

# 50 Best Objects for Urban Skies

A curated selection of 50 astronomical objects that remain rewarding targets even under heavy light pollution (Bortle 7–9). The list emphasizes double stars and variable stars (immune to light pollution), compact star clusters, high-surface-brightness planetary nebulae, and only the brightest deep-sky objects. All targets are visible from mid-northern latitudes (Dec > -20°). Arranged by category, from light-pollution-proof to more challenging.

50

Objects

41

Easy

8

Medium

1

Very Hard

And · CVn · Gem · UMa · Her · Lyr · Tau · Cyg · Vir · Cas · Ori · Per

Visibility scored for: **150mm Reflector** · Bortle 4

#	Object	Type	Constellation	Mag	RA	Dec	Level	<input type="checkbox"/>
1	<b>Albireo</b> HIP 95947; Beta1 Cyg; 6 Cyg	• Double Star	Cyg	3.1	19h 30m 43.3s	+27d 57' 35"	Easy	<input type="checkbox"/>
<i>Note: The finest color-contrast double in the sky – a golden primary with a sapphire companion at 34.7" separation. Mags 3.1 + 5.1. Splits at any magnification, even from downtown.</i>								
2	<b>Almaak</b> HIP 9640; Gamma1 And; 57 And	• Double Star	And	2.3	02h 03m 54.0s	+42d 19' 47"	Easy	<input type="checkbox"/>
<i>Note: The 'autumn Albireo' – orange primary with blue-green companion at 9.6" separation. Mags 2.3 + 5.0. The secondary is itself a close triple system.</i>								
3	<b>Castor</b> HIP 36850; Alpha Gem; 66 Gem	• Double Star	Gem	2.0	07h 34m 36.0s	+31d 53' 18"	Easy	<input type="checkbox"/>
<i>Note: A nearly equal white pair at 6" separation, mags 2.0 + 3.0. Actually a sextuple system – each visible component is a spectroscopic binary, plus distant eclipsing binary YY Gem.</i>								
4	<b>Mizar</b> HIP 65378; Zeta UMa; 79 UMa	• Double Star	UMa	2.3	13h 23m 55.5s	+54d 55' 31"	Easy	<input type="checkbox"/>
<i>Note: The famous naked-eye double in the Big Dipper's handle. A telescope splits Mizar itself into a tight 14" pair of white stars (mags 2.3 + 3.9). Alcor sits 12 arcminutes away.</i>								
5	<b>Alpha2 CVn</b> HIP 63125; Alpha2 CVn; 12 CVn	• Double Star	CVn	2.9	12h 56m 1.7s	+38d 19' 6"	Easy	<input type="checkbox"/>
<i>Note: 'Heart of Charles' – a wide, easy pair at 19.3" separation. Mags 2.9 + 5.5. The primary is the prototype Alpha<sup>2</sup> CVn magnetic variable star. Subtle color contrast, white and lilac.</i>								
6	<b>Izar</b> HIP 72105; Epsilon Boo; 36 Boo	• Double Star	Boo	2.7	14h 44m 59.2s	+27d 04' 27"	Easy	<input type="checkbox"/>
<i>Note: Struve called it 'Pulcherrima' – the most beautiful. Orange primary with blue-green companion at 2.8" separation. Needs 150x+ and steady seeing to split. Mags 2.7 + 5.1.</i>								

7	<b>Rasalgethi</b> HIP 84345; Alpha1 Her; 64 Her	• Double Star	Her	3.5	17h 14m 38.9s	+14d 23' 25"	Easy	<input type="checkbox"/>
<i>Note: A striking orange-red supergiant with a blue-green companion at 4.6" separation. Mags 3.5 + 5.4. The primary is a semi-regular variable. Needs moderate magnification.</i>								
8	<b>Algieba</b> HIP 50583; Gamma1 Leo; 41 Leo	• Double Star	Leo	2.6	10h 19m 58.3s	+19d 50' 30"	Easy	<input type="checkbox"/>
<i>Note: A glorious gold-on-gold double – two orange-yellow giants at 4.4" separation. Mags 2.6 + 3.5. One of the finest pairs for spring evenings. Best at 150x+.</i>								
9	<b>Porrima</b> HIP 61941; Gamma Vir; 29 Vir	• Double Star	Vir	3.6	12h 41m 39.6s	-1d 26' 58"	Easy	<input type="checkbox"/>
<i>Note: A near-identical white pair with a 169-year orbit. Currently widening – around 3" separation. Mags 3.5 + 3.5. A fine test of optics and seeing conditions.</i>								
10	<b>Epsilon<sup>1</sup> Lyr</b> HIP 91919; Epsilon1 Lyr; 4 Lyr	• Double Star	Lyr	5.1	18h 44m 20.4s	+39d 40' 12"	Medium	<input type="checkbox"/>
<i>Note: The famous double-double near Vega. Naked eye or binoculars split the wide 208" pair; a telescope at 150x+ reveals each component is itself a close double (2.3" and 2.4").</i>								
11	<b>Iota Cas</b> HIP 11569; Iota Cas	• Double Star	Cas	4.5	02h 29m 4.0s	+67d 24' 9"	Easy	<input type="checkbox"/>
<i>Note: A lovely triple star – white primary with a yellow secondary at 2.5" and a fainter reddish third at 7.2". Mags 4.5 + 6.9 + 8.4. Needs 100x+ for clean split.</i>								
12	<b>Polaris</b> HIP 11767; Alpha UMi; 1 UMi	• Double Star	UMi	2.0	02h 31m 48.7s	+89d 15' 51"	Medium	<input type="checkbox"/>
<i>Note: The North Star has a mag 8.6 companion 18" away, easily split at 50x. The faint companion appears blue-white against the slightly yellow primary. A fine urban target always above the horizon.</i>								
13	<b>Betelgeuse</b> HIP 27989; Alpha Ori; 58 Ori	• Variable Star	Ori	0.5	05h 55m 10.3s	+7d 24' 25"	Medium	<input type="checkbox"/>
<i>Note: Orion's red supergiant – a semi-regular variable ranging from mag 0.0 to 1.6 over roughly 400 days. Its deep orange-red color is unmistakable. Compare brightness against nearby Rigel and Aldebaran.</i>								
14	<b>Algol</b> HIP 14576; Beta Per; 26 Per	• Variable Star	Per	2.1	03h 08m 10.1s	+40d 57' 23"	Easy	<input type="checkbox"/>
<i>Note: The prototype eclipsing binary – drops from mag 2.1 to 3.4 every 2 days 20 hours 49 minutes. The eclipse lasts ~10 hours. Compare with nearby Almach and Mirfak to catch the fade. Perfect urban variable.</i>								
15	<b>Delta Cep</b> HIP 110991; Delta Cep; 27 Cep	• Variable Star	Cep	3.8	22h 29m 10.3s	+58d 24' 55"	Medium	<input type="checkbox"/>
<i>Note: The prototype Cepheid variable – pulsates from mag 3.5 to 4.4 in exactly 5.366 days. Compare with nearby Zeta Cep (3.4) and Epsilon Cep (4.2) to estimate brightness. Also a nice double: blue companion at 41".</i>								
16	<b>Sheliak</b> HIP 92420; Beta Lyr; 10 Lyr	• Variable Star	Lyr	3.5	18h 50m 4.8s	+33d 21' 46"	Easy	<input type="checkbox"/>
<i>Note: A continuously varying eclipsing binary, oscillating between mag 3.3 and 4.4 over 12.94 days. The two components are so close they share an accretion stream. Compare with nearby Gamma Lyr (3.2).</i>								
17	<b>Mira</b> HIP 10826; 68 Cet	• Variable Star	Cet	3.0	02h 19m 20.7s	-2d 58' 39"	Easy	<input type="checkbox"/>
<i>Note: The prototype long-period variable – ranges dramatically from mag 2.0 to 10.1 over ~332 days, appearing and disappearing to the naked eye. At maximum it is orange-red. The original 'wonderful star'.</i>								
18	<b>Mu Cep</b> HIP 107259; Mu Cep	• Double Star	Cep	4.1	21h 43m 30.4s	+58d 46' 48"	Easy	<input type="checkbox"/>
<i>Note: Herschel's Garnet Star – one of the reddest naked-eye stars. A semi-regular variable (mag 3.4–5.1) and one of the largest known stars. Use a telescope to appreciate its deep crimson hue against the Milky Way.</i>								
19	<b>M45</b>	• Open Cluster	Tau	1.6	03h 47m 24.0s	+24d 07' 12"	Easy	<input type="checkbox"/>
<i>Note: The Seven Sisters – visible to the naked eye even from city centers. Binoculars reveal dozens of blue-white stars in a compact group. At low power in a telescope, the cluster fills the field with brilliant sparkle.</i>								
20	<b>Hyades</b> C41	• Open Cluster	Tau	0.5	04h 28m 0.0s	+16d 00' 0"	Easy	<input type="checkbox"/>
<i>Note: The nearest open cluster to Earth (153 ly), forming the V-shape of Taurus' face. Best in binoculars – too large for most telescopes. Contains many colorful doubles. Aldebaran is a foreground interloper, not a member.</i>								
21	<b>M44</b>	• Open Cluster	Cnc	3.7	08h 40m 24.0s	+19d 58' 60"	Easy	<input type="checkbox"/>
<i>Note: A large, bright swarm of stars visible to the naked eye as a fuzzy patch. Binoculars or a wide-field eyepiece at low power are ideal – reveals 40+ stars scattered across 1.5°. One of the closest clusters at 577 ly.</i>								
22	<b>Double Cluster</b> C14	• Open Cluster	Per	4.3	02h 20m 42.0s	+57d 07' 59"	Easy	<input type="checkbox"/>
<i>Note: Twin open clusters NGC 869 and NGC 884 side by side – visible to the naked eye as a hazy patch between Perseus and Cassiopeia. In a telescope at low power, two jewel-box swarms fill the field. Contains orange supergiants.</i>								
23	<b>M35</b>	• Open Cluster	Gem	5.3	06h 09m 6.0s	+24d 21' 0"	Easy	<input type="checkbox"/>
<i>Note: A rich, bright cluster near Castor's foot – easily found and impressive even in light pollution. Over 120 stars in a 25' area. Look for the compact fuzz of NGC 2158 in the same low-power field, a much more distant cluster.</i>								

24	<b>M11</b>	● Open Cluster	Sct	5.8	18h 51m 6.0s	-6d 16' 0"	Easy	<input type="checkbox"/>
<p>Note: One of the richest open clusters – nearly 3,000 stars packed into 14'. The dense core resembles a globular cluster at first glance. Resolves into a sparkling fan shape at 50–100x. Survives urban skies remarkably well.</p>								
25	<b>M37</b>	● Open Cluster	Aur	6.2	05h 52m 18.0s	+32d 33' 2"	Easy	<input type="checkbox"/>
<p>Note: The richest of the three Auriga Messier clusters. 500+ stars with a striking orange giant near the center. A fine granular texture appears at 75–100x. Pair with M36 and M38 in the same session.</p>								
26	<b>M36</b>	● Open Cluster	Aur	6.3	05h 36m 12.0s	+34d 08' 4"	Easy	<input type="checkbox"/>
<p>Note: A compact young cluster of bright blue-white stars in Auriga. About 60 members in a 12' area. Resembles a miniature Pleiades. Forms a nice trio with M37 and M38 – all visible in the same finder field.</p>								
27	<b>M67</b>	● Open Cluster	Cnc	6.1	08h 51m 18.0s	+11d 49' 0"	Easy	<input type="checkbox"/>
<p>Note: One of the oldest known open clusters (~4 billion years) – its stars resemble our Sun in age and composition. A hazy glow at low power that resolves into a rich scattering of faint stars at 100x+.</p>								
28	<b>Owl Cluster</b> C13	● Open Cluster	Cas	6.4	01h 19m 30.0s	+58d 19' 59"	Easy	<input type="checkbox"/>
<p>Note: NGC 457 – two bright stars form the 'eyes' of an owl (or ET with outstretched arms). The brighter eye is Phi Cassiopeiae at mag 5.0. A fun, recognizable pattern even in heavily light-polluted skies.</p>								
29	<b>M13</b>	● Globular Cluster	Her	5.8	16h 41m 41.2s	+36d 27' 41"	Easy	<input type="checkbox"/>
<p>Note: The showpiece northern globular – visible as a fuzzy star to the naked eye from suburban skies. In a telescope, a granular ball of 300,000+ stars resolving from the edges inward. 6" or larger aperture begins to resolve individual stars even in urban light.</p>								
30	<b>M5</b>	● Globular Cluster	Ser	5.6	15h 18m 33.2s	+2d 04' 52"	Easy	<input type="checkbox"/>
<p>Note: Many observers rank M5 above M13 for richness and beauty. Slightly brighter and more compact, with a noticeably elliptical shape. Chains of stars radiate from the dense core. Best at 100–150x.</p>								
31	<b>M92</b>	● Globular Cluster	Her	6.4	17h 17m 7.4s	+43d 08' 9"	Easy	<input type="checkbox"/>
<p>Note: Often overshadowed by its neighbor M13, but M92 is a superb globular in its own right – brighter and more compact than many Messier globulars. One of the oldest known clusters at 14.2 billion years.</p>								
32	<b>M3</b>	● Globular Cluster	CVn	6.2	13h 42m 11.6s	+28d 22' 38"	Easy	<input type="checkbox"/>
<p>Note: A large, bright globular between Arcturus and Cor Caroli. Contains over 500,000 stars and one of the largest known populations of variable stars (274 confirmed). Partially resolves in 6" aperture even from the city.</p>								
33	<b>M15</b>	● Globular Cluster	Peg	6.2	21h 29m 58.3s	+12d 10' 1"	Easy	<input type="checkbox"/>
<p>Note: Famous for its extremely dense core – one of the most concentrated globulars known. Contains a planetary nebula (Pease 1) near its center. Located 4° NW of Enif (Epsilon Peg). Bright and compact, handles light pollution well.</p>								
34	<b>M2</b>	● Globular Cluster	Aqr	6.5	21h 33m 27.0s	-0d 49' 24"	Easy	<input type="checkbox"/>
<p>Note: One of the largest and brightest globulars – 175 light-years across with 150,000 stars. Appears as a bright, slightly oval haze at low power. Needs 8"+ to begin resolving stars from urban skies. Fine autumn target.</p>								
35	<b>M27</b>	● Planetary Nebula	Vul	7.4	19h 59m 36.3s	+22d 43' 16"	Easy	<input type="checkbox"/>
<p>Note: The largest and brightest planetary nebula – its high surface brightness makes it visible even from the city. The distinctive apple-core shape is apparent at 50x. An OIII filter dramatically improves contrast against light-polluted skies.</p>								
36	<b>M57</b>	● Planetary Nebula	Lyr	8.8	18h 53m 35.1s	+33d 01' 45"	Easy	<input type="checkbox"/>
<p>Note: The iconic smoke ring between Beta and Gamma Lyrae – easy to find and recognizable at 75x+. The ring shape is clear in any telescope 3" or larger. An OIII filter helps in urban skies. Central star requires 12"+ aperture.</p>								
37	<b>Cat's Eye Nebula</b> C6	● Planetary Nebula	Dra	8.1	17h 58m 33.4s	+66d 37' 59"	Easy	<input type="checkbox"/>
<p>Note: A tiny but intensely bright blue-green disk near the north celestial pole. The 11th-magnitude central star is visible in moderate aperture. Its small size (20") concentrates light, making it an excellent urban target. Best at 150x+.</p>								
38	<b>Blue Snowball</b> NGC 7662	● Planetary Nebula	And	9.0	23h 25m 54.0s	+42d 32' 60"	Medium	<input type="checkbox"/>
<p>Note: A vivid blue-green disk visible at moderate magnification – one of the most colorful planetary nebulae. At high power (200x+), look for a brighter inner ring within the disk. An OIII filter enhances the view in light pollution.</p>								
39	<b>Blinking planetary</b> NGC 6826	● Planetary Nebula	Cyg	10.0	19h 44m 48.0s	+50d 31' 0"	V.Hard	<input type="checkbox"/>
<p>Note: Famous for its 'blinking' effect – stare directly at the bright central star and the nebula vanishes; use averted vision and it reappears. A curious optical illusion best demonstrated at 100–200x. Small and bright enough for urban skies.</p>								
40	<b>Eskimo Nebula</b> C39	● Planetary Nebula	Gem	9.2	07h 29m 10.8s	+20d 54' 43"	Medium	<input type="checkbox"/>
<p>Note: A small, bright planetary nebula near Wasat (Delta Gem). The round disk and central star give it a face-like appearance in larger scopes. High surface brightness makes it visible from the city. Best at 150x+.</p>								
41	<b>M42</b>	● Diffuse Nebula	Ori	4.0	05h 35m 17.3s	-5d 23' 28"	Easy	<input type="checkbox"/>
<p>Note: The king of nebulae – visible to the naked eye even from city centers. The Trapezium star cluster at its heart is a fine multiple star at 75x+. The brightest part of the</p>								

nebula shines through any amount of light pollution. A must-see for every observer.

42	<b>M1</b>	• Diffuse Nebula	Tau	8.4	05h 34m 31.9s	+22d 00' 52"	Medium	<input type="checkbox"/>
<p>Note: The remnant of the supernova of 1054 AD recorded by Chinese astronomers. Appears as a soft oval glow near Zeta Tauri. Not spectacular visually, but historically profound – the first object in Messier's catalog. An OIII filter helps from the city.</p>								
43	<b>M31</b>	• Galaxy	And	3.4	00h 42m 44.3s	+41d 16' 8"	Easy	<input type="checkbox"/>
<p>Note: The nearest large galaxy – visible to the naked eye even from Bortle 8 skies as an elongated smudge. In a telescope, the bright core dominates. From the city, look for satellite galaxies M32 (sharp point of light) and M110 nearby.</p>								
44	<b>M110</b>	• Galaxy	And	8.5	00h 40m 22.1s	+41d 41' 7"	Easy	<input type="checkbox"/>
<p>Note: The larger and fainter of M31's two visible satellite galaxies – a diffuse elliptical glow NW of the Andromeda Galaxy's core. More challenging than M32 from the city due to low surface brightness. Look at low power in the same field as M31.</p>								
45	<b>M81</b>	• Galaxy	UMa	6.9	09h 55m 33.2s	+69d 03' 55"	Easy	<input type="checkbox"/>
<p>Note: A grand spiral galaxy and one of the brightest in the northern sky. Even from the city, the bright oval core is easy to spot. Pair with neighboring Cigar Galaxy M82 in the same low-power field – a classic galaxy duo.</p>								
46	<b>M82</b>	• Galaxy	UMa	8.4	09h 55m 52.3s	+69d 40' 47"	Easy	<input type="checkbox"/>
<p>Note: An edge-on starburst galaxy with a bright, elongated streak of light. Higher surface brightness than many galaxies, making it visible even in significant light pollution. Just 38' from M81 – both fit in a wide-field eyepiece.</p>								
47	<b>M51</b>	• Galaxy	CVn	8.4	13h 29m 52.7s	+47d 11' 43"	Medium	<input type="checkbox"/>
<p>Note: The famous face-on spiral with companion NGC 5195. From urban skies, the two galaxy cores appear as a close pair of fuzzy spots. Spiral arms require dark skies, but the bright nuclei are visible in 6"+ aperture even from the city.</p>								
48	<b>M104</b>	• Galaxy	Vir	8.0	12h 39m 59.4s	-11d 37' 23"	Easy	<input type="checkbox"/>
<p>Note: An edge-on galaxy with a brilliant compact core and prominent dust lane. High surface brightness for a galaxy – the core punches through urban light pollution. At 100x+ in 6"+ aperture, the elongated shape and dark lane become visible.</p>								
49	<b>M64</b>	• Galaxy	Com	8.5	12h 56m 43.8s	+21d 40' 58"	Easy	<input type="checkbox"/>
<p>Note: Named for the dramatic dark dust band across its bright nucleus. The compact, high-surface-brightness core is visible from the city in 6"+ aperture. The 'black eye' dust feature needs 8"+ and moderate magnification.</p>								
50	<b>M94</b>	• Galaxy	CVn	8.2	12h 50m 53.1s	+41d 07' 12"	Easy	<input type="checkbox"/>
<p>Note: A compact galaxy with an exceptionally bright core – one of the best galaxy targets for urban observers. The intense central starburst region concentrates light into a small area, making it visible even under Bortle 8–9 conditions.</p>								

