

Last information update: May 2018

**spotlight- warm white - 46° optic****Product code**  
P047**Technical description**

Adjustable spotlight with adapter for installation on a mains voltage track. Die-cast aluminium optical assembly and brackets, the back of the product is slightly rounded and made of a thermoplastic material. Spotlight double adjustability allows a 360° rotation about the vertical axis and 90° tilting relative to the horizontal plane. Mechanical aiming locks both for rotation about the vertical axis and tilting relative to the horizontal plane. Equipped with electronic ballast. Luminaire complete with C.O.B. technology LED unit in warm white colour 3000K. Option of installing a flat accessory that can be either an elliptical distribution refractor, a soft lens filter or a louver.

**Installation**

on an electrified track or special base

**Dimension (mm)**

Ø116x216

**Colour**

White (01) | Black (04) | White/Chrome (E4)

**Weight (Kg)**

1.4

**Mounting**

three circuit track

**Wiring**

product complete with electronic components

Complies with EN60598-1 and pertinent regulations

IP20 IP40 for optical assembly

**Product configuration: P047****Product characteristics**

Total lighting output [Lm]: 2397  
Total power [W]: 23.2  
Luminous efficacy [Lm/W]: 103.2  
Life Time: > 50,000h - L80 - B10 (Ta 25°C)

Total luminous flux at or above an angle of 90° [Lm]: 0  
Emergency luminous flux [Lm]: /  
Voltage [V]: -  
Number of optical assemblies: 1

**Optical assembly Characteristics Type 1**

Light Output Ratio (L.O.R.) [%]: 80  
Lamp code: LED  
ZVEI Code: LED  
Nominal power [W]: 20  
Nominal luminous [Lm]: 3000  
Lamp maximum intensity [cd]: /  
Beam angle [°]: 42°

Number of lamps for optical assembly: 1  
Socket: /  
Ballast losses [W]: 3.2  
Colour temperature [K]: 3000  
CRI: 80  
Wavelength [Nm]: /  
MacAdam Step: 2

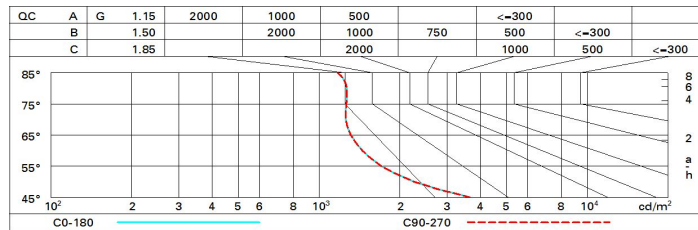
**Polar**

	CIE		Lux			
	nL	UGR	h	d	Em	Emax
I <sub>max</sub> =5094 cd 90° 180° 90° 4500 0° α=42°	0.80	<10<10	2	1.5	1025	1264
	0.80A+0.00T		4	3.1	256	316
	F*1=991		6	4.6	114	140
	F*1+F*2=998		8	6.1	64	79
	F*1+F*2+F*3=999					
	CIBSE					
	LG3 L<1500 cd/m <sup>2</sup> at 65°					

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	72	68	66	63	67	65	65	62	78
1.0	75	72	69	67	71	69	68	66	82
1.5	79	76	74	73	75	74	73	70	88
2.0	81	79	78	77	78	77	76	74	93
2.5	83	81	80	79	80	79	78	76	95
3.0	84	83	82	81	82	81	80	78	97
4.0	85	84	84	83	83	82	81	79	99
5.0	85	85	84	84	84	83	82	80	100

Luminance curve limit



UGR diagram

Corrected UGR values (at 3000 lm bare lamp luminous flux)										
Reflect.:										
ceiling	0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
walls	0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
work pl.	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Room dim										
x										
y										
			viewed					viewed		
			crosswise					endwise		
2H	2H	8.7	9.3	9.0	9.5	9.7	8.7	9.3	9.0	9.5
	3H	8.7	9.2	9.0	9.5	9.7	8.6	9.1	8.9	9.4
	4H	8.7	9.1	9.0	9.4	9.7	8.5	9.0	8.9	9.3
	6H	8.7	9.1	9.0	9.4	9.7	8.5	8.9	8.8	9.2
	8H	8.7	9.1	9.0	9.4	9.7	8.4	8.9	8.8	9.2
	12H	8.6	9.1	9.0	9.4	9.7	8.4	8.8	8.8	9.2
4H	2H	8.5	9.0	8.9	9.3	9.6	8.7	9.1	9.0	9.4
	3H	8.5	9.0	8.9	9.3	9.6	8.6	9.0	9.0	9.4
	4H	8.6	8.9	9.0	9.3	9.7	8.6	8.9	9.0	9.3
	6H	8.6	8.9	9.0	9.3	9.7	8.5	8.8	8.9	9.2
	8H	8.6	8.9	9.0	9.3	9.8	8.5	8.8	8.9	9.2
	12H	8.6	8.9	9.1	9.3	9.8	8.5	8.7	8.9	9.1
8H	4H	8.5	8.8	8.9	9.2	9.6	8.6	8.9	9.0	9.3
	6H	8.6	8.8	9.0	9.3	9.7	8.6	8.8	9.1	9.3
	8H	8.6	8.8	9.1	9.3	9.8	8.6	8.8	9.1	9.3
	12H	8.6	8.8	9.1	9.3	9.8	8.6	8.8	9.1	9.2
12H	4H	8.5	8.7	8.9	9.1	9.6	8.6	8.9	9.1	9.3
	6H	8.5	8.7	9.0	9.2	9.7	8.6	8.8	9.1	9.3
	8H	8.6	8.8	9.1	9.2	9.8	8.6	8.8	9.1	9.3
Variations with the observer position at spacing:										
S =	1.0H		5.3	/	-4.9			5.3	/	-4.9
	1.5H		8.0	/	-5.3			8.0	/	-5.3
	2.0H		10.0	/	-5.5			10.0	/	-5.5