Dataset Description

Station Information							
ID*	**Type***	**Location**	**Latitude***	**Longitude***	**Coordinate System Units**	**Coordinate Reference System**	**Coordinate Collection Method**
9	Ocean	Hudson Bay	63.7288	-79.9282	decimal degrees	Unknown	GPS - Unspecified
11	Ocean	Hudson Bay	62.865	-78.8966	decimal degrees	Unknown	GPS - Unspecified
16	Ocean	Hudson Bay	62.2796	-85.906	decimal degrees	Unknown	GPS - Unspecified
18	Ocean	Hudson Bay	63.7138	-88.417	decimal degrees	Unknown	GPS - Unspecified
21	Ocean	Hudson Bay	60.9113	-89.3586	decimal degrees	Unknown	GPS - Unspecified
24	Ocean	Hudson Bay	61.6966	-87.7641	decimal degrees	Unknown	GPS - Unspecified
25	Ocean	Hudson Bay	62.0219	-87.0088	decimal degrees	Unknown	GPS - Unspecified
34	Ocean	Hudson Bay	56.5062	-86.8942	decimal degrees	Unknown	GPS - Unspecified
36	Ocean	Hudson Bay	57.774	-86.0311	decimal degrees	Unknown	GPS - Unspecified
38	Ocean	Hudson Bay	58.7224	-86.3045	decimal degrees	Unknown	GPS - Unspecified
40	Ocean	Hudson Bay	58.2327	-88.5633	decimal degrees	Unknown	GPS - Unspecified

Dataset Description

SAMPLE VARIABLE DETAILS

Variable Name*	Variable Description	Variable Speciation	Variable Sample Fraction*	Variable Media Type	Activity Collection Type	Result Value Type
Year		None	None	Other	n/a	Actual
Month		None	None	Other	n/a	Actual
Day		None	None	Other	n/a	Actual
Hour		None	None	Other	n/a	Actual
Minutes		Other	Other	Other	n/a	Actual
Julian_day	Day of the year	Other	Other	Other	n/a	Actual
Station	ID	None	None	Other	n/a	Actual
Latitudes	Latitude in Decimal Degrees	None	None	Other	Satellite	Actual
Longitudes	Longitude in Decimal Degrees	None	None	Other	Satellite	Actual
Snow_depth_cm	Snow depth	None	None	Ice Floe	Field Observation	Actual
Melt_pond_depth_ cm	Melt pond depth	None	None	Ice Floe	Field Observation	Actual
Freeboard_cm	Positive freeboard indicates water level below ice floe surface level, negative freeboard indicates a water level above the ice floe surface	None	None	Ice Floe	Field Observation	Actual
Ice_thickness_cm	Thickness of the sampled ice floe	None	None	Ice Floe	Field Observation	Actual
Mean_surface_PAR_micromole_photons_m-1_s-1	Mean of five consecutive measurements of	None	None	Ice Floe	Field Measurement - PAR Sensor	Calculated

	incident downwelling planar irradiance					
Mean_PAR_at_ice_bottom_micromole_photons_m-1_s-1	Mean of five consecutive measurements of incident downwelling planar irradiance	None	None	Ice Floe	Field Measurement - PAR Sensor	Calculated
Mean_PAR_albedo	Mean of five consecutive albedo measurements of	None	None	Ice Floe	Field Measurement - PAR Sensor	Calculated
	the same ice surface type					
Mean_PAR_transmittance	Mean of five consecutive transmittance measurements below the same ice surface type	None	None	Ice Floe	Field Measurement - PAR Sensor	Calculated
Ice_surface_type	Snow, melt pond, white ice	None	None	Ice Floe	Field Observation	Actual
Weather	Indicates cloud coverage	None	None	Air	Field Observation	Actual
QF	Data qualifier	Followed labels in table 2 of this document	None			

Dataset Description

DATA FILE DETAILS

Column Name*	**Unit**	**Description**	**Statistic Applied**
Snow_depth_cm	cm	Snow depth	
Melt_pond_depth_cm	cm	Melt pond depth	
Freeboard_cm	cm	Positive freeboard indicates water level below ice floe surface level, negative freeboard indicates a water level above the ice floe surface	
Ice_thickness_cm	cm	Thickness of the sampled ice floe	
Mean_surface_PAR_micromole_photons_m-1_s-1	□mol photons m-1 s-1	Mean of five consecutive measurements of incident downwelling planar irradiance	Mean
Mean_PAR_at_ice_bottom_micromole_photons_m1_s-1	□mol photons m-1 s-1	Mean of five consecutive measurements of incident downwelling planar irradiance	Mean
Mean_PAR_albedo	none	Mean of five consecutive albedo measurements of the same ice surface type	Mean

Mean_PAR_transmittance	none	Mean of five consecutive transmittance measurements below the same ice surface type	Mean

Table 1. Code list

CanWIN Short Code	Definition	User Code
ADL	Above Detection Limit	
BDL	Below Detection Limit	
$	Incorrect sample container	
EFAI	Equipment failure, sample lost	
FEF	Field equipment failed	
FEQ	Field Equipment Questionable	
FFB	Failed. Field blank not acceptable.	
FFD	Failed. Field Duplicate.	
FFS	Failed. Field spike not acceptable.	
H	Holding time exceeded	
ISP	Improper sample preservation	
ITNA	Incubation time not attained	
ITNM	Incubation temperature not maintained	
JCW	Sample container damaged, sample lost	
NaN	Value is missing and reason is not known	
NC	Not collected	
ND	Not detected	
NR	Sample taken/measured on site but information in this field not recorded	
NS	Sample collected but not submitted	
OC	Master Coordinate List Used	

P	Analysis requested and result pending	
prob_good	probably good value. Data value that is probably consistent with real phenomena but this is unconfirmed or data value forming part of a malfunction that is considered too small to affect the overall quality of the data object of which it is a part.	
prob_bad	probably bad value. Data value recognised as unusual during quality control that forms part of a feature that is probably inconsistent with real phenomena.	
Interpolated	This value has been derived by interpolation from other values in the data object.	
Q	Below limit of quantification (LOQ). The value was below the LOQ of the analytical method. The value in the result field is the limit of quantification (limit of detection) for the method.	
LAF	Lab Analysis Failure (value cannot be trusted due to detected lab instrument failure (e.g. contamination) during sample processing	New code added by LCM

Table 2. Options for Statistics Applied

Statistics Applied	Description
30DADMean	Thirty-day average daily mean
7DADM	Seven-day average daily maximum
7DADMean	Seven-day average daily mean

Dataset Description

7DADMin	Seven-day average daily minimum
Coefficient of variation	The ratio of the standard deviation σ to the mean, μ.
Daily Geometric Mean	Provides a number that is more representative of the median and helps reduce the effect of a few extreme values.
Daily Maximum	The largest value of a set, each period of a day cycle
Daily Minimum	The smallest value of a set, each period of a day cycle
Hourly Maximum	The largest value of a set, each period of an hour cycle
Hourly Minimum	The smallest value of a set, each period of an hour cycle
MatLab script	Provide the MatLab script or the link to it
Mean	The sum of all the numbers in the set divided by the amount of numbers in the set
Median	The middle point of a number set, in which half the numbers are above the median and half are below.
None	None
R script	Provide the R script or the link to it
Standard Deviation	This describes the spread of values in the sample
Standard Error	The standard deviation of the sample mean, $\bar{x}$, which describes its accuracy as an estimate of the population mean, μ.