4ward

Last information update: June 2023

Product configuration: P047
P047: spotlight- warm white - 46° optic

Product code
P047: spotlight- warm white - 46° optic **Attention! Code no longer in production**

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 eliptical distribution refractor, a soft lens filter or a louver.

Installation
on an electrified track or special base

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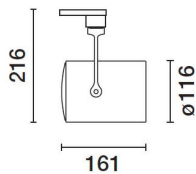White (01) | Black (04) | White / Chrome (E4)

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   CE

Technical data

lm system:	2397	CRI:	80
W system:	23.2	Colour temperature [K]:	3000
lm source:	3000	MacAdam Step:	2
W source:	20	Life Time LED 1:	> 50,000h - L80 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	103.2	Ballast losses [W]:	3.2
		Lamp code:	LED
lm in emergency mode:	-	Number of lamps for optical assembly:	1
Total light flux at or above an angle of 90° [Lm]:	0	ZVEI Code:	LED
Light Output Ratio (L.O.R.) [%]:	80	Number of optical assemblies:	1
Beam angle [°]:	42°		

Polar

Imax=5094 cd

CIE
nL 0.80
99-100-100-100-80
UGR <10-<10
DIN
A.61
UTE
0.80A+0.00T
F"1=991
F"1+F"2=998
F"1+F"2+F"3=999
CIBSE
LG3 L<1500 cd/m² at 65°

α=42°

Lux			
h	d	Em	Emax
2	1.5	1025	1264
4	3.1	256	316
6	4.6	114	140
8	6.1	64	79

216   ø116   161

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

QC	A	G	1.15	2000	1000	500		<=300		
	B		1.50		2000	1000	750	500	<=300	
	C		1.85			2000		1000	500	<=300

	85°												8 6 4
75°												2
65°												a
55°												h
45°	10²	2	3	4	5	6	8	10³	2	3	4	5	6	8	10⁴	cd/m²

C0-180 ———— C90-270 ------------
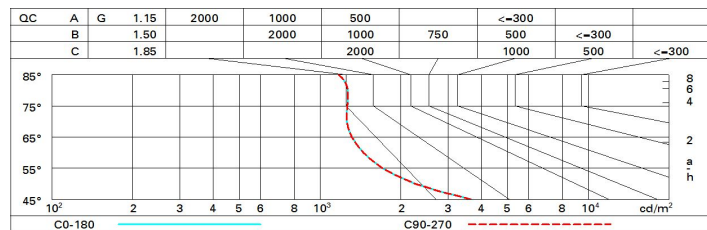
UGR diagram

Corrected UGR values (at 3000 lm bare lamp luminous flux)

Riflect.:											
ceil/cav		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		viewed crosswise					viewed endwise				
x	y										
2H	2H	8.7	9.3	9.0	9.5	9.7	8.7	9.3	9.0	9.5	9.7
	3H	8.7	9.2	9.0	9.5	9.7	8.6	9.1	8.9	9.4	9.7
	4H	8.7	9.1	9.0	9.4	9.7	8.5	9.0	8.9	9.3	9.6
	6H	8.7	9.1	9.0	9.4	9.7	8.5	8.9	8.8	9.2	9.6
	8H	8.7	9.1	9.0	9.4	9.7	8.4	8.9	8.8	9.2	9.5
	12H	8.6	9.1	9.0	9.4	9.7	8.4	8.8	8.8	9.2	9.5
4H	2H	8.5	9.0	8.9	9.3	9.6	8.7	9.1	9.0	9.4	9.7
	3H	8.5	9.0	8.9	9.3	9.6	8.6	9.0	9.0	9.4	9.7
	4H	8.6	8.9	9.0	9.3	9.7	8.6	8.9	9.0	9.3	9.7
	6H	8.6	8.9	9.0	9.3	9.7	8.5	8.8	8.9	9.2	9.7
	8H	8.6	8.9	9.0	9.3	9.8	8.5	8.8	8.9	9.2	9.6
	12H	8.6	8.9	9.1	9.3	9.8	8.5	8.7	8.9	9.1	9.6
8H	4H	8.5	8.8	8.9	9.2	9.6	8.6	8.9	9.0	9.3	9.8
	6H	8.6	8.8	9.0	9.3	9.7	8.6	8.8	9.1	9.3	9.8
	8H	8.6	8.8	9.1	9.3	9.8	8.6	8.8	9.1	9.3	9.8
	12H	8.6	8.8	9.1	9.3	9.8	8.6	8.8	9.1	9.2	9.8
12H	4H	8.5	8.7	8.9	9.1	9.6	8.6	8.9	9.1	9.3	9.8
	6H	8.5	8.7	9.0	9.2	9.7	8.6	8.8	9.1	9.3	9.8
	8H	8.6	8.8	9.1	9.2	9.8	8.6	8.8	9.1	9.3	9.8

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