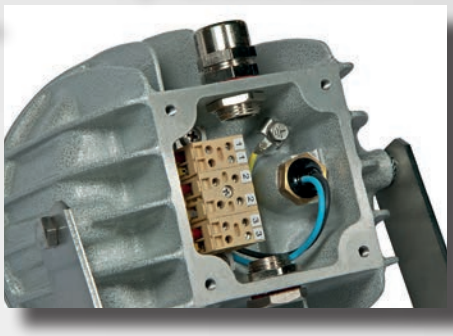
EVL-...-40

- Zone 1, 2, 21, 22
- Replaces traditional discharge lamps more than 400W
- Saves in energy, maintenance and installation costs
- Suitable for GAS category IIC
- IK11



Ex e terminal housing for a quick connection



EVL series LED floodlights

The LED EVL-...-40 series floodlights combines a light and compact design with great versatility, ease of installation and high lighting performance thanks to high intensity and efficiency LED plates which may be combined along with lens available with light beam with different shades.
The EVL-...-40 series consists of four sizes that can replace traditional floodlights with discharge lamps of low and medium power.
The design of the finned body, made of aluminium alloy, acts as a heat dissipater for the LED plate, allowing a fast and effective dispersion of heat generated by the normal operation of the LEDs. Furthermore, the air particles around the floodlight do not ionize, an intrinsic characteristic of LED technology that limits the attraction of dust and insects thanks to the absence of UV emission. EVL-...-40 series floodlights can be powered through an electric cable and a simple 'Ex e' cable gland (no barrier). Moreover, an opposed plugged hole permits the through wiring connection.

Application sectors:



Oil refineries | Chemical and petrochemical plants | Anti light pollution | Offshore plants | Onshore plants | Perimeter lighting | Oil loading/ unloading jettie | 100% Cortem product

CERTIFICATION DATA

Classification:	Group II	Category 2GD		
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)		
Marking:	CE 0722 Ex II 2GD Ex db eb op is IIC T... Gb - Ex tb op is IIIC T...°C Db			
Certification:	ATEX EPT 19 ATEX 3323 X			
	IEC Ex IECEx SEV 19.0043X	For all IEC Ex certification data, download the certificate from www.cortemgroup.com		
Standards:	CENELEC EN 60079-0: 2018, EN 60079-1: 2014, EN 60079-7: 2015, EN 60079-28: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC 60079-0: 2017, IEC 60079-1: 2014, IEC 60079-28: 2015, IEC 60079-31: 2013, IEC 60079-7: 2015 European Directive 2004/108 Electromagnetic compatibility European Directive 2012/19/UE, 2002/96/CE, 2003/108/CE WEEE European Directive 2011/65/UE RoHS			
Ambient temperature:	-40°C(-60°C)* +60°C**			
Degree of protection:	IP66			

* For temperatures to -60°C contact our Sales Office.
** For maximum surface temperature see "EVL series selection chart"

EVL series LED floodlights



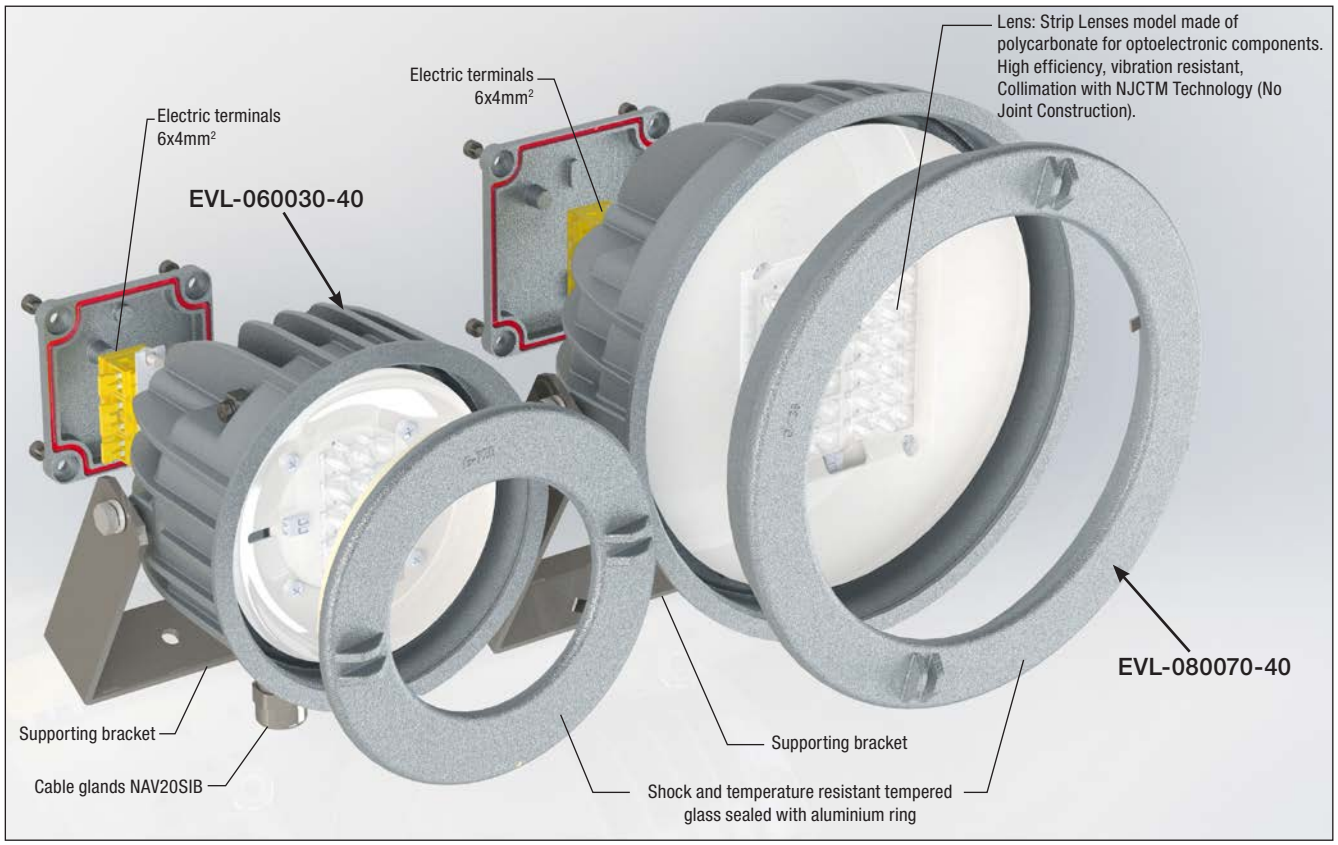
EXEMPT FROM PHOTOBIOLOGICAL RISK (STANDARD IEC / EN 62471)

ORIGINAL PRODUCT

MECHANICAL FEATURES

Body:	Low copper content aluminium alloy fitted with cooling fins for better heat dissipation
Glass face:	Shock and temperature resistant tempered glass sealed with aluminium ring
Gaskets:	Acid, hydrocarbon and high temperature resistant silicone
Supporting bracket:	Stainless steel
Bolts and screws:	Stainless steel
Entries:	2 x ISO M20 entries. Fixture kit with PLG1IB plug and NAV20SIB cable gland
Coating:	Polyester coating Ral 7035 (Light grey)
Corrosion Resistance:	The STANDARD of the aluminium alloy used by Cortem has passed the tests required by standards EN60068-2-30 (hot/humid cycles) and EN60068-2-11 (salt mist tests)

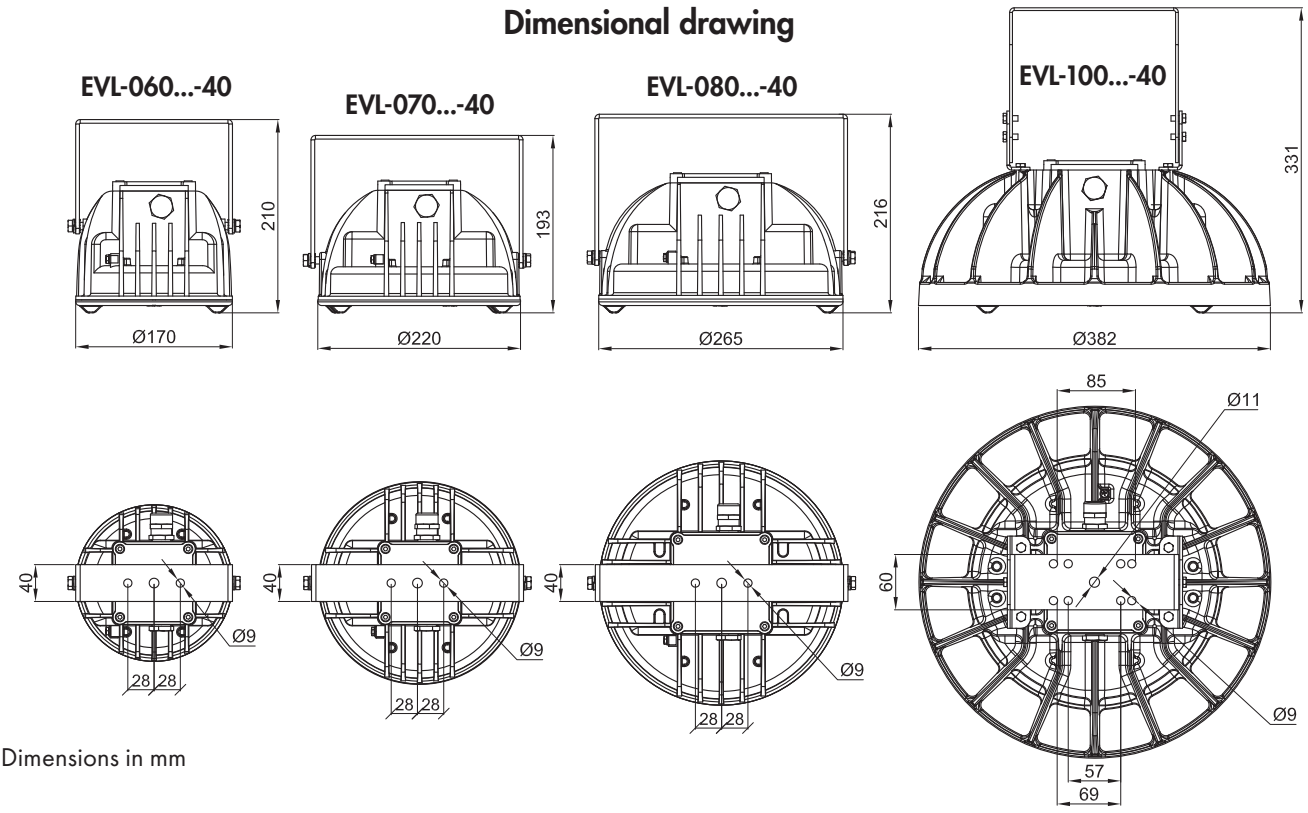
EXPLODED DIAGRAM OF EVL-...-40 FLOODLIGHTS



EVL-...-40 series selection chart

Code	Maximum permitted power value	Class / Max surface temp. °C			Lumen	Maximum light intensity	Overall efficiency	Weight kg	mm
		TA=+40°C	TA=+50°C	TA=+60°C					
EVL-060040-40	40 W	T6 / 85°C	T5 / 100°C	T5 / 100°C	4167 lm	5816 cd	104 lm/W	3,5	215x205x170
EVL-060050-40	50 W	T5 / 100°C	N/A	N/A	4936 lm	6889 cd	98 lm/W	3,5	215x205x170
EVL-070050-40	50 W	T5 / 100°C	T5 / 100°C	T4 / 135°C	4936 lm	6889 cd	98 lm/W	5,2	250x235x165
EVL-070060-40	60 W	T5 / 100°C	T5 / 100°C	T4 / 135°C	6997 lm	14484 cd	115 lm/W	5,2	250x235x165
EVL-070070-40	70 W	T5 / 100°C	N/A	N/A	7572 lm	15674 cd	106 lm/W	5,2	250x235x165
EVL-070080-40	80 W	T5 / 100°C	N/A	N/A	7946 lm	16449 cd	100 lm/W	5,2	250x235x165
EVL-080080-40	80 W	T5 / 100°C	T5 / 100°C	T4 / 135°C	10513 lm	14673 cd	126 lm/W	7,2	290x290x170
EVL-080090-40	90 W	T4 / 135°C	T4 / 135°C	T4 / 135°C	11368 lm	15866 cd	125 lm/W	7,2	290x290x170
EVL-080100-40	100 W	T4 / 135°C	N/A	N/A	12141 lm	16946 cd	121 lm/W	7,2	290x290x170
EVL-080120-40	120 W	T4 / 135°C	N/A	N/A	13955 lm	19477 cd	117 lm/W	7,2	290x290x170
EVL-100140-40	140 W	T4 / 135°C	T4 / 135°C	T4 / 135°C	16907 lm	23598 cd	118 lm/W	11,2	385x385x250
EVL-100160-40	160 W	T4 / 135°C	T4 / 135°C	T4 / 135°C	19628 lm	40632 cd	119 lm/W	11,2	385x385x250
EVL-100180-40	180 W	T4 / 135°C	T4 / 135°C	T4 / 135°C	20688 lm	42825 cd	114 lm/W	11,2	385x385x250
EVL-100200-40	200 W	T4 / 135°C	N/A	N/A	22656 lm	46900 cd	111 lm/W	11,2	385x385x250
EVL-100220-40	220 W	T4 / 135°C	N/A	N/A	23646 lm	48950 cd	107 lm/W	11,2	385x385x250

Dimensional drawing



Dimensions in mm

EVL series LED floodlights

Electrical features	EVL-060...	EVL-070...	EVL-080...	EVL-100...
Power supply:	120-277 Vac	120-277 Vac	120-277 Vac	100-277 Vac
Rated frequency:	50-60 Hz ±5%	50-60 Hz ±5%	50-60 Hz ±5%	50-60 Hz ±5%
Power consumption*:	**..040** 40 W	**..050** 50 W	**..080** 80 W	**..140** 140 W
	..050 50 W	**..060** 60 W	**..090** 90 W	**..160** 160 W
	-	**..070** 70 W	**..100** 100 W	**..180** 180 W
	-	**..080** 80 W	**..120** 120 W	**..200** 200 W
	-	-	-	**..220** 220 W
Connection:	Direct connection to terminal board L, N, Pe. Section 4mm^2, suitable for loop-in/loop-out			
Power factor:	>0,93	>0,95	>0,97	>0,96
Rated current:	**..030** 140 mA	**..050** 230 mA	**..080** 350 mA	**..140** 640 mA
	..040 180 mA	**..060** 270 mA	**..090** 400 mA	**..160** 710 mA
	..050 220 mA	**..070** 310 mA	**..100** 440 mA	**..180** 800 mA
	-	**..080** 360 mA	**..120** 530 mA	**..200** 890 mA
	-	-	-	**..220** 970 mA
EMC (electromagnetic compatibility):	EN 55015, EN 61547, IEC 61000-3-2, IEC 61000-3-3, IEC 61000-4-...			
THD (total harmonic distortion):	<10%			
Over-voltage protection:	4 kV	4 kV	4 kV	4 kV
Driver performances:	Over-Voltage protection, Over-Current protection, Short-Circuit protection			
Dimmer (on request):	(0-10 V) or PWM or resistor	(0-10 V) or PWM or resistor	(0-10 V) or PWM or resistor	(0-10 V) or PWM or resistor
Photometric features				
LED Multichip:	High power LED	High power LED	High power LED	High power LED
Viewing angle:	40°	40°	40°	40°
Colour temperature:	5700 K 5000 K (..060)	5700 K 5000 K (..060)	5000 K 5000 K (..060)	5700 K 5000 K (..060)
CRI:	>70	>70	>70	>70
Instant Restrike:	YES	YES	YES	YES
L90:	> 145000 h	> 145000 h	> 145000 h	> 145000 h

* *Test at 230Vac*

ACCESSORIES AVAILABLE / SPECIAL REQUESTS

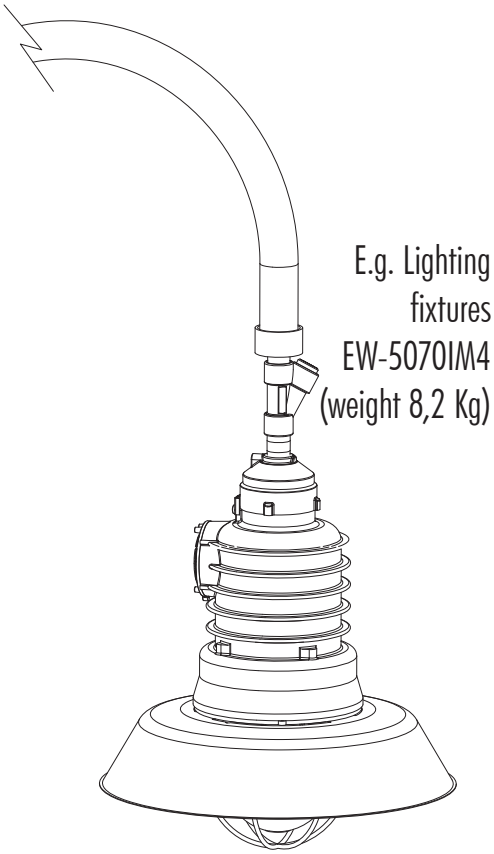
CRI values higher
Dimmer
Different colour temperature
U bolt for pole mounting
Eyebolt
Cover with direct connection for pole
Stanchion mounting with fixed orientation at 25°
Additional NAV20SIB cable gland for unarmoured cable
Version with stainless steel guard for additional glass protection

ILLUSTRATION	DESCRIPTION	MODEL	FEATURES	CODE	KEY
	Pendant eyebolt	internal Ø20	Material: galvanised steel	**G0F-8**	ACCESSORY SPARE PART
	U bolt for pole mounting	Pole Ø1 1/2"	Material: stainless steel AISI 316L	**UBD5S**	ACCESSORY SPARE PART
	Cover with direct connection for pole	EVL-060...-40-T EVL-070...-40-T	Material: aluminium alloy with threaded hole 3/4" NPT (Different threads on request)	**B-498**	SPARE PART
		EVL-080...-40-T EVL-100...-40-T		**B-499**	
	Supporting bracket	EVL-060...-40	Material: stainless steel AISI 316L	**G-764**	SPARE PART
		EVL-070...-40		**G-765**	
		EVL-080...-40		**G-766**	
		EVL-100...-40		**G-827**	
	Power supply	EVL-060030-40	120-277 Vac	**LEXD-50C/785**	SPARE PART
		EVL-060040-40		**LEXD-50C/1000**	
		EVL-060050-40		**LEXD-50C/1200**	
		EVL-070050-40	120-277 Vac	**LEXD-50C/1200**	
		EVL-070060-40		**LEXD-100C/700**	
		EVL-070070-40		**LEXD-100C/850**	
		EVL-070080-40		**LEXD-100C/1000**	
		EVL-080080-40	120-277 Vac	**LEXD-150C/500**	
		EVL-080090-40		**LEXD-150C/550**	
		EVL-080100-40		**LEXD-150C/600**	
		EVL-080120-40		**LEXD-150C/700**	
		EVL-100140-40	100-277 Vac	**LEXD-150C/965**	
		EVL-100160-40		**LEXD-240C/1490**	
		EVL-100180-40		**LEXD-240C/1620**	
		EVL-100200-40		**LEXD-240C/1880**	
		EVL-100220-40		**LEXD-240C/1950**	
	Cable gland	ISO M20	std. range cable 6,3÷11,6	**NAV20SIB**	SPARE PART
	Front ring with glass	EVL-060...-40	Aluminium ring Borosilicate glass face	**G60-0623**	SPARE PART
		EVL-070...-40		**G70-0623**	
		EVL-080...-40		**G80-0623**	
		EVL-100...-40		**G80-0623**	

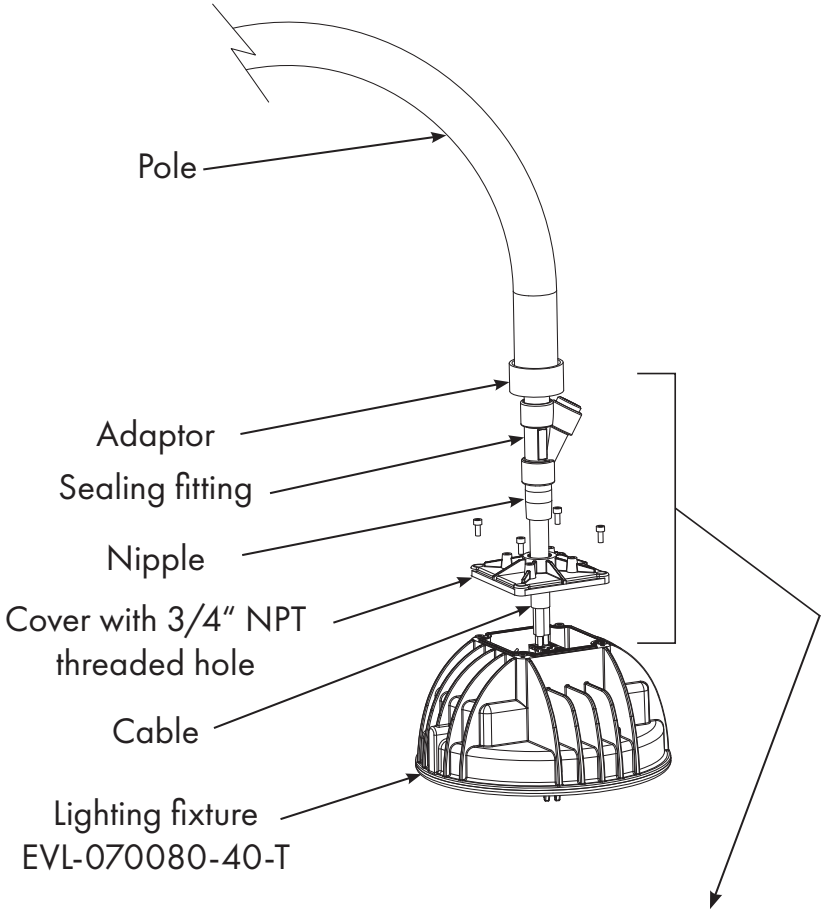
REPLACEMENT OF OLD LIGHTING FIXTURES POLE-MOUNTED

Using the lighting fixture with direct connection for pole mounting EVL-...-T series, it is possible to replace the old lighting fixtures with 3/4 "NPT or ISO 7/1 threaded entries.

Typical pole-installation of an EW series lighting fixture with a resin sealing fitting.



E.g. Lighting fixtures EVL-070080-40-T (weight 5,3 Kg)



3/4" NPT threaded entry



Example of coding of lighting fixtures with direct pole connection EVL-070070-40-**T**

Note: it is necessary to preserve, during the installation, the IP protection degree of the terminal box using a sealing fitting.

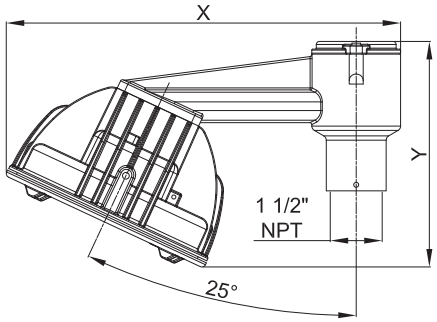
Stanchion mounting with fixed orientation at 25°





Direct connection to terminal board L, N, Pe.
Section 4mm², suitable for loop-in/loop-out

Code	X	Y	Peso kg	mm
EVL-060...-IX	372	215	4,5	372x170x215
EVL-070...-IX	395	226	6,0	372x327x226
EVL-080...-IX	419	242	8,2	351x351x242
EVL-100...-IX	478	280	12,0	412x412x280



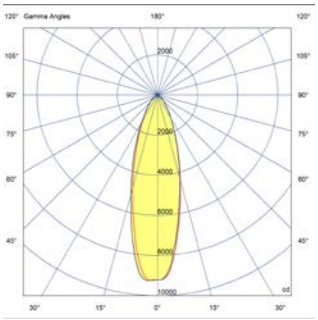


TRANSPORTABLE VERSION

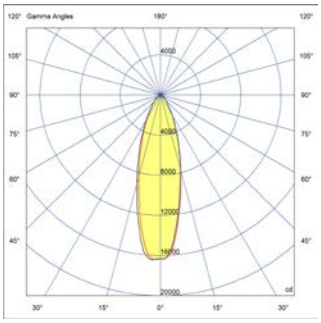
Transportable version EVL-...-40-PS complete with cable 8 meters long, sockets model PYN216V and plug model SPYN216V.
To order the transportable lighting fixture without socket and plug, omit the S in the code: **EVL-...-40-P.**

Weight (without socket):
EVL-060...-40-P 7,5 Kg
EVL-070...-40-P 9,2 Kg
EVL-080...-40-P 11,2 Kg
EVL-100...-40-P 15,2 Kg

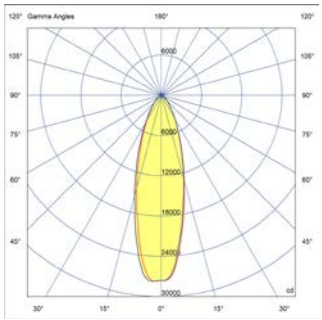
Photometric diagrams



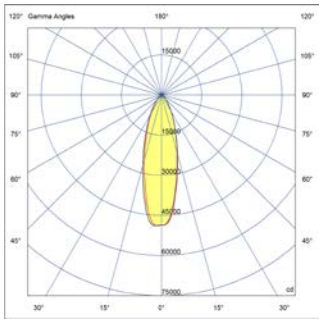
EVL-060040-40
Luminous flux: 3851 lm



EVL-070050-40
Luminous flux: 7946 lm



EVL-080080-40
Luminous flux: 10513 lm



EVL-100220-40
Luminous flux: 23646 lm

On Cortem Group web site you can download .LDT and .IES lighting data files for the design and simulation of lighting levels in 2D and 3D, rendering and ray tracing.

= plane 90270
= plane 0180