






# WE-EF LIGHTING - AS/NZS 1158.3.1:2020 Pathway Lighting Design Options – Bollards

Maximum Spacing (m) – PP4 Pathway <sup>2</sup>							
Luminaire <sup>1</sup>	Luminaire Details	Luminaire Lumens	Path Width <sup>6</sup>				Product Image
			1m	2m	3m	4m	
PSY414 <i>[0% UWLR] [800mm]</i>	R45 3 LED 6W	552.1	10.0m	10.0m	6.1m	6.9m	
	R45 3 LED 9W	997.8	10.1m	10.8m	6.0m	6.5m	
	R45 3 LED 12W	1276.5	10.1m	11.4m	6.0m	6.5m	
PSY424 <i>[0% UWLR]</i>	A60 6 LED 12W	1224.2	10.0m	10.0m	6.9m	6.7m	
	A60 6 LED 18W	2027.8	10.6m	11.0m	6.8m	6.5m	
	A60 6 LED 26W	2593.4	10.7m	11.5m	6.8m	6.5m	
	R65 6 LED 12W	1057.2	10.1m	10.0m	10.1m	10.0m	
	R65 6 LED 18W	1998.3	11.3m	11.4m	10.5m	10.6m	
	R65 6 LED 26W	2555.7	12.6m	12.7m	10.5m	10.6m	
	S70 6 LED 12W	1176.0	10.5m	10.4m	10.4m	9.5m	
	S70 6 LED 18W	2237.0	13.1m	13.0m	12.5m	11.5m	
	S70 6 LED 26W	2860.8	13.7m	13.8m	12.5m	12.5m	
KTY234 <sup>9</sup> <i>[C60 13.1% UWLR] [R65 9.6% UWLR]</i>	C60 18W	863.4	18.3m	18.0m	17.3m	13.5m	
	C60 26W	1104.2	19.8m	19.5m	17.3m	13.5m	
	R65 9W	543.9	15.2m	15.5m	14.8m	13.2m	
	R65 13W	695.7	16.7m	17.0m	14.8m	13.2m	
CFY259 <sup>9</sup> <i>[1.3% UWLR]</i>	Forward-throw 12W	397.7	9.2m	9.9m	4.6m	5.5m	
	Forward-throw 18W	571.5	9.8m	10.0m	4.6m	5.5m	
ZFY230 <sup>9</sup> <i>[14.0% UWLR]</i>	C60 12W	799.4	12.2m	11.3m	10.5m	9.8m	
	C60 17W	1184.3	13.4m	13.2m	12.3m	10.4m	

<sup>1</sup> Luminaire offset distance is 0.3m behind the path edge in a single sided arrangement.

<sup>2</sup> PP4 Pathway - Average Horizontal 1.5 lx  
Minimum Horizontal 0.25 lx  
Minimum Vertical N/A  
Uniformity (Max/Avg) 5

<sup>3</sup> Calculations are based on a 0.8 luminaire LLF.

<sup>4</sup> Light source position is ≈ 1.0m AFFL unless noted otherwise.

<sup>5</sup> Lamp colour temperature is 4000K, 2200K, 2700K, 3000K & amber bollard spacings may vary, for further details check with WE-EF Lighting.

<sup>6</sup> Bollard spacing for each path width may vary as the calculation grid point arrangements change to suit.

<sup>7</sup> Calculations exclude the 50% of Eph 5m either side of the path in view of footnote d of table 3.4.




<sup>8</sup> Calculations exclude the E<sub>pv</sub> component as per footnote e of table 3.4.

<sup>9</sup> Upward waste light exceeds the 1% allowed for pathways, confirm acceptance.

<sup>10</sup> Possibly consider a staggered or opposite luminaire arrangement for a larger spacing.

<sup>11</sup> Luminaire spacings are based on using the Perfect Lite software while adopting the 2020 light technical parameters.

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			1m	2m	3m	4m	
QSI254 <sup>9</sup> <i>[23.8% UWLR]</i>	Forward-throw 10W	563.7	8.6m	9.8m	4.8m	5.7m	
NTY184 <sup>9</sup> <i>[2.5% UWLR] [800mm]</i>	A60 12W	719.6	10.3m	10.0m	6.0m	5.8m	
	A60 18W	1316.3	10.4m	10.0m	6.0m	5.8m	
MRY224 <i>[0% UWLR] [850mm]</i>	C70 11W	948.1	9.6m	9.3m	6.2m	6.0m	
	C70 15W	1262.9	10.0m	10.0m	6.2m	6.2m	
	S60 11W	946.9	10.7m	10.6m	9.5m	9.6m	
	S60 15W	1261.3	11.3m	11.1m	9.5m	9.6m	
MRY224 <i>[0% UWLR]</i>	C70 11W	948.1	10.0m	10.0m	7.4m	7.6m	
	C70 15W	1262.9	10.7m	10.5m	7.4m	7.6m	
	S60 11W	946.9	13.0m	13.0m	11.3m	11.1m	
	S60 15W	1261.3	13.8m	13.8m	11.3m	11.8m	