Date taken out.	For what purpose.			Initials of clerk taking the paper or of attender.	Date returned.	Initials of attender.
	Department.	C. No.	Year.			

Marine (1896) Department.

G.O., No. 14 8 mar / 149

DATED 9/3/96

[Despatch Abstract.]

Coastlights — Ordered that the Govt of India be furnished with particulars as to the intensity of certain — in the Presidency

Letter to the Govt of India

[M. H. / 600—13-3-96.]

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
-	323	Ma.	4-5-96				

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
	288	Ma.	24-3-97				

Govt. of {1896} Madras.

MARINE.

Dated March, 9th.

Recd. *Encl.*

G.O. No. 148, 9th March 1896.

MARCH.

Coast Lights

Ordered that the Government of India be furnished with particulars as to the intensity of certain — in the Presidency, for which it is considered desirable that the candle power should be calculated.

No. 148, Marine, 9th March 1896.

GOVERNMENT OF MADRAS.

MARINE DEPARTMENT.

Read—the following papers :—

Despatch from the Right Hon'ble the Secretary of State for India, to His Excellency the Right Hon'ble the Governor-General of India in Council, dated India Office, London, 14th March 1895, No. 29, Revenue.

With my Despatch No. 101, dated the 19th July 1894, was forwarded a letter from the Board of Trade, with enclosure, regarding the decision that the intensity of coast lights should be indicated by their candle power in preference to the system hitherto in force.

2. Since my Despatch was sent requests have been received from Madras (Chief Secretary's letter No. 322, dated 13th August 1894), and from Burma (Rangoon Port Officer's letter No. 3298, dated 19th October 1894), that Messrs. Chance Brothers of Birmingham should be invited to calculate the candle power of a number of coast lights in these two provinces. Messrs. Chance Brothers were not at the time able to undertake the work, and intimated that their charge, when they could do it, would be about one guinea per light. The authorities of the Trinity House stated that their charge would be about the same, but they would require complete answers to the enclosed paper * of questions in respect of every light for which a calculation of candle power was required.

* Intensities of lights. Particulars required.

3. I suggest that your Excellency should cause the provincial Governments to consider for what lights it would be clearly desirable that the candle power should be calculated ; and that there should then be sent to the Director-General of Stores full answers to the enclosed paper of questions in respect of each light for which the calculation may be required. The Director-General will then cause the calculation to be made under the direction of the Trinity House at the approximate cost named. Meanwhile, no further action will be taken upon the Madras and Burma requisitions described in the foregoing paragraph.

Enclosure.

From the Secretary to the Government of India, Marine Department, to the Chief Secretary to the Government of Madras, dated Simla, the 20th June 1895, No. 553.

I am directed to forward the accompanying copy of a † Despatch from the Right Hon'ble the Secretary of State for India regarding a proposal to have the intensity of coast lights indicated by their candle power, and with reference thereto, to request that, under the orders of His Excellency the Governor in Council, you will be so good as to inform the Government of India for what lights the Government of Madras consider it desirable that the candle power should be calculated.

† No. 29, Revenue, dated 14th March 1895, and enclosures.

2. Complete answers to the enclosed paper of questions should be forwarded for every light for which a calculation of candle power is required.

From Commander W. POWELL, R.I.M., Presidency Port Officer, Madras, to the Chief Secretary to Government, Marine Department, dated 24th September 1895, No. 1728/267 G.

With reference to your endorsement No. 1527, dated 4th July 1895, on Marine Department Current No. 480, herewith returned, I have the honour to submit * a list of the lights to be tested for candle power, and also the answers to the questions contained in the papers forwarded with the Current No. above quoted.

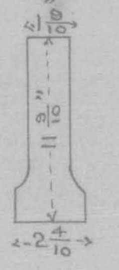
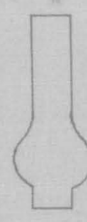
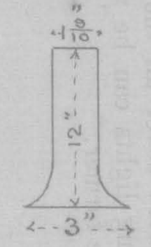
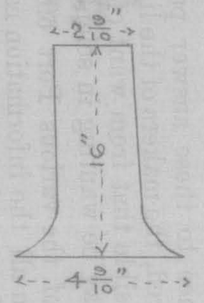
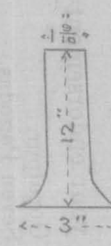
* Hare Island (Tuticorin).
Cochin.
Muttum.
Santopilly.
Vakalapudi.
Gopalpur.
Seven Pagodas.
Hope Island.
Calingapatam.
Calimere (Kandapur).

2. With reference to these answer papers I would suggest that, if any further information is required, the makers of the lights (Messrs. Chance Brothers) be referred to direct, as it is possible that from want of technical knowledge some of the descriptions of the lights may be wanting in scientific accuracy.

3. The reports of the various Port officers have been carefully checked by me, and appear to contain all the information called for; but it would be as well to have them examined by Mr. Ashpitel also.

4. The Hope Island light is a difficult one to describe; but the description given is, it is believed, practically correct.

5. The lights selected cover all the principal types of those in use, and the powers of the remaining lights can be worked out sufficiently accurately from the results obtained for the former.

Particulars required.	Reply.				
	Gopalpur.	Point Calimere.	Cochin.	Muttum.	Hare Island (Tuticorin).
Description of apparatus (Dioptric, catadioptric or otherwise).	Chance's dioptric, 4th order port light, with a silvered spherical mirror.	Chance's dioptric, 6th order port light; shows all round the compass.	Dioptric, 4th order; apparatus with catadioptric mirror; arc of illumination 180°.	Dioptric, 1st order; apparatus with catadioptric mirror in rear; arc of illumination 200°.	Dioptric, 4th order; shows all round the compass.
If Dioptric— Description of light (fixed, flashing or occulting); also state color of light.	Fixed, white	Fixed, red	Fixed, white	Fixed, white	Fixed, white.
Character of light— If flashing— Number of panels in apparatus ..	....	....	....	....	....
Time occupied for complete revolution of apparatus.	....	....	....	....	....
Number of flashes per minute ..	....	....	....	....	....
If occulting— Number of occultations per minute ..	....	....	....	....	....
Interval of darkness	....	....	....	....	....
Illuminant used	Heavy mineral oil	Heavy mineral oil	Heavy mineral oil	Heavy mineral oil	Heavy mineral oil.
Description of burner (if flat wicks for oil, state number and width of each wick; if cylindrical, state number and diameter of each).	Cylindrical single-wick burner; diameter of wick 1 5/16″ ..	Hink's duplex burner; wicks one inch wide.	Trinity House (Douglass), new pattern; two-wick burner— No. 1 wick 1″ diameter .. No. 2 ,, 1 11/16″ diameter.	Trinity House (Douglass), new pattern four-wick burner— No. 1 wick 1″ diameter .. No. 2 ,, 1 13/16″ diameter. No. 3 wick 2 5/8″ diameter. No. 4 ,, 3 1/2″ ,,	Trinity House (Douglass) new pattern; two-wick burner— No. 1 wick 1″ diameter. No. 2 ,, 1 13/16″ diameter.
Rough figured sketch of glass cylinder ..					
Dimensions of apparatus as follows:—					....
Internal diameter of lens (dimension A on sketch, taken between the inner faces of the belt).	1·64 foot (500 M.M.)	0·98 foot (300 M.M.) ..	1·64 foot (500 M.M.) ..	6·04 feet (1,840 M.M.) ..	1·64 foot (500 M.M.).
Height of central belt (dimension B, taken in the clear between the framing).	There are no upper and lower prisms, as the apparatus consists of lenses only. The dimension C should be measured from top to bottom of the (glass) apparatus. The dimension is probably about 16½ inches.	9 15/16″ (251 M.M.) ..	About one foot (300 M.M.) ..	3′ 2½″ (480 M.M.) ..	One foot (300 M.M.).
Height of upper prisms, if any (dimension C, taken from upper edge of highest prism to lower edge of lowest prism).		Lenses only	·85 foot (258 M.M.) ..	3′ 4″ (1,000 M.M.) ..	0·85 foot.
Number of upper prisms		....	5	18	5 .. .. ..
Height of lower prisms, if any (dimension D. taken from upper edge of highest prism to lowest edge of lowest prism).		....	·47 foot (144 M.M.) ..	1′ 10″ (549 M.M.)	0·47 foot (144 M.M.).
Number of lower prisms		....	3	8	3 .. .. ..

2. Particulars for the following lights will be forwarded :—

Gopalpur.
Hare Island (Tuticorin).
Muttum.
Cochin.
Calingapatam.
Hope Island.
Vakalapudi.
Seven Pagodas.
Santopilly.
Kandapur.

[Here enter No. 149, Marine, dated 9th March 1896.]

(True Extract.)

(Signed) D. McNEIL CAMPBELL, Colonel, R.E.,
Joint Secretary to Government.

To the Presidency Port Officer.

Exd. T. K. Narayana Aiyangar.
Spare Copies

No. 149, Marine, 9th March 1896.

MARINE DEPARTMENT.

Letter—from

Colonel D. McNEIL CAMPBELL, R.E.,
Joint Secretary to the Government of Madras,
Marine Department,

To

The SECRETARY to the GOVERNMENT OF INDIA,
Marine Department.

Sir,

Adverting to your letter No. 553, dated 20th June 1895, I am directed to state that the following are the coast lights of this Presidency, for which it is considered desirable that the candle power should be calculated :—

Gopalpur.
Hare Island (Tuticorin).
Muttum.
Cochin.
Calingapatam.
Hope Island.
Vakalapudi.
Seven Pagodas.
Santopilly.
Kandapur.

2. The paper of questions in regard to each of these lights has been answered as far as possible, and the answers are forwarded herewith, but I am to invite attention to the remarks of the Presidency Port Officer as contained in his letter No. 1728/76 G., dated 28th February 1896, from which it will be seen that the officers who have prepared the statements have not the technical knowledge necessary for describing with absolute correctness the various apparatus, and that it would therefore be advisable that Messrs. Chance Brothers, the manufacturers of the lights, should be asked to scrutinise the statements. It is also desired that the Trinity House authorities should be asked to classify the lights into dioptric and catadioptric.

3. I am also to invite attention to the requests made in paragraphs 4 and 5 of Mr. Ashpitel's letter No. 9 L., dated 11th December 1895, and to request that the Secretary of State may be moved to obtain the desired information.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) D. McNEIL CAMPBELL, Colonel, R.E.,
Joint Secretary to Government.

Madras,
9th March 1896.

Exd. T. K. Narayana Aiyangar.
Spare Copies

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Gopalpur.
Hare Island (Tuticorin).
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Kandapur.

[Here enter No. 149, Marine, dated 9th March 1896.]

(True Extract.)

(Signed) D. McNEIL CAMPBELL, Colonel, R.E.,
Joint Secretary to Government.

To the Presidency Port Officer.

MARINE DEPARTMENT.

Letter—from

Colonel D. McNEIL CAMPBELL, R.E.,
Joint Secretary to the Government of Madras,
Marine Department,

To

The SECRETARY to the GOVERNMENT OF INDIA,
Marine Department.

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Muttum.
Cochin.
Calingapatam.
Hope Island.
Vakalapudi.
Seven Pagodas.
Santopilly.
Kandapur.

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I have the honour to be,
Sir,
Your most obedient servant,

(Signed) D. McNEIL CAMPBELL, Colonel, R.E.,
Joint Secretary to Government.

Madras,
9th March 1896.

Govt. of {1896} Madras.

MARINE.

Dated March, 9th.

Recd. Encl.

No. 149, 9th March 1896.

MARCH.

Coast Lights

Forwarding, with remarks, the statements of intensity of certain — in the Presidency, for which it is considered desirable that the candle power should be calculated.

[illegible]

PUBLIC WORKS DEPARTMENT.
(Marine)

No 148 Marine of 9 March 1896

13 P

PROCEEDINGS OF THE MADRAS GOVERNMENT.

1

READ the following

Despatch from the Right Hon'ble the Secretary of State for India (H. C. No 29 Revenue of 14 Mch /95)

2 Letter from the Govt of India, Marine Dept (.. .. 553 of 20 June 1895)

3 Letter from the Presy Port Officer (.. .. 1728/267 G of 27th Septr ..)

4 Letter from F. W. Ashpitel Esqre (.. .. 9 L of 11 Decr ..)

5 Letter from the Presy Port Officer (.. .. 1728/70 G of 28 Feby 1896)

6

Ordered that the Government of India be addressed.

1/7 Mar

2. Particulars for the following lights will be forwarded:—

Gopalpur.
Hare Island (Tuticorin).
Muttum.
Cochin.
Calingapatam.
Hope Island.
Vakalapudi.
Seven Pagodas.
Santopilly
Kandapur.

DESPATCHED
1 96

The Presy Port Officer.

(40—1,000—21-4-94.)

(H.E. No. 149 Marine 9th March 1896

To
The Secretary to the
Government of India,
Marine Dept.

Sir,

Adverting to your letter No. 553 dated 20th June 1895 I am directed to state that the following are the Coast lights of this Presidency, for which it is considered desirable that the candle power should be calculated:—

Gopalpur.
Hare Island (Tuticorin).
Muttum.
Cochin.
Calingapatam.
Hope Island.
Vakalapudi.
Seven Pagodas.
Santopilly
Kandapur.

2. The paper of questions in regard to each of these lights has been answered as far as possible, and the answers are forwarded herewith, but I am to invite attention to the remarks of the Presidency Port Officer as contained in his letter No. 1328/76 dated 28th February 1896 from which it will be seen that the officers who have prepared the statements have not the technical knowledge necessary for describing with absolute correctness the various apparatus, and that it would therefore be advisable that Messrs. Chance Brothers, the manufacturers of the lights, should be asked to scrutinise the statements. It is also desired that the Trinity House Authorities should be asked to classify

the lights into dioptric and catadioptric.

3. I am also to invite attention to the requests made in paras 4 & 5 of Mr. Chapelet's letter No. 9 L dated 11 Decr 1895, and to request that the Secretary of State may be moved to obtain the desired information.

I have &ca,

6/3/96

DESPATCHED
1 May 96

W.
(Marine).

With (10) answer papers & 1 separate sketch of Hope island light apparatus.

CWB
5.3.96

H.E. 6/3 R 9/3

Intensities of Coast Lights

Marine Current No. 222

~~Marine~~ (1896) DEPARTMENT.

From
THE PRESIDENCY PORT OFFICER,
Madras,

To
THE SECRETARY TO GOVERNMENT,
~~PUBLIC WORKS~~ (MARINE) DEPARTMENT,
~~Madras.~~ Chepauk

Encls 17 (Plan)

Recd: 29.2.96

No. 1728/70 G

No. 321-2 of 13-8-94
" 2298 " 27-9-95
" 11 " 10-1-96

Dated 28th } February 1896.
Received }

No.

148/149 }

Subject.

Forwarding with remarks the statements of "Intensities" of the Lights on the coasts of the Madras Presidency.

Print

India Office,
London, 14th March 1895.

Revenue,
No. 29.

To His Excellency The Right Honourable The Governor General of India in Council.

My Lord,

Classification of Coast Lights.

With my Despatch, No. 101, dated the 19th July 1894, was forwarded a letter from the Board of Trade, with enclosure, regarding the decision that the intensity of coast lights should be indicated by their candle power in preference to the system hitherto in force.

2. Since my Despatch was sent requests have been received from Madras (Chief Secretary's letter, No. 322, dated 13th August 1894), and from Burma (Rangoon Port Officer's letter, No. 3298, dated 19th October 1894), that Messrs. Chance, Brothers, of Birminghan should be invited to calculate the candle power of a number of coast lights in these two provinces. Messrs. Chance, Brothers, were not at the time able to undertake the work, and intimated that their charge, when they could do it would be about one guinea per light. The authorities of the Trinity House stated that their charge would be about the same, but they would require complete answers to the enclosed paper* of questions in respect of every light for which a calculation of candle power was required.

3. I suggest that your Excellency should cause the provincial Governments, to consider for what lights it would be clearly desirable that the candle power should be calculated; and that there should then be sent to the Director General of Stores full answers to the enclosed paper of questions in respect of each light for which the calculation may be required. The Director General will then cause the calculation to be made under the direction of the Trinity House at the approximate cost named. Meanwhile, no further action will be taken upon the Madras and Buma requisitions described in the foregoing paragraph.

I have the honour to be,
My Lord,
Your Lordship's most obedient humble Servant,
(Signed) RIPON.

* Intensities of lights. Particulars required.

[illegible]
[illegible] 222/96

CURRENT No. 480

Navigation
Lights.

Print

No. 553
GOVERNMENT OF INDIA.

2 [illegible]

MARINE DEPARTMENT.

It is requested that, the above heading, with number and date of this communication, may be quoted in any subsequent correspondence on this subject.

Simla, the 20th June 1895.

To

THE CHIEF SECRETARY TO THE GOVERNMENT OF MADRAS.

CHIEF SECRETARY
26 JUN 1895
GOVERNMENT OF MADRAS

Sir,

I am directed to forward the accompanying copy of a* despatch from the Right Hon'ble the Secretary of State for India regarding a proposal to have the intensity of coast lights indicated by their candle power, and with reference thereto, to request that, under the orders of His Excellency the Governor in Council, you will be so good as to inform the Government of India for what lights the Government of Madras consider it desirable that the candle power should be calculated.

* No. 29 Revenue, dated 14th March 1895, and enclosures.

2. Complete answers to the enclosed paper of questions should be forwarded for every light for which a calculation of candle power is required.

Additional spare copies will follow.

I am,
Sir,
Your most obedient servant,

Buckland

for Secretary to the Govt. of Ind

CURRENT No. ~~480~~ 5-96

~~221/56~~ 222/56

Marine Dept

Mar G.O. No 321-22 d/ 13-8-96 Mis

PORT OFFICE
16 JUL 95
MADRAS.

340

Port

From the Govt of India
Marine Dept

No 553

Endt No: 1527

Referred to the
P. P. Officer for
Early compliance

by order

Dated 20
Recd 26
Regd 28 } June 95

Enclos 1 with 8 S.C. of the same.

C. G. Todhunter
Ag. Asst ~~Chief~~ Secretary
3-VII-95

F.D.B.
2/VIII/95

The P.P.O. Ootacamund
4th July 1895

with -2- spare copies of the enclosure.

Subject

Forwarding copy of a despatch from the S of S. on the subject of indicating the intensity of Coast lights by their Candle power and requesting complete answers to the enclosed questions

TO BE RETURNED
WITH REPLY.

No. 1728/267 G.

Heading.

Lights.

Port

PRESIDENCY PORT OFFICE,
Madras, 24 IX September 1895
Despatched 1st October 9

Enclosures per packet post.

From

Commander W. Powell. R. I. M.
PRESIDENCY PORT OFFICER,
Madras,

To

THE CHIEF SECRETARY TO GOVERNMENT,
MARINE DEPARTMENT,
Fort Saint George.

SIR,

With reference to your endorsement No 1527 dated 4th July 1895 on Marine Department Current No 480, herewith returned, I have the honor to submit a^x list of the lights to be tested for Candle power, and also the answers to the questions contained in the papers forwarded with the Current No above quoted.

x ✓ Hare Island, Tuticorin
✓ Cochin
✓ Muttum
✓ Santopilly
✓ Vakalapudi
✓ Gopalpur
~~Seven Pagodas.~~
✓ Hope Island
~~Coringapatam.~~ X
(Calimere). Kundapur ✓

2. With reference to these answer papers, I would suggest that if any further information is required the makers of the lights (Messrs. Chance Brothers) be referred to direct as it is possible

possible that from want of technical knowledge some of the descriptions of the lights may be wanting in scientific accuracy.

3. The reports of the various Port Officers have been carefully checked by me, and appear to contain all the information called for; but it would be as well to have them examined by Mr. Ashpitel also.

4. The Hope Island Light is a difficult one to describe; but the description given is, it is believed, practically correct.

5. The lights selected cover all the principal types of those in use, and the powers of the remaining lights can be worked out sufficiently accurately from the results obtained for the former.

I have the honor to be,

Sir,

Your Most Obedient Servant,

Walter Powell

Commander R. I. M.

Presidency Port Officer.

Entd.

[illegible]

E. ~~3~~ 35

~~787~~

~~95/50~~

224/56

Marine (1895) DEPARTMENT.

From

THE PRESIDENCY PORT OFFICER,
Madras,

To

THE CHIEF SECY. TO GOVERNMENT,
MARINE DEPARTMENT,
Fort St. George.

No. $\frac{1728}{267}$ G

Dated 24th }
Received 3/10 } September 1895.
Regd 4/10
Encls 10
No.
C No 480 retd

CHIEF SECRETARY
-3 OCT. 1895
GOVERNMENT OF MADRAS

Subject.

Forwarding a list of the lights to be tested for Candle power and also statements with answers to the questions -

Lights to be tested for Candle power

N

Marine Current 789

Endt. No. 2412

Referred to Mr. Ashpitel for favour of remarks with advertence to para 3 of the Presidency Port Officer's letter.

C.C.
4.10.95

Chief Secretary

F.D.B.
5/10/5

Ootacamund
9th Octr. 1895

Endts 2nd
Mar 991/55
224/56

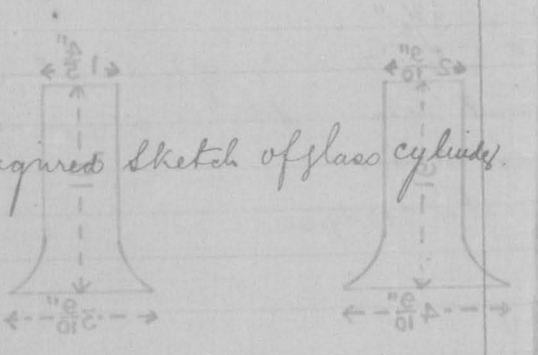
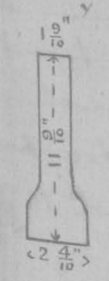
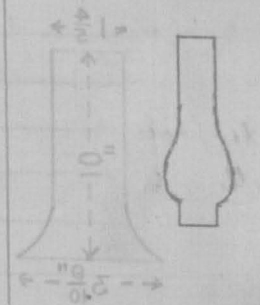
TO BE RETURNED
WITH REPLY.

Print

6

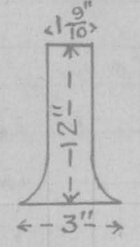
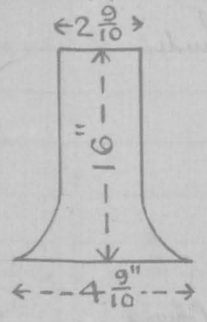
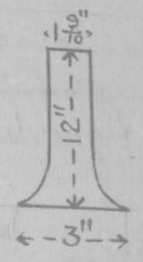
Particulars required	heun	Hare Island (Tuticorin)
Description of Apparatus (Dioptric, Catoptric or otherwise)	1st Order Puerto Cata (a) spror in rear - ination 200 degrees	Dioptric. 4th Order Shows all round the Compass.
If Dioptric:-		
Description of light (fixed, flashing, etc. or occulting: also state Color of light	ite (b)	Fixed white.
Character of light		
If flashing - Number of panels in Apparatus		
Time occupied for complete revolution of Apparatus		
Number of flashes per minute		
If occulting - Number of occultations per minute		
Interval of darkness		
Illuminant used	(c) ineral oil	Heavy mineral oil

6

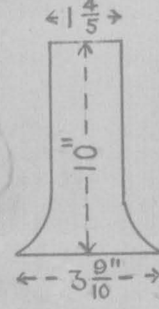
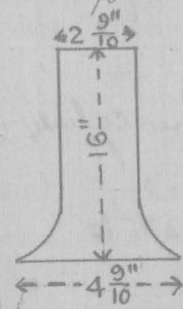
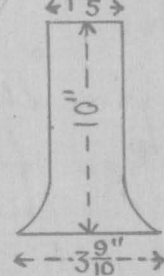
Particulars required	Reply Gopalpur +	 Point Calim
escription of burner if flat wicks for oil, state number and width of each wick, if cylindrical state number and diameter of each	Cylindrical single wick burner - diameter of wick 1 5/16	Hinks duplex bur wicks one inch wid
Rough figured sketch of glass cylinder 	 x This should be checked	
Dimensions of Apparatus as follows.		
Internal diameter of lens (dimension A on sketch, taken between the inner faces of the belt)	1.64 feet (500. m. m.)	0.98 feet. (300.
Height of Central belt (dimension B. taken in the clear between the framing	There are no upper and lower prisms as the apparatus consists of lenses only. - The dimension C. should be measured from top to bottom of the (glass) apparatus. - The dimension is probably about 16 1/2 inches	9 15/16" (251 m
Heights of upper prisms (if any) (dimension C, taken from upper edge of highest prism to lower edge of lowest prism		Lenses only
Number of upper prisms		
Height of lower prisms (if any) (dimension D taken from upper edge of highest prism to lowest edge of lowest prism.		
Number of lower prisms		

Print

Particulars required	Gopalpur	R Point Calin
Description of Apparatus (Dioptric, Catoptric or otherwise)	Chances dioptric 4th Order Port light - with a silvered spherical mirror	Chances dioptric Port light - Shows a round the compa
If Dioptric:-		
Description of light (fixed, flashing or occulting; also state Color of light	Fixed white	Fixed red
Character of light		
If flashing - Number of panels in Apparatus		
Time occupied for complete revolution of Apparatus		
Number of flashes per minute		
If occulting - Number of occultations per minute -		
Interval of darkness		
Illuminant used	Heavy mineral oil	Heavy mineral

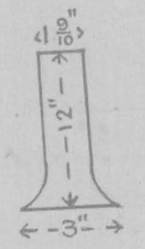
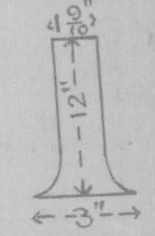
e	Cochin	Muttum	Hare Island
rner	Trinity House (Douglass) new pattern 2 wick burner No 1 wick 1" diam: No 2 wick 1 1/16 diam. 	Trinity House (Douglass) new pattern 4 wick burner No 1 wick 1" diam: 2 " 1 13/16" " 3 " 2 5/8" " 4 " 3 1/2 " 	Trinity House (Douglass) new pattern two wick burner No 1 wick 1" diam: 2 " 1 13/16 " 
. m	1.64 feet (500 m.m)	6.04 feet (1840 m.m)	1.64 feet (500 m.m)
)	About one foot (300 m.m)	3' 2½" (480 m.m)	One foot (300 m.m)
	.85 feet (258 m.m)	3'-4" (1000 m.m)	0.85 feet
	5	18	5
	.47 feet (144 m.m)	1' 10" (549 m.m)	0.47 feet (144 m.m)
	3	8	3

Reply

	Hope Island	Santapilly	Calingapatam
for or of ca num ass) burner diam "	Trinity House (Douglass) new pattern large two wick burner. No 1 wick 1 13/16 diam. " 2 wick 2 1/2 " 	Trinity House Douglass new pattern 4 wick burner No 1 wick 1 3/16" Diam 2 " 1 13/16" " 3 " 2 1/2" " 4 " 3 3/8" " 	Trinity House (Douglass) new pattern large 2 wick burner. No 1 wick 1 11/16 d " 2 wick 2 1/2 " 
Roug			
Dim			
Inter 4 fa m.m)	1.64 feet (500 m.m)	4.59 feet (1400 m.m)	1.64 feet (500 m.m)
Heig m m.m)	The description given quite wrong as there are no prisms. The apparatus consists of lenses only and dimension B. should lie from top to bottom of the glass. The probable height is 1'. 4½" (210 m.m)	2.8 feet (854 m.m)	Same remarks as for Hope Island
Hei C, to m.m)		2.64 feet (805 m.m)	
C		15.	
H m.m		1.24 feet (378 m.m)	
		5	

Endst
Mar: 94
212

Particulars required	Seven Pagodas	Vakalapude
Description of Apparatus - Dioptric Catoptric or otherwise	Dioptric 4th Order Spherical silvered mirror in rear 180°	Dioptric 4
Dioptric :-		
Description of light (fixed, flashing or occulting; also state color of light)	Fixed red	Revolving; whi
Character of light :-		
If flashing :- Number of panels in Apparatus		six
Time occupied for complete revolution of apparatus		2 minutes
Number of flashes per minute		three
If occulting - Number of occultations per minute		
Interval of darkness		
Illuminant used	Heavy mineral oil	Heavy minera

rticulars required	Seven Pagodas	Vakalapud
cription of burner (if flat wicks for oil state number and width of each wick; if cylindrical state number and diameter of each	Trinity House (Douglas) new Pattern 2 ~~2~~ wicks burner No 1 Wick 1" Diam " 2 Wick 1 13/16 "	Trinity House (Doug new pattern 2 wick No. 1 Wick 1" " 2 Wick 1 13/
Rough figured Sketch of glass Cylinder		
Dimensions of Apparatus as follows		
Internal diameter of lens (dimension A on sketch taken between the inner faces of the belt.)	1.64 ft. (500 m m)	1.64 feet (500
Height of Central belt (dimension B, taken in the clear between the framing	One foot (300 m m)	1.00 ft. (3
Height of upper prisms (if any) (dimension C, taken from upper edge of highest prism to lower edge of lowest prism)	0.85 feet (258 m m)	0.85 feet (25
Number of upper prisms	5	5
Height of lower prisms (if any) dimension D taken from upper edge of highest prism to lowest edge of lowest prism	0.47 feet 144 m m	0.47 feet (144
Number of lower prisms	3	3

ply

	Hope Island	Santopilly	Calingapatam	ude
rder	Dioptric 4th Order lenses only. (Vert. angle 80°)	Dioptric 2d Order arc of illumination 180° Dioptric mirror in rear	Dioptric 4th Order Arc of illumination 270 lenses only (Vert. ∠ 80°)	
	Fixed white.	Fixed white	Occulting White.	
			2	
			2 1/2 Seconds	
oil	Heavy Mineral Oil	Heavy Mineral oil	Heavy Mineral oil	

No. 9. L.

From,

F. W. Ashpitel Esquire.

To,

The Secretary to Government

Public Works (Marine) Department.

Sir,

En. 1. I have the honor to return herewith the papers forwarded with your endorsement No:2412 dated 4th October /95 and a statement prepared by me. In this statement I have entered the description of the various lights selected by the ~~P.P.O.~~ Presidency Port Officer according to the information at my disposal and would suggest that this statement be returned to ~~the P.P.O.~~ that officer for filling up details of the apparatus at Hope Island and Gopalpur and checking the details at Cochin× and Santopilly which appear to have been incorrectly given. Any other differences may also be checked.

× the dimensions given by me are probably correct.

2 You will observe that I have omitted all mention of the azimuthal condensing prisms at Hope Island as these are not used and, if they were, are only designed to increase the intensity in the red arc to that of the white light.

3 There is no object in asking for an estimate of the power of the apparatus at Calingapatam as the intensity is the same as at Hope Island.

4 In order to obtain complete information regarding the powers of lights as proposed in my report recently submitted to Government I would suggest that the Secretary of State be asked to obtain an estimate of the power of the apparatus at Vakalapudi and Hope Island with 3 wick Trinity House Douglass New Pattern burners and at Santopilly and Muttum with 6 wick burners of the same description.

5 In or about 1891 a number of experiments were carried out by Trinity House at the South Foreland with combinations of various descriptions of apparatus and burners and I would suggest that the Secretary of State may be asked to

obtain

obtain a copy of any report which is available as though the results were not, I believe, accepted by other Lighthouse Engineers the information would be of considerable value.

6 It would, in my opinion, be better to include the new Port apparatus at Kundapur in the list and to omit Point Calimere the burner in which is obsolete.

I have the honor to be,
Sir,
Your most obedient servant,

11/12/95

Encls 2
[illegible]/96

To

The Secretary to Government
P. W. Marine Dept.

No. 9 L
Dated 11th Decr. 1895

Enclo: 1

Lights to be tested by Candle power — Returns papers connected with the — with a statement prepared by him and suggests that the statement be returned to the Port Officer for filling up and checking the details of certain apparatus noted within, also suggests certain proposals for obtaining complete information regarding the powers of lights.

Marine Current No. 991
222/56

Enclo 14

PORT OFFICE
12 DEC 95

Recd. 13.12.95

D 680

Pres. Port

No. 74 Madras d/17th December 1895

Referred to the Presidency Port Officer in view to the required information being supplied.

C H B Barlow
Under Secretary to Govt.

To
The Presidency Port Officer — to be returned

+
74
17-12-95.

Heading. No. 1728 G / 70

Paid

PRESIDENCY PORT OFFICE,
Madras, 28 February 1896.

From

Commander H. A. Street, R.I.M.,
PRESIDENCY PORT OFFICER,
Madras,

To

THE ~~CHIEF~~ SECRETARY TO GOVERNMENT,
MARINE DEPARTMENT,
~~Fort Saint George.~~ Chepauk

70

SIR,

With reference to Marine Department Reference, No. 991, dated 13th December 1895, I forward herewith the statements of "Intensities" of the Lights on the coasts of this Presidency, which have been completed to the fullest extent possible but I would observe that as the officers who have prepared the statements in question have not the technical knowledge necessary for describing absolutely correctly the various apparatus, it would be advisable to have the statements scrutinised by Messrs Chance Brothers, the makers of the lights, in order to ascertain whether any apparatus has been incorrectly described.

2. As the Trinity House people have undertaken to work out the candle

candle power of each light, I submit that they should be asked also to classify the various lights as to which are dioptric and which catadioptric.

3. As suggested by Mr. Ashpitel in his letter No. 9 L, dated 11 December 1895 particulars of Kundapur light have been included instead of those of the light at Point Calimere.

I have the honor to be,
Sir,
Your obedient servant,
H A Street
Commander, R. I. M.,
Presidency Port Officer