



ProLight Opto
Technology Corporation



**Collimators for Unicorn Series
Technical Datasheet
Version: 2.5**

Features

- High Efficiency
- Works with ProLight Unicorn Series

Typical Applications

- Lamp
- Reading lights
- Architectural lighting
- Street lights
- Decoration lights
- Down lights

Collimators List

Collimator Size	Collimator P/N	Matched Holder P/N	White / Warm White LED			
			View angle ($2\theta_{0.3}$)	Beam angle ($2\theta_{0.5}$)	On axis efficiency (cd/lm)	X*
20mm	PG1C-NX12	PG1C-SX12	10°	8°	14.80	51.8
	PG1N-NX15	PG1N-SE02/PG1N-SO02	15°	10°	10.50	36.6
	PG1C-NX17	PG1C-SX17	20°	15°	14.00	48.8
	PG1N-NX23	PG1N-SE02/PG1N-SO02	25°	20°	4.65	16.3
	PG1C-NX36	PG1N-SO01	35°	25°	4.15	14.5
	PG1N-NX43	PG1N-SO02	45°	35°	1.85	6.5
	PG1C-NX43	PG1C-SX43	50°	40°	2.15	7.4
	PG1N-NX45	PG1N-SE02/PG1N-SO02	55°	40°	1.05	3.6
27mm	PG1N-NX06		10°	6°	23.80	83.0
50mm	PG1C-3N06		15	10	18.17	67.72
	PG1C-3N15		25	18	4.58	17.05
	PG1C-3N25		40	30	3.27	12.20
76mm	PG1C-6A20-AW		20°	15°	10.65	37.4
	PG1C-6A30-AW		30°	23°	6.00	21.3
95mm	PG1C-9B30-AW		30°	23°	5.95	20.8
	PG1C-9B60-AW		70°	60°	1.00	3.5

Notes:

1. The typical angle varies with LED due to different color chip and chip position tolerance.
2. The view angle ($2\theta_{0.3}$ is similar to the image by eye view) is the full angle measured where the luminous intensity is 30% of the peak value.
3. The beam angle ($2\theta_{0.5}$) is the full angle measured where the luminous intensity is 50% of the peak value.

* X is the value that measurement of the on-axis lux of LED with lens divided by lux of LED

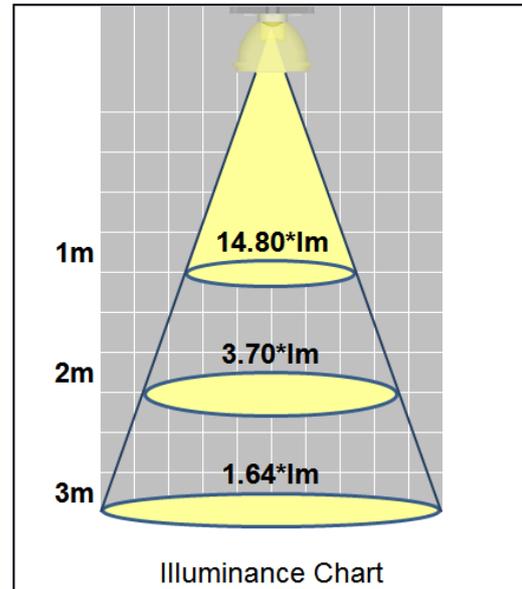
General Characteristics:

Lens Material	Optical Grade PMMA
Holder Material	PC or ABS
Operating Temperature Range	-40 °C to +70 °C
Storage Temperature Range	-40 °C to +70 °C

Usage and Maintenance:

1. Clean collimators with mild soap and water and a soft cloth.
2. Do not use any commercial cleaning solvents on collimators, like alcohol.
3. Please handle or install collimators with wearing gloves, skin oils may damage collimators or optical characteristic.

Mechanical Dimensions and Illuminance Chart

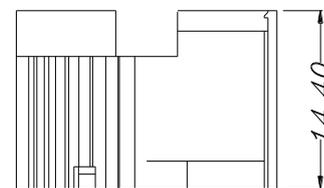
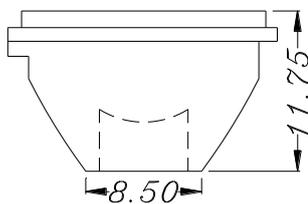
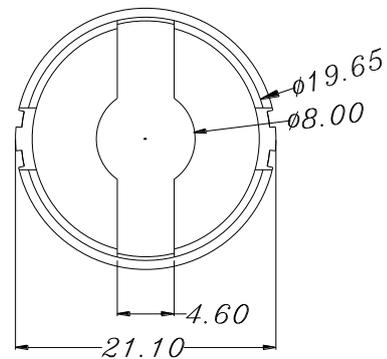
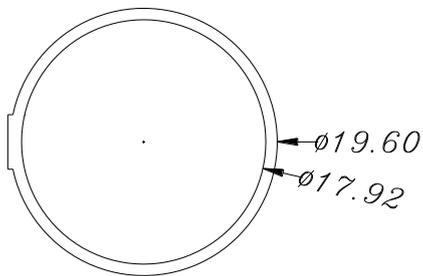


Collimator P/N : PG1C-NX12

View angle ($2\theta_{0.3}$) : 10°

Beam angle ($2\theta_{0.5}$) : 8°

Matched Holder P/N : PG1C-SX12



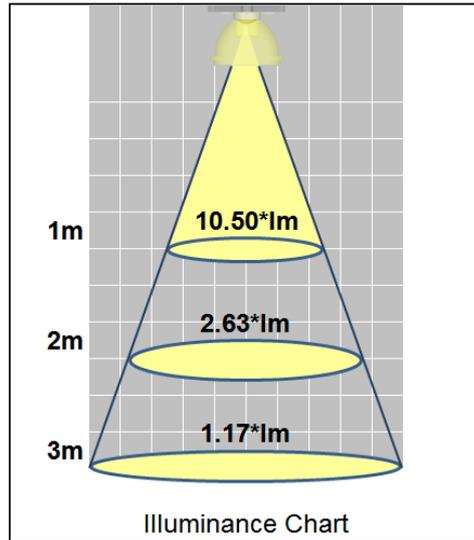
Notes:

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2. Do not subject to temperatures greater than 70°C as plastic deformation may occur.
Protect collimator against exposure to solvents and adhesives that are not compatible with it.
Use care in handling the optic to avoid scratches or other damage that will effect the optical performance.
3. All dimensions in millimeters.
4. Drawing not to scale.

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Mechanical Dimensions and Illuminance Chart



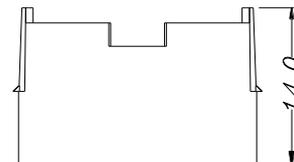
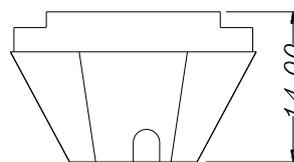
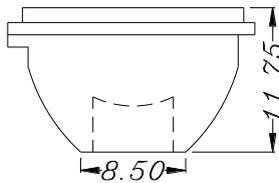
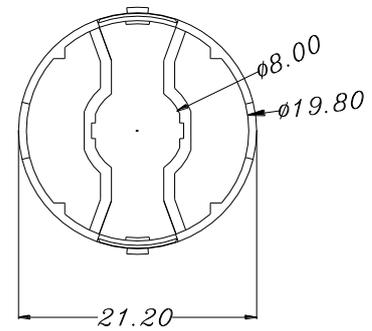
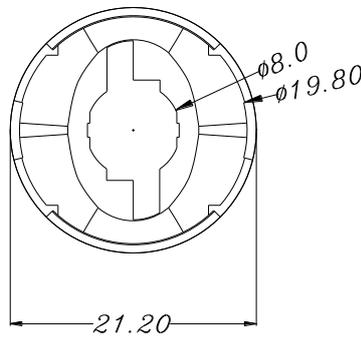
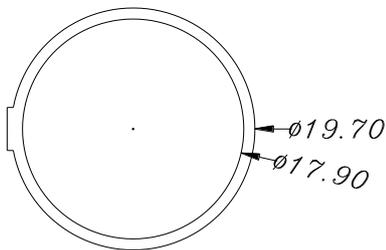
Collimator P/N : PG1N-NX15

Matched Holder P/N : PG1N-SE02

Matched Holder P/N : PG1N-SO02

View angle ($2\theta_{0.3}$) : 15°

Beam angle ($2\theta_{0.5}$) : 10°



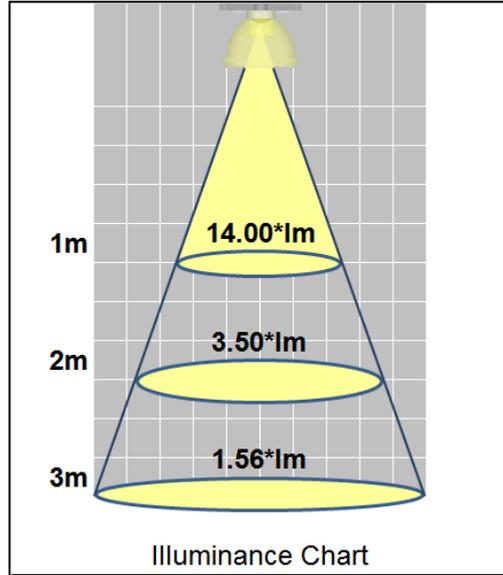
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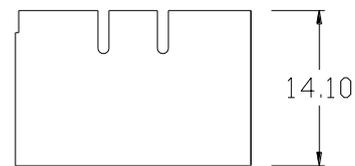
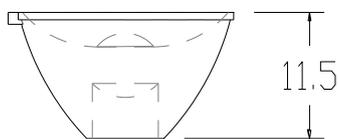
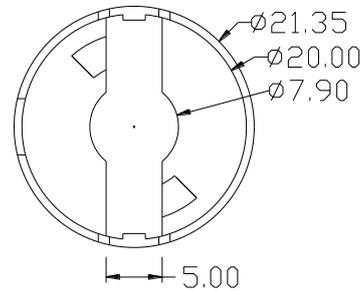
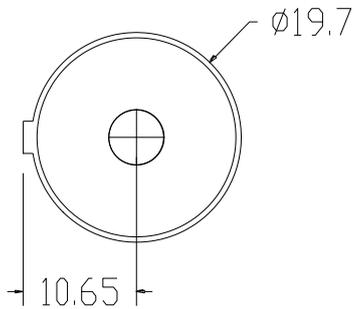


Collimator P/N : PG1C-NX17

View angle ($2\theta_{0.3}$) : 20°

Beam angle ($2\theta_{0.5}$) : 15°

Matched Holder P/N : PG1C-SX17

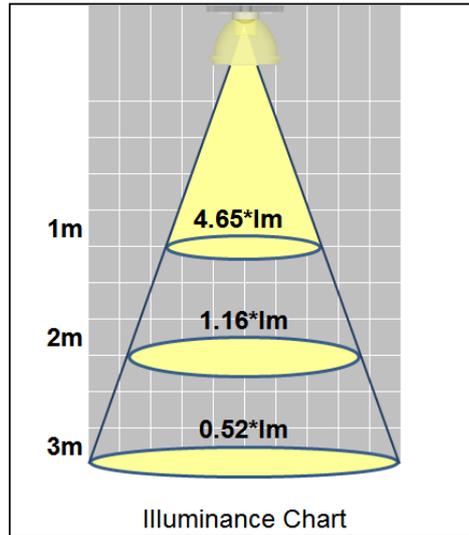


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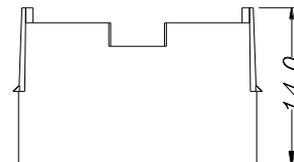
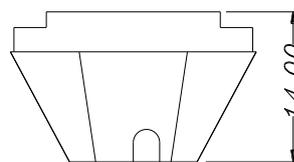
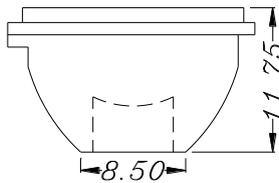
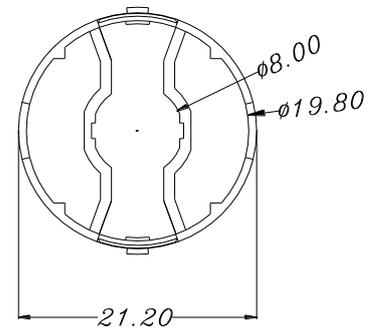
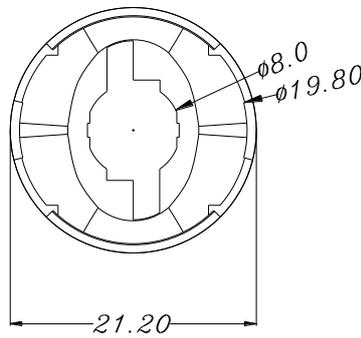
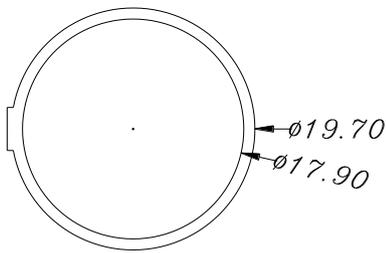
Collimator P/N : PG1N-NX23

Matched Holder P/N : PG1N-SE02

Matched Holder P/N : PG1N-SO02

View angle ($2\theta_{0.3}$) : 25°

Beam angle ($2\theta_{0.5}$) : 20°



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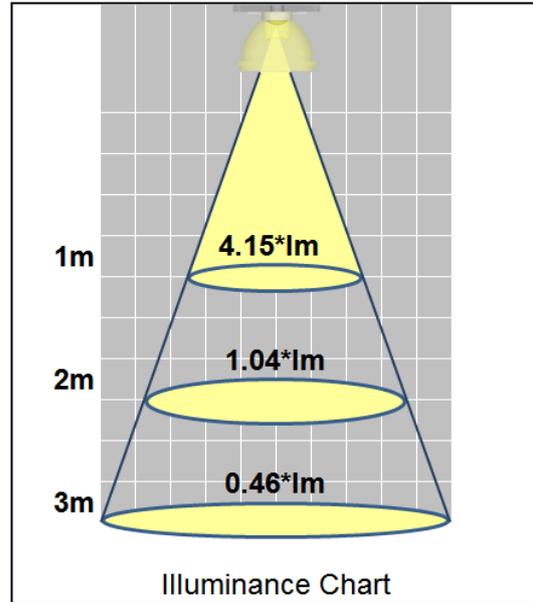
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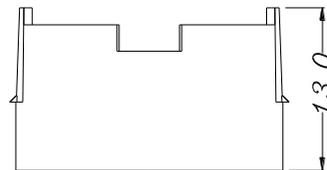
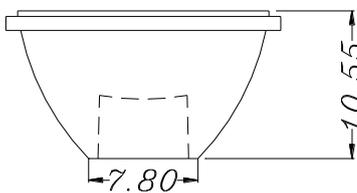
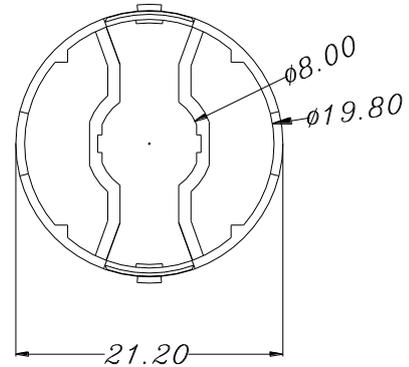
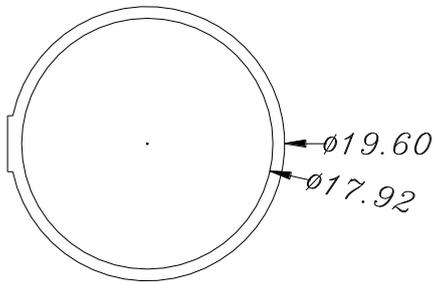
Mechanical Dimensions and Illuminance Chart



Collimator P/N : PG1C-NX36
 View angle ($2\theta_{0.3}$) : 35°
 Beam angle ($2\theta_{0.5}$) : 25°



Matched Holder P/N : PG1N-SO01



Notes:

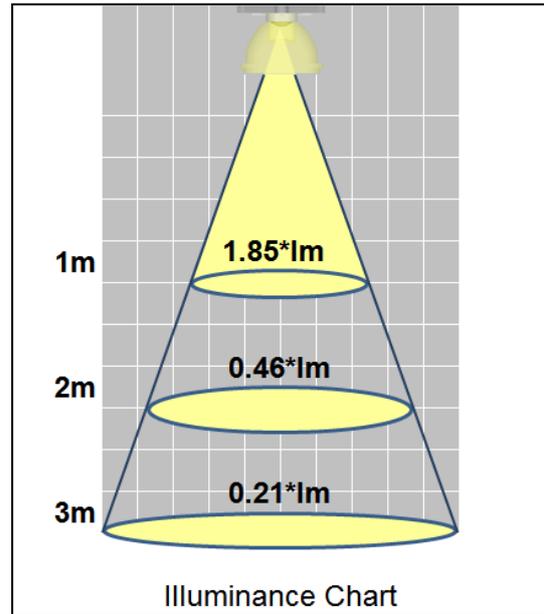
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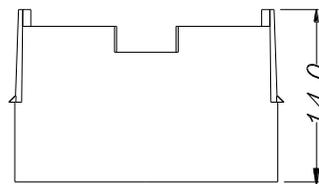
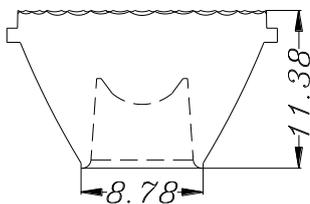
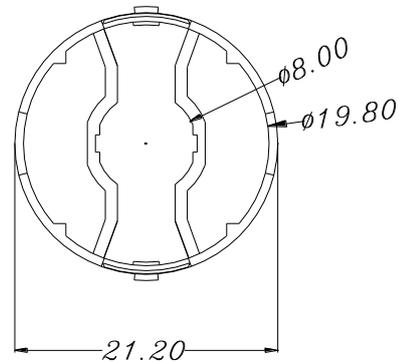
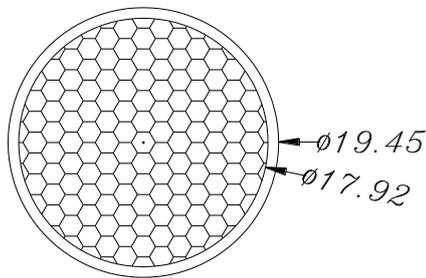
Mechanical Dimensions and Illuminance Chart



Collimator P/N : PG1N-NX43
 View angle ($2\theta_{0.3}$) : 45°
 Beam angle ($2\theta_{0.5}$) : 35°



Matched Holder P/N : PG1N-SO02



Notes:

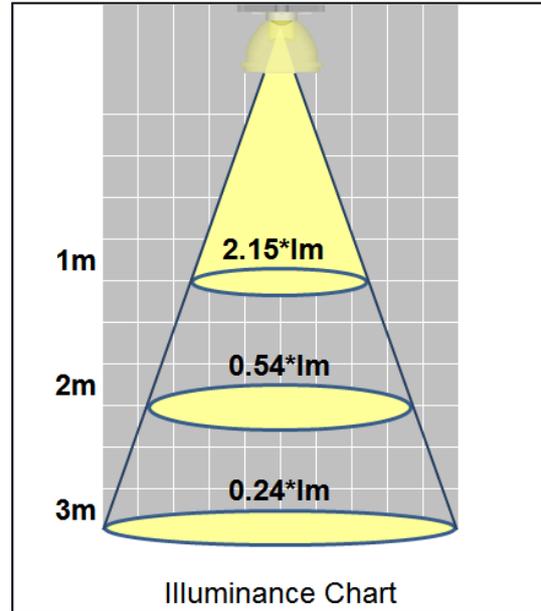
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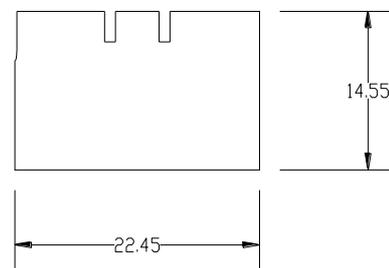
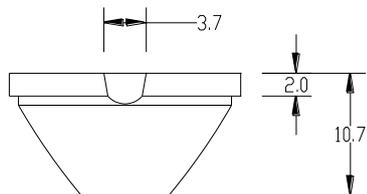
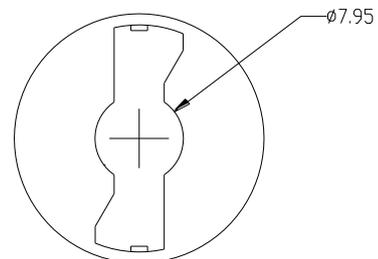
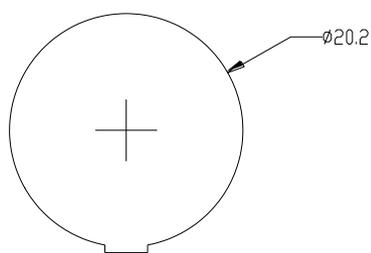
Mechanical Dimensions and Illuminance Chart



Collimator P/N : PG1C-NX43
 View angle ($2\theta_{0.3}$) : 50°
 Beam angle ($2\theta_{0.5}$) : 40°



Matched Holder P/N : PG1C-SX43

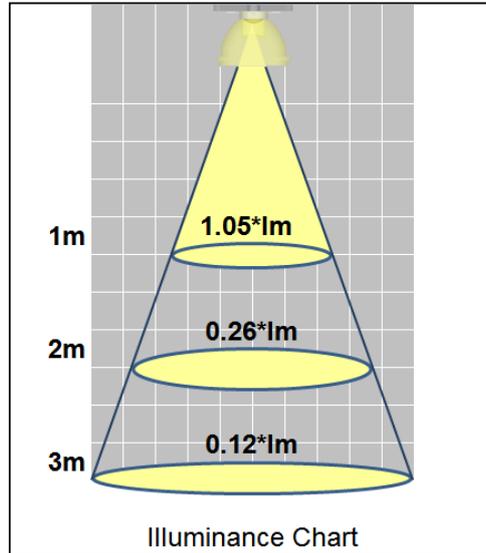


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Mechanical Dimensions and Illuminance Chart



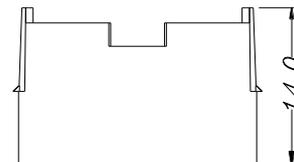
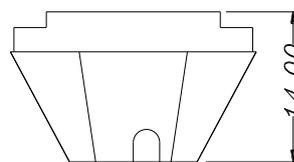
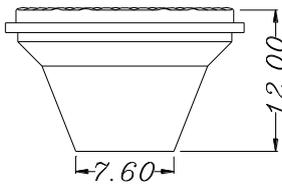
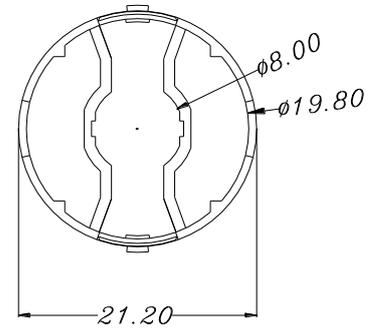
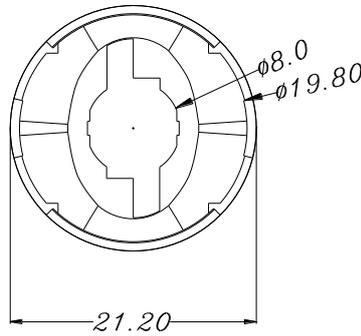
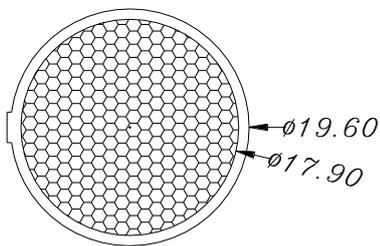
Collimator P/N : PG1N-NX45

Matched Holder P/N : PG1N-SE02

Matched Holder P/N : PG1N-SO02

View angle ($2\theta_{0.3}$) : 55°

Beam angle ($2\theta_{0.5}$) : 40°



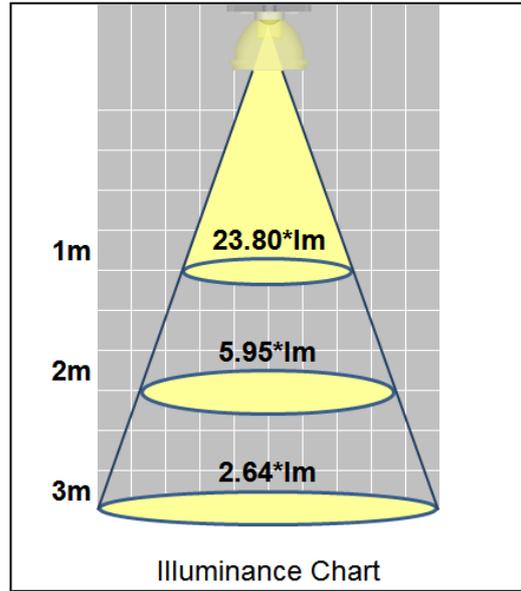
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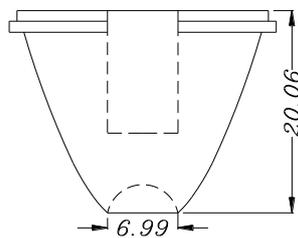
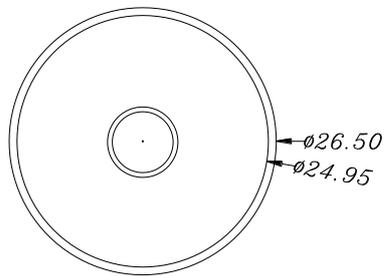
Mechanical Dimensions and Illuminance Chart



Collimator P/N : PG1N-NX06

View angle ($2\theta_{0.3}$) : 10°

Beam angle ($2\theta_{0.5}$) : 6°



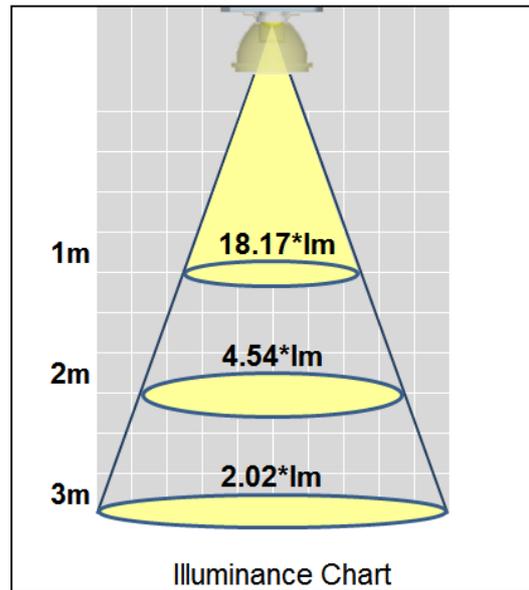
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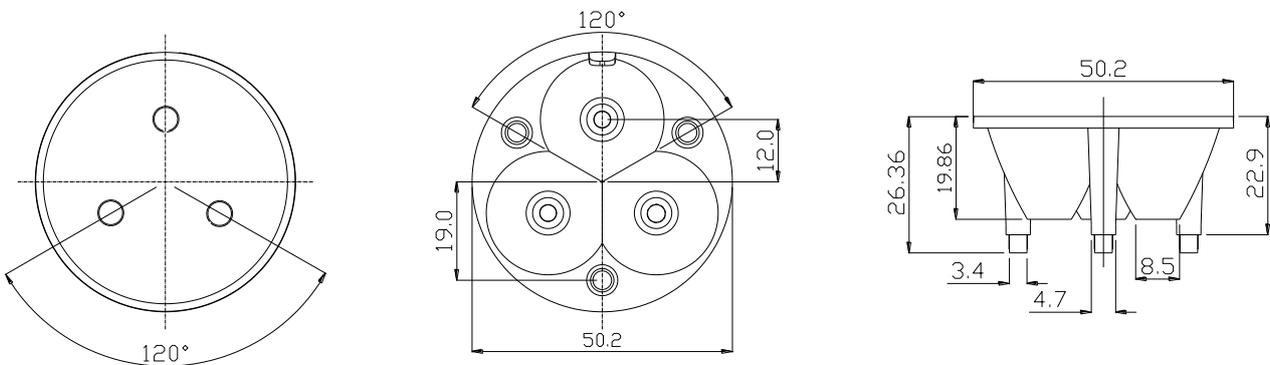
Mechanical Dimensions and Illuminance Chart



Collimator P/N : PG1C-3N06

View angle ($2\theta_{0.3}$) : 15°

Beam angle ($2\theta_{0.5}$) : 10°



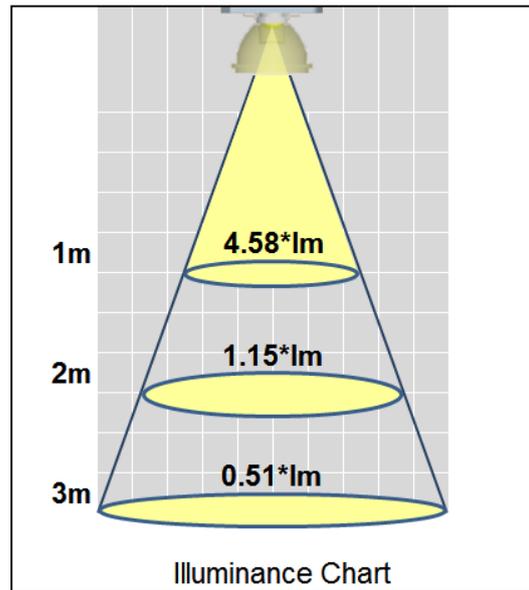
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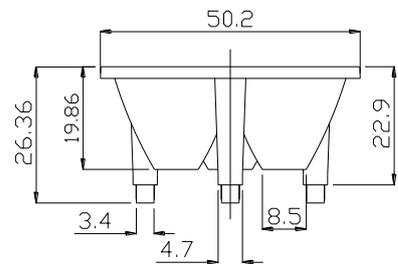
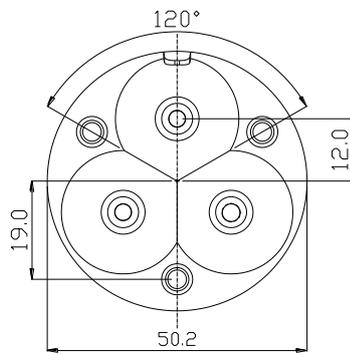
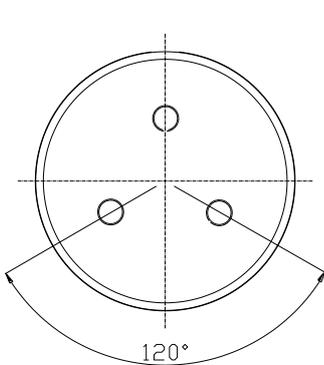
Mechanical Dimensions and Illuminance Chart



Collimator P/N : PG1C-3N15

View angle ($2\theta_{0.3}$) : 25°

Beam angle ($2\theta_{0.5}$) : 18°



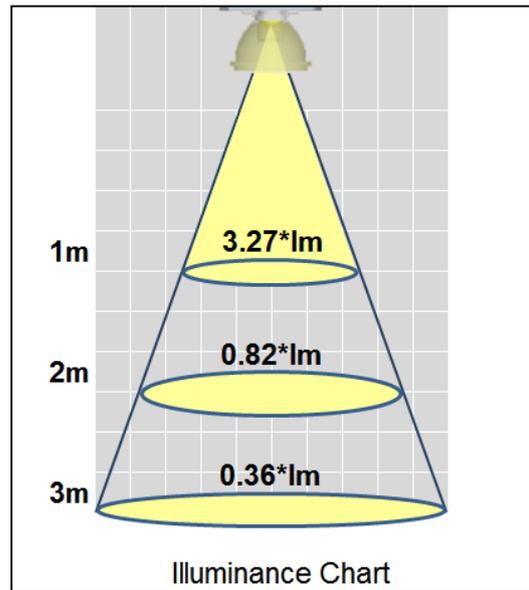
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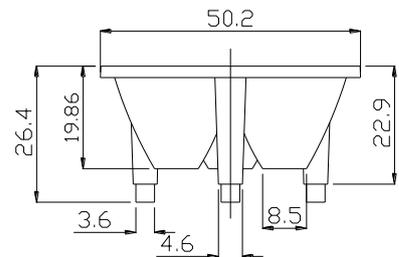
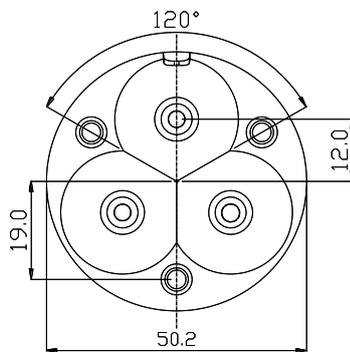
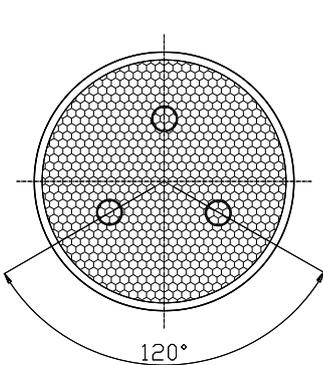
Mechanical Dimensions and Illuminance Chart



Collimator P/N : PG1C-3N25

View angle ($2\theta_{0.3}$) : 40°

Beam angle ($2\theta_{0.5}$) : 30°



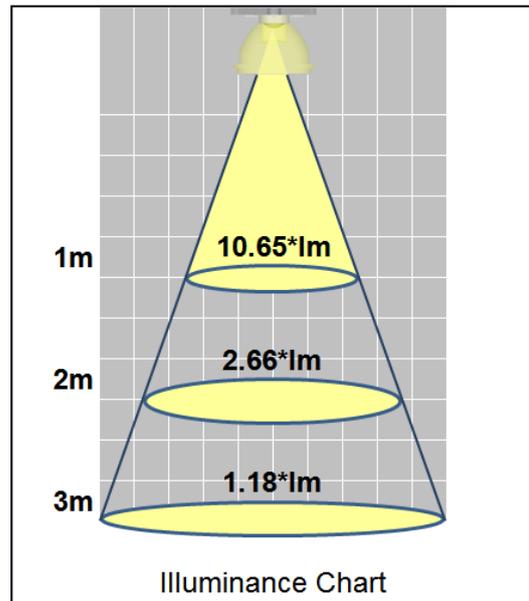
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Use care in handling the optic to avoid scratches or other damage that will effect the optical performance.
3. All dimensions in millimeters.
4. Drawing not to scale.

*The appearance and specifications of the product may be modified for improvement without notice.

ProLight

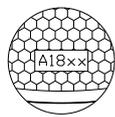
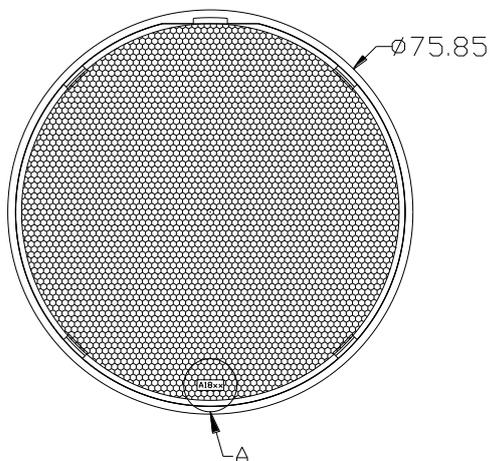
Mechanical Dimensions and Illuminance Chart



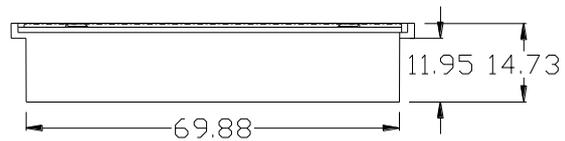
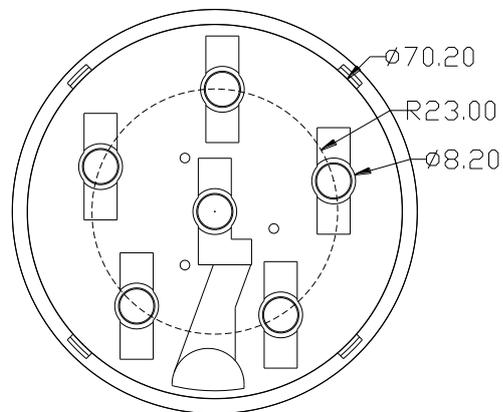
Collimator P/N : PG1C-6A20-AW

View angle ($2\theta_{0.3}$) : 20°

Beam angle ($2\theta_{0.5}$) : 15°



A:scale 2:1



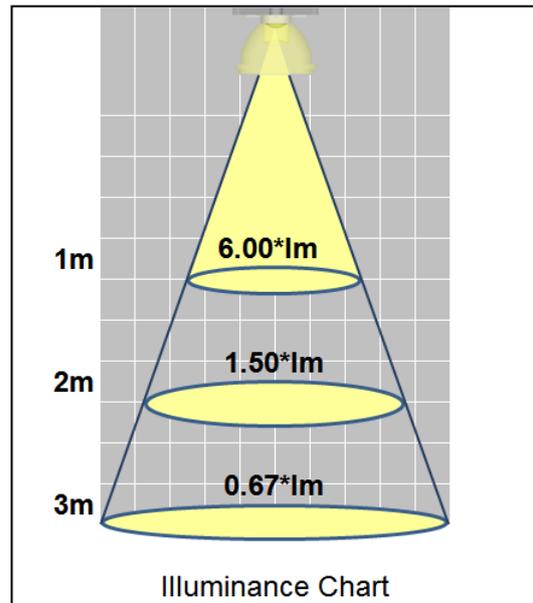
Notes:

1. Tolerance is ± 0.20 mm.
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ProLight

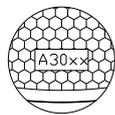
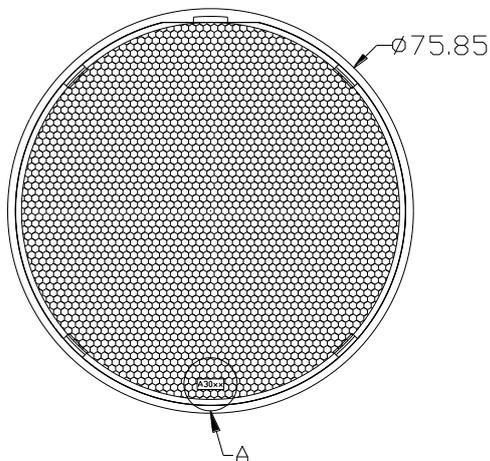
Mechanical Dimensions and Illuminance Chart



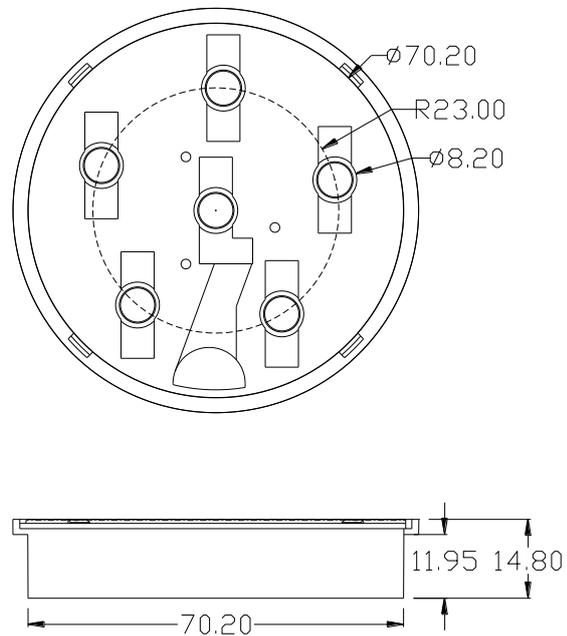
Collimator P/N : PG1C-6A30-AW

View angle ($2\theta_{0.3}$) : 30°

Beam angle ($2\theta_{0.5}$) : 23°



A: scale 2:1



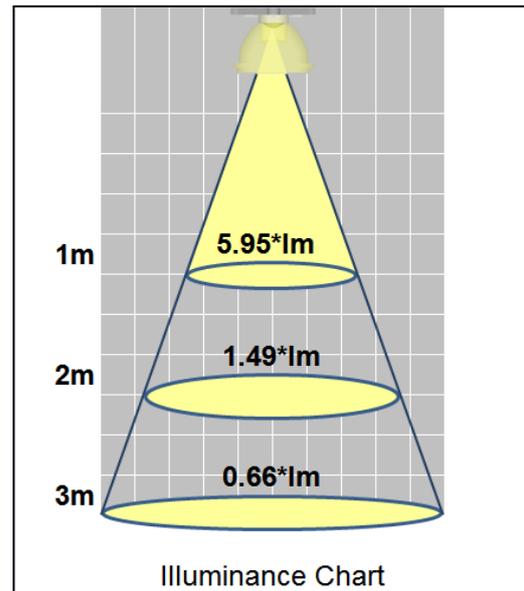
Notes:

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2. Do not subject to temperatures greater than 70°C as plastic deformation may occur.
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3. All dimensions in millimeters.
4. Drawing not to scale.

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ProLight

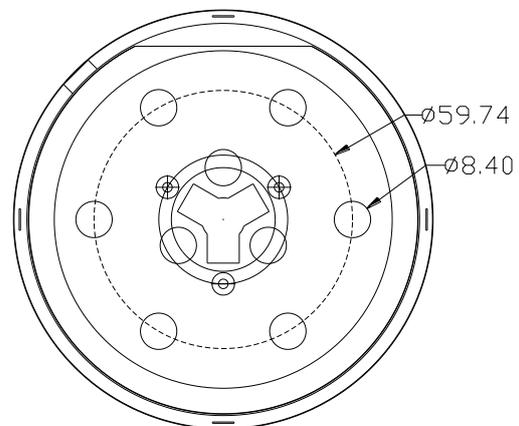
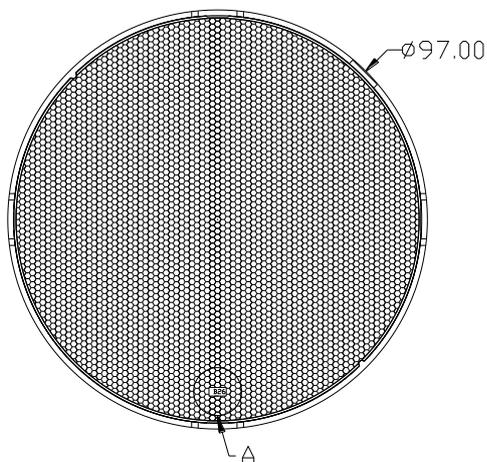
Mechanical Dimensions and Illuminance Chart



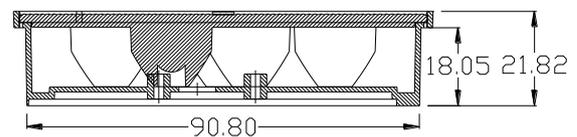
Collimator P/N : PG1C-9B30-AW

View angle ($2\theta_{0.3}$) : 30°

Beam angle ($2\theta_{0.5}$) : 23°



A: scale 2:1



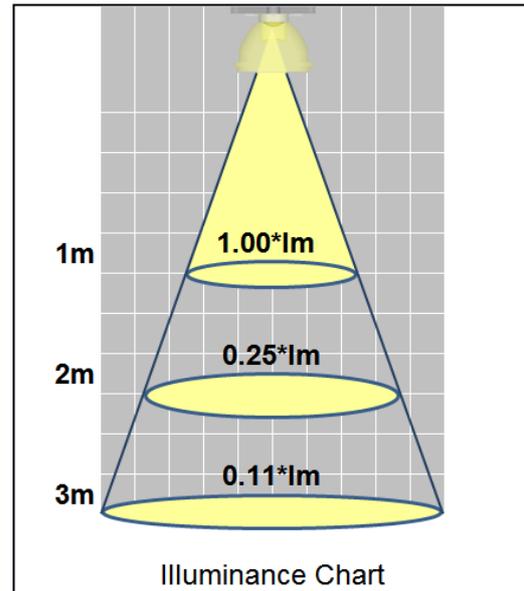
Notes:

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4. Drawing not to scale.

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ProLight

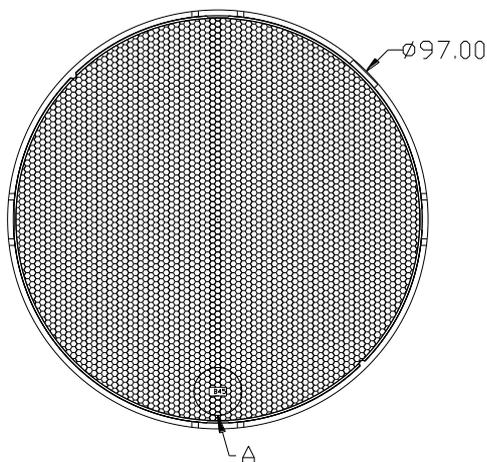
Mechanical Dimensions and Illuminance Chart



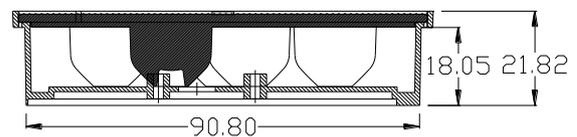
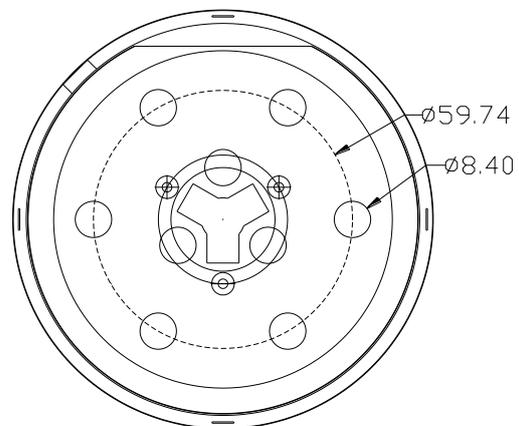
Collimator P/N : PG1C-9B60-AW

View angle ($2\theta_{0.3}$) : 70°

Beam angle ($2\theta_{0.5}$) : 60°



A: scale 2:1



Notes:

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3. All dimensions in millimeters.
4. Drawing not to scale.

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ProLight