

## FR140 KOPA FIXED ROUND IP65 REFLECTOR

MULTI WATT LED (12-35W)

### General

12/16/22/35W options  
 IP65 rated from below  
 CRI >80 (3000k, 4000k)  
 3 SDCM colour consistency  
 L70 (9K), B10 > 50,000 hours (tested at max.wattage)  
 Reflector beam options: 15/25/38/60 degree  
 Seismic restraint mounting point

### Driver Details

Non-dimmable:  
 12W = K12W-350 / 16W = K20W-500 /  
 22W = K40W-700 / 35W = K40W-1050  
 Trailing edge dimmable (LED dimmer):  
 12W = K12W-350D / 16W = K18W-500D /  
 22W = K36W-700D / 35W = 36W-1050D  
 (100 / 180 / 260mA drivers available)

### Material & Construction

Solid aluminium with unique copper core heatsink technology  
 Silicon seals  
 10 year paint protection



Machined from  
Solid Aluminium

### Options

CRI >95, COI, Single colours  
 Dimmable driver 1-10V, DALI, DSI, PUSH DIM, ZIGBEE  
 Bluetooth, 12/24V DC  
 20° wall washer lens (WW)  
 180° linear spreader lens (LS)  
 IK10 polycarbonate UV stabilized lens (PC)

### Size & Weight

Dimension: 140mm round, 115mm high  
 Max. Cut-out: 130mm round  
 Weight: 800g

### Specifications

<b>MODEL</b>	<b>K1235</b>			
<b>TRIM</b>	<b>FR140-Fixed Round</b>			
<b>OPTICS</b>	<b>15-15° Reflector</b>	<b>25-25° Reflector</b>	<b>38-38° Reflector</b>	<b>60-60° Reflector</b>
<b>LENS</b>	<b>CG-Clear Glass</b>			
<b>C.C.T</b>	<b>3K - Warm White</b>	<b>4K - Neutral White</b>	<b>5.5K - Daylight</b>	
<b>WATTAGE</b>	<b>12W - 350mA</b>	<b>16W - 500mA</b>	<b>22W - 700mA</b>	<b>35W - 1050mA</b>
<b>COLOUR</b>	<b>WH-White</b>	<b>SL-Silver</b>		<b>BL-Black</b>
<b>IP RATING</b>	<b>IP65</b>			

**MODEL** | **TRIM** | **OPTICS** | **LENS** | **COLOUR TEMP** | **WATTAGE** | **COLOUR** | **IP**

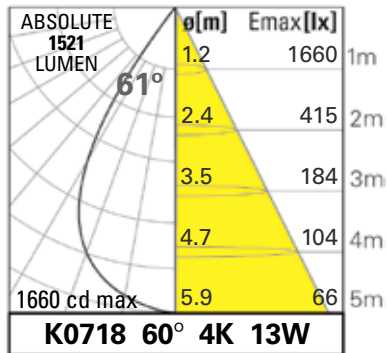


## PHOTOMETRIC DATA

All photometric data is solely based on ABSOLUTE lumens and is provided in the top left corner of each cone diagram table.

LM-80/TM-21/LM-79 Testing is carried out by NVLAP international certified laboratory.

IES files are available to download from [www.kopaglobal.com](http://www.kopaglobal.com) (no registration required)



Absolute lumen = lumen value produced by the luminaire running at 25°C ambient with heat sink temperature at equilibrium.

**Cd max** = Peak candela reading taken at an angle of 0° degrees

**ø[m]** = Beam diameter based on value of 50% of cd max

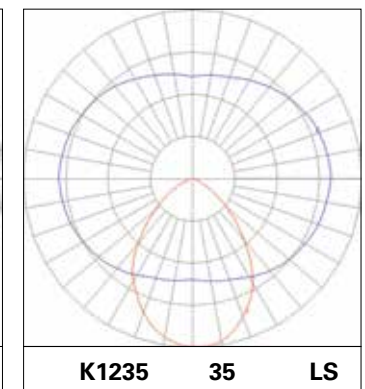
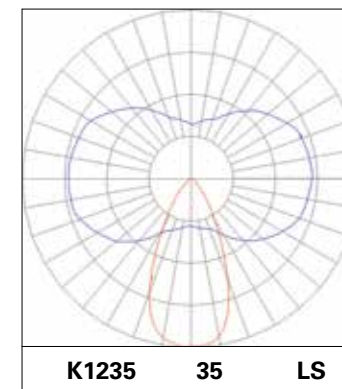
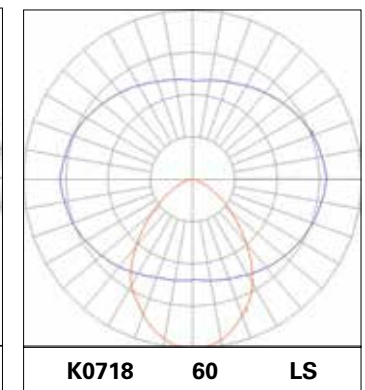
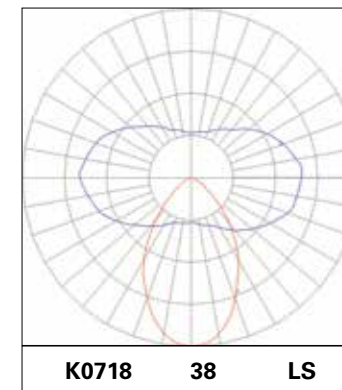
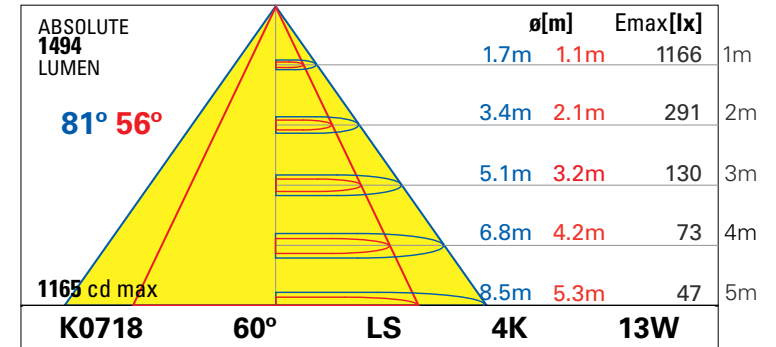
**Emax[lx]** = Lux level at centre of beam diameter

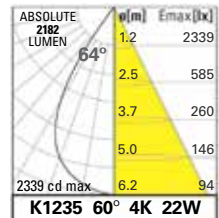
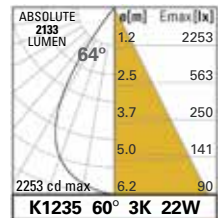
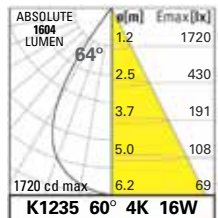
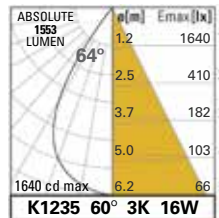
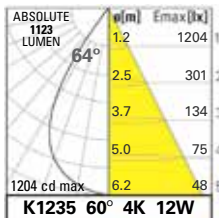
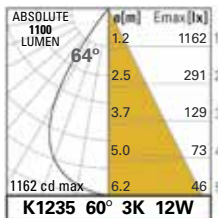
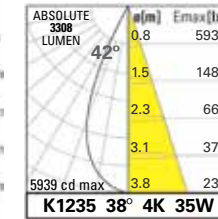
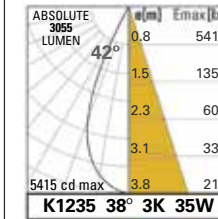
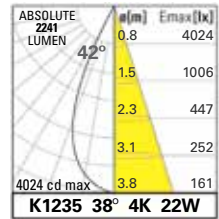
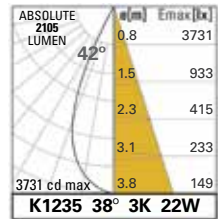
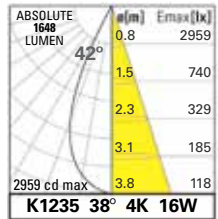
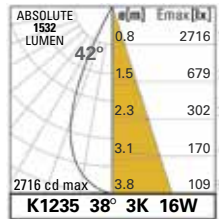
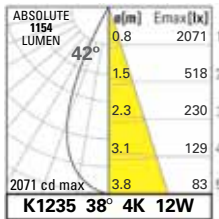
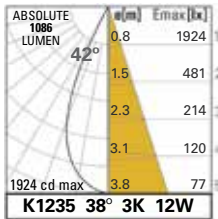
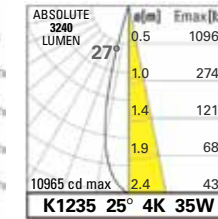
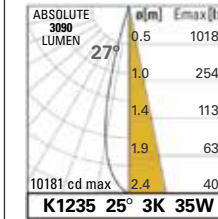
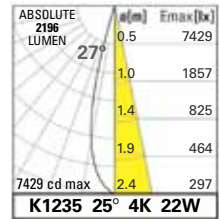
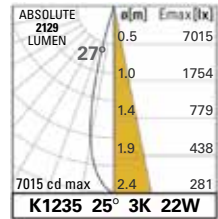
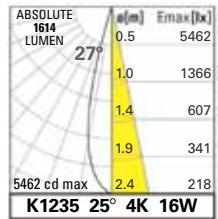
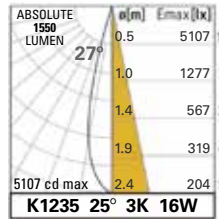
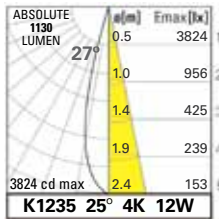
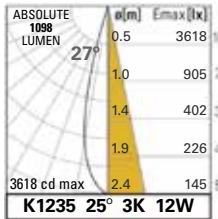
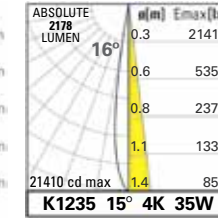
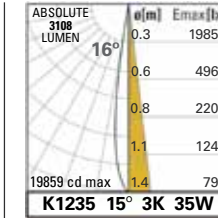
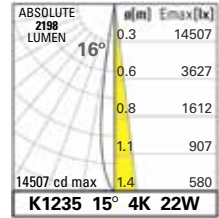
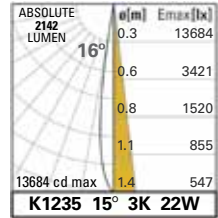
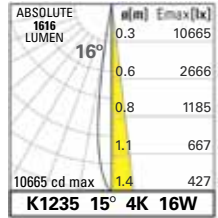
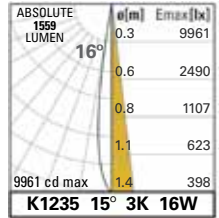
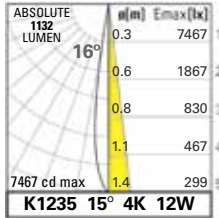
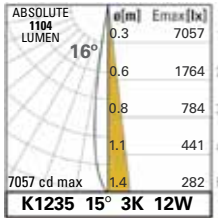
**m** = Height of light above surface to be lit

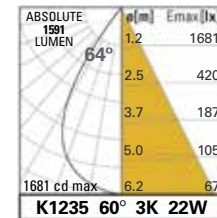
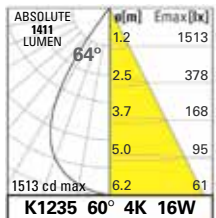
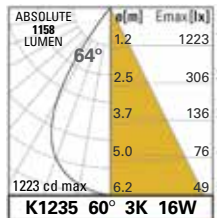
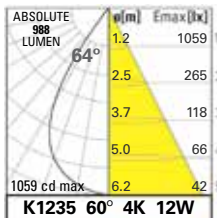
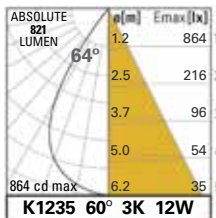
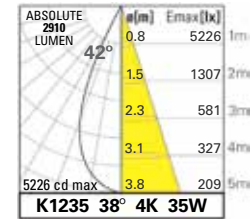
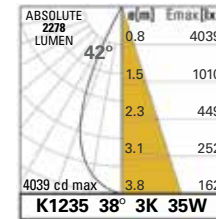
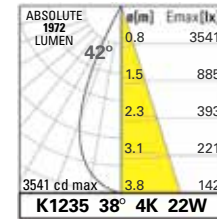
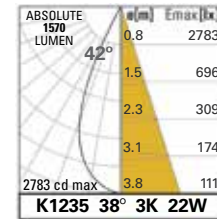
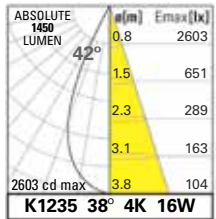
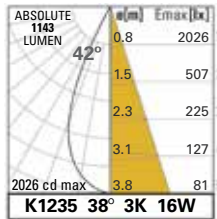
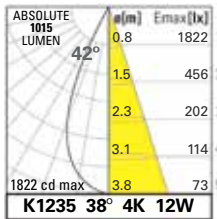
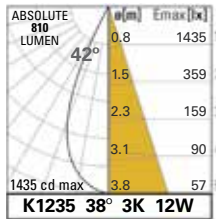
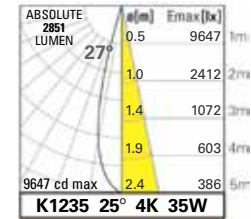
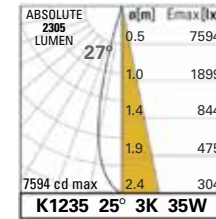
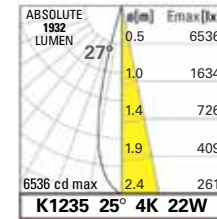
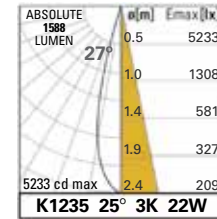
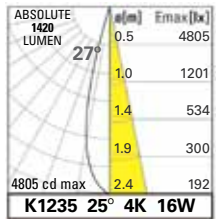
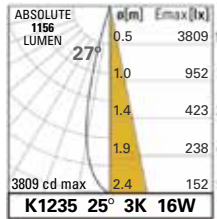
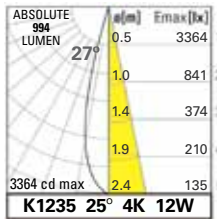
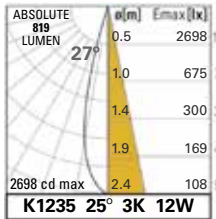
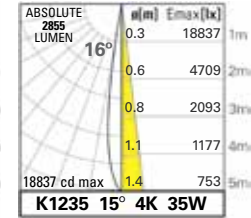
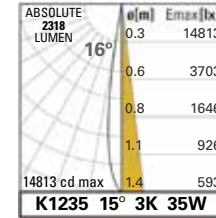
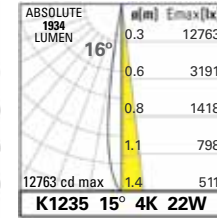
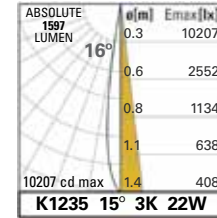
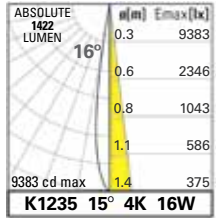
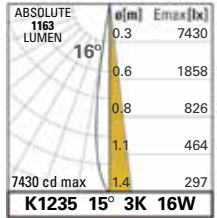
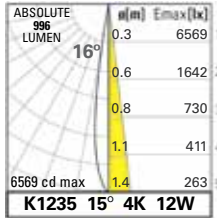
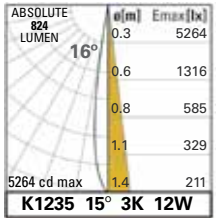
Tip: For calculation of lux level (Emax) use this simple formula:

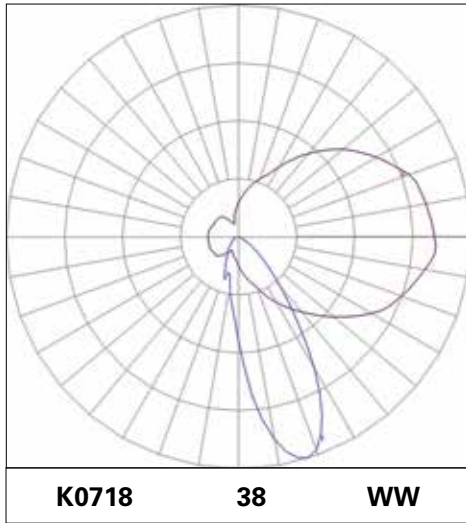
$$\frac{\text{cdmax}}{\text{m}^2} = \text{Emax [lx]}$$

Example: 2.7m height with lux level at floor required (K0718 60 4K 13W)

$$\frac{1160\text{cd}}{2.7 \times 2.7\text{m}} = 228 \text{ lux}$$






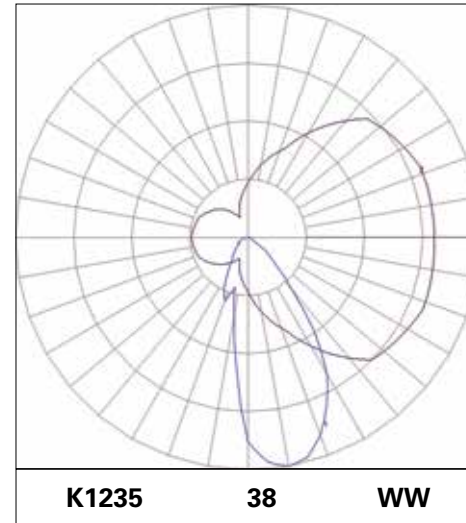


K0718 38 WW 3K CRI80	
ABSOLUTE LUMENS	
7W	766 lm
10W	1089 lm
13W	1432 lm
18W	1975 lm

K0718 38 WW 3K CRI95	
ABSOLUTE LUMENS	
7W	586 lm
10W	833 lm
13W	1096 lm
18W	1511 lm

K0718 38 WW 4K CRI80	
ABSOLUTE LUMENS	
7W	795 lm
10W	1129 lm
13W	1492 lm
18W	2089 lm

K0718 38 WW 4K CRI95	
ABSOLUTE LUMENS	
7W	637 lm
10W	904 lm
13W	1195 lm
18W	1673 lm

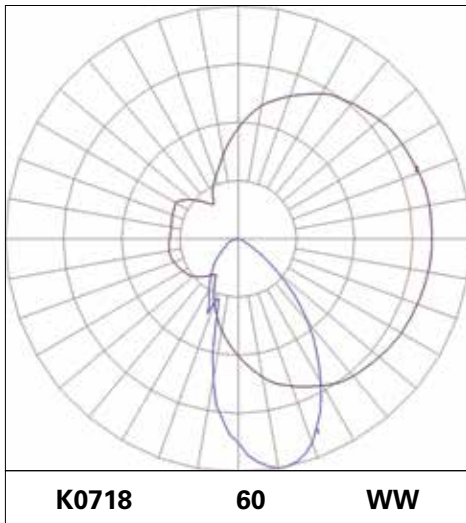


K1235 38 WW 3K CRI80	
ABSOLUTE LUMENS	
12W	1046 lm
16W	1477 lm
22W	2029 lm
35W	2945 lm

K1235 38 WW 3K CRI95	
ABSOLUTE LUMENS	
12W	781 lm
16W	1102 lm
22W	1514 lm
35W	2197 lm

K1235 38 WW 4K CRI80	
ABSOLUTE LUMENS	
12W	1098 lm
16W	1568 lm
22W	2133 lm
35W	3148 lm

K1235 38 WW 4K CRI95	
ABSOLUTE LUMENS	
12W	966 lm
16W	1379 lm
22W	1876 lm
35W	2769 lm

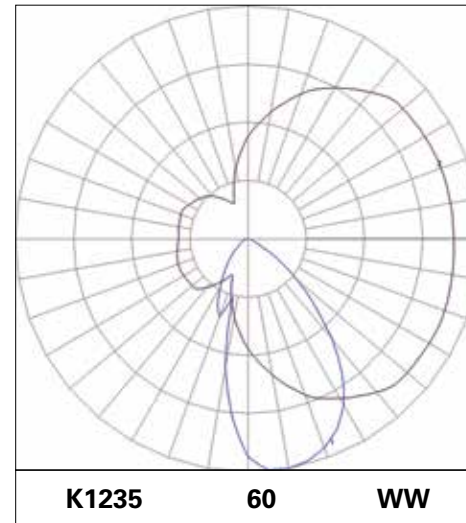


K0718 60 WW 3K CRI80	
ABSOLUTE LUMENS	
7W	732 lm
10W	1039 lm
13W	1431 lm
18W	1923 lm

K0718 60 WW 3K CRI95	
ABSOLUTE LUMENS	
7W	560 lm
10W	795 lm
13W	1095 lm
18W	1471 lm

K0718 60 WW 4K CRI80	
ABSOLUTE LUMENS	
7W	763 lm
10W	1083 lm
13W	1491 lm
18W	2003 lm

K0718 60 WW 4K CRI95	
ABSOLUTE LUMENS	
7W	611 lm
10W	867 lm
13W	1194 lm
18W	1604 lm



K1235 60 WW 3K CRI80	
ABSOLUTE LUMENS	
12W	1095 lm
16W	1546 lm
22W	2123 lm
35W	3081 lm

K1235 60 WW 3K CRI95	
ABSOLUTE LUMENS	
12W	817 lm
16W	1153 lm
22W	1584 lm
35W	2298 lm

K1235 60 WW 4K CRI80	
ABSOLUTE LUMENS	
12W	1120 lm
16W	1599 lm
22W	2175 lm
35W	3211 lm

K1235 60 WW 4K CRI95	
ABSOLUTE LUMENS	
12W	985 lm
16W	1407 lm
22W	1914 lm
35W	2825 lm