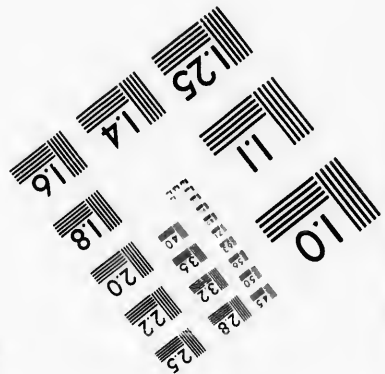
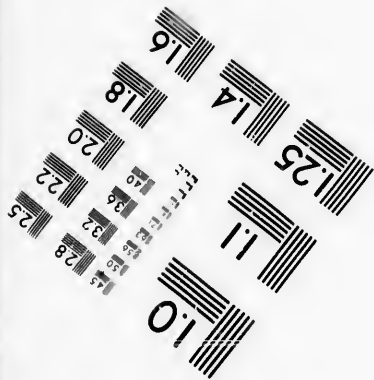
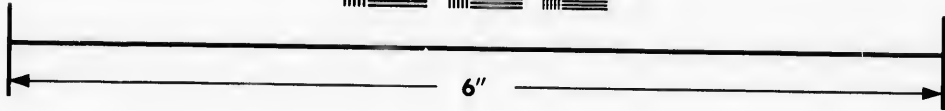
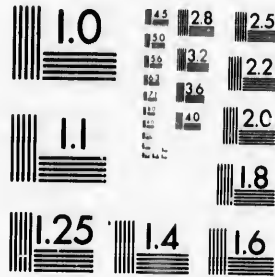


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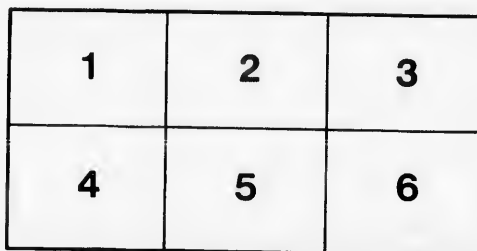
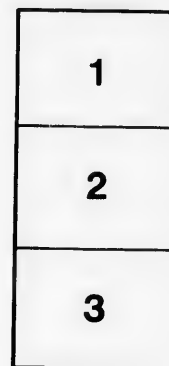
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LIST OF LIGHTS
ON THE
NORTHERN LAKE AND RIVER COASTS
OF THE
UNITED STATES,
CORRECTED TO JANUARY, 1873:
AND ALSO OF
THE CANADIAN LIGHTS
ON THE
NORTHERN SHORES OF THOSE WATERS.

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Grand Haven

LIGHT-HOUSE BOARD OF THE UNITED STATES.

(Organized in conformity to the act of Congress approved August 31, 1852.)

LIST OF MEMBERS.

Hon. GEORGE S. BOUTWELL, *Secretary of the Treasury, ex officio President.*
 Professor JOSEPH HENRY, LL.D., *Secretary Smithsonian Institution.*
 Brevet Major General A. A. HEMPHREYS, *Chief of Engineers, U. S. Army.*
 Brevet Major General J. G. BARNARD, *Colonel of Engineers, U. S. Army.*
 Professor B. PEIRCE, LL.D., *Superintendent Coast Survey.*
 Rear-Admiral T. BAILEY, *U. S. Navy.*
 Rear-Admiral HENRY WALKER, *U. S. Navy.*
 Rear-Admiral C. S. BIGGS, *U. S. Navy.*
 Major GEORGE H. ELLIOT, *Corps of Engineers, U. S. Army.*

MEMBERS OF THE BOARD ON DUTY IN THE OFFICE.

Professor JOSEPH HENRY, LL.D., *Chairman.*
 Rear-Admiral C. S. BIGGS, *U. S. Navy, Naval Secretary.*
 Major GEORGE H. ELLIOT, *Corps of Engineers, U. S. Army, Engineer Secretary.*

LIST OF LIGHT-HOUSE DISTRICTS AND LOCAL OFFICERS.

Districts.	Limits of Districts.	Inspectors.	Headquarters.	Engineers.	Headquarters.
3d.	Extends from Gooseberry point, Massachusetts, to include Squam Inlet, New Jersey, and embraces all the aids to navigation on the sea and sound coasts of Rhode Island, Connecticut, and New York; Narragansett and New York bays; the rivers, Providence and Hudson, Whitehall Narrows, and Lake Champlain.	James H. Strong, Commodore, United States Navy.	New York City	Brevet Brigadier General L. C. Woodruff, Lieutenant Colonel of Engineers, United States Army.	Tompkinsville, Staten Island, N. Y.
10th.	Extends from the mouth of Saint Regis river, New York, to include Grassy Island light-house, Detroit River, Michigan, and embraces all the aids to navigation on the American shores of Lake Erie, Lake Ontario, and river Saint Lawrence.	N. Collins, Commodore, United States Navy.	Buffalo, N. Y.	Brevet Lieutenant Colonel George L. Gillespie, Captain of Engineers, United States Army.	Buffalo, N. Y.
11th.	Embraces all aids to navigation on the northern and north-western lakes above Grassy Island light-house, Detroit River, and includes lakes Saint Clair, Huron, Michigan, and Superior.	Alex. Murray, Commodore, United States Navy.	Detroit, Mich.	Brevet Brigadier General G. M. Poe, Major of Engineers, United States Army.	Detroit, Mich.

LIST OF COLLECTORS OF CUSTOMS ACTING AS SUPERINTENDENTS OF LAKE LIGHTS.

Post Office Address.	Names.	Post Office Address.	Names.
Buffalo, New York.....	R. W. Daniels.....	Marquette, Michigan.....	Hiram A. Burt.
Burlington, Vermont.....	William Wells.....	Mitwaukee, Wisconsin.....	Geo. C. Stevens.
Cape Vincent, New York.....	Sidney Cooper.....	Ogdensburg, New York.....	S. P. Remington.
Chicago, Illinois.....	Norman B. Judd.....	Oswego, New York.....	Elias Root.
Cleveland, Ohio.....	P. G. Watnough.....	Plattsburg, New York.....	Jacob Parmerter.
Detroit, Michigan.....	George Jerome.....	Port Huron, Michigan.....	John P. Smilorn.
Duluth, Minnesota.....	Henry Selby.....	Rochester, New York.....	John M. Davy.
Dunkirk, New York.....	Pascal P. Kidder.....	Sandusky, Ohio.....	John Youngs.
erie, Pennsylvania.....	Richard F. Ganguin.....	Suspension Bridge, New York.....	T. E. Ellsworth.
Grand Haven, Michigan.....	H. C. Akelby.....	Toledo, Ohio.....	P. S. Slevin.

TO MARINERS.

TREASURY DEPARTMENT,
OFFICE LIGHT HOUSE BOARD, *Washington City, January, 1873.*

Mariners and others interested in commerce and the preservation of life and property from loss by shipwreck on the coasts of the United States, are earnestly requested to give prompt information to the Inspectors, or Superintendents of Lights, or, by direct communication to the Light House Board, of cases in which lights are not lighted punctually at sunset and extinguished at sunrise, or in which they are not properly attended to during the night, or in which buoys are out of position, and of all cases in which the published instructions are not strictly complied with, that the Board may, with as little delay as possible, apply the proper remedy, and prevent neglect of duty on the part of persons connected with the lights, beacons, and buoys of the United States.

LIGHTS ON NORTHWESTERN LAKES.

TIME OF EXTINGUISHING IN THE WINTER AND RE-EXHIBITING THEM IN THE SPRING.

All lights of the United States in the River St. Lawrence, and on Lakes Ontario, Erie, St. Clair, Huron, Michigan, Champlain, and Superior, and their contiguous bays, &c., will be discontinued on the first day of January of each year, unless otherwise specially directed; and upon the opening of navigation in the localities above named in each year, the light-keepers of the respective lights will exhibit the lights from sunset to sunrise of each night, as soon as it is practicable for vessels to enter the ports at or near which the lights are situated. The keepers of lights situated on islands on the Lakes will be governed, in exhibiting their lights on the opening of navigation in the spring of each year, by the action of the keepers on the main land.

Light keepers will be careful to note on their journals, and quarterly returns, the day on which their lights are exhibited upon the opening of navigation in the spring, and to conform strictly to the terms of the foregoing notice.

REMOVING BUOYS IN THE FALL AND RESTORING THEM IN THE SPRING.

The buoys on the Lakes and adjacent navigable waters will be removed each year upon the closing of the navigation of the respective localities, and replaced in the spring as soon as the ice will permit.

AN ACT FOR THE PROTECTION OF BUOYS IN THE NIAGARA RIVER—PASSED APRIL 1, 1871.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. Any person mooring any vessel, scow, or raft to any buoy placed by the United States in the Niagara River, or who shall in any manner make fast thereto any vessel, scow, or raft, shall be liable to a penalty of fifty dollars for each and every offense.

SEC. 2. Any person who shall remove or destroy any such buoy, by accident or otherwise, and shall not report such removal or accident to the collector of the port next entered after such removal or destruction, shall be liable to a penalty of one hundred dollars for each and every offense.

SEC. 3. Said penalties may be recovered by complaint before any court competent to try the same.

SEC. 4. In case penalties shall be collected for violation of this act, one-half shall be paid to the informer; the remainder of said penalties shall be paid to the collector of the port of Buffalo, to be used in maintaining and restoring said buoys.

SEC. 5. The collector of the port of Buffalo is hereby authorized to sue for and collect the penalties mentioned in this act.

SEC. 6. This act shall take effect immediately.

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AN ACT FOR THE PROTECTION OF BUOYS IN THE STATE OF MICHIGAN.

SECTION 1. *The People of the State of Michigan enact*, That any person mooring any vessel to any of the buoys or beacons placed in any of the waters of the State by the authority of the United States Light-House Board, or in any manner hanging on with a boat or vessel to any such buoy or beacon, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punishable by a fine not exceeding fifty dollars, and imprisonment in the county jail not exceeding thirty days; and any person who shall wilfully remove, or destroy, any such buoy or beacon, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punishable by a fine not exceeding two hundred and fifty dollars, nor less than fifty dollars, and imprisonment in the county jail not exceeding ninety days.

SEC. 2. It shall be the duty of the prosecuting attorney of the county in which such buoy or beacon shall be situated, to proceed, in the name of the people, against any person violating the preceding section of this act, when notified in writing of such violation by any officer of the United States light-house service.

Approved January 30, 1863.

NOTES AND REFERENCES.

The lights on the Northern Lakes are arranged in the order of location, commencing on Lake Champlain and proceeding westward.

The names of the lights are printed as follows, viz:

1. PRIMARY LAKE-COAST LIGHTS.
2. SECONDARY LAKE-COAST LIGHTS.
3. Harbor Lights.

In the column of "Distance visible, in statute miles," will be found the distances at which the lights can be seen, under ordinary states of the atmosphere, by observers at elevations of ten feet above lake level. The courses given are *true*, and must be corrected by masters of vessels for *magnetic variation*. The given courses, bearings, &c., of the lights on the British list, are magnetic.

REFERENCES.

F. W. Fixed or steady white light.
 F. R. Fixed red light.
 Flg. W. Flashing white light.
 Flg. R. Flashing red light.
 Flg. R. & W. . . . Flashing red and white light.
 F. V. W. F. . . . Fixed white light, varied by white flashes.
 F. V. R. F. . . . Fixed white light, varied by red flashes.
 F. V. R. & W. F. . Fixed white light, varied by red and white flashes.

Colored lights are specially noted by small CAPITALS in column of remarks.

- [⊙ 1] First-order lens apparatus.
- [⊙ 2] Second-order lens apparatus.
- [⊙ 3] Third-order lens apparatus.
- [⊙ 4] Fourth-order lens apparatus.
- [⊙ 5] Fifth-order lens apparatus.
- [⊙ 6] Sixth-order lens apparatus.

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Number	Name	Location	Latitude		Longitude		Signal	Description of light (See page 4.)
			north	west	north	west		
154	Benjamin's Place No. 1	Two miles from Whitehall, Dresden, N. Y.	43 35 30	73 31 30			F. W.	154
155	Carey's Camp No. 2	Half a mile north of Benjamin's place.	43 35 45	73 31 01			F. W.	155
156	Opposite Chapman's Dock No. 1	About four miles from Whitehall, Dresden, N. Y.	43 36 30	73 31 36			F. W.	156
157	South of Smith's Dock No. 4	One mile from No. 1	43 37 46	73 31 44			F. W.	157
158	Young Mill Point No. 3	Three-quarters of a mile north of No. 4	43 38 10	73 31 48			F. W.	158
159	Long Beach No. 5	Half a mile north of No. 3	43 38 30	73 31 30			F. W.	159
160	Head of Two Channels No. 7	Half a mile north of No. 5, Dresden, N. Y.	43 39 00	73 31 01			F. W.	160
161	Maple Bend No. 8	Three-quarters of a mile north of No. 7, Dresden, N. Y.	43 39 45	73 31 18			F. W.	161
162	Lower end of Two Channels No. 9	One-half of mile north of No. 8, Dresden, N. Y.	43 39 15	73 31 46			F. W.	162
163	Cold Spring No. 10	One mile north of No. 8	43 41 15	73 31 14			F. W.	163
164	Carlson's Bend No. 11	Half a mile north of No. 9	43 41 45	73 31 01			F. W.	164
165	Opposite Belden's Dock No. 12	Half a mile north of No. 11	43 42 15	73 31 04			F. W.	165
166	Alvess Pulpit Point No. 13	One-half mile north of No. 12	43 42 45	73 31 02			F. W.	166
167	Pulpit Point No. 14	One-fourth mile north of No. 12	43 43 00	73 31 16			F. W.	167
168	Lower end of Four Channels and Narrows No. 15	One and one-fourth mile north of No. 14	43 44 15	73 31 30			F. W.	168
169	Old Man's Place No. 16	Three-fourths of a mile north of No. 15	43 45 00	73 31 38			F. W.	169
170	Crown Point	On Crown point, west side of Lake Champlain, N. Y.	44 00 00	73 29 17			F. W.	170
171	Harley's Point		44 01 00	73 29 23			F. W.	171
172	Split Rock	Near Essex, west side of Lake Champlain, N. Y.	44 02 00	73 18 00			F. W.	172
173	Juniper Island	On Juniper Island, south side of entrance to Burlington harbor, Vt.	44 27 00	73 14 00		A bell struck by machinery and a horn sounded at intervals of 5 minutes.	F. W.	173
174	Burlington Beacon	1	44 28 00	73 14 52			F. W.	174
175	Burlington Beacon	1	44 28 50	73 14 52			F. W.	175
176	Coblescoter Reef	On Middleburgh cut, Coblescoter point, Vt.	44 30 00	73 19 37			F. R.	176
177	Bluff Point	On Valcour Island, N. Y.	44 30 04	73 25 37			F. W.	177
178	Plattsburg Beacon	1	44 40 50	73 20 32			F. W.	178
179	Plattsburg Beacon	1	44 51 00				F. W.	179
180	Cumberland Head	Near Plattsburg, west side of Lake Champlain, N. Y.	44 42 00	73 20 00			F. W.	180
181	Point au Roche	On the shore at Point au Roche, in Lake Champlain, N. Y.	44 47 53	73 20 11			F. W.	181
182	Isle la Motte	On north end of Isle la Motte, Vt.	44 55 00	73 19 02			F. W.	182
183	Windmill Point	On Windmill point, Vt., opposite Rouse's point, N. Y.	44 58 58	73 20 11			F. W.	183

NEW YORK AND VERMONT.

THIRD DISTRICT.

Description
of light
(See page 4.)

No.	Color	Height of tower from base to focal plane	Height of light from sea level	Height of tower from base to focal plane	Height of light from sea level	Character of lens	When built	When rebuilt	When refitted	Compass range of visibility	Remarks
F. W.	Black	16	160	160	160	Lens lantern	1850	1850		N by W 1/2 to S	Portable beacon
F. W.	Red	16	160	160	160	Lens lantern	1850	1850		N by E 1/2 to S	Portable beacon
F. W.	White stake	15	160	160	160	Lens lantern	1850	1850		N by W 1/2 to S	Portable beacon. To be built.
F. W.	White stake	15	160	160	160	Lens lantern	1850	1850		N by W 1/2 to S	Portable beacon. To be built.
F. W.	Red	15	160	160	160	Lens lantern	1850	1850		N by E 1/2 to S	Portable beacon
F. W.	Red	16	160	160	160	Lens lantern	1850	1850		N by E 1/2 to S	Portable beacon
F. W.	R & B U. S.	16	160	160	160	Lens lantern	1850	1850		N by W 1/2 to S	Portable beacon, three red and black horizontal bands, centre black, upper and lower red.
F. W.	Red	16	160	160	160	Lens lantern	1850	1850		N by E 1/2 to S	Portable beacon in the marshy "narrows" at the head of Lake Champlain.
F. W.	R & B U. S.	18	160	160	160	Lens lantern	1850	1850		N by W 1/2 to S	Portable beacon, three black and red horizontal bands, centre red, upper and lower black.
											Portable beacon. To be built.
F. W.	Red	16	160	160	160	Lens lantern	1850	1850		N by E 1/2 to S	Portable beacon.
F. W.	Black	16	160	160	160	Lens lantern	1850	1850		N by W 1/2 to S	Portable beacon.
F. W.	Black	18	160	160	160	Lens lantern	1850	1850		N by W 1/2 to S	Portable beacon.
											Portable beacon. To be built.
F. W.	Black	18	160	160	160	Lens lantern	1850	1850		N by E 1/2 to S	Portable beacon.
F. W.	Red	18	160	160	160	Lens lantern	1850	1850		N by W 1/2 to S	Portable beacon.
F. W.	Dark blue	85	167	167	167	☉ 5	1858			SW by E 1/2 to S	Tower of limestone, with keeper's dwelling of wood, connected by a covered way.
										N by E 1/2 to S	Building.
F. W.	Dark blue	42	160	167	167	☉ 4	1858	1867		SW by E 1/2 to S	Tower of limestone, with keeper's dwelling of wood, connected by a covered way.
F. W.	White	30	160	160	160	☉ 4	1856			Entire horizon	Iron tower, painted white.
F. W.	White	21	167	167	167	☉ 6	1857			Entire horizon	Two wooden beacons on breakwater.
F. W.		21	167	167	167	☉ 6				Entire horizon	
F. R.	Yellow	51	167	167	167	☉ 5	1871			E. N. E. by S 3/4 to E. S. E.	On Middle land. Black lantern surmounts the tower, connected with the dwelling, which is one story, with Mansard roof. The light-house may be passed on either side, but it is recommended that it be passed by the westward channel, at a distance of at least 20 feet. Admirer Island light-house bears S. E. by S., distant 4 1/2 miles.
											To be built.
F. W.	White	32	167	167	167	☉ 6	1867			Entire horizon	Two wooden beacons on breakwater.
F. W.		32	167	167	167	☉ 6				Entire horizon	
F. W.	Dark blue	36	55	187	187	☉ 1	1857	1867		NE by N by E 1/2 to W	A tower and keeper's dwelling of limestone, connected by a covered way.
F. W.	Grey	50	51	188	188	☉ 6	1858			N by W by E 1/2 to S by W	A tower of limestone; keeper's dwelling of wood.
F. W.	Dark blue	48	39	187	187	☉ 4	1857			N by E, by W 1/2 to S by W	A tower of limestone, with large lens. Lantern on top.
F. W.	Dark blue	40	52	188	188	☉ 4	1858			N by W 1/2 to S by E	Tower and dwelling of limestone.

Number.	Name.	Location.	Latitude north.	Longitude west.	Fog signal.	Description of light. (See page 5.)
184	Ogdensburg	Near the mouth of the Oswegatchie river, in St. Lawrence river.	44 45 00	75 30 40		F. W.
185	Crosswater Island.....	On Crosswater Island, St. Lawrence river.				F. W.
186	Sister Islands.....	On Sister Islands, St. Lawrence river.....				F. W.
187	Sunken Rock.....	On Bush or Sunken Rock Island, in St. Lawrence river.				F. W.
188	Rock Island	In Lawrence river.....				F. W.
189	TIBBETTS POINT.....	On the southeast side of the entrance to St. Lawrence river.	44 00 00	76 22 00		F. W.
190	GAILLOU ISLAND.....	On the west point of Gailou Island, N. Y.	43 51 00	76 26 30		F. W.
191	Suckott's Harbor.....	On the west end of Horse Island, and west of Suckott's Harbor, N. Y.	43 56 30	76 08 40		F. W.
192	Stony Point.....	On Stony point, N. Y.....	43 51 00	76 18 00		F. V. W. F.
193	Oswego.....	On west pier, at the entrance to Oswego harbor, N. Y.	43 28 00	76 30 00		F. W.
194	OSWEGO PIERHEAD.....	Near the end of west pier, at the entrance to Oswego harbor, N. Y.				F. W.
195	FAIR HAVEN.....	Near the north end of west pier, at the entrance to Little Sodus bay, N. Y.	43 21 00	76 50 00		F. W.
196	Big Sodus Beacon, front.....	On cribbed head of west pier, at the entrance to Big Sodus bay, N. Y.				F. W.
197	Big Sodus Beacon, rear.....	On inner end of west pier.....				F. W.
198	BIG SODUS BAY.....	At Sodus point, west side of Sodus harbor, N. Y.	43 17 00	77 00 00		F. V. W. F.
199	GENESSEE.....	West side of entrance to Genessee river, N. Y.	43 15 30	77 36 00		F. W.
200	Genessee Beacon.....	On end of west pier, at entrance to Genessee river, N. Y.	43 16 00	77 35 00		F. W.
201	Oak Orchard.....	Near north end of west pier, at entrance to Oak Orchard creek, N. Y.				F. W.
202	NIAGARA FORT.....	At the junction of Niagara river and Lake Ontario, N. Y., on light-house lot, 1,050 feet southeast of mess-house in Fort Niagara.	43 15 00	76 03 00		F. W.

N
Time between flashes
Distance between flashes in statute

184

185

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202

NEW YORK AND VERMONT.

TENTH DISTRICT.

Description of light. (See page 5.)	Number.	Time between flashes.	Distance visible in clear air in miles.	Color of tower or vessel.	Height of tower from base to focal plane.	Height of light above sea level.	Order of lens.	When built.	When relighted.	When refitted.	Compass range of visibility.	Remarks.
F. W.	181	124	Grey	40	42	10	1	1834	1850		S. by E. 1/2 to W. 1/2 by N. 4 S.	River light. Tower, with dwelling attached, built of limestone, on a low island one-fourth of a mile N. by W. of the mouth of the river. A shoal extends out westerly from the island.
F. W.	182	12	White	25	37	6	1	1817	1855		E. by S. by N. to S. by W.	River light. Light shown from tower on keeper's dwelling. Dwelling of brick; front and rear natural color; tables sheathed with boards and painted white. Cross-over island is on the north side of the channel, and is 20 miles SW from Ogdensburg.
F. W.	183	13	Grey	40	43	6	5	1870			Entire horizon.	River light. On the tower of the Three Sister islands. Tower rises from keeper's dwelling, both built of limestone; bears from Alexandria bay NE, distant about 7 miles. The islands are on the south side of the channel.
F. W.	187	11	White	28	31	6	1	1847	1855		E. by S. by N. to S. SW.	River light. Brick beacon, with an exterior sheathing of shingles, whitewashed, on pier of protection on Bush island or shoal, one-fourth mile north of Alexandria bay. Shoal is on north side of channel.
F. W.	188	124	White	27	33	6	1	1817	1855		E. by S. by N. to SW. by S.	River light. Keeper's dwelling of brick, with light on top. Bears from Alexandria bay S. by W., distant about 7 miles. Rock island is on the south side of channel.
F. W.	183	15	White	47	67	4	1	1827	1854		NE. 1/2 E. by N. to S. SW. 1/2 W.	Lake-coast and river light. Brick dwelling, connected with brick tower by covered way, both whitewashed. Galloo island, S. by W., 19 miles; Charity island, or shoal, S.W. by W., distant 8 miles; Pigeon island, (English light,) W. 1/2 S., distant 10 miles.
F. W.	190	11	Grey	55	62	1	1	1820	1866		NE. by N. and W. to E.	Lake-coast light. Tower and dwelling of limestone, connected by covered way. A shoal lies N. by W., distant 1 mile, and marked by a buoy.
F. W.	191	13	Red	40	40	5	1	1831	1870		E. NE. by N. to S.	Harbor light. Dwelling, with tower attached, of brick. The island (which contains about 27 acres) is on the south side of entrance to harbor, 14 miles west of Sackett's Harbor, and is connected with the main land by a narrow spit, visible at low water.
F. V. W. F.	192	2 00	Grey	40	45	6	1	1817	1863		S. SW. by W. to NE.	Lake-coast light. Tower and dwelling attached; limestone, stone pecky and dingy; and can only be approached in small boats in smooth weather. Oswego light, S. by W., 35 miles.
F. W.	193	15	Grey	66	72	3	1	1817	1839			Lake-coast and harbor light. Keeper's dwelling ashore; frame, tower and oil-room attached, of limestone, painted white, on west pier of entrance, five hundred 600 feet from pierhead.
F. W.	194	16	White	15	22	6	1	1872			S. by E. 1/2 E. by E. to W. by S. 1/2 S.	Pierhead marked by a small light in a frame lantern, painted white; elevated walk connects tower and beacon.
F. W.	195	114	White	27	32	4	1	1872			S. by W. 1/2 W. by W. to W. 1/2 N.	Lake-coast and harbor light. Near the end of west pier, at entrance to Little Sodus bay, N. Y. Frame tower, painted white. No dwelling.
F. W.	196	12	White	27	31	6	1	1858	1870		Entire horizon.	Harbor lights, forming range, placed on opposite ends of west pier. Small frame towers on the west pier of the entrance. Range for entering the harbor and to keep clear of the west pierhead. Outer beacon illuminates the entire horizon. An elevated walk connects the two towers.
F. W.	197	104	White	18	24	6	1	1858	1870		SW. by S. 1/2 S. by E. to NW. by W. 1/2 W.	Lake-coast and harbor light. Dwelling two stories high, with tower attached, dark grey limestone, situated on 1/4 mile west of entrance piers to Big Sodus bay.
F. V. W. F.	198	2 00	Grey	45	68	4	1	1825	1870		E. 1/2 N. by N. to W. 1/2 S.	Lake-coast and harbor light. Dwelling two stories high, with tower attached, dark grey limestone, situated on 1/4 mile west of entrance piers to Big Sodus bay.
F. W.	199	154	White	44	75	1	1	1822	1858		E. by N. 1/2 N. by N. to NW. by N. 1/2 N.	Lake-coast and harbor light. Tower of rubble masonry, whitewashed, with keeper's dwelling of brick connected by covered way, natural color, situated on bluff on west side of Genesee river, on the inside of piers of entrance.
F. W.	200	11	White	23	28	6	1	1822	1855		SE. by E. by E. to N. to SW. 1/2 S.	Harbor light. Frame beacon, painted black below and white above, on the pierhead of west pier.
F. W.	201	114	White	27	31	4	1	1871			SE. 1/2 E. by E. to SW. 1/2 S.	Harbor light. Frame beacon, painted white, near pierhead of west pier; keeper's dwelling ashore, frame, and painted fawn color.
F. W.	202	16	Grey	49	78	1	1	1872			E. 1/2 S. by N. to S. by E. 1/2 E.	Lake-coast and harbor light. Tower and oil-room attached, of dark limestone, placed on light-house lot, near the bank of the river, and 1350 feet southeast of the old light on mess-house inside of Fort Niagara; keeper's dwelling detached, of rubble stone, whitewashed.

NEW YORK AND VERMONT.

Number.	Name.	Location.	Latitude north.	Longitude west.	Fog-signal.	Description of light. (See page 5.)
303	Horseshoe Reef	On Horseshoe reef, at the entrance to Niagara river				F. V. W. F.
304	Buffalo Breakwater, (north end.)	On pier of protection at north end of breakwater in the harbor of Buffalo, N. Y.	42 53 00	78 56 00	A bell, struck 3 times in quick succession, at intervals of 30 seconds.	F. R.
305	Buffalo Breakwater, (south end.)					
306	BUFFALO	Near the end of south pierhead, at junction of Buffalo creek and Lake Erie, N. Y.	42 53 00	78 56 00	A bell, struck at intervals of 7½ seconds.	F. W.
307	DUNKIRK	At Dunkirk, on the southeast shore of Lake Erie, N. Y.	42 29 45	79 22 20		F. V. W. F.
308	Dunkirk Beacon	On pier west side of entrance to Dunkirk harbor, N. Y.	42 30 00	79 21 52		F. W.

PENNSYLVANIA AND OHIO.

309	ERIE HARBOR	South shore of Lake Erie; marks the approach to eastern entrance to Presque Isle bay, and about 1 mile to the northward and eastward of Erie, Pa.	42 08 41	80 04 16		F. W.
310	Presque Isle Beacon Range, No. 1.	Behind north pier, on the north side of entrance to Presque Isle bay, Erie, Pa.	42 09 17	80 05 08		F. W.
311	Presque Isle Beacon Range, No. 2.	On west end of north pier.				F. W.
312	Presque Isle Beacon Range, No. 3.	On east end of north pier.				F. W.
313	Peninsula Beacon Range, No. 1.	On the peninsula, northwest of north pier.				F. W.
314	Peninsula Beacon Range, No. 2.					F. W.
315	Presque Isle	On north shore of peninsula, Erie harbor, Pa.				F. V. R. F.
316	Conneaut	End of east pier, at mouth of Conneaut river, Ohio.	41 59 05	80 32 30		F. W.
317	Ashtabula	On the east pier, at the entrance to Ashtabula river, Ohio.	41 51 50	80 47 00		F. V. W. F.
318	GRAND RIVER FAIRPORT	At Fairport, on the east side of the mouth of Grand river, Ohio.	41 45 20	81 11 41		F. W.
319	Grand River, Fairport Beacon	At Fairport, on the east pier at entrance to Grand river, Ohio.	41 45 45	81 15 45		F. W.
320	CLEVELAND	On the hill, east of the entrance to the harbor.	41 50 07	81 10 23		F. W.

NEW YORK AND VERMONT.

Description of light. (See page 5.)	Miles E.	Time between flashes.	Distance visible, in statute miles.	Color of tower or vessel.	Height of tower from base to focal plane.	Height of light above sea level.	Order of lens.	When built.	When rebuilt.	When refitted.	Compass range of visibility.	Remarks.
F. V. W. F.	5	30	12	White	20	43	(5) 1	1856	.....	1871	Entire horizon.	Harbor and river light. An elevated iron beacon, with keeper's dwelling, painted white, on masonry pier of projection with recessed on north and west faces, built upon Horseshoe Reef shoal forming southern end of middle reef which separates Canadian from Emerald channel. It bears S 7° E by S. 4° S. from Fort Erie, Canada, and from Buffalo light W. by N.
F. R.	54	.....	12	White	25	37	(6) 1	1872	.....	.....	Entire horizon.	Harbor and river light. An elevated wooden beacon, with a keeper's dwelling, painted white, on a wooden pier of projection, painted black, and situated behind and near the north end of breakwater. Entrance to the harbor is by the north end of the breakwater. Buffalo main light E. 4° S.; Horseshoe Reef light, W. by N. 1° N.; Fort Erie, Canada, NW. 1° W.
F. W.	56	.....	.....	.....	.....	.....	(6) 0	.....	.....	.....	Entire horizon.	Authorized.
F. W.	46	.....	15	Grey	51	65	(6) 3	1828	.....	1857	NW. 1° W. by W 4° to S. by E. 1° E.	Lake-coast and harbor light. Tower of dark fine-stone near pier-head of south pier of entrance to harbor; dwelling of brick, on light-house lot, on south side of Buffalo creek, near its mouth.
F. V. W. F.	507	1.30	16	White	52	87	(6) 3	1837	1837	1869	E. NE. by N 4° to SW. 1° W.	Lake-coast and harbor light. Tower and dwelling of brick connected by covered way, white-washed, situated on bluff half mile west of entrance to harbor.
F. W.	508	.....	12	White	25	35	(6) 6	1837	.....	1841	NE. by N. 1° N. by N 4° to W. by N.	Harbor light. Frame beacon, white-washed, on pier of protection at pier head of west pier of entrance to harbor channel, two hundred (200) feet wide. On east side, near beacon, dangerous rocks outcrop, with 8 or 9 feet of water, and on the east (inside) lie the ruins of an old breakwater, with 16 feet of water. A pyramidal wooden day-beacon, painted black, surrounded by a round close cage, painted white, is placed on the east side of entrance to harbor, and marks the western end of proposed breakwater.

PENNSYLVANIA AND OHIO.

F. W.	509	.....	18	Light grey	60	115	(6) 3	1838	1867	.....	NE. by E. by N 4° to W. SW.	Lake-coast and harbor light. Tower and oil-room attached, of light-colored sandstone; dwelling detached, of brick; marks approach to Erie harbor; same line observed for a distance of three hundred (300) yards towards lake.
F. W.	510	.....	12	White	30	38	(6) 5	1857	.....	.....	N. 1° E. by E 4° to W. SW.	Harbor light. Cast-iron tower on pier of protection behind north pier of entrance to harbor; channel between piers 310 feet wide; best water on north side along the line of boxes. The light is obscured from Peninsula point around 160 west, to near the line of north pier, produced inside of harbor. Vessels from the west, intending to make the harbor will not haul up till this light has been opened, which indicates that Peninsula point has been cleared.
F. W.	511	.....	7	White	4	8	(6) 5	1856	1861	.....	E. 1° N. by S 0° to N. by W.	Pier light. Octagonal frame tower, painted white, and dome red, on west end of north pier, are 212.
F. W.	512	.....	8	White	34	94	(6) 6	1872	.....	.....	N. 1° E. by E 0° to W. SW.	Pier light. Small octagonal frame tower, painted white, on east end of north pier. This light and the preceding one form a range for entering the harbor; and their intersection with the range lights on the peninsula, just north of keeper's dwelling, marks the channel across the inside bar.
F. W.	513	.....	8	White	7	10	(6) 6	1856	1861	1870	S. 1° W. by W 3° to W. SW.	Range lights for crossing inner bar; two lights; small lights shown from boxes attached to white masts, tipped with red; distance apart, 162 feet. Are illuminated 61.
F. V. R. F.	515	1.00	11	Red	45	57	(6) 4	1872	.....	.....	.....	Building, 100 feet from lake.
F. W.	516	.....	12	White	31	41	(6) 6	1825	1858	.....	E. NE. by N 4° to W. by S. 1° S.	Harbor light. Frame beacon, white-washed, on pier of protection behind east pier of entrance to harbor; keeper's dwelling ashore, painted cream color.
F. V. W. F.	517	2.00	12	White	28	42	(6) 5	1825	1858	.....	E. NE. by N 4° to W. SW.	Harbor light. Frame beacon, white-washed, on pier of protection on east pier of entrance to harbor; keeper's dwelling ashore, painted cream color.
F. W.	518	.....	17	White	60	100	(6) 3	1825	1858	.....	NE. by E. 1° E. by N 1° to W. 1° S.	Lake-coast and harbor light. Sandstone tower, with attached brick dwelling, situated on bluff on east bank of Grand river, one-quarter mile from its mouth.
F. W.	519	.....	11	White	21	27	(6) 6	1835	.....	1867	E. by N. by N 4° to W. by S.	Harbor light. Frame beacon, white-washed, on pier of protection behind east pier of entrance to harbor.
F. W.	520	.....	21	Red	84	151	(6) 3	1820	1872	1870	SW. by W. by N 4° to NE. by E.	Lake-coast and harbor light. Tower of brick with stone finish; octagonal, and resting upon a stone foundation, rising 12' 8" above ground. Keeper's dwelling attached to tower, double, of brick, with stone finish and stone foundation.

LIGHTS OF THE UNITED STATES,
PENNSYLVANIA AND OHIO.

Number.	Name.	Location.	Latitude north.	Longitude west.	Fog-signal.	Description of light. (See page 5.)
521	Cleveland Beacon, No. 1.	On east pier, at the entrance to Cleveland harbor, Ohio.	41 30 17	81 40 57		F. V. R. P.
522	Cleveland Beacon, No. 2.	On east pier, at the entrance to Cleveland harbor, Ohio.				F.
523	Black River.	On end of west pier, at mouth of Black river, Ohio.	41 28 40	82 08 45		F. W.
524	Vermillion.	On the west pier, at Vermillion harbor, Ohio.	41 26 00	82 20 45		F. W.
525	Huron.	At the mouth of Huron river, Ohio, on the west pier.	41 24 01	82 32 20		F.

OHIO AND MICHIGAN.

526	Cedar Point.	On Cedar point, east side of the entrance to Sandusky bay, Ohio.	41 29 14	82 11 09		F. W.
527	Cedar Point Range Beacon.	On Cedar point, east side of entrance to Sandusky bay.				F. W.
528	MARBLEHEAD.	On Marblehead, north side of Sandusky bay, Ohio.	41 32 20	82 12 15		F. W.
529	GREEN ISLAND.	On west end of Green Island, Lake Erie.	41 38 45	82 51 25		F. V. W. P.
530	WEST SISTER.	On west end of West Sister Island, Lake Erie.	41 44 15	83 06 12		F. W.
531	TURTLE ISLAND.	At the entrance to Maumee bay, Ohio.	41 45 42	81 22 54		F. W.
532	Maumee Outer Range, front.	West side of Maumee river.				F. W.
533	Maumee Outer Range, rear.					F. W.
534	Maumee Middle Range, front.	West side of Maumee river, 14 miles below former.				F. R.
535	Maumee Middle Range, rear.					F. R.
536	Maumee Inner Range, front.	East side of Maumee river, 2 miles south of middle range.				F. W.
537	Maumee Inner Range, rear.					F. W.
538	Montrose.	On the north pier at the entrance to River Raisin, Mich.	41 53 29	83 19 28		F. W.
539	Gibraltar.	On Webster avenue, Gibraltar, Mich., 880 feet from Detroit river, Mich.	42 05 31	83 10 57		F. W.
540	Momabuda.	On Momabuda shoals, in Detroit river, Mich.	42 11 34	83 07 49		F. W.
541	Grassy Island.	On Grassy Island, in Detroit river, Mich.	42 13 25	83 07 38		F. W.

PENNSYLVANIA AND OHIO.

Description of light. (See page 5.)	Number	Time between flashes.	Distance visible in statute miles.	Color of tower or vessel.	Height of tower from base to focal plane.		Order of lens.	When light.	When rebuilt.	When refitted.	Compass range of visibility.	Remarks.
					Feet.	Meters.						
F. V. R. F.	21	m. s. 0 20	13	White	40	48	(C) 0	1831	1864	1864	E. by N. 1 N. by N. 1 to W. by S. 1 S.	Harbor light, octagonal frame tower, painted white, above level of pier, and black below; situated on pier of protection behind each pier.
F.	22		11 1/2		28	31 3/5	Lant'ns	1860		1872		V-mast near pierhead of east pier, supporting double lights, one red and the other white; the white light four (4) feet above the red light, arranged vertically. Forms range for entering harbor.
F. W.	23		13	White	40	48	(C) 1	1836	1857	1857	E. by N. 1 N. by N. 1 to W. by S. 1 S.	Lake-coast harbor light. Tower of brick, on west pier of entrance to Black river, whitewashed; elevated walk above pier connects tower with the shore. No dwelling.
F. W.	24		11	White	20	25	(C) 0	1847	1859	1856	E. by N. 1 N. by N. 1 to W. S. W.	Harbor light. Frame beacon, painted white, on pier of protection behind west pier of entrance to Vermillion river; keeper's dwelling-ashore, frame, painted white.
F.	25		12 1/2	White	30	40	(C) 1	1835	1857	1857	E. by S. by N. 1 to N. W. 1 W.	Harbor light. Cast-iron tower, painted white, on pier of protection behind west pier of entrance to Huron river. Elevated walk connects tower with the shore. Keeper's dwelling ashore, frame, painted cream color.

OHIO AND MICHIGAN.

F. W.	26		12	White	21	38	(C) 5	1839	1862		SE. 1 E. by N. 1 to N. N. W.	Lake-coast and harbor light. Keeper's dwelling of limestone with light on top; east side of entrance to Sandusky bay.
F. W.	27		10 1/2	White	16	26	(C) 6		1867		SW. 1 W. by N. 1 to NE. 1 E.	Light in keeper's dwelling; frame dwelling painted white, the outer face panelled to traverse the light at pleasure; stands in five (5) feet of water on an insulated shoal, and is surrounded by pier of protection. Forms a range N. 37° E. with Cedar Point light for crossing outer bar.
F. W.	28		11	White	5	10	(C) 1	1841		1858	S. SE. by E. 1 and N. 1 to N. W. by W. 1 W.	Lake-coast and harbor light. Dwelling and tower detached, of rubble masonry and whitewashed; situated on extreme eastern point of peninsula on north side of entrance to Sandusky bay.
F. V. W. F.	29	2 00	11	Grey	13	57	(C) 11	1851	1864		E. 1 N. by N. 1 to E. SE. 1 E.	Lake-coast light. Dwelling and tower attached, of limestone; Marblehead, SE. 1 E., 10 miles; mouth of Detroit river, NW. by N. 1 N., 30 miles.
F. W.	30		10 1/2	Grey	11	54	(C) 1	1847		1857	E. 1 S. by S. 1 and W. 1 to N. E.	Lake-coast light. Dwelling and tower attached, of limestone; the tower whitewashed; 12 miles east of Maumee river; green island, SE. by E. 1 E., 11 miles.
F. W.	31		10 1/2	Yellow	11	50	(C) 1	1831	1867	1867	Entire horizon	Lake-coast and harbor light. Dwelling and tower attached; Milwaukee brick, natural color, situated upon south and west end of Turtle island, nine (9) miles distant from Toledo, Ohio; West Sister, E. 1 S., 12 miles; mouth of Detroit river, SE. by N., 18 miles.
F. W.	32		10	Red	12	48	(C) 6	1868			NE. 1 E. by E. 1 to SE. 1 S.	Range lights; two lights to each range; frame structures; the front ones 1,000 feet in advance of the rear ones, traversed on short railways. These ranges mark the channel from the bay into Maumee river; care must be taken not to mistake the middle ranges, both lights of which are red, for the outer and inner ranges, which are composed of white lights. Rear towers are painted white; the front towers have the lower parts painted white; upper, red.
F. W.	33		11	White	21	28	(C) 6	1868			N. NE. by E. 1 to E. SE.	
F. R.	34		10	Red	12	48	(C) 6	1868			N. NE. by E. 1 to E. SE.	
F. R.	35		11	White	21	26	(C) 6	1868				
F. W.	36		10 1/2	Red	12	24	(C) 6	1868			N. SW. by N. 1 to E. NE.	
F. W.	37		11 1/2	White	21	32	(C) 6	1868				
F. W.	38		12 1/2	White	36	42	(C) 1	1849		1867	S. SW. by S. 1 to N. NE.	Harbor light. Frame tower, painted white, with keeper's dwelling attached, on north pier of entrance to harbor.
F. W.	39		13	Red	16	47	(C) 1	1838	1872	1855	S. by E. by E. 1 to N. by E.	Brick tower, natural color, iron lantern painted black to roof, roof red; tower attached to brick dwelling; Bar point is SE. 1 E., S. 52° E., approximate distance, 5 miles.
F. W.	40		11 1/2	White	31	33	(C) 6	1849	1866	1867	W. by N. by N. 1 and E. 1 to W. by S.	River light. Keeper's dwelling frame, painted white, with light on top; pile foundation.
F. W.	41		11 1/2	White	29	33	(C) 6	1849	1857	1867	W. by N. by N. 1 and E. 1 to W. by S.	River light. Keeper's dwelling frame, painted white, with light on top; pile foundation.

ELEVENTH DISTRICT.

MICHIGAN.

Number.	Name.	Location.	Latitude north.	Longitude west.	Fog-signal.	Description of light. (See page 3.)	Number	Time between flashes.	Precedence of lights, in relation to other lights.
542	Windmill Point	On Windmill point, west side of Detroit river, and entrance to Lake St. Clair, Mich.	42 21 20	82 53 20		F. V. R. F.	542	1 30	14
543	St. Clair Flats	At the head of the "Old Cut," or artificial channel through St. Clair flats, at South Pass.	42 30 00	82 42 30		F. W.	543		14
544	Benton	In front of main light, to form a range in passing through the old artificial channel.				F. W.	544		11
545	St. Clair Flats Canal, (lower light.)	On the port side of lower entrance to the "Canal."				F. R.	545		13
546	Upper Light	On the port side of the upper end of the "Canal."				F. R.	546		11
547	FORE GUARD	At the head of St. Clair river, Mich.	42 00 22	82 21 41	Two-inch steam whistle giving every minute a blast of 8 seconds' duration, followed by an interval of 52 seconds.	F. V. W. F.	547	2 00	16
548	POINT A L'X BARQUES	On the shore of Lake Huron, and south side of the entrance to Saginaw bay.	41 01 23	82 47 10		F. V. W. F.	548	0 10	163
549	Tawas, (Ottawa)	On Ottawa point, northwest shore of Saginaw bay, Mich.	41 15 35	82 26 15		F. V. R. F.	549	1 00	11
550	CHARITY ISLAND	At the mouth of Saginaw bay, Mich.	41 02 16	83 26 05		F. W.	550		14
551	Saginaw Bay	At the mouth of Saginaw river, Mich.	43 38 38	83 50 54		F. W.	551		15
552	STERBON POINT	On the western shore of Lake Huron, 24 miles south of Thunder Bay Island.	41 42 40	83 16 00		F. W.	552		15
553	THUNDER BAY ISLAND	On Thunder Bay Island, north side of entrance to Thunder bay, Mich.	41 02 17	83 14 43	A 10-inch steam fog-whistle, giving a blast of 8 seconds, followed by an interval of 10 seconds; then a blast of 2 seconds, followed by an interval of 40 seconds; alternating in this way every minute. Should the steam whistle get out of repair, a fog-bell struck by machinery will be sounded.	F. W.	553	1 30	14
554	Presque Isle Harbor, front light	At the harbor of Presque Isle, Lake Huron.	45 20 31	83 28 50		F. W.	554		10
555	Presque Isle Harbor, rear light.					F. W.	555		12

Number
Time between flashes.
Precedence of lights, in relation to other lights.

MICHIGAN.

ELEVENTH DISTRICT.

Description of light. (See page 5.)	Number	Time between flashes	Distance visible, in statute miles.	Color of tower or vessel.	Height of tower from base to focal plane.		Order of lens.	When built.	When rebuilt.	When refitted.	Compass range of visibility.	Remarks.
					feet.	meters.						
F. V. R. E.	32	1 30	13	White.	45	17	(C) 5	1808	1867		SW. by W. by S 84 to NE. by N	Rubble masonry tower, whitewashed. Keeper's dwelling detached. A guide to Lake St. Clair and the Detroit. With the light abeam, steer E. NE 4 miles, then NE. 4 S. 18 miles, which should bring the southern buoy on the flats and the lights in range; bearing NE. by E., with these in range, stand into the channel between the flats.
F. W.	33		13	Yellow	37	11	(C) 4	1850			Entire horizon	Tower connected to keeper's dwelling by a covered way, built of yellow brick, on a pier foundation. Guide to the north entrance of the old channel, which can be entered from 2 to 8 miles from the light-house.
F. W.	34		11	Yellow	23	28	(C) 5	1850				Small tower of yellow brick, on pier foundation. With preceding, forms a range to enter the old channel. Distance between the two lights 1,000 feet. Bearing NE. by E.
F. R.	35		13	Red	40	45	(C) 4	1871			Entire horizon	Tower, rising from the corner of the dwelling, built of red brick. Marks the lower end of western pier of the "Strand."
F. R.	36		13	Red	40	45	(C) 4	1871			Entire horizon	Tower, rising from the corner of the dwelling, built of red brick. Marks the upper end of the western pier of the "Strand."
F. V. W. E.	37	2 00	16	White.	75	82	(C) 3	1825	1862		S. by E. by E 64 to N. NW	Tower of brick; dwelling detached. Marks the entrance from Lake Huron into St. Clair River. Sand Beach point N. by W., 6 miles; Cove Island light, (Canada) N. by E., 165 miles; Point Clark, (Canada) N. NE. 4 E., 82 miles; Goderich, (Canada) SE. by N., 53 miles.
F. V. W. E.	38	0 30	16 1/2	Yellow	79	89	(C) 3	1847	1867		NW. by W. by E 61 to SE. by E.	Tower and dwelling of yellow brick, connected by covered way. Coast light, and marks the turning point for vessels entering Saginaw Bay; Sturgeon Point light bears N. NW. 54 miles; Thunder Bay Island light, N. by W. 4 W., 73 miles; Point Clark light, (Canada) E. 4 N., 73 miles; Charity Island light, (Canada) NE. by E. 4 E., 76 miles.
F. V. R. E.	39	1 00	14	White.	45	61	(C) 5	1853	1850		NE. by E 64 to SW. by S.	Brick tower, whitewashed; dome of lantern black; keeper's dwelling of brick, detached. This light is on the eastern point of the entrance to Tawas bay; a sand flat extends 4 1/2 miles to the southward and westward from the light; Charity Island light bears S. 154 miles; Point Douglas, (Canada) E. 4 N., 92 miles; Cape Hurd, (Canada) NE. 4 E., 108 miles.
F. W.	50		13	White.	30	15	(C) 4	1867			S. by W. by N 64 to SE. by S.	Tower of brick, connected with frame dwelling by a covered way. This light is on the north point of the island, from which shoals extend from northwest to northeast. The main channel is to the westward of the light. Strangers should not attempt to pass to the eastward of the light. Ottawa Point light bears N. 154 miles; Saginaw Bay light-house, SW. 4 S., 34 miles.
F. W.	51		15	White.	64	72	(C) 4	1841	1861		NW. by W. by N 61 to E.	Tower and dwelling, built of rubble stone, detached. This light is on the west side of Saginaw river, near its mouth. Vessels bound into the river, when in 3 fathoms water, should bring the light to bear S. by W., about 3 1/2 miles distant, and steer that course for the red can buoy at the north entrance of the cut, which is 6,800 feet long and 185 feet wide, ranging S. 4 W. and N. 4 E. Both banks are marked by buoys, between which a vessel must be steered towards the mouth of the river. Sand point bears NE. 4 E., 26 miles; Point aux Pins, N. NE., 25 miles.
F. W.	52		15	Yellow	65	69	(C) 3 1/2	1869			S. by W. by E 61 to S 4 W.	Tower and keeper's dwelling connected; built of yellow brick. Thunder Bay Island light bears N. by E., 23 miles; Point aux Barques light, S. SE. 4 E., 54 miles; Goderich, (Canada) SE. 4 E., 101 miles; Cove Island light, (Canada) NE. by E. 4 E., 87 miles.
Flg. W.	53	1 30	14	White.	56	50	(C) 4	1832	1857		Entire horizon	Stone tower, connected with brick dwelling by a covered way, on the southeast point of the island. Vessels must not attempt to pass to the westward of this light. Middle Island bears N. NW. 4 W., 12 miles; Sturgeon Point light, S. by W., 25 miles; Great Truck Island, (Canada) N. by E. 4 E., 13 miles; Cove Island light, (Canada) E. NE. 4 E., 74 miles.
F. W.	54		10	White.	16	18	(C) 6	1870			E. by N. 4 N. by	Front light in wooden tower; rear light on keeper's frame dwelling. 18-fathoms apart 1,000 feet, bearing E. and W. In approaching the entrance to the harbor, when in 7 fathoms water, bring the two lights in range, and run in on that line to the anchorage.
F. W.	55		12	White.	25	30	(C) 6	1870			S 61 to E. SE.	

MICHIGAN.

Number	Name.	Location.	Latitude north.		Longitude west.		Fog signal.	Description of light. (See page 8.)	
			°	'	°	'			
530	PRESQUE ISLE.....	About 25 miles northwest of Thunder Bay light, Mich.	45	21	81	26	.....	F. W.	
537	SPECTACLE REEF.....	On Spectacle reef, to the eastward of the entrance to the Straits of Mackinac in Lake Huron.	45	46	84	01	45	A 16-inch steam fog whistle, giving a blast of 3 seconds, followed by an interval of 42 seconds; then a blast of 3 seconds, followed by a pause of 42 seconds, and in the same way every minute.	F. R.*.....
538	DETROIT.....	At the mouth of the river Saint Ste. Marie, Lake Huron, Mich.	45	57	83	54	22	A 16-inch steam fog whistle, giving every minute a blast of 10 seconds, followed by an interval of 50 seconds.	F. W.....
539	BOLS BLANC.....	On the north side of Bols Blanc island, in the Straits of Mackinac, Mich.	45	48	84	24	30	.....	F. W.....
540	CHENEWEE.....	On the main land, opposite to Bols Blanc island, marking the eastern entrance to the Straits of Mackinac, Mich.	45	40	84	21	30	.....	F. V. W. F.
541	MCGILLIP'S POINT.....	Near Old Mackinac, in the Straits of Mackinac, on the southern side of the entrance to Lake Michigan.	45	47	84	45	49	.....	F. W.....

MICHIGAN AND INDIANA.

542	ST. HELENA.....	On the southeast point of St. Helena island, in the Straits of Mackinac, Mich.	45	51	84	46	50	.....	Flg. R.....
543	WANGOSHANCE.....	On Wangoshance shoal, and the Straits of Mackinac, and near the entrance to Lake Michigan.	45	47	85	04	56	A bell struck by hand.....	F. V. W. F.
544	SKILLIGALLEE. (Heaux Indes.)	On the Skilligallee rock, (Heaux Galets,) 8 miles S.W. (W. from Wangoshance light, and 6 miles from the main land, Mich.	45	49	85	09	40	A horn sounded at intervals of 5 minutes.	F. W.....
545	Beaver Island Harbor.....	On the north point of the entrance to the harbor.	45	44	85	30	06	.....	F. R.....
546	BEAVER ISLAND.....	On the south end of Beaver island, Lake Michigan.	45	34	85	23	59	.....	F. V. W. F.

*Temporary.

MICHIGAN.

Description of light. (See pages 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000)	Number.	Time between flashes.	Equivalent visible in clear air miles.	Color of tower or vessel.	Height of tower from lower to focal plane.	Height of light above sea level.	Order of lens.	When built.	When rebuilt.	When refitted.	Compass range of visibility.	Remarks.
	F. W.	50	15	15	Red	183	141	(C) 3	1810	1870		SW. 1 W. by E 1/2 to W 1 N.	A coast light on the northern point of the peninsula. The buildings consist of a tower of red brick with a keeper's dwelling attached of brick. The Detroit light bearing N. SW. 1 W. 1/2 miles; the east point of Isle Bois Blanc, N. W. by W., 5 1/2 miles; Spectacle reef, N. W. 1 W., 12 miles; the centre of the Great Bank, (Canada), N. E. 1 E., 31 miles.
F. R.	51	11 1/2	11 1/2	White	29	32	(C) 1	1871			Entire horizon	Building. The present light is temporary, and will only be exhibited during the working season. From the westward it is hidden by the straits since in progress of construction. When the structure is completed a light of the proper distinction and power will be exhibited. Presque Isle light house, N. E. 1 E., distant 12 miles; Chatoogan light house, S. W. by W., 1 W., 15 miles; Bois Blanc light house, W. by N., 11 miles; Mackinac Island, (Fort Holmes), W. by N., 1 N., 21 miles; Detroit light house, N. E. 1 N., 10 1/2 miles.
F. W.	52	15 1/2	15 1/2	White	70	75	(C) 1	1847	1861	1870	N. N. E. by S 1/2 to W by S.	Iron pile structure, connected with wooden dwelling (painted white) by a covered way. Marks entrance from Lake Huron into St. Mary's river. The south point of Garden City reef, W. SW. 1 W., 11 miles; Spectacle reef, SW. 1 S., 17 miles; Bois Blanc light, W. SW., 26 miles; Chatoogan light SW. 1 W., 31 miles; Presque Isle light, S. SE. 1 E., 17 miles; Chautau Island light, (Canada) S. E. 1 E., 100 miles; Gouletch, (Canada), S. E. by S., 150 miles.
F. W.	53	11 1/2	11 1/2	Yellow	38	53	(C) 1	1809	1867		W. by N. by N 1/2 to S. E. 1 E.	Tower rises from dwelling of yellow brick. A guide to the north channel of Mackinac; the Detroit light bearing E. N. E., 20 miles; the south point of Garden City reef, N. E. by E. 1 E., 11 miles; Spectacle reef, E. S. E., 1 E., 14 1/2 miles; Fort Mackinac, W. N. W., 1 W., 9 miles.
F. V. W. F.	54	1 1/2	12	White	31	37	(C) 5	1851	1850		W. by N. by N 1/2 to E. 1 S.	Light on keeper's wooden dwelling. Marks entrance into the south channel of Mackinac; the Detroit light bearing S. W. 1 W., 11 miles; the south point of Bois Blanc bears S., and the channel opposite the light is 3 miles wide. Old Fort Mackinac on the main, N. W. by W., 1 W., 16 miles.
F. W.	55	17 1/2	17 1/2	Yellow	38	102	(C) 5 1/2	1808			W. S. W. by N 1/2 to E.	Tower rises from dwelling of yellow brick. To mark turning point in Straits of Mackinac, 2 1/2 miles west of Old Fort Mackinac and a guide through the straits. The channel along the light is 3 miles wide; the South Graham shoal, N. E. 1 E., 1/2 mile; Isle of St. Helen, N. W., 6 miles; Waugoshance, W., 15 1/2 miles.

MICHIGAN AND INDIANA.

Flg. R.	56	15	15	Red	65	71	(C) 4					Building. Tower and dwelling of red brick connected by covered way. The light is to guide vessels under the lee of St. Helen Island. It is also a leading mark to vessels passing westward through the south channel of the Straits of Mackinac. Waugoshance light, W. S. W. 12 miles; McGulpin's Point light, S. W. 3 1/2 miles; White shoals, W. 1 S., 11 miles.
F. V. W. F.	57	1 1/2	15	White and black	65	71	(C) 4	1851			Entire horizon	Power with dwelling attached, of brick. Keeper's dwelling and lower part of the tower white, upper part of the tower black. Marks Waugoshance shoal and turning point in western end of Straits of Mackinac. St. Helen's reef, N. E. by E., 9 1/2 miles; the southwest end of Mandon Paymont shoal, N. 1 E., 12 miles; the east end of Stinson's reef, N. N. W. 1 W., 16 miles; White shoal, N. W. 1 N., 4 miles; Gray's reef, W., 3 miles; Hog Island reef, W. S. W. 1 W., 12 miles; Skiffingalls light, S. S. W. 1 W., 8 miles.
F. W.	58	18	18	Yellow	100	100	(C) 3	1850	1867	1867	Entire horizon	Tower and dwelling of yellow brick connected by a covered way. A guide to and from the Straits of Mackinac, 5 1/2 miles from the Michigan shore. Reef extends from the light N. W. three-quarters mile, and N. E. by E. 1 E., 11 miles. The east end of Hog Island reef bears W. N. W. 1/2 miles; the east end of Gray's reef, N. by W., 1 W., 7 1/2 miles.
F. R.	59	12	12	White	31	37	(C) 4	1856	1870	1870	E. by N. by E 1/2 to S. S. E.	Brick tower and dwelling connected by a covered way. Guide to anchorage, to Beaver Harbor. Stillinger light bears E. by S., 1 S., 17 miles. This course would pass seven-eighths of a mile south of Hog Island reef. Hog Island reef, E. 1 S., 7 1/2 miles. The entrance to Little Traverse bay, S. E., 31 miles.
F. V. W. F.	60	1 1/2	17 1/2	Yellow	40	103	(C) 4 1/2	1853	1858	1858	E. S. E. by S 1/2 to W by N.	Tower and dwelling of brick, connected by a covered way. A guide through the passage between the Henry and North Fox Islands. This channel is 9 miles wide. The Grand Traverse light, S. 1 E., 25 miles; the South Fox Island light, S. W. 1 S., 19 miles; Pilot Island light, W. S. W. 1 W., 19 miles; Rock Island light, W. by S., 62 miles.

MICHIGAN AND INDIANA.

Number	Name	Location	Latitude		Longitude		Focal signal	Description of light (See page 5.)	Number	Time between lights	Remarks	
			n	o	o	o						
567	SOUTH FOX ISLAND	On the extreme southeast end of South Fox Island, Mich.	45	22	40	85	40	30	.....	F. R.	.....	.....
568	GRAND TRAVERSE	On the northwest point of Grand Traverse bay, Mich.	45	12	24	85	24	30	.....	F. W.	.....	.....
569	Wislon Point	On the north point of the peninsula dividing Grand Traverse bay, Mich.	44	59	30	85	28	00	.....	F. W.	.....	.....
570	SOUTH MANITOW	On South Manitow Island, near the east shore of Lake Michigan.	45	00	20	86	01	20	A bell struck by machinery	F. W.	.....	.....
571	Point Detsey	On Point aux Deux Seles, 25 miles S. by W. E. W. of South Manitow Island, east side of Lake Michigan.	44	41	40	86	44	15	.....	F. V. W. F.	.....	.....
572	Maulster	North side of Manistow river east shore of Lake Michigan, 10 miles north of Grande Pointe au Sable.	44	15	37	86	19	37	.....	F. W.	.....	.....
573	GRANDE POINTE AU SABLE.	On Grande Pointe au Sable, 13 miles south of Point Detsey light, east shore of Lake Michigan.	44	03	25	86	28	00	.....	F. W.	.....	.....
574	Pere Marquette	At LaPlingon, on the east side of Lake Michigan, 8 miles south of Grande Pointe au Sable, Mich.	.....	.....	.....	.....	.....	.....	.....	F. R.	.....	.....
575	PETITE POINTE AU SABLE.	On Petite (Little) Pointe au Sable, 30 miles south of Grande Pointe au Sable light, east shore of Lake Michigan.	.....	.....	.....	.....	.....	.....	.....	F. V. W. F.	.....	.....
576	White River	At the mouth of White river east shore of Lake Michigan, 12 miles north of Muskegon light.	.....	.....	.....	.....	.....	.....	.....	F. R.	.....	.....
577	Muskegon	At the mouth of Muskegon river, east shore of Lake Michigan.	43	14	30	.....	.....	.....	.....	F. W.	.....	.....
578	Pierhead Light	On the outer end of the South pier, Port Sherman, Muskegon, Lake Michigan.	.....	.....	.....	.....	.....	.....	.....	F. R.	.....	.....
579	Grand Haven	At the south side of the mouth of Grand river, 30 miles north of Kalamazoo river, Mich.	43	03	27	86	14	24	.....	F. V. W. F.	.....	.....
580	Pierhead Light	On the pier at Grand Haven	.....	.....	.....	.....	.....	.....	A bell struck by hoist engine.	F. W.	.....	.....
581	Holland (Black Lake)	On the south pier at the harbor of Holland (Black Lake) east shore of Lake Michigan.	42	17	00	.....	.....	.....	.....	F. R.	.....	.....
582	Kalamazoo	On the north side of the mouth of Kalamazoo river about 4 miles N. by E. E. of St. Joseph's, Mich.	42	40	00	.....	.....	.....	.....	F. W.	.....	.....
583	South Haven	On the outer end of the South Harbor pier.	42	27	00	.....	.....	.....	.....	F. R.	.....	.....
584	St. Joseph's	On the south side of the mouth of St. Joseph's river, Mich.	41	06	30	.....	.....	.....	.....	F. V. W. F.	.....	.....
585	Pierhead Light	On the outer end of the south pier, at the harbor of St. Joseph's.	.....	.....	.....	.....	.....	.....	.....	F. W.	.....	.....

LAKE MICHIGAN.

MICHIGAN AND INDIANA.

Description
of light
(See page 5.)

File #

F. W.

F. W.

F. W.

F. A. W. F.

F. W.

F. W.

F. R.

F. A. W. F.

F. R.

F. W.

F. R.

F. A. W. F.

F. W.

F. R.

F. W.

F. R.

F. A. W. F.

F. W.

No.	Year	Color of tower or vessel	Height of tower from base in feet	Height of light above sea level	Order of lens	When built	When rebuilt	When refitted	Compass range of visibility	Remarks.
15	1867	Yellow	40	40	(1) 1	1867			NW by N, by W 1 to SE, by N 1 N	Tower rises from dwelling of brick. A guide through the passage 18 miles wide between South Pea and North Manitow islands. From the light a bank extends south 9 miles which is from 1 to 11 miles wide. The soundings are from 1 to 2 and 3 fathoms. To the east, south and west of the bank there is from 20 to 30 fathoms of water. Close to the bank there are two small shoals bearing, respectively, from the light S by W 1/2 miles with 11 feet, and S 1/2 W 1/2 miles with 16 feet. Grand Traverse light SE 1/2 E, 18 miles; the northwest point of North Manitow SW by S, 14 miles; Point St Ignace light (Rock Island) V 1/2 N, 18 miles.
16	1870	Yellow	41	40	(6) 1	1862	1868	1870	W SW by S 1/2 to E	Light on brick dwelling. A guide to Grand Traverse Bay and to the passage between the Manitow and Sleeping Bear. The SE point of the North Manitow, W by S, 43 miles; Pilot Island light, W 1/2 N, 67 miles.
17	1870	White	31	18	(1) 1	1870			W, by S, by E 1 to SE, by E 1 E	Light on keeper's frame dwelling. A guide into the east and west arms of Grand Traverse Bay. Head extends from this point northward 14 miles. Northport S 1/2 W, distant 111 miles; Elk Rapids S, 25 1/2, distant 7 miles.
18	1870	Red	91	101	(2) 1	1870	1870	1870	NE, by N, by E 1 to SW, by W	A tower of red brick, connected by a covered way with keeper's dwelling of yellow brick. Guide to anchorage of South Manitow harbor, and showing the passage between the Manitow islands and the main shore. Point Harvey light S by W, 1 W, 21 miles; Sleeping Bear S by E, 1 E, 7 miles.
19	1870	Yellow	34	14	(1) 1	1870			SE, by N 1/2 to S	A tower and dwelling of yellow brick, connected by a covered way. Port Hope light, SW 1/2 N, 52 miles; Cass Island light, SW by W, 15 miles.
20	1872	White			(1) 1	1860	1872		N 1/2 E, by W 1 to S, by W 1 W.	Guide to entrance of Manistowic harbor. Cass Island light, N SW 1/2 W, 17 miles; Manitowic light, W by S, 67 miles; Sheboygan light, SW by W, 1 W, 70 miles; Grand Point on Sable light, SW 1/2 S, 17 miles.
21	1870	Yellow	100	100	(5) 1	1867			NE, by S, by W 1 to S, by E.	Tower and dwelling of yellow brick, connected by a covered way; top of lantern black. Belle Pointe on Sable, S 1/2 W, 20 miles; Cass Island light, N by W, 1 W, 70 miles; Manitowic light, W 1/2 S, 30 miles; Sheboygan light, W, SW 1/2 W, 65 miles.
22	1870	White	29	30	(1) 1	1870				Wooden tower on the end of the south pier. A guide into the harbor.
23					(1) 1					To be built. St. Joseph's light bears S 1/2 W, 100 miles; Chicago light, S, SW 1/2 W, 135 miles; Twin River point, NW 1/2 W, 62 miles.
24	1872	White	33	33	(1) 1	1872				A wooden tower on the outer end of the South Harbor pier. A guide into the harbor.
25	1870	White	37	45	(1) 1	1870	1870	1870	NW, by N, 1/2 N, by W 1 to S, by E.	Light on keeper's frame dwelling, on south side of Muskegon river. A coast and harbor light. Twin Rivers, NW 1/2 N, 87 miles; Kenosha, SW, by W, 80 miles.
26	1871		36	36	(1) 1	1871				A wooden tower on the outer end of the South Harbor pier. A guide into the harbor.
27	1870	White	24	70	(1) 1	1855	1868		N SW, by W 1 to S	Light on stone and brick tower, which is connected with the keeper's dwelling. A coast and harbor light, marking entrance to Grand Haven; Manitowic light, NW, 101 miles; Milwaukee light, W 1/2 S, 87 miles; Racine, W SW 1/2 W, 84 miles; Chicago, SW, 1/2 S, 100 miles; Michigan City, S, by W, 1 W, 100 miles; St. Joseph's light, S, by W, 68 miles.
28	1871		37	37	(1) 1	1871				A wooden tower on the outer end of the pier. A guide into Grand Haven.
29	1870	White	27.7	32	(1) 1	1870			N 1/2 W, by W 1 to S.	Wooden tower on the end of south pier. A guide into the harbor of Holland. Chicago, SW 1/2 W, 90 miles; Milwaukee, W, by N, 60 miles; Sheboygan, NW 1/2 W, 64 miles.
30	1870	White	35	53	(1) 1	1852	1850	1870	N, by W 1 to S, by 1	Light on keeper's wooden dwelling. Marks the entrance to Kalamazoo river. A coast and harbor light. Twin Rivers light, NW, 100 miles; Milwaukee light, W by S, 1/2 N, 90 miles; Racine, W, 1/2 S, 82 miles; Chicago, SW 1/2 W, 90 miles; Michigan City light, S, SW 1/2 W, 75 miles.
31	1870	White	32	32	(1) 1	1870				Wooden tower on the end of south pier, at the mouth of South Black river at South Haven.
32	1870	White	40.4	101	(1) 1	1831	1850		N, NE, by W 1 to SW, by S.	Light on keeper's wooden dwelling. Sheboygan, NW, by N, 1/2 N, 120 miles; Milwaukee, NW 1/2 W, 57 miles; Chicago, W, SW 1/2 W, 62 miles; Michigan City, SW, 1/2 S, 36 miles.
33	1870	White	20	34	(1) 1	1831	1870	1870		Wooden tower on the outer end of the south pier. A guide into the river.

LIGHTS OF THE UNITED STATES,

MICHIGAN AND INDIANA.

Number	Name	Location	Latitude	Longitude	Fire signal	Description of light (See page 5)
			north	west		
LAKE MICHIGAN	546	Michigan City	At the south end of Lake Michigan, Ind.	41 42 00	86 14 00	F W
	547	Pierhead Light	On the outer end of the east pier at Michigan City			F R
	548	Calumet	On the north side of Calumet river 54 miles south of Chicago, west shore of Lake Michigan			
	549	Chicago	On the north pier of Chicago harbor	41 53 00	87 42 30	F W
	550	Pier Light	On the end of the north pier and a guide to the entrance to the harbor of Chicago			F W
551	Crossed Point	On crossed point, Evanston, 13 miles north of Chicago	42 00 00		F V R F	

WISCONSIN AND MICHIGAN.

LAKE MICHIGAN	592	WARRISAN, Little Egg	On south side of Little Egg river, about 10 miles south of Southport light, Ill.	42 21 20	86 30 00	F W
	593	KENOSHA, Southport	On Warrenon island in Kenosha and on the north side of the entrance to the pier harbor, Wis.	42 55 00	87 43 00	F V R F
	594	Pierhead Light	On the outer end of the north pier			F R
	595	Racine, Root River	On the north pier at the harbor of Racine, Wis.	42 40 00	87 48 00	F W
	596	Pierhead Light	On the outer end of the north pier at the harbor of Racine, Wis.			F R
	597	Milwaukee Pierhead Light	On the outer end of the north pier at the harbor of Milwaukee, Wis.			F R
	598	North Cut Beacon	On the north pier at the harbor of Milwaukee, Wis.	43 01 37	87 53 30	V horn
	599	MILWAUKEE	At north point of Milwaukee bay, Wis.	43 02 21	87 54 08	F V W F
	600	Port Washington	At Port Washington, 15 miles south of Sheboygan light, Wis.	43 23 00	87 52 30	F W
	601	Sheboygan	On a point 24 miles north of the mouth of Sheboygan river, Wis.	43 44 00	87 44 30	F W
	602	Manitowish	Near the inner end of the north pier, at the mouth of Manitowish river, Wis.	44 06 00	87 36 00	F V W F
	603	Baileys Harbor, front light	On eastern side of anchorage of Baileys harbor, Wis.	45 04 17	87 05 30	F W
	604	Baileys Harbor, rear light				F W
	605	CANA ISLAND	On Cana island, 15 miles S. W. of the south entrance to Green Bay, Wisconsin, and 1 miles to the northward of entrance to Baileys harbor.	45 05 16	87 04 00	F W

MICHIGAN AND INDIANA.

Description of light (See page 5)	No.	Color	Height of tower or structure above water	Height of light above sea level	Distance from shore	Direction of light	Remarks	
								When built	When modified	When abolished
F W	111	Yellow	11	52	1.5	1807 1808	SE by S 4/5 to W 1/2	Light on keeper's brick dwelling. Grand Pointe au Sablon N 4 E 1/2 163 miles. This course would pass 1 mile to the westward of Little Point au Sablon. Also Chicago N by W 1/4 W 1/4 140 miles; Waukegon SW 1/4 W 1/4 85 miles; Chicago W NW 1/4 W 1/4 90 miles.
F H	114	White	42	68	1.8	1871	Due air	A wooden tower at the outer end of the East Harbor pier. A guide into the harbor. To be established.
F W	116	Black	74	81	2.1	1800	N by W by E 1/2 to S 1/2 E	Iron tower connected by a covered way with a wooden dwelling painted white. Grand Pointe au Sablon S by E 1/2 E 1/2 165 miles; Point Island Port du Mont light house N 1/2 1/2 miles; Manitowish N 1/2 E 150 miles.
F W	117	White	44	66	1.9	1800	Due air	Wooden tower marks the outer end of north pier and guides into the harbor.
F A W F	181			129	10.2			Building. Twin River point N 1/2 E 1/2 miles; Grand Pointe au Sablon S 1/2 E 1/2 miles; Grand Haven S E 1/2 miles; St. Joseph E 1/2 N 1/2 62 miles.

WISCONSIN AND MICHIGAN.

F W	13	White	35	75	(0.5)	1849 1860 1860	N NE by E 1/2 to SE	Light on keeper's frame dwelling. Grand Haven N E by E 1/2 E 1/2 65 miles; Pointe au Sablon NE 1/4 N 1/4 110 miles; Point Betsay S NE 1/2 E 1/2 182 miles.
F A W F	136	Yellow	50	70	(0.4)	1818 1866	N by E 1/2 by E 1/2 to S by E	Tower and dwelling of yellow brick. detached. 80. In water's SE by E 1/2 E 1/2 70 miles; Grand Haven E SE 1/2 miles; South Manitowish N NE 1/2 E 1/2 103 miles. This course would pass 1/2 mile to the westward of Point Betsay light.
F H	14	White	30	30	(0.5)	1818 1867 1870		Wooden tower on the end of the north pier. A guide into the harbor.
F W	14	Yellow	30	48	(0.4)	1800	NE by N 1/2 N 1/2 by E 1/2 to S 1/2 E	Coast and harbor light. Yellow brick, rises from top of dwelling. One and three-quarter miles east of this light is a shoal extending south 1 mile. East water's foot. Muskegon NE by E 1/2 E 1/2 83 miles; Grand Pointe au Sablon NE 1/2 N 1/2 112 miles.
F H	12	White	35	51	(0.5)	1871		A wooden tower at the extreme end of the north pier forms with the succeeding a guide into harbor.
F H	14	Yellow	35	50	(0.8)	1871		A yellow brick tower, rising from the keeper's dwelling forms with the preceding a guide into harbor.
F H	13	Yellow	30	48	(0.4)	1800		A yellow brick tower, rising from the keeper's dwelling. A guide to the entrance of the harbor, between the piers.
F A W F	17	Yellow	28	102	(0.1)	1855	N by E 1/2 to S by E	Coast light. Yellow brick tower and dwelling attached. A guide to Milwaukee bay. Muskegon E by S 1/2 miles; Pointe au Sablon NE by E 1/2 E 1/2 81 miles.
F W	18	Yellow	40	113	(0.1)	1810 1860 1870	NE by N by E 1/2 to S	Light on keeper's dwelling of yellow brick. Point Betsay, NE 1/2 N 1/2 120 miles; Grand Haven E SE 1/2 E 1/2 80 miles.
F W	15	White	4	80	(0.5)	1800 1800	NE by S by E 1/2 to S	Light on keeper's frame dwelling. East of the light and the pier there is a reef, on north and south ends of which buoys are placed. The South Manitowish E N 1/2 123 miles; Twin River point S by E 1/2 E 1/2 33 miles.
F A W F	10	White	34	63	(0.5)	1800	NE 1/2 E by E 1/2 to S by W	A stone tower, connected with keeper's dwelling by a covered way. Muskegon SE 1/2 E 1/2 80 miles; Manitowish E 1/2 N 1/2 97 miles.
F W	8	White			(0.6)	1800	S by E 1/2 E 1/2 to SE 1/2	Rear light on keeper's frame dwelling, front light in wooden tower, 3 1/2 miles distance from the entrance to the channel leading to the anchorage. Bring the lights in range, bearing S. NW 1/4 W, and stand into the bay for anchorage. Lights 1300 feet apart. SW by S 1/2 N, and NE by S 1/2 S. Steering Bear point E by S 1/2 miles. The old white tower of the former light on the point, on the starboard side of the entrance, is still standing, and serves as a good day mark for approaching the harbor.
F W	12	White	24	39	(0.5)	1800		
F W	16	Yellow	30	88	(0.5)	1800	N 1/2 E 1/2 by E 1/2 to S W 1/2 S 1/2	Tower and dwelling of yellow brick, connected by a covered way. Light on South Fox Island bears E by S 1/2 N 1/2 52 miles; south point of South Manitowish island E 1/2 S 1/2 15 miles; Point Betsay SE by E 1/2 E 1/2 miles and the Bailey's Harbor entrance 1 mile to the southward.

LIGHTS OF THE UNITED STATES,
WISCONSIN AND MICHIGAN.

Number.	Name.	Location.	Latitude north.	Longitude west.	Fog signal.	Description of light. (See page 5.)
036	POINT DU' MORE. (Pilot Island.)	On Pilot Island, in the southern entrance to Green Bay, Mich.	0	0	A horn, operated by a hot-air engine.	Fig. W.
			45 18 50	86 55 33		
037	POTTAWATOMI	On the north point of Rock Island, north side of the entrance to Green Bay, Mich.	45 25 40	86 49 36		F. W.
038	POINT PENINSULA	On the point between Little and Big Bays de Noquet.	45 49 05	86 57 44		Fig. W.
039	ESKIMAU	At the extreme end of Sand point, in Little Bay de Noquet.	45 41 23	87 02 26		F. R.
040	EAGLE BLUFF	Two miles north of Fish creek, in Green bay.	45 40 00	87 14 09		F. W.
041	CHAMBER'S ISLAND	On the northwest end of Chamber's Island, Green bay.	45 42 41	87 20 00		F. V. W. F.
042	GREEN ISLAND	On the southeast point of Green Island, off Menominee river, Green bay.	45 03 15	87 30 00		F. W.
043	Tail Point	Near the mouth of Fox river, at the head of Green bay, Wis.	44 35 49	87 59 48		F. W.
044	Grassy Island, upper light	At the east side of the inner end of the artificial cut through Grassy Island, near the mouth of Fox river, Green bay, Wis.	44 33 37	87 55 10		F. W.
045	Grassy Island, lower light					F. W.
046	ROUND ISLAND	In White Fish bay, near entrance to river Ste. Marie.	46 26 36	84 31 31		F. W.
047	POINT IROQUOIS	On south shore of White Fish bay, Lake Superior.	46 29 05	84 37 54		Fig. W.

LAKE MICHIGAN

GREEN BAY

LAKE SUPERIOR

Number
Time between flashes
Distance, in statute

036

037

038

039

040

041

042

043

044

045

046

047

WISCONSIN AND MICHIGAN.

Description of light. (See page 5.)	Name.	Time between flashes.	Height of tower or vessel.	Color of tower or vessel.	Height of tower from base to mean plane.	Height of light above sea level.	Order of lens.	When built.	When rebuilt.	When refitted.	Compass range of visibility.	Remarks.
Flg. W.....	60	1.00	12	Yellow	31	38	[⊙ 1]	1849	1858		E. NE. by E'd to S.	Light on yellow brick dwelling. To enter Port du Mort from Lake Michigan, bring the light at 5 miles distance, in 10 or 20 fathoms water, to bear from SW. by W. to N. NW. 1 W., and steer for it until the light bears N., 14 miles distant; then NW. 1 W., 5 miles, into Green Bay. This course will pass south of Plum Island. Strangers should not attempt to pass north of Plum Island. The northeast shores of the peninsula of Green Bay and Washington Island are fringed with rocky shoals, requiring a vigilant look-out and use of the lead. Beaver Island light bears E. by N. 1 N., 18 miles; South Fox Island light, E. 1 N., 53 miles.
F. W.....	61		19	Grey	31	137	[⊙ 1]	1849	1858		S. SW. by N'd to E. by S.	Light on keeper's dwelling built of stone. A guide to Green Bay through the passage between Rock and St. Martin's islands. A six-foot stand in the channel bears NE. by E. 1 E., 34 miles from the light. From the southeast point of Rock Island there are two dangerous reefs, with only 4 feet water, bearing S.E. by E. 1 E., 23 miles, and S. SE. 3/4 miles. Vessels from Lake Michigan for Green Bay can bring the light to bear, in 18 fathoms water, from W. by N. to W. by S., and stand for it, hauling half a mile to the northward as they approach the light, with the light absent when standing for the westward. Beaver's bluff, the northwest point of Washington Island, one of the most prominent headlands in Green Bay, will bear W. by S., 34 miles.
Flg. W.....	62	0.90	12	Yellow	36	41	[⊙ 1]	1865	1870		E. NE. by S'd to N. NW.	Tower rises from keeper's dwelling, built of yellow brick. Marks approach to Little and Big Bays de Noquet. A dangerous shoal extends south from the light 1 1/2 miles, on which there is a red spar buoy. There is also a 11-foot spot, S. by W. 1 W., 23 miles from the light, on which there is a 34 class iron can buoy, painted with red and black horizontal stripes. Sand Point light-house bears NW. by W., 64 miles; Chamber's Island light-house, S. SW. 1 W., 37 1/2 miles; Beaver's bluff, S. 1 E., 12 miles; south point of Poverty Island, S. 1 E., 17 miles.
F. R.....	63		13	Yellow	39	44	[⊙ 1]	1867			N. by W. by E'd to S. by W.	Tower rises from keeper's dwelling, built of yellow brick. A guide into the harbor of Escumaba and Little Bay de Noquet. To the eastward of the light is a small flat extending a half mile, on which is a black buoy. Beaver's bluff, S. by E. 1 E., 23 miles; White's Back shoal, S. by W. 1 W., 27 miles.
F. W.....	64		15	Yellow	38	76	[⊙ 3]	1868			NE. by N'd to N. NW.; also S. SW. to W. by S. 1 S.	Tower rises from the corner of keeper's dwelling, built of yellow brick. A guide through the strawberry passage, between the islands and the main shore, Strangers should not attempt to pass between the Strawberries and Chamber's Island. Horseshoe reef, N. by E. 1 E., 33 miles. Eagle harbor, to the northward of the bluff is a good harbor of refuge.
F. V. W. F.	65	1.00	15	Yellow	38	68	[⊙ 1]	1868			E. NE. by N'd to SW. by W.	Tower rises from the corner of keeper's dwelling, built of yellow brick. A guide through the western passage (5 1/2 miles wide) between the island and the main. A reef extends off the north point of this island 1 1/2 miles. Strangers should not pass to the eastward of this island, or between it and the Strawberries. White's Back shoal, NE. 1 N., 14 miles; Point Roche-roux, N. NW. 1 W., 7 miles; Menominee, S.W. by W., 13 miles.
F. W.....	66		11	White	40	54	[⊙ 1]	1863			Entire horizon, except W. to NW.	Light on keeper's dwelling, built of brick. Reef extends off from the SE. and NW. points of this island a half and 1 mile, respectively. The best channel (3 miles wide) is to the eastward of this island. The northwest end of Chamber's Island bears NE. by N. 1 N., 11 miles. The southeast point of Peschigo shoal, S.W. by S., 8 miles; Strurgeon bay, S. by E. 1 E., 11 miles.
F. W.....	67		11	White	56	56	[⊙ 1]	1848	1890		N. NE. to S. SE.	Light on keeper's dwelling, built of wood. A guide to the entrance of Fox river, Green Bay city. The southeast extreme of Peschigo reef, NE. 1 N., 32 miles; Hat Island, NE., 18 miles.
F. W.....	68		13	White	37		[⊙ 3]	1872			Entire horizon.	Wooden tower 67 1/2 feet apart. Keeper's wooden dwelling between the two towers, which form a range, guiding through the artificial cut into Fox river. Bearing of range NE. by N. 1 N.
F. W.....	69		11	White	39		[⊙ 3]	1872			Entire horizon.	
F. W.....	70		13 1/2	White	33	50	[⊙ 1]	1855	1870		NE. by E. by N'd to W. SW.	Light on square stone tower, rising from the corner of the keeper's dwelling. A guide to and from the entrance to Lake Superior.
Flg. W.....	71	0.90	15	Red	53	72	[⊙ 1]	1857	1870	1870	SE. by N'd to W. NW.	The light is on a red-brick tower, connected with the keeper's dwelling by a covered way. A guide to and from the river Ste. Marie, Peshigo Island, N. by W. 1 W., 12 miles; White Fish Point, NW. 1 N., 23 miles.

WISCONSIN AND MICHIGAN.

Number.	Name.	Location.	Latitude north.	Longitude west.	Fog-signal.	Description of light. (See page 5.)
618	WHITE FISH POINT.....	On White Fish point, at the outlet of Lake Superior, Mich.	46 46 48	81 57 24		A 16-inch steam fog-whistle, giving a blast of 8 seconds, followed by an interval of 10 seconds; then a blast of 2 seconds, followed by an interval of 10 seconds. Alternating in this manner every minute.
619	BIG SABLE.....	At Big Sable point, on the south shore of Lake Superior, between White Fish point and Grand island.				F. W.
620	GRAND ISLAND.....	North point of Grand island, on a high bluff.	46 33 40	86 40 50		F. V. A. F.
621	Grand Island Harbor.....	On the low sand point projecting from Grand Island into the east entrance to Grand Island harbor.				F. W.
622	Grand Island Harbor Range, front light.	On the main land at west entrance to Grand Island harbor.				F. W.
623	Grand Island Harbor Range, rear light.	On the main land at west entrance to Grand Island harbor.				F. W.
624	Marquette.....	On the north point of Marquette harbor.	46 32 55	87 22 42		F. W.
625	GRANITE ISLAND.....	On Granite island, 12 miles northwest of Marquette.	46 43 22	87 24 25		F. V. R. F.
626	HIRON ISLAND.....	On West Hiron island, off Hiron bay.	46 57 47	87 59 35		F. W.
627	Portage River.....	Near mouth of Portage river, western shore of Keweenaw bay.	46 58 44	88 24 33		F. V. R. F.
628	Portage Range, front light.	On prolongation of centre line of cut from Keweenaw bay.				F. W.
629	Portage Range, rear light.					F. W.
630	MANITOW.....	On the east point of Manitow island.	47 25 42	87 35 38		F. V. W. F.
631	GRILL ROCK.....	On a rocky islet between Keweenaw point and Manitow island.	47 25 02	87 40 11		F. R.
632	Copper Harbor.....	On the eastern point of the entrance to Copper Harbor, Mich.	47 28 34	87 52 00	A horn.	F. W.
633	Copper Harbor Range, front light.	On Fort Wilkins reserve.	47 28 40	87 52 26		F. W.
634	Copper Harbor Range, rear light.	On Fort Wilkins reserve.	47 28 05	87 52 26		F. W.
635	Eagle Harbor.....	On the west point of the entrance to Eagle Harbor, Mich.	47 28 50	88 04 04		F. V. W. F.

LAKE SUPERIOR.

Number.
Name.
Location.
Latitude north.
Longitude west.
Fog-signal.
Description of light.

618

White Fish Point

On White Fish point, at the outlet of Lake Superior, Mich.

46 46 48

81 57 24

A 16-inch steam fog-whistle, giving a blast of 8 seconds, followed by an interval of 10 seconds; then a blast of 2 seconds, followed by an interval of 10 seconds. Alternating in this manner every minute.

F. W.

619

Big Sable

At Big Sable point, on the south shore of Lake Superior, between White Fish point and Grand island.

F. W.

620

Grand Island

North point of Grand island, on a high bluff.

46 33 40

86 40 50

F. V. A. F.

621

Grand Island Harbor

On the low sand point projecting from Grand Island into the east entrance to Grand Island harbor.

F. W.

622

Grand Island Harbor Range, front light.

On the main land at west entrance to Grand Island harbor.

F. W.

623

Grand Island Harbor Range, rear light.

On the main land at west entrance to Grand Island harbor.

F. W.

624

Marquette

On the north point of Marquette harbor.

46 32 55

87 22 42

F. W.

625

Granite Island

On Granite island, 12 miles northwest of Marquette.

46 43 22

87 24 25

F. V. R. F.

626

Hiron Island

On West Hiron island, off Hiron bay.

46 57 47

87 59 35

F. W.

627

Portage River

Near mouth of Portage river, western shore of Keweenaw bay.

46 58 44

88 24 33

F. V. R. F.

628

Portage Range, front light.

On prolongation of centre line of cut from Keweenaw bay.

F. W.

629

Portage Range, rear light.

F. W.

630

Manitow

On the east point of Manitow island.

47 25 42

87 35 38

F. V. W. F.

631

Grill Rock

On a rocky islet between Keweenaw point and Manitow island.

47 25 02

87 40 11

F. R.

632

Copper Harbor

On the eastern point of the entrance to Copper Harbor, Mich.

47 28 34

87 52 00

A horn.

F. W.

633

Copper Harbor Range, front light.

On Fort Wilkins reserve.

47 28 40

87 52 26

F. W.

634

Copper Harbor Range, rear light.

On Fort Wilkins reserve.

47 28 05

87 52 26

F. W.

635

Eagle Harbor

On the west point of the entrance to Eagle Harbor, Mich.

47 28 50

88 04 04

F. V. W. F.

WISCONSIN AND MICHIGAN.

Description of light. (See page 5.)	Number.	Time between flashes, in seconds.	Distance visible, in statute miles.	Color of tower or vessel.	Height of tower from base to focal plane.		Order of lens.	When built.	When rebuilt.	When refitted.	Compass range of visibility.	Remarks.
					feet.	meters.						
F. W.	618	154	Red	70	70	[Q 31]	1847	1864	1863	S. by W. by E. 4 to W.	Iron-pile structure, connected with keeper's frame dwelling, painted white. A guide to and from White Fish bay, at the southeast extreme of Lake Superior. The southwest point of the shoal off Carlton Island bears SW. 4 W. 53 miles; Manitow Island, W. NW. 4 W. 44 miles; Montreal Island, (Canada) N. by E. 4 E. 34 miles.	
F. W.	619					(C 1)						To be built. When the light bears due south, distant 11 miles, steer W. by S. for Marquette, 60 miles; or SW. by W. for Grand Point, 49 miles; or NE. 54 miles, to White Fish point. It is 27 miles from this light to Grand Island light. A reef extends in north-westerly direction a distance of three-fourths mile from the light.
F. V. W. F.	620	1 30	29	Yellow	33	305	(C 1)	1856	1867		E. by N. 4 to W. SW.	Brick tower rising from keeper's dwelling, built of yellow brick. Stannard's Rock beacon, NW. by N. 4 N. 61 miles; Manitow Island light, SW. 4 S. 74 miles. This course would pass 34 miles to the southward and westward of Stannard's Rock beacon. Granite Island light, W. SW. 4 W. 30 miles; Marquette light, W. 4 S. 33 miles; the southwest point of Michipicoten, N. NE. 4 E. 81 miles; Pointe au Sable, E. NE. 4 E. 27 miles.
F. W.	621	12	White	30	31	(C 5)	1868		1869		NE. to E. NE.	Light on keeper's wooden dwelling. To guide through the eastern passage to the anchorage at Grand Island harbor. In entering the harbor from the eastward, pass Castle point on the main land within half a mile; then steer southwest for the light, which may be approached and passed within 200 yards.
F. W.	622	10	White	10	24	(C 6)	1868		1870		N. to N. SW.	Front light in wooden tower, rear light on keeper's frame dwelling. These lights, 500 feet apart, are a guide for entering the west channel to the anchorage of Grand Island harbor. With the north point of Wood Island, bearing W. seven-eighths of a mile, and the lights in range, steer S. by E. 4 E. 5 miles, toward the range lights. At this point a vessel should be about two-thirds of a mile north of the lights, and should have opened the two extreme south points of the island; then haul to the eastward for the respective anchorages, keeping Power's point close aboard.
F. W.	623	11	White	22	31	(C 6)	1868		1870			
F. W.	624	154	Yellow	33	77	(C 1)	1863	1866	1870	270°		Tower rises from keeper's dwelling, built of yellow brick. Stannard's Rock beacon, N. 4 E. 64 miles; Grand Island light, E. 4 N. 33 miles.
F. V. R. F.	625	1 30	64	Granite	31	303	(C 1)	1868			Entire horizon.	Tower rises from keeper's dwelling, built of granite. Keweenaw point, N. by W. 4 W. 48 miles; Traverse point, NW. 4 W. 48 miles; Stannard's rock, N. by E. 4 E. 32 miles.
F. W.	626	22	Granite	31	197	(C 3)	1868				Entire horizon.	Tower rises from keeper's dwelling, built of granite. Stannard's rock, E. NE. 39 miles; Manitow Island light, N. NE. 4 E. 37 miles; Traverse Island, SW. by W. 4 W. 114 miles.
F. V. R. F.	627	2 00	15	White	45	68	(C 5)	1836			NE. by E. 4 to S. by W.	Manitow Island light, NE. 4 E. 94 miles; Stannard's rock, E. NE. 4 E. 38 miles.
F. W.	628	10	White	10	21	(C 6)	1868					Stone and brick tower, connected with dwelling of red brick by a covered way. Marks approach to Portage river. Front light on wooden tower, rear light on keeper's frame dwelling. Guides into Portage river. Lights 500 feet apart.
F. W.	629	104	White	23	25	(C 6)	1868					
F. V. W. F.	630	1 30	16	White	70	84	(C 3)	1849	1861	1867	Entire horizon, except from W. by N. by W. 4 to W. by S.	Iron-pile structure, connected by a covered way with keeper's house, of wood, painted white. Stannard's rock, SE. 23 miles; southwest point of Michipicoten, E. NE. 4 E. 25 miles; the south point of State Islands, N. by E. 4 E. 83 miles; the Battant rocks, N. by W. 4 W. 31 miles; the east point of Isle Royal, NW. 4 N. 60 miles.
F. R.	631	143	Yellow	30	50	(C 4)	1867				Entire horizon, except from E. NE. 4 to E. by S. 4 S.	Tower rises from keeper's dwelling, built of yellow brick. A guide through the passage between Gull rock (which lies near the western end of Manitow Island) and Keweenaw point.
F. W.	632	11	Yellow	36	65	(C 1)	1848	1866			E. 4 N. by W. 4 to W. 4 N.	Tower and keeper's dwelling connected, built of Milwaukee brick. Southwest point of Isle Royal, W. NW. 68 miles; Outer Head, (Canada), SE. by E. 4 E. 32 miles; Passage Island, N. NW. 4 W. 58 miles.
F. W.	633	10	White	16	22	(C 6)	1865					To guide vessels into Copper Harbor. The front light is in a wooden tower, rear light on keeper's frame dwelling. Lights 500 feet apart.
F. W.	634	12	White	26	39	(C 6)	1865					
F. V. W. F.	635	2 00	11	Red	38	58	(C 5)	1850	1871		E. by N. by N. 4 to W.	Tower rises from the corner of the keeper's dwelling, built of red brick. The entrance to Les Petites Eeris bay, (Canada) N. NE. 4 E. 39 miles; the north point of the outer easternmost of the Apostle group, W. by S. 4 S. 46 miles.

WISCONSIN AND MICHIGAN.

Number.	Name.	Location.	Latitude		Longitude		Fog-signal.	Description of light. (See page 5.)
			north.	west.	west.	west.		
630	Engle River.....	Near the entrance to Engle river, south shore of Lake Superior.	47	25	88	18	07	F. W.
637	Ontonagon.....	At mouth of Ontonagon river, Michigan, on west side of entrance.	46	52	89	31	00	F. W.
638	MICHIGAN ISLAND.....	On the southwest point of Michigan Island, the most southern and eastern of the Apostle group, Wis.						F. W.
639	La Pointe.....	On Chagamegan point, the southeastern entrance to La Pointe harbor, and to the southward of Bayfield.						F. R.
640	Raspberry Island.....	On the southwest point of Raspberry Island, one of the Apostle group.						F. V. W. F.
641	MISSISSOPIA POINT.....	At the head of Lake Superior, mouth of St. Louis river, three-eighths of a mile northwest of the piers.	49	46	92	44	00	F. W.
642	Duluth.....	On the end of the south pier of Duluth.						F. W.

LAKE SUPERIOR.

Notes.
Time between flashes.
Duration of flash, in sec.

630..... 1
637..... 1
638..... 1
639..... 1
640..... 1
641..... 1
642..... 1

WISCONSIN AND MICHIGAN.

Description of light. (See page 5.)	No.	Time kept in service.	Distances visible, in statute miles.	Color of tower or vessel.	Height of tower from base to focal plane.		Order of lens.	When built.	When rebuilt.	When refitted.	Compass range of visibility.	Remarks.
F. W.	66		41	Yellow	24	61	[O 5]	1808			SE. by N'd to W. by S.	Light on keeper's dwelling. A guide to the pier, Siskiwit Island, N. NW. $\frac{1}{2}$ W. 44 miles; Michigan Island light, W. SW. $\frac{1}{2}$ W. 100 miles.
F. W.	67		41	Yellow	39	47	[O 4]	1852	1856		SE. by N'd to W. by S.	Tower rises from keeper's dwelling, built of yellow brick. The southwest point of Isle Royal, N. E. E. 67 miles; Grand Portage bay, (Canada,) N. by W., 75 miles.
F. W.	68		49	White	64	129	[O 4]	1857	1869		E. NE. by S'd to W. SW.	A stone tower, connected with a stone dwelling by a covered way. A guide through the passage between Micheline, Stockton and Michigan islands, to Bayfield and La Pointe, Ontonagon, E., 66 miles.
F. R.	69		42	White	31	42	[O 4]	1858			NE. by E. E. to SE. by E. E. E.	Light on keeper's frame dwelling, painted white. Black river, E. 48, 35 miles; Eagle river, E. NE. $\frac{1}{2}$ E. 115 miles.
F. V. W. F.	70	1 19	54	White	37	77	[O 5]	1862			E. NE. by S'd to N.	Light on keeper's frame dwelling, painted white. A guide between the Main and Raspberry islands, and to Bayfield and La Pointe. Baptism river, NW. 48, 30 miles.
F. W.	71		44	White	45	51	[O 5]	1867			E. SE. by N'd to N. NW.	Brick tower with brick dwelling attached. A guide into Superior bay. The southwest point of Isle Royal, NE. $\frac{1}{2}$ E. $\frac{1}{2}$ E. 135 miles; Point Porphyry, (Canada,) NE. $\frac{1}{2}$ E. 162 miles.
F. W.	72			White			[O 5]					Building. A wooden tower on the outer end of the south pier of the canal. Guide into the canal.

Table of distances at which objects can be seen on the lakes, according to their respective elevations and the elevation of the eye of the observer.

Heights in feet.	Distances in statute miles.	Distances in nautical miles.	Heights in feet.	Distances in statute miles.	Distances in nautical miles.	Heights in feet.	Distances in statute miles.	Distances in nautical miles.
5	2,958	2,565	70	11,067	9,538	250	20,906	18,11
10	4,184	3,628	75	11,456	9,905	300	22,912	19,87
15	5,423	4,713	80	11,832	10,26	350	24,718	21,06
20	5,906	5,130	85	12,196	10,57	400	26,457	22,90
25	6,614	5,736	90	12,549	10,88	450	28,062	24,33
30	7,245	6,281	95	12,893	11,18	500	29,580	25,65
35	7,826	6,787	100	13,228	11,47	550	31,021	26,90
40	8,366	7,255	110	13,871	12,03	600	32,493	28,16
45	8,874	7,686	120	14,490	12,56	650	33,926	29,25
50	9,351	8,112	130	15,083	13,08	700	35,300	30,28
55	9,811	8,529	140	15,652	13,57	800	37,416	32,45
60	10,246	8,881	150	16,201	14,05	900	39,286	34,54
65	10,665	9,249	200	18,708	16,22	1,000	41,861	36,28

If the distance at which a light of a given height can be seen by a person on a given level be required, it is only needful to add together the two numbers in the column of distances corresponding to those in the column of heights, which represent, respectively, the height of the observer's eye and the height of the focal plane above the sea. When the height required to render a light visible at a given distance is required, we must first seek for the number corresponding to the height of the observer's eye, and deduct this from the whole proposed range of the light, and opposite the remainder in the column of distances, seek for the corresponding number in the column of heights.

Distances corresponding to heights not included in the above table may be found by the formula $d = \sqrt{\frac{1}{2}H}$, in which d is the distance in statute miles, and H is the height, in feet, of the focal plane above the lake. One statute mile = 0,867 of a nautical mile.

EXAMPLE 1.—Detour light 75 feet high, visible.....	11,456 statute miles.
Add for height of observer's eye on deck 10 feet.....	4,184 " "
Distance of light.....	15,640 " "
EXAMPLE 2.—Presque Isle light 128 feet high, visible.....	14,907 " "
Add for height of observer's eye on deck 10 feet.....	4,184 " "
Distance of light.....	19,111 " "

and the eleva

Distances in
nautical miles.

18, 14

19, 87

21, 40

22, 91

24, 33

25, 65

26, 96

28, 10

29, 25

30, 28

32, 45

34, 51

36, 28

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CANADIAN LIGHTS ON THE LAKES.

ST. LAWRENCE RIVER.

Number.	Name of light.	Place.	Latitude north.	Longitude west.	Number of lights and relative positions.	Physical description of light and its construction.	
99	CRANE ISLAND.	One and a half miles from west point of Isle 1.	47 01 00	70 33 00	1	F.	
101	BEUF CHASSE.	East point of island.	46 50 00	70 46 00	1	F.	
102	ST. LAWRENCE POINT.	On eastern island.	46 50 00	71 02 00	1	F.	
103	ST. ANTOINE.	South shore.	46 30 41	71 30 40	1	F.	
105	ST. CHOUX.	On shore, near high water mark, and a quarter of a mile north of church.	46 37 45	71 44 40	1	F.	
107	PORT NEUF.	On north shore, three-quarters of a mile off the river.	47 11 48	71 2 40	2 SW, and NE, nearly 180 yards apart.	F.	
109	PEAUX POINT.	On south side, 1 1/2 miles below Richelieu Island.	46 26 44	71 53 03	2 W by S, 1 S, 160 yards apart.	F.	
111	ROCHER.	Centre of island.	46 38 24	71 54 31	1	F.	
113	LAMOLAIS POINT.	On south shore, half a mile below Great Chene river.	46 35 05	71 59 35	1	F.	
114	CAPE CHARLES.	On the cape.	46 33 39	72 01 45	2 W, NW, 300 yards apart.	F.	
117	GRONDINE.	North shore.	46 45 40	72 01 42	2 SW, by W 1 W, 1300 yards apart.	F.	
119	ST. PIERRE DES BOURGEOIS.	South shore, summit of St. Pierre point.	46 39 28	72 12 30	1	F.	
121	HATISCAU.	North shore, 1/4 miles below Hatiscan church.	46 30 46	72 14 52	2 W, by S, 1 S, 220 yards apart.	F.	
123	CHAMPLAIN.	North shore, near Champlain church.	46 26 34	72 20 32	1	F.	
125	CAPE MARCELLENE.	Lower lights, north shore, 3 miles below the cape.	46 23 46	72 27 18	2 SW, by W 1 W, 200 yards apart.	F.	
127		Upper lights, north shore, 2 miles below the cape.	46 24 15	72 28 38	2 W 1 S, 235 yards apart.	F.	
129	ST. FRANCIS PORT.	South shore, high light on a pier.	46 16 20	72 37 45	2 W, by S, 1 S, 3,200 yards apart.	F.	
131	POINT DE LAM.	North shore.	46 16 50	72 49 22	1	F.	
133	ST. PIERRE'S LAKE.	East.	46 13 58	72 43 48	1	F.	
135		Centre.	Light-vessel, S. 1/2 E, 1/2 miles from Rivière de Loup.	46 11 30	72 53 20	1	F.
137		West.	Light-vessel, north side of channel, NE, by N, 3 miles from Flat Island.	46 09 30	72 56 50	1	F.
139	ISLE AUX RABINS.	On the island.	46 06 44	72 57 30	1	F.	
141		South part of island.	46 06 00	72 58 00	1	F.	
143	SIGNE DE L'ISLE A LA PIERRE.	East part of island.	46 03 31	73 00 40	1	F.	
145	LA VALLEE.	South side of island.	45 52 55	73 16 00	2 SW, 1 S, 320 yards apart.	F.	
147	TRAVERSE.	Two and a half miles above Contrecoeur.	45 49 52	73 17 00	2 SW, by S, 1 S, 1,500 yards apart.	F.	
149	ISLE AUX PREYES.	Opposite Verchères.	45 46 50	73 22 30	1	F.	
151	REPENDOY.	Three-quarters of a mile below Rependoy.	45 43 02	73 26 08	2 S, SW, 150 yards apart.	F.	
153	ISLE A LA HAUTE.	On the island.	45 41 44	73 26 05	1	F.	
155	ST. THIBAUT.	On the island.	45 41 22	73 27 40	2 SW, 1 W, 220 yards apart.	F.	
157	POINT AUX TUMBLES.	North shore.	45 38 26	73 29 20	2 SW, 100 yards apart.	F.	
159	MONTRIAL.	On island where.	45 36 22	73 33 41	2 SW 1 S, 73 yards apart.	F, R.	
161	LACHINE.	On pier at entrance of canal, north shore.	45 27 00	73 41 00	1	F.	

All bearings are magnetic.

ST. LAWRENCE RIVER.

Number	Material of construction or shape.	Miles west in clear weather.	Color or any peculiarity of light-house.	Height in feet, except of lantern, above high water.	Height in feet of cable from base to lamp.	Year lighted.	Character and order of illumination apparatus.	Remarks.
10	Wood	10	Wood	41	37	1862	C	Variation in 1870, 17° 00' W
101	Wood	11	Wood	70	30	1862	C	
102	White	8	White	38		1869	C	
103	Wood, white	10	Wood, white	90		1856	C	Variation in 1870, 15° 55' W.
104	Wood, white	0	Wood, white	30	20	1842		A small light to assist in keeping the channel for some distance up and down the river.
105	Both stone and white, the lower lantern is out of order.	5	Both stone and white, the lower lantern is out of order.	204 129		1812		These lights in one lead up Richelieu channel to the light on Richelieu Island.
106	Wood, octagonal, white.	14	Wood, octagonal, white.	152 136	24 7	1846 1824		These lights lead up the Richelieu. Variation in 1870, 15° 30' W
111	Octagonal, stone.	0	Octagonal, stone.	27		1846		This light and the lights on Platon point are very nearly in the same line of bearing, namely, E. by N. 4 N.
112	Wood	5	Wood	35	8	1811		To show off Battures des Trondites and to avoid Battures Cardin, and as a steering point for Richelieu.
113	Wood	1	Wood	110	20	1856		Lead to and from Cap à la Roche and Cape Charles, and to answer as a steering point through Richelieu.
117	Each	each	Octagonal, wood, white.	50 25	30	1857		To lead off Cap à la Roche to Levard.
119	Wood	5	Octagonal, wood, white.	85	12	1841		To indicate the widest berth of Cap à la Roche. Variation in 1870, 13° 10' W
121	Wood	7	Octagonal, wood, white.	30 20	31 11	1841		To lead through Levard and clear Batture St. Ann on the south, and Pouliller on the north.
123	Wood	1	Octagonal, wood, white.	30	10	1841		Steering point for lower part of bay of Champlain.
125	Wood	1	Octagonal, wood, white.	51 54	13 10	1843		To clear Batture Bigot. Variation in 1870, 14° 20' W.
127	Wood	0	Octagonal, wood, white.	55 35	30 10	1843		To clear Pouliller Provençolo.
129	Each	each	Each	41 12	21 1	1839		These lights in one with the eastern light-vessel on lake lead up through the dredged channel, W. by S. 1 S. High light removed in winter.
131	Wood	12	Wood	71	21	1843		Shows the turn of channel at Point du Lac.
133	Red	0	Red	15	8			Removed at the approach of winter, on account of ice. On south side of Petite Traverse, off Richelieu-du Loup.
136	Red	0	Red	15	8	1846		Removed at the approach of winter, on account of ice. To indicate the turn of the channel and lead to No. 2.
137	Red	0	Red	15	8	1828		In connection with Isle à la Pierre, and bearing in line with No. 1, and to avoid Battures St. Francois and à la Carpe. Variation in 1870, 12° 57' W.
139	Red	0	Red	30	20	1843		To lead from entrance of the Batture of Lake St. Peter to No. 1 light-vessel, up and down.
141	Red	0	Red			1863		Indicates entrance to channel, and leads to No. 1.
142	Red	0	Red	30				Leads to channel called Flat Islands.
143	Wood, white, square	7	Wood, white, square	21 13	17 9	1831		To lead into La Vallée channel and Isle Bonchard, and indicates the new channel to be kept in line till La Vallée lights are brought to bear.
144	Octagonal, wood, white.		Octagonal, wood, white.			1856		To clear the Island.
145	Wood, white.	1	Wood, white.	30 11	26 11	1831		To lead through Isle à la Baigne channel, and to avoid Pouliller on the north and shoal on the south.
151	Wood, white, octagonal	1	Wood, white, octagonal	24		1831		The Island is extremely low. Removed in winter on account of ice.
157	Wood, white, square.	1	Wood, white, square.					Leads to entrance through Verchères channel up and down the river. Variation in 1870, 12° 30' W.
157	High and low octagonal wood, white.	6 4	High and low octagonal wood, white.	53 25		1846		To lead through the channel between Point aux Trembles and Verennes up to Longue point.
159	Wood, octagonal	each	Wood, octagonal	38 20	31 24	1830		Red lights. Indicate the deepest channel to and from the harbor.
161	Square, wood, white	0	Square, wood, white	23	07	1839		Variation in 1870, 11° 20' W.

ST. LAWRENCE RIVER.

Number	Name of light	Place	Latitude north.	Longitude west.	Number of lights and relative positions	Fixed, flashing &c and kind, height, etc. of light.
165	Lake St. Lawrence	Light-vessel, four-fifths miles above Laclaire.	45 20 30	73 42 10	1	F
166	Wade Shoal	Light-vessel, 21 miles above Laclaire.	45 25 40	73 41 45	1	F
167		North side of Ottawa river.	45 26 00	73 47 00	1	F
169	Chaire Point	Light-vessel, south side of channel, 63 chains above Deval from light No. 3, on St. Lawrence river near Chaire point.	45 21 00	73 45 20	1	F
171		On shoal, north side of channel, about 14 miles below Point Claire; 120 chains westerly from light ship near Point Claire.	45 26 00	73 40 10	1	F
173	Grosbeak Shoal	On pier, south side of channel, 7 miles below Ottawa city.			1	F
174	Point L'Original	Point Original.	45 42 00	74 06 45	1	F
174 1/2	McTravis Point		45 50 00	74 52 30	1	F
175	CHATELAIN	Light vessel, 41 miles above Laclaire.	45 24 00	73 49 18	1	F
177	DEVALHARNOIS	Lower entrance of canal, south shore.	45 10 00	73 54 00	2	SE, by E, 1 E, 114 yards apart.
179	GROSSE POINT	Upper entrance of Bontharndts canal.	45 15 45	74 09 25	2	F
181	DEE GROSSE POINT	On piers in river.			2	F

ST. FRANCIS LAKE.

185	METZGER'S POINT	North shore	45 14 25	74 19 00	1	F
187	CHERRY ISLAND	South side of north channel	45 00 00	74 22 00	1	F
188	CHERRY	Light-vessel, above island	45 08 20	74 25 40	1	F
191	CHURCH	North side of channel, on a pier 4 miles southwest from Lancaster village.	45 07 00	74 30 00	1	F
193	CORNWALL CANAL		45 01 15	74 55 25	1	F

BETWEEN ST. FRANCIS AND ONTARIO LAKES.

195	COTE'S SHOAL	On pier, 5 miles west of Brockville, three-quarters of a mile from north shore.			1	F
197	GREENADER ISLAND	Southwest point of island, north side of channel, 2 miles below Rockport.			1	F
199	LANDOR ISLAND	Northwest point of island, south side of channel, 5 miles west of Rockport.			1	F
201	GANANOREK NARROWS	Northeast end of Little Slave Island, south side of channel, 5 miles below Gananoque.			1	F
203	JACK SIBBAN SHOAL	On a pier, north side of channel, 3 miles below Gananoque.			1	F
205	SPECTACLE SHOAL	On pier, north side of channel, 2 miles west of Gananoque.	44 10 00	76 22 30	1	F
207	RED HOUSE ROCK	On pier, southeast side of channel, one-half mile west of No. 203.			1	F
209	BURN ISLAND	Southeast point of island, north side of channel, three-quarters of a mile from No. 205.			1	F
211	WOLFE ISLAND	Northeast entrance point of island, 18 miles southeast of Kingston.	41 14 00	76 10 00	1	F

ST. LAWRENCE RIVER.

Number	Interval of revolutions of float, or flash.	Miles south in clear weather.	Color or any peculiarity of light-house.	Height in feet. Centre of lantern above a high water	Height, in feet, of bulb near bottom to water.	Year lighted.	Character and order of illumination, appar- atus.	Remarks.
16		6	Circular iron, red.	24		1849		Light-vestee painted red, with white tower and red lantern.
163		6	Red.	24				
167		8	Wooden tower, hexagonal.	35	25	1870		
164		6	Iron.	24	17			Two sides next to river, white, the others brown.
171		7	Wood.	24	25			
172		9	Wood.	36	17			
173		6	Hexagonal, white.	43	30	1871		
174		6	Hexagonal, wood.	35	25	1870		
175		6	Red.	20		1879		Hull red, tower white, red lantern.
177		10	Wood, square frames, white.			1830		In one; lead to Chateaugay light. Variation in 1870, 14° W.
179		8	Square, wood, one red and one white.	20	20	1843 1850		To be kept in one when leaving the canal, till the upper lights come in one.
181		3	Square, wood, one red and one white.			1830		

ST. FRANCIS LAKE.

182	10	Square, wood, white.	30	24			Midway between Colan and Cherry Islands.
187	10	Square, wood, white.	40	30		1847	
188						1849	Opposite the light there is a beacon, north of the channel.
191	8	Square, wood, white.	20	20		1844	
193						1865	Variation in 1870, 36° 40' W.

BETWEEN ST. FRANCIS AND ONTARIO LAKES.

196	6	White, square, wood.	31	31		1856		These small lights are for the purpose of marking out the channel through the Thousand Islands, between Brockville and Kingston. Variation in 1870, 7° 45' W.
197	10	White, square, wood.	55	37		1856		
199	7	White, square, wood.	40	20		1856		
204	7	White, square, wood.	41	37		1856		
205	6	White, square, wood.	31	26		1856		
206		White, square, wood.	28	26		1856		
207		White, square, wood.	28	26		1856		
209		White square, wood.	64	26		1856		
211		White square, wood.				1856		

LAKE ONTARIO.

Number	Name of light	Place	Latitude		Longitude	Number of lights and relative positions	Other buildings, &c. and other marks on the shore
			north	west			
214	Kingston	southern part of tower	44 13 30	76 20 00	1		F
215	SWAKE ISLAND	On pier on the north side of channel 3 miles west of Kingston	44 11 30	76 32 00	1		F R
217	FAIR OR SMOKE	Southwest point of island 2 miles west of Kingston	44 00 00	76 30 00	1		F
218	Pigeon Island	Near the centre of island	44 01 00	76 32 30	1		Rev'g
219	FAIR DUCKS	East point of island	44 57 00	76 19 00	1		F
221	PARADISE POINT	Entrance to Quinte bay	44 03 00	76 34 00	1		F
222	Telegraph Island	Bay of Quinte	44 10 30	77 00 45	1		F
223	PETER ISLAND	On point	43 51 00	77 08 00	1		Rev'g
224	Salmon Point	About 6 miles west of Peter point	43 52 00	77 19 15	1		F
225	ROBIN HONNEY OR EAGLE ISLAND	On small island 1 mile southwest of Nicholson's Island	43 44 00	77 30 00	1		F
227	PERRIER ISLE	East point	44 01 00	77 41 00	1		F
228		On a hill by shore	44 00 00	77 42 00	2	W. SW and E. NE. nearly	F
231	FOX ISLAND	Lake winn	44 18 00	77 28 00	1		F
233	COBURN	Pier head	43 57 00	78 00 00	1		F
235	PETER ROCK OR GIBB ISLAND	W. by S. 1 mile from Cobourg	43 59 30	78 13 00	1		F
237	DOCK PORT	Pier head, east side	43 58 15	78 13 00	1		F
239	DORLINGTON	Pier head	43 52 30	78 07 15	1		F
241	LOHMEYER PORT	Pier head	43 52 00	78 17 00	1		F
243	WHITBY HARBOR	West pier	43 54 00	78 50 00	1		F
245	PICKERING OR LIVERPOOL	East pier head	43 48 15	79 02 00	1		F
247	TORONTO	Gibraltar point, southwest side of point 14 miles south of Toronto	43 37 00	79 21 30	1		F
249		Queen's wharf western part, the other an arm of pier	43 38 10	79 23 15	2		F
251	CREDIT PORT	On pier	43 33 30	79 35 00	1		F
253	OAKVILLE	Pier head	43 26 45	79 40 30	1		F
255	BURTONTON BAY	South pier of entrance	43 18 00	79 48 30	2		F
257	DALHOUSIE HARBOR	East pier head	43 14 30	79 15 30	1		Rev'g

LAKE ERIE.

259	COLBORNE PORT AND RANGE LIGHTS	West pier head	42 53 30	79 17 00	2		F
261	MORAWA ISLAND	On an island between Colborne and Mitchell ports 1 mile southwest of main land	42 56 40	79 14 00	1		Rev'g
263	MALDEN PORT	West pier	42 52 00	79 37 00	1		F
265	DOVER PORT	West pier	42 47 30	80 13 00	1		F
267	LONG POINT OR NORTH PORTLAND	East extremity	42 39 24	80 05 30	1		F
269	BIG CREEK CREEK OR BURWELL PORT	Three hundred and thirty-three yards in shore	42 39 00	80 19 30	1		F
271	CATHAM CREEK OR BROOK PORT	On a pole	42 40 00	81 01 00	1		F
273	STANLEY PORT	Extreme of West pier	42 40 00	81 12 30	1		F
275	PELEE ISLAND	Northeast point	41 50 00	82 07 45	1		F
277	PELEE SPIT	On Catson, 24 miles southerly from extreme end of point from north shore	41 52 20	82 29 15	1		F

LAKE ONTARIO.

Light and buoy	French number, U.S. and British, etc., etc., etc.	Year of construction	Material	Color of any peculiarity of light-lenser	Height, in feet, extreme width, above light- lens	Height, in feet, of trunk and shaft, above light- lens	Year lighted	Character and extent of visibility	Remarks
F		1	Square, wood, white				1844		No lighted. Latitude of south-house at Kingston 44° 14' 00" N; longitude 76° 26' 48" W. Variation in 1870 7° W.
F R		5	Stone, square		31	35	1868		Red light.
F		15	Round, stone, white		15	40	1861		
Rev'd		15	Wood, white		40	41	1870		
F	15	15	Round, stone, white		88	92	1868		
F		12	Octagon, wood		15	52	1866		
F		10	Octagon, wood		16	41	1870		seen when approaching it from the east or west.
Rev'd		21	Round, stone		92	90	1863		Variation in 1870, 8° W.
F		10	Square, white		30		1871		Red. Visible from all points of approach.
F		12	Stone, white		21	34	1861		
F		15	Octagon, stone		27	65	1840		
F S F		3					1851		
F		12	Square, brown		46	39	1870		
F		8	Square, wood, white		20	16	1844		
F		10	Octagon, stone		15	48	1861		On a rock 2 miles off shore.
F		1							Red facing south. Beacon facing east and west.
F		1	One stone house						Variation in 1870, 1° W.
F		10					1861		Variation in 1861, 1° 30' W.
F		5	Square, wood		15	8	1841		
F		10					1861		
F		15	Hexagonal, stone		65	92	1820		
F		6	Wood, spiral, red		32	16	1838		Red light is on the arm of the pier, to be passed closely on the land. Variation in 1870, 1° 0' W.
F		1					1861		
F		12	Octagon, wood		15	30	1866		
F		1	One white, one stone		10	15 1/2	1865		High light, see
F		1	square, octagon		18	11 1/2	1865		
Rev'd		10	Wood, white		53	41	1855		Entrance to Welland canal.

LAKE ERIE.

F		12	Wood, white		56	51	1852		Entrance to Welland canal.
		8			14	30			
Rev'd		10	Round, stone, white		64	60	1848		Variation in 1870, 2° 40' W.
F		10	Square, wood, white				1848		Grand river entrance. Rebuilt 1871.
F		8	Square, wood, white		20	20	1846		
F		25	Octagon, wood, white		65	60	1841		Variation in 1870, 1° 40' W.
F		12	Octagon, wood, white		36	46	1840		
F		4	Lantern		20	20	1844		
F		9	Round, stone		18	46	1841		W. by N. clears Belle shoal. Variation in 1870, 0° 45' E.
F		20			76	61	1861		

DETROIT RIVER.

Number.	Name of light.	Place.	Latitude north.	Longitude west.	Number of lights and relative positions.	Fixed, flashing, six and flash int., alt. revolv. line.
279	AMSTERDAM.....	Bois Blanc Island, south point.	42 05 00	81 00 30	1	F.....

LAKE ST. CLAIR.

281	THAMES RIVER.....	Mouth of river, south shore.....	42 48 00	82 25 00	2	SE, by S, 1/8, and NW, by N, 1/4 N, 400 yards apart.	F.....
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LAKE HURON.

282	GOBERICH.....	On high bank, south of entrance to harbor. Two on north pier.	43 41 33	81 41 00	3		F.....
285	CLARK POINT.....	North shore, about 20 miles northeast from Goderich.	41 01 46	81 43 42	1		Fig.....
287	CHANDRY ISLAND.....	South side, about 24 miles west from Saigeon.	41 29 40	81 23 20	1		F.....
289	Isle of Coles.....	Northeast point of island, entrance to Georgian bay.	45 49 40	81 41 00	1		Rev'g.....
291	Griffith Island.....	Northeast end of island, 20 miles from Owen sound.	41 51 00	80 53 00	1		F.....
293	Nottawasaga Island.....	About 1 miles northwest from Collingwood.	41 32 30	80 45 00	1		Rev'g.....
295	Collingwood.....	Breakwater pier.....	41 31 00	80 42 35	1		F, R.....
297	Christian Island.....	Southeast part of island, 14 miles from main land.	41 47 00	80 08 00	1		F.....
299	Mink Island.....	Entrance to Parry sound.....	45 22 00	80 42 45	1		F.....
301	Lonely Island.....		45 33 30	81 28 00	1		F.....
303	Red Rock.....	One mile east of Kilbrney, on Red Rock point.	45 57 00	81 26 00	2		F.....
305	Partridge Island.....	One and a half miles northwest of Red Rock light.	45 58 00	81 26 00	2		F.....
307	Range Lights.....	Shuttlary, or Little Current.....	45 58 00	81 54 00	2		F.....
309	Clapperton Island.....	North point.....	46 03 00	82 19 00	1		F.....
311	Sulphur Island.....	Southeast side.....	46 09 00	81 36 00	1		F.....

LAKE SUPERIOR.

313	St. Ignace.....	Three miles from St. Ignace Island.....	48 42 00	78 40 00	3		F.....
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* Longitude of St. Ignace light-house, by Bayfield's chart, 88° 40' 30" west.

DETROIT RIVER.

Name.	Interval of revolution of dial.	Miles seen in clear weather.	Color or any peculiarity of light-house.	Height, in feet, centre of lantern, above high water.	Height, in feet, of building, measured from base of tower.	Year lighted.	Character and order of illuminating apparatus.	Remarks.
F.....	29	18	Round, stone.....	36	40	1847		

LAKE ST. CLAIR.

S. and NW. 100 yards.	F.....	28	Square, wood.....	31	20	1847		The two lights in one lead over the bar.
		6	Stone, round tower.....	15	15	1845		

LAKE HURON.

F.....	283	25	Square tower, white.....	150	20	1847	C.....	Variation in 1870, 0° 50' W.
Flg.....	286	Half minute.		87	87	1839	D, 2d ord....	
F.....	287	15		86	80	1850	D, 2d ord....	
Rev'g	289	Every 4 minutes; interval of light, 14 minutes.		90	85	1859	D, 2d ord....	Variation in 1870, 0° 50' W.
F.....	290	12		130	85	1850	D, 3d ord....	
Rev'g.	283	Half minute.		86	85	1859	D, 2d ord....	
F, R.....	295	6		24		1858		Red light Variation in 1899, 2° 20' W.
F.....	297	8		61	64	1859	D, 4th ord....	
F.....	299	16	Square wooden tower, on keeper's dwelling.	56	40	1870		Painted white. Visible from all points of approach.
F.....	304	20	Square tower on white dwelling.	105	12	1870	C.....	
F.....	305	10		80	20	1866	C, 3d ord....	At north side of channel leading into Killarney harbor.
F.....	306	5		30	20	1866	C, 3d ord....	
F.....	307	6		24		1866	C, 3d ord....	
F.....	309	8		35		1866	C, 3d ord....	
F.....	311						C.....	

LAKE SUPERIOR.

F.....	403	Three minutes, but show as 1 light.				1866	C, 3d ord....	Position by Bayfield's chart.
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The foregoing list of English lights on the lakes, &c., corrected to January, 1873.

TREASURY DEPARTMENT, OFFICE LIGHT-HOUSE BOARD,
Washington City, January, 1873.

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