

Linear Luminaire with LED

Series 6412/5



E2

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18122E00

- > For use in Zones 2, 21 & 22
- > Latest LED technology with a high luminous efficacy and a long service life
- > Extra flat version for low mounting depth
- > Powder-coated sheet-steel or brushed stainless steel
- > Central lock



Series 6412 light fittings are preferred for use in spraying, painting and clean room installations.

Zone	ATEX / IECEx					
	0	1	2	20	21	22
For use in			x		x	x

Explosion Protection	
Global (IECEx)	
Gas and dust	IECEx BVS 15.0090 Ex nA d IIC T4 Gc Ex tc IIIC T 80°C Dc
Europe (ATEX)	
Dust	BVS 15 ATEX E 104 ⊕ II 2D Ex tb IIIC T80°C Db
Gas and dust	BVS 15 ATEX E 103 ⊕ II 3G Ex nA d IIC T4 Gc ⊕ II 3D Ex tc IIIC T80°C Dc
Certifications and certificates	
Certificates	IECEx, ATEX, India (PESO)

WebCode 6412C

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Selection Table

Version	Size	Power consumption	Terminal capacity	Cable glands	Material	Order number	Art. no.	Weight
								kg
Linear luminaire Sheet steel LED Universal 5,000 K CRI ≥80	2	28 W	≤ 4 mm ²	3 x M25	Sheet steel	6412/5114-2550-5131-1100	260242	10.100
					SS316L (V4A)	6412/5114-2550-5131-4100	260246	10.200
	4	52 W	≤ 4 mm ²	3 x M25	Sheet steel	6412/5124-4550-5131-1100	260263	17.000
					SS316L (V4A)	6412/5124-4550-5131-4100	260267	17.161
Linear luminaire Sheet steel LED Universal 5,700 K CRI ≥70	2	28 W	≤ 4 mm ²	3 x M25	Sheet steel	6412/5114-2550-5131-1101	260255	10.100
					SS316L (V4A)	6412/5114-2550-5131-4101	260259	10.200
	4	52 W	≤ 4 mm ²	3 x M25	Sheet steel	6412/5124-4550-5131-1101	260271	17.000
					SS316L (V4A)	6412/5124-4550-5131-4101	260275	17.161

Order Number Supplement

Connection terminal	Connection terminal up to 6 mm ²	6.12/5...-...-6...-...	--
Cable entry	3 holes M20 with insert plates made from stainless steel 316L	6.12/5...-...-.235-....	--
Enclosure	with welded flushing frame for recessed mounting in ceiling or wall	6.12/5...-...-...-7..	--

Note

The light fittings are delivered without mounting material. These accessories must be ordered separately!

Technical Data

Electrical data

Control gear

Rated voltage

AC: 220 V ... 240 V; 50 ... 60 Hz
DC: 220 V ... 240 V

Voltage range

AC: 198 V ... 264 V; 50 ... 60 Hz
DC: 198 V ... 264 V

	6412/ 5.1.-2.5.-...-....	6412/ 5.2.-4.5.-...-....
Power consumption[W]	28	52
Rated current[A]	0.15	0.27
Voltage AC [V]	230	230
Frequency [Hz]	50	50
Power factor	> 0.92	> 0.96
THD [%]	≤ 12	≤ 14

Inrush current

I_{peak} = 53 A; Δt = 125 μs

maximum number of luminaires per miniature circuit breaker:

Type	10 A	16 A	20 A	25 A
B	8	12	16	20
C	13	21	27	33
K	27	43	55	68

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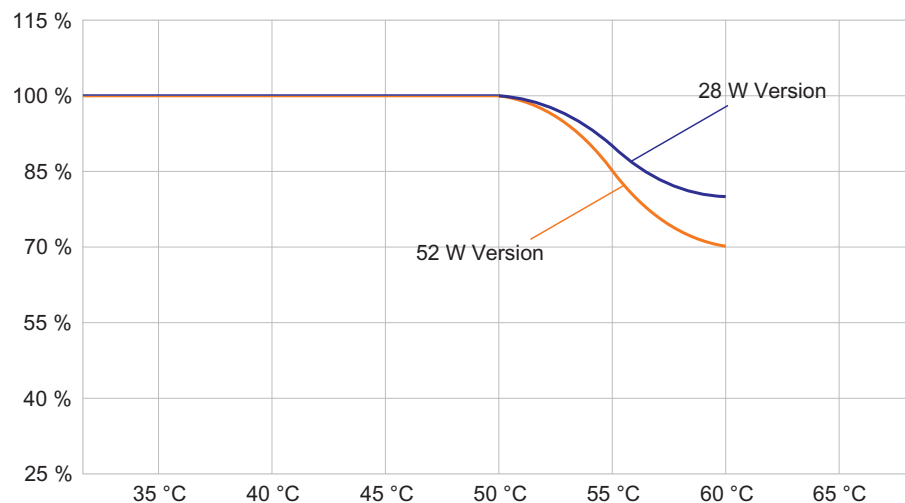
Technical Data

Luminous characteristics

	6412/511-2-.....-01	6012/512-4-.....-01	6412/511-2-.....-00	6012/512-4-.....-00
Power consumption[W]	28	52	28	52
Colour rendering [CRI]	≥ 70	≥ 70	≥ 80	≥ 80
Colour temperature [K]	5,700	5,700	5,000	5,000
with diffuser				
Luminous flux [lm]	2,604	5,224	2,421	4,858
Luminaire efficacy [lm/W]	93	100	86	93

Values apply to $T_a = +25\text{ °C}$.
Luminous flux decrease

- during DC-operation to 50%
- at ambient temperature



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Ambient conditions

Operating temperature range	-40 °C ... +60 °C
Storage	-40 °C ... +75 °C

Service life

Service life	$T_a \leq 25\text{ °C}$	$25\text{ °C} < T_a \leq 45\text{ °C}$	$45\text{ °C} < T_a \leq 60\text{ °C}$
$L_{70}B_{10}C_{10}$	100,000 h	100,000 h	50,000 h

$L_xB_yC_z$

At the end of the service life:

- Luminous flux decrease to "x" percent
- up to "y" percent of all luminaires fall below "x"
- up to "z" percent of all luminaires break down completely

Mechanical data

Degree of protection	IP65 Universal version and version with welded frame IP64 when using breather 8162 IP66 when using the flushing frame (IEC 60598)
Protection class	I

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Technical Data	
Impact strength (IK code)	(with internal PE-terminal) IK10 (IEC 62262)
Material	
Enclosure	Sheet-steel, powder-coated, white, similar to RAL 9016 Brushed stainless steel SS316L (V4A 1.4404)
Lens	Safety glass
Seal	Foamed silicone seal in luminaire enclosure
Luminaire locking	Central locking; glass cover hinged for access
Mounting / Installation	
Cable glands	1x M20/M25 left and 2x M20/M25 right, 1x cable gland, 1 cable gland with red plug and 1 stopping plug as standard
Connection	<p>Standard: Spring clamp terminals 5-pole: L1, L2, L3, N, PE Clamping range: 1 x 0.5 ... 4 mm² (solid / finely stranded) (2 free clamping units per pole available)</p> <p>Special 1: Terminal block with covering 5-pole: L1, L2, L3, N, PE Clamping range: 2 x 0.75 ... 6 mm² (solid); 2 x 0.75 ... 4 mm² (finely and extra finely stranded)</p> <p>Special 2: Spring clamp terminals 3-pole: L1, N, PE Clamping range: 1 x 0.5 ... 4 mm² (solid / finely stranded) (2 free clamping units per pole available)</p>
Through wiring	optional (max. 12 A)
Assembly	<p>Wall mounted luminaire M8 threads on both sides of the luminaire for mounting of wall mounting brackets.</p> <p>Pendant light fitting: M8 thread at the back of the luminaire for screwing in of ring eyes.</p> <p>Recessed light fitting: Variant 1: flushing frame attached to enclosure using M6 screws Variant 2: flushing frame welded to enclosure</p> <p>Note: For both installation versions, the luminaires must either be mounted on the back or the sides of the luminaire using the M8 threads.</p>

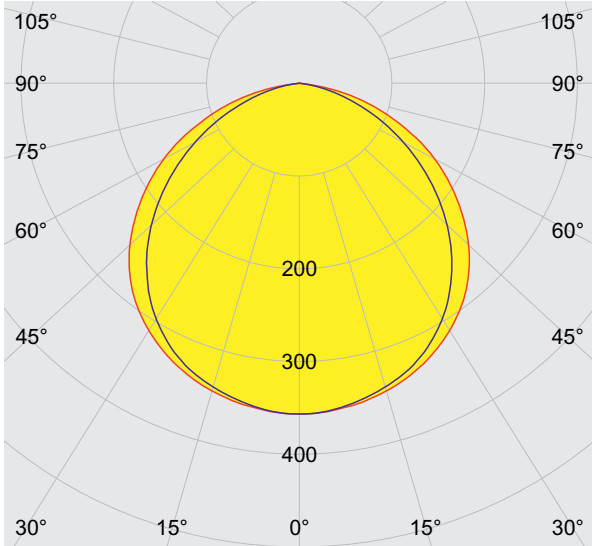
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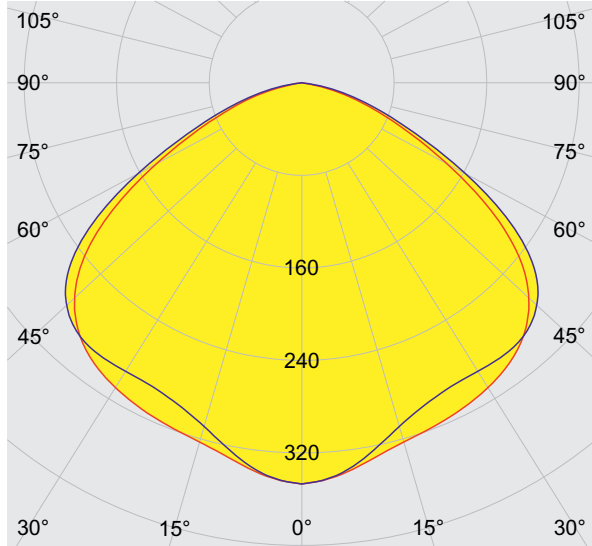
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Light Distribution Curves



cd/klm $\eta = 100\%$
 — C0 - C180 — C90 - C270

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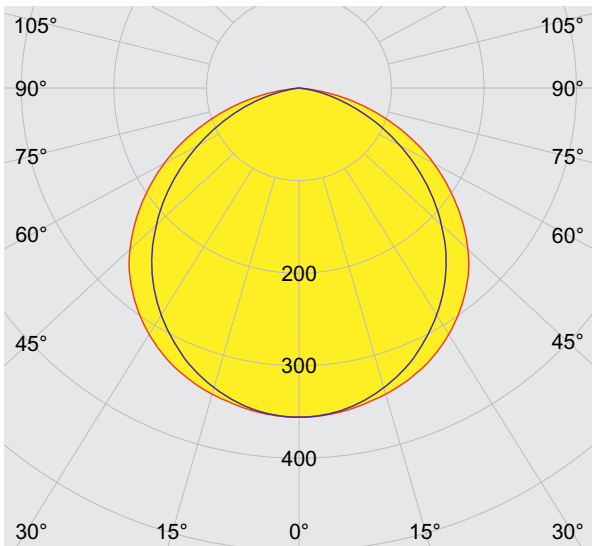


cd/klm $\eta = 100\%$
 — C0 - C180 — C90 - C270

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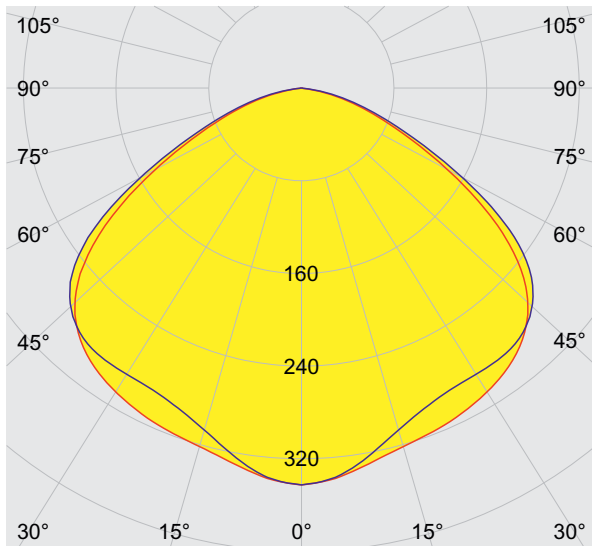
Version 28 W with diffusor

Version 28 W without diffusor



cd/klm $\eta = 100\%$
 — C0 - C180 — C90 - C270

18707E00



cd/klm $\eta = 100\%$
 — C0 - C180 — C90 - C270

18708E00



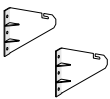
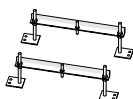
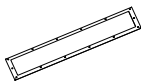
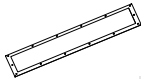
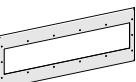
Version 52 W with diffusor

Version 52 W without diffusor

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Accessories and Spare Parts

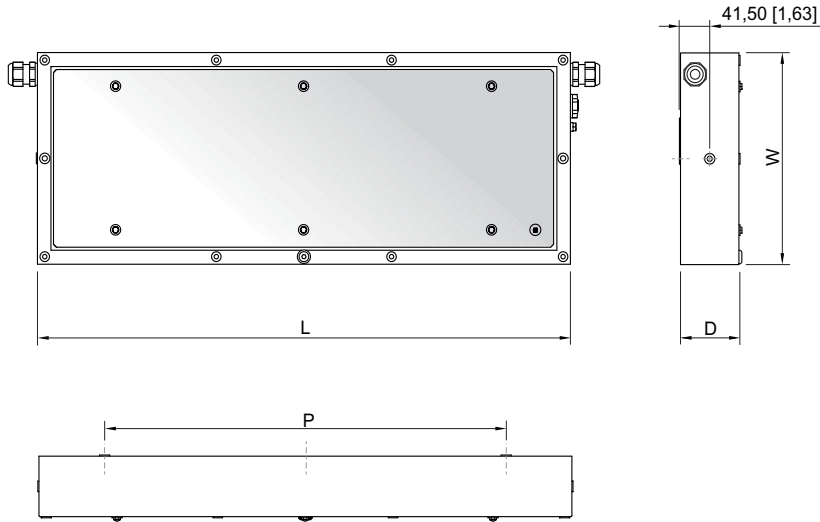
Designation	Figure	Description	Art. no.	Weight kg
Breather	 05703E00	for installation in lights; in moulded material; without counter nut		
		Thread: M25 x 1.5 1 pc	138573	0.010
		Thread: M25 x 1.5 20 pcs	138576	0.200
Ring bolt	 05378E00	M8, direct mounting in insert nuts, 1 pair	115736	0.112
Mounting set wall	 18428E00	Mounting set for swiveling mounting on ceiling or wall. Material: Sheet steel powder coated		
		For version with 280 mm width	226700	1.733
Mounting set ceiling	 18429E00	Mounting set for recessed mounting in ceiling or wall. Material: Sheet steel		
		For version with 280 mm width	261206	1.555
Flushing frame	 17865E00	Flushing frame for recessed mounting in ceiling or wall with provide IP 66		
		Size Width Material		
		2 280 mm Sheetsteel powder coated	226551	2.859
		2 280 mm Stainless steel SS316L (V4A 1.4404)	226553	2.899
		4 280 mm Sheet steel powder coated	226554	4.213
Cover frame	 17865E00	Cover frame to provide IP 66		
		Size Width Material		
		2 280 mm Sheetsteel powder coated	245950	2.329
		2 280 mm Stainless steel SS316L (V4A 1.4404)	245972	2.359
		4 280 mm Sheet steel powder coated	245973	3.383
Replacement frame	 19877E00	Replacement frame for replacement of a 6012 or a 6412 including 2-lamp fluorescent tubes for a 6012/5 with LED. Complies with IP 66 degree of protection		
		Size Width Material		
		2 280 mm Sheetsteel powder coated	263464	4.215
		2 280 mm Stainless steel SS316L (V4A 1.4404)	263465	4.147
		4 280 mm Sheet steel powder coated	263467	6.477
4 280 mm Stainless steel SS316L (V4A 1.4404)	263468	6.357		

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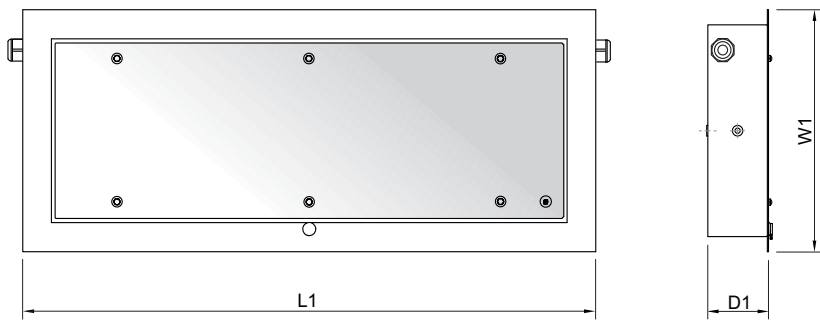


Dimensional Drawings (All Dimensions in mm [inches]) - Subject to Alterations



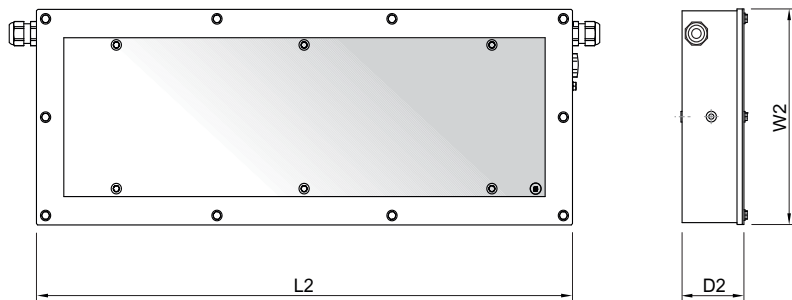
18210E00

Light Fitting universal for IP65



18211E00

Light Fitting welded frame for IP65

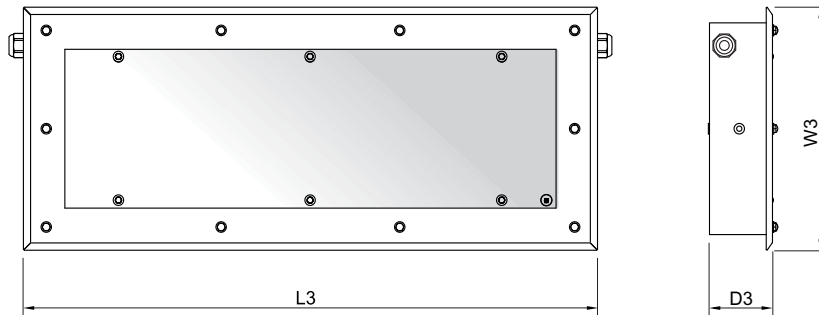


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Light Fitting universal wall pendant mounting with frame for IP66

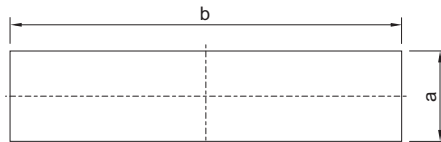
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18213E00

Light Fitting universal with frame for recessed mounting for IP66

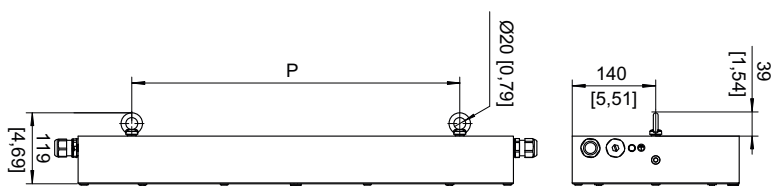


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Mounting Cut-Out

	L	L1	L2	L3	P	a	b
28 W	733 [28.86]	770 [30.32]	735 [28.94]	772 [30.39]	550 [21.65]	290 [11.42]	740 [29.13]
52 W	1343 [52.87]	1380 [54.33]	1345 [52.95]	1402 [55.20]	950 [37.40]		1350 [53.15]

	D	D1	D2	W	W1	W2	W3
28 W	80 [3.15]	81,5 [3.21]	87 [3.43]	280 [11.02]	320 [12.60]	285 [11.22]	322 [12.68]
52 W							



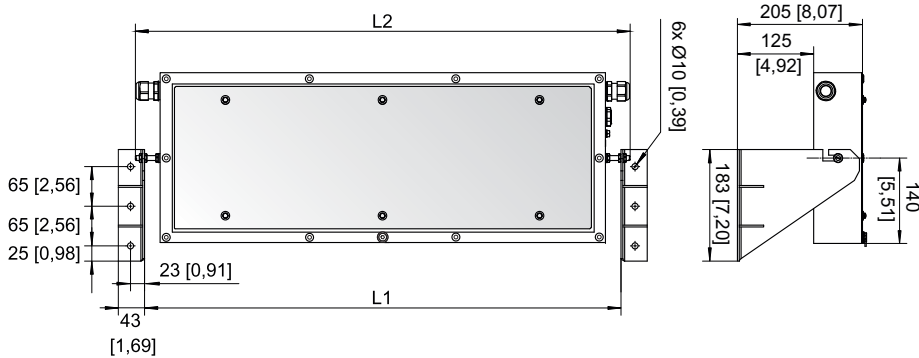
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Mounting with ring bolts

	P
28 W	550 [21,65]
52 W	950 [37,40]

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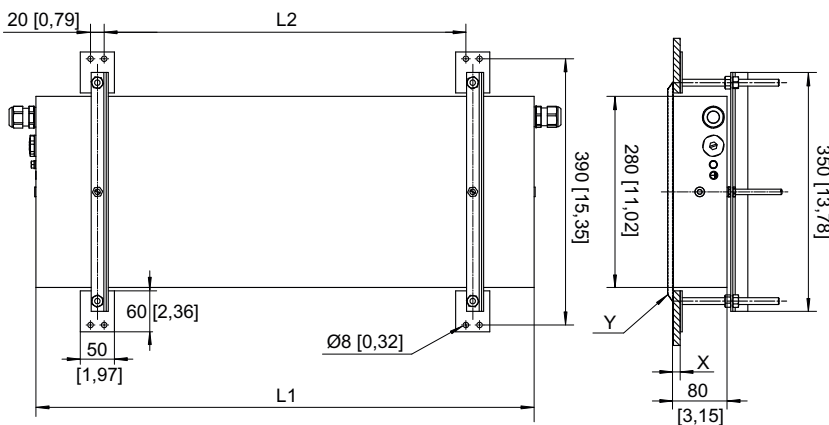
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Mounting on wall or ceiling

	L1	L2
28 W	781 [30,75]	811 [31,93]
52 W	1391 [54,76]	1421 [55,94]



19619E00

Recessed mounting in wall or ceiling

X - Ceiling clamp can be adjusted relative to X. X can be from 10 [0,39] to 125 [4,92]

Y - Recessed flushing frame (accessory to be ordered separately)

	L1	L2
28 W	730 [28,74]	530 [20,87]
52 W	1340 [52,76]	930 [36,61]

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.