

1.0 GENERAL**.1 Requirements**

- .1 LED is the preferred light source. Full vision cutoff shall be provided (IES BUG rating as per LEED Requirement at Campus property line). Give special consideration to lighting around conservation areas such as Guichon Creek.
- .2 Colour temperature is preferred 3000°K for all exterior. Coordinate with BCIT.
- .3 Lighting Standards for EXTERIOR APPLICATIONS vary depending on the usage. Lighting levels, energy efficiency, and controls shall be as outlined in Table 1 - BCIT Lighting Standards - Exterior.
- .4 Selection of a BCIT standard fixture with standard components is recommended. Refer to Appendix 'D' - Selection of Luminaires – Exterior.

2.0 PRODUCTS**.1 Manufacturers**

- .1 Refer to Section 26 56 01 Appendix 'D' Selection of Luminaires – Exterior.

.2 Product Description

- .1 Exterior luminaires can be wall mounted or pole mounted.
- .2 Poles heights:
 - .1 Pathway: Bollards.
 - .2 Pathway, sidewalk: 3.048 m / 10 ft. ±
 - .3 Roadway: 7.32 m / 24 ft.
 - .4 Parking Lot: 9.14 m / 30 ft.
 - .5 Pedestrian Organization Spine: 4.88m / 16 ft
- .3 Pole finish:
 - .1 Finish: Galvanized with paint.
 - .2 Base plate: Standard.
 - .3 Shape: Square.
 - .4 Colour: Black.

- .4 LED Drivers:
 - .1 Standard: Supply LED drivers with 0-10 volt dimming.
 - .2 Protection: Protect housing against moisture, dust, and vibrations.
 - .3 Minimum: 50,000 hours life.
 - .4 Temperature Control: Module.
 - .5 Light Output: Constant.
 - .6 Compliance with IES LM-80 Standards.
- .5 Diffusers:
 - .1 Luminaires with diffusers shall have durable, long life diffusers to minimize glare and maximize lighting uniformity.
 - .2 Design diffusers for LED luminaires for LED fixture applications.
- .6 Lamps: LED Light Source:
 - .1 Source high efficiency LED with the following features:
 - .1 Nominal: 100 lumens/watt or better.
 - .2 Minimum: 75 lm / watt.
 - .3 Rated life: Minimum L70 @ 50,000 hours.
 - .4 Compliance with IES LM-79 Standards.
- .7 Luminaires:
 - .1 All exterior fixtures: Classified "Dark Sky" compliant.
 - .2 Lighting shall minimize light trespass and light pollution.

.3 Exterior Lighting Standards

- .1 Lighting calculations must be made for maintained footcandle (lux) levels and submission to approval prior to order of material. Measurement of illumination level with report to be submitted after completion of installation.
- .2 Refer to Table 1 below for BCIT Exterior Lighting Standards.

BCIT Lighting Standards - Exterior					
AREA USE	ILLUMINATION LEVEL		ILLUMINATING UNIFORMITY RATIO	MAXIMUM WATTAGE	
	FC	LUX			
A Building Entrances	10	15-40	n/a	20W/ft. of door width	
B Building Exit Door	3	10	n/a	n/a	
C Sidewalk	1.1	5-10	5:1	n/a	
D Pathways	0.5	5	5:1	n/a	
E Parking Lot - Open	1	2	4:1	n/a	
F Loading Deck	20	200	n/a	n/a	
G Roadways ¹	0.7	7	6:1	n/a	

¹Classified for the purposes of lighting as local road – intermediate use.

***** END OF LIGHTING - EXTERIOR SECTION *****