

BOAT	GPH	HULL
Name CELESTIAL Sail Nr 9535	435.8	Length Overall 15.850m Maximum Beam 4.418m Displacement 6,986kg Draft 3.611m Plan Review IMS Reg. Division Performance Dynamic Allowance 0.000% Hull Construction Carbon, Aramid Carbon Rudder Yes Crew Arm Extension
GENERAL		IMSL 15.595m VCGD -1.322m Sink 33.71kg/mm
Class TP 52 J&V Designer J/V Builder Mc Conaghy Series 01/2011 Age 01/2011 Age Allowance 0.292% Offset File 52ALL-11.off - 03/12/2019 15:51:26 Measurement by - 28/11/2019		RL 15.826m VCGM -1.313m WS 42.09m²
		LSM0 15.191m Displacement/Length ratio 1.9928



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	424.8			486.4		
Time on Time	1.4125			1.3878		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	503.2	387.6	328.6	661.2	494.5	414.7
Time on Time	1.3415	1.7417	2.0542	1.0209	1.3651	1.6275

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	740.0	601.9	553.1	530.8	516.2	502.6	495.9
52°	476.8	401.4	380.9	370.0	362.1	351.0	338.9
60°	444.4	386.1	364.3	350.1	340.9	331.5	316.1
75°	421.2	373.6	339.8	321.4	310.3	302.6	281.7
90°	410.1	364.2	333.5	305.0	287.5	275.6	260.3
110°	423.8	368.9	324.2	293.5	271.6	255.0	228.4
120°	449.4	382.0	338.8	297.4	265.7	245.0	217.9
135°	529.0	413.0	366.5	323.6	284.0	255.3	210.7
150°	636.9	491.3	416.3	370.9	335.6	295.5	233.6
Run VMG	735.5	567.3	480.7	432.1	387.6	341.2	269.8
Selected Courses							
Windward / Leeward	737.8	584.6	516.9	481.4	451.9	421.9	382.8
Circular Random	605.6	487.7	423.4	384.0	357.0	336.7	306.6
Coastal / Long Distance	737.5	548.9	462.7	407.3	369.9	335.6	285.5
Non Spinnaker	669.1	534.6	460.4	414.7	383.9	361.3	328.7

Velocity Prediction in Knots for True Wind Speeds							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	44.3°	42.0°	39.8°	38.8°	37.9°	37.1°	37.1°
Beat VMG	4.86	5.98	6.51	6.78	6.97	7.16	7.26
52°	7.55	8.97	9.45	9.73	9.94	10.26	10.62
60°	8.10	9.32	9.88	10.28	10.56	10.86	11.39
75°	8.55	9.64	10.59	11.20	11.60	11.90	12.78
90°	8.78	9.88	10.79	11.80	12.52	13.06	13.83
110°	8.49	9.76	11.11	12.26	13.25	14.12	15.76
120°	8.01	9.42	10.63	12.11	13.55	14.69	16.52
135°	6.81	8.72	9.82	11.13	12.68	14.10	17.09
150°	5.65	7.33	8.65	9.71	10.73	12.18	15.41
Run VMG	4.89	6.35	7.49	8.33	9.29	10.55	13.34
Gybe Angles	141.0°	141.0°	146.5°	151.5°	143.5°	143.0°	143.8°

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VPP Ver. **2020 1.02**
Valid until **30/06/2021**

Crew Weight

Default **1,250kg**
Maximum **1,275kg**
Minimum* **956kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

ToD	ToT
Non Spin GPH 474.7	1.2640
Non Spin OSN 465.4	1.2892

Sails Limitations

Headsails 7	Spinnakers 5
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Class Division Length

CDL = **15.702**

Storm Sails Areas

Heavy Weather Jib	52.27
Storm Jib (JL=12.79)	19.36
Storm Trysail	25.46

Owner

RIG									
Forestay Tension	Aft & Forward				Spreaders	3			
Inner Stay	None Fitted				Runners/Checkstays	0			
Carbon Mast	Yes				Jib Furler	No			
Fiber Rigging	Yes				Main Furler	No			
Non-Circular Rigging	No								
Articulated Bowsprit	No								
P	20.340	E	7.150	MDT1	0.141	MW	0.285		
IG	19.587	J	6.204	MDL1	0.287	GO	0.313		
ISP	22.377	SFJ	0.602	MDT2	0.110	BD	0.345		
BAS	2.122	SPL		MDL2	0.176	MWT	278.00		
FSD	0.032	TPS	9.000	TL	3.010	MCG	7.810		

COMMENTS	
New Mast 2019	New Fin and bulb 2019

PROPELLER					
Installation	Strut		PRD		0.421
Type	Folding 2 blades		PBW		0.108
Twin Screw			PIPA		0.0038
ST1	0.050	ST3	0.180	ST5	0.268
ST2	0.180	ST4	0.112	EDL	0.626

MOVABLE BALLAST
N/A

CENTERBOARD	
	N/A

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SAILS (Maximum Areas)								
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula
	1.95	2.61	3.55	4.98	6.14	97.38	100.11	$P/8 \cdot (E + 2 \cdot MQW + 2 \cdot MHW + 1.5 \cdot MTW + MUW + 0.5 \cdot MHB)$
Symmetric								
Not Available								
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL			
	25.38	21.63	23.50	13.53	13.65	265.49		$AS \cdot (SFL + 4 \cdot SHW) / 6$

HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Flying	Meas.Date	Material	Comment
0.11	0.99	1.78	3.20	4.68	6.26	20.20	64.81	Y	No	28/11/2019	Carbon	
0.05	0.78	1.51	2.92	4.30	5.60	18.36	52.88		Inner	07/10/2020	Unknow	
0.20	0.71	1.25	2.34	3.40	4.22	13.00	29.64		Inner	07/10/2020	Unknow	

MEASUREMENT INVENTORY				
Measurer 2015 Date 28/11/2019 Comment Internal Ballast total = 0.0				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG</i> <i>Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>		<i>Model</i>
1	Engine	Yanmar		4JH5X1
<i>Id</i>	<i>Item</i>	<i>Weight</i> <i>Description</i>		

MEASUREMENT INVENTORY						
<i>Id</i>	<i>Item</i>	<i>Tank Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG</i> <i>Condtn</i> <i>Description</i>
5	Tank	Water	Rubber	50.0	14.65	0-0
4	Tank	Water	Rubber	50.0	14.65	0-0
3	Tank	Water	Plastic	125.0	12.60	0-0
2	Tank	Fuel	SS	60.0	10.60	0-0
1	Tank	Fuel	SS	25.0	9.40	20-0
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG</i>	<i>Description</i>	
1	Battery	14.0	9.00		Starter 12v Sealed	
2	Battery	24.0	9.00		12v Sealed	
3	Battery	24.0	9.00		12v Sealed	

