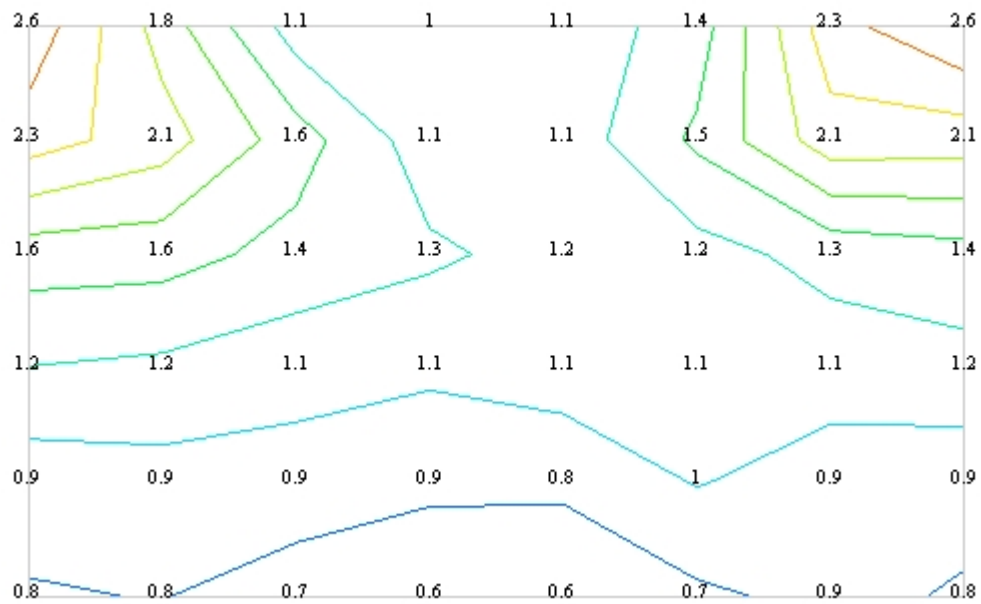
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Luminance Calculation Report

Road Section 1

Luminance : Observer - Lane 2

| Distance (m) | Transverse position (% of lane width) | Height (m) | Observation angle (°) |
|--------------|---------------------------------------|------------|-----------------------|
| 60 | 50 | 1.5 | 1 |



| | | | |
|---------|-----------------------|-------------------------|-----|
| Minimum | 0.6 cd/m ² | Overall uniformity | 0.4 |
| Maximum | 2.6 cd/m ² | Longitudinal uniformity | 0.8 |
| Average | 1.3 cd/m ² | | |

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Luminance Calculation Report

Road Section 1

Luminance : TI observer - Lane 1

Threshold increment 1.3%

Luminance : TI observer - Lane 2

Threshold increment 0.7%






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Luminance Calculation Report

Road Section 1

Calculation results : CEN EN 13201 - S3 - Flat_Beam

ULR 8.0%

| | |
|---|---|
|  Surround ratio | unclassified |
|  Average | 1.3 passes limit of $\geq 0.7 \text{ cd/m}^2$ |
|  Overall uniformity | 0.4 passes limit of ≥ 0.4 |
|  Longitudinal uniformity | 0.5 passes limit of ≥ 0.5 |
|  Threshold increment | 1.3 passes limit of $\leq 15.0 \%$ |

This calculation is only valid for the specified luminaires under the exact given conditions

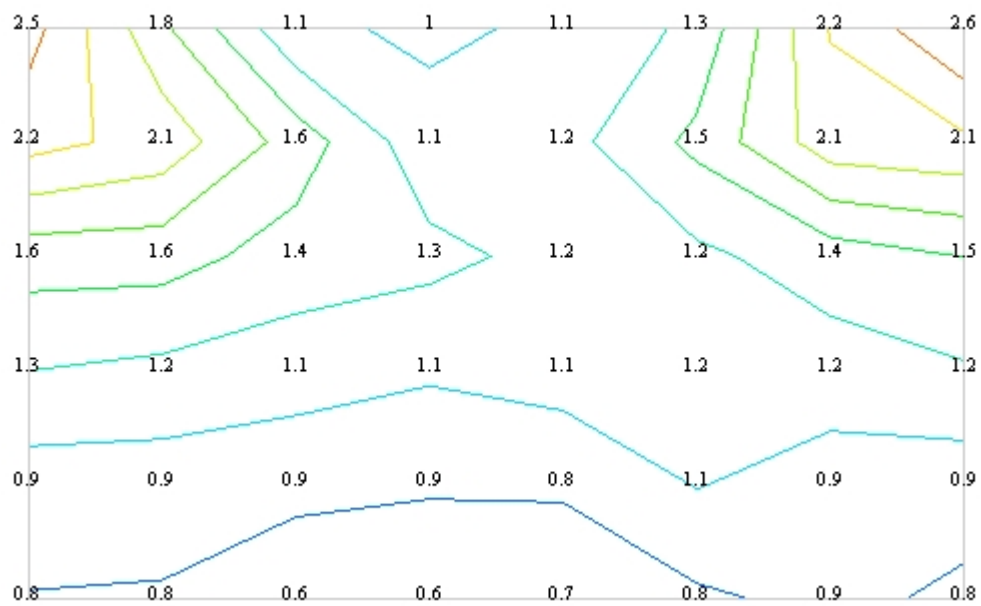
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Luminance Calculation Report

Road Section 1

Luminance : Observer - Lane 1

| Distance (m) | Transverse position (% of lane width) | Height (m) | Observation angle (°) |
|--------------|---------------------------------------|------------|-----------------------|
| 60 | 50 | 1.5 | 1 |



| | | | |
|---------|-----------------------|-------------------------|-----|
| Minimum | 0.6 cd/m ² | Overall uniformity | 0.5 |
| Maximum | 2.6 cd/m ² | Longitudinal uniformity | 0.5 |
| Average | 1.3 cd/m ² | | |

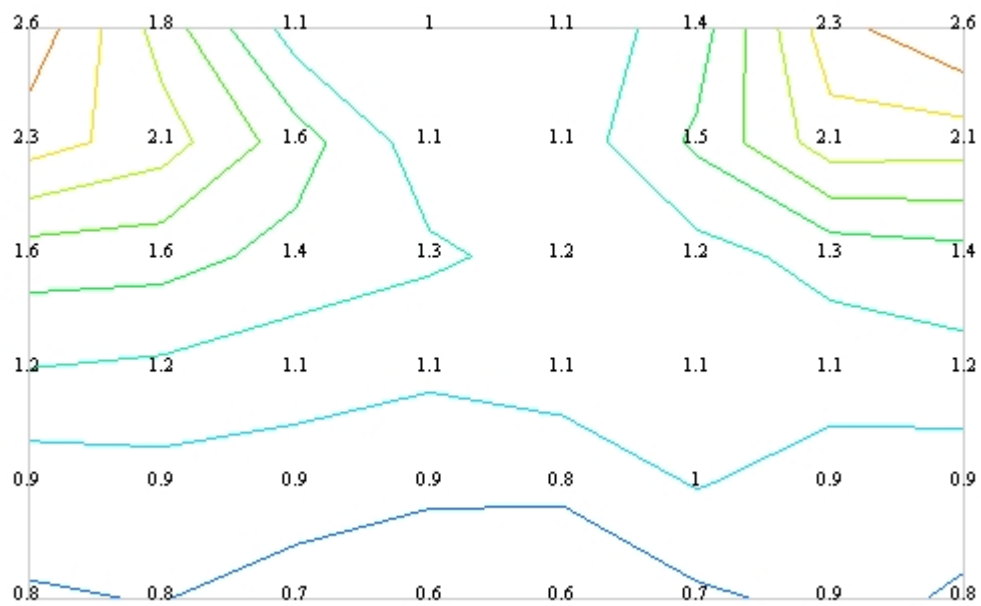
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Luminance Calculation Report

Road Section 1

Luminance : Observer - Lane 2

| Distance (m) | Transverse position (% of lane width) | Height (m) | Observation angle (°) |
|--------------|---------------------------------------|------------|-----------------------|
| 60 | 50 | 1.5 | 1 |



| | | | |
|---------|-----------------------|-------------------------|-----|
| Minimum | 0.6 cd/m ² | Overall uniformity | 0.4 |
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Luminance Calculation Report

Road Section 1

Luminance : TI observer - Lane 1

Threshold increment 1.3%

Luminance : TI observer - Lane 2

Threshold increment 0.7%