Cobra 315

Showing examples of use for Cobra 70W and 100W as well as Polars 150W all using the 315 lens.

All required values are OK, while the values for the recommended are within acceptable parameters. Do note that red checks in the calculation data is only on non-required (but recommended) values.

Date: 12.10.2011
Operator: Daniel Björk

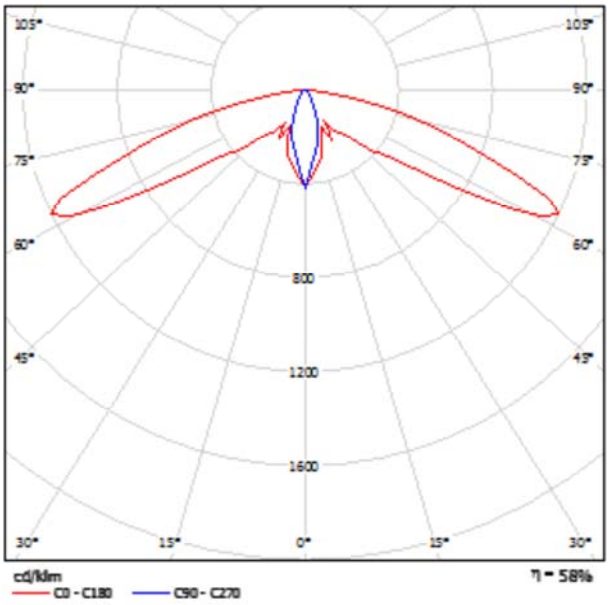
Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

NLAB Prismalence AB P150315 POLARIS 150E (30x155) / Luminaire Data Sheet

See our luminaire catalog for an image of the luminaire.

Luminous emittance 1:



Luminaire classification according to CIE: 100
CIE flux code: 42 74 100 88 58

Luminous emittance 1:

Glare Evaluation According to UGR

ρ Ceiling	70	70	50	50	30	70	70	50	50	30
ρ Walls	50	30	50	30	30	50	30	50	30	30
ρ Floor	20	20	20	20	20	20	20	20	20	20
Room Size X	Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	37.4	38.9	37.7	39.1	39.4	16.2	17.7	16.5	17.9	18.2
	3H	41.2	42.6	41.5	42.9	43.1	17.5	18.9	17.8	19.1	19.4
	4H	42.8	43.8	42.8	44.1	44.4	18.0	19.3	18.4	19.6	19.9
	6H	43.2	44.4	43.6	44.7	45.0	18.4	19.6	18.7	19.9	20.2
	8H	43.3	44.5	43.7	44.8	45.1	18.4	19.6	18.8	19.9	20.3
	12H	43.3	44.5	43.7	44.8	45.1	18.5	19.6	18.8	19.9	20.3
4H	2H	37.1	38.4	37.8	38.7	39.0	19.7	21.0	20.1	21.3	21.6
	3H	41.0	42.1	41.3	42.4	42.8	20.8	21.7	21.0	22.1	22.4
	4H	42.2	43.2	42.6	43.6	44.0	21.0	22.0	21.4	22.4	22.7
	6H	43.0	43.9	43.4	44.3	44.7	21.3	22.2	21.7	22.5	22.9
	8H	43.2	44.0	43.6	44.4	44.8	21.4	22.2	21.8	22.6	23.0
	12H	43.2	43.9	43.7	44.4	44.8	21.4	22.1	21.8	22.5	23.0
6H	4H	42.2	43.0	42.6	43.4	43.8	22.7	23.5	23.1	23.9	24.3
	6H	42.9	43.6	43.4	44.0	44.5	23.0	23.6	23.4	24.0	24.5
	8H	43.1	43.7	43.6	44.1	44.6	23.1	23.6	23.6	24.1	24.6
	12H	43.2	43.8	43.7	44.1	44.6	23.1	23.6	23.6	24.1	24.6
12H	4H	42.1	42.8	42.6	43.3	43.7	23.0	23.7	23.5	24.1	24.6
	6H	42.9	43.5	43.4	43.9	44.4	23.3	23.9	23.8	24.3	24.8
	8H	43.1	43.6	43.6	44.0	44.5	23.4	23.9	23.9	24.4	24.9
Variation of the observer position for the luminaire distances S											
S = 1.0H		+1.2 / -1.4					+0.3 / -0.4				
S = 1.5H		+2.8 / -3.9					+0.7 / -0.8				
S = 2.0H		+4.2 / -5.4					+0.9 / -1.4				
Standard table		---					---				
Correction Summand		---					---				
Corrected Glare Indices referring to 12700lm Total Luminous Flux											

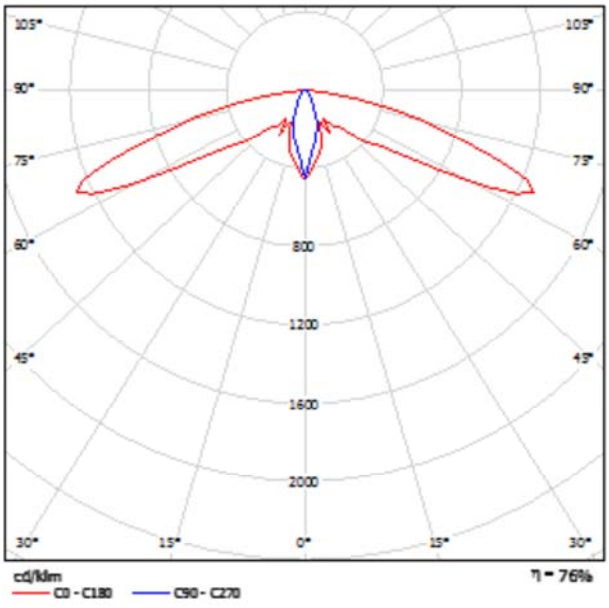
Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

NLAB Prismalence AB P100315 POLARIS 100E (30x155) / Luminaire Data Sheet

See our luminaire catalog for an image of the luminaire.

Luminous emittance 1:



Luminaire classification according to CIE: 100
CIE flux code: 37 67 100 84 75

Luminous emittance 1:

Glare Evaluation According to UGR

ρ Ceiling	70	70	50	50	30	70	70	50	50	30
ρ Walls	50	30	50	30	30	50	30	50	30	30
ρ Floor	20	20	20	20	20	20	20	20	20	20
Room Size X / Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H / 2H	36.7	36.3	37.0	36.6	36.8	16.1	17.7	16.4	18.0	18.2
3H	42.0	43.3	42.4	43.6	44.1	17.3	18.8	17.6	19.0	19.3
4H	43.4	44.8	43.8	45.1	45.4	17.8	19.2	18.1	19.5	19.8
6H	44.2	45.5	44.6	45.8	46.1	18.1	19.4	18.5	19.7	20.1
8H	44.3	45.6	44.7	45.9	46.2	18.2	19.5	18.6	19.8	20.1
12H	44.3	45.5	44.7	45.8	46.2	18.2	19.4	18.6	19.8	20.1
4H / 2H	36.4	37.8	36.8	38.1	38.4	20.5	21.9	20.9	22.2	22.5
3H	41.8	43.0	42.2	43.3	43.7	21.3	22.5	21.7	22.8	23.2
4H	43.2	44.3	43.6	44.7	45.0	21.6	22.8	22.0	23.0	23.4
6H	44.1	45.0	44.5	45.4	45.8	21.8	22.7	22.2	23.1	23.5
8H	44.3	45.1	44.7	45.5	45.9	21.8	22.7	22.3	23.1	23.5
12H	44.2	45.0	44.7	45.4	45.9	21.9	22.6	22.3	23.1	23.5
8H / 4H	43.1	44.0	43.6	44.4	44.8	23.7	24.6	24.2	25.0	25.4
6H	44.0	44.7	44.5	45.1	45.6	24.0	24.6	24.4	25.1	25.5
8H	44.2	44.8	44.7	45.2	45.7	24.0	24.6	24.5	25.1	25.5
12H	44.2	44.7	44.7	45.2	45.7	24.1	24.6	24.6	25.0	25.5
12H / 4H	43.1	43.9	43.6	44.3	44.7	24.2	25.0	24.7	25.4	25.8
6H	44.0	44.6	44.5	45.0	45.5	24.5	25.1	25.0	25.5	26.0
8H	44.2	44.7	44.7	45.2	45.7	24.6	25.0	25.0	25.5	26.0

Variation of the observer position for the luminaire distances S

S = 1.0H	+0.4 / -0.5	+0.5 / -0.5
S = 1.5H	+1.7 / -2.1	+1.5 / -1.9
S = 2.0H	+3.1 / -4.1	+2.0 / -1.8
Standard table	---	---
Correction Summand	---	---

Corrected Glare Indices referring to 9200lm Total Luminous Flux

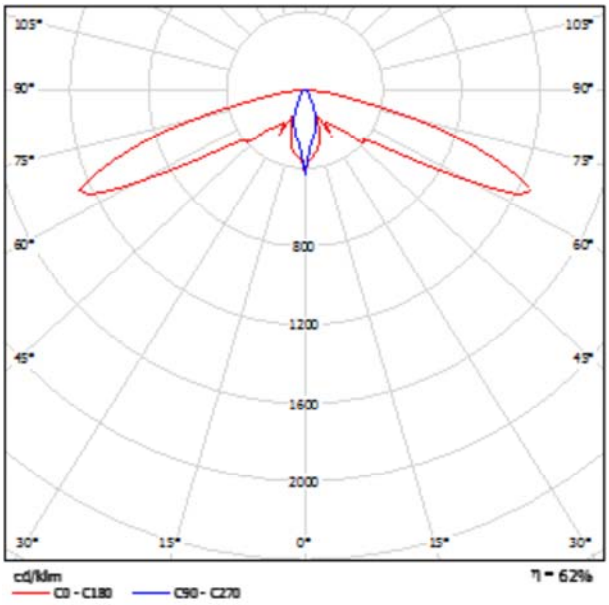
Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

NLAB Prismalence AB C070315 COBRA 70E (30x155) / Luminaire Data Sheet

See our luminaire catalog for an image of the luminaire.

Luminous emittance 1:



Luminaire classification according to CIE: 100
CIE flux code: 40 71 100 86 61

Luminous emittance 1:

Glare Evaluation According to UGR

ρ Ceiling	70	70	50	50	30	70	70	50	50	30
ρ Walls	50	30	50	30	30	50	30	50	30	30
ρ Floor	20	20	20	20	20	20	20	20	20	20
Room Size X / Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H / 2H	34.8	35.3	35.1	35.8	35.8	14.0	15.6	14.3	15.8	16.1
3H	39.9	41.3	40.2	41.6	41.9	15.5	16.9	15.8	17.2	17.5
4H	41.3	42.6	41.6	42.9	43.2	16.1	17.5	16.5	17.8	18.1
6H	41.8	43.1	42.2	43.4	43.7	16.6	17.9	17.0	18.2	18.6
8H	41.9	43.2	42.3	43.5	43.8	16.8	18.0	17.2	18.4	18.7
12H	42.0	43.2	42.4	43.5	43.9	16.9	18.1	17.3	18.4	18.8
4H / 2H	34.5	35.5	34.9	36.1	36.4	17.4	18.8	17.8	19.1	19.4
3H	39.6	40.8	40.0	41.1	41.5	18.8	19.7	18.9	20.1	20.4
4H	41.1	42.1	41.5	42.5	42.8	19.1	20.1	19.5	20.5	20.9
6H	41.6	42.6	42.1	42.9	43.4	19.5	20.4	19.9	20.8	21.2
8H	41.8	42.7	42.3	43.1	43.5	19.7	20.5	20.1	20.9	21.3
12H	41.9	42.7	42.4	43.1	43.6	19.8	20.5	20.2	21.0	21.4
8H / 4H	41.0	41.8	41.4	42.2	42.6	21.0	21.8	21.4	22.2	22.7
6H	41.6	42.3	42.0	42.7	43.1	21.5	22.2	22.0	22.6	23.1
8H	41.8	42.5	42.2	42.8	43.3	21.7	22.3	22.2	22.7	23.2
12H	41.9	42.4	42.4	42.9	43.4	21.8	22.3	22.3	22.8	23.3
12H / 4H	40.9	41.7	41.4	42.1	42.6	21.4	22.1	21.8	22.5	23.0
6H	41.6	42.1	42.0	42.8	43.1	22.0	22.6	22.5	23.1	23.5
8H	41.7	42.2	42.2	42.7	43.2	22.3	22.8	22.8	23.3	23.8

Variation of the observer position for the luminaire distances S

S = 1.0H	+1.0 / -1.1	+0.2 / -0.3
S = 1.5H	+2.5 / -3.6	+0.5 / -0.8
S = 2.0H	+3.8 / -6.1	+0.8 / -0.9
Standard table	---	---
Correction Summand	---	---

Corrected Glare Indices referring to 6000lm Total Luminous Flux

Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

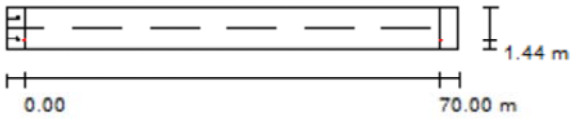
Street 1 / Planning data

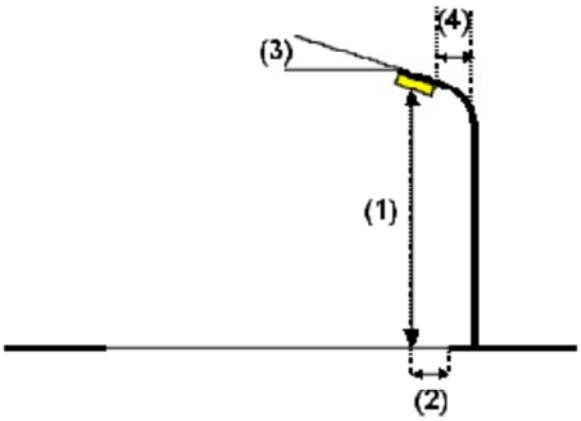
Street Profile

Roadway 1 (Width: 7.000 m, Number of lanes: 2, tarmac: N1, q0: 0.100)

Maintenance factor: 0.90

Luminaire Arrangements



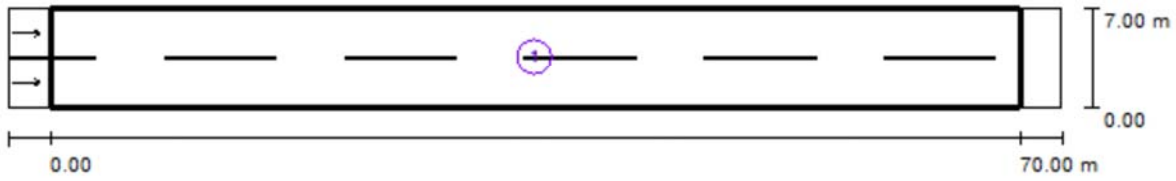


Luminaire:	NLAB Prismalence AB C070315 COBRA 70E (30x155)		
Luminaire Luminous Flux:	6600 lm	Maximum luminous intensities	
Luminaire Wattage:	81.0 W	at 70°:	1090 cd/klm
Arrangement:	Single row, bottom	at 80°:	248 cd/klm
Pole Distance:	70.000 m	at 90°:	18 cd/klm
Mounting Height (1):	10.000 m	Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	
Height:	9.759 m		
Overhang (2):	1.500 m	Arrangement complies with glare index class D.4.	
Boom Angle (3):	15.0 °		
Boom Length (4):	2.000 m		

Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

Street 1 / Photometric Results



Maintenance factor: 0.90

Scale 1:544

Calculation Field List

1 Valuation Field Roadway 1

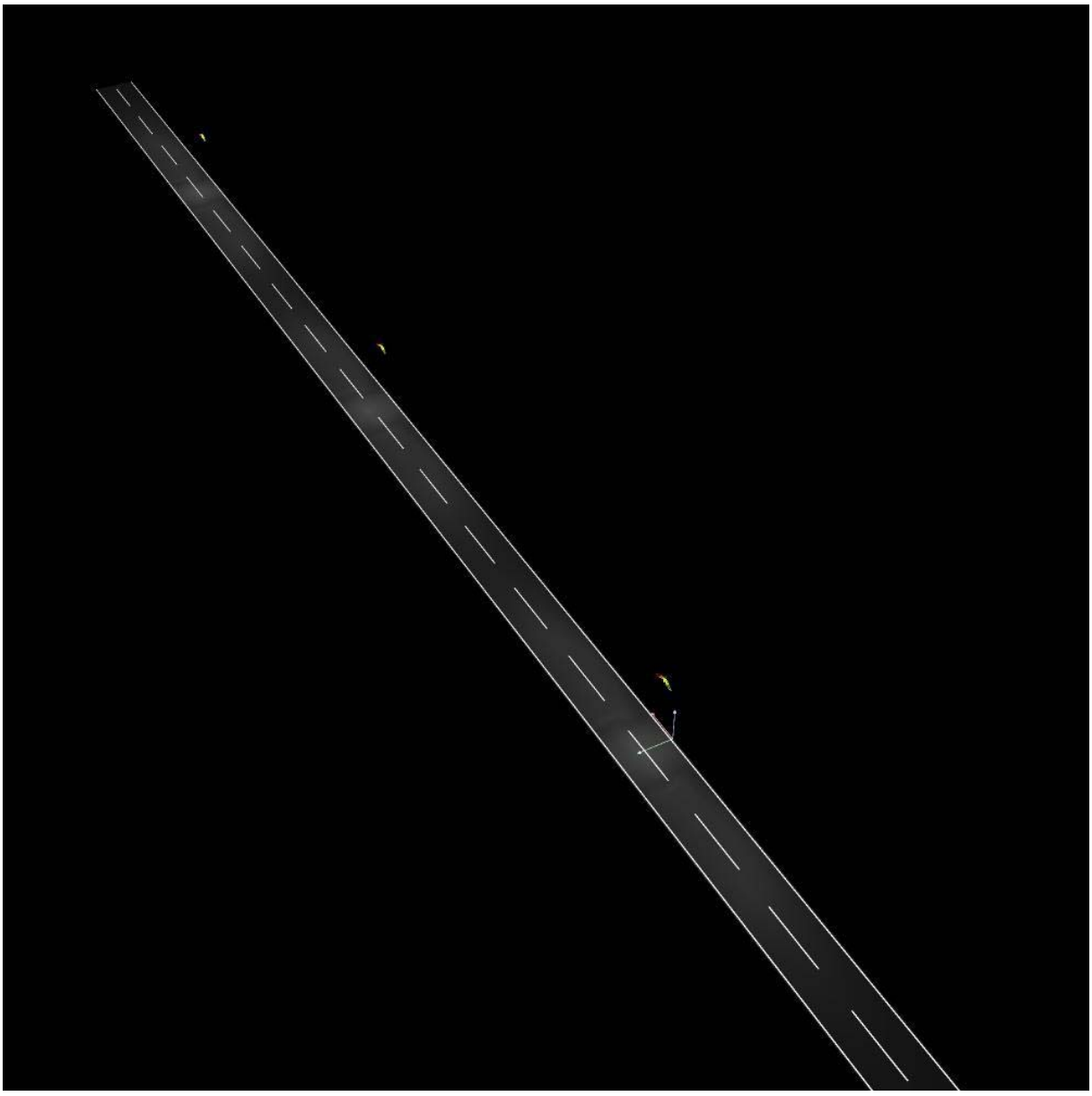
Length: 70.000 m, Width: 7.000 m
Grid: 24 x 6 Points
Accompanying Street Elements: Roadway 1.
tarmac: N1, q0: 0.100, tarmac (wet): W1, q0 (wet): 0.110
Selected Lighting Class: MEW5 (Not all lighting performance requirements are met.)

	L_{av} [cd/m²]	U0	Ul	Tl [%]	SR	U0 (wet)
Calculated values:	0.5	0.41	0.4	19	0.3	0.11
Required values according to class:	≥ 0.5	≥ 0.35	/	≤ 15	≥ 0.5	≥ 0.15
Fulfilled/Not fulfilled:	✓	✓	✓	✗	✗	✗

Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

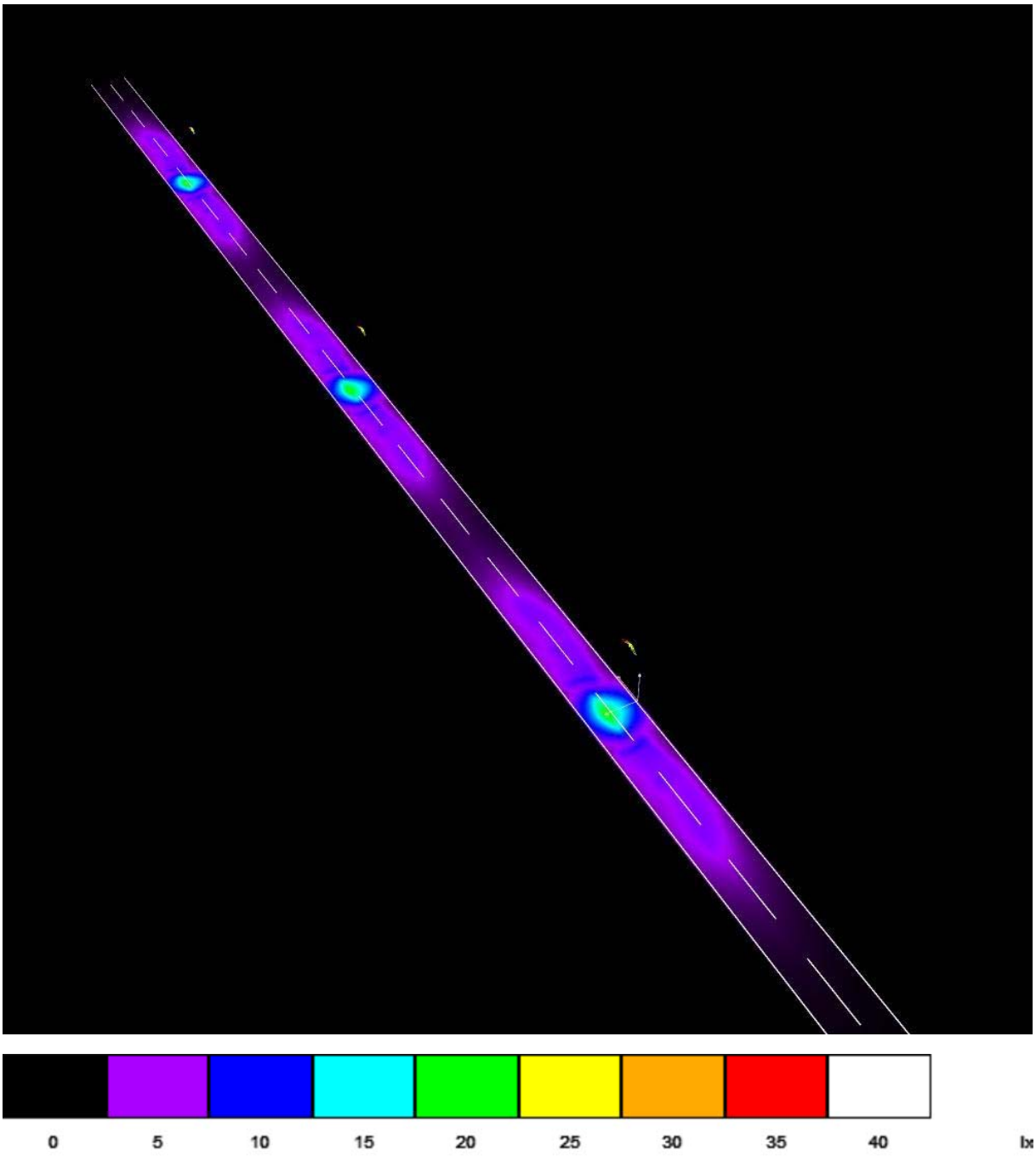
Street 1 / 3D Rendering



Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

Street 1 / False Colour Rendering



Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

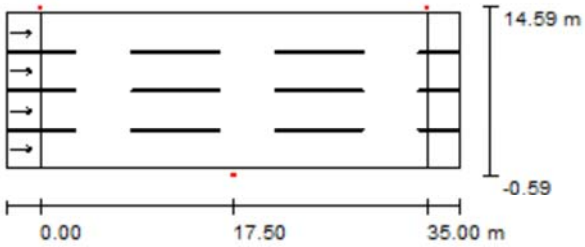
Highway / Planning data

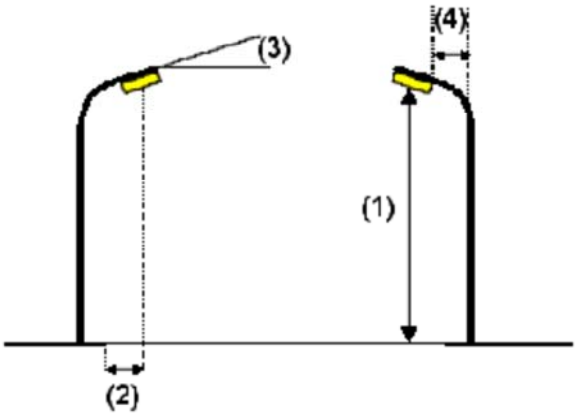
Street Profile

Roadway 1 (Width: 14.000 m, Number of lanes: 4, tarmac: N1, q0: 0.100)

Maintenance factor: 0.90

Luminaire Arrangements



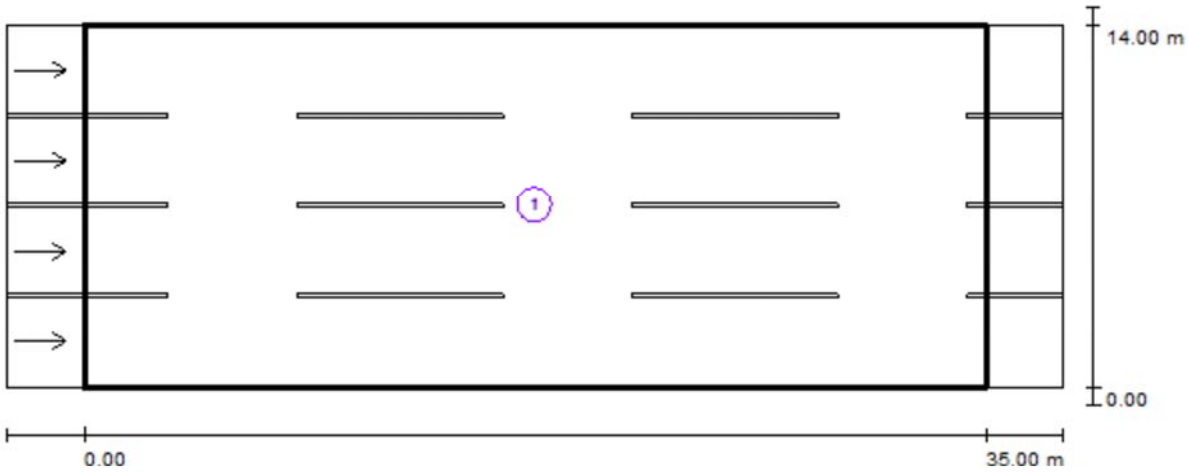


Luminaire:	NLAB Prismalence AB P100315 POLARIS 100E (30x155)		
Luminaire Luminous Flux:	9300 lm	Maximum luminous intensities	
Luminaire Wattage:	110.0 W	at 70°:	1231 cd/klm
Arrangement:	Double row, with offset	at 80°:	441 cd/klm
Pole Distance:	35.000 m	at 90°:	32 cd/klm
Mounting Height (1):	10.000 m	Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	
Height:	9.765 m		
Overhang (2):	-0.500 m	Arrangement complies with glare index class D.3.	
Boom Angle (3):	20.0 °		
Boom Length (4):	0.000 m		

Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

Highway / Photometric Results



Maintenance factor: 0.90

Scale 1:294

Calculation Field List

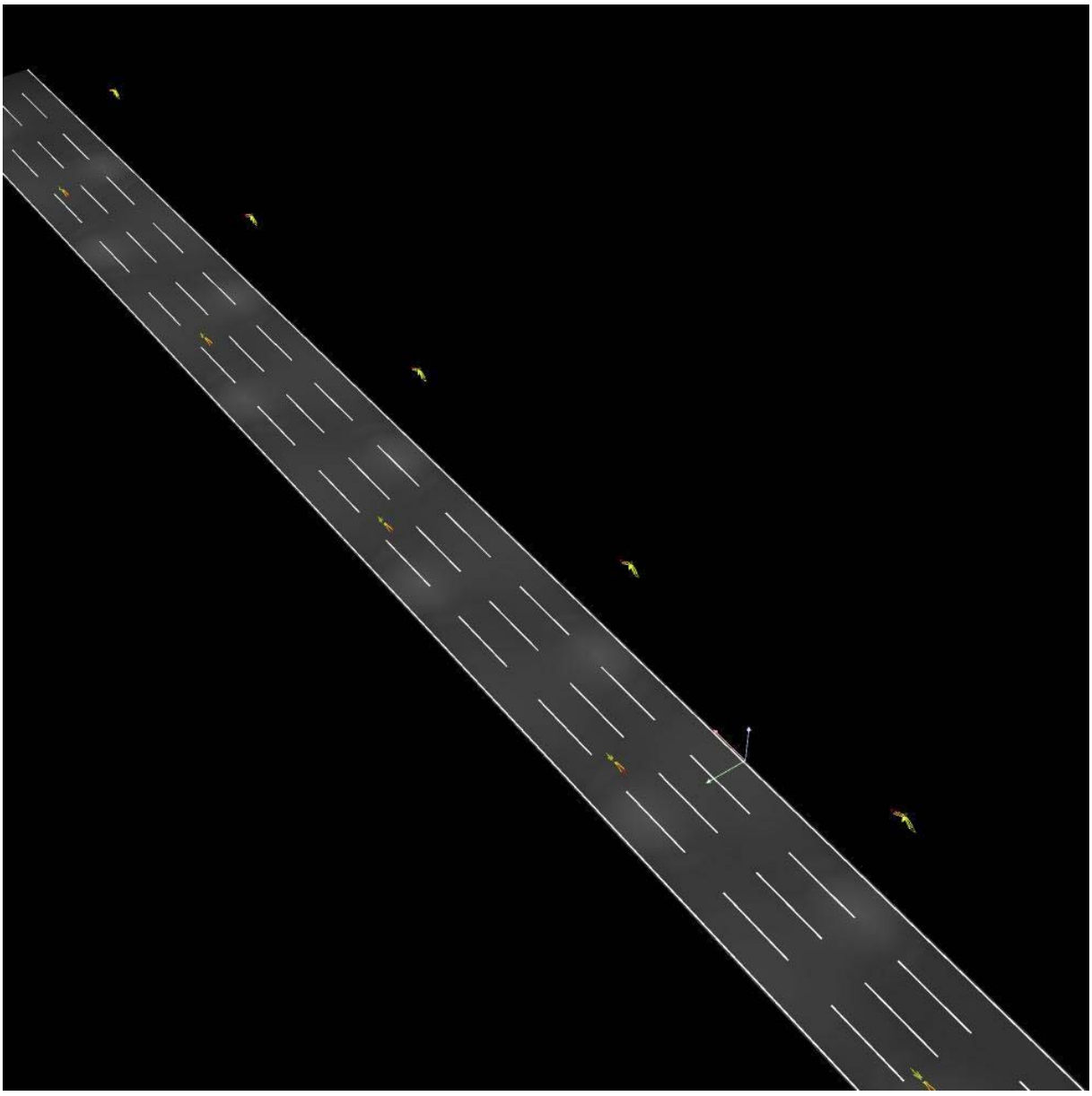
1 Valuation Field Roadway 1
Length: 35.000 m, Width: 14.000 m
Grid: 11 x 6 Points
Accompanying Street Elements: Roadway 1.
tarmac: N1, q0: 0.100, tarmac (wet): W1, q0 (wet): 0.110
Selected Lighting Class: MEW1 (Not all lighting performance requirements are met.)

	L_{av} [cd/m²]	U0	Ul	TI [%]	SR	U0 (wet)
Calculated values:	2.1	0.7	0.6	15	0.4	0.31
Required values according to class:	≥ 2.0	≥ 0.4	≥ 0.6	≤ 10	≥ 0.5	≥ 0.15
Fulfilled/Not fulfilled:	✓	✓	✓	✗	✗	✓

Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

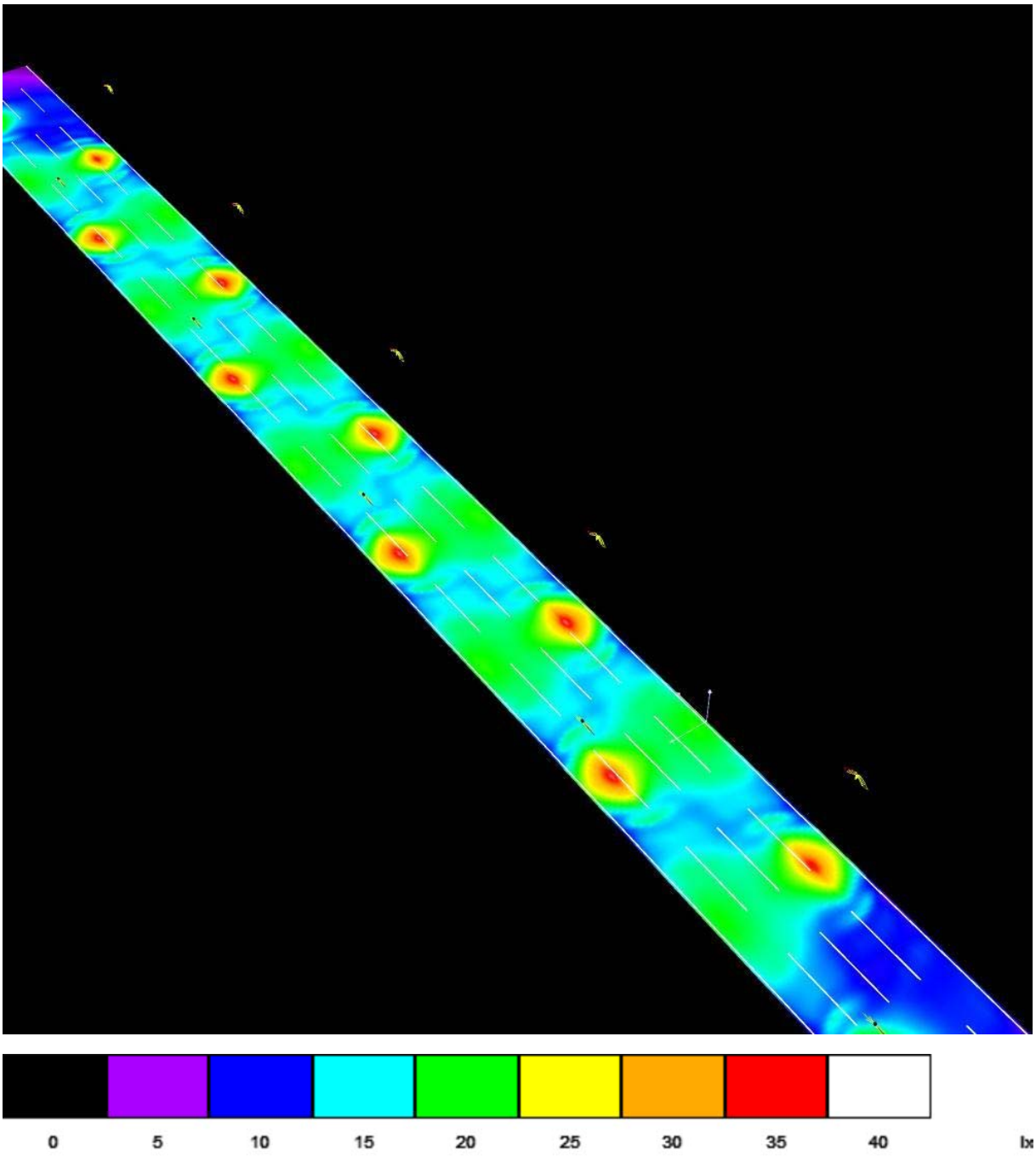
Highway / 3D Rendering



Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

Highway / False Colour Rendering



Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

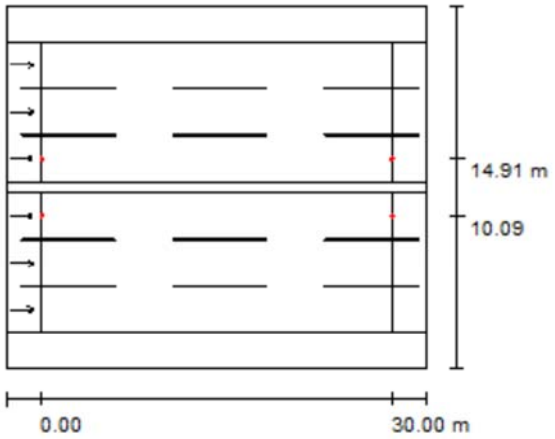
Big Highway / Planning data

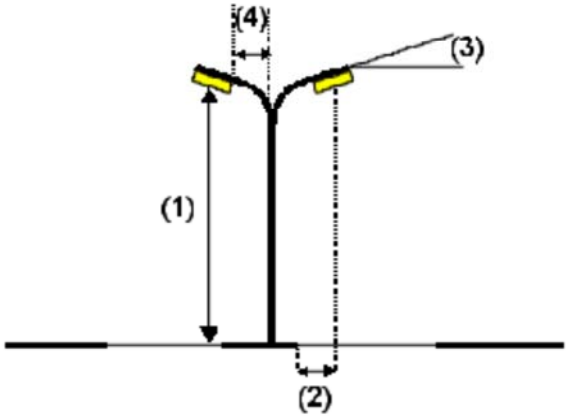
Street Profile

Grass Strip 1	(Width: 3.000 m)
Roadway 2	(Width: 12.000 m, Number of lanes: 3, tarmac: N1, q0: 0.100)
Median 1	(Width: 1.000 m, Height: 0.000 m)
Roadway 1	(Width: 12.000 m, Number of lanes: 3, tarmac: N1, q0: 0.100)
Grass Strip 2	(Width: 3.000 m)

Maintenance factor: 0.90

Luminaire Arrangements



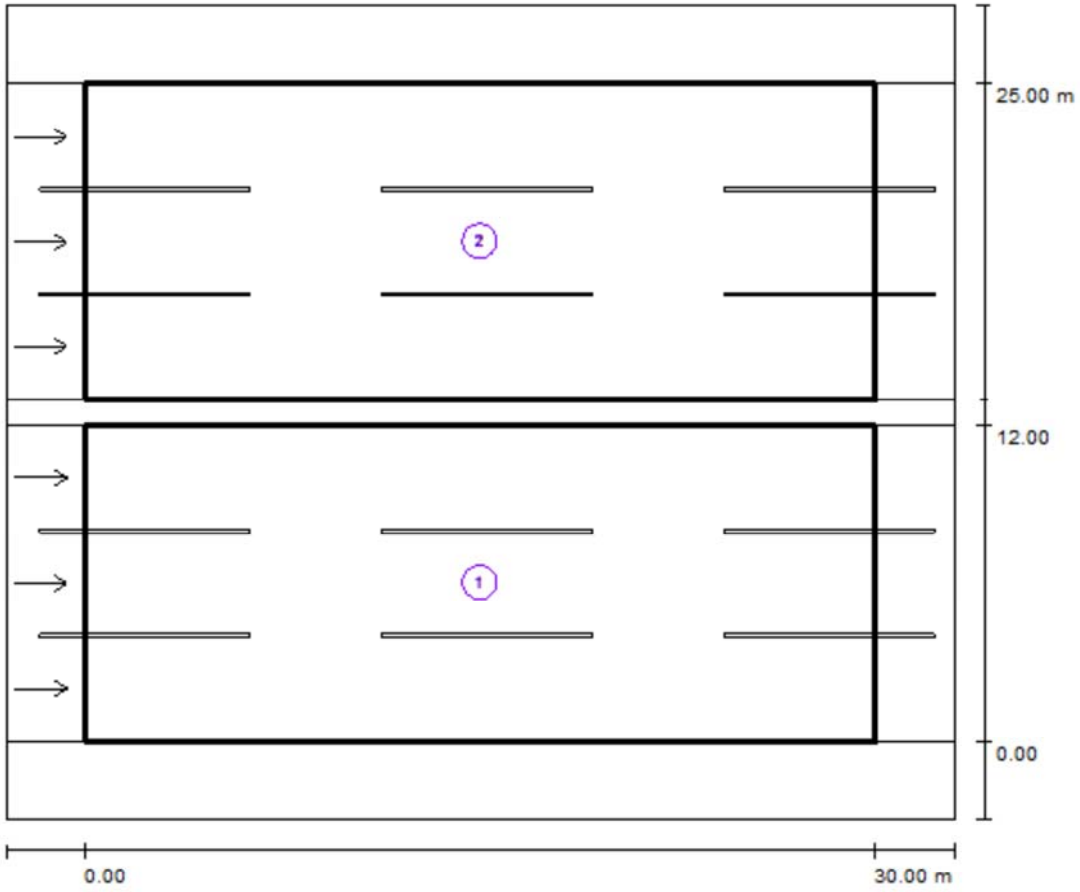


Luminaire:	NLAB Prismalence AB P150315 POLARIS 150E (30x155)		
Luminaire Luminous Flux:	12700 lm	Maximum luminous intensities	
Luminaire Wattage:	163.0 W	at 70°:	931 cd/klm
Arrangement:	on Median	at 80°:	287 cd/klm
Pole Distance:	30.000 m	at 90°:	19 cd/klm
Mounting Height (1):	12.000 m	Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	
Height:	11.765 m		
Overhang (2):	2.000 m	Arrangement complies with glare index class D.4.	
Boom Angle (3):	20.0 °		
Boom Length (4):	2.414 m		

Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

Big Highway / Photometric Results



Maintenance factor: 0.90

Scale 1:288

Calculation Field List

1 Valuation Field Roadway 1
Length: 30.000 m, Width: 12.000 m
Grid: 11 x 6 Points
Accompanying Street Elements: Roadway 1.
tarmac: N1, q0: 0.100, tarmac (wet): W1, q0 (wet): 0.110
Selected Lighting Class: MEW2 (Not all lighting performance requirements are met.)

	L_{av} [cd/m²]	U0	Ul	TI [%]	SR	U0 (wet)
Calculated values:	1.7	0.4	0.6	13	0.6	0.12
Required values according to class:	≥ 1.5	≥ 0.4	≥ 0.6	≤ 10	≥ 0.5	≥ 0.15
Fulfilled/Not fulfilled:	✓	✓	✓	✗	✓	✗

Prismalence AB
Hörnäsvägen 64
89440 Överhörnäs
Sweden

Operator Daniel Björk
Telephone +46 660 84337
Fax +46 660 84338
e-Mail daniel@prismalence.se

Big Highway / Photometric Results

Calculation Field List

2 Valuation Field Roadway 2
Length: 30.000 m, Width: 12.000 m
Grid: 10 x 9 Points
Accompanying Street Elements: Roadway 2.
tarmac: N1, q0: 0.100, tarmac (wet): W1, q0 (wet): 0.110
Selected Lighting Class: MEW2 (Not all lighting performance requirements are met.)

	L_{av} [cd/m²]	U0	Ul	TI [%]	SR	U0 (wet)
Calculated values:	1.7	0.4	0.6	13	0.6	0.10
Required values according to class:	≥ 1.5	≥ 0.4	≥ 0.6	≤ 10	≥ 0.5	≥ 0.15
Fulfilled/Not fulfilled:	✓	✓	✓	✗	✓	✗

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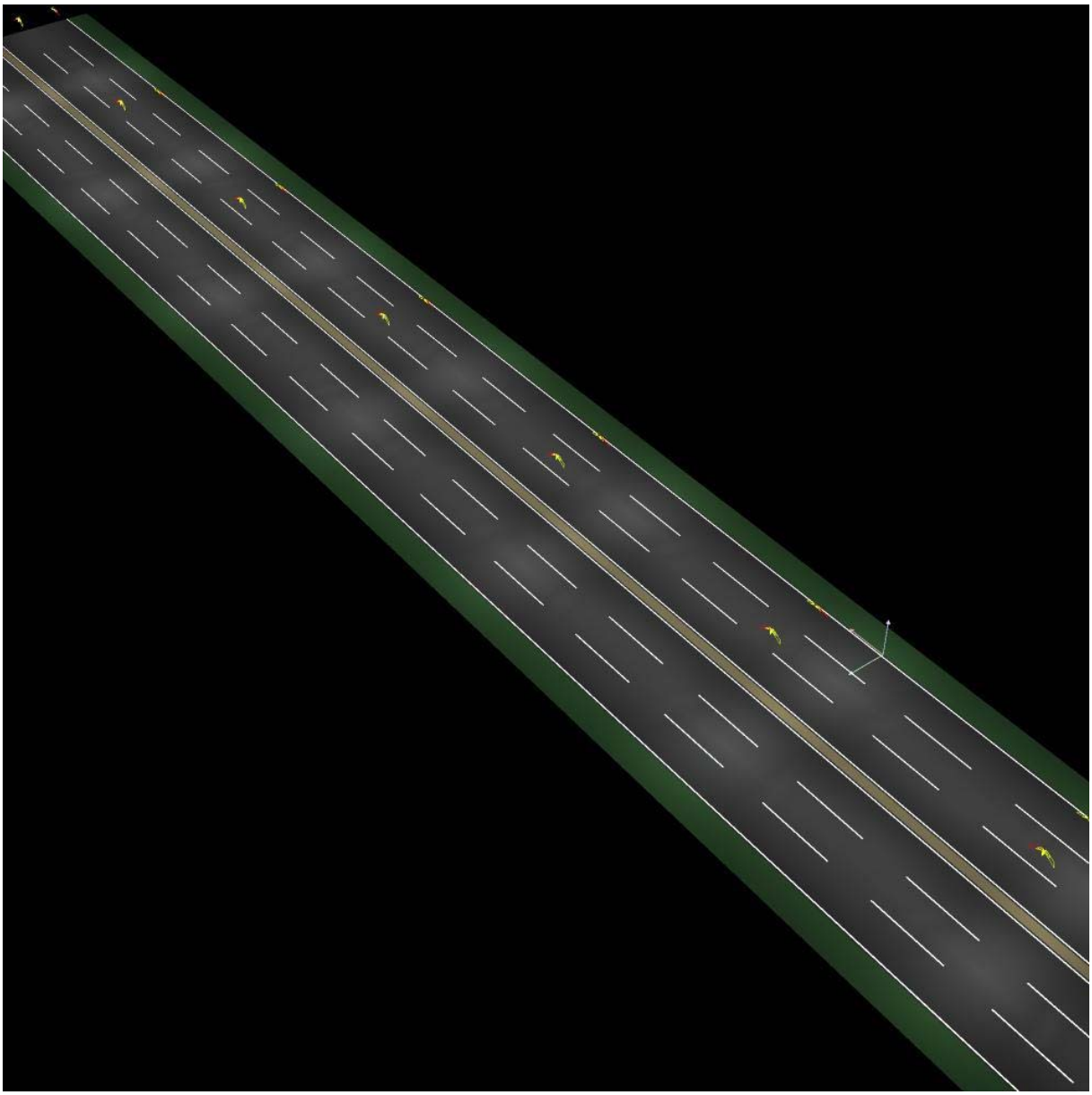
Fax +46 660 84338
e-Mail daniel@prismalence.se

Big Highway / 3D Rendering



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Sweden

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e-Mail daniel@prismalence.se

Big Highway / False Colour Rendering