
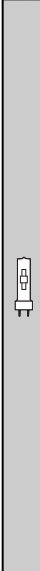


## SMALL Reflector Selection Guide

- Low to middle mounting height, 2 to 12 feet (0.6 to 5m)
- Short to medium throw distance, up to 60 feet (18m)
- Where compact size is desired

This guide is designed to assist the lighting professional in comparing and selecting the lamp(s) and luminaire(s) best suited for a project. First determine lamp and luminaire characteristics most important to your application. Then select lamp wattage based on the mounting height, distance to light and/or desired light level.

**Example:** For lighting along a building's perimeter with luminaires mounted at 9', scan down the **Mounting Height** column under **Typical Applications** for a height closest to 9'. Select lamp type with appropriate life and/or control characteristics. Then select the wattage that provides the desired light level, noting spacing and throw distance. Choose a luminaire style from those available for the selected lamp type.

Source	Lamp Type <sup>③</sup>	Lamp Characteristics			Control Characteristics		Performance <sup>④</sup>			Typical Applications <sup>⑥</sup>				
		Correlated Color Temp	Color Rendering Index (CRI)	Lamp Life <sup>①</sup> (Hours)	Starting	Ambient Temperature	Lamp Wattage	Lamp Output	Efficacy	Mtg. Ht. <sup>⑤</sup>	Spacing	Throw Dist.	E <sub>h</sub> (fc/ai)	Energy (w/sf)
<b>Point Sources</b> Best where mounting height can be 1/3 to 1/5 the required throw distance, and where luminaires can be spaced 1.5 to 2.5 times the mounting height.  <b>Example:</b> 10' wide walkway, 30" mounting height, 6" on center.	 <b>Tungsten Halogen</b>	<b>2900K</b> <i>Warm</i>	>95 CRI <i>Excellent</i> Ideal for garden pathways, flower beds, landscaping colorful paving materials, etc.	2000 Approx. 11 months at 6 hours operation per day. Note: dimming extends lamp life. <sup>②</sup>	Instant-on	Ambient temperature variations typically do not affect lamp light output.	100W	1550 lumens	16 lpw	30"	6'	12'	6.6	1.39
	 <b>Compact Ceramic Metal Halide</b>	<b>3000K</b> <i>Warm</i> Lamps using ceramic arc tubes offer lamp-to-lamp color consistency and a stable color temperature (+/-200K) over their life.	81 to 85 CRI <i>Very Good</i> Suitable for walkways, overpasses, featured landscaping, pedestrian-scale area lighting, etc.	12,000 Approx. 5 to 6 years at 6 hours operation per day.	3 to 5 minutes from cold start; 10 to 20 minutes from warm start (restrike period)	Ballast rated for -20°F/-29°C starting. Ambient temperature variations typically do not affect lamp light output.	35W	3300	59	30"	8'	12'	11.0	0.58
							150W	2700	18	36"	8'	15'	4.1	0.83
							200W	3400	17	42"	10'	18'	3.6	0.56
							250W	4800	19	30"	6'	12'	11.5	2.08
										42"	10'	18'	6.2	0.83
										8'	8'	32'	4.0	0.59
										8'	12'	32'	3.4	0.52
										10'	15'	40'	2.2	0.33
										8'	16'	32'	3.7	0.49
										10'	20'	40'	2.4	0.31
										30"	8'	12'	11.0	0.58
										8'	8'	32'	4.9	0.22
										8'	12'	32'	3.4	0.15
										10'	10'	40'	3.3	0.14
							70W	6600	70	36"	9'	15'	15.0	0.70
										8'	12'	32'	6.3	0.24
										8'	20'	32'	3.9	0.15
										10'	15'	40'	4.1	0.16
							150W	14,000	78	8'	16'	32'	10.4	0.35
										10'	15'	40'	8.8	0.30
										10'	25'	40'	5.6	0.18
										12'	30'	48'	3.7	0.13

① Average rated life is the number of hours at which 50% of a large group of lamps are still operating. Metal halide based on 10 or more hours per start. Average life may increase or decrease as the period per start increases or decreases.  
Where low maintenance is desired or for locations that are difficult to reach, long life metal halide lamps are suggested.

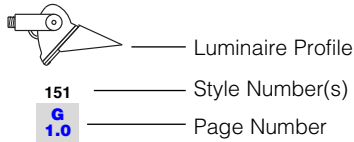
② Dimming halogen lamps to 95% of rated lamp voltage will double the average lamp life and reduce light output approximately 15%.  
③ Lamp(s) furnished with luminaires. See lamp charts in Accessories Section.

④ **Lamp output** = initial rated lumens; may vary with lamp manufacturer. **Efficacy** = expressed in lumens per watt (lpw); includes ballast losses and may vary, depending on actual lamp and ballast parameters.  
⑤ Application values for 30" and 36" mounting heights based on Style 252/254 semi-recessed luminaires.



**Key**

Styles are available for tenon and pole mounting. Refer to individual data pages for complete specifications.



Surface - 100 Series	Semi-Recessed - 200 Series		Enscore - 400 Series		Lamp Type
Remote Ballast (or no ballast)	Remote Ballast (or no ballast)	Integral Ballast	Remote Ballast (or no ballast)	Integral Ballast	
<p>151 G 1.0</p> <p>160 G 3.0</p>	<p>252 (100, 150W halogen 35, 70W metal halide only) G 4.0</p>	<p>254 (35, 70W only) G 4.0</p>	<p>451 / OSA G 5.0</p> <p>451 / OSB G 5.0</p>	<p>452 (W-mount) G 6.0</p> <p>452 (F-mount) G 6.0</p> <p>452 / OSN (35, 70W only) G 7.0</p> <p>452 / OSO (35, 70W only) G 7.0</p>	<p>Tungsten Halogen</p> <p>Compact Ceramic Metal Halide</p>

**OUTDOOR**



© Typical ground lighting applications:

**E<sub>h</sub>** = horizontal illuminance, footcandles average initial (fcai), perpendicular to the ground (estimated for a surface lighted by 5 or more luminaires).

**Energy** = input watts (including ballasts) per area in square feet (throw distance x spacing); use for comparison purposes only.

**Throw distance, Spacing** and **Mounting height** are as illustrated:

