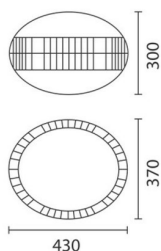
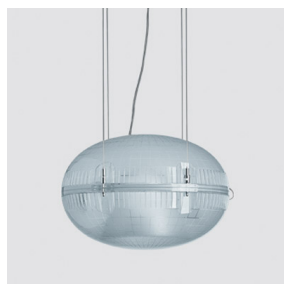


Last information update: June 2018

**up/down emission - warm white - DALI****Product code**

N311

**Technical description**

Luminaire consisting of two polycarbonate shells with a photoengraved surface for optimal light diffusion. The shells are closed with specific supports that the suspension cables (accessories) are connected to. The coupling between the shells is made watertight by a silicone gasket located around the edge and a M24 nickel-plated brass cable gland for the power supply cable outlet. Double reflector in microperforated aluminium for up/down emission complete with microprismatic glass covers. Product with 2 x warm white 3000K colour tone C.o.B. LEDs, one positioned at the top of the plate for up emission (30%) and the other at the bottom for down emission (70%)

**Installation**

Ceiling-mounted with suspension cables to be ordered separately.

**Dimension (mm)**

430x370x300

**Colour**

Nitric (65)

**Weight (Kg)**

5.44

**Mounting**

ceiling surface

**Wiring**

Product complete with DALI components

Complies with EN60598-1 and pertinent regulations

IP66

**Product configuration: N311****Product characteristics**

Total lighting output [Lm]: 4969  
 Total power [W]: 51.8  
 Luminous efficacy [Lm/W]: 95.9  
 Life Time: > 50,000h - L80 - B10 (Ta 25°C)

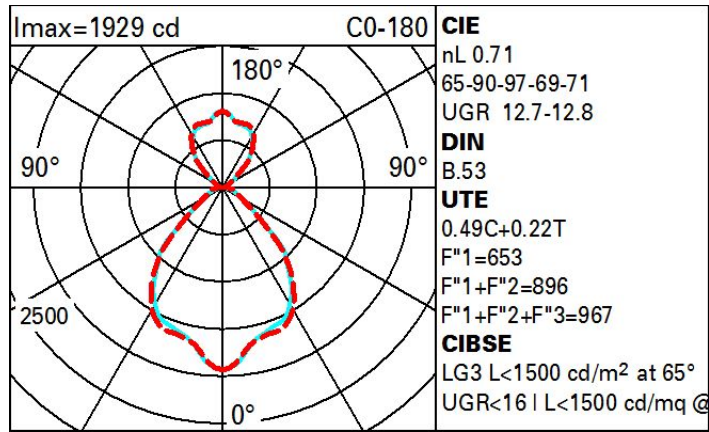
Total luminous flux at or above an angle of 90° [Lm]: 1524  
 Emergency luminous flux [Lm]: /  
 Voltage [V]: -  
 Number of optical assemblies: 1

**Optical assembly Characteristics Type 1**

Light Output Ratio (L.O.R.) [%]: 71  
 Lamp code: LED  
 ZVEI Code: LED  
 Nominal power [W]: 46  
 Nominal luminous [Lm]: 7000  
 Lamp maximum intensity [cd]: /  
 Beam angle [°]: /

Number of lamps for optical assembly: 1  
 Socket: /  
 Ballast losses [W]: 5.8  
 Colour temperature [K]: 3000  
 CRI: 80  
 Wavelength [nm]: /  
 MacAdam Step: 2

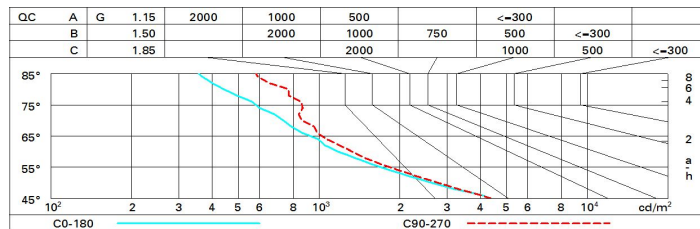
**Polar**



**Utilisation factors**

R	77	75	73	71	55	53	33	00	DRR
K0.8	46	40	36	33	37	33	31	26	52
1.0	50	44	40	37	41	38	35	29	59
1.5	56	51	48	45	47	44	41	35	70
2.0	59	56	53	50	51	49	45	38	77
2.5	61	58	56	54	53	51	47	40	82
3.0	63	60	58	56	55	53	49	42	85
4.0	64	62	60	59	57	56	51	43	88
5.0	65	64	62	61	58	57	52	44	90

**Luminance curve limit**



**UGR diagram**

Corrected UGR values (at 7000 lm bare lamp luminous flux)											
Reflect.:		viewed crosswise					viewed endwise				
ceiling/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	12.0	12.7	12.7	13.4	14.2	12.2	12.9	12.9	13.6	14.4
	3H	12.3	12.9	13.0	13.6	14.5	12.2	12.8	13.0	13.6	14.4
	4H	12.4	12.9	13.1	13.7	14.6	12.2	12.7	12.9	13.5	14.4
	6H	12.4	13.0	13.2	13.7	14.6	12.1	12.6	12.9	13.4	14.3
	8H	12.4	13.0	13.2	13.7	14.7	12.0	12.6	12.8	13.3	14.2
	12H	12.5	12.9	13.3	13.7	14.7	12.0	12.5	12.8	13.3	14.2
4H	2H	12.0	12.6	12.7	13.3	14.2	12.7	13.3	13.5	14.1	14.9
	3H	12.4	12.8	13.1	13.6	14.6	12.9	13.3	13.6	14.1	15.1
	4H	12.5	13.0	13.3	13.7	14.7	12.9	13.3	13.7	14.1	15.1
	6H	12.7	13.0	13.5	13.9	14.9	12.9	13.2	13.7	14.1	15.1
	8H	12.7	13.1	13.6	13.9	14.9	12.8	13.2	13.7	14.0	15.0
	12H	12.8	13.1	13.6	13.9	14.9	12.8	13.1	13.7	14.0	15.0
8H	4H	12.5	12.9	13.4	13.7	14.7	13.4	13.7	14.2	14.5	15.5
	6H	12.7	13.0	13.6	13.9	14.9	13.5	13.7	14.3	14.6	15.6
	8H	12.8	13.1	13.7	14.0	15.0	13.5	13.7	14.4	14.6	15.7
	12H	12.9	13.2	13.8	14.0	15.1	13.5	13.7	14.4	14.6	15.7
12H	4H	12.5	12.8	13.3	13.6	14.7	13.5	13.8	14.3	14.6	15.7
	6H	12.7	13.0	13.6	13.8	14.9	13.6	13.9	14.5	14.7	15.8
	8H	12.9	13.1	13.8	14.0	15.0	13.7	13.9	14.6	14.8	15.9
Variations with the observer position at spacing:											
S =	1.0H	0.8 / -1.2		0.7 / -1.0							
	1.5H	2.0 / -2.0		1.8 / -1.6							
	2.0H	3.5 / -2.4		3.1 / -1.9							