

## High intensity discharge lighting systems metal halide energy efficient lamps

Manufacturer	Model Number	Lamp [W]	Minimum light output		Average Life (At 3 hrs/start) [Hrs] <sup>(1)</sup>	Warranty [years]	Approval Year
			Initial [lumens] <sup>(1)</sup>	Mean [lumens] <sup>(1)</sup>			
Philips	CDM145/U/M/4K ED17 EA AllStart	145	13,200	10,560	20,000	1	2011
Philips	CDM145/C/U/M/4K ED17 EA AllStart	145	12,200	9,760	20,000	1	2011
Philips	CDM145/U/O/4K ED28 EA AllStart	145	13,500	10,125	20,000	1	2011
Philips	CDM145/C/U/O/4K ED28 EA AllStart	145	12,500	9,375	20,000	1	2011
Philips	CDM205/C/U/O/4K EA AllStart	205	18,000	14,400	20,000	1	2010
Philips	CDM205/U/O/4K EA AllStart	205	20,500	15,600	20,000	1	2010
Philips	CDM330/C/U/O/4K EA AllStart	330	31,000	22,400	20,000	1	2010
Philips	CDM330/U/O/4K EA AllStart	330	33,000	26,400	20,000	1	2010
Philips	CDM330/U/O/4K ED28 EA AllStart	330	33,000	26,400	20,000	1	2011
Philips	CDM830/V/O/4K EA AllStart	830	80,000	69,400	16,000	1	2011
Philips	MS360/BU/EW	360	36,000	24,500	20,000	1	2010
Philips	MS360/C/BU/EW	360	34,200	22,600	20,000	1	2010
Standard	M320/BU-HOR/PS/BT28	320	32000V	19700V	20000V	2	2010
Standard	M320/BU-HOR/PS/BT28	320	30000H	21000H	15000H	2	2010
Standard	M360SX/BU/I	360	37800	30200	30000V	3	2010
Standard	M360SX/BU/I	360	37800	30200	20000H	2	2010
Standard	MF320/BU-HOR/PS	320	30000V	19700V	20000V	2	2010
Standard	MF320/BU-HOR/PS	320	28000H	18400H	15000H	2	2010
Standard	MF360SX/BU/I	360	35900	28700	30000V	3	2010
Standard	MF360SX/BU/I	360	35900	28700	20000H	2	2010
Standard	MP320/BU/PS/BT28	320	28600	21000	20,000	2	2010
Standard	MP350/BU/PS/BT37	350	33000	24500	20,000	2	2010
Standard	MP360SX/BU/I	360	35900	28700	30000V	3	2010
Standard	MP360SX/BU/I	360	35900	28700	20000H	2	2010
Standard	MPF320/BU/PS	320	27700	19000	20,000	2	2010
Standard	MPF350/BU/PS/BT37	350	32000	23000	20,000	2	2010
Sylvania	MS360/SS/BU-HOR	360	36000V	24200V	20000V	3	2010
Sylvania	MS360/SS/BU-HOR	360	30000H	19000H	15000H	2	2010
Sylvania	MS360/C/SS/BU-HOR	360	36000V	24200V	20000V	3	2010
Sylvania	MS360/C/SS/BU-HOR	360	30000H	19000H	15000H	2	2010
Sylvania	MSP360/SS/BU-ONLY	360	36000	24200	20,000	2	2010
Sylvania	MSP360/C/SS/BU-ONLY	360	34500	23200	20,000	2	2010

## NOTES:

<sup>(1)</sup>Orientation of lamp: V = Vertical, H=Horizontal

For a complete list of qualifying parameters, contact Manitoba Hydro