

**ΕΡΓΟΔΟΤΗΣ: ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΠΕΡΙΦΕΡΕΙΑ ΔΥΤΙΚΗΣ ΕΛΛΑΔΑΣ
ΠΕΡΙΦΕΡΕΙΑΚΗ ΕΝΟΤΗΤΑ
ΑΙΤΩΛΟΑΚΑΡΝΑΝΙΑΣ
ΔΗΜΟΣ ΝΑΥΠΑΚΤΙΑΣ**

**ΕΡΓΟ : « ΠΑΡΕΜΒΑΣΕΙΣ ΑΝΑΒΑΘΜΙΣΗΣ ΔΗΜΟΣΙΟΥ
ΧΩΡΟΥ ΓΙΑ ΤΗ ΔΗΜΙΟΥΡΓΙΑ ΤΟΥ ΑΝΟΙΚΤΟΥ
ΚΕΝΤΡΟΥ ΕΜΠΟΡΙΟΥ ΔΗΜΟΥ ΝΑΥΠΑΚΤΙΑΣ»**

ΤΕΥΧΟΣ ΦΩΤΟΤΕΧΝΙΚΩΝ ΜΕΛΕΤΩΝ

ΣΥΝΤΑΧΘΗΚΕ
Μελετητής Μηχανικός

Ανάδοχος

ΕΠΙΒΛΕΠΩΝ ΜΗΧΑΝΙΚΟΣ

ΣΑΜΑΡΑΣ & ΣΥΝΕΡΓΑΤΕΣ Α.Ε. ΣΥΜΒΟΥΛΟΙ ΜΗΧΑΝΙΚΟΙ
ΣΑΜΑΡΑΣ & ΣΥΝΕΡΓΑΤΕΣ ΑΝΩΝΥΜΗ ΕΤΑΙΡΕΙΑ ΜΕΛΕΤΩΝ & ΣΥΜΒΟΥΛΩΝ
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Αλχαζίδης Γεώργιος
Ηλεκτρολόγος Μηχανικός

ΣΑΜΑΡΑΣ & ΣΥΝΕΡΓΑΤΕΣ
ΑΝΩΝΥΜΗ ΕΤΑΙΡΕΙΑ
ΜΕΛΕΤΩΝ ΚΑΙ ΣΥΜΒΟΥΛΩΝ


Ράπτη Ιωάννα
Ηλεκτρολόγος Μηχανικός Τ.Ε.

ΕΛΕΧΘΗΚΕ
Ο Προϊστάμενος Τμήματος Η/Μ Έργων

ΘΕΩΡΗΘΗΚΕ
Η Προϊσταμένη Τμήματος
Μελετών και Τεχνικών Έργων

Αγγελόπουλος Παύλος
Μηχανολόγος Μηχανικός Π.Ε.

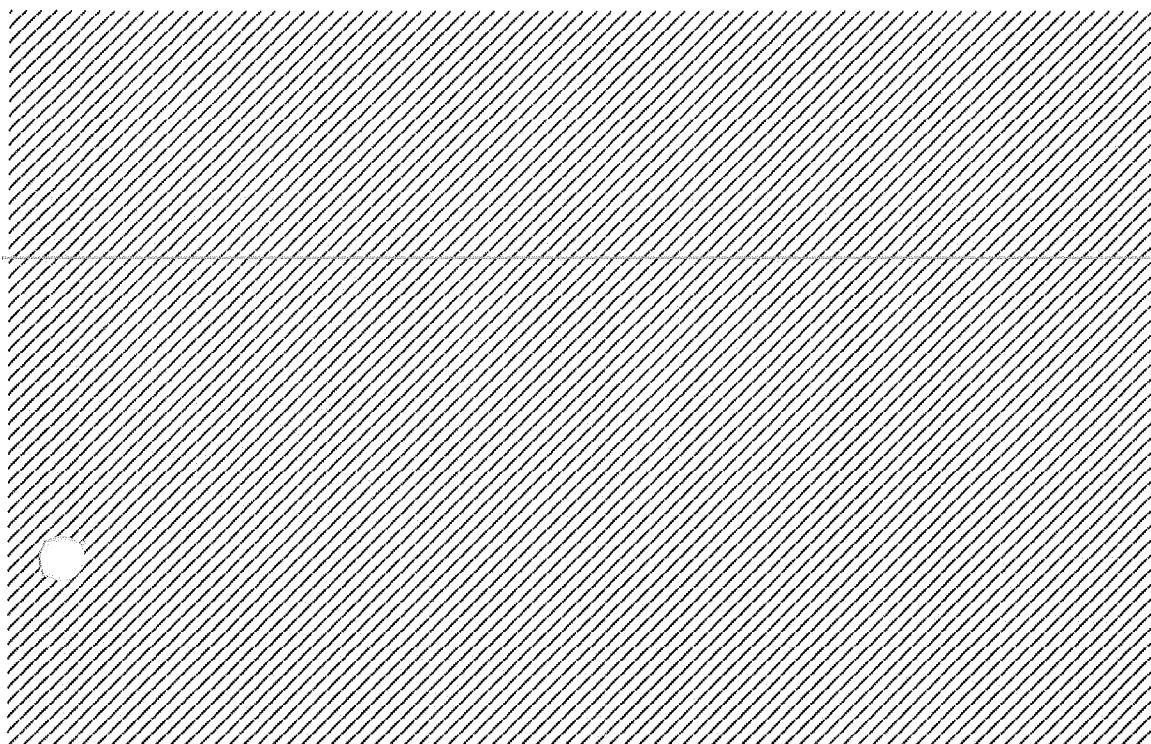
Παρασκευή Καραγεώργου
Πολιτικός Μηχανικός Τ.Ε.

Ο Δ/ντής Περιβάλλοντος & Ποιότητας Ζωής

Η Αναπληρώτρια Προϊσταμένη
Διεύθυνσης Τεχνικών Υπηρεσιών

α/α Βλαχάκης Γεώργιος
Ηλεκτρολόγος Μηχανικός Τ.Ε.

Σερεμέτη Λαμπρινή
Πολιτικός Μηχανικός Π.Ε.

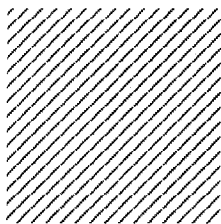


ΟΔΟΣ ΕΠΙΣΚΟΠΟΥ ΔΑΥΙΔ

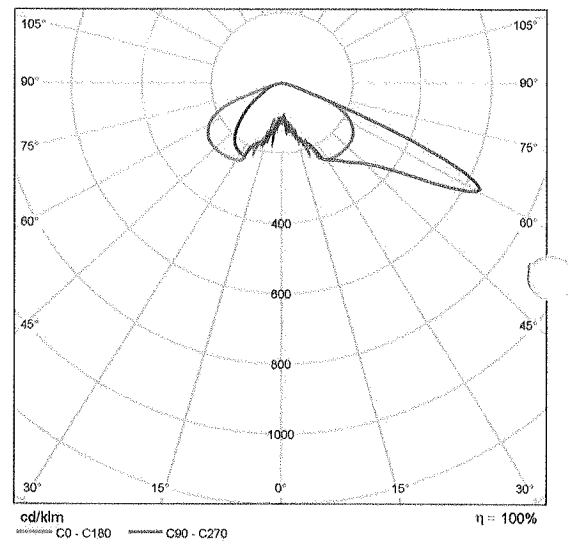
ΑΝΑΠΛΑΣΗ ΠΕΡΙΟΧΗΣ ΣΤΗ ΝΑΥΠΑΚΤΟ

Product data sheet

CARIBONI GROUP_FIVEP AGATHOS UP R2 525mA LT-06 4K

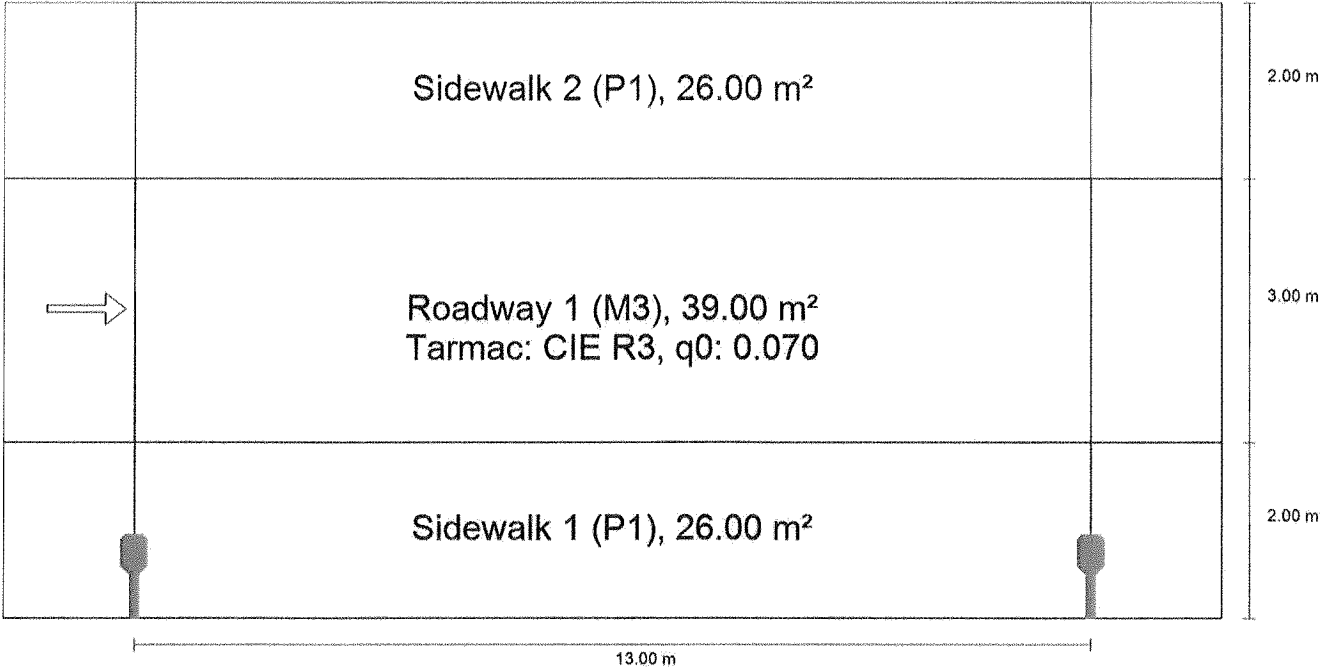


Article No.	01AG1C40037CHM3_525
P	40.0 W
Φ _{Lamp}	4650 lm
Φ _{Luminaire}	4650 lm
η	100.00 %
Luminous efficacy	116.3 lm/W
CCT	4000 K
CRI	70

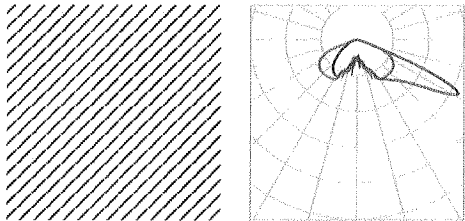


Polar LDC

ΟΔΟΣ ΕΠΙΣΚΟΠΟΥ ΔΑΥΙΔ 4000K · Alternative 3
Summary (according to EN 13201:2015)



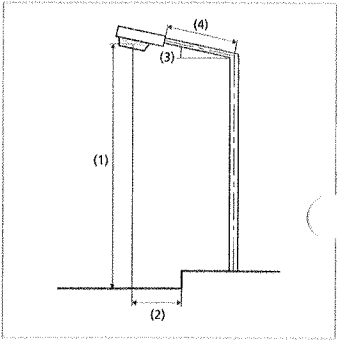
ΟΔΟΣ ΕΠΙΣΚΟΠΟΥ ΔΑΥΙΔ 4000K · Alternative 3
Summary (according to EN 13201:2015)



Manufacturer	CARIBONI GROUP_FIVEP	P	40.0 W
Article No.	01AG1C40037CHM3_525	Φ_{Lamp}	4650 lm
Article name	AGATHOS UP R2 525mA LT-06 4K	$\Phi_{\text{Luminaire}}$	4650 lm
Fitting	1x R2 40W 525mA 4000K	η	100.00 %

AGATHOS UP R2 525mA LT-06 4K (single side bottom)

Pole distance	13.000 m
(1) Light spot height	3.500 m
(2) Light point overhang	-1.300 m
(3) Boom inclination	0.0°
(4) Boom length	0.700 m
Annual operating hours	4000 h: 100.0 %, 40.0 W
Consumption	3080.0 W/km
ULR / ULOR	0.00 / 0.00
Max. luminous intensities	≥ 70°: 294 cd/klm
Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	≥ 80°: 11.1 cd/klm ≥ 90°: 0.00 cd/klm
Luminous intensity class	G*6
The luminous intensity values in [cd/klm] for calculation of the luminous intensity class refer to the luminaire luminous flux according to EN 13201:2015.	



ΟΔΟΣ ΕΠΙΣΚΟΠΟΥ ΔΑΥΙΔ 4000K · Alternative 3
Summary (according to EN 13201:2015)

Glare index class D.6

Results for valuation fields

	Symbol	Calculated	Target	Check
Πεζοδρόμιο 2 (P1)	E _{av}	21.76 lx	[15.00 - 22.50] lx	✓
	E _{min}	10.08 lx	≥ 3.00 lx	✓
Οδόστρωμα 1 (M3)	L _{av}	1.35 cd/m ²	≥ 1.00 cd/m ²	✓
	U _o	0.69	≥ 0.40	✓
	U _l	0.62	≥ 0.60	✓
	TI	5 %	≤ 15 %	✓
	R _{EI} ⁽¹⁾	0.65	-	-
Πεζοδρόμιο 1 (P1)	E _{av}	32.30 lx	[15.00 - 22.50] lx	✗
	E _{min}	13.08 lx	≥ 3.00 lx	✓

(1) Informative, not part of the valuation

A maintenance factor of 0.80 was used for calculating for the installation.

Results for energy efficiency indicators

	Symbol	Calculated	Consumption
ΟΔΟΣ ΕΠΙΣΚΟΠΟΥ ΔΑΥΙΔ 4000K	D _p	0.016 W/lx*m ²	-
AGATHOS UP R2 525mA LT- 06 4K (single side bottom)	D _e	1.8 kWh/m ² yr	160.0 kWh/yr

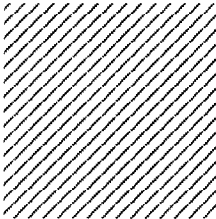


ΟΔΟΣ ΕΥΡΩΠΗΣ

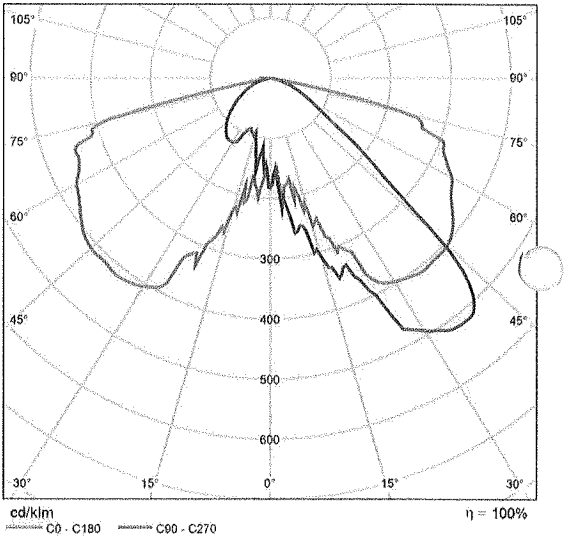
ΑΝΑΠΛΑΣΗ ΠΕΡΙΟΧΗΣ ΣΤΗ ΝΑΥΠΑΚΤΟ

Product data sheet

CARIBONI GROUP_FIVEP AGATHOS UP R1 700mA ST-01 4K

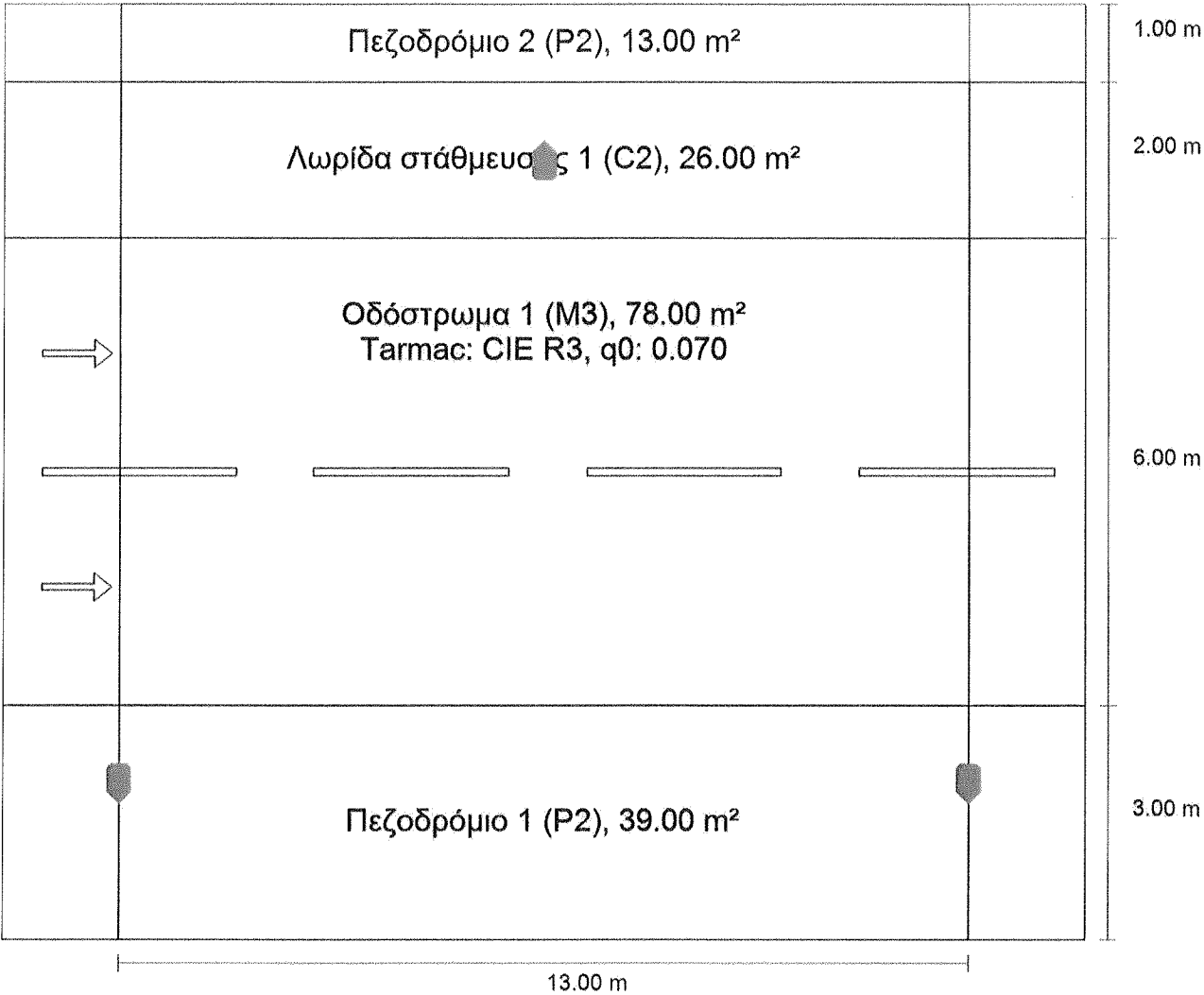


Article No.	01AG1B20030CHM3_700
P	27.5 W
Φ _{Lamp}	2905 lm
Φ _{Luminaire}	2905 lm
η	100.00 %
Luminous efficacy	105.6 lm/W
CCT	4000 K
CRI	70



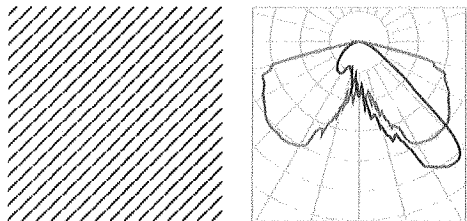
Polar LDC

ΟΔΟΣ ΕΥΡΩΠΗΣ
Summary (according to EN 13201:2015)



ΟΔΟΣ ΕΥΡΩΠΗΣ

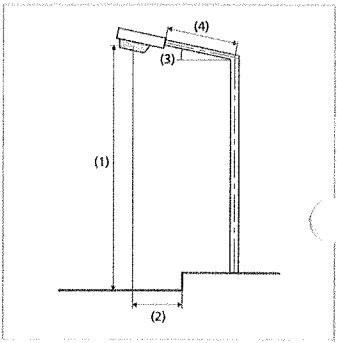
Summary (according to EN 13201:2015)



Manufacturer	CARIBONI GROUP_FIVEP	P	27.5 W
Article No.	01AG1B20030CHM3_700	Φ_{Lamp}	2905 lm
Article name	AGATHOS UP R1 700mA ST-01 4K	$\Phi_{Luminaire}$	2905 lm
Fitting	1x R1 27.5W700mA 4000K	η	100.00 %

AGATHOS UP R1 700mA ST-01 4K (both sides offset)

Pole distance	13.000 m
(1) Light spot height	3.500 m
(2) Light point overhang	-1.000 m
(3) Boom inclination	0.0°
(4) Boom length	0.000 m
Annual operating hours	4000 h: 100.0 %, 27.5 W
Consumption	4235.0 W/km
ULR / ULOR	0.00 / 0.00
Max. luminous intensities	$\geq 70^\circ$: 659 cd/klm
Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	$\geq 80^\circ$: 56.1 cd/klm
	$\geq 90^\circ$: 0.00 cd/klm
Luminous intensity class	G*3
The luminous intensity values in [cd/klm] for calculation of the luminous intensity class refer to the luminaire luminous flux according to EN 13201:2015.	
Glare index class	D.6



ΟΔΟΣ ΕΥΡΩΠΗΣ
Summary (according to EN 13201:2015)

Results for valuation fields

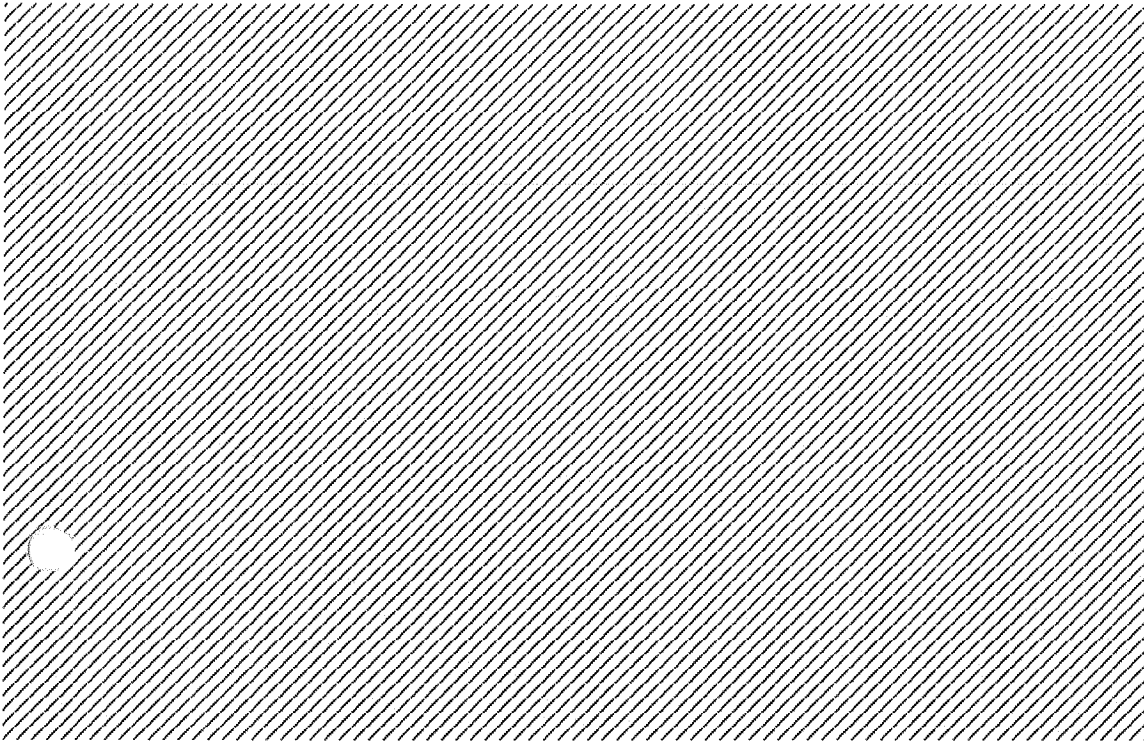
	Symbol	Calculated	Target	Check
Πεζοδρόμιο 2 (P2)	E _{av}	10.02 lx	[10.00 - 15.00] lx	✓
	E _{min}	3.38 lx	≥ 2.00 lx	✓
Λωρίδα στάθμευσης 1 (C2)	E _{av}	29.53 lx	≥ 20.00 lx	✓
	U _o	0.34	≥ 0.40	✗
Οδόστρωμα 1 (M3)	L _{av}	1.87 cd/m ²	≥ 1.00 cd/m ²	✓
	U _o	0.60	≥ 0.40	✓
	U _l	0.79	≥ 0.60	✓
	TI	5 %	≤ 15 %	✓
	R _{EI} ⁽¹⁾	0.73	-	-
Πεζοδρόμιο 1 (P2)	E _{av}	23.45 lx	[10.00 - 15.00] lx	✗
	E _{min}	4.51 lx	≥ 2.00 lx	✓

(1) Informative, not part of the valuation

A maintenance factor of 0.80 was used for calculating for the installation.

Results for energy efficiency indicators

	Symbol	Calculated	Consumption
ΟΔΟΣ ΕΥΡΩΠΗΣ	D _p	0.013 W/lx*m ²	-
AGATHOS UP R1 700mA ST-01 4K (both sides offset)	D _e	1.4 kWh/m ² yr,	220.0 kWh/yr

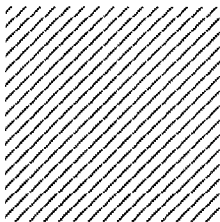


ΟΔΟΣ ΚΑΛΑΝΤΖΟΠΟΥΛΟΥ

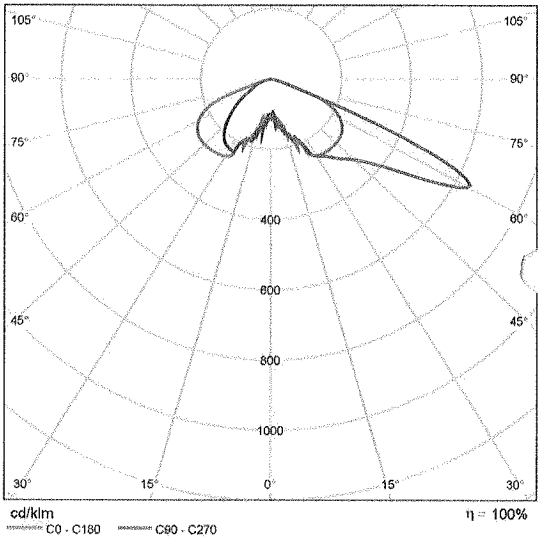
ΑΝΑΠΛΑΣΗ ΠΕΡΙΟΧΗΣ ΣΤΗ ΝΑΥΠΑΚΤΟ

Product data sheet

CARIBONI GROUP_FIVEP AGATHOS UP R2 525mA LT-06 4K

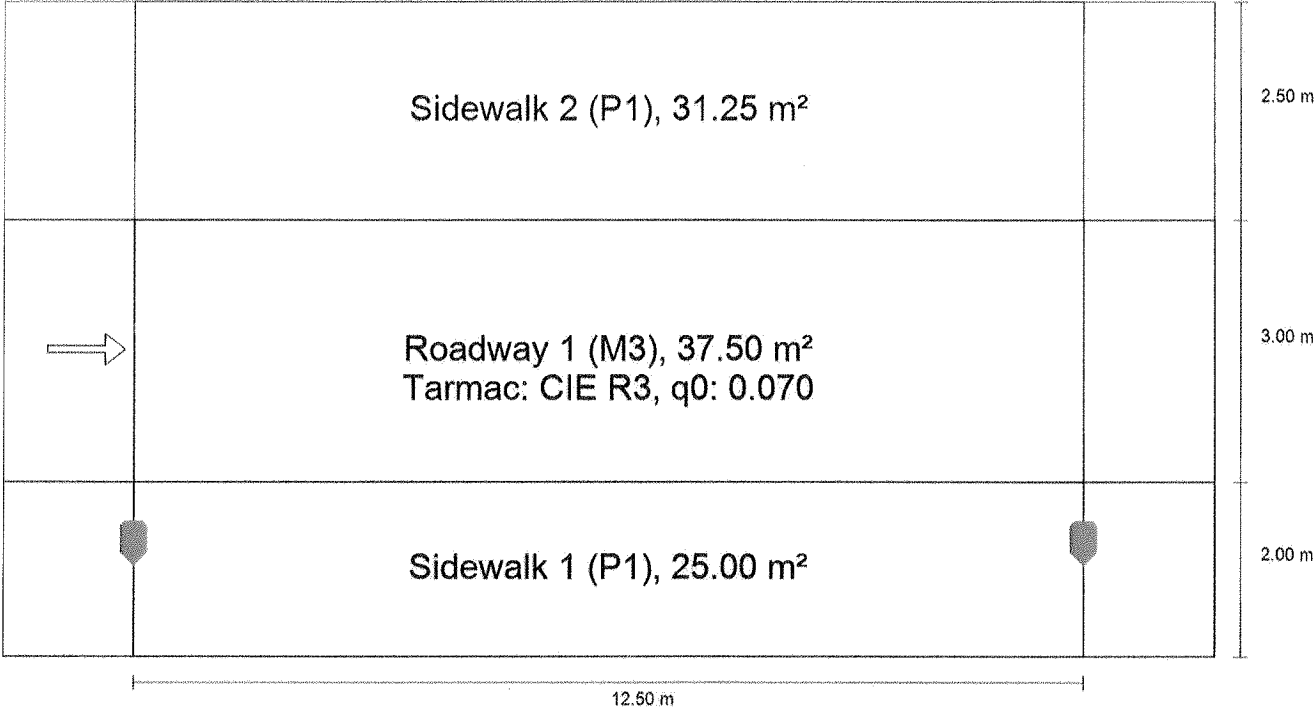


Article No.	01AG1C40037CHM3_525
P	40.0 W
Φ _{Lamp}	4650 lm
Φ _{Luminaire}	4650 lm
η	100.00 %
Luminous efficacy	116.3 lm/W
CCT	4000 K
CRI	70

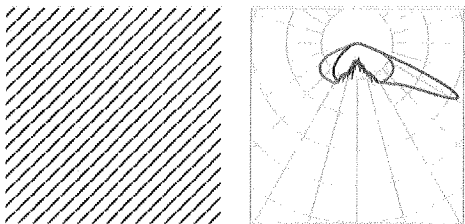


Polar LDC

ΟΔΟΣ ΚΑΛΑΝΤΖΟΠΟΥΛΟΥ · Alternative 3
Summary (according to EN 13201:2015)



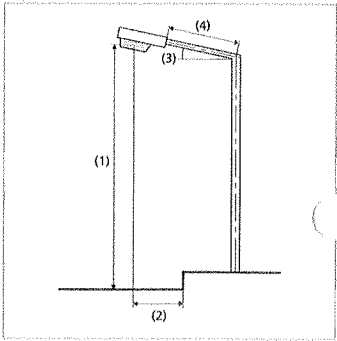
ΟΔΟΣ ΚΑΛΑΝΤΖΟΠΟΥΛΟΥ · Alternative 3
Summary (according to EN 13201:2015)



Manufacturer	CARIBONI GROUP_FIVEP	P	40.0 W
Article No.	01AG1C40037CHM3_525	Φ_{Lamp}	4650 lm
Article name	AGATHOS UP R2 525mA LT-06 4K	$\Phi_{Luminaire}$	4650 lm
Fitting	1x R2 40W 525mA 4000K	η	100.00 %

AGATHOS UP R2 525mA LT-06 4K (single side bottom)

Pole distance	12.500 m
(1) Light spot height	3.500 m
(2) Light point overhang	-0.700 m
(3) Boom inclination	0.0°
(4) Boom length	0.000 m
Annual operating hours	4000 h: 100.0 %, 40.0 W
Consumption	3200.0 W/km
ULR / ULOR	0.00 / 0.00
Max. luminous intensities	$\geq 70^\circ$: 294 cd/klm
Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	$\geq 80^\circ$: 11.1 cd/klm $\geq 90^\circ$: 0.00 cd/klm
Luminous intensity class	G*6
The luminous intensity values in [cd/klm] for calculation of the luminous intensity class refer to the luminaire luminous flux according to EN 13201:2015.	



ΟΔΟΣ ΚΑΛΑΝΤΖΟΠΟΥΛΟΥ · Alternative 3
Summary (according to EN 13201:2015)

Glare index class D.6

Results for valuation fields

	Symbol	Calculated	Target	Check
Πεζοδρόμιο 2 (P1)	E _{av}	24.01 lx	[15.00 - 22.50] lx	✗
	E _{min}	12.50 lx	≥ 3.00 lx	✓
Οδός τρωμα 1 (M3)	L _{av}	1.61 cd/m²	≥ 1.00 cd/m²	✓
	U _o	0.63	≥ 0.40	✓
	U _l	0.61	≥ 0.60	✓
	TI	7 %	≤ 15 %	✓
	R _{gl} ⁽¹⁾	0.72	-	-
Πεζοδρόμιο 1 (P1)	E _{av}	31.30 lx	[15.00 - 22.50] lx	✗
	E _{min}	12.21 lx	≥ 3.00 lx	✓

(1) Informative, not part of the valuation
A maintenance factor of 0.80 was used for calculating for the installation.

Results for energy efficiency indicators

	Symbol	Calculated	Consumption
ΟΔΟΣ ΚΑΛΑΝΤΖΟΠΟΥΛΟΥ	D _p	0.015 W/lx*m²	-
AGATHOS UP R2 525mA LT-06 4K (single side bottom)	D _e	1.7 kWh/m² yr	160.0 kWh/yr

ΟΔΟΣ ΚΑΛΑΝΤΖΟΠΟΥΛΟΥ · Alternative 3

Οδόςτρωμα 1 (M3)

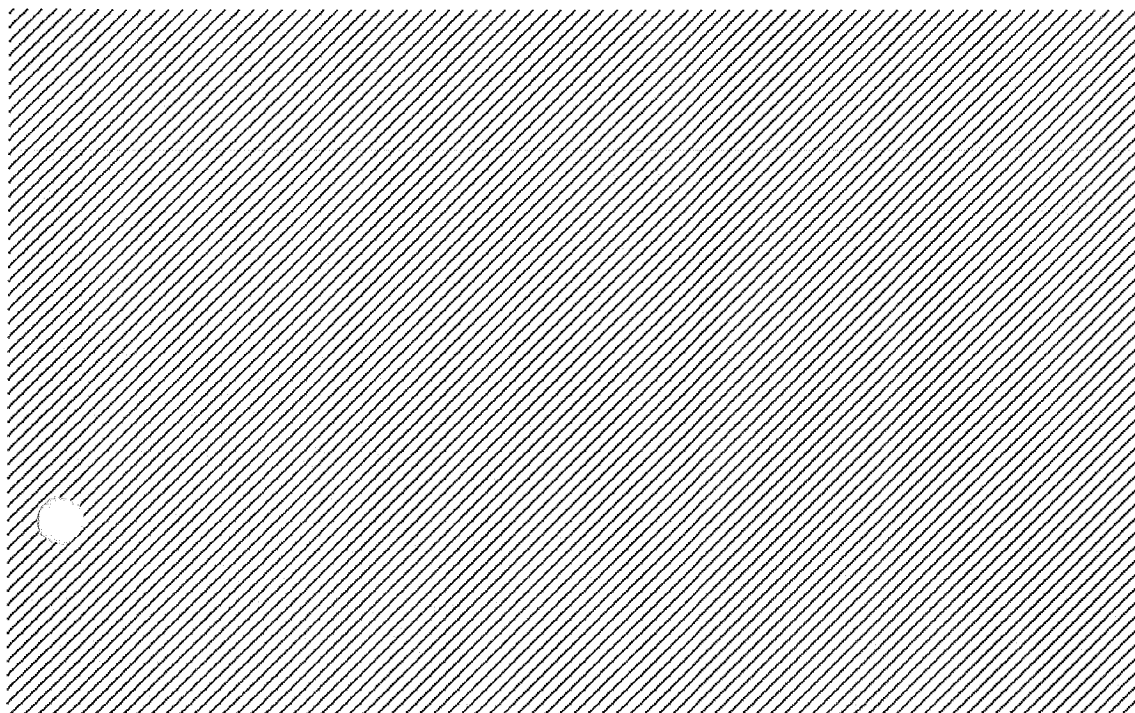
Results for valuation field

	Symbol	Calculated	Target	Check
Οδόςτρωμα 1 (M3)	L_{av}	1.61 cd/m ²	≥ 1.00 cd/m ²	✓
	U_o	0.63	≥ 0.40	✓
	U_l	0.61	≥ 0.60	✓
	TI	7 %	≤ 15 %	✓
	$R_{Et}^{(1)}$	0.72	-	-

Results for observer

	Symbol	Calculated	Target	Check
Observer 1 Position: -60.000 m, 3.500 m, 1.500 m	L_{av}	1.61 cd/m ²	≥ 1.00 cd/m ²	✓
	U_o	0.63	≥ 0.40	✓
	U_l	0.61	≥ 0.60	✓
	TI	7 %	≤ 15 %	✓

(1) Informative, not part of the valuation

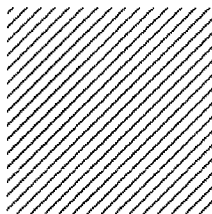


**ΟΔΟΣ ΚΟΥΡΥΔΑΛΛΕΩΣ - ΚΑΘΟΔΟΣ (ΜΠΡΟΣΤΑ ΑΠΟ
ΜΝΗΜΕΙΟ)**

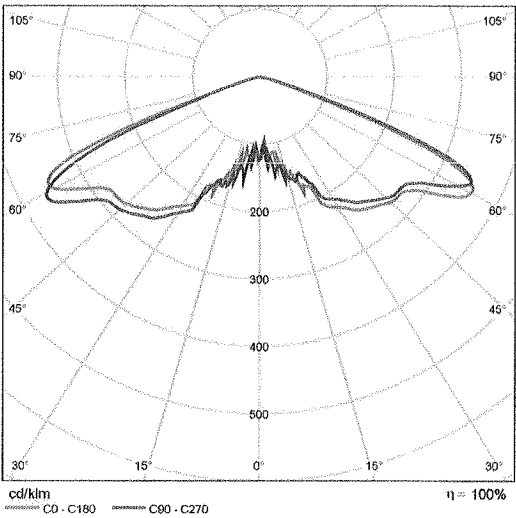
ΑΝΑΠΛΑΣΗ ΠΕΡΙΟΧΗΣ ΣΤΗ ΝΑΥΠΑΚΤΟ

Product data sheet

CARIBONI GROUP_FIVEP AGATHOS UP R2 525mA RS-01 4K



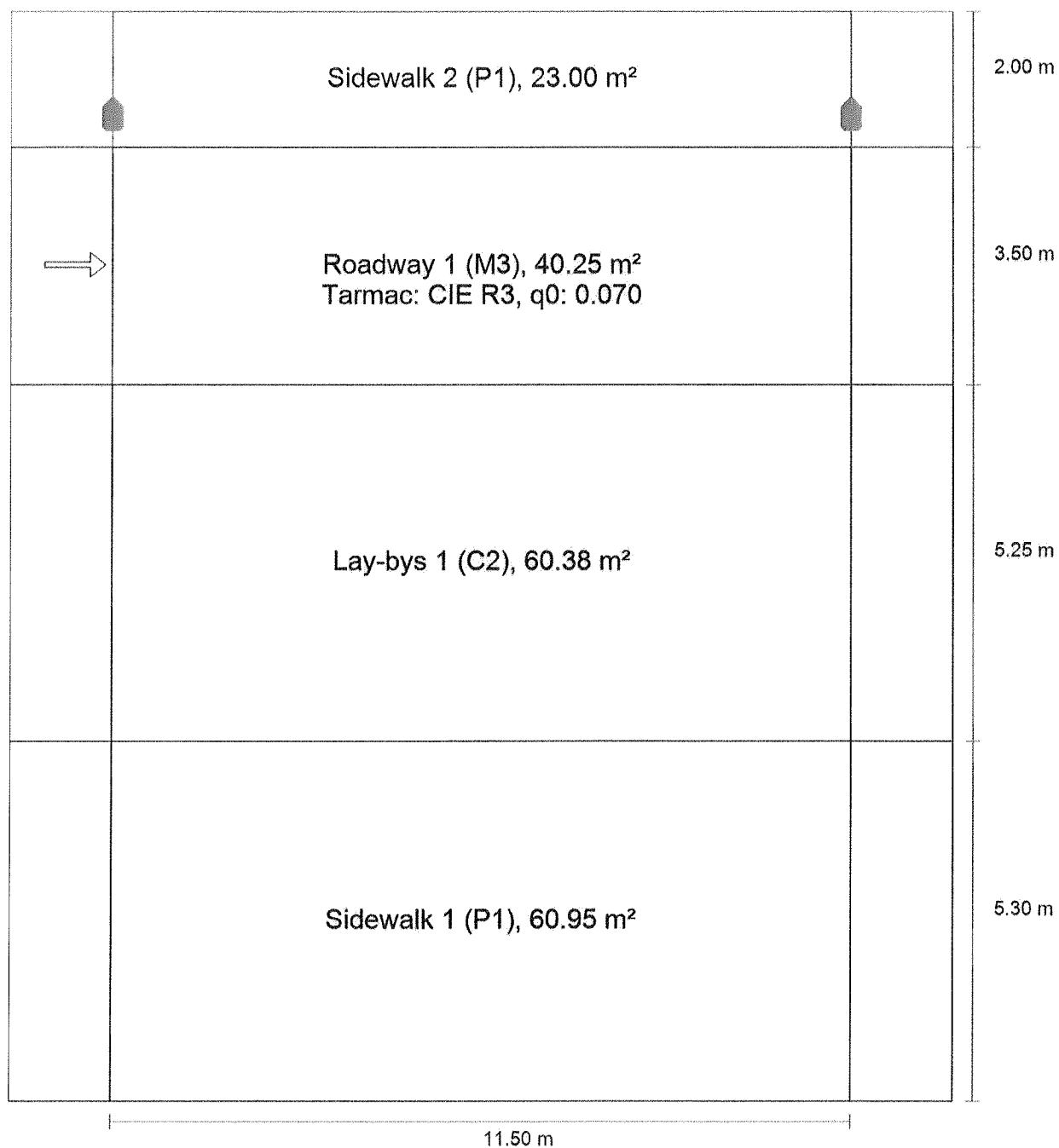
Article No.	01AG1C40035CHM3_525
P	40,0 W
Φ _{Lamp}	4650 lm
Φ _{Luminaire}	4650 lm
η	100.00 %
Luminous efficacy	116.3 lm/W
CCT	4000 K
CRI	70



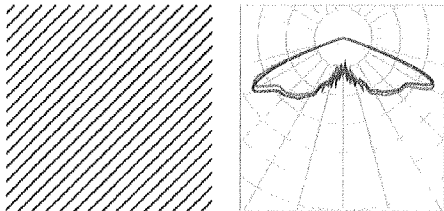
Polar LDC

ΟΔΟΣ ΚΟΡΥΔΑΛΛΕΩΣ · Alternative 5

Summary (according to EN 13201:2015)



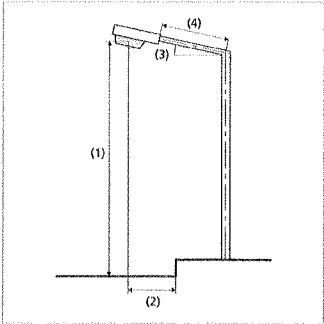
ΟΔΟΣ ΚΟΡΥΔΑΛΛΕΩΣ · Alternative 5
Summary (according to EN 13201:2015)



Manufacturer	CARIBONI GROUP_FIVEP	P	40.0 W
Article No.	01AG1C40035CHM3_525	Φ _{Lamp}	4650 lm
Article name	AGATHOS UP R2 525mA RS-01 4K	Φ _{Luminaire}	4650 lm
Fitting	1x R2 40W 525mA 4000K	η	100.00 %

AGATHOS UP R2 525mA RS-01 4K (single side top)

Pole distance	11.500 m
(1) Light spot height	3.500 m
(2) Light point overhang	-0.500 m
(3) Boom inclination	0.0°
(4) Boom length	0.000 m
Annual operating hours	4000 h: 100.0 %, 40.0 W
Consumption	3480.0 W/km
ULR / ULOR	0.00 / 0.00
Max. luminous intensities	≥ 70°: 175 cd/klm
Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	≥ 80°: 8.34 cd/klm ≥ 90°: 0.00 cd/klm
Luminous intensity class	G*6
The luminous intensity values in [cd/klm] for calculation of the luminous intensity class refer to the luminaire luminous flux according to EN 13201:2015.	



ΟΔΟΣ ΚΟΡΥΔΑΛΛΕΩΣ · Alternative 5
Summary (according to EN 13201:2015)

Glare index class	D.6
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Results for valuation fields

	Symbol	Calculated	Target	Check
Πεζοδρόμιο 2 (P1)	E _{av}	35.48 lx	[15.00 - 22.50] lx	✗
	E _{min}	27.60 lx	≥ 3.00 lx	✓
Οδόστρωμα 1 (M3)	L _{av}	1.42 cd/m ²	≥ 1.00 cd/m ²	✓
	U _o	0.51	≥ 0.40	✓
	U _l	0.63	≥ 0.60	✓
	TI	4 %	≤ 15 %	✓
	R _{gl} ⁽¹⁾	0.42	-	-
Λωρίδα στάθμευσης 1 (C2)	E _{av}	8.66 lx	≥ 20.00 lx	✗
	U _o	0.21	≥ 0.40	✗
Πεζοδρόμιο 1 (P1)	E _{av}	0.44 lx	[15.00 - 22.50] lx	✗
	E _{min}	0.12 lx	≥ 3.00 lx	✗

(1) Informative, not part of the valuation

A maintenance factor of 0.80 was used for calculating for the installation.

Results for energy efficiency indicators

	Symbol	Calculated	Consumption
ΟΔΟΣ ΚΟΡΥΔΑΛΛΕΩΣ	D _p	0.016 W/lx*m ²	-
AGATHOS UP R2 525mA RS-01 4K (single side top)	D _e	0.9 kWh/m ² yr	160.0 kWh/yr

ΟΔΟΣ ΚΟΡΥΔΑΛΛΕΩΣ · Alternative 5

Πεζοδρόμιο 2 (P1)

Results for valuation field

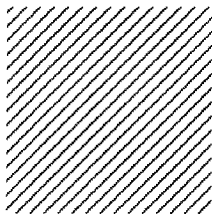
	Symbol	Calculated	Target	Check
Πεζοδρόμιο 2 (P1)	E_{av}	35.48 lx	[15.00 - 22.50] lx	✗
	E_{min}	27.60 lx	≥ 3.00 lx	✓

ΟΔΟΣ ΚΟΥΡΔΑΛΛΕΩΣ - ΑΝΟΔΟΣ

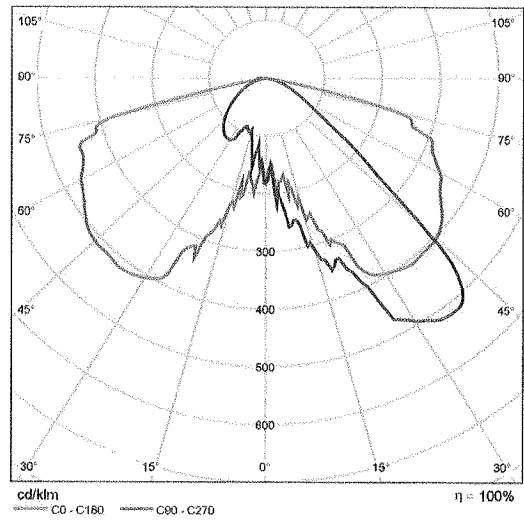
ΑΝΑΠΛΑΣΗ ΠΕΡΙΟΧΗΣ ΣΤΗ ΝΑΥΠΑΚΤΟ

Product data sheet

CARIBONI GROUP_FIVEP AGATHOS UP R1 700mA ST-01 4K



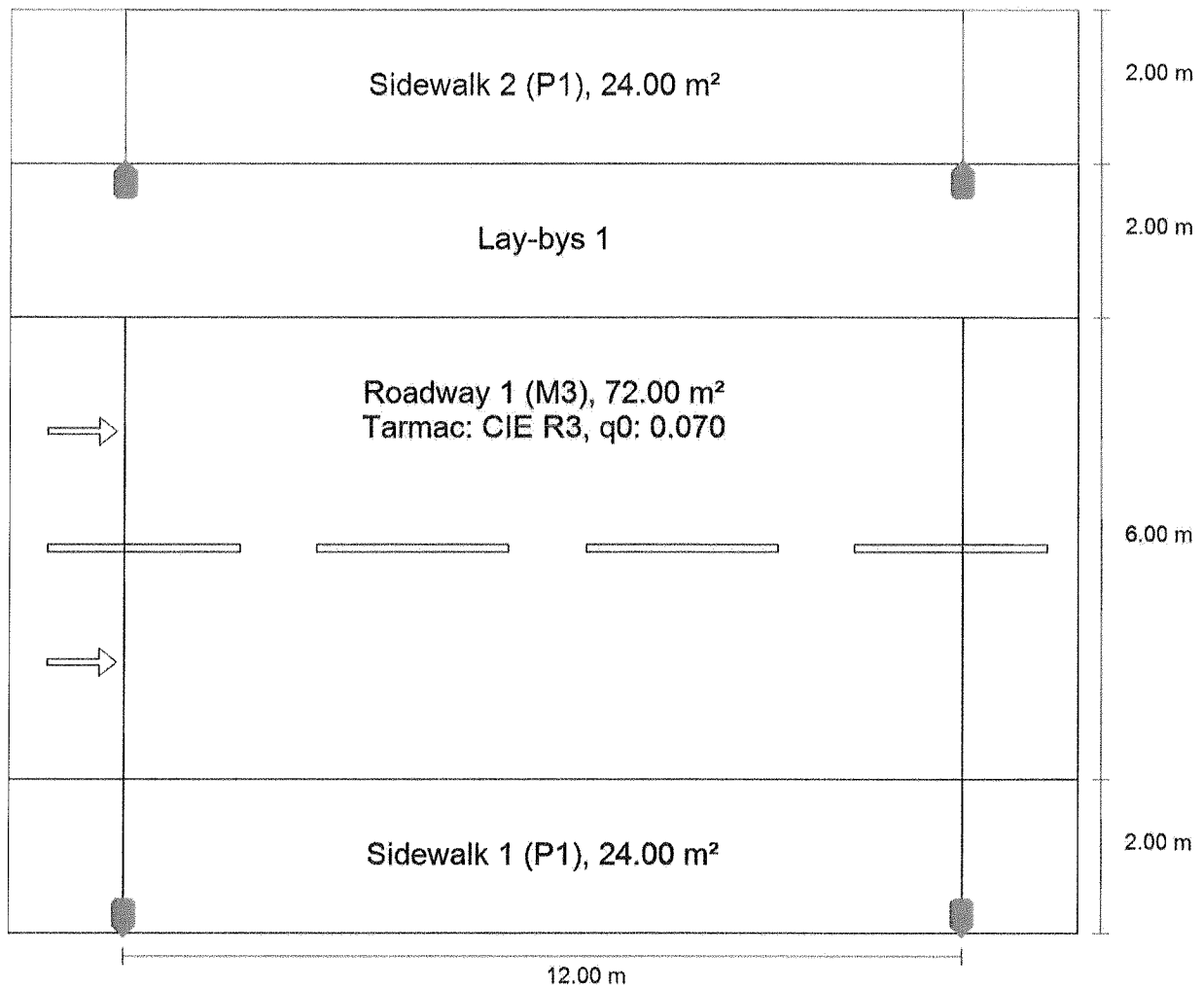
Article No.	01AG1B20030CHM3_700
P	27,5 W
Φ _{Lamp}	2905 lm
Φ _{Luminaire}	2905 lm
η	100.00 %
Luminous efficacy	105.6 lm/W
CCT	4000 K
CRI	70



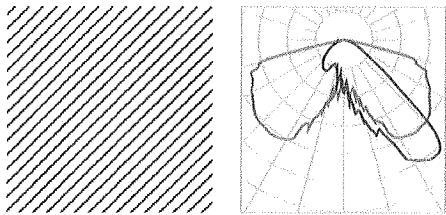
Polar LDC

ΟΔΟΣ ΚΟΡΥΔΑΛΛΕΩΣ 4000oK · Alternative 7

Summary (according to EN 13201:2015)



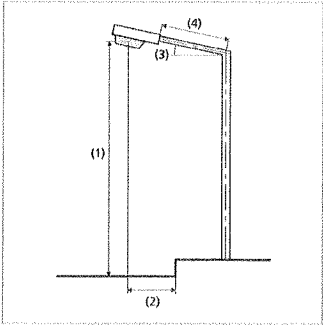
ΟΔΟΣ ΚΟΡΥΔΑΛΛΕΩΣ 4000oK · Alternative 7
Summary (according to EN 13201:2015)



Manufacturer	CARIBONI GROUP_FIVEP	P	27.5 W
Article No.	01AG1B20030CHM3_700	Φ _{Lamp}	2905 lm
Article name	AGATHOS UP R1 700mA ST-01 4K	Φ _{Luminaire}	2905 lm
Fitting	1x R1 27.5W700mA 4000K	η	100.00 %

AGATHOS UP R1 700mA ST-01 4K (both sides opposite)

Pole distance	12.000 m
(1) Light spot height	3.500 m
(2) Light point overhang	-1.800 m
(3) Boom inclination	0.0°
(4) Boom length	0.000 m
Annual operating hours	4000 h; 100.0 %, 27.5 W
Consumption	4565.0 W/km
ULR / ULOR	0.00 / 0.00
Max. luminous intensities	≥ 70°: 659 cd/klm
Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	≥ 80°: 56.1 cd/klm ≥ 90°: 0.00 cd/klm
Luminous intensity class	G*3
The luminous intensity values in [cd/klm] for calculation of the luminous intensity class refer to the luminaire luminous flux according to EN 13201:2015.	



ΟΔΟΣ ΚΟΡΥΔΑΛΛΕΩΣ 4000οK · Alternative 7
Summary (according to EN 13201:2015)

Glare index class	D.6
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Results for valuation fields

	Symbol	Calculated	Target	Check
Πεζοδρόμιο 2 (P1)	E _{av}	15.22 lx	[15.00 - 22.50] lx	✓
	E _{min}	3.83 lx	≥ 3.00 lx	✓
Οδόστρωμα 1 (M3)	L _{av}	1.30 cd/m ²	≥ 1.00 cd/m ²	✓
	U _o	0.41	≥ 0.40	✓
	U _l	0.74	≥ 0.60	✓
	TI	2 %	≤ 15 %	✓
	R _{gl}	1.31	≥ 0.30	✓
Πεζοδρόμιο 1 (P1)	E _{av}	38.24 lx	[15.00 - 22.50] lx	✗
	E _{min}	19.30 lx	≥ 3.00 lx	✓

A maintenance factor of 0.80 was used for calculating for the installation.

Results for energy efficiency indicators

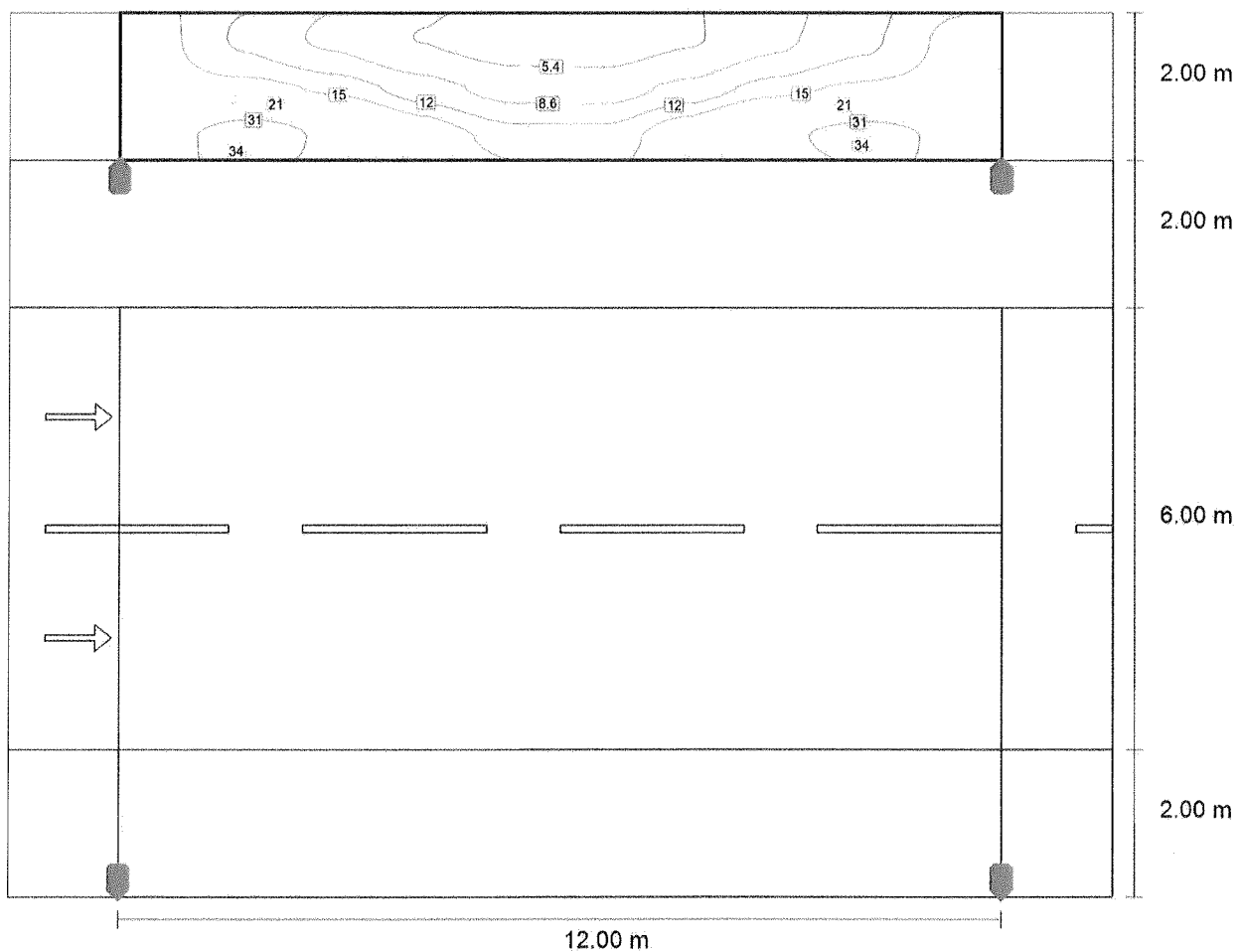
	Symbol	Calculated	Consumption
ΟΔΟΣ ΚΟΡΥΔΑΛΛΕΩΣ 4000οK	D _p	0.018 W/lx*m ²	-
AGATHOS UP R1 700mA ST-01 4K (both sides opposite)	D _e	1.8 kWh/m ² yr	220.0 kWh/yr

ΟΔΟΣ ΚΟΡΥΔΑΛΛΕΩΣ 4000οK · Alternative 7

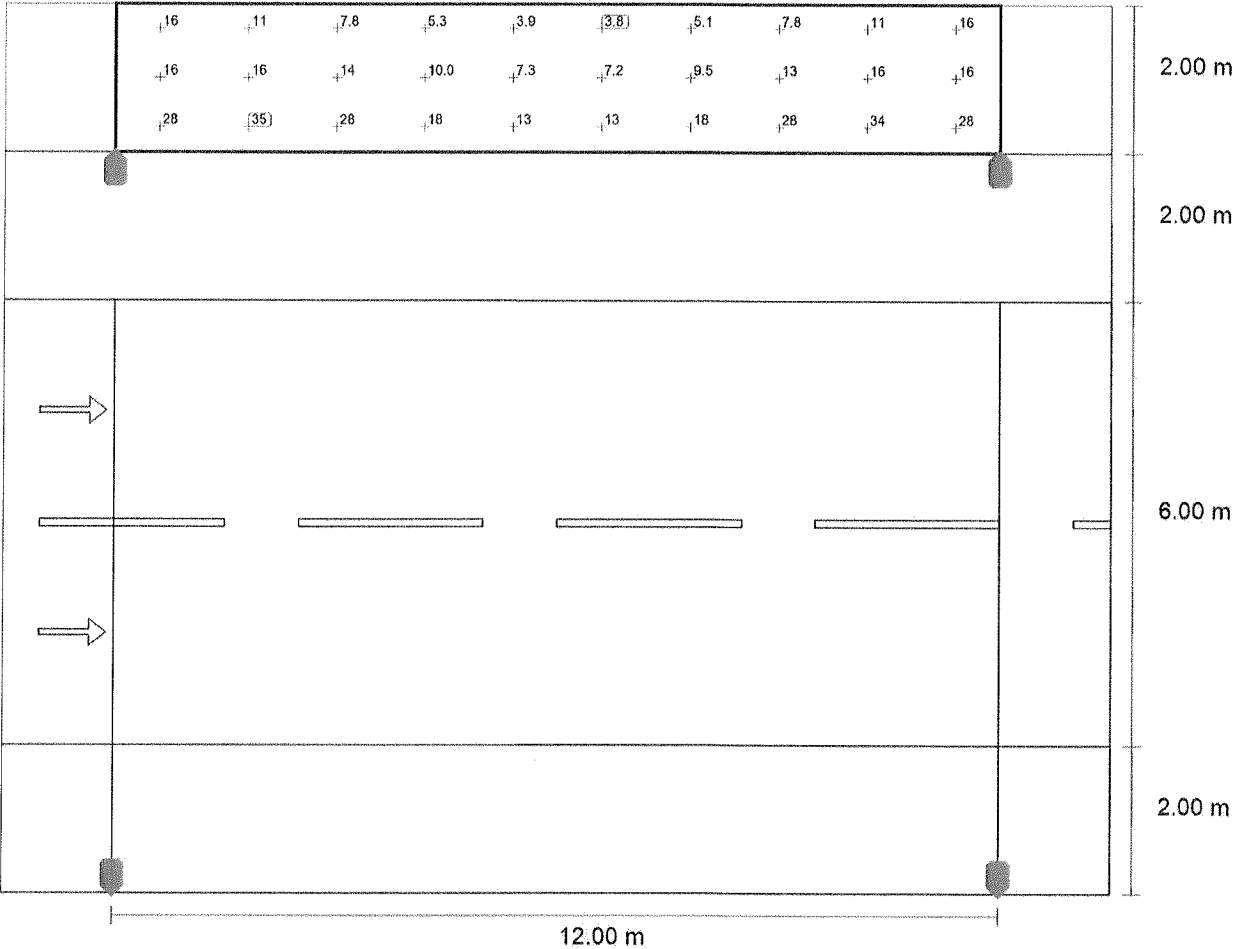
Πεζοδρόμιο 2 (P1)

Results for valuation field

	Symbol	Calculated	Target	Check
Πεζοδρόμιο 2 (P1)	E _{av}	15.22 lx	[15.00 - 22.50] lx	✓
	E _{min}	3.83 lx	≥ 3.00 lx	✓



Maintenance value, horizontal illuminance [lx] (Iso-illuminance curves)



Maintenance value, horizontal illuminance [lx] (Value grid)

m	0.600	1.800	3.000	4.200	5.400	6.600	7.800	9.000	10.200	11.400
11.667	15.72	10.96	7.84	5.28	3.87	3.83	5.09	7.79	10.92	15.72
11.000	16.47	16.32	13.78	9.99	7.33	7.15	9.45	13.19	15.63	16.37
10.333	27.55	35.32	28.35	18.45	13.17	12.97	17.92	27.84	34.33	28.16

Maintenance value, horizontal illuminance [lx] (Value chart)

	E_{av}	E_{min}	E_{max}	g_1	g_2
Maintenance value, horizontal illuminance	15.2 lx	3.83 lx	35.3 lx	0.252	0.109

ΟΔΟΣ ΚΟΡΥΔΑΛΛΕΩΣ 4000οκ · Alternative 7

Οδόςτρωμα 1 (M3)

Results for valuation field

	Symbol	Calculated	Target	Check
Οδόςτρωμα 1 (M3)	L _{av}	1.30 cd/m ²	≥ 1.00 cd/m ²	✓
	U _o	0.41	≥ 0.40	✓
	U _l	0.74	≥ 0.60	✓
	TI	2 %	≤ 15 %	✓
	R _{EI}	1.31	≥ 0.30	✓

Results for observer

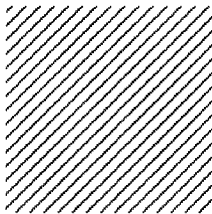
	Symbol	Calculated	Target	Check
Observer 1 Position: -60.000 m, 3.500 m, 1.500 m	L _{av}	1.30 cd/m ²	≥ 1.00 cd/m ²	✓
	U _o	0.41	≥ 0.40	✓
	U _l	0.74	≥ 0.60	✓
	TI	2 %	≤ 15 %	✓
Observer 2 Position: -60.000 m, 6.500 m, 1.500 m	L _{av}	1.30 cd/m ²	≥ 1.00 cd/m ²	✓
	U _o	0.42	≥ 0.40	✓
	U _l	0.74	≥ 0.60	✓
	TI	2 %	≤ 15 %	✓

ΟΔΟΣ Π. ΝΟΒΑ

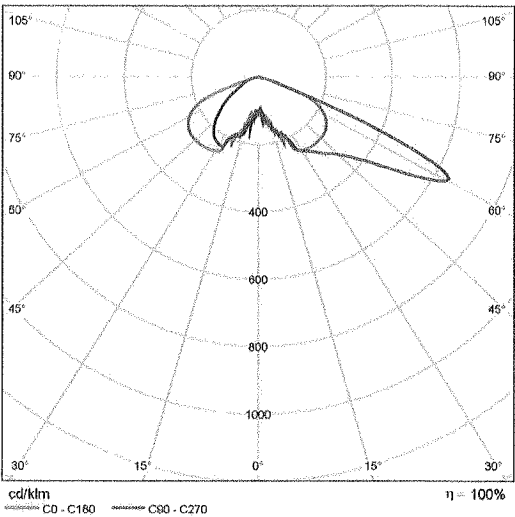
ΑΝΑΠΛΑΣΗ ΠΕΡΙΟΧΗΣ ΣΤΗ ΝΑΥΠΑΚΤΟ

Product data sheet

CARIBONI GROUP_FIVEP AGATHOS UP R2 525mA LT-06 4K

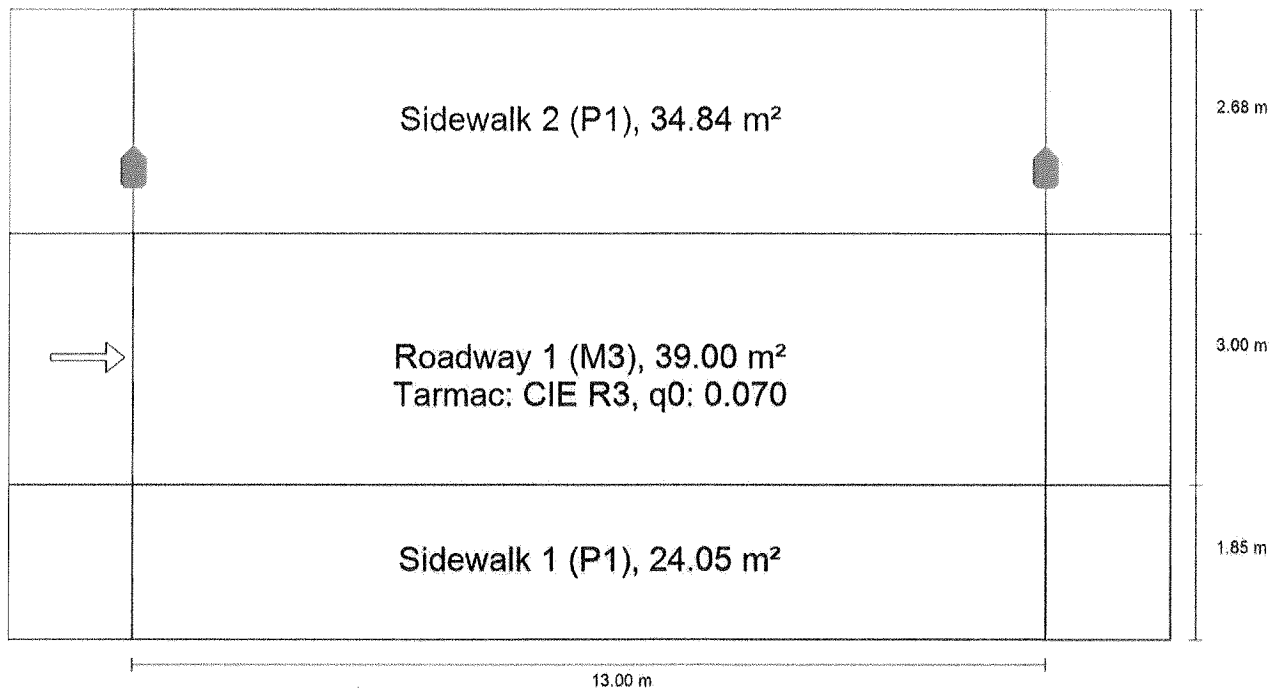


Article No.	01AG1C40037CHM3_525
P	40.0 W
Φ _{Lamp}	4650 lm
Φ _{Luminaire}	4650 lm
η	100.00 %
Luminous efficacy	116.3 lm/W
CCT	4000 K
CRI	70

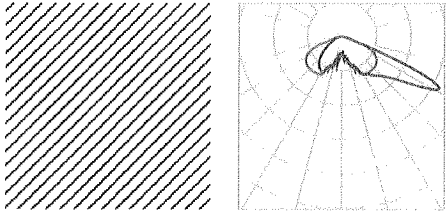


Polar LDC

ΟΔΟΣ Π. ΝΟΒΑ · Alternative 3

Summary (according to EN 13201:2015)

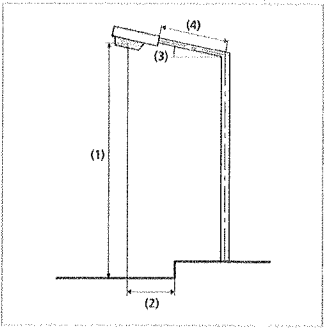
ΟΔΟΣ Π. NOBA · Alternative 3
Summary (according to EN 13201:2015)



Manufacturer	CARIBONI GROUP_FIVEP	P	40.0 W
Article No.	01AG1C40037CHM3_525	Φ_{Lamp}	4650 lm
Article name	AGATHOS UP R2 525mA LT-06 4K	$\Phi_{\text{Luminaire}}$	4650 lm
Fitting	1x R2 40W 525mA 4000K	η	100.00 %

AGATHOS UP R2 525mA LT-06 4K (single side top)

Pole distance	13.000 m
(1) Light spot height	3.500 m
(2) Light point overhang	-0.800 m
(3) Boom inclination	0.0°
(4) Boom length	0.000 m
Annual operating hours	4000 h: 100.0 %, 40.0 W
Consumption	3080.0 W/km
ULR / ULOR	0.00 / 0.00
Max. luminous intensities	≥ 70°: 294 cd/klm
Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	≥ 80°: 11.1 cd/klm ≥ 90°: 0.00 cd/klm
Luminous intensity class	G*6
The luminous intensity values in [cd/klm] for calculation of the luminous intensity class refer to the luminaire luminous flux according to EN 13201:2015.	



ΟΔΟΣ Π. NOBA · Alternative 3
Summary (according to EN 13201:2015)

Glare index class D.6

Results for valuation fields

	Symbol	Calculated	Target	Check
Πεζοδρόμιο 2 (P1)	E _{av}	29.04 lx	[15.00 - 22.50] lx	✗
	E _{min}	8.90 lx	≥ 3.00 lx	✓
Οδόστρωμα 1 (M3)	L _{av}	1.48 cd/m ²	≥ 1.00 cd/m ²	✓
	U _o	0.64	≥ 0.40	✓
	U _l	0.60	≥ 0.60	✓
	TI	6 %	≤ 15 %	✓
	R _{ET} ⁽¹⁾	0.71	-	-
Πεζοδρόμιο 1 (P1)	E _{av}	24.23 lx	[15.00 - 22.50] lx	✗
	E _{min}	12.01 lx	≥ 3.00 lx	✓

(1) Informative, not part of the valuation

A maintenance factor of 0.80 was used for calculating for the installation.

Results for energy efficiency indicators

	Symbol	Calculated	Consumption
ΟΔΟΣ Π. NOBA	D _p	0.014 W/lx*m ²	-
AGATHOS UP R2 525mA LT-06 4K (single side top)	E _e	1.6 kWh/m ² yr	160.0 kWh/yr

ΟΔΟΣ Π. ΝΟΒΑ · Alternative 3

Οδόςτρωμα 1 (M3)

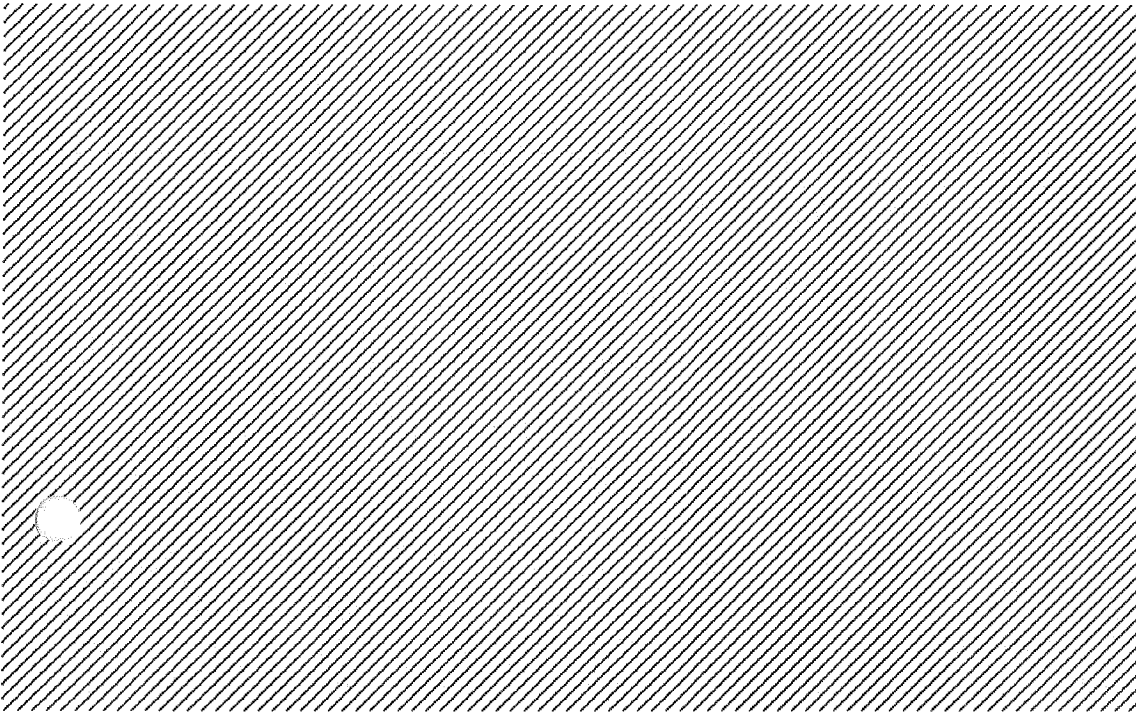
Results for valuation field

	Symbol	Calculated	Target	Check
Οδόςτρωμα 1 (M3)	L _{av}	1.48 cd/m ²	≥ 1.00 cd/m ²	✓
	U _o	0.64	≥ 0.40	✓
	U _l	0.60	≥ 0.60	✓
	TI	6 %	≤ 15 %	✓
	R _{El} ⁽¹⁾	0.71	-	-

Results for observer

	Symbol	Calculated	Target	Check
Observer 1 Position: -60.000 m, 3.350 m, 1.500 m	L _{av}	1.48 cd/m ²	≥ 1.00 cd/m ²	✓
	U _o	0.64	≥ 0.40	✓
	U _l	0.60	≥ 0.60	✓
	TI	6 %	≤ 15 %	✓

(1) Informative, not part of the valuation

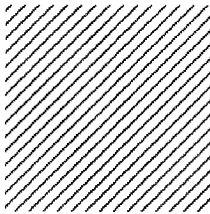


ΟΔΟΣ ΠΛΑΣΤΗΡΑ

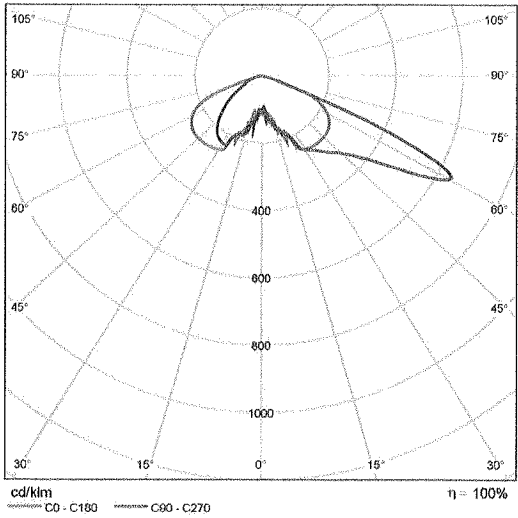
ΑΝΑΠΛΑΣΗ ΠΕΡΙΟΧΗΣ ΣΤΗ ΝΑΥΠΑΚΤΟ

Product data sheet

CARIBONI GROUP_FIVEP AGATHOS UP R2 700mA LT-06 4K



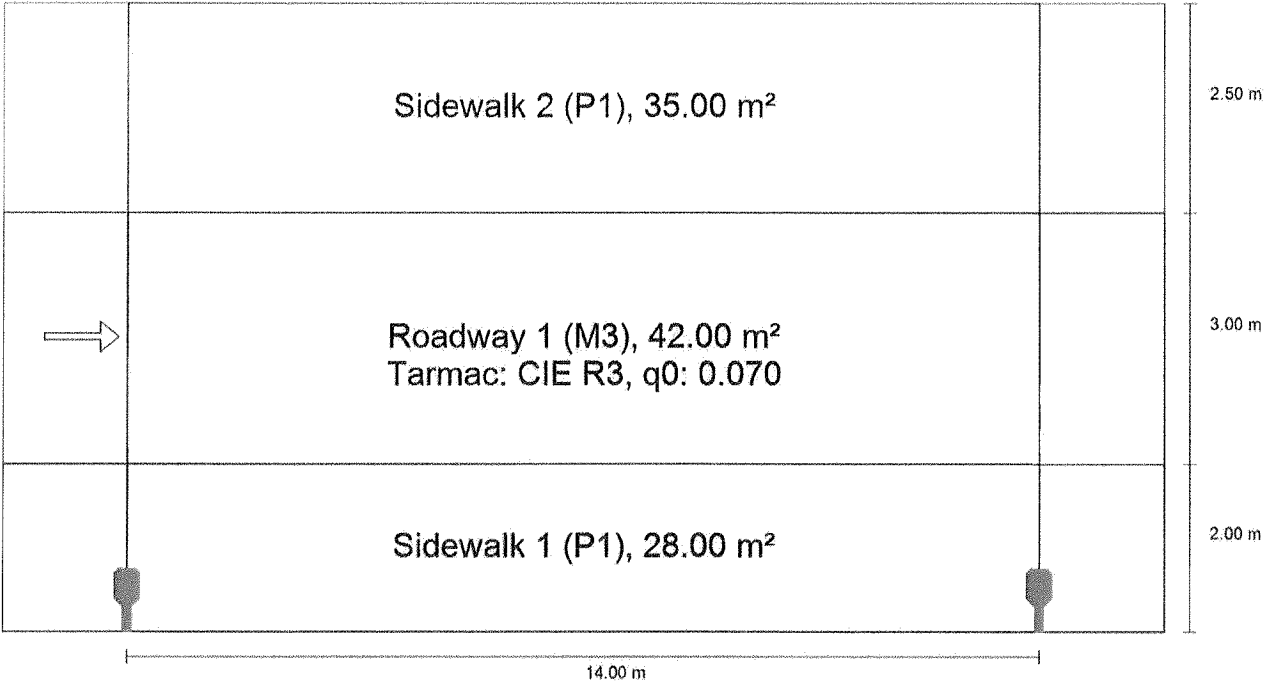
Article No.	01AG1C40037CHM3_700
P	53.0 W
Φ _{Lamp}	5870 lm
Φ _{Luminaire}	5870 lm
η	100.00 %
Luminous efficacy	110.8 lm/W
CCT	4000 K
CRI	70



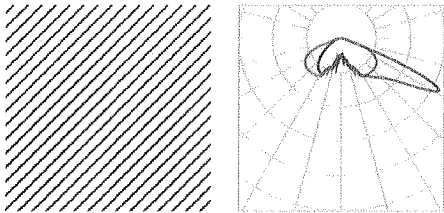
Polar LDC

ΟΔΟΣ ΠΛΑΣΤΗΡΑ · Alternative 5

Summary (according to EN 13201:2015)



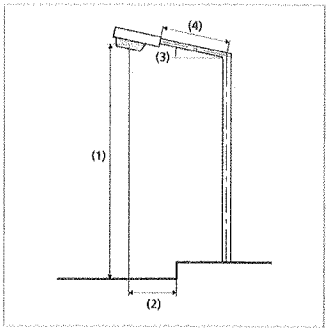
ΟΔΟΣ ΠΛΑΣΤΗΡΑ · Alternative 5
Summary (according to EN 13201:2015)



Manufacturer	CARIBONI GROUP_FIVEP	P	53.0 W
Article No.	01AG1C40037CHM3_700	Φ _{Lamp}	5870 lm
Article name	AGATHOS UP R2 700mA LT-06 4K	Φ _{Luminaire}	5870 lm
Fitting	1x R2 53W700mA 4000K	η	100.00 %

AGATHOS UP R2 700mA LT-06 4K (single side bottom)

Pole distance	14.000 m
(1) Light spot height	3.500 m
(2) Light point overhang	-1.500 m
(3) Boom inclination	0.0°
(4) Boom length	0.500 m
Annual operating hours	4000 h: 100.0 %, 53.0 W
Consumption	3763.0 W/km
ULR / ULOR	0.00 / 0.00
Max. luminous intensities	≥ 70°: 294 cd/klm
Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	≥ 80°: 11.1 cd/klm ≥ 90°: 0.00 cd/klm
Luminous intensity class	G*6
The luminous intensity values in [cd/klm] for calculation of the luminous intensity class refer to the luminaire luminous flux according to EN 13201:2015.	



ΟΔΟΣ ΠΛΑΣΤΗΡΑ · Alternative 5
Summary (according to EN 13201:2015)

Glare index class D.6

Results for valuation fields

	Symbol	Calculated	Target	Check
Πεζοδρόμιο 2 (P1)	E _{av}	22.21 lx	[15.00 - 22.50] lx	✓
	E _{min}	7.44 lx	≥ 3.00 lx	✓
Οδόστρωμα 1 (M3)	L _{av}	1.52 cd/m ²	≥ 1.00 cd/m ²	✓
	U _o	0.60	≥ 0.40	✓
	U _l	0.64	≥ 0.60	✓
	TI	5 %	≤ 15 %	✓
	R _{El} ⁽¹⁾	0.62	-	-
Πεζοδρόμιο 1 (P1)	E _{av}	38.12 lx	[15.00 - 22.50] lx	✗
	E _{min}	13.99 lx	≥ 3.00 lx	✓

(1) Informative, not part of the valuation

A maintenance factor of 0.80 was used for calculating for the installation.

Results for energy efficiency indicators

	Symbol	Calculated	Consumption
ΟΔΟΣ ΠΛΑΣΤΗΡΑ	D _p	0.016 W/lx*m ²	-
AGATHOS UP R2 700mA LT-06 4K (single side bottom)	D _e	2.0 kWh/m ² yr	212.0 kWh/yr

24/03/2024
ΙΩΑΝΝΑ ΡΑΠΤΗ
Ηλ/γος/Μηχανικός Τ.Ε.

Ο Δρ/γος
Τ. Η/μ
ΠΑΥΛΟΣ ΑΓΓΕΛΟΠΟΥΛΟΣ
Μηχανολόγος Μηχανικός Π.Ε.Υ.Ε.

Ο Δ/ΜΗΤΡ ΠΑΡ/ΜΗΤΡ
5' ΠΟΙΟΤΗΤΑΣ 2012
14
ΒΛΑΧΑΚΗΣ ΓΕΩΡΓΙΟΣ
ΗΛ/ΓΟΣ ΜΗΧ/ΚΟΣ ΤΕ