```
Warning: Could not find appropriate function on path loading function handle
C:↙
\Users\enric\AppData\Local\Temp\Editor_wdtkz\LiveEditorEvaluationHelperESectionEval↙
cfd29ef8.m>@(x)ff_2RL_all_indietro_moo(x,sim,data)
> In DT_follower (line 43)
Warning: Unable to load Python object. Saving (serializing) Python objects into a↙
MAT-file is not supported.
> In DT_follower (line 43)
Your initial point x0 is not between bounds lb and ub; FMINCON
shifted x0 to strictly satisfy the bounds.
```

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
0	2001	2.440884e+01	1.640e-01	9.389e+01	
1	4002	2.049970e+01	1.211e-01	9.384e+01	4.277e-01
2	6006	2.022141e+01	1.175e-01	9.380e+01	5.958e-02
3	8012	1.925998e+01	1.022e-01	5.027e+01	4.820e-01
4	10014	1.837865e+01	9.021e-02	4.999e+01	2.558e-01
5	12015	1.725738e+01	6.795e-02	4.893e+01	1.059e+00
6	14017	1.705928e+01	6.313e-02	4.856e+01	4.671e-01
7	16018	1.658746e+01	5.147e-02	4.767e+01	1.367e+00
8	18019	1.646591e+01	4.136e-02	4.709e+01	2.276e+00
9	20020	1.649450e+01	2.936e-02	4.665e+01	2.769e+00
10	22021	1.841921e+01	1.998e-02	4.625e+01	4.891e+00
11	24022	2.129973e+01	1.368e-02	4.609e+01	2.925e+00
12	26023	2.374283e+01	9.338e-03	4.605e+01	2.684e+00
13	28024	2.523685e+01	8.119e-03	4.598e+01	2.104e+00
14	30025	2.629215e+01	7.273e-03	4.598e+01	1.707e+00
15	32027	2.673938e+01	6.999e-03	4.598e+01	7.137e-01
16	34028	2.772445e+01	6.514e-03	4.599e+01	1.637e+00
17	36029	2.848827e+01	6.117e-03	4.598e+01	1.435e+00
18	38030	2.909437e+01	5.770e-03	4.597e+01	1.311e+00
19	40031	2.964198e+01	5.411e-03	4.597e+01	1.242e+00
20	42032	3.012472e+01	5.097e-03	4.598e+01	1.156e+00
21	44033	3.061324e+01	4.804e-03	4.598e+01	1.233e+00
22	46034	3.108403e+01	4.529e-03	4.599e+01	1.227e+00
23	48035	3.149292e+01	4.288e-03	4.600e+01	1.109e+00
24	50036	3.186892e+01	4.088e-03	4.601e+01	1.091e+00
25	52037	3.222189e+01	3.923e-03	4.603e+01	1.125e+00
26	54038	3.262344e+01	3.759e-03	4.604e+01	1.299e+00
27	56039	3.308926e+01	3.571e-03	4.606e+01	1.437e+00
28	58041	3.389725e+01	3.049e-03	4.610e+01	3.763e+00
29	60043	3.402496e+01	2.983e-03	4.610e+01	5.573e-01
30	62045	3.419021e+01	2.913e-03	4.612e+01	8.186e-01

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
31	64047	3.442620e+01	2.822e-03	4.614e+01	1.728e+00
32	66049	3.454779e+01	2.775e-03	4.616e+01	9.306e-01
33	68051	3.469554e+01	2.737e-03	4.617e+01	1.210e+00
34	70053	3.488004e+01	2.707e-03	4.618e+01	1.372e+00
35	72055	3.503254e+01	2.682e-03	4.619e+01	1.036e+00
36	74057	3.519369e+01	2.657e-03	4.620e+01	1.056e+00

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
37	76059	3.528243e+01	2.640e-03	4.621e+01	5.496e-01
38	78061	3.537896e+01	2.614e-03	4.622e+01	5.637e-01
39	80063	3.555853e+01	2.571e-03	4.623e+01	1.034e+00
40	82065	3.575202e+01	2.532e-03	4.625e+01	1.150e+00
41	84067	3.587899e+01	2.509e-03	4.627e+01	7.622e-01
42	86069	3.594820e+01	2.493e-03	4.627e+01	4.433e-01
43	88071	3.602305e+01	2.468e-03	4.628e+01	4.029e-01
44	90072	3.615718e+01	2.380e-03	4.629e+01	1.188e+00
45	92073	3.650594e+01	2.275e-03	4.636e+01	2.063e+00
46	94074	3.668490e+01	2.193e-03	4.637e+01	1.424e+00
47	96076	3.689889e+01	2.135e-03	4.639e+01	1.168e+00
48	98078	3.699255e+01	2.102e-03	4.640e+01	6.576e-01
49	100079	3.707758e+01	2.044e-03	4.641e+01	7.905e-01
50	102081	3.722388e+01	2.006e-03	4.643e+01	1.512e+00
51	104083	3.729537e+01	1.980e-03	4.643e+01	9.068e-01
52	106085	3.737153e+01	1.958e-03	4.644e+01	6.870e-01
53	108087	3.746617e+01	1.922e-03	4.644e+01	7.899e-01
54	110089	3.757067e+01	1.882e-03	4.644e+01	1.256e+00
55	112092	3.765456e+01	1.855e-03	4.645e+01	1.092e+00
56	114096	3.772441e+01	1.837e-03	4.645e+01	9.394e-01
57	116100	3.781675e+01	1.818e-03	4.645e+01	7.944e-01
58	118104	3.787767e+01	1.801e-03	4.646e+01	7.530e-01
59	120108	3.794029e+01	1.785e-03	4.646e+01	7.332e-01
60	122111	3.806401e+01	1.758e-03	4.647e+01	9.358e-01
61	124114	3.814874e+01	1.734e-03	4.648e+01	7.902e-01
62	126116	3.828100e+01	1.693e-03	4.650e+01	1.208e+00
63	128118	3.835116e+01	1.657e-03	4.651e+01	7.209e-01
64	130119	3.851211e+01	1.552e-03	4.651e+01	1.709e+00
65	132120	3.878489e+01	1.468e-03	4.654e+01	1.343e+00
66	134122	3.904507e+01	1.344e-03	4.660e+01	2.256e+00
67	136123	3.940892e+01	1.155e-03	4.664e+01	2.715e+00
68	138124	3.983788e+01	1.066e-03	4.668e+01	1.792e+00
69	140125	4.013645e+01	9.663e-04	4.672e+01	1.368e+00
70	142126	4.068017e+01	8.364e-04	4.676e+01	3.189e+00
71	144129	4.084912e+01	7.988e-04	4.676e+01	1.314e+00
72	146131	4.105514e+01	7.612e-04	4.677e+01	1.466e+00
73	148135	4.118520e+01	7.448e-04	4.678e+01	1.032e+00
74	150138	4.143318e+01	7.192e-04	4.679e+01	2.190e+00
75	152141	4.174637e+01	6.842e-04	4.680e+01	2.518e+00
76	154144	4.198045e+01	6.566e-04	4.681e+01	1.811e+00
77	156146	4.241093e+01	8.034e-04	4.685e+01	2.904e+00
78	158147	4.291388e+01	7.887e-04	4.690e+01	3.352e+00
79	160148	4.325416e+01	5.770e-04	4.695e+01	1.764e+00
80	162149	4.370849e+01	6.736e-04	4.704e+01	4.200e+00
81	164150	4.398378e+01	5.443e-04	4.714e+01	3.423e+00
82	166151	4.399341e+01	4.974e-04	4.719e+01	1.339e+00
83	168152	4.150379e+01	6.709e-04	4.734e+01	4.063e+00
84	170153	3.668806e+01	7.547e-04	4.749e+01	3.646e+00
85	172154	3.346874e+01	7.314e-04	4.760e+01	3.236e+00
86	174155	2.930205e+01	1.222e-03	4.784e+01	5.959e+00

87	176156	2.747987e+01	9.670e-04	4.795e+01	7.158e+00
88	178157	2.693624e+01	4.069e-04	4.800e+01	6.349e+00
89	180158	2.814507e+01	4.945e-04	4.807e+01	5.014e+00
90	182160	2.919545e+01	1.656e-04	4.807e+01	6.668e+00

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
91	184162	2.816580e+01	5.202e-05	4.803e+01	4.647e+00
92	186166	2.801137e+01	5.244e-05	4.805e+01	1.096e+00
93	188168	2.798357e+01	8.131e-05	4.808e+01	4.808e+00
94	190171	2.773523e+01	1.303e-04	4.808e+01	2.412e+00
95	192173	2.709906e+01	4.297e-05	4.809e+01	3.238e+00
96	194175	2.708824e+01	1.511e-05	4.822e+01	4.295e+00
97	196177	2.695515e+01	2.277e-05	4.824e+01	3.813e+00
98	198179	2.706512e+01	8.037e-06	4.839e+01	2.297e+00
99	200181	2.716789e+01	5.000e-06	4.843e+01	2.159e+00
100	202183	2.698851e+01	1.817e-06	4.841e+01	1.641e+00
101	204185	2.697202e+01	4.700e-06	4.842e+01	2.657e+00
102	206187	2.687703e+01	2.338e-06	4.842e+01	1.663e+00
103	208189	2.677960e+01	7.570e-06	4.847e+01	2.124e+00
104	210191	2.693279e+01	1.987e-06	4.854e+01	1.749e+00
105	212193	2.682619e+01	5.877e-06	4.856e+01	2.347e+00
106	214195	2.691352e+01	1.171e-06	4.859e+01	1.706e+00
107	216199	2.677861e+01	5.413e-06	4.859e+01	6.779e-01
108	218201	2.654806e+01	9.618e-06	4.858e+01	3.024e+00
109	220203	2.644446e+01	1.253e-06	4.860e+01	1.225e+00
110	222205	2.630655e+01	1.872e-06	4.858e+01	1.555e+00
111	224207	2.628569e+01	6.019e-06	4.862e+01	1.801e+00
112	226209	2.611889e+01	3.012e-06	4.861e+01	1.907e+00
113	228211	2.618035e+01	1.235e-06	4.861e+01	1.185e+00
114	230213	2.619991e+01	4.485e-07	4.863e+01	7.678e-01
115	232215	2.625913e+01	1.296e-06	4.851e+01	1.616e+00
116	234217	2.633593e+01	1.808e-06	4.742e+01	1.896e+00
117	236219	2.639773e+01	4.212e-06	4.463e+01	1.933e+00
118	238221	2.624838e+01	1.706e-06	4.468e+01	1.227e+00
119	240223	2.617899e+01	6.307e-06	4.287e+01	1.772e+00
120	242225	2.603459e+01	2.871e-06	4.299e+01	1.834e+00

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
121	244227	2.606231e+01	1.330e-06	4.085e+01	1.140e+00
122	246232	2.604453e+01	2.334e-06	4.080e+01	2.558e-01
123	248234	2.592002e+01	6.704e-06	3.878e+01	1.968e+00
124	250236	2.593515e+01	7.766e-06	3.882e+01	1.540e+00
125	252238	2.577853e+01	1.820e-06	3.883e+01	1.282e+00
126	254240	2.574349e+01	2.634e-06	3.793e+01	1.223e+00
127	256242	2.575117e+01	6.699e-07	3.739e+01	8.794e-01
128	258244	2.572545e+01	1.068e-06	3.646e+01	9.661e-01
129	260246	2.578479e+01	3.320e-07	3.571e+01	6.791e-01
130	262248	2.575691e+01	2.226e-07	3.502e+01	6.401e-01
131	264250	2.576965e+01	4.163e-07	3.488e+01	8.067e-01
132	266252	2.570050e+01	2.569e-07	3.486e+01	5.223e-01
133	268254	2.564793e+01	6.562e-08	3.485e+01	6.770e-01

134	270256	2.564706e+01	4.209e-07	3.436e+01	1.103e+00
135	272258	2.569776e+01	1.014e-07	3.340e+01	1.040e+00
136	274260	2.575328e+01	3.228e-07	3.302e+01	9.761e-01
137	276262	2.575588e+01	8.632e-08	3.219e+01	5.201e-01
138	278264	2.570201e+01	4.121e-07	3.192e+01	7.113e-01
139	280266	2.565268e+01	6.626e-08	3.035e+01	4.428e-01
140	282268	2.561151e+01	1.191e-07	2.980e+01	6.436e-01
141	284270	2.560309e+01	1.290e-07	2.877e+01	3.974e-01
142	286272	2.562729e+01	7.292e-08	2.864e+01	6.285e-01
143	288274	2.564525e+01	1.111e-07	2.794e+01	5.928e-01
144	290276	2.566332e+01	7.622e-08	2.742e+01	6.329e-01
145	292278	2.563937e+01	1.728e-07	2.666e+01	7.145e-01
146	294280	2.562982e+01	4.428e-08	2.567e+01	5.752e-01
147	296282	2.559719e+01	1.502e-07	2.462e+01	8.261e-01
148	298284	2.560507e+01	4.610e-08	2.388e+01	5.389e-01
149	300286	2.560901e+01	8.297e-08	2.366e+01	6.588e-01
150	302288	2.563123e+01	4.967e-08	2.346e+01	5.257e-01

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
151	304290	2.562630e+01	7.439e-08	2.323e+01	6.823e-01
152	306292	2.562037e+01	3.923e-08	2.281e+01	5.931e-01
153	308294	2.557734e+01	5.815e-08	2.217e+01	7.080e-01
154	310296	2.554246e+01	1.027e-07	2.149e+01	7.885e-01
155	312298	2.550242e+01	7.677e-08	2.093e+01	9.202e-01
156	314300	2.549846e+01	5.540e-07	2.053e+01	1.477e+00
157	316302	2.552375e+01	1.999e-07	2.060e+01	8.075e-01
158	318304	2.551949e+01	8.136e-07	2.068e+01	1.200e+00
159	320309	2.552613e+01	8.541e-07	2.067e+01	1.860e-01
160	322311	2.552828e+01	2.838e-06	2.000e+01	1.783e+00
161	324313	2.557011e+01	2.003e-06	1.979e+01	1.518e+00
162	326315	2.548727e+01	2.661e-07	1.976e+01	7.291e-01
163	328317	2.541833e+01	9.856e-07	1.936e+01	1.103e+00
164	330319	2.543396e+01	1.005e-07	1.910e+01	6.266e-01
165	332321	2.545161e+01	3.592e-08	1.897e+01	4.781e-01
166	334323	2.548511e+01	6.090e-08	1.875e+01	4.287e-01
167	336325	2.551090e+01	8.036e-08	1.858e+01	4.990e-01
168	338327	2.552133e+01	7.558e-08	1.832e+01	5.126e-01
169	340329	2.554154e+01	2.736e-08	1.824e+01	3.360e-01
170	342331	2.553020e+01	3.693e-08	1.810e+01	3.890e-01
171	344333	2.556757e+01	2.476e-08	1.779e+01	3.545e-01
172	346335	2.562988e+01	1.980e-07	1.696e+01	8.204e-01
173	348337	2.566528e+01	1.086e-08	1.681e+01	2.627e-01
174	350339	2.570071e+01	6.191e-08	1.662e+01	6.472e-01
175	352341	2.572459e+01	1.068e-08	1.643e+01	3.412e-01
176	354343	2.573161e+01	1.271e-07	1.565e+01	1.060e+00
177	356345	2.574423e+01	1.804e-08	1.548e+01	3.515e-01
178	358347	2.574885e+01	3.261e-08	1.494e+01	4.667e-01
179	360348	2.377118e+01	2.274e-04	8.379e+00	3.955e+00
180	362349	2.179704e+01	3.037e-04	7.698e+00	4.994e+00

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step

181	364350	2.094878e+01	5.604e-05	8.384e+00	1.872e+00
182	366351	2.003481e+01	9.634e-05	6.689e+00	3.003e+00
183	368352	2.016279e+01	2.248e-05	5.977e+00	1.073e+00
184	370353	1.982075e+01	4.876e-05	6.402e+00	2.879e+00
185	372354	1.989795e+01	2.299e-05	6.206e+00	1.061e+00
186	374355	1.970180e+01	2.215e-05	5.153e+00	1.690e+00
187	376356	1.963335e+01	1.631e-05	5.100e+00	1.097e+00
188	378357	1.948947e+01	2.614e-05	5.072e+00	1.173e+00
189	380358	1.949372e+01	5.971e-06	5.118e+00	5.763e-01
190	382359	1.942187e+01	1.252e-05	5.116e+00	1.061e+00
191	384360	1.941289e+01	2.915e-06	5.114e+00	4.381e-01
192	386361	1.934679e+01	7.749e-06	5.265e+00	1.181e+00
193	388362	1.936271e+01	2.428e-06	5.278e+00	2.988e-01
194	390363	1.929543e+01	6.623e-06	5.271e+00	9.056e-01
195	392364	1.931435e+01	1.675e-06	5.324e+00	2.858e-01
196	394365	1.927886e+01	5.306e-06	5.443e+00	6.248e-01
197	396366	1.928325e+01	1.216e-06	5.474e+00	2.447e-01
198	398367	1.923729e+01	5.545e-06	5.499e+00	6.207e-01
199	400368	1.924502e+01	2.027e-06	5.604e+00	2.501e-01
200	402369	1.920516e+01	3.776e-06	5.709e+00	6.071e-01
201	404370	1.922322e+01	1.451e-06	5.737e+00	2.263e-01
202	406371	1.919625e+01	2.271e-06	5.708e+00	5.306e-01
203	408372	1.920883e+01	3.963e-07	5.623e+00	2.679e-01
204	410373	1.915846e+01	2.509e-06	4.979e+00	8.148e-01
205	412374	1.917762e+01	3.187e-07	4.979e+00	1.884e-01
206	414375	1.912525e+01	3.159e-06	4.490e+00	7.020e-01
207	416376	1.915144e+01	8.830e-07	4.486e+00	2.206e-01
208	418377	1.911883e+01	2.788e-06	4.387e+00	5.918e-01
209	420378	1.913352e+01	4.721e-07	4.384e+00	2.600e-01
210	422379	1.910440e+01	1.729e-06	4.076e+00	5.432e-01

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
211	424380	1.911205e+01	4.827e-07	4.083e+00	2.823e-01
212	426381	1.908807e+01	3.023e-06	3.623e+00	6.789e-01
213	428382	1.909483e+01	9.221e-07	3.618e+00	2.874e-01
214	430383	1.907827e+01	4.563e-06	3.352e+00	5.584e-01
215	432384	1.907828e+01	2.189e-06	3.363e+00	3.106e-01
216	434385	1.906188e+01	5.568e-06	3.131e+00	5.106e-01
217	436386	1.905892e+01	1.453e-06	3.117e+00	2.853e-01
218	438387	1.904719e+01	1.482e-06	3.084e+00	3.886e-01
219	440388	1.778133e+01	8.346e-05	3.068e+00	1.460e+00
220	442389	1.694520e+01	9.186e-05	3.754e+00	1.900e+00
221	444390	1.658396e+01	5.127e-05	3.377e+00	1.718e+00
222	446391	1.657955e+01	1.268e-05	3.748e+00	9.321e-01
223	448392	1.654400e+01	1.450e-05	3.934e+00	6.785e-01
224	450393	1.653301e+01	1.187e-05	4.348e+00	8.386e-01
225	452394	1.650811e+01	1.473e-05	4.347e+00	6.485e-01
226	454395	1.649695e+01	8.195e-06	4.195e+00	4.985e-01
227	456396	1.646887e+01	9.634e-06	3.958e+00	6.276e-01
228	458397	1.645952e+01	4.386e-06	3.395e+00	4.369e-01
229	460398	1.644165e+01	5.304e-06	3.346e+00	4.757e-01
230	462399	1.643089e+01	7.248e-06	3.103e+00	5.137e-01

231	464400	1.642115e+01	2.936e-06	2.980e+00	3.743e-01
232	466401	1.641127e+01	3.268e-06	2.888e+00	4.198e-01
233	468402	1.639802e+01	2.323e-06	2.763e+00	4.763e-01
234	470403	1.638705e+01	3.815e-06	2.619e+00	4.916e-01
235	472404	1.637994e+01	1.292e-06	2.317e+00	3.668e-01
236	474405	1.637257e+01	1.578e-06	2.185e+00	2.904e-01
237	476406	1.636845e+01	3.685e-07	1.950e+00	2.373e-01
238	478407	1.636320e+01	4.351e-07	1.865e+00	2.376e-01
239	480408	1.636022e+01	5.315e-07	1.826e+00	2.632e-01
240	482409	1.635681e+01	8.059e-07	1.815e+00	2.705e-01

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
241	484410	1.635322e+01	8.458e-07	1.816e+00	2.936e-01
242	486411	1.634965e+01	5.806e-07	1.815e+00	2.662e-01
243	488412	1.634591e+01	5.768e-07	1.814e+00	2.643e-01
244	490413	1.634392e+01	7.938e-07	1.745e+00	2.269e-01
245	492414	1.634167e+01	7.664e-07	1.746e+00	2.264e-01
246	494415	1.634031e+01	5.571e-07	1.591e+00	2.171e-01
247	496416	1.633787e+01	4.965e-07	1.591e+00	2.319e-01
248	498417	1.633637e+01	4.212e-07	1.449e+00	1.995e-01
249	500418	1.633429e+01	1.888e-07	1.414e+00	2.212e-01

Solver stopped prematurely.

fmincon stopped because it exceeded the function evaluation limit,
options.MaxFunctionEvaluations = 5.000000e+05.

Your initial point x0 is not between bounds lb and ub; FMINCON
shifted x0 to strictly satisfy the bounds.

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
0	2001	2.022923e+01	1.708e-01	4.435e+01	
1	4002	1.718584e+01	1.417e-01	4.416e+01	3.755e-01
2	6004	1.510542e+01	1.188e-01	4.381e+01	4.944e-01
3	8007	1.421989e+01	1.092e-01	4.365e+01	4.848e-01
4	10009	1.246117e+01	8.858e-02	4.337e+01	2.360e+00
5	12010	1.170225e+01	6.530e-02	4.331e+01	5.626e+00
6	14012	1.251330e+01	5.074e-02	4.329e+01	4.249e+00
7	16013	1.495816e+01	3.130e-02	4.333e+01	7.098e+00
8	18014	1.719904e+01	2.374e-02	4.360e+01	1.978e+00
9	20015	1.962692e+01	1.553e-02	4.393e+01	1.437e+00
10	22016	2.167340e+01	6.267e-03	3.158e+01	2.934e+00
11	24017	2.265999e+01	3.699e-03	1.873e+01	1.607e+00
12	26018	2.467508e+01	7.592e-04	1.093e+01	2.240e+00
13	28019	2.077499e+01	1.283e-04	3.491e+00	1.367e+00
14	30020	1.806531e+01	1.084e-04	3.151e+00	1.395e+00
15	32021	1.749752e+01	9.029e-05	1.157e+00	1.192e+00
16	34022	1.524114e+01	2.005e-04	2.023e+00	1.582e+00
17	36023	1.508978e+01	2.037e-05	9.518e-01	6.488e-01
18	38024	1.491248e+01	1.791e-05	6.098e-01	6.764e-01
19	40025	1.446671e+01	2.602e-05	9.023e-01	6.257e-01

20	42026	1.439015e+01	1.920e-05	7.541e-01	4.071e-01
21	44027	1.435905e+01	1.767e-05	1.135e+00	4.345e-01
22	46028	1.433862e+01	6.364e-05	1.417e+00	6.329e-01
23	48029	1.434060e+01	4.891e-06	8.264e-01	2.151e-01
24	50030	1.433195e+01	2.364e-05	7.428e-01	3.008e-01
25	52031	1.432662e+01	2.357e-05	5.448e-01	1.847e-01
26	54032	1.432775e+01	6.033e-06	3.063e-01	1.769e-01
27	56033	1.432745e+01	5.572e-06	4.107e-01	1.428e-01
28	58034	1.432315e+01	3.875e-06	3.391e-01	2.069e-01
29	60035	1.431809e+01	1.018e-05	4.509e-01	2.146e-01
30	62036	1.431383e+01	1.317e-05	3.924e-01	2.424e-01

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
31	64038	1.431302e+01	7.630e-06	3.577e-01	1.980e-01
32	66039	1.430628e+01	9.919e-06	2.859e-01	3.157e-01
33	68040	1.430868e+01	4.481e-06	2.883e-01	1.675e-01
34	70041	1.431043e+01	2.122e-06	1.602e-01	1.335e-01
35	72043	1.430768e+01	5.076e-07	2.819e-01	3.096e-01
36	74046	1.430458e+01	4.489e-06	2.341e-01	1.952e-01
37	76048	1.430204e+01	5.913e-06	5.780e-01	5.686e-01
38	78049	1.429420e+01	6.467e-06	6.258e-01	2.408e-01
39	80051	1.429359e+01	1.972e-06	4.938e-01	2.340e-01
40	82053	1.429306e+01	1.449e-06	1.981e-01	3.126e-01
41	84055	1.429137e+01	5.311e-07	2.313e-01	3.079e-01
42	86056	1.428987e+01	5.214e-06	3.023e-01	1.554e-01
43	88057	1.429172e+01	1.415e-06	2.523e-01	1.398e-01
44	90058	1.428900e+01	3.585e-06	3.128e-01	1.820e-01
45	92060	1.428922e+01	7.298e-07	3.020e-01	2.484e-01
46	94062	1.428815e+01	5.315e-07	5.011e-01	3.428e-01
47	96066	1.428670e+01	1.792e-06	5.890e-01	9.842e-02
48	98068	1.427646e+01	7.639e-06	6.582e-01	3.433e-01
49	100069	1.427777e+01	3.152e-06	5.798e-01	1.094e-01
50	102071	1.428433e+01	8.557e-07	3.509e-01	4.653e-01
51	104075	1.428282e+01	1.762e-06	2.769e-01	6.481e-02
52	106077	1.427656e+01	4.674e-06	3.181e-01	4.679e-01
53	108079	1.427785e+01	3.981e-08	1.243e-01	2.208e-01
54	110081	1.427756e+01	1.465e-07	1.211e-01	1.688e-01
55	112082	1.416571e+01	6.388e-06	1.198e-01	2.313e-01
56	114083	1.415660e+01	1.679e-06	1.977e-01	8.585e-02
57	116085	1.415828e+01	7.161e-07	1.724e-01	4.905e-02
58	118087	1.415871e+01	3.991e-07	1.839e-01	6.708e-02
59	120089	1.415813e+01	6.662e-08	1.748e-01	1.464e-01
60	122090	1.415759e+01	1.815e-07	1.477e-01	7.966e-02

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
61	124092	1.415668e+01	1.813e-08	2.804e-01	2.410e-01
62	126094	1.415634e+01	1.001e-08	3.792e-01	2.234e-01
63	128096	1.415562e+01	1.003e-08	5.668e-01	2.905e-01
64	130097	1.415519e+01	1.738e-07	5.038e-01	3.761e-02
65	132103	1.398498e+01	2.297e-05	4.523e-01	5.094e-01
66	134104	1.399199e+01	1.859e-05	4.492e-01	2.120e-01

67	136105	1.399430e+01	1.620e-05	4.432e-01	5.120e-02
68	138106	1.402238e+01	1.273e-05	4.782e-01	9.165e-02
69	140111	1.380792e+01	3.840e-05	8.776e-01	4.554e-01
70	142112	1.383889e+01	3.424e-05	8.799e-01	1.072e-01
71	144115	1.387563e+01	2.977e-05	8.547e-01	1.257e-01
72	146118	1.390777e+01	2.620e-05	8.259e-01	1.049e-01
73	148122	1.392353e+01	2.455e-05	8.100e-01	5.028e-02
74	150126	1.393612e+01	2.324e-05	7.975e-01	3.990e-02
75	152130	1.394669e+01	2.216e-05	7.879e-01	3.266e-02
76	154134	1.395599e+01	2.121e-05	7.810e-01	2.741e-02
77	156137	1.397309e+01	1.946e-05	7.711e-01	4.689e-02
78	158140	1.398962e+01	1.771e-05	7.680e-01	3.451e-02
79	160142	1.403230e+01	1.290e-05	7.744e-01	7.005e-02
80	162144	1.406713e+01	8.541e-06	8.148e-01	1.149e-01
81	164146	1.409255e+01	5.661e-06	7.614e-01	8.960e-02
82	166150	1.409674e+01	5.218e-06	7.900e-01	2.790e-02
83	168152	1.411352e+01	3.449e-06	7.790e-01	6.555e-02
84	170155	1.411938e+01	2.877e-06	8.481e-01	5.227e-02
85	172157	1.412945e+01	1.891e-06	9.238e-01	4.598e-02
86	174160	1.413263e+01	1.562e-06	1.004e+00	4.854e-02
87	176163	1.413446e+01	1.328e-06	1.102e+00	5.163e-02
88	178166	1.413486e+01	1.244e-06	1.177e+00	3.819e-02
89	180168	1.413495e+01	1.162e-06	1.291e+00	5.610e-02
90	182170	1.413517e+01	1.110e-06	1.371e+00	3.737e-02

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
91	184173	1.413584e+01	1.037e-06	1.444e+00	3.354e-02
92	186176	1.413637e+01	9.698e-07	1.526e+00	3.645e-02
93	188179	1.413673e+01	9.164e-07	1.592e+00	2.920e-02
94	190181	1.413737e+01	8.183e-07	1.628e+00	5.049e-02
95	192183	1.413896e+01	6.473e-07	8.138e-01	5.433e-02
96	194185	1.414094e+01	5.881e-07	4.068e-01	9.079e-02
97	196187	1.414204e+01	5.631e-07	4.727e-01	9.513e-02
98	198190	1.414234e+01	4.530e-07	5.016e-01	5.430e-02
99	200193	1.414241e+01	4.220e-07	5.372e-01	7.470e-02
100	202195	1.414273e+01	2.553e-08	5.132e-01	3.517e-01
101	204197	1.414233e+01	5.114e-09	5.667e-01	7.235e-02
102	206199	1.414178e+01	2.707e-08	2.569e-01	1.816e-01
103	208201	1.414149e+01	1.152e-08	2.709e-01	1.204e-01
104	210206	1.414137e+01	2.107e-08	2.512e-01	1.677e-02
105	212208	1.414110e+01	2.949e-08	2.647e-01	1.056e-01
106	214210	1.414096e+01	5.343e-09	2.178e-01	5.780e-02
107	216212	1.414086e+01	2.086e-09	2.153e-01	4.859e-02
108	218214	1.414068e+01	2.412e-08	2.230e-01	9.190e-02
109	220216	1.414066e+01	1.745e-08	2.561e-01	9.606e-02
110	222218	1.414042e+01	4.215e-08	4.247e-01	1.674e-01
111	224220	1.413991e+01	6.228e-08	6.889e-01	2.743e-01
112	226222	1.413856e+01	1.736e-07	1.186e+00	4.576e-01
113	228227	1.413831e+01	1.304e-07	1.219e+00	3.988e-02
114	230231	1.413790e+01	1.254e-07	1.175e+00	4.065e-02
115	232235	1.413749e+01	1.619e-07	1.092e+00	4.126e-02
116	234239	1.413694e+01	2.014e-07	1.019e+00	4.486e-02

117	236243	1.413636e+01	2.311e-07	9.850e-01	4.866e-02
118	238248	1.413570e+01	2.698e-07	9.581e-01	5.202e-02
119	240253	1.413501e+01	3.464e-07	9.509e-01	5.674e-02
120	242258	1.413428e+01	4.194e-07	9.522e-01	6.124e-02

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
121	244263	1.413368e+01	4.768e-07	9.455e-01	5.324e-02
122	246268	1.413318e+01	5.111e-07	9.276e-01	4.634e-02
123	248272	1.413236e+01	6.549e-07	8.670e-01	8.100e-02
124	250276	1.413180e+01	6.996e-07	7.249e-01	6.198e-02
125	252279	1.413091e+01	8.172e-07	4.572e-01	1.042e-01
126	254281	1.413008e+01	7.096e-08	3.203e-01	2.138e-01
127	256282	1.413008e+01	5.564e-08	2.571e-01	2.401e-02
128	258284	1.413027e+01	4.195e-09	1.249e-01	8.068e-02
129	260286	1.412997e+01	2.133e-08	1.304e-01	1.834e-01
130	262288	1.412984e+01	1.558e-09	1.255e-01	1.056e-01
131	264290	1.412958e+01	6.873e-09	1.179e-01	1.470e-01
132	266292	1.412945e+01	3.082e-09	1.220e-01	5.016e-02
133	268294	1.412935e+01	3.516e-09	1.056e-01	4.476e-02
134	270296	1.412935e+01	3.313e-10	9.954e-02	3.991e-02
135	272298	1.412939e+01	1.359e-09	1.010e-01	3.853e-02
136	274300	1.412939e+01	2.019e-09	9.649e-02	3.113e-02
137	276302	1.412940e+01	1.233e-09	1.146e-01	4.736e-02
138	278304	1.412938e+01	2.138e-09	1.545e-01	6.854e-02
139	280306	1.412936e+01	1.391e-09	2.415e-01	1.156e-01
140	282308	1.412930e+01	1.323e-09	3.611e-01	1.596e-01
141	284310	1.412917e+01	5.944e-09	5.592e-01	2.476e-01
142	286312	1.412895e+01	1.629e-08	8.334e-01	3.049e-01
143	288340	1.412884e+01	1.089e-08	8.336e-01	3.431e-04
144	290349	1.412884e+01	1.060e-08	8.336e-01	7.786e-05
145	292356	1.412884e+01	1.052e-08	8.337e-01	7.320e-05
146	294363	1.412884e+01	1.050e-08	8.338e-01	7.201e-05
147	296370	1.412884e+01	1.050e-08	8.338e-01	7.163e-05
148	298377	1.412884e+01	1.051e-08	8.339e-01	7.146e-05
149	300384	1.412884e+01	1.052e-08	8.340e-01	7.135e-05
150	302391	1.412883e+01	1.053e-08	8.340e-01	7.127e-05

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
151	304398	1.412883e+01	1.054e-08	8.341e-01	7.120e-05
152	306405	1.412883e+01	1.054e-08	8.341e-01	7.113e-05
153	308412	1.412883e+01	1.054e-08	8.342e-01	7.106e-05
154	310419	1.412883e+01	1.055e-08	8.343e-01	7.099e-05
155	312426	1.412883e+01	1.055e-08	8.343e-01	7.092e-05
156	314433	1.412883e+01	1.055e-08	8.344e-01	7.086e-05
157	316440	1.412883e+01	1.055e-08	8.345e-01	7.079e-05
158	318447	1.412882e+01	1.055e-08	8.345e-01	7.073e-05
159	320454	1.412882e+01	1.055e-08	8.346e-01	7.066e-05
160	322461	1.412882e+01	1.056e-08	8.346e-01	7.060e-05
161	324468	1.412882e+01	1.056e-08	8.347e-01	7.053e-05
162	326475	1.412882e+01	1.056e-08	8.348e-01	7.047e-05
163	328482	1.412882e+01	1.056e-08	8.348e-01	7.040e-05

164	330489	1.412882e+01	1.056e-08	8.349e-01	7.034e-05
165	332496	1.412882e+01	1.056e-08	8.350e-01	7.028e-05
166	334503	1.412881e+01	1.056e-08	8.350e-01	7.021e-05
167	336510	1.412881e+01	1.056e-08	8.351e-01	7.015e-05
168	338517	1.412881e+01	1.056e-08	8.351e-01	7.009e-05
169	340524	1.412881e+01	1.056e-08	8.352e-01	7.002e-05
170	342531	1.412881e+01	1.056e-08	8.353e-01	6.996e-05
171	344538	1.412881e+01	1.056e-08	8.353e-01	6.990e-05
172	346545	1.412881e+01	1.057e-08	8.354e-01	6.984e-05
173	348552	1.412881e+01	1.057e-08	8.354e-01	6.977e-05
174	350559	1.412881e+01	1.057e-08	8.355e-01	6.971e-05
175	352566	1.412880e+01	1.057e-08	8.356e-01	6.965e-05
176	354573	1.412880e+01	1.057e-08	8.356e-01	6.959e-05
177	356580	1.412880e+01	1.057e-08	8.357e-01	6.953e-05
178	358587	1.412880e+01	1.057e-08	8.358e-01	6.946e-05
179	360594	1.412880e+01	1.057e-08	8.358e-01	6.940e-05
180	362601	1.412880e+01	1.057e-08	8.359e-01	6.934e-05

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
181	364608	1.412880e+01	1.057e-08	8.359e-01	6.928e-05
182	366615	1.412880e+01	1.057e-08	8.360e-01	6.922e-05
183	368622	1.412879e+01	1.057e-08	8.361e-01	6.916e-05
184	370629	1.412879e+01	1.058e-08	8.361e-01	6.910e-05
185	372636	1.412879e+01	1.058e-08	8.362e-01	6.904e-05
186	374643	1.412879e+01	1.058e-08	8.363e-01	6.898e-05
187	376650	1.412879e+01	1.058e-08	8.363e-01	6.892e-05
188	378657	1.412879e+01	1.058e-08	8.364e-01	6.886e-05
189	380664	1.412879e+01	1.058e-08	8.364e-01	6.880e-05
190	382671	1.412879e+01	1.058e-08	8.365e-01	6.874e-05
191	384678	1.412879e+01	1.058e-08	8.366e-01	6.868e-05
192	386685	1.412878e+01	1.058e-08	8.366e-01	6.862e-05
193	388692	1.412878e+01	1.058e-08	8.367e-01	6.857e-05
194	390699	1.412878e+01	1.058e-08	8.368e-01	6.851e-05
195	392706	1.412878e+01	1.058e-08	8.368e-01	6.845e-05
196	394713	1.412878e+01	1.058e-08	8.369e-01	6.839e-05
197	396720	1.412878e+01	1.059e-08	8.369e-01	6.833e-05
198	398727	1.412878e+01	1.059e-08	8.370e-01	6.827e-05
199	400734	1.412878e+01	1.059e-08	8.371e-01	6.821e-05
200	402741	1.412877e+01	1.059e-08	8.371e-01	6.816e-05
201	404748	1.412877e+01	1.059e-08	8.372e-01	6.810e-05
202	406755	1.412877e+01	1.059e-08	8.373e-01	6.804e-05
203	408762	1.412877e+01	1.059e-08	8.373e-01	6.798e-05
204	410769	1.412877e+01	1.059e-08	8.374e-01	6.793e-05
205	412776	1.412877e+01	1.059e-08	8.374e-01	6.787e-05
206	414783	1.412877e+01	1.059e-08	8.375e-01	6.781e-05
207	416790	1.412877e+01	1.059e-08	8.376e-01	6.776e-05
208	418797	1.412877e+01	1.059e-08	8.376e-01	6.770e-05
209	420804	1.412876e+01	1.059e-08	8.377e-01	6.764e-05
210	422811	1.412876e+01	1.059e-08	8.378e-01	6.759e-05

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step

211	424818	1.412876e+01	1.060e-08	8.378e-01	6.753e-05
212	426825	1.412876e+01	1.060e-08	8.379e-01	6.747e-05
213	428832	1.412876e+01	1.060e-08	8.379e-01	6.742e-05
214	430839	1.412876e+01	1.060e-08	8.380e-01	6.736e-05
215	432846	1.412876e+01	1.060e-08	8.381e-01	6.731e-05
216	434853	1.412876e+01	1.060e-08	8.381e-01	6.725e-05
217	436860	1.412876e+01	1.060e-08	8.382e-01	6.720e-05
218	438867	1.412875e+01	1.060e-08	8.383e-01	6.714e-05
219	440874	1.412875e+01	1.060e-08	8.383e-01	6.709e-05
220	442881	1.412875e+01	1.060e-08	8.384e-01	6.703e-05
221	444888	1.412875e+01	1.060e-08	8.384e-01	6.697e-05
222	446895	1.412875e+01	1.060e-08	8.385e-01	6.692e-05
223	448902	1.412875e+01	1.060e-08	8.386e-01	6.687e-05
224	450909	1.412875e+01	1.060e-08	8.386e-01	6.681e-05
225	452916	1.412875e+01	1.060e-08	8.387e-01	6.676e-05
226	454923	1.412875e+01	1.061e-08	8.388e-01	6.670e-05
227	456930	1.412874e+01	1.061e-08	8.388e-01	6.665e-05
228	458937	1.412874e+01	1.061e-08	8.389e-01	6.660e-05
229	460944	1.412874e+01	1.061e-08	8.389e-01	6.654e-05
230	462951	1.412874e+01	1.061e-08	8.390e-01	6.649e-05
231	464958	1.412874e+01	1.061e-08	8.391e-01	6.643e-05
232	466965	1.412874e+01	1.061e-08	8.391e-01	6.638e-05
233	468972	1.412874e+01	1.061e-08	8.392e-01	6.633e-05
234	470979	1.412874e+01	1.061e-08	8.393e-01	6.628e-05
235	472986	1.412874e+01	1.061e-08	8.393e-01	6.622e-05
236	474993	1.412873e+01	1.061e-08	8.394e-01	6.617e-05
237	477000	1.412873e+01	1.061e-08	8.394e-01	6.612e-05
238	479007	1.412873e+01	1.061e-08	8.395e-01	6.606e-05
239	481014	1.412873e+01	1.061e-08	8.396e-01	6.601e-05
240	483021	1.412873e+01	1.061e-08	8.396e-01	6.596e-05

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
241	485028	1.412873e+01	1.061e-08	8.397e-01	6.591e-05
242	487035	1.412873e+01	1.062e-08	8.398e-01	6.585e-05
243	489042	1.412873e+01	1.062e-08	8.398e-01	6.580e-05
244	491049	1.412873e+01	1.062e-08	8.399e-01	6.575e-05
245	493056	1.412872e+01	1.062e-08	8.399e-01	6.570e-05
246	495063	1.412872e+01	1.062e-08	8.400e-01	6.565e-05
247	497070	1.412872e+01	1.062e-08	8.401e-01	6.560e-05
248	499077	1.412872e+01	1.062e-08	8.401e-01	6.555e-05
249	501084	1.412872e+01	1.062e-08	8.402e-01	6.549e-05

Solver stopped prematurely.

fmincon stopped because it exceeded the function evaluation limit,
options.MaxFunctionEvaluations = 5.000000e+05.

Your initial point x0 is not between bounds lb and ub; FMINCON
shifted x0 to strictly satisfy the bounds.

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step

0	2001	1.945127e+01	3.045e-03	1.387e+00	
1	4002	1.439091e+01	1.664e-03	1.676e+00	1.061e+00
2	6003	1.051891e+01	5.437e-04	3.277e+00	1.547e+00
3	8004	9.716889e+00	2.170e-04	4.367e+00	8.770e-01
4	10005	9.519437e+00	8.594e-05	1.228e+00	6.396e-01
5	12010	9.565008e+00	2.535e-05	1.209e+00	3.027e-01
6	14011	9.459928e+00	2.450e-05	1.542e+00	7.306e-01
7	16012	9.490575e+00	6.696e-06	3.720e-01	9.877e-02
8	18014	9.482130e+00	3.377e-06	1.485e-01	2.221e-01
9	20015	9.372646e+00	3.763e-05	1.913e-01	4.112e-01
10	22016	9.363730e+00	6.952e-06	9.392e-02	1.601e-01
11	24018	9.361989e+00	3.597e-06	7.619e-02	7.407e-02
12	26019	9.354851e+00	1.465e-05	1.182e-01	2.695e-01
13	28021	9.356321e+00	9.171e-06	9.789e-02	5.563e-02
14	30023	9.356913e+00	5.388e-06	1.120e-01	1.409e-01
15	32024	9.355930e+00	8.161e-06	1.592e-01	1.759e-01
16	34025	9.356274e+00	3.944e-06	1.252e-01	1.163e-01
17	36026	9.354716e+00	3.560e-06	1.949e-01	1.315e-01
18	38027	9.355233e+00	3.152e-06	1.615e-01	1.420e-01
19	40028	9.348809e+00	2.408e-05	3.356e-01	4.208e-01
20	42029	9.349759e+00	2.434e-05	2.870e-01	2.729e-01
21	44031	9.351039e+00	1.290e-05	1.994e-01	9.501e-02
22	46032	9.352900e+00	6.970e-06	9.945e-02	1.151e-01
23	48033	9.352378e+00	3.553e-06	3.919e-02	8.783e-02
24	50034	9.352015e+00	3.478e-06	3.537e-02	1.900e-01
25	52035	9.351348e+00	2.593e-06	1.059e-01	1.787e-01
26	54036	9.350981e+00	6.946e-07	1.646e-01	1.130e-01
27	56038	9.351049e+00	1.770e-07	2.075e-01	2.235e-01
28	58040	9.350406e+00	3.774e-07	2.459e-01	1.821e-01
29	60041	9.349175e+00	4.792e-06	2.843e-01	1.376e-01
30	62042	9.346432e+00	4.683e-06	1.654e-01	1.619e-01

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
31	64044	9.346534e+00	3.431e-06	1.803e-01	9.023e-02
32	66045	9.347211e+00	2.641e-06	9.170e-02	1.400e-01
33	68046	9.348120e+00	2.300e-07	9.687e-02	4.913e-02
34	70047	9.347285e+00	2.728e-06	1.660e-02	1.636e-01
35	72048	9.325180e+00	3.910e-06	6.439e-02	1.232e-01
36	74049	9.319710e+00	1.239e-06	7.288e-02	8.815e-02
37	76050	9.319034e+00	4.219e-06	1.010e-01	1.632e-01
38	78051	9.318314e+00	1.492e-06	1.568e-01	8.839e-02
39	80052	9.317948e+00	3.725e-06	1.711e-01	1.243e-01
40	82053	9.317663e+00	1.716e-06	1.551e-01	8.705e-02
41	84055	9.317680e+00	9.253e-07	1.534e-01	5.184e-02
42	86056	9.317238e+00	7.366e-06	2.082e-01	1.322e-01
43	88057	9.317012e+00	1.161e-06	2.561e-01	3.971e-02
44	90058	9.316368e+00	3.212e-06	1.424e-01	5.880e-02
45	92059	9.316101e+00	1.710e-06	1.046e-01	7.907e-02
46	94060	9.316056e+00	3.671e-07	5.085e-02	4.836e-02
47	96061	9.315652e+00	9.173e-07	6.294e-02	8.027e-02
48	98062	9.315820e+00	6.284e-08	2.089e-02	3.076e-02
49	100063	9.315529e+00	4.384e-07	2.134e-02	9.618e-02

50	102064	9.315656e+00	1.238e-07	1.987e-02	4.146e-02
51	104065	9.315533e+00	1.077e-07	3.213e-02	5.395e-02
52	106066	9.315543e+00	6.735e-08	2.220e-02	2.823e-02
53	108067	9.315481e+00	7.843e-08	2.508e-02	2.332e-02
54	110068	9.315501e+00	2.468e-08	1.513e-02	1.507e-02
55	112069	9.315494e+00	1.795e-08	1.776e-02	1.602e-02
56	114071	9.315505e+00	7.513e-09	1.302e-02	8.537e-03
57	116072	9.315503e+00	5.106e-08	1.148e-02	2.874e-02
58	118073	9.315521e+00	2.540e-08	1.676e-02	2.043e-02
59	120074	9.315479e+00	1.307e-07	1.654e-02	5.391e-02
60	122075	9.315515e+00	5.568e-08	3.269e-02	3.535e-02

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
61	124076	9.315460e+00	1.041e-07	3.888e-02	6.609e-02
62	126077	9.315516e+00	4.245e-08	4.696e-02	4.662e-02
63	128078	9.315470e+00	1.142e-07	5.241e-02	6.956e-02
64	130079	9.315547e+00	6.717e-08	5.634e-02	4.332e-02
65	132080	9.315486e+00	2.037e-07	5.885e-02	5.419e-02
66	134082	9.315542e+00	1.033e-07	6.268e-02	3.510e-02
67	136084	9.315483e+00	1.525e-08	1.399e-01	1.295e-01
68	138085	9.315524e+00	3.944e-08	9.276e-02	4.364e-02
69	140087	9.315331e+00	1.428e-08	1.471e-01	1.342e-01
70	142089	9.315310e+00	4.617e-08	1.471e-01	1.891e-01
71	144095	9.196416e+00	4.571e-05	2.381e-01	6.712e-01
72	146096	9.212035e+00	2.743e-05	1.057e-01	4.180e-01
73	148097	9.243908e+00	1.335e-05	8.057e-02	2.334e-01
74	150098	9.300012e+00	4.293e-06	7.536e-02	1.525e-01
75	152101	9.303490e+00	3.415e-06	1.473e-01	9.938e-02
76	154104	9.306004e+00	2.749e-06	2.614e-01	1.479e-01
77	156108	9.306920e+00	2.733e-06	3.114e-01	6.647e-02
78	158111	9.308473e+00	3.024e-06	4.014e-01	1.234e-01
79	160115	9.309058e+00	2.870e-06	4.395e-01	5.292e-02
80	162118	9.310045e+00	2.526e-06	4.642e-01	9.134e-02
81	164122	9.310408e+00	2.493e-06	4.802e-01	4.998e-02
82	166125	9.311010e+00	2.020e-06	4.777e-01	6.883e-02
83	168128	9.311493e+00	2.069e-06	4.799e-01	7.018e-02
84	170130	9.312180e+00	1.762e-06	4.488e-01	6.854e-02
85	172132	9.312547e+00	1.423e-06	4.109e-01	7.430e-02
86	174134	9.312493e+00	1.217e-06	3.920e-01	5.340e-02
87	176135	9.312537e+00	3.927e-07	2.238e-01	5.135e-02
88	178137	9.312487e+00	8.462e-08	1.200e-01	1.839e-01
89	180139	9.312562e+00	4.833e-09	7.875e-02	9.536e-02
90	182141	9.312451e+00	8.963e-09	1.095e-01	6.522e-02

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
91	184143	9.312346e+00	4.120e-09	8.389e-02	5.901e-02
92	186145	9.312272e+00	6.654e-09	5.348e-02	1.071e-01
93	188147	9.312197e+00	4.525e-09	6.390e-02	5.304e-02
94	190149	9.312088e+00	1.065e-09	1.185e-01	7.855e-02
95	192151	9.312032e+00	3.631e-09	1.451e-01	6.350e-02
96	194153	9.311955e+00	8.333e-09	1.783e-01	7.905e-02

97	196155	9.311879e+00	1.298e-08	1.661e-01	7.260e-02
98	198160	9.311840e+00	1.413e-08	1.680e-01	1.035e-02
99	200168	9.301014e+00	5.505e-07	1.762e-01	7.953e-02
100	202169	9.266064e+00	1.507e-06	1.823e-01	4.560e-02
101	204170	9.309055e+00	3.815e-06	4.911e-02	1.458e-01
102	206171	9.310962e+00	2.674e-07	3.591e-02	3.963e-02
103	208172	9.311402e+00	2.395e-07	3.990e-02	3.058e-02
104	210173	9.311390e+00	7.904e-08	3.434e-02	3.868e-02
105	212175	9.311361e+00	4.167e-10	4.929e-02	3.436e-02
106	214177	9.311334e+00	6.558e-10	3.516e-02	2.620e-02
107	216179	9.311311e+00	2.884e-10	1.673e-02	1.635e-02
108	218181	9.311305e+00	9.571e-11	4.227e-03	1.199e-02
109	220182	9.305367e+00	7.544e-07	3.922e-02	5.955e-02
110	222183	9.305130e+00	2.008e-07	2.460e-02	3.004e-02
111	224184	9.305139e+00	6.687e-08	1.247e-02	1.603e-02
112	226185	9.305133e+00	1.199e-08	5.419e-03	7.400e-03
113	228186	9.305134e+00	3.900e-09	3.143e-03	5.401e-03
114	230188	9.305137e+00	2.284e-09	2.769e-03	2.002e-03
115	232193	9.287769e+00	5.963e-07	9.880e-03	2.800e-02
116	234194	9.242192e+00	2.069e-06	1.412e-02	3.666e-02
117	236199	8.963265e+00	2.991e-05	1.278e-01	4.033e-01
118	238200	8.978794e+00	2.787e-05	1.014e-01	1.021e-01
119	240201	9.006546e+00	2.696e-05	8.420e-02	1.390e-01
120	242202	9.036791e+00	2.405e-05	7.787e-02	2.800e-02

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
121	244203	9.098045e+00	1.840e-05	6.537e-02	5.652e-02
122	246204	9.197984e+00	9.580e-06	3.564e-02	8.641e-02
123	248205	9.238677e+00	5.938e-06	2.734e-02	3.328e-02
124	250206	9.279325e+00	2.490e-06	2.014e-02	3.505e-02
125	252207	9.305040e+00	5.229e-07	9.371e-03	2.817e-02
126	254208	9.305136e+00	3.202e-08	6.006e-03	4.880e-03
127	256210	9.305136e+00	5.580e-10	5.519e-03	6.930e-03
128	258212	9.305137e+00	1.903e-10	6.750e-03	3.333e-03
129	260215	9.305137e+00	1.062e-10	6.220e-03	6.899e-04
130	262240	9.305130e+00	2.674e-10	6.220e-03	1.105e-05
131	264249	9.305130e+00	2.655e-10	6.220e-03	1.124e-07
132	266255	9.305130e+00	2.637e-10	6.220e-03	1.112e-07
133	268261	9.305130e+00	2.619e-10	6.220e-03	1.102e-07
134	270267	9.305130e+00	2.600e-10	6.220e-03	1.093e-07
135	272273	9.305130e+00	2.582e-10	6.220e-03	1.086e-07
136	274279	9.305130e+00	2.563e-10	6.220e-03	1.080e-07
137	276285	9.305130e+00	2.545e-10	6.220e-03	1.076e-07
138	278291	9.305130e+00	2.527e-10	6.220e-03	1.073e-07
139	280297	9.305130e+00	2.508e-10	6.220e-03	1.070e-07
140	282303	9.305130e+00	2.490e-10	6.220e-03	1.068e-07
141	284309	9.305130e+00	2.471e-10	6.220e-03	1.067e-07
142	286315	9.305130e+00	2.452e-10	6.220e-03	1.067e-07
143	288321	9.305130e+00	2.434e-10	6.220e-03	1.067e-07
144	290327	9.305130e+00	2.415e-10	6.220e-03	1.067e-07
145	292333	9.305131e+00	2.396e-10	6.220e-03	1.068e-07
146	294339	9.305131e+00	2.377e-10	6.220e-03	1.069e-07

147	296345	9.305131e+00	2.359e-10	6.220e-03	1.071e-07
148	298351	9.305131e+00	2.340e-10	6.220e-03	1.072e-07
149	300357	9.305131e+00	2.321e-10	6.220e-03	1.074e-07
150	302363	9.305131e+00	2.302e-10	6.220e-03	1.076e-07

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
151	304369	9.305131e+00	2.282e-10	6.220e-03	1.078e-07
152	306375	9.305131e+00	2.263e-10	6.220e-03	1.080e-07
153	308381	9.305131e+00	2.244e-10	6.220e-03	1.082e-07
154	310387	9.305131e+00	2.225e-10	6.220e-03	1.085e-07
155	312393	9.305131e+00	2.206e-10	6.220e-03	1.087e-07
156	314399	9.305131e+00	2.186e-10	6.220e-03	1.089e-07
157	316405	9.305131e+00	2.167e-10	6.220e-03	1.092e-07
158	318411	9.305131e+00	2.148e-10	6.220e-03	1.094e-07
159	320417	9.305131e+00	2.128e-10	6.220e-03	1.096e-07
160	322423	9.305131e+00	2.109e-10	6.220e-03	1.098e-07
161	324429	9.305131e+00	2.089e-10	6.220e-03	1.101e-07
162	326435	9.305132e+00	2.070e-10	6.220e-03	1.103e-07
163	328441	9.305132e+00	2.050e-10	6.220e-03	1.105e-07
164	330447	9.305132e+00	2.030e-10	6.220e-03	1.107e-07
165	332453	9.305132e+00	2.011e-10	6.220e-03	1.109e-07
166	334459	9.305132e+00	1.991e-10	6.220e-03	1.111e-07
167	336465	9.305132e+00	1.971e-10	6.220e-03	1.113e-07
168	338471	9.305132e+00	1.952e-10	6.220e-03	1.115e-07
169	340477	9.305132e+00	1.932e-10	6.220e-03	1.117e-07
170	342483	9.305132e+00	1.912e-10	6.220e-03	1.119e-07
171	344489	9.305132e+00	1.892e-10	6.220e-03	1.121e-07
172	346495	9.305132e+00	1.873e-10	6.220e-03	1.123e-07
173	348501	9.305132e+00	1.853e-10	6.220e-03	1.124e-07
174	350507	9.305132e+00	1.833e-10	6.220e-03	1.126e-07
175	352513	9.305132e+00	1.813e-10	6.220e-03	1.127e-07
176	354519	9.305132e+00	1.793e-10	6.220e-03	1.129e-07
177	356525	9.305132e+00	1.773e-10	6.220e-03	1.130e-07
178	358531	9.305132e+00	1.754e-10	6.220e-03	1.132e-07
179	360537	9.305132e+00	1.734e-10	6.220e-03	1.133e-07
180	362543	9.305133e+00	1.714e-10	6.220e-03	1.134e-07

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
181	364549	9.305133e+00	1.694e-10	6.220e-03	1.136e-07
182	366555	9.305133e+00	1.674e-10	6.220e-03	1.137e-07
183	368561	9.305133e+00	1.654e-10	6.220e-03	1.138e-07
184	370567	9.305133e+00	1.634e-10	6.220e-03	1.139e-07
185	372573	9.305133e+00	1.614e-10	6.220e-03	1.140e-07
186	374579	9.305133e+00	1.594e-10	6.220e-03	1.141e-07
187	376585	9.305133e+00	1.574e-10	6.220e-03	1.142e-07
188	378591	9.305133e+00	1.554e-10	6.220e-03	1.143e-07
189	380597	9.305133e+00	1.534e-10	6.220e-03	1.144e-07
190	382603	9.305133e+00	1.514e-10	6.220e-03	1.145e-07
191	384609	9.305133e+00	1.494e-10	6.220e-03	1.146e-07
192	386615	9.305133e+00	1.474e-10	6.220e-03	1.146e-07
193	388621	9.305133e+00	1.454e-10	6.220e-03	1.147e-07

194	390627	9.305133e+00	1.434e-10	6.220e-03	1.148e-07
195	392633	9.305133e+00	1.414e-10	6.220e-03	1.149e-07
196	394639	9.305133e+00	1.394e-10	6.220e-03	1.149e-07
197	396645	9.305133e+00	1.374e-10	6.220e-03	1.150e-07
198	398651	9.305134e+00	1.354e-10	6.220e-03	1.150e-07
199	400657	9.305134e+00	1.334e-10	6.220e-03	1.151e-07
200	402663	9.305134e+00	1.314e-10	6.220e-03	1.151e-07
201	404669	9.305134e+00	1.294e-10	6.220e-03	1.152e-07
202	406675	9.305134e+00	1.274e-10	6.220e-03	1.152e-07
203	408681	9.305134e+00	1.254e-10	6.220e-03	1.153e-07
204	410687	9.305134e+00	1.234e-10	6.220e-03	1.153e-07
205	412693	9.305134e+00	1.214e-10	6.220e-03	1.154e-07
206	414699	9.305134e+00	1.194e-10	6.220e-03	1.154e-07
207	416705	9.305134e+00	1.174e-10	6.220e-03	1.154e-07
208	418711	9.305134e+00	1.154e-10	6.220e-03	1.155e-07
209	420717	9.305134e+00	1.134e-10	6.220e-03	1.155e-07
210	422723	9.305134e+00	1.114e-10	6.220e-03	1.155e-07

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
211	424729	9.305134e+00	1.094e-10	6.220e-03	1.156e-07
212	426735	9.305134e+00	1.074e-10	6.220e-03	1.156e-07
213	428741	9.305134e+00	1.054e-10	6.220e-03	1.156e-07
214	430747	9.305134e+00	1.034e-10	6.220e-03	1.156e-07
215	432753	9.305134e+00	1.014e-10	6.220e-03	1.157e-07
216	434759	9.305135e+00	9.935e-11	6.220e-03	1.157e-07
217	436765	9.305135e+00	9.735e-11	6.220e-03	1.157e-07
218	438771	9.305135e+00	9.535e-11	6.220e-03	1.157e-07
219	440777	9.305135e+00	9.334e-11	6.220e-03	1.157e-07
220	442783	9.305135e+00	9.134e-11	6.220e-03	1.157e-07
221	444789	9.305135e+00	8.933e-11	6.220e-03	1.158e-07
222	446795	9.305135e+00	8.733e-11	6.220e-03	1.158e-07
223	448801	9.305135e+00	8.533e-11	6.220e-03	1.158e-07
224	450807	9.305135e+00	8.332e-11	6.220e-03	1.158e-07
225	452813	9.305135e+00	8.132e-11	6.220e-03	1.158e-07
226	454819	9.305135e+00	7.932e-11	6.220e-03	1.158e-07
227	456825	9.305135e+00	7.731e-11	6.220e-03	1.158e-07
228	458831	9.305135e+00	7.531e-11	6.220e-03	1.158e-07
229	460837	9.305135e+00	7.330e-11	6.220e-03	1.158e-07
230	462843	9.305135e+00	7.130e-11	6.220e-03	1.158e-07
231	464849	9.305135e+00	6.930e-11	6.220e-03	1.158e-07
232	466855	9.305135e+00	6.729e-11	6.220e-03	1.158e-07
233	468861	9.305135e+00	6.529e-11	6.220e-03	1.159e-07
234	470867	9.305136e+00	6.329e-11	6.220e-03	1.159e-07
235	472873	9.305136e+00	6.128e-11	6.220e-03	1.159e-07
236	474879	9.305136e+00	5.928e-11	6.220e-03	1.159e-07
237	476885	9.305136e+00	5.727e-11	6.220e-03	1.159e-07
238	478891	9.305136e+00	5.527e-11	6.219e-03	1.159e-07
239	480897	9.305136e+00	5.327e-11	6.220e-03	1.159e-07
240	482903	9.305136e+00	5.126e-11	6.220e-03	1.159e-07

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step

241	484909	9.305136e+00	4.926e-11	6.220e-03	1.159e-07
242	486915	9.305136e+00	4.725e-11	6.219e-03	1.159e-07
243	488921	9.305136e+00	4.525e-11	6.219e-03	1.159e-07
244	490927	9.305136e+00	4.325e-11	6.219e-03	1.159e-07
245	492933	9.305136e+00	4.124e-11	6.220e-03	1.159e-07
246	494939	9.305136e+00	3.924e-11	6.219e-03	1.159e-07
247	496945	9.305136e+00	3.724e-11	6.219e-03	1.159e-07
248	498951	9.305136e+00	3.523e-11	6.219e-03	1.159e-07
249	500957	9.305136e+00	3.386e-11	6.219e-03	8.612e-08

Feasible point with lower objective function value found.

Solver stopped prematurely.

fmincon stopped because it exceeded the function evaluation limit,
options.MaxFunctionEvaluations = 5.000000e+05.

Your initial point x0 is not between bounds lb and ub; FMINCON
shifted x0 to strictly satisfy the bounds.

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
0	2001	2.497911e+01	3.192e-01	5.923e+01	
1	4002	2.066616e+01	2.581e-01	5.925e+01	6.564e-01
2	6003	1.778192e+01	2.106e-01	5.933e+01	8.367e-01
3	8005	1.706768e+01	1.995e-01	5.937e+01	4.025e-01
4	10006	1.509716e+01	1.670e-01	5.948e+01	1.883e+00
5	12011	1.458711e+01	1.406e-01	9.420e+00	4.990e+00
6	14014	1.458361e+01	1.363e-01	9.432e+00	1.088e+00
7	16016	1.494177e+01	1.240e-01	9.430e+00	4.092e+00
8	18017	1.638379e+01	1.047e-01	1.490e+01	6.124e+00
9	20018	1.759393e+01	9.675e-02	1.724e+01	2.519e+00
10	22019	2.063637e+01	8.126e-02	2.218e+01	4.587e+00
11	24020	2.106477e+01	7.908e-02	2.254e+01	5.178e-01
12	26022	2.107459e+01	7.904e-02	2.254e+01	2.517e-02
13	28023	2.141470e+01	7.817e-02	2.268e+01	6.192e-01
14	30024	2.260031e+01	7.758e-02	2.280e+01	1.458e+00
15	32025	3.114089e+01	7.077e-02	2.489e+01	5.153e+00
16	34026	3.535479e+01	6.605e-02	2.624e+01	9.110e+00
17	36027	4.207614e+01	6.141e-02	2.658e+01	5.732e+00
18	38028	4.612508e+01	5.818e-02	2.587e+01	6.077e+00
19	40029	4.739571e+01	5.693e-02	2.551e+01	2.478e+00
20	42030	5.372219e+01	5.272e-02	2.508e+01	4.699e+00
21	44031	5.680349e+01	5.225e-02	2.519e+01	1.498e+00
22	46032	6.097576e+01	5.157e-02	2.545e+01	1.881e+00
23	48033	6.422696e+01	5.135e-02	2.627e+01	1.242e+00
24	50034	6.706792e+01	5.118e-02	2.728e+01	1.137e+00
25	52035	7.105805e+01	5.096e-02	2.860e+01	1.447e+00
26	54036	7.542991e+01	5.071e-02	3.004e+01	1.374e+00
27	56037	7.709885e+01	5.062e-02	3.060e+01	5.029e-01
28	58039	7.710302e+01	5.062e-02	3.061e+01	8.035e-03
29	60040	7.710729e+01	5.059e-02	3.076e+01	5.240e-01

30	62041	7.710712e+01	5.052e-02	3.096e+01	1.958e+00

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
31	64042	7.710724e+01	5.045e-02	3.179e+01	3.169e+00
32	66043	7.710736e+01	5.034e-02	3.202e+01	1.497e+00
33	68044	7.710795e+01	5.006e-02	3.411e+01	2.419e+00
34	70045	7.710822e+01	4.992e-02	3.488e+01	1.600e+00
35	72046	7.710850e+01	4.972e-02	3.619e+01	5.271e+00
36	74047	7.710883e+01	4.961e-02	3.679e+01	2.712e+00
37	76048	7.710887e+01	4.953e-02	3.637e+01	2.583e+00
38	78049	7.710892e+01	4.952e-02	3.635e+01	4.405e-01
39	80050	7.710860e+01	4.947e-02	3.412e+01	4.092e+00
40	82051	7.710864e+01	4.947e-02	3.413e+01	2.420e-01
41	84054	7.710858e+01	4.946e-02	3.412e+01	2.398e+00
42	86055	7.710877e+01	4.946e-02	3.310e+01	1.674e+00
43	88056	7.710902e+01	4.946e-02	3.231e+01	1.068e+00
44	90057	7.710900e+01	4.946e-02	3.209e+01	8.631e-01
45	92058	7.710903e+01	4.946e-02	3.145e+01	9.757e-01
46	94059	7.710903e+01	4.946e-02	3.055e+01	1.121e+00
47	96060	7.710903e+01	4.946e-02	2.926e+01	1.911e+00
48	98061	7.710905e+01	4.946e-02	2.833e+01	2.540e+00
49	100062	7.710904e+01	4.946e-02	2.605e+01	2.785e+00
50	102063	7.710904e+01	4.946e-02	2.476e+01	1.554e+00
51	104065	7.710904e+01	4.946e-02	2.363e+01	4.712e+00
52	106066	7.710904e+01	4.946e-02	2.299e+01	1.862e+00
53	108067	7.710905e+01	4.946e-02	2.363e+01	2.707e+00
54	110068	7.710905e+01	4.946e-02	2.418e+01	1.621e+00
55	112069	7.710904e+01	4.946e-02	2.503e+01	2.231e+00
56	114070	7.710905e+01	4.946e-02	2.574e+01	2.119e+00
57	116071	7.710905e+01	4.946e-02	2.601e+01	1.354e+00
58	118072	7.710905e+01	4.946e-02	2.595e+01	1.408e+00
59	120073	7.710905e+01	4.946e-02	2.579e+01	1.435e+00
60	122074	7.710905e+01	4.946e-02	2.554e+01	1.987e+00

Iter	F-count	f(x)	Feasibility	First-order optimality	Norm of step
61	124075	7.710906e+01	4.946e-02	2.542e+01	2.093e+00
62	126076	7.710906e+01	4.946e-02	2.552e+01	1.156e+00
63	128077	7.710905e+01	4.946e-02	2.587e+01	1.216e+00
64	130078	7.710906e+01	4.946e-02	2.617e+01	1.072e+00
65	132079	7.710906e+01	4.946e-02	2.624e+01	7.482e-01
66	134080	7.710906e+01	4.946e-02	2.623e+01	7.204e-01
67	136081	7.710906e+01	4.946e-02	2.620e+01	5.131e-01
68	138082	7.710906e+01	4.946e-02	2.612e+01	8.483e-01
69	140083	7.710906e+01	4.946e-02	2.199e+01	1.234e+00
70	142084	7.710906e+01	4.946e-02	1.844e+01	5.024e-01
71	144085	7.710906e+01	4.946e-02	2.791e+01	8.623e-01
72	146087	7.710906e+01	4.946e-02	3.016e+01	1.231e-01
73	148088	7.710906e+01	4.946e-02	3.319e+01	4.986e-01
74	150089	7.710906e+01	4.946e-02	3.293e+01	4.407e-01
75	152090	7.710906e+01	4.946e-02	3.314e+01	1.516e+00
76	154091	7.710906e+01	4.946e-02	4.884e+01	9.093e-01

```
   77   156103    7.710906e+01    4.946e-02    4.873e+01    1.312e-06
   78   158106    7.710906e+01    4.946e-02    4.870e+01    5.319e-11

Converged to an infeasible point.

fmincon stopped because the size of the current step is less than
the value of the step size tolerance but constraints are not
satisfied to within the value of the constraint tolerance.

<stopping criteria details>
IdleTimeout has been reached.
Parallel pool using the 'local' profile is shutting down.
>>
```